

## RECORDER CONNECTORS

### 50 TYPE AND ASSOCIATED KS-16730, LIST 1

#### IDENTIFICATION AND OPERATION

#### 1. GENERAL

- 1.01 This section is being reissued to make minor corrections and add information.
- 1.02 The Federal Communications Commission has imposed the following restrictions on the use of voice recorders on telephone lines.
- (1) When a voice recorder is used on a telephone line, adequate notice must be given to all parties that their conversation is being recorded. This necessary notice is to be given by an automatically produced warning tone, repeated at approximately 15-second intervals.
  - (2) Recorder connectors without tone may be used on private line services (which have no connection with the telephone exchange or toll system) and central office lines used exclusively as municipal fire reporting lines provided the fire department certifies this condition exists.
- 2.03 The major components of the KS-16730, List 1 unit are the multi-band elimination filter and plug-in type transistor amplifier. A 4-position step-type volume control is provided to adjust the gain of the amplifier. These steps are -10, -20, -30, and -40 db. The volume control should be set to match the measured low-voice signal. Use a 13A transmission measuring set or equivalent to check this signal.
- 2.04 When required, the KS-16730, List 1 unit is installed between the 50-type connector and the voice recorder as shown in Fig. 3.
- 2.05 The 50-type and the associated KS-16730, List 1 can be made portable with a jack and plug arrangement. Use a 289A plug on the 50-type connector and mount 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 is required, it should be mounted within 1 foot of the 50-type recorder connector.
- 2.06 Basic design features of the 50-type recorder connector are shown in Table A.
- 2.07 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.

#### 2. IDENTIFICATION

- 2.01 The 50-type recorder connector (Fig. 1) produces this necessary warning tone. Also, it provides a suitable method for connecting the customer owned voice recorder to the telephone line facilities through a permanently attached 7-prong receptacle on the recorder connector.
- 2.02 The KS-16730, List 1 (Fig. 2) recorder connector is an auxiliary unit for use with the 50-type connector. The KS-16730, List 1 unit reduces the level of the warning tone to the voice recorder but not to the calling party. It also equalizes the local and distant voice

