

VOICE CONNECTING ARRANGEMENT CDB J53050A, LIST 1 INTERCONNECTING UNIT

1. GENERAL

1.01 This section provides information on identification, installation, method of operation, maintenance, and connections on the J53050A, List 1 Interconnecting Unit.

1.02 The customer must be informed of the proper use and operation of Voice Connecting Arrangement CDB.

1.03 If the customer wants a copy of the Technical Reference which covers this interface specification, the customer should contact the local Telephone Company Business Office or the Marketing Representative.

2. IDENTIFICATION

(a) Purpose

- The J53050A, List 1 Interconnecting Unit (Fig. 1) is for use between Bell System manual PBXs and customer-provided (CP) dial intercommunicating systems which are arranged for supervision.
- To limit excessive levels from customer-provided equipment and to provide protection for personnel against hazardous voltages.

(b) Application

608A and 555A Bell System switchboards

(c) Ordering Guide

- Unit, Interconnecting, J53050A, List 1
- Block, Connecting, 30-Type (Fig. 2).

(d) Design Features

- Components are mounted on a 189A mounting plate (2 inches by 23 inches)

- Can be mounted in some switchboards, on relay racks, or apparatus mountings
- Slow release S relay prevents switch hook dialing by customer
- Designed to give cord supervision at the PBX
- Designed as a 2-way trunk to work in either direction
- When seized from either end gives busy lamp indication when multiple switchboard arrangement is provided
- Arranged to trip machine ringing from either end
- This circuit will operate over a voltage range of 20 to 52 volts dc.

Note: When this circuit is powered from other than the PBX power supply, the dc voltage of the supply shall be within ± 4 volts of the PBX power supply, but in no case less than 20 volts nor more than 52 volts.

3. METHOD OF OPERATION

(a) Incoming Call to CP Intercom Station

- Attendant at PBX switchboard receives incoming call signal and answers with the trunk cord
- Customer requests connection to a station on the CP intercom system

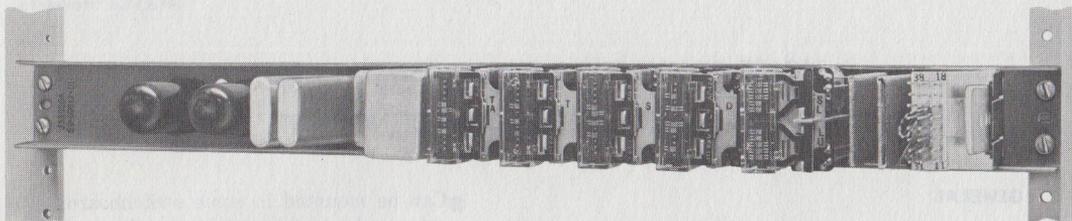


Fig. 1—J53050A, List 1 Interconnecting Unit

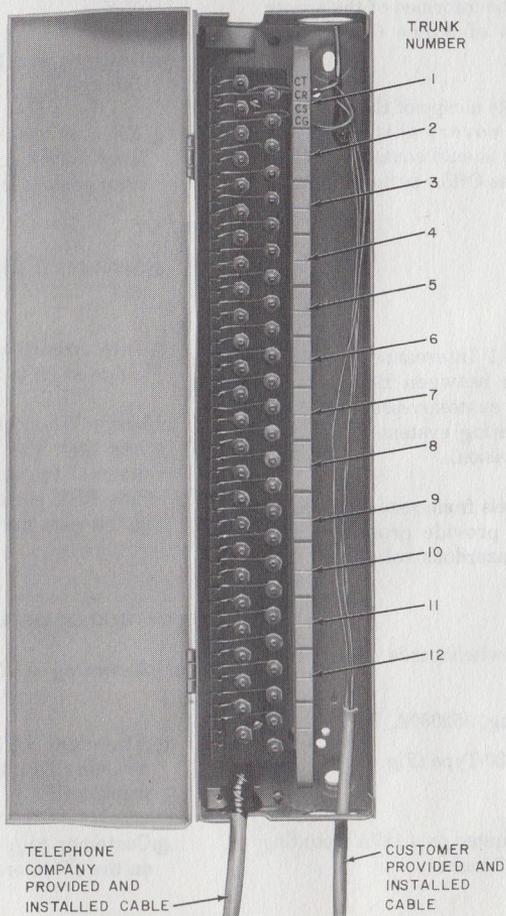


Fig. 2—Interface Connecting Block, 30-Type

- The attendant plugs station cord into the TALK jack associated with J53050A, List 1 Interconnecting Unit to seize CP dial intercom system and then plugs the station cord of another cord circuit into the DIAL jack associated with the J53050A, List 1 Interconnecting Unit to dial a station on the intercom system.

