"PICTUREPHONE®" SERVICE (PHASE 0)
2C VIDEO TELEPHONE STATION
CONNECTIONS

1. GENERAL

1.01 This section provides connection information for the 2C Video Telephone Station when used as a single line station or as part of the 1P2 Key Telephone System.

1.02 This section is reissued to:

- Add a strap between terminals 4 and 5 on the 55D control unit
- Add information on reversing PB and PR leads when using diode matrix for common audible signaling arrangement.

Changes or additions in the body of tables are indicated by shaded areas.

1.03 ▶This issue of the section is based on the following drawing:

- SD-69620-01, Issue 3

If this section is to be used with equipment or apparatus reflecting a later issue of the drawing, reference should be made to the SD to determine the extent of the changes and the manner in which the section may be affected.◀

1.04 Connect single line 2C Video stations as shown in Fig. 1. A terminal board in the 1A service unit provides terminating points for the various components of a single line 2C Video Telephone Station.

1.05 Fig. 2 shows connections for a typical key telephone set when used as part of a 2C Video Telephone Station.

1.06 Connect key telephone system 2C video stations as shown in Fig. 3. When a 66E3-25 connecting block is used, note that the last four pairs (video and control leads) of the D inside wiring cable are split out to connect to the 1A service unit. Fig. 4 shows the connections using a 149B adapter.

1.07 Cable pair assignments are shown in Table A; however, these terminations and lead designations may vary depending on the service required at each station. Where spare conductors are available, they may be used for audio and control leads. Video and audio leads must be paired. Terminate spare conductors according to local instructions. For cross connection of lamp, ringing, audio and video leads, twisted paired leads must be used.

1.08 Where a polarity guard is required in the telephone sets used, connect as shown in the connection section of the set involved.

2. CONNECTION INDEX

Table A—Inside Wiring Cable Connections, Key Telephone Station to 1P2 Key Telephone System

Fig. 1—Single Line Video Telephone Station, Connections.

Fig. 2—Wiring of Typical Key Telephone Set used with Video Telephone Station.

Fig. 3—Typical Key System Video Telephone Station, Connections Using 66E3-25 Connecting Block

Fig. 4—Typical Key System Video Telephone Station, Connections Using 149B Adapter

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→TABLE A←

INSIDE WIRING CABLE CONNECTIONS, KEY TELEPHONE STATION TO 1P2 KEY TELEPHONE SYSTEM

COLOR			LEAD DESIGNATION				
IW CABLE	OR MTG CORD OR CONN CABLE	CIRCUIT	VIDEO STATION	AUDIO STATION	1A SERVICE UNIT (TERM. DESIG)	66 TYPE CONN BLK TERM. NO. (Fig. 3)	149B* ADPT TERM. NO. (Fig. 4)
W-BL			T	T		1	
BL-W		1st	R	R		2	
W-O		Video	A	A†		3	
O-W		Telephone	A1	A1		4	A1
W-G		Line	LG	LG		5	
G-W			L	L		6	
W-BR		2nd	T	T		7	
BR-W		Video	R	R		8	
W-S		Telephone	A	A†		9	
S-W		Line or				10	
R-BL		CO, Centrex,	LG	LG		11	
BL-R		or PBX	L	L		12	
		Line					
R-O		CO, Centrex,	T	T		13	
O-R		or PBX	R	R		14	
R-G		Line, Inter-	A	A†		15	
G-R		Com Line				16	
R-BR		or	LG	LG		17	
BR-R		Signaling	L	L		18	
R-S		CO, Centrex,	T	T		19	
S-R		or PBX	R	R		20	
BK-BL		Line, Inter-	A, S, or S1	A, S, or S1†		21	
BL-BK		Com Line				22	
BK-O		or	LG	LG		23	
O-BK		Signaling	L	L		24	
BK-G		Conference	T or Spare	T		25	
G-BK		CO, Centrex,	R or Spare	R		26	
BK-BR		or PBX	A, S, or S1	A, S, or S1†		27	
BR-BK		Line, Inter-				28	
BK-S		Com Line	LG or CLG	LG		29	
S-BK		or Sig	L or CL	L		30	
Y-BL		CALL-A-	AC or Spare	Spare		31	
BL-Y		MATIC	AC or Spare			32	
Y-O		Power	Spare			33	
O-Y		(When Req)	Com or			34	
			Spare				