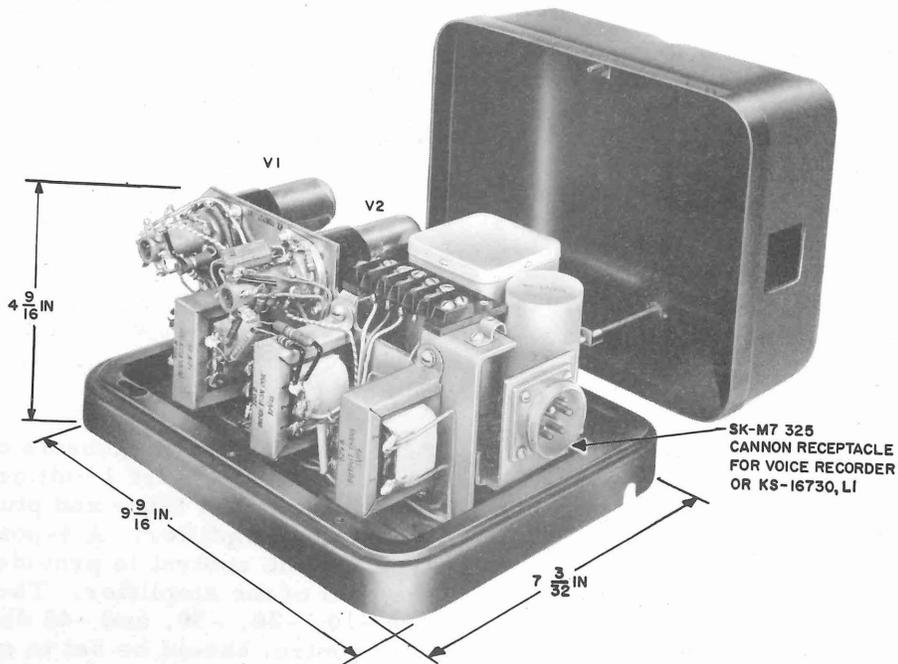


Fig. 1 - 50-Type Recorder Connector

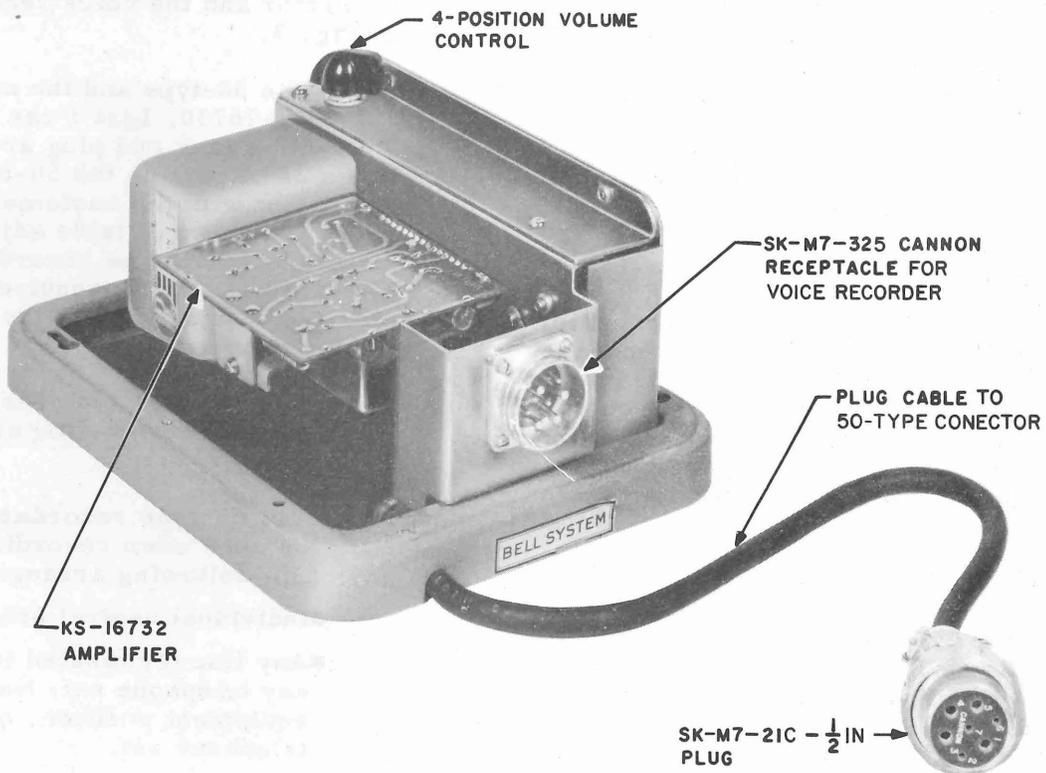


Fig. 2 - KS-16730, List 1 Recorder Connector

- 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.

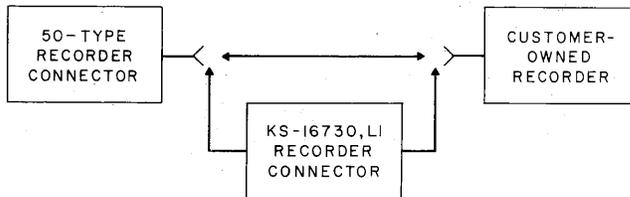


Fig. 3 - Block Diagram Showing Interconnection of Apparatus

3. SWITCHING ARRANGEMENT

- 3.01 The switching arrangement enables any one of several telephones to be connected to the recorder connector whether it is an individual or multipickup station.
- 3.02 This arrangement consists of a non-locking pushbutton for seizing the recorder and 4U-type relays. These relays may be mounted on 8C key telephone units in a 105A apparatus box.

4. METHOD OF OPERATION USING SWITCHING ARRANGEMENT

- (1) The station user who wants telephone conversation recorded pushes non-locking 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.

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

TABLE A

BASIC DESIGN FEATURES

Type of Recorder Connector	Operates On			Designed For		
	105-125 vac 25-60~	105-125 vac 50-60~	105-125 vdc	Normal Use	Heavy Use	Rating
50A	●		●		●	Mfr Disc.
50AA	●		●	●		
50B		●		See Note	See Note	AT&T Co Std

Note: The 50B recorder connector is furnished with six SN7GT electron tubes. For heavy duty use, long-life No. 5692 red base electron tubes can be used.

5. PORTABLE JACK BOX

5.01 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.

5.02 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.

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

6.01 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.

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

7. METHOD OF OPERATION USING PERMANENT RECORDER CONNECTOR AT PBX

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

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

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

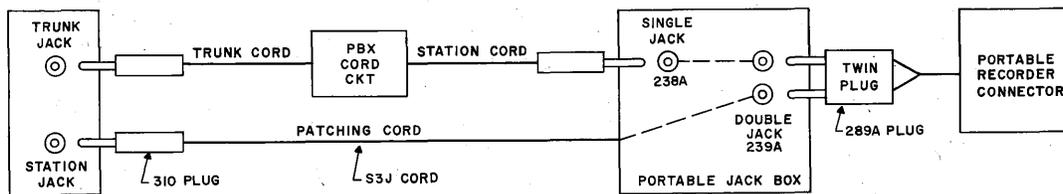


Fig. 4 - Block Diagram Patching Portable Recorder Connector to PBX Through Portable Jack Box

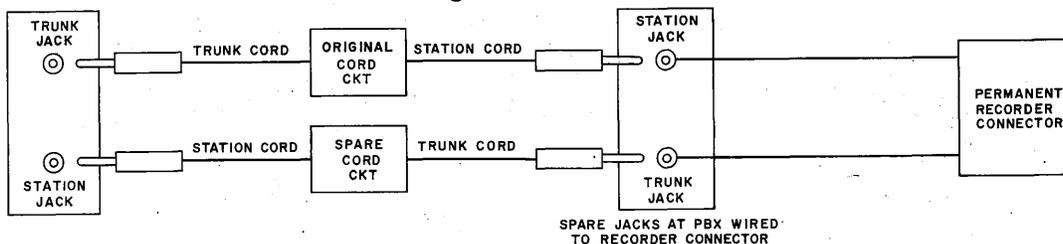


Fig. 5 - Block Diagram Patching Permanent Recorder Connector to PBX Through Space Trunk and Station Jack at PBX