

**"TELEPATCHER\*"**  
**IDENTIFICATION, INSTALLATION, AND MAINTENANCE**

**1. GENERAL**

**1.001** This addendum supplements Section 534-500-950PT, Issue B.

**1.002** It is issued to provide information about occasional false disconnect supervision that may occur during patched conversations.

The following change applies to Part 1 of the section:

(a) 1.03 — revised

**1.03** The TELEPATCHER permits bridging of incoming central office trunk lines, tie lines or private lines to outgoing trunk lines, tie lines or private lines, with visual and audible disconnect supervision. Disconnect supervision operates on receipt of a spike from either the incoming or outgoing lines. This supervisory function is not guaranteed because some configurations, such as foreign exchange (FX) lines using carrier facilities, do not provide a spike. Occasional false disconnect supervision may also be received during patched conversations. These false disconnects may be caused by transient voltage peaks, switchboard noise, poor ground connections, or other reasons.

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**1. GENERAL**

**1.01** This section provides identification, installation, and maintenance information for the **TELEPATCHER** which is a bridging device for use with PBX double-cord service attendant positions and double-cord operated telephone answering equipment.

**1.02** It is reissued to:

- Add information on installation procedures.
- Provide additional ordering information.

*Note:* Marginal arrows used to indicate changes are omitted.

**1.03** The **TELEPATCHER** permits bridging of incoming central office trunk lines, tie lines or private lines to outgoing trunk lines, tie lines or private lines, with visual and audible disconnect supervision. Disconnect supervision operates on receipt of a spike from either the incoming or outgoing lines. This supervisory function is not guaranteed because some configurations, such as foreign exchange (FX) lines using carrier facilities, do not provide a spike.

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**2. IDENTIFICATION**

**2.01** The apparatus cabinet is 11-inches wide, 15-inches high, and 5-inches deep. This cabinet contains a master printed circuit card which provides circuitry for a maximum of five lines. This includes: one detector and one transmission circuit per line, a power supply circuit (48V or 24Vdc), and an audible signal circuit.

**2.02** Patch jack and lamp assemblies, trunk, cord, and strip mountings are available for various arrangements. (Refer to Part 6 and Table B for the appropriate PBX option.)

**2.03** The tone unit for audible signal is mounted on the master card in the apparatus cabinet.

**3. METHOD OF OPERATION**

**3.01** To patch an incoming call to the **TELEPATCHER**, proceed as follows:

1. Answer an incoming call to switchboard in normal manner.
2. Select an idle trunk cord, place it into an idle outgoing trunk jack associated with **TELEPATCHER**, and dial desired number.
3. Insert station cord plug of cord pair associated with answered call into **TELEPATCHER** patch jack.
4. Remove trunk cord used for dialing.
5. If **TELEPATCHER** is flashing, operate control button.
6. When audible and visual flashing signal occurs during a patched call, operate control button, open talk key of cord circuit used in patch to determine if the parties have hung up.

7. Remove patch cord pairs and restore talk key of the cord pair to normal.

#### 4. INSTALLATION

##### Trunk and Double Cord Mounts

- 4.01 Remove either trunk or cord blank, or a cord or trunk unit not in use on the switchboard, and insert the **TELEPATCHER** mounting in the vacant space. (See Fig. 1 and 2.)

