

MESSAGE WAITING CONSOLES USED WITH 1A, 1A1, OR 1A2 KEY TELEPHONE SYSTEMS

1. GENERAL

1.01 This section provides information for providing station busy (SB) and message waiting (MW) features in 1A, 1A1, or 1A2 Key Telephone Systems (KTSs). The arrangement utilizes the MW consoles (6B1 and 7B1) used with COM KEY* systems (Fig. 1).

*Trademark

1.02 This section is reissued to add information on telephone sets used with station line concentrators.

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

SD-69656-01, Issue 1—6A1 and 6B1 Selector Console Circuit

SD-69657-01, Issue 1—7A1 and 7B1 Selector Console Circuit

518-450-100, Issue 2—7A Communication System

518-450-102, Issue 2—14A Communication System

2. DESCRIPTION

2.01 The SB feature provides an attendant at a KTS installation a visual indication of when a station is off-hook. The MW feature permits the attendant to illuminate a lamp, usually the HOLD key lamp, at a station as a signal for the station to contact the attendant.

2.02 The features are supplied using a 6B1 (19-station) or 7B1 (39-station) console. For message waiting the attendant depresses the

push-to-operate, push-to-release button associated with the desired station. This supplies 10V AC to light a lamp at the station (usually the lamp under the HOLD key). If the station is off-hook, the SB lamp located under the MW button of the console will light under control of the station line switch.

♦**Note:** When more than one MW console is installed, the MW signal can only be retired at the console originating the signal since the key must be physically released.♦

2.03 At the stations in the system, the set normally must be equipped with a lamp in the HOLD key. In addition, if the SB feature is supplied, the telephone set must be wired for the station busy lamp feature. Any set having sufficient spare leads and an idle lamp can be wired for MW, but the SB feature cannot be used with those sets ♦equipped for headset operation due to an incompatibility in the method of wiring the busy lamp.♦

2.04 The 6B1 and 7B1 consoles require 10V AC (for MW) and 18V AC (for SB). Each 6B1 console requires 1 ampere and each 7B1 requires 2 amperes of 18V ac power. A maximum of three consoles of either type can be installed but special treatment of the 18V ac leads is required. More than one 18V ac lead may be required, depending on the size and number of consoles installed (Fig. 2 through 7).

2.05 Voltages for the consoles can be supplied from the associated key system power supply if sufficient capacity is available. Otherwise, use a 19-type power unit if one console is to be installed; or, if two or three consoles are required, use a 19-type for the 10V AC and a 215B1 or 215C1 for the 18V AC. Where space permits, the 215C1 power unit can be installed in the same mounting as the key equipment. The 215C1 can also be

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

mounted in a 16-type apparatus mounting, 23-inch relay rack, etc, using 99-type adapters. The 215B1 power unit is electrically equivalent to the 215C1 but is designed for wall mounting externally where other space is not available. The 215B1 is supplied with a cover.

3. INSTALLATION

3.01 Install the SB and/or MW features as follows:

- (1) Install console(s) at attendant position(s).
- (2) Run a connector cable (use A25B for 6B1 console or A50B for 7B1) from each console to a position convenient to the station cutdown field and the power supply.
- (3) Mount the required 66-type connecting blocks and terminate cables as shown in Fig. 2 through 7. If a single 6B1 console is installed, only half the block is used. Multiple 7B1 consoles require two blocks, one for each binder group.

(4) Make sure 18V ac leads are terminated and strapped in multiple installations as shown. Connect 10V and 18V ac leads from power supply associated with key system or from a separately provided supply. The 18V ac leads should be fused at 2 amperes per lead as shown and should be at least 18-gauge wire.

(5) Cross-connect the BL, L, and if necessary, the LG leads, as required, from the station cutdown blocks to the 66-type connecting block. Refer to Tables A and B, depending on the set involved, for spare leads that can be used.

(6) Modify set to connect HOLD key lamp as MW indicator and, if necessary, install lamp in key. If SB is provided, modify set for station busy lamp according to the service section for the set involved in the 502 Division.

Note: The station busy consoles are not compatible with the station busy circuit used in headset-type CALL DIRECTOR® sets.