→TABLE A (Cont)←

COLOR			CIRCUIT	LEAD DESIGNATION		1A SERVICE UNIT (TERM. DESIG)	66 TYPE CONN BLK TERM. NO (Fig. 3)	149B* ADPT TERM NO. (Fig. 4)
IW CABLE	OR	MTG CORD OR CONN CABLE		VIDEO STATION	AUDIO STATION			
Y-G G-Y			Hold Lamp	HLG HL	HLG HL		35 36	
Y-BR BR-Y			Sta Bsy Lp Sig Grd	BL SG	BL SG		37 38	
		Y-S S-Y	Com or Line Ringer	RT RR	RT RR		39 40	2A‡ 1A‡
Y-S S-Y				B1 R1	B1 R1		39 40	2B‡ 1B‡
V-BL BL-V			Buzzer	BZ BZ1	BZ BZ1		41 42	
V-O O-V			Spare				43 44	
V-G G-V V-BR BR-V V-S S-V			Speaker-phone	T1 R1 IT IR AG LK	TI RI IT IR AG LK		45 46 47 48 49 50	8A 7A 10A 9A 12A 11A
V-O O-V V-G G-V V-BR BR-V V-S S-V			Video Telephone	PB PR VOT VOR TOS PF VIT VIR		PB§ PR§ VOT VOR TOS PF VIT VIR		6B 5B 8B 7B 10B 9B 12B 11B

*When using connector cable instead of D inside wiring cable, use 149B adapter in place of 66E3-25 connecting block to break out speakerphone and video leads.

†If a video station and an audio station are wired from same key cable, *A* leads from audio station must be wired back to KSU on separate conductors.

‡Strap 1A to 1B and 2A to 2B on 149B adapter.

§Reverse PB and PR leads at 1A service unit when using diode matrix common audible signaling arrangement.