##### Strip Mount

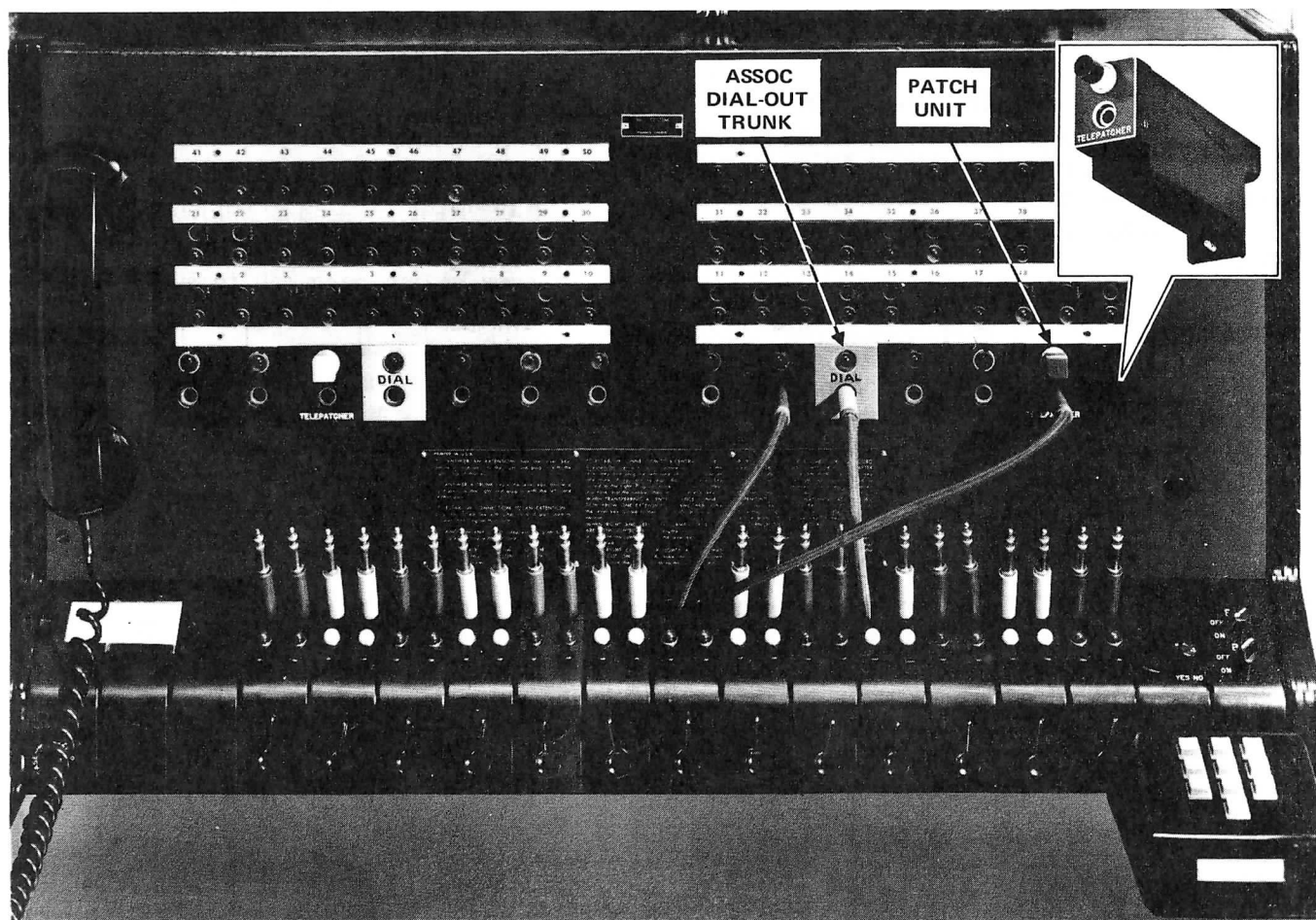
- 4.02 Remove a trunk strip blank and insert **TELEPATCHER** mounting in its place on the switchboard. If there is no trunk blank, find a trunk or station strip not being used and loosen the strip. Wrap the strip with insulating covering, leave it in the switchboard and place **TELEPATCHER** mount in its vacant place. Strip mounts are 1-1/4 inches wide. Use appropriate switchboard jack spacers (159-type) to fill empty field, if required, (See Fig. 3.)

- 4.03 Trunk, double cord, and strip mounts are equipped with a 15 foot cable tail. (See Table C for connections.)