A. 6B1 CONSOLE



B. 7B1 CONSOLE

Fig. 1—6B1 and 7B1 Selector Consoles

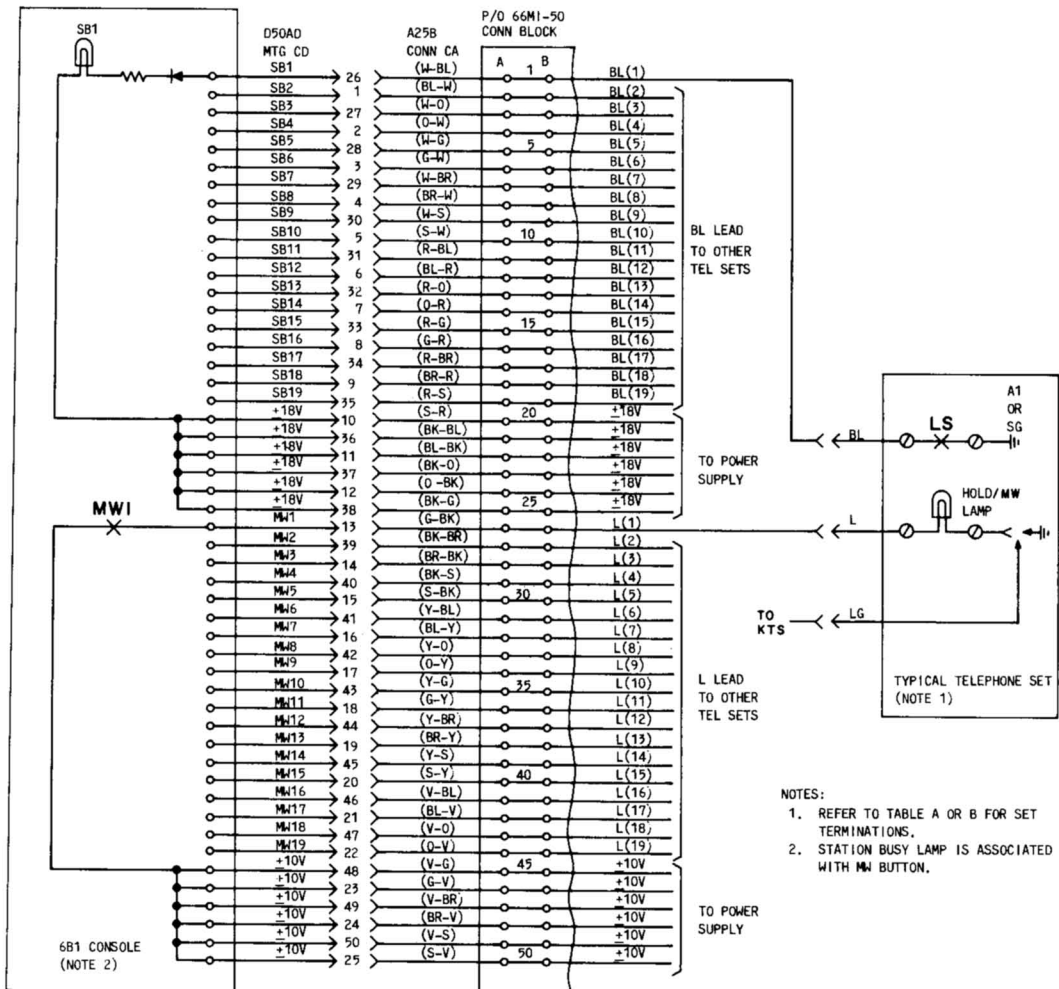


Fig. 2—6B1 Console Connections

NOTES:

1. REFER TO TABLE A OR B FOR SET TERMINATIONS.
2. STATION BUSY LAMP IS ASSOCIATED WITH MW BUTTON.

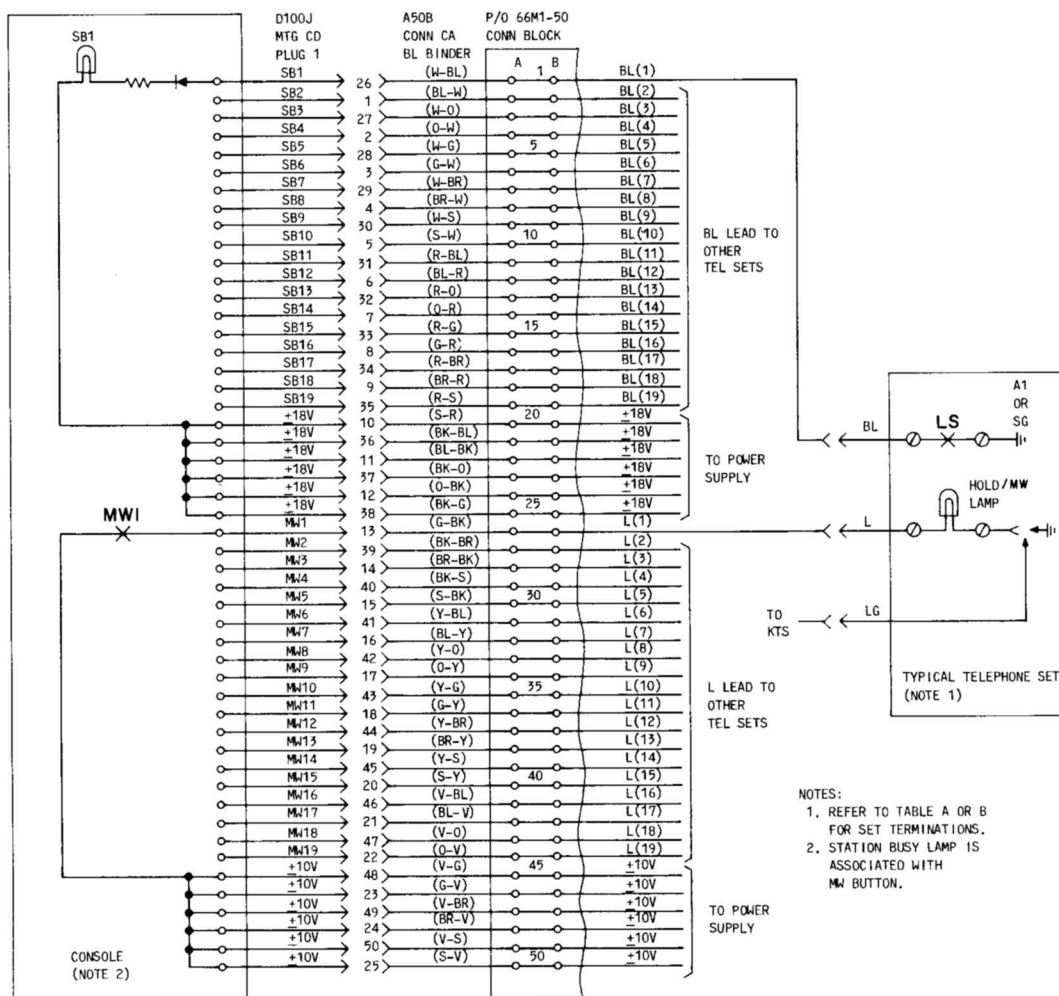


Fig. 3—7B1 Console Connections (Sheet 1 of 2)