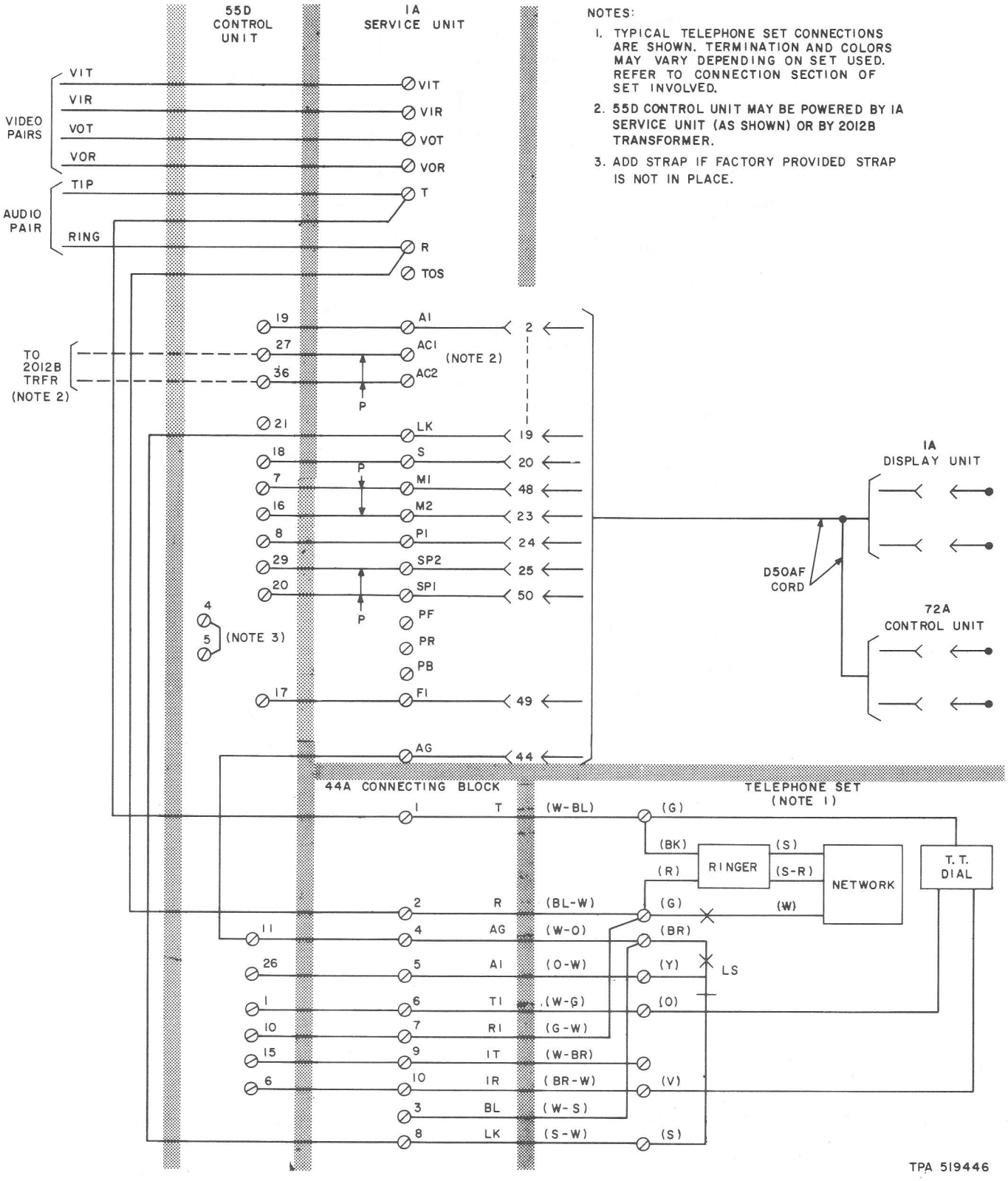


Fig. 1—Single Line Video Telephone Station, Connections

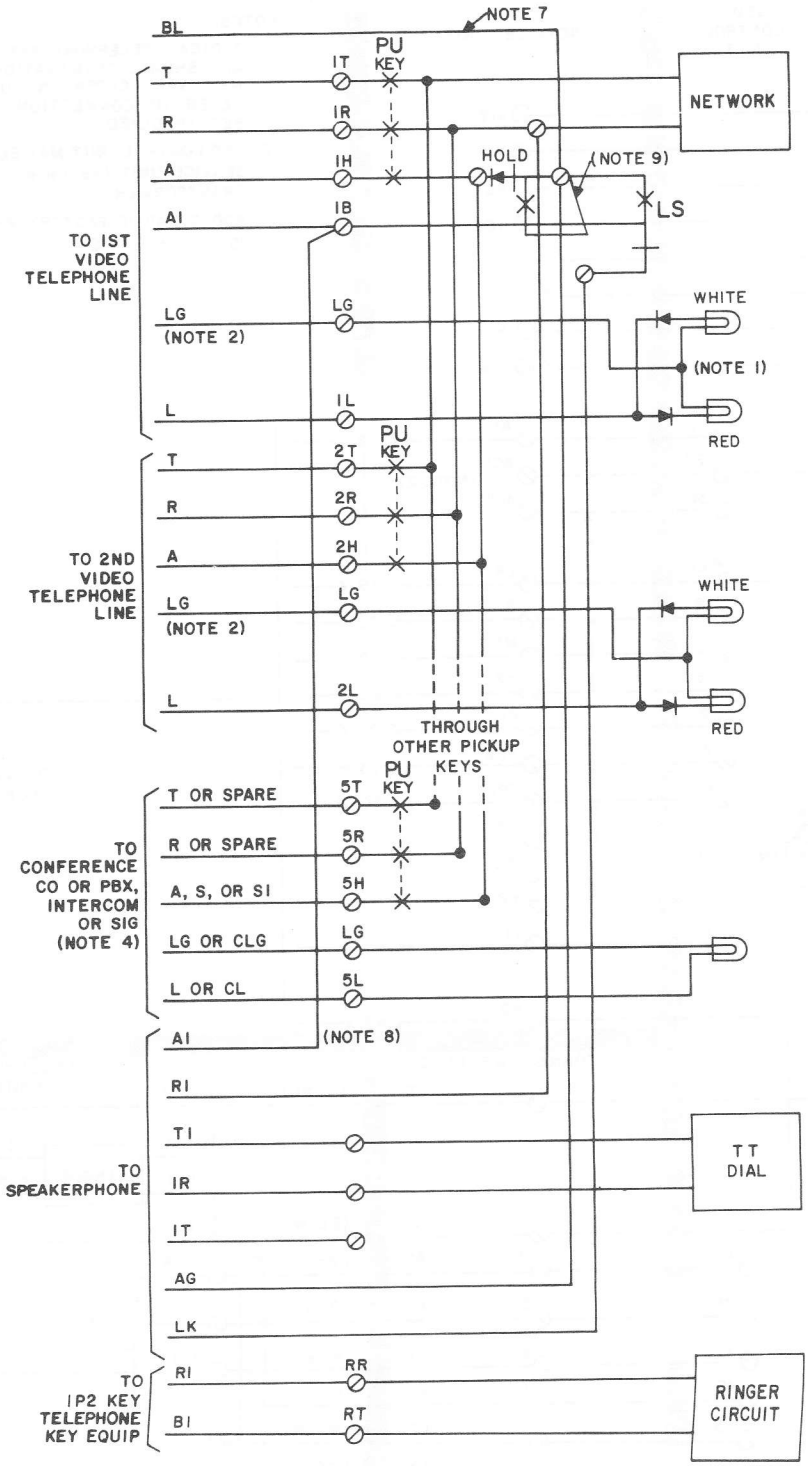


Fig. 2—Wiring of Typical Key Telephone Set Used With Video Telephone Station (Sheet 1)

NOTES:

1. REPLACE 51A LAMP WITH KS-20673,L1 LAMP IN ALL KEY POSITIONS HAVING VIDEO TELEPHONE SERVICE.
2. CONNECT LAMP GROUNDS FOR ALL VIDEO TELEPHONE LINES TO POWER SUPPLY GROUND.
3. ALL PICKUP BUTTONS NOT USED FOR VIDEO TELEPHONE SERVICE OR CONFERENCING MAY BE USED FOR OTHER KEY SYSTEM SERVICES.
4. WHEN USED FOR CONFERENCING OR SIGNALING, CONVERT BUTTON TO NONLOCKING.
5. TERMINATING POINTS MAY VARY DEPENDING ON TELEPHONE SET USED. REFER TO CONNECTION SECTION OF SET INVOLVED.
