

RECORDER CONNECTORS

50 TYPE AND ASSOCIATED KS-16730, LIST 1

IDENTIFICATION AND OPERATION

1.00 INTRODUCTION

1.01 This section is being reissued to include information on the KS-16730, List 1 recorder connector.

1.02 Due to extensive changes, marginal arrows have been omitted.

2.00 GENERAL

2.01 The Federal Communications Commission has imposed the following restrictions on the use of voice recorders on telephone lines.

- When a voice recorder is used on a telephone line, it is necessary that adequate notice be given to all parties that their conversation is being recorded. Notice is to be given by use of automatically produced warning tone, repeated at approximately 15-second intervals, while recorder is in use.

- Recorder connectors without tone may be used on private line services which have no connection with the telephone exchange or toll system.

- Recorder connectors without tone may also be used on central office lines used exclusively as municipal fire reporting lines, provided that the fire department certifies that this condition exists.

2.02 The 50-type recorder connector provides a suitable method of associating customer-owned voice recording equipment with telephone company facilities.

2.03 The KS-16730, List 1 recorder connector is an auxiliary unit for use with the 50-type recorder connector. This unit reduces the level of the warning tone to the recorder and not to the distant party. It also equalizes the local and distant voice levels to the input of the recorder equipment.

2.04 The KS-16730, List 1 recorder connector, when required, is installed between the 50-type recorder connector and the customer-owned recording equipment. (See Fig. 1.)

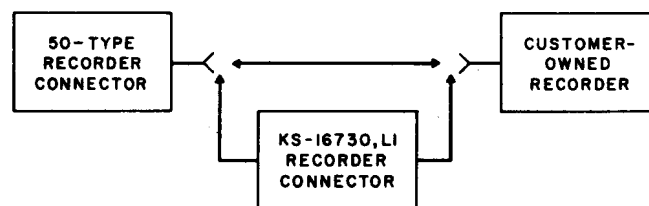


Fig. 1 — Block Diagram Showing Interconnection of Apparatus

2.05 The 50-type recorder connector may be used without the KS-16730, List 1. However, installations requiring this unit must also have a 50-type recorder connector to supply the warning tone and connection to line facilities. The KS-16730, List 1 recorder connector does not provide warning tone.

