

## CONNECTING BLOCKS, 66-TYPE NUMBERING AND WIRING PLAN

### 1. GENERAL

1.01 This section contains information on numbering and wiring of 66-type connecting blocks installed in 115-type apparatus boxes.

1.02 This section is reissued to:

- Add 66M1-25 connecting block
- Add information on transfer stenciling kit for marking terminals of connecting blocks
- Show F-57000 and F-57001 connecting blocks replaced by 66B4-25C and 66B3-50C, respectively. 66B4-25C can also be used in place of F-56999 connecting block
- Change Fig. 1, 2, and 3 to show new location (inside apparatus boxes) of cable clamps.

### 2. NUMBERING

#### 66-Type General Purpose Connecting Blocks

2.01 The connecting block numbering plan is dependent upon the blocks being wall mounted with the long side vertical. The first terminal in the upper left hand corner is designated 1A (Fig. 1, 2, and 3).

2.02 Numbering plans for various general purpose connecting blocks are shown in Fig. 4 through 9.

*Note:* The symbols in these figures illustrate the number of connectors and terminals on each connector in a horizontal row, ie, OOOO indicates one connector with four terminals; OO OO indicates two connectors with two terminals each, etc.

2.03 When marking these connecting blocks and fanning strips for terminal identification, use the transfer stenciling kit to stamp and identify the terminals. Refer to Section 081-860-105 for stenciling procedures.

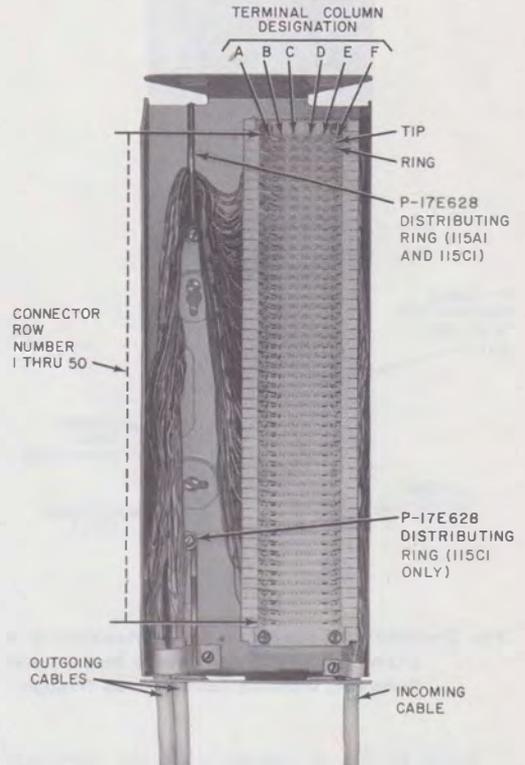


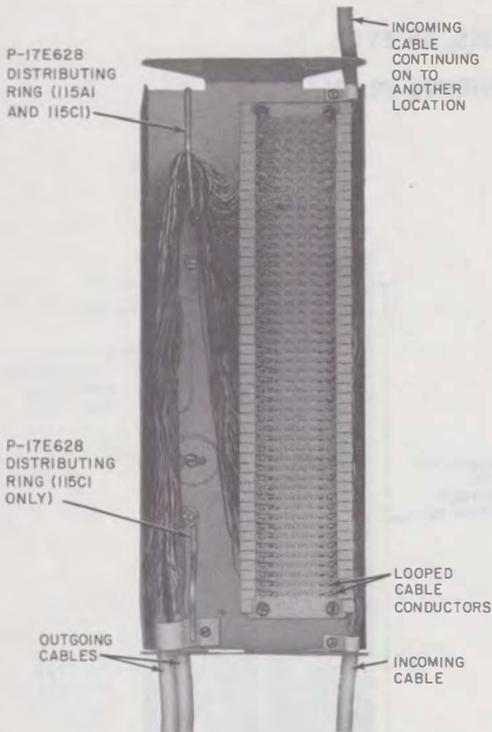
Fig. 1—66B4-25 Connecting Block Mounted in a 115A1 or 115C1 Apparatus Box (Cover Removed) Incoming Cable Dead Ended

### 3. WIRING PLANS

#### Incoming Cable (Feed or Apparatus Cable)

3.01 Terminate an incoming cable which does not loop to another block or location (Fig. 1) as follows:

- (1) Place conductors through fanning strip and terminate in normal terminating sequence.



**Fig. 2—66B4-25 Connecting Block Mounted in a 115A1 or 115C1 Apparatus Box (Cover Removed) Incoming Cable Looped Through**

Refer to Fig. 4 through 9 for the particular block used.