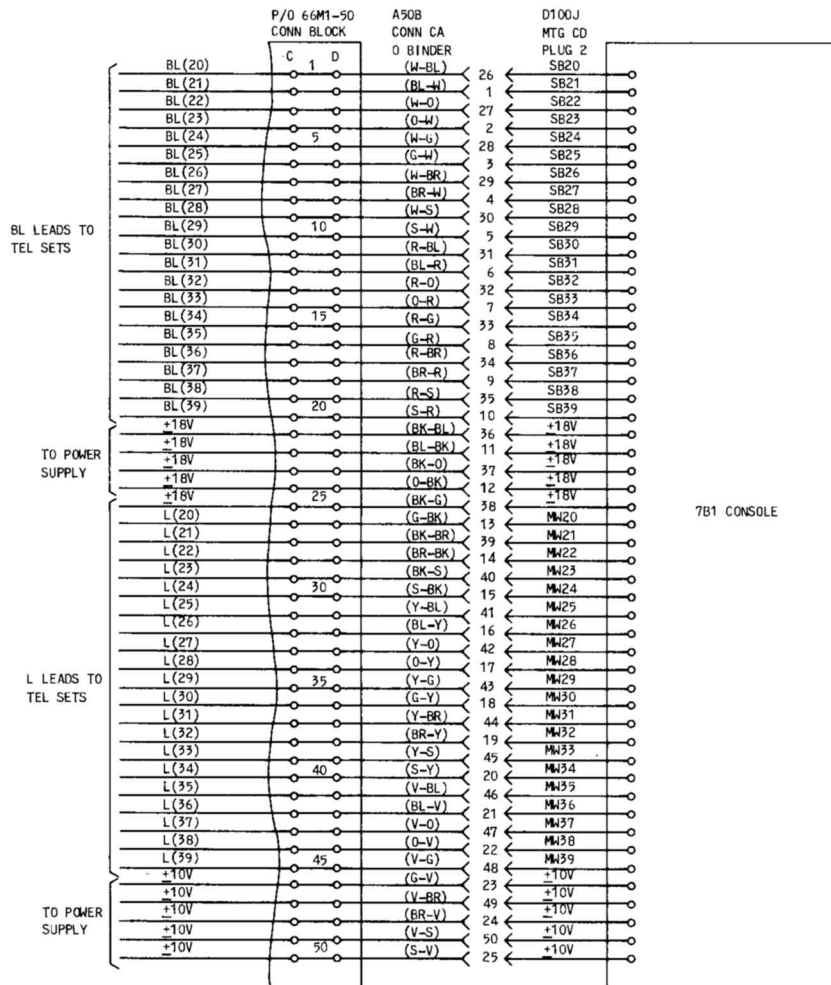


Fig. 3—7B1 Console Connections (Sheet 2 of 2)

TABLE A

**TELEPHONE SET TERMINATIONS FOR PROVIDING MESSAGE
WAITING AND/OR STATION BUSY IN 1A, 1A1, OR 1A2 KTS
(NOTE 1)**

TELEPHONE SET	MOUNTING CORD LEADS							
	BL LEAD		L LEAD			LG LEAD		
	COLOR	SET TERMINAL	COLOR	MOVE		COLOR	MOVE	
				FROM	TO		FROM	TO
564HK/HL	Y-BR	1	O-Y	5	LH	Y-O	6	LG
565HD		L2	G-Y		HL	Y-G		HG
565GK (Note 2)		L2	S-W		1	G-R		2
2565GK (Note 2)		1	S-W		5	G-R		2
565HK		L2	O-Y	3	LH	Y-O	4	LG
2565HK		1	O-Y	3	LH	Y-O	4	LG
565LK		L2	G-BK	1	LH	BK-G	2	LG
2565LK		1	G-BK	2	LH	BK-G	2	LG
630/631A,B,C,D		6 or 12	Note 3			Note 3		
2630, 2631D		6						
630/631DA 2630/2631DA		L2	Note 4			Note 4		
634/635D 2634/2635D	Connection Terminal 39 of 235- or 236-Type KTU (Note 7)		R-G		LG	G-R		5
634/635DA 2634DA/DAM 2635DA/DAM			Note 8			Y-G		22
830/2830C 831/2831C	Y-O	22	O-Y	12	20	Note 5		
851/2851B	Y-BR	L2	G-Y		21 (Note 6)	Y-G		12 (Note 6)

Note 1: Telephone set must be wired for station busy feature. Refer to service section in 502 Division for telephone set involved.

Note 2: These sets do not have a hold key. Either connect any unused line key lamp or use spare leads shown and connect to external lamp indicator using spare terminals or D-161488 connectors.

Note 3: Connect hold lamp leads (S-V, V-S) to spare mounting cord leads (G-Y, Y-G) in 1st module using spare terminals or D-161488 connectors.

Note 4: Connect hold lamp leads (G-Y, Y-G) to spare mounting cord leads (G-Y, Y-G) in 1st module.

Note 5: Move Y-G hold lamp lead from 21 to 4.

Note 6: Disconnect, insulate, and store BL leads.

Note 7: The 235- and 236-type KTU station line concentrators must be optioned for the station busy feature per Table B, Section 518-310-405.

Note 8: Connect G-Y from lamp 6 to R-G of mounting cord using a spare terminal or D-161488 connector.

TABLE B

**TELEPHONE SET TERMINATIONS
FOR PROVIDING MESSAGE WAITING WITH
HEADSET-EQUIPPED CONCENTRATOR
CALL DIRECTORS
(NOTE 1)**

TELEPHONE SET	HOLD LAMP		MOUNTING CORD	
	LEAD	COLOR	LEAD	COLOR
636, 637A,B,C,D 2636C, 2637D	L	S-V	L	G-Y
	LG	V-S	LG	Y-G
636, 2636CA 637, 2637DA (Note 2)	L	G-Y	L	G-Y
	LG	Y-G	LG	Y-G

Note 1: Busy lamp feature cannot be provided with these sets.

Note 2: Connect leads using spare terminals or D-161488 connectors.

