

station and verifying that all conferenced stations are signaled.

**Note:** The preset conference diodes are located on connecting block 2 between rows 9 and 12 (Fig. 5).

#### D. Music-On-Hold

**4.42** The music-on-hold feature transmits music (from a customer-provided music source) to calling or called parties on CO/PBX lines that are placed on hold.

**4.43** Music-on-hold is provided on CO/PBX lines by a 33-type voice coupler and two 451B KTUs (580A KSU only) or two 498A KTUs equipped with 116A1 CMs (580B KSU only). The music is supplied from a customer-provided source. The customer-provided music source must have an output impedance low enough to drive an 8-ohm load without distortion. The music source must also be adjustable so the listening level of the music-on-hold may be adjusted. **The output of the customer-provided music source must furnish ac coupling only, thus blocking all direct current to the input terminals of the 33-type voice coupler.**



*The customer-provided music source should be able to deliver up to **1 watt** into an 8-ohm load. The 33-type voice coupler will accept input from any customer-provided apparatus that does not operate the **fuses** in the voice coupler. The customer should contact the local Telephone Company Business Office or the Marketing Representative to obtain a copy of the Technical Reference covering this interface specification. If a service call is caused by a malfunction of the customer-provided equipment, billing should be made in accordance with Section 660-101-312.*

**4.44** Connections for music-on-hold are made as follows:

- (a) Install 451B or 498A KTUs in connectors J27 and J29. See Fig. 3 for location.

**Note:** Each 451B KTU will provide music-on-hold for seven CO/PBX lines. Each 498A KTU

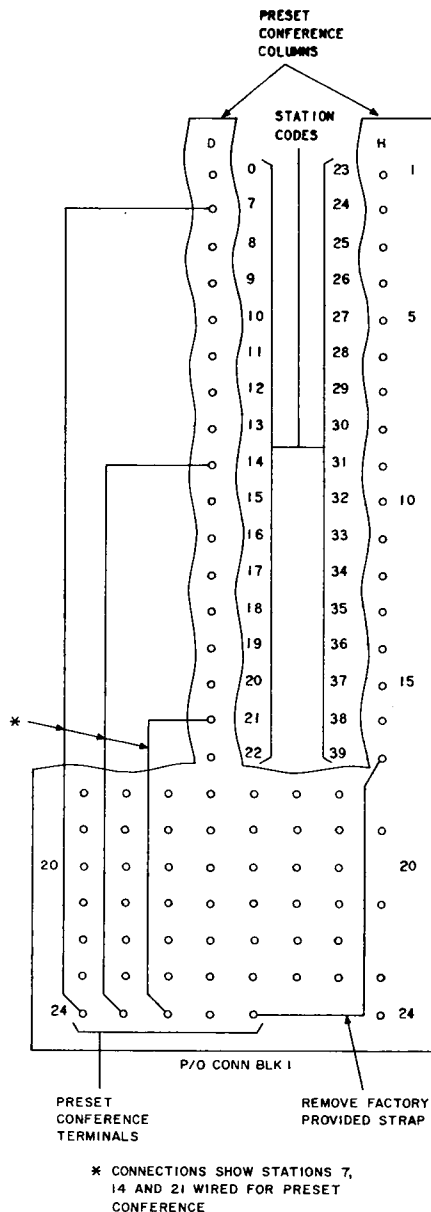


Fig. 29—Connections for Preset Conference on Intercom

will provide music-on-hold for four CO lines. When used in a 580-type KSU, the 498A KTU should be equipped with a 116A1 CM which increases the capacity to seven lines. To install the 116A1 CM, remove the screw in the standoff on the 498A KTU, plug the CM into the KTU, and replace the screw to secure the CM.

- (b) Install voice coupler (Fig. 11) as follows:

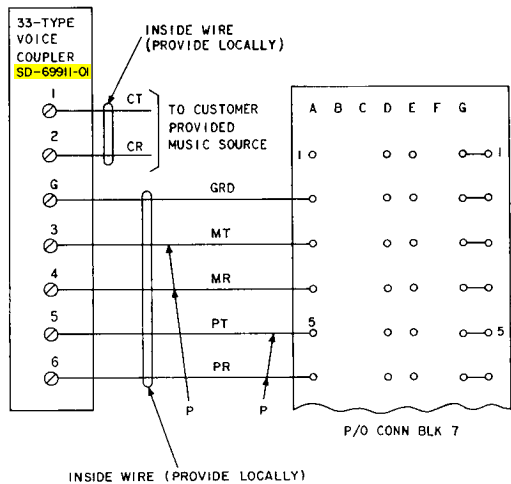
- (1) Remove cover from voice coupler.

**Caution:** Ensure that 35P fuses of 33A are installed with the springs at the bottom. If fuses are improperly installed, operated fuses may cause damage to customer amplifier.

- (2) Mount voice coupler externally to the KSU (wherever customer desires).
  - (3) Connect voice coupler to 580-type KSU as shown in Fig. 30.
  - (4) Have customer connect voice coupler to the music source as shown in Fig. 30.
  - (5) Replace cover on voice coupler.
- (c) Adjustment procedures for music-on-hold are as follows:

- (1) Turn potentiometer on voice coupler to full counterclockwise position.
- (2) From any station, select a CO/PBX line, (eg, line 1) and dial a second CO/PBX line (eg, line 2).
- (3) Leaving the handset off-hook at the first station, at a second 14A station, answer the incoming call and place call on HOLD.

- (4) Return to the first station and have customer adjust his music source to a comfortable listening level while listening at the first station.
- (5) Disconnect call making sure handsets are on-hook and all buttons are restored to the unoperated position.



**Fig. 30—Connections for 33A Voice Coupler**

### E. Additional Ring Transfer

**4.45** The additional ring transfer arrangement utilizes a 6041G key to permit any one of up to five stations or groups of stations to be selected for ring transfer of incoming CO/PBX calls.

**4.46** To operate additional ring transfer, depress button on the 6041G key associated with the station or stations to receive incoming CO/PBX calls. Then depress the RING TR button on the attendant station (locking it down). While the RING TR button on the attendant station is depressed, the lamp under it is lit (steady). To transfer ringing back to the attendant station, depress the RING TR button again (which releases it) and operate the HOLD button on the 6041G key.

**4.47** To install additional ring transfer:

- (1) Install a 6041G key at the attendant station.
- (2) Provide three cable pairs or six 24-gauge conductors between the 6041G key and the KSU.