6. CONNECTIONS FOR AN AUDIO TELEPHONE SET ARE THE SAME AS SHOWN EXCEPT THE CONFERENCING KEY IS NOT REQUIRED.
7. BL LEAD AND DIODE (446F) MUST BE PROVIDED WHEN ADD-ON CONFERENCE OR BRIDGED HUNTING (INTERCOM) IS USED. REFER TO APPROPRIATE CONNECTION SECTION.
8. AI LEAD TO SPEAKERPHONE MAY BE OBTAINED FROM 66-TYPE CONNECTING BLOCK OR 149-TYPE ADAPTER.
9. WHEN FURNISHING GROUND TO HOLD CIRCUIT (H LEAD) IN 2-OR 3-LINK INTERCOM ARRANGEMENT CONNECT LEAD COMING FROM HOLD KEY MAKE CONTACT TO SPARE MOUNTING CORD CONDUCTOR USING SPARE TERMINAL OR A D-161488 CONNECTOR. SEE BELOW FOR MODIFICATION OF TYPICAL TELEPHONE SET FOR HOLD, DIRECT STATION SELECTION AND REGISTER RECALL.
10. IF REQUIRED, A NUMBER OF RRC LEADS CONNECTING TO AN S LEAD MAY BE BUNCHED AT AN EXTERNALLY MOUNTED 66-TYPE CONNECTING BLOCK OR EQUIVALENT.