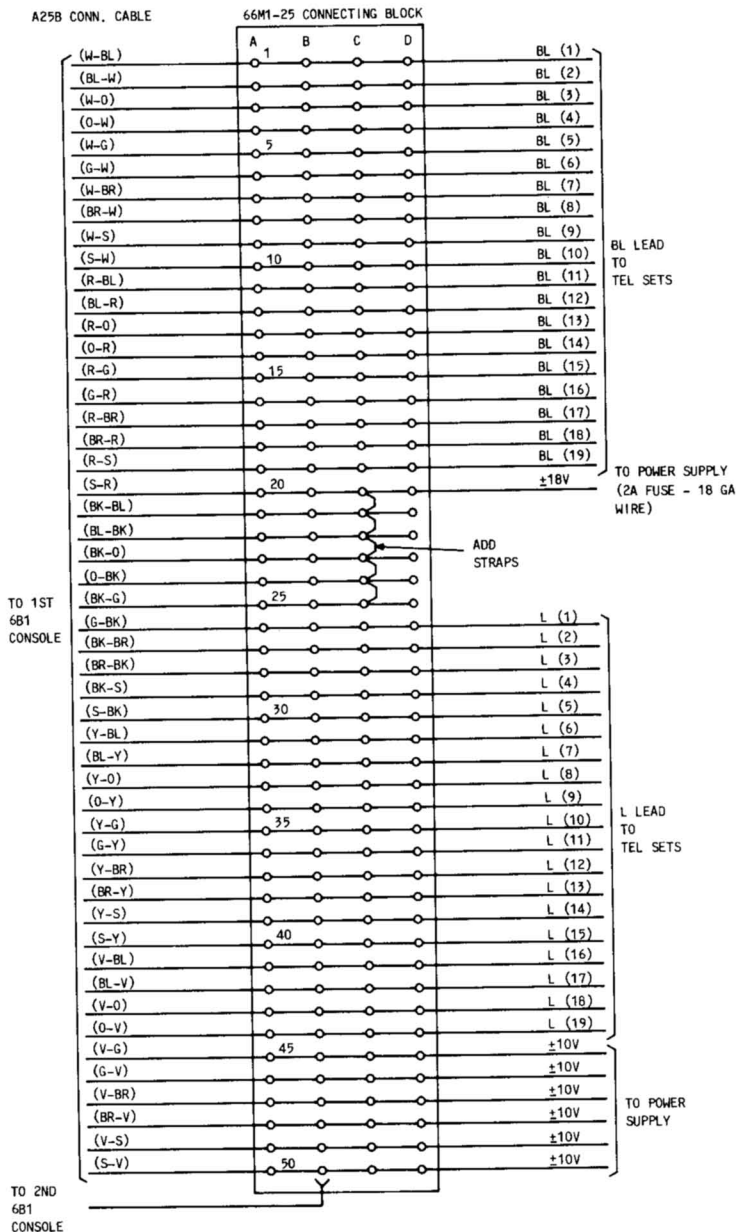


Fig. 4—Connections for Two 6B1 Consoles

NOTES:

1. SEPARATELY FUSE EACH $\pm 18V$ LEAD AT 2A. USE 18 GAUGE WIRE.
2. INSTALL B BRIDGING CLIPS BETWEEN COLUMNS B AND C IN ROWS 1-19 AND 26-50.

* ADD STRAPS - WHERE MORE THAN ONE LEAD IS REQUIRED ON A TERMINAL, USE 183B2 ADAPTER OR CONTINUOUS STRAPPING.

