

5A, 5B, 6A, AND 6B KEY EQUIPMENTS EQUIPMENT DESIGN REQUIREMENTS STATION SYSTEMS

1. GENERAL

Scope

1.01 This specification, together with the supplementary information listed herein, covers the equipment design requirements for the framework, equipment, and circuits to be used in the manufacture and installation of the station systems 5A, 5B, 6A, and 6B key equipments.

Reason for Reissue

1.02 This specification is reissued:

- (a) To bring equipment up to date.
- (b) To specify 106-type loudspeaker.
- (c) To specify J87202 rectifier when 106-type loudspeaker is used.
- (d) To specify connecting circuit for monitoring in 6A and 6B key equipments.

Capacity

5A Key Equipment - 1 per line
5B Key Equipment - 1 per line
6A Key Equipment - 12 lines per keybox
6B Key Equipment - 100 lines

Note: One keybox has a capacity for 12 lines. Additional boxes may, however, be connected in series as required to take care of a greater number of lines.

Description

5A and 5B Key Equipments

1.03 These equipments are for use at any subscriber station in conjunction with a regular telephone where it is desired that the conversation be heard from a loud-speaking receiver. Two arrangements of this loud-speaker service are available: (a) the 5A key equipment provides primarily for one-way conversation because the local telephone set is disconnected when the loud-speaker set is in the circuit; (b) the 5B key equipment, in addition to providing the one-way service supplied by the 5A, furnishes a two-way service in which a loudspeaker set is connected in the circuit with the regular telephone set to

permit two-way conversation to be carried on at the loudspeaker without operation of a key during conversation. In both key equipments the connection of the loudspeaker equipment to the line is controlled by the operation of a key located near the subscriber telephone set. With one-way service the full amplification of the loudspeaker may be used. With the two-way service of the 5B key equipment, however, less amplification can be utilized due to the tendency of the loudspeaker to howl. The network in the 500L and 500M telephone sets compensates for this howling.

1.04 Either the 500L or the 500M telephone set or equivalent may be used with the 5A and 5B key equipments. Whenever a 106-type loudspeaker is used for conferences, it is necessary to provide a J87202 rectifier.

1.05 Both 5A and 5B key equipments may be used at stations on individual central office or PBX extension lines.

6A and 6B Equipments

1.06 These equipments are intended for use in monitoring any one of a number of telephone lines in business establishments. No calling-in or supervisory signals are provided.

1.07 There are two arrangements of the monitoring equipments: (a) the 6A key equipment, where the line to be monitored is selected by the operation of a key located in a keybox; and (b) the 6B key equipment, where the line is selected by a step-by-step connector which is controlled by impulses from the dial operated by the monitor. The number of lines to be monitored and the distance of the monitor from the distributing frame or connecting box will affect the choice between the key-selecting and the dial-selecting arrangements.

1.08 The first arrangement (6A) consists of a keybox for housing the keys used to select the lines, a special subscriber set, a receiver, a loudspeaker, and a key to switch from the receiver to the loudspeaker. The receiver is provided in all cases, but the loudspeaker and receiver-switching key are provided only when specified. The keybox used with this arrangement is a small walnut-finished wooden box arranged to be placed upon a desk or table before the observer. It is arranged to mount six lever-type keys