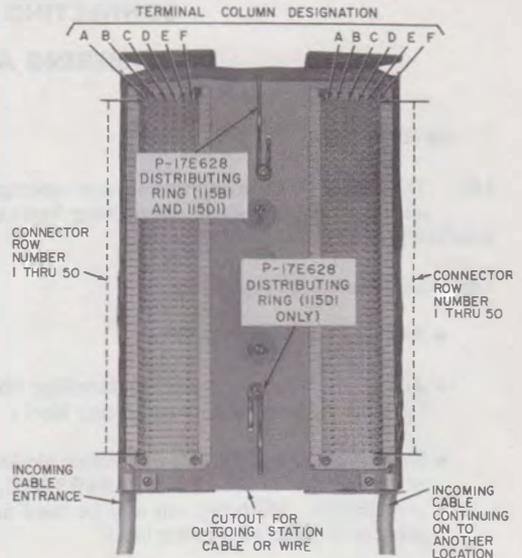
- (2) Work excess slack toward loose end of incoming cable as terminating progresses.

**3.02** Terminate an incoming cable which will loop to another terminal or location (Fig. 2) as follows:

- (1) Loop conductors through fanning strip and connector terminal in normal terminating sequence. Refer to Fig. 4 through 9 for the particular block used.
- (2) Dress conductors into space beside connecting block while taking up slack toward loose end of cable.

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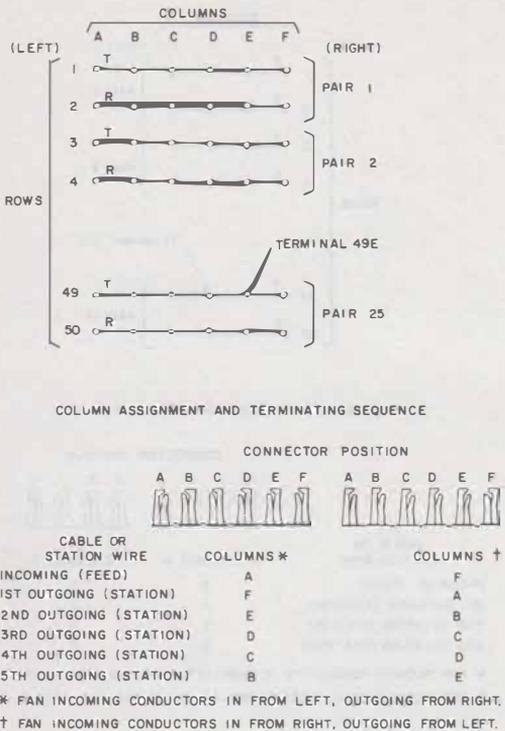
**Fig. 3—Two 66B4-25 Connecting Blocks Mounted in a 115B1 or 115D1 Apparatus Box (Cover Removed) Incoming Cable Looped Through**

- (3) Tape exposed conductors if cable sheath on loose end does not extend into terminal box.

- (4) Fasten incoming cable at location shown in Fig. 1, 2, and 3 using appropriate cable clamps.

**3.03** Terminate an incoming cable which will loop through two connecting blocks in a terminal or apparatus box (Fig. 3) and continue on to another location as follows:

- (1) Terminate cable on first block as shown in 3.02.
- (2) Tape exposed conductors where they pass between blocks.
- (3) Repeat 3.02 for the second block.

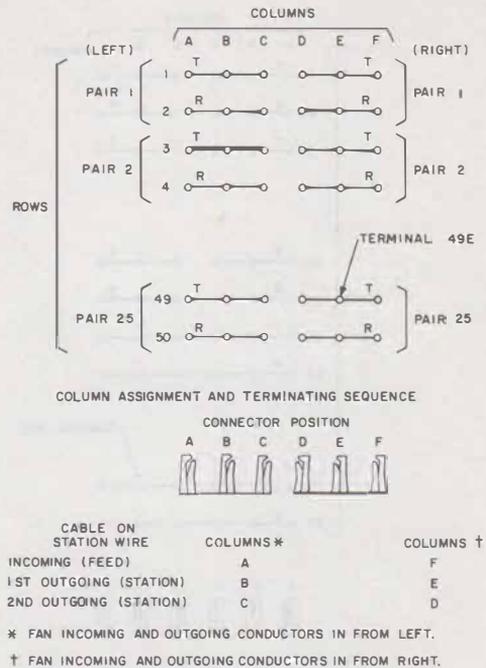


**Fig. 4—Numbering and Wiring Plan for 66A1-25 (MD), 66A2-25 (MD), 66A2-50 (MD), 66B1-25 (MD), 66B4-25, and 66B4-25C Connecting Blocks**

**Outgoing Cables (Station Wire and Cable)**

**3.04** Terminate outgoing station wire or