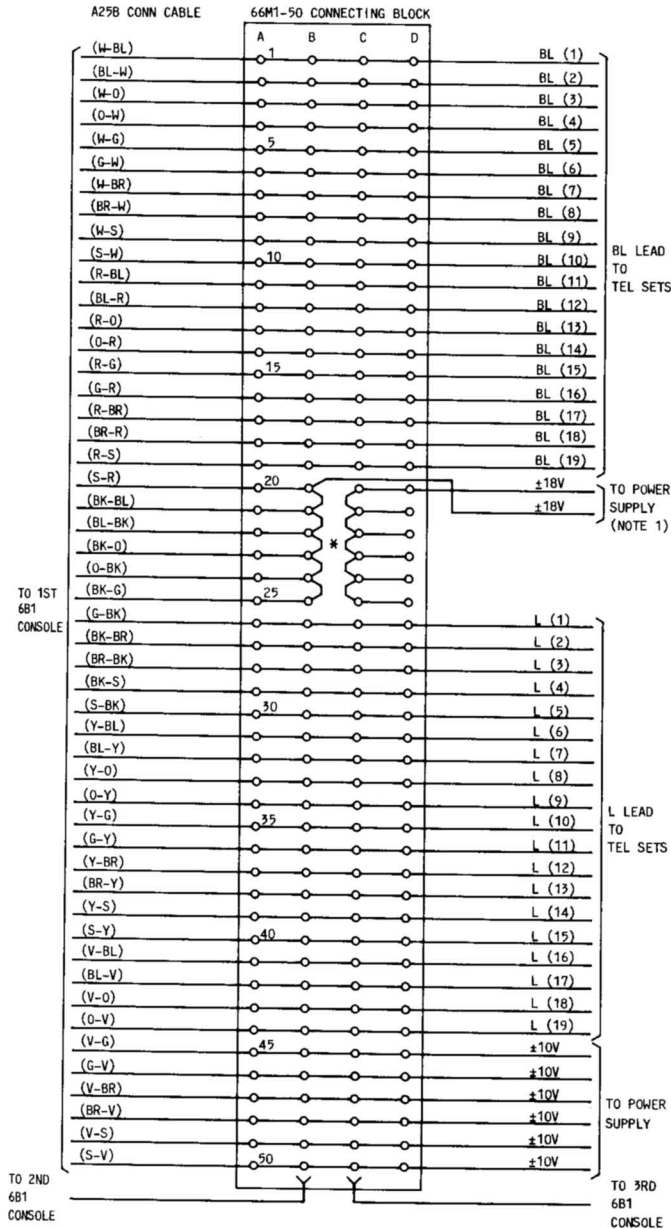
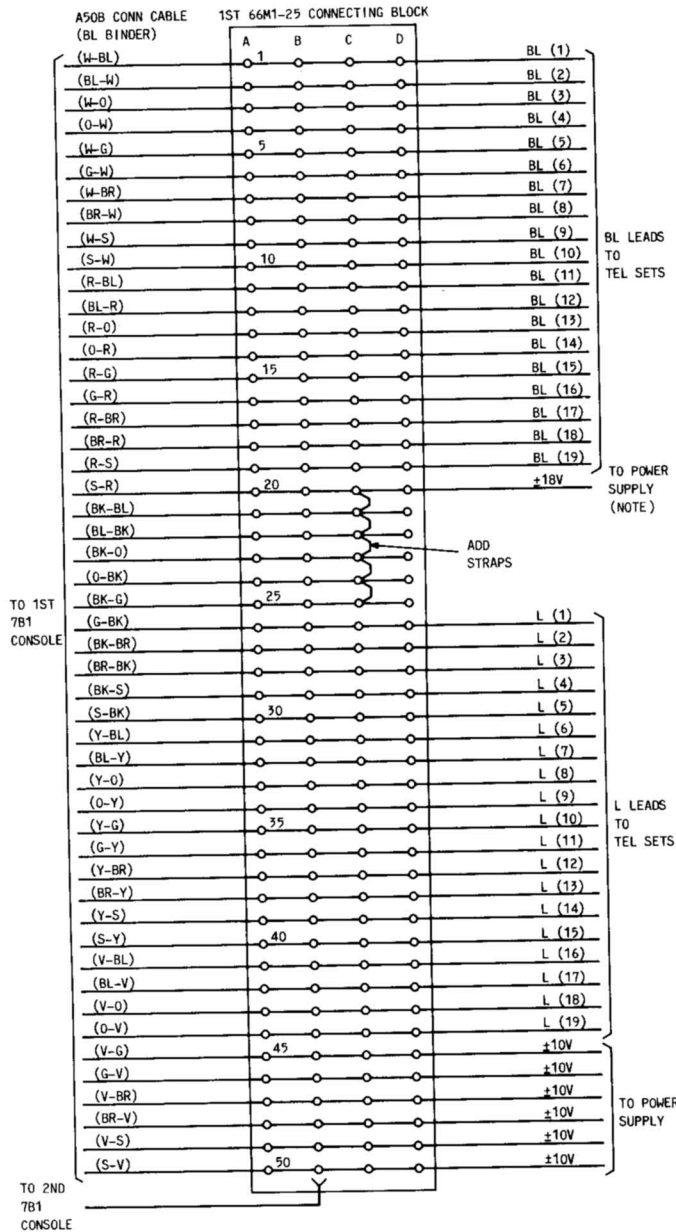


Fig. 5—Connections for Three 6B1 Consoles



NOTE:

PROVIDE A SEPARATE +18V LEAD TO EACH CONNECTING BLOCK FUSED AT 2A. USE 18 GAUGE WIRE.