* CONVERT PICKUP KEY TO SIGNALING KEY

† LEAD INVOLVED IN MODIFICATION

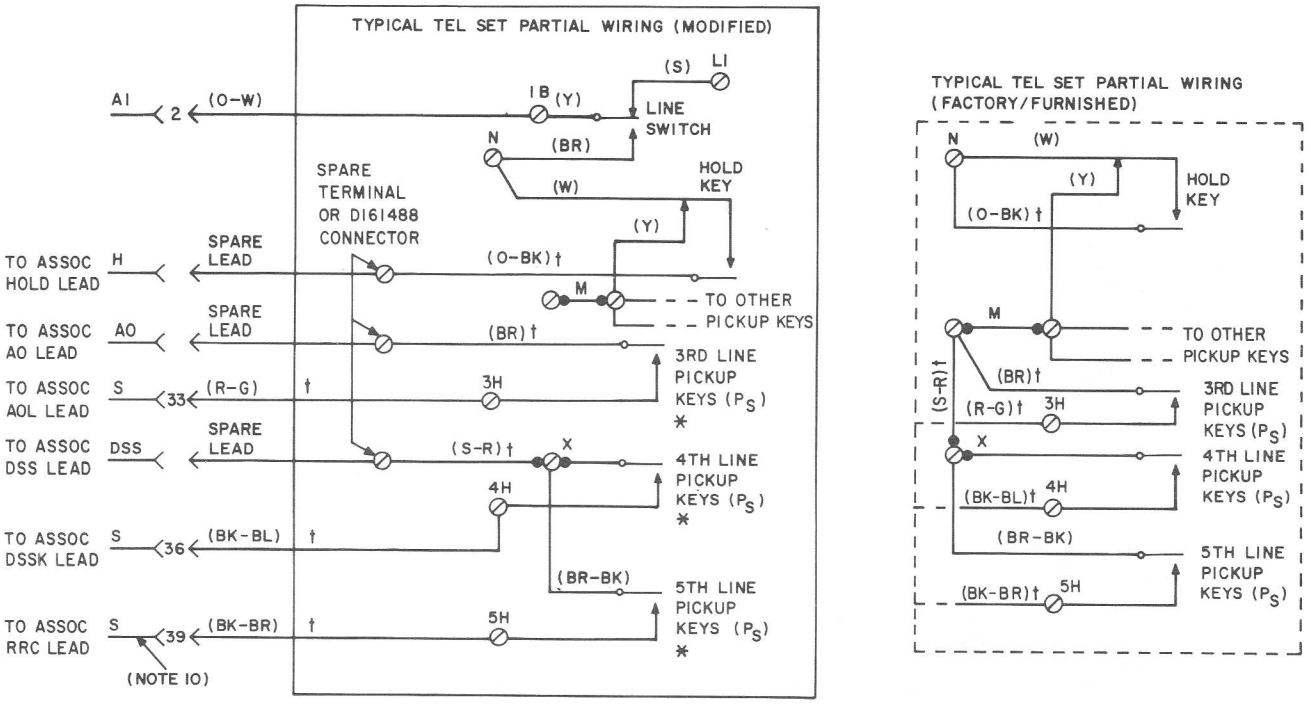
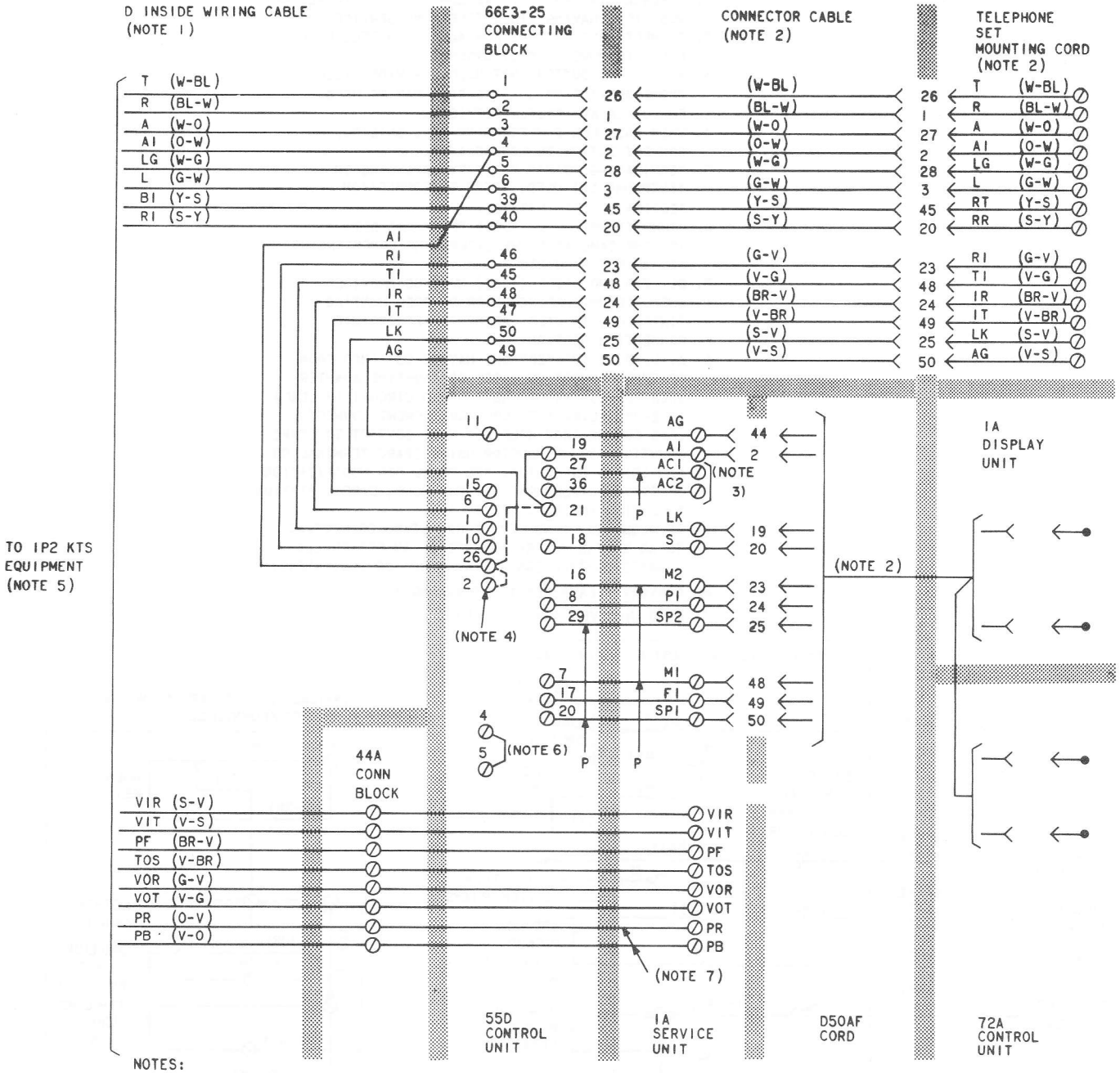