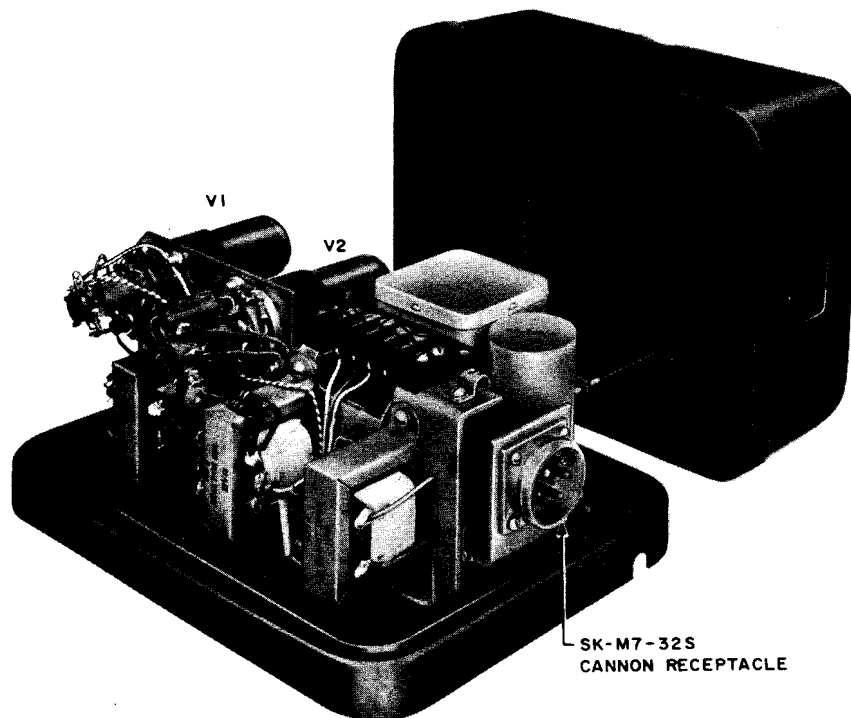


Fig. 2 - 50-Type Recorder Connector

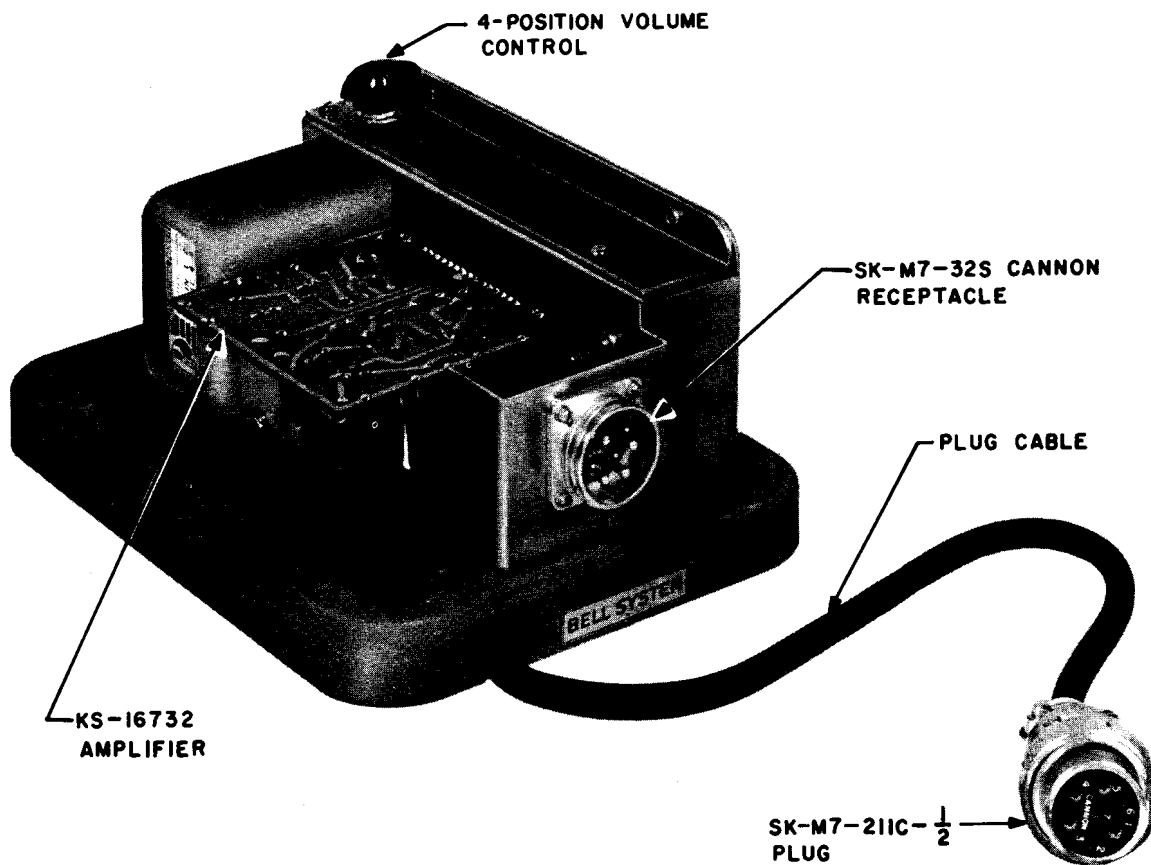


Fig. 3 - KS-16730, List 1 Recorder Connector

3.00 IDENTIFICATION

3.01 The 50-type recorder connector (Fig. 2) consists of an assembly of electronic apparatus mounted on a base approximately $9\frac{5}{8}$ inches high by $7\frac{1}{8}$ inches wide with a metal cover approximately 4 inches deep. A 7-pronged receptacle is permanently attached to the recorder connector into which a customer-owned voice recorder or KS-16730, List 1 recorder connector may be connected.