##### Apparatus Cabinet

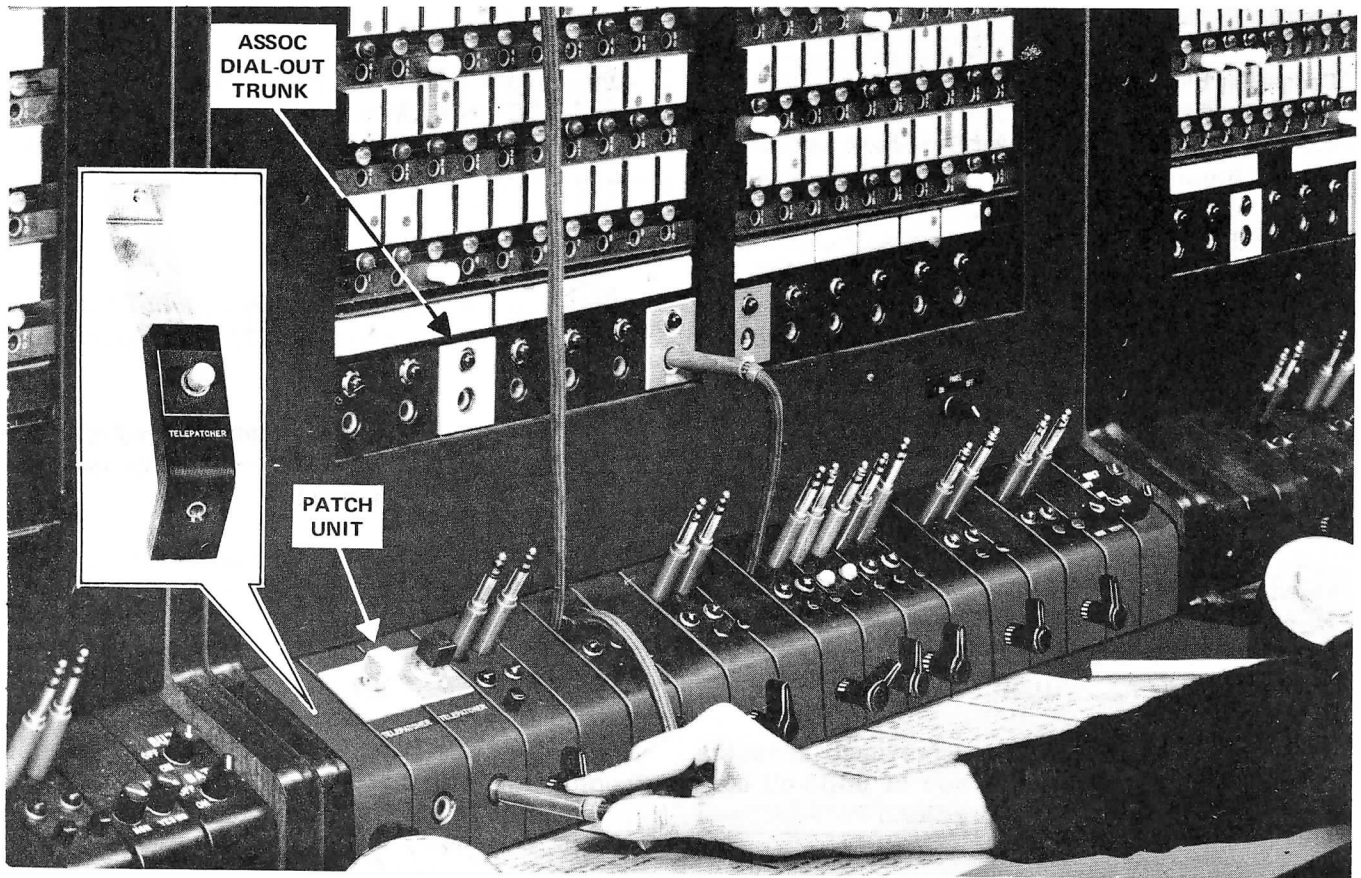
- 4.04 The apparatus cabinet must be located in the vicinity of the switchboard. The audible tone unit may be extended from the apparatus cabinet to the switchboard location (local Engineering).