Fig. 6—Connections for Two 7B1 Consoles (Sheet 1 of 2)

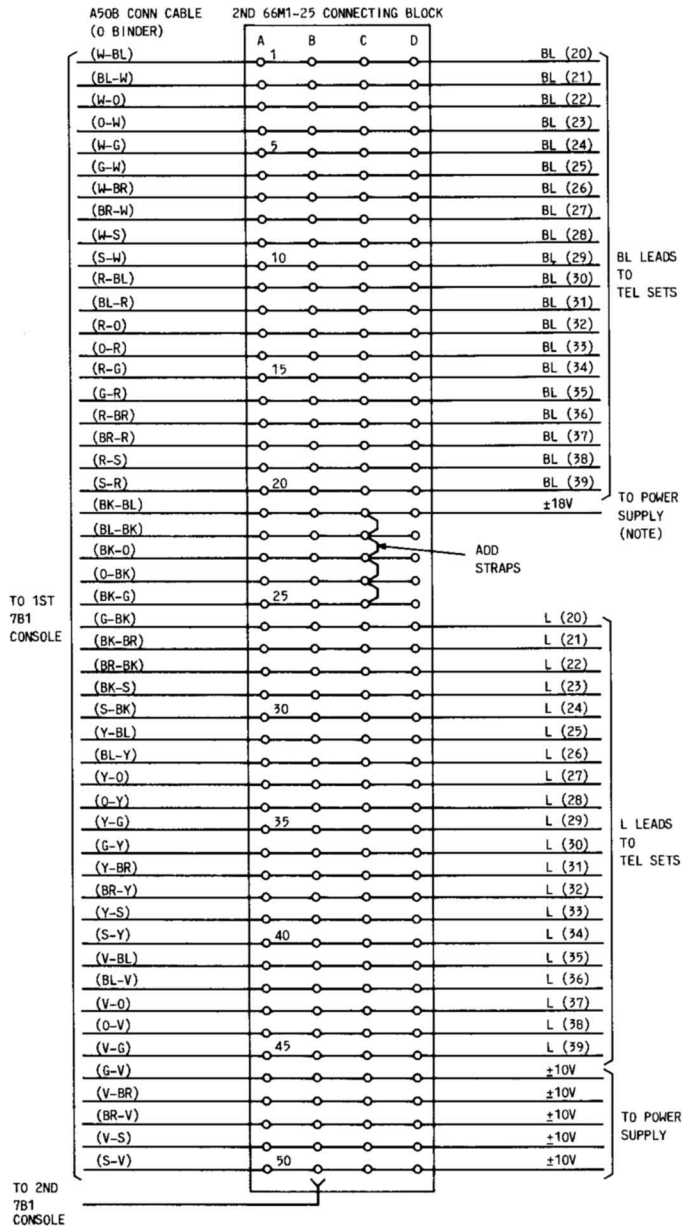
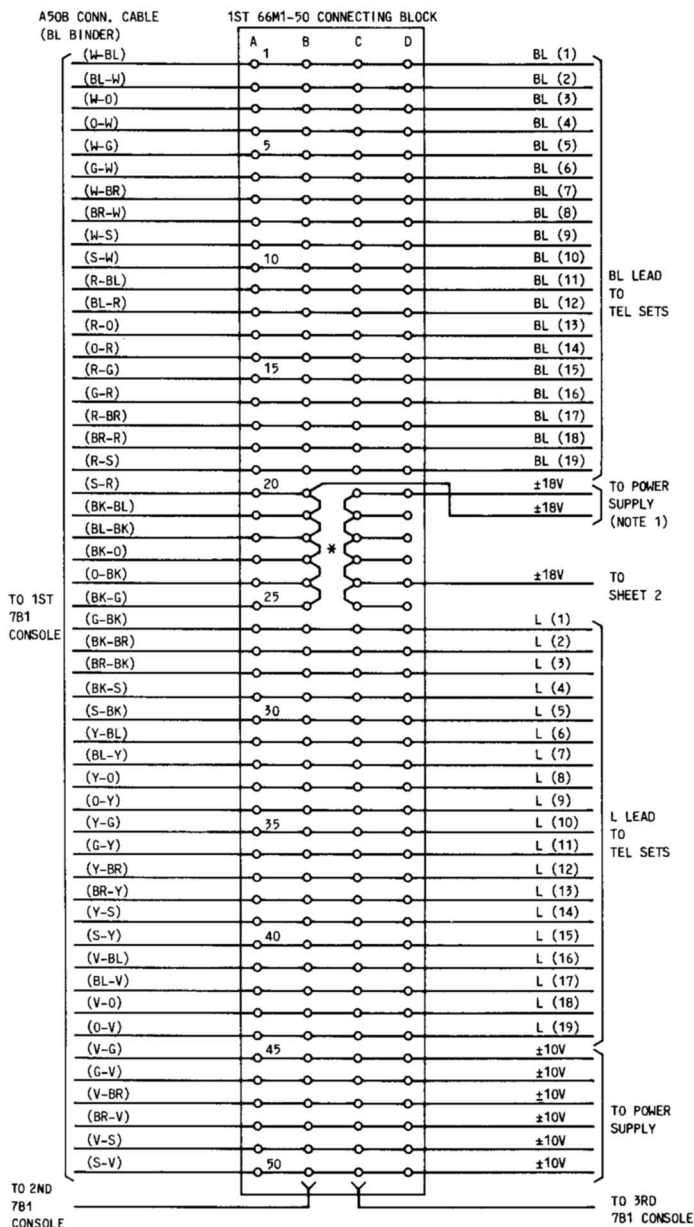