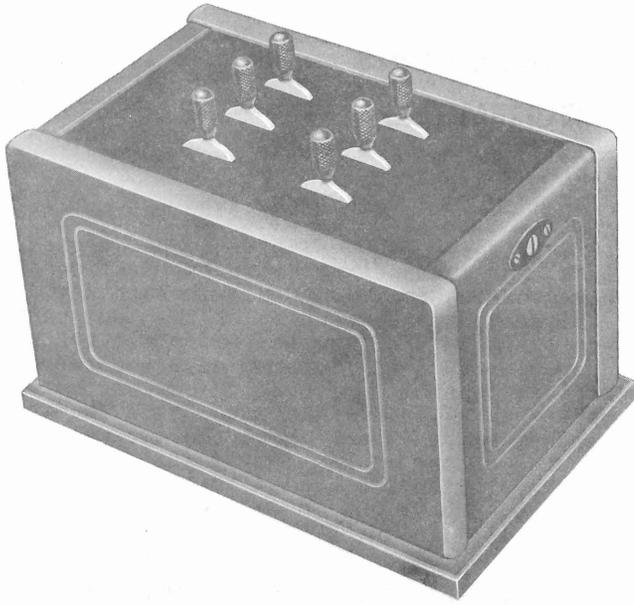
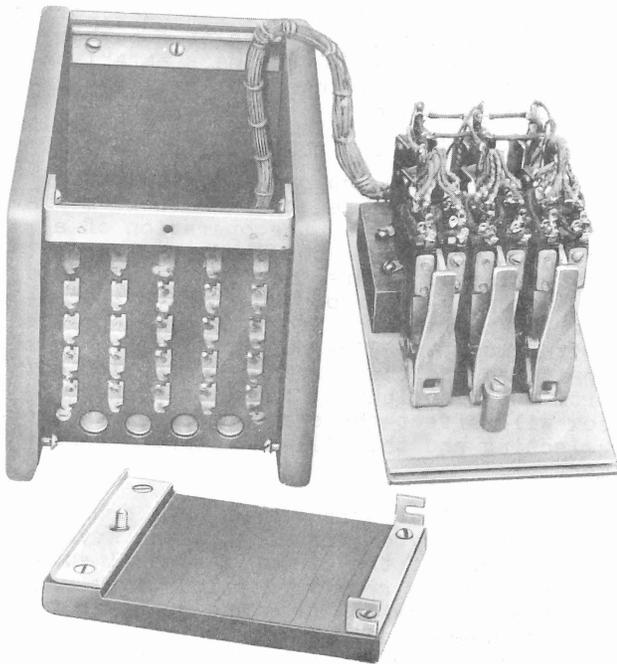


Fig. 1 - 12-Line Keybox

Fig. 2 - 12-Line Keybox with
Top and End Removed

which serve 12 lines. The leads from the observer's receiver or loudspeaker are wired in series through these keys so that it can be connected to only one line at a time. Fig. 1 shows the exterior of the keybox, and Fig. 2 shows the box with the top and end removed.

1.09 The second arrangement (6B) also consists of a receiver, loudspeaker, special subscriber set, and switching key, as well as a connector shelf unit and a dial used to select the line to be monitored. There is also a key to connect the equipment at the monitoring station to the selecting equipment which when restored to its original position causes the release of the monitored line. The connector shelf unit is arranged to mount on a 23-inch relay rack. It requires a space of eleven 1-3/4 inch mounting plates.

1.10 Both 6A and 6B key equipments may be used on subscriber lines from a central office, station lines from a PBX, PBX trunks to a central office, or a PBX attendant telephone circuit.

Loudspeaker Set

1.11 The 106-type loudspeaker set, which is specified for use with both the loudspeaker and the observing equipment covered herein, has a transistorized amplifier. It is arranged to operate on 24 or 48 volts dc and can also be operated from a J87202 rectifier which has been connected to a 115-volt 60-cps source by replacing the 2Y lamp with a 2T lamp and changing terminal strappings.

Telephone Receivers

1.12 The telephone headset may be a single 528 receiver or two 528 receivers connected directly to the subscriber set with an R2BT cord or arranged on a jack and plug basis using an R2CK cord, a 273A plug, and a 388A or 389A jack. The jack shall be mounted in the kneewell of a desk or any other convenient location at the monitor's position.

Subdivisions of Equipment

ED-69069-01 - No. 6B Key Equipment - Connector
 J53004A (AT&TCo Std) - No. 6A Key Equipment - 12-Line Keybox
 J53004B (AT&TCo Std) - No. 6B Key Equipment - Connector Shelf Unit

2. SUPPLEMENTARY INFORMATION

812-000-000 - Station Systems Index
 AA128.006 - List of General Equipment Requirements Sections
 J87202 - Rectifier

3. DRAWINGS

WECO J drawings listed herein should be ordered by referring to the prefix and base number and requesting the current dash (-) number.