Note: IMMEDIATELY after completion of dialing, attendant removes cord from DIAL jack.

- When called station answers, cord supervision at the PBX goes dark
- The CP intercom station can recall PBX attendant by flashing switch hook

Note: Due to circuit design the switch hook flashes must be of at least 1/2-second duration.

- When attendant receives disconnect supervision, connection is released.

(b) *Outgoing Call From CP Intercom Station*

- Station dials code to reach Bell System PBX
- Upon completion of dialing and on establishing a connection to the PBX, a contact closure controlled by the CP equipment, operates S relay on the J53050A, List 1 Interconnecting Unit and a signal is received at the PBX.
- The attendant answers the call in a normal manner
- The station requests a telephone number and the attendant completes the call in a normal manner
- When attendant receives disconnect supervision, connection is released.

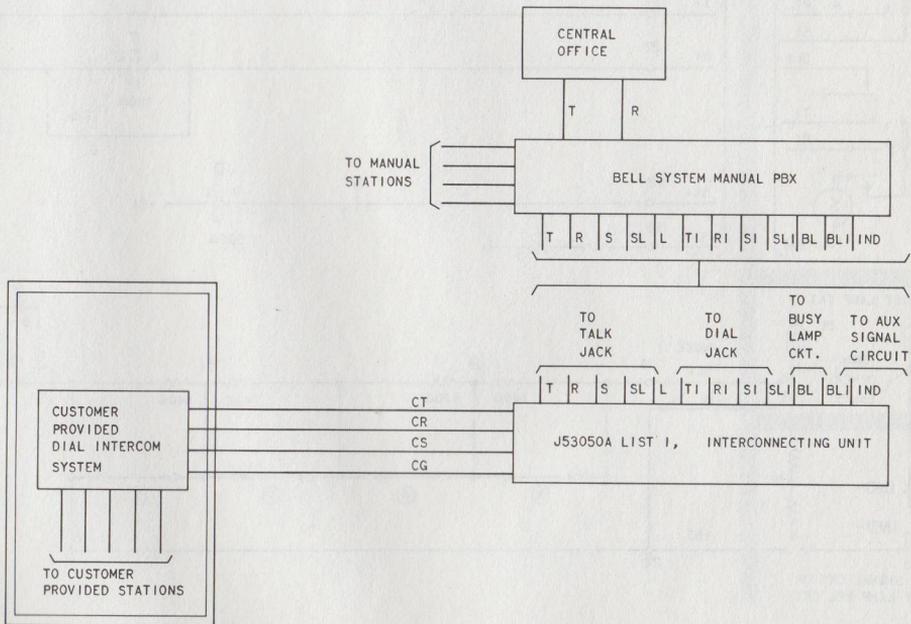


Fig. 3—Block Diagram, Typical Voice Connecting Arrangement CDB

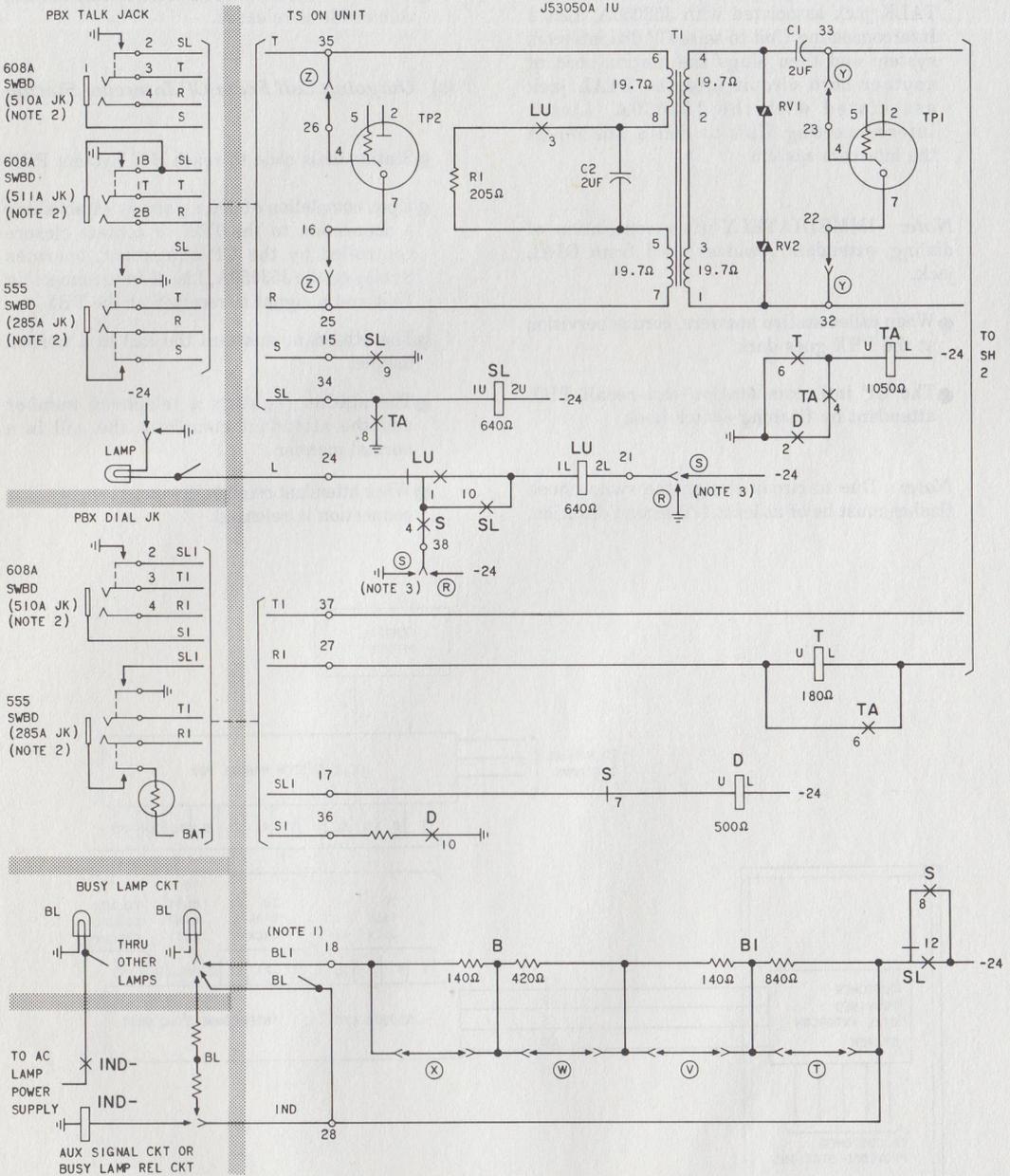
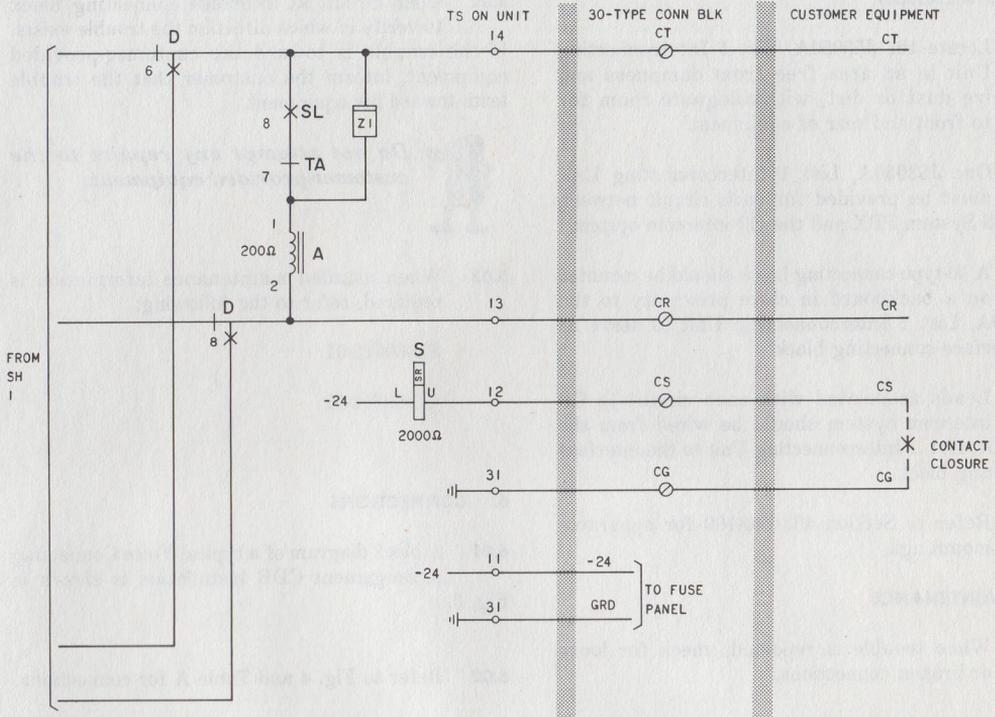