Fig. 2—Wiring of Typical Key Telephone Set Used With Video Telephone Station (Sheet 2)



NOTES:

1. REFER TO TABLE A FOR COMPLETE CONNECTION INFORMATION.
2. WHEN LOCATED NEAR ENOUGH, TELEPHONE SET MAY BE PLUGGED DIRECTLY INTO CONNECTING BLOCK AND CORD FROM 1A DISPLAY UNIT AND 72A CONTROL UNIT PLUGGED INTO SERVICE UNIT. WHEN REQUIRED, DISPLAY UNIT LEADS MAY EXTEND A MAXIMUM OF 85 FT (INCLUDING D50AF CORD) USING A 25 PR CONNECTOR CABLE.
3. NOT REQUIRED IF CONTROL UNIT IS POWERED FROM A SEPARATE 2012B TRANSFORMER.
4. PROVIDE STRAPS WHEN BUSY LAMP IS CONTROLLED BY SPEAKERPHONE.
5. IF SHIELDED CABLE IS REQUIRED TO AVOID ELECTRICAL INTERFERENCE, USE THE A25M CONNECTOR CABLE (SHIELDED CABLE WITH KS-16690,L1 CONNECTOR ON ONE END AND THE OTHER END UNFINISHED).
6. ADD STRAP IF FACTORY PROVIDED STRAP IS NOT IN PLACE.
7. REVERSE PB AND PR LEADS AT 1A SERVICE UNIT WHEN USING DIODE MATRIX COMMON AUDIBLE SIGNALING ARRANGEMENT.