Circuits

- SD-69067-01 - No. 5A Key Equipment - Arranged for One-Way Loudspeaker Conference Service
- SD-69068-01 - No. 6A Key Equipment - Key Selecting - Observing
- SD-69069-01 - No. 6B Key Equipment - Dial Selecting - Observing
- SD-69070-01 - No. 5B Key Equipment - Arranged for One- or Two-Way Loudspeaker Conference Service

Framework

- ED-69057-01 - No. 6B Key Equipment - Connector Shelf Unit - Assembly
- ED-69079-01 - No. 6A Key Equipment - Keybox Assembly

Equipment and Cabling

- ED-69058-01 - No. 6B Key Equipment - Connector Unit - Equipment and Cabling
- ED-69069-01 - No. 6B Key Equipment - Connector - Equipment
- ED-69080-01 - No. 6A Key Equipment - Keybox Equipment and Cabling

4. EQUIPMENT

5A and 5B Key Equipments

4.01 The 5A and 5B key equipments shown on drawings SD-69070-01 (one- or two-way conversation) and SD-69067-01 (one-way conversation only) consist of a 106-type loudspeaker, 6017-type keys, and subscriber sets. The loudspeaker will usually be located upon a desk or table, the keys on the side of the desk or leg of the table, and the subscriber sets in the kneewell of the desk or on the underside of the table. Inside telephone wire or cable will be used for connection between these different pieces of equipment.

ED-69069-01 - No. 6B Key Equipment - Connector

Group 1 - Dial selecting monitoring connector equipped per ED-69069-01, Fig. 1 and 2 and wired per SD-69069-01, Fig. 1 (minus banks and shelf jack).

J53004A (AT&TCo Std) - No. 6A Key Equipment 12-Line Keybox

Equipment and Cabling - ED-69080-01

List 1 - Framework, assembly, wiring, and equipment for keybox wired and equipped for six monitoring circuits per SD-69068-01, Fig. 12 (see notes A, B, and C).

Notes

- A. The key shown in Fig. 12 of SD-69068-01 is arranged to permit monitoring on either one of two lines. The keybox thus has a capacity of 12 lines. Where more than 12 lines are involved, a second keybox may be provided and connected in series with the first box.
- B. The connecting circuit for monitoring shown in Fig. 10 of SD-69068-01 is mounted in a 105-type apparatus box which may be mounted either in the kneewell of the desk or on the underside of the table used by the monitor. The loudspeaker shown in Fig. 11, when required, usually will be placed upon a desk or table, and the key shown in Fig. 15 usually will be located on the side of the desk or leg of the table.
- C. The repeating coil shown in Fig. 13 of SD-69068-01 can be located in any available space in the switchboard position in which the telephone circuit to be monitored is located.

J53004B (AT&TCo Std) - No. 6B Key Equipment - Connector Shelf Unit

Equipment and Cabling - ED-69058-01

List 1 - Framework, assembly, wiring, and equipment for one connector shelf unit, arranged to mount one connector on a 23-inch relay rack, as follows:

	<u>Wire</u>	<u>Equip</u>	<u>See Notes</u>
Connector			
ED-69069-01, G1	-	1	-
Connector Ckt			
SD-69069-01, Fig. 1			
(Banks and Shelf Jack Only)	1	1	A, B

Notes

- A. The keys shown in Fig. 2 and in Fig. 5, when required, usually will be mounted on the side of the desk or the leg of a table. A 39A or 6000D dial mounting located on the top of the desk or table is required for mounting the dial.

B. The repeating coil shown in Fig. 3 of SD-69069-01 can be located in any available space in the switchboard position in which the telephone circuit to be monitored is located.

Miscellaneous Equipment

ED-91929-01 - Equipment Units (see note A).

Group 26 - Equipped with 1, 33L Varistor

Group 30 - Equipped with 1, 439C Capacitor
Group 33 - Equipped with 1, 189D Repeat Coil

Notes

A. The connecting circuit for monitoring shown in SD-69069-01, Fig. C is mounted in a 105-type apparatus box which may be mounted either in the kneewell of the desk or on the underside of the table used by the monitor.

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