Fig. 6—Connections for Two 7B1 Consoles (Sheet 2 of 2)



NOTES:

1. SEPARATELY FUSE EACH $\pm 18V$ LEAD AT 2A. USE 18 GAUGE WIRE.

2. INSTALL B BRIDGING CLIPS BETWEEN COLUMNS B AND C AS FOLLOWS:

- BLOCK 1 - ROWS 1-19 AND 26-50
- BLOCK 2 - ROWS 1-20 AND 26-50

* PLACE STRAPS WHERE MORE THAN ONE LEAD IS REQUIRED ON A TERMINAL, USE 183B2 ADAPTER OR CONTINUOUS STRAPPING.

Fig. 7—Connections for Three 7B1 Consoles (Sheet 1 of 2)

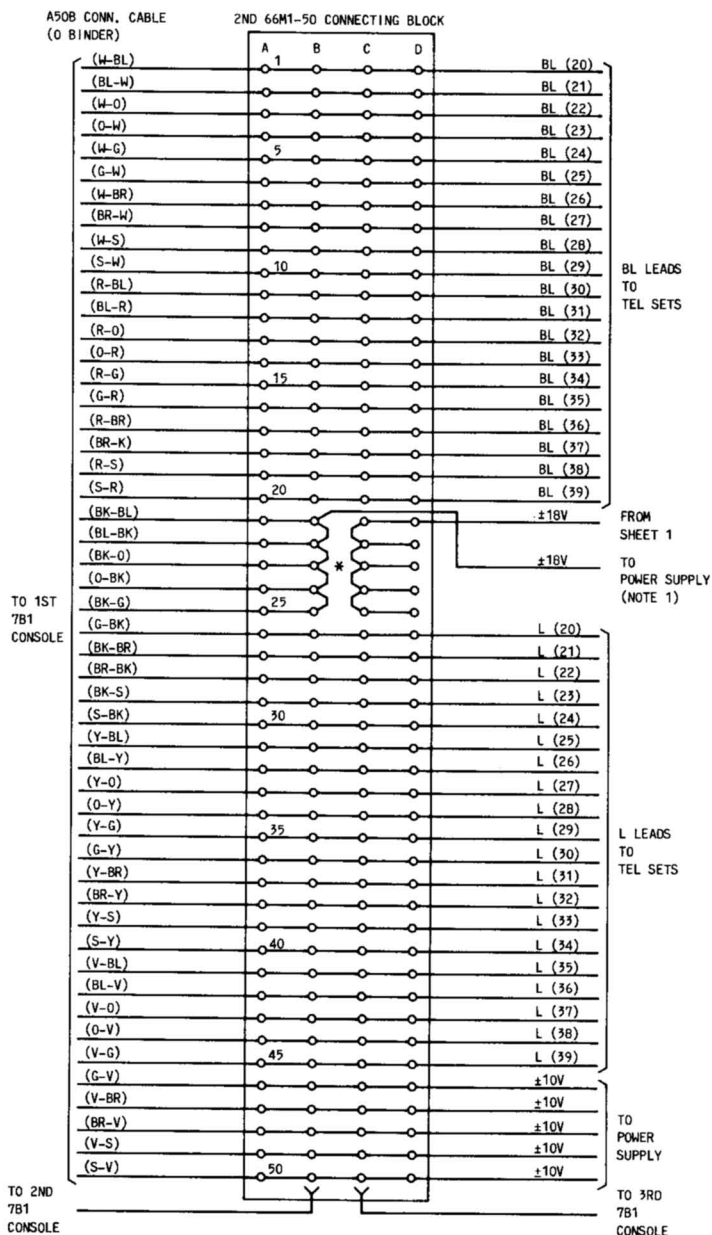


Fig. 7—Connections for Three 7B1 Consoles (Sheet 2 of 2)