3.02 The KS-16730, List 1 recorder connector consists essentially of a multiband elimination filter and a plug-in type transistor amplifier. (See Fig. 3.) These and associated components are assembled in a metal case similar to that which houses the 50 type.

3.03 A 4-position step-type volume control is provided to adjust the gain of the amplifier for operation with line levels of -10 db to -40 db. Set the volume control to match the estimated or measured low voice signal. For example, if the low voice signal is about -30 db, set the volume control at -30 db, etc. Use the 13A or 21A transmission measuring set when it is necessary to measure the level.

3.04 Basic design features of the 50-type recorder connector are shown in Table A.

3.05 The 50-type recorder connector and, when required, its associated KS-16730, List 1 recorder connector may be mounted in a permanent location or arranged so that it can be moved from one location to another. These arrangements are known as:

- Permanent recorder connector.
- Portable recorder connector.

3.06 The portable recorder connector consists of a 50-type recorder connector equipped with a 289A plug and mounted with the customer's recorder on a cart or small table adjacent to the station or PBX to be recorded. When the KS-16730, List 1 recorder connector is required, it must be mounted adjacent to the 50 type. Connecting cable is approximately 1 foot long.

TABLE A**BASIC DESIGN FEATURES**

Type of Recorder Connector	Operates On			Designed For		
	105-125V AC 25-60 ~	105-125V AC 50-60 ~	105-125V DC	Normal Use	Heavy Use	Rating
50A	•		•		•	Mfr Disc.
50AA	•		•	•		
50B		•		See Note	See Note	AT&TCo Std

Note: 50B recorder connector furnished with 6SN7 GT electron tubes. For heavy duty use, long-life No. 5692 red base electron tubes may be used.

3.07 The 50-type recorder connector will be used when recording is desired on any of the following arrangements:

- Individual central office or PBX line.
- Any line terminated in a particular key telephone set, No. 100 or 101 key equipment position, or 600 series telephone set.
- Any line terminated in two or more key telephone sets, No. 100 or 101 key equipment positions, or 600 series telephone sets by means of switching arrangement.
- Several different station locations by means of portable recorder and recorder connector.
- Cord-type PBX, using permanent recorder and recorder connector.
- Cord-type PBX, using portable recorder and recorder connector with portable jack box.

4.00 SWITCHING ARRANGEMENT

4.01 The switching arrangement enables any one of several telephones to be connected to the recorder connector whether it be an individual or multipickup station.

4.02 This arrangement consists of a nonlocking pushbutton for seizing the recorder and 4U-type relays. These relays may be mounted on 8C key telephone units in a 105A apparatus box.

5.00 METHOD OF OPERATION USING SWITCHING ARRANGEMENT

1. The station user who wants telephone conversation recorded pushes nonlocking pushbutton at his telephone location. This operates two switch relays which connect recorder connector to telephone circuit.

2. Operation of switch relays causes operation of two common cutoff relays preventing seizure of recorder by other stations.

3. If required, a lamp indicator lights at position using recorder to indicate recorder is connected to that particular telephone circuit.

4. Recorder may be disconnected at any time by second operation of pushbutton. In any event, pushbutton must be operated at end of recording to release recorder for use of other attendants.

5. If required, recorder may be started and stopped automatically by use of recorder start circuit.



When this feature is desired, the customer must provide necessary wiring from start switch to recorder start relay.

6.00 PORTABLE JACK BOX

6.01 A portable jack box must be used when portable recorder and recorder connector are used at PBX. This box provides a means of patching the switchboard cords to the recorder connector.

6.02 The portable jack box consists of the following apparatus, mounted on a 154A backboard or equivalent:

- One 237A jack mounting equipped with two 239A jacks.
- One 237A jack mounting equipped with one 238A jack and one 39B apparatus blank.
- One S3J cord with 310 plug.
- One 42A connecting block.