- 4.05 Two 25-pair plug-ended cables (single ended A25D or plug-ended B25A) are used to connect the apparatus cabinet to the 66B3-50 connecting block. The cable that plugs into the left amphenol connector of the apparatus cabinet will terminate on the left side of the 66B3-50 connecting block; the cable that plugs into the right amphenol connector of the apparatus cabinet will terminate on the right side of the 66B3-50 connecting block. (See Fig. 4 for placement diagram and Table D for connections.)

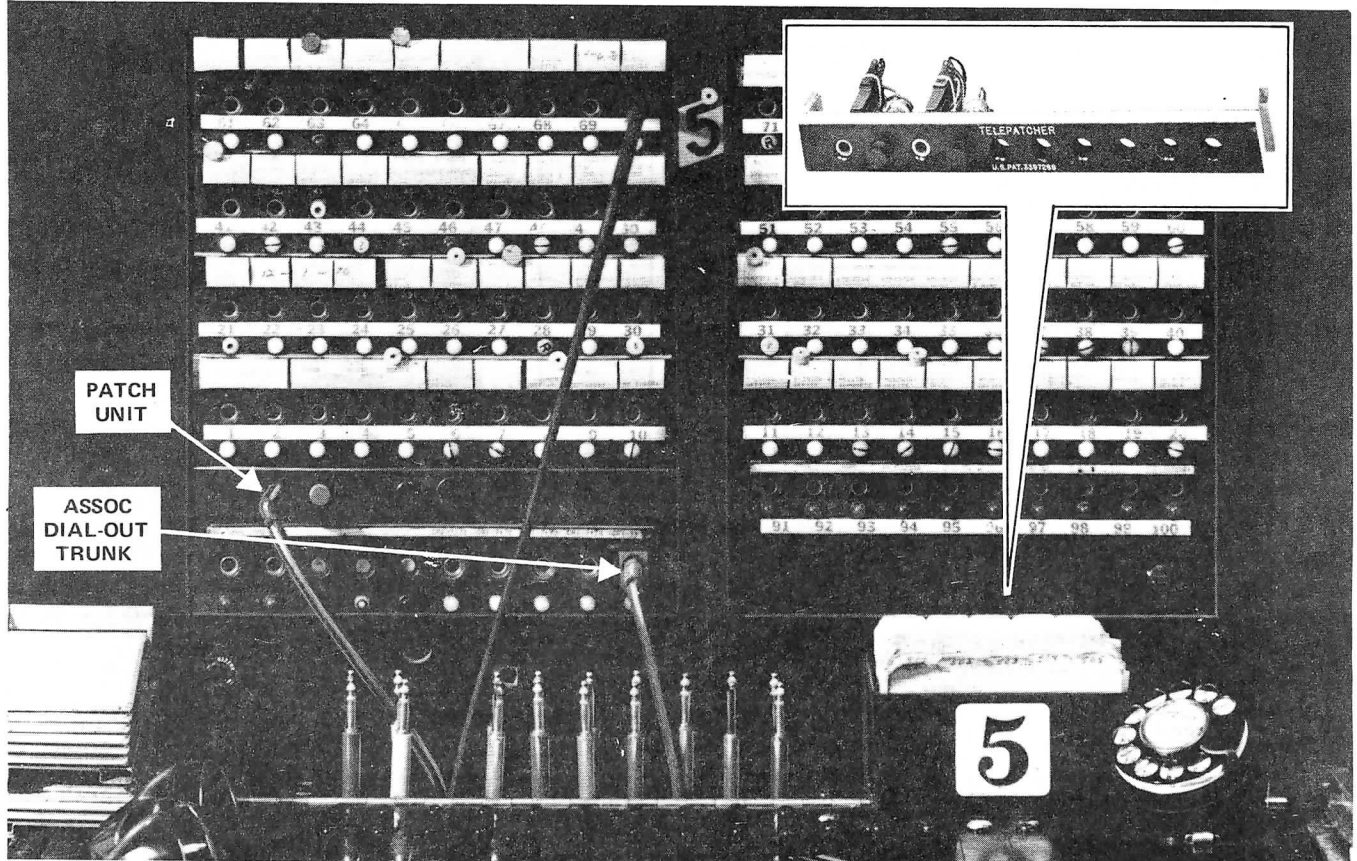


Trunk Mount  
Fig. 1





Cord Mount  
Fig. 2



Strip Mount  
Fig. 3

## Connecting Block

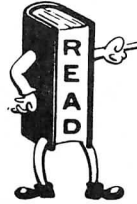
4.06 A 66B3-50 connecting block should be mounted inside the switchboard or within reach of the 15-foot mounting cable from the trunk, double cord or strip mounts. Placement of cables to be terminated on the connecting block is shown in Fig. 4. The mounting cable may be extended with a 6-pair inside wire cable, terminated on a 44A connecting block, and mounted inside the switchboard.

## Remote Tone Volume Control

4.07 If the customer requires an ON/OFF switch to control the remote tone (switch not provided with TELEPATCHER), terminate the switch wiring on the black-brown pair from left side of 66B3-50 connecting block and run wiring to desired location.

*Note:* If the switch is not provided, strap the black-brown pair on left side of 66B3-50 connecting block.

4.08 The TELEPATCHER circuit operates on 20- to 50-Vdc. Power is supplied from the switchboard power supply. (See Table C for power connections at the 66B3-50 connecting block).

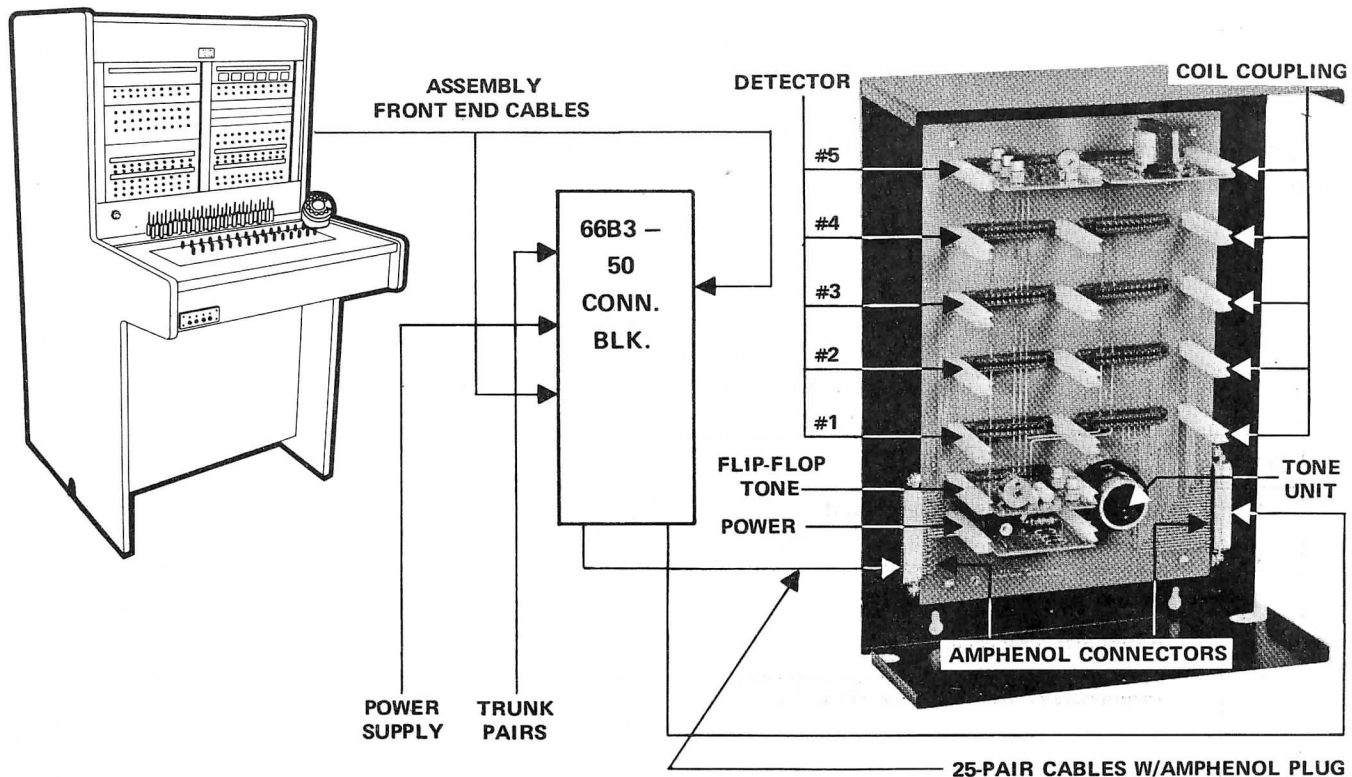
*Caution:*

- Power cards manufactured prior to November, 1971 — Polarity must be observed.
- Power cards manufactured after November, 1971 — Polarity need not be observed.

*Note:* Power cards manufactured prior to November, 1971 should be only 18 to 24 Vdc.

## Dial Trunk Indicators

4.09 A self-adhesive decal is provided with each TELEPATCHER circuit. The decal is color-coordinated with the TELEPATCHER patch circuit and says "DIAL". Place the decal on the trunk as-



Telepatcher Cable Connecting Arrangement  
Fig. 4

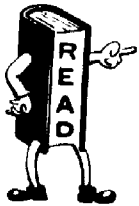
sociated with the TELEPATCHER circuit. (See Fig. 1 and 2.)

#### Adjustment of Supervision Sensitivity

4.10 To adjust the TELEPATCHER circuit for proper supervision sensitivity, perform the steps shown in Chart A.

### 5. MAINTENANCE

5.01 If trouble is detected in the TELEPATCHER circuit, the TELEPATCHER can be removed from the trunk circuit by removing the amphenol connectors in the apparatus cabinet.



*Note: Confirm that equipment is not in use before disconnecting.*

5.02 Lamps can be replaced from the switchboard front by removing lens from the pushbutton. Remove lamp from lens and replace with #388 lamp.

5.03 A common source of trouble is dirty or bent plugs or dirty or maladjusted jacks. Visually inspect and electrically test all cords for cleanliness and proper operation.

5.04 Verify that the designated central office trunk is connected to the TELEPATCHER circuit.

5.05 Verify that TELEPATCHER circuit is properly wired as per Part 4.

5.06 If sensitivity of the TELEPATCHER circuit has to be adjusted, refer to 4.10.

5.07 Internal circuitry of the TELEPATCHER is contained on plug-in circuit cards of the apparatus cabinet. They may be removed and replaced for testing and maintenance. (See Table A for identification of circuit cards.)

TABLE A  
PLUG-IN CIRCUIT CARDS

PLUG-IN POSITION IN APPARATUS CABINET	PLUG-IN CIRCUIT CARD
DET 1 to 5	C70-010 DETECTOR
RC 1 to 5	C70-018 COIL COUPLING
FLIP FLOP	D70-012 TONE
POWER	D70-013 POWER CARD

*Note: One detector and coil coupling card is needed for each CO trunk used.*

CHART A  
ADJUSTMENT OF SUPERVISION SENSITIVITY

STEP	PROCEDURE	ACTION
1	Initiate a patch through switchboard.	Turn-off sensitivity potentiometer clockwise on the detector circuit card.
2	Called party should momentarily depress and release switchhook plungers.	Slowly advance potentiometer until detector senses momentary disconnect of called party. Mark this location on potentiometer. (This is the minimum setting.)
3	Repeat Step 2 for calling party.	
4	Called and calling party should vigorously slap transmitters of their respective instruments.	Set potentiometer at a point above the minimum setting, which will approximate 1/4 of the difference between the two settings.

*Note: A test set can be attached to lines being tested to assist the adjuster with communications between called and calling parties.*

**6. ORDERING INFORMATION**

6.01 The TELEPATCHER must be ordered in individual parts. (See Table B.)

6.02 Basic example for ordering the TELEPATCHER is as follows:

1 ea. C70-010 — Card, Detector PC  
 1 ea. C70-018 — Card, Coil Coupling  
 1 ea. D70-011 — Card, Master PC  
 1 ea. D70-012 — Card, Tone  
 1 ea. D70-013 — Card, Power  
 1 ea. E70-015 — Cabinet, Apparatus  
 1 set F70-017 — Chips (Color)

**BASIC INFORMATION**

SWBD Type: 555  
 Mount Type: Trunk  
 Number of Circuits: 1  
 Color Chips: (Color)  
 Power Supply: 24V SWBD Power

**EQUIPMENT REQUIRED FOR EACH ADDITIONAL CIRCUIT**

1 ea. A70-001 — Mount, Trunk  
 1 ea. B70-005 — Assembly, Jack & Lamp (Color)  
 1 ea. C70-010 — Card, Detector PC  
 1 ea. C70-018 — Card, Coil Coupling  
 1 set F70-017 — Chips (Color)

**EQUIPMENT REQUIRED FOR ONE (1) CIRCUIT**

1 ea. C70-001 — Mount, Trunk  
 1 ea. B70-005 — Assembly, Jack & Lamp (Color)

6.03 When ordering the jack and lamp assemblies and chips, specify color desired. Check the supplies catalog for stocked items.

**TABLE B**  
**PARTS LIST — INITIAL CIRCUIT**

PART NO.	DESCRIPTION	551 552 PBX	555 556 PBX	557A PBX	605 PBX	607 PBX	608 PBX
A70-001	Mount, Trunk (Note 1)		x*				
A70-002	Mount, Cord (Note 1)		x*	x*			
A70-003	Mount, Strip	x	x*	x*	x		
A70-005	Mount, Strip					x	
A70-006	Mount, Strip						x
B70-002	Assembly, Jack & Lamp (Note 2)					x	x
B70-005	Assembly, Jack & Lamp (Note 2)	x	x	x	x		
C70-010	Card, Detector PC	x	x	x	x	x	x
C70-018	Card, Coil Coupling	x	x	x	x	x	x
D70-011	Card, Master PC	x	x	x	x	x	x
D70-012	Card, Tone	x	x	x	x	x	x
D70-013	Card, Power	x	x	x	x	x	x
E70-015	Cabinet, Apparatus	x	x	x	x	x	x
F70-017	Chips, Color (Note 2)	x	x	x	x	x	x

**Notes:**

1. With 555-type PBXs, specify trunk or cord mount, if possible.
2. Specify color.
3. "X" means required item; "\*" means applicable option.

**TABLE C**  
**PARTS LIST - EACH ADDITIONAL CIRCUIT**

PART NO.	DESCRIPTION	551 552 PBX	555 556 PBX	557A PBX	605 PBX	607 PBX	608 PBX
A70-001	Mount, Trunk (Note 1)		x*				
A70-002	Mount, Cord (Note 1)		x*	x*			
A70-003	Mount, Strip	x	x*	x*	x		
A70-005	Mount, Strip					x	
A70-006	Mount, Strip						x
B70-002	Assembly, Jack & Lamp (Note 2)					x	x
B70-005	Assembly, Jack & Lamp (Note 2)	x	x	x	x		
C70-010	Card, Detector PC	x	x	x	x	x	x
C70-018	Card, Coil Coupling	x	x	x	x	x	x
F70-017	Chips, Color (Note 2)	x	x	x	x	x	x

*Special Note:* Refer to Table B, Notes 1, 2, and 3.



**TABLE D**  
**CONNECTIONS AT 66B3-50 CONNECTING BLOCK**

LEFT SIDE					RIGHT SIDE				
CABLE COND	FEATURE		LEAD DESIG	AMPH PLUG	CABLE COND	FEATURE		LEAD DESIG	AMPH PLUG
W-BL BL-W	TRUNK NO. 1		T1 R1	26 1	W-BL BL-W				26 1
W-O O-W				27 2	W-O O-W	PATCH	BL BK	T1 R1	27 2
W-G G-W	TRUNK NO. 2		T2 R2	28 3	W-G G-W		JACK	BR BK	CG CS
W-BR BR-W				29 4	W-BR BR-W	ASSY		Y BK	T2 R2
W-SL SL-W	TRUNK NO. 3		T3 R3	30 5	W-SL SL-W		NO. 1	GR BK	T3 R3
R-BL BL-R				31 6	R-BL BL-R				
R-O O-R	TRUNK NO. 4		T4 R4	32 7	R-O O-R	PATCH	BL BK	T1 R1	32 7
R-G G-R				33 8	R-G G-R		JACK	BR BK	CG CS
R-BR BR-R	TRUNK NO. 5		T5 R5	34 9	R-BR BR-R	ASSY		Y BK	T2 R2
R-SL SL-R				35 10	R-SL SL-R		NO. 2	GR BK	T3 R3
BK-BL BL-BK				36 11	BK-BL BL-BK				
BK-O O-BK	POWER NOTES 1 & 3		- -	37 12	BK-O O-BK	PATCH	BL BK	T1 R1	37 12
BK-G G-BK	POWER NOTES 2 & 3		+ -	38 13	BK-G G-BK		JACK	BR BK	CG CS
BK-BR BR-BK	TONE NOTE 4		- -	39 14	BK-BR BR-BK	ASSY		Y BK	T2 R2
BK-SL SL-BK	REMOTE TONE UNIT		+ -	40 15	BK-SL SL-BK		NO. 3	GR BK	T3 R3
Y-BL BL-Y	FRONT LAMP ASSY NO. 1	RED BK	L N	41 16	Y-BL BL-Y				
Y-O O-Y		WH BK	CS2 CS1	42 17	Y-O O-Y	PATCH	BL BK	T1 R1	42 17
Y-G G-Y	FRONT LAMP ASSY NO. 2	RED BK	L N	43 18	Y-G G-Y		JACK	BR BK	CG CS
Y-BR BR-Y		WH BK	CS2 CS1	44 19	Y-BR BR-Y	ASSY		Y BK	T2 R2
Y-SL SL-Y	FRONT LAMP ASSY NO. 3	RED BK	L N	45 20	Y-SL SL-Y		NO. 4	GR BK	T3 R3
V-BL BL-V		WH BK	CS2 CS1	46 21	V-BL BL-V				
V-O O-V	FRONT LAMP ASSY NO. 4	RED BK	L N	47 22	V-O O-V	PATCH	BL BK	T1 R1	47 22
V-G G-V		WH BK	CS2 CS1	48 23	V-G G-V		JACK	BR BK	CG CS
V-BR BR-V	FRONT LAMP ASSY NO. 5	RED BK	L N	49 24	V-BR BR-V	ASSY		Y BK	T2 R2
V-SL SL-V		WH BK	CS2 CS1	50 25	V-SL SL-V		NO. 5	GR BK	T3 R3

**Notes:**

1. Terminate power here when using power card dated **after** November, 1971. Polarity need not be observed.
2. Terminate power here when using power card dated **before** November, 1971. *Polarity must be observed. Equipment damage will result if reversed.*
3. If the date of the unit is in question, terminate power on green-black pair and *polarity must be observed.*
4. The brown-black pair must be strapped unless an "ON/OFF" tone switch is connected at these terminals.