Fig. 4—Connections For Voice Connecting Arrangement CDB (Sheet 1)



WIRING OPTIONS

OPTIONS-T,V,W,X,Y,Z ARE ALL FACTORY WIRED.
 THE INSTALLER SHALL REMOVE STRAPS AS NECESSARY
 TO PROVIDE THE REQUIRED CIRCUIT ARRANGEMENT.

- (T)
 - (V)
 - (W)
 - (X)
- SEE TABLE A

- (Y) RING TRIP CIRCUIT WHEN MACHINE RINGING IS SUPPLIED BY CUSTOMER PROVIDED EQUIPMENT
- (Z) RING TRIP CIRCUIT WHEN MACHINE RINGING IS SUPPLIED BY BELL SYSTEM PBX

NOTES:

1. BL AND BLI LEADS USED WHEN MULTIPLE SWITCHBOARD ARRANGEMENT PROVIDED.
2. IF THERE ARE NO SPARE JACKS ON THE SWITCHBOARD THAT CAN BE USED AS TALK AND DIAL JACKS, THEY MUST BE ORDERED SEPARATELY AND INSTALLED IN THE FIELD.
3. USE OPTION (S) IF LAMP ASSOCIATED WITH TALK JACK IS CONNECTED TO BATTERY AND OPTION (R) IF LAMP IS CONNECTED TO GROUND.

Fig. 4—Connections For Voice Connecting Arrangement CDB (Sheet 2)

4. INSTALLATION

4.01 Locate the J53050A, List 1 Interconnecting Unit in an area free from dampness and excessive dust or dirt, with adequate room for access to front and rear of equipment.

4.02 One J53050A, List 1 Interconnecting Unit must be provided for each circuit between the Bell System PBX and the CP intercom system.

4.03 A 30-type connecting block should be mounted on a backboard in close proximity to the J53050A, List 1 Interconnecting Unit to serve as an interface connecting block.

4.04 Leads associated with each circuit to CP intercom system should be wired from the J53050A, List 1 Interconnecting Unit to the interface connecting block.

4.05 Refer to Section 463-140-100 for apparatus mountings.

5. MAINTENANCE

5.01 When trouble is reported, check for loose or broken connections.

5.02 Open circuit at interface connecting block to verify in which direction the trouble exists. If the trouble is toward the customer-provided equipment, inform the customer that the trouble tests toward his equipment.



Do not attempt any repairs to the customer-provided equipment.

5.03 When detailed maintenance information is required, refer to the following:

SD-69612-01

CD-69612-01

6. CONNECTIONS

6.01 A block diagram of a typical Voice Connecting Arrangement CDB installation is shown in Fig. 3.

6.02 Refer to Fig. 4 and Table A for connections.

TABLE A**BUSY LAMP CIRCUIT OPTIONS ON J53050A LIST 1 INTERCONNECTING UNIT**

NO. OF LAMPS	20-26 VOLTS REMOVE OPTION	26-32 VOLTS REMOVE OPTION	32-46 VOLTS REMOVE OPTION	44-52 VOLTS REMOVE OPTION
1	W, X	V, W, X	T, X	T, W, X
2	W	W, X	T	T, W
3	V, X	W	W, V, X	T, V, X
4	X	V, X	W, X	T, X
5		X	W	T
6			V, X	V, W, X
7			X	W, X
8				W
9				V, X
10				X
11				