7.00 METHOD OF OPERATION USING PORTABLE RECORDER CONNECTOR AND JACK BOX AT PBX

- Upon being informed of the need for recording, the PBX attendant starts the recorder and patches the recorder connector into the circuit through the portable jack box as shown in Fig. 4.
- When this arrangement is used, PBX must be wired for nonthrough supervision.

2. Cord originally connected to station is then removed and inserted in spare station jack connected to recorder connector.

3. Station cord of another spare set of cords is inserted in original station jack.

4. Trunk cord of same spare set of cords is inserted in spare trunk jack connected to recorder connector.

5. Night and through-dial key, on second pair of cords used, is operated.

8.00 METHOD OF OPERATION USING PERMANENT RECORDER CONNECTOR AT PBX

1. Upon being informed of the need for recording, PBX attendant starts the recorder.

- When this arrangement is used, PBX must be wired for nonthrough supervision.

Note: See Fig. 5 for method of patching recorder connector into circuit.

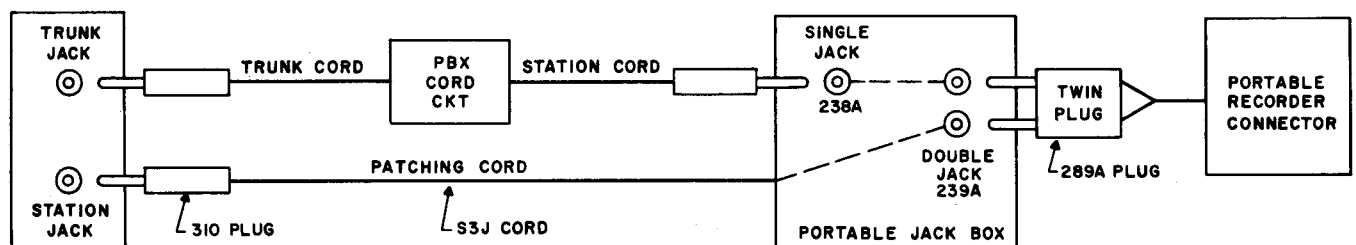


Fig. 4—Block Diagram Patching Portable Recorder Connector to PBX through Portable Jack Box

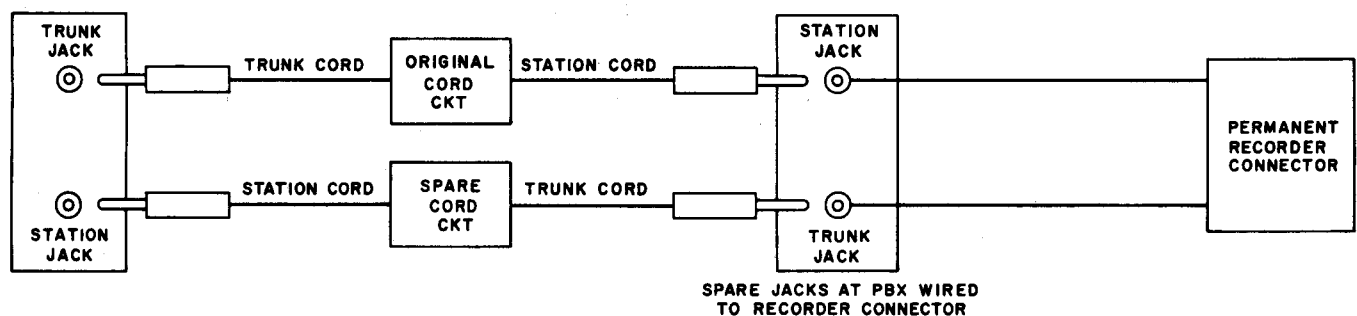


Fig. 5—Block Diagram Patching Permanent Recorder Connector to PBX through Spare Trunk and Station Jack at PBX