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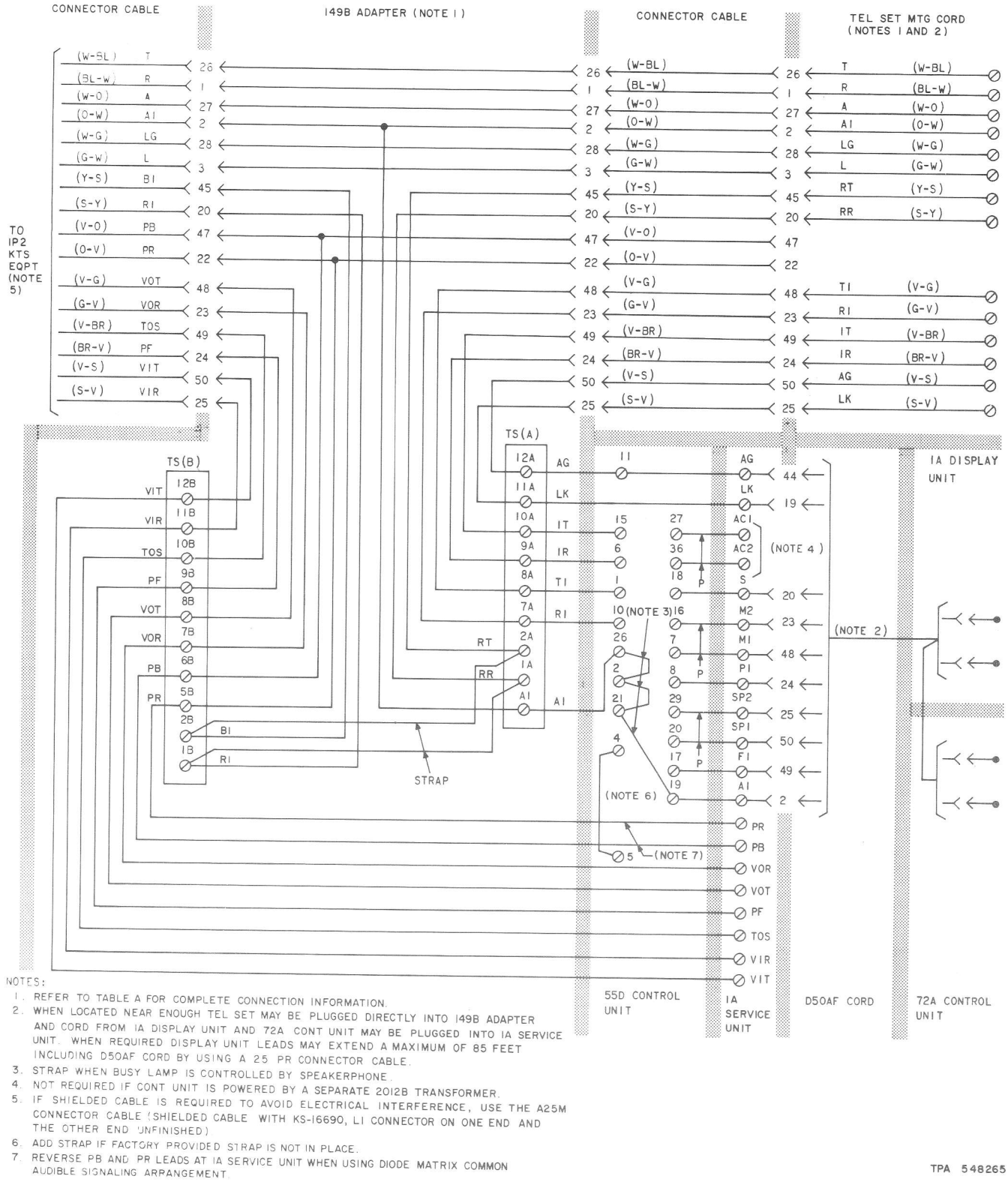
Fig. 3—Typical Key System Video Telephone Station, Connections Using 66E3-25 Connecting Block



NOTES:

1. REFER TO TABLE A FOR COMPLETE CONNECTION INFORMATION.
2. WHEN LOCATED NEAR ENOUGH TEL SET MAY BE PLUGGED DIRECTLY INTO 149B ADAPTER AND CORD FROM IA DISPLAY UNIT AND 72A CONT UNIT MAY BE PLUGGED INTO IA SERVICE UNIT. WHEN REQUIRED DISPLAY UNIT LEADS MAY EXTEND A MAXIMUM OF 85 FEET INCLUDING D50AF CORD BY USING A 25 PR CONNECTOR CABLE.
3. STRAP WHEN BUSY LAMP IS CONTROLLED BY SPEAKERPHONE.
4. NOT REQUIRED IF CONT UNIT IS POWERED BY A SEPARATE 2012B TRANSFORMER.
5. IF SHIELDED CABLE IS REQUIRED TO AVOID ELECTRICAL INTERFERENCE, USE THE A25M CONNECTOR CABLE (SHIELDED CABLE WITH KS-16690, L1 CONNECTOR ON ONE END AND THE OTHER END UNFINISHED)
6. ADD STRAP IF FACTORY PROVIDED STRAP IS NOT IN PLACE.
7. REVERSE PB AND PR LEADS AT IA SERVICE UNIT WHEN USING DIODE MATRIX COMMON AUDIBLE SIGNALING ARRANGEMENT.

Fig. 4—Typical Key System Video Telephone Station Connections Using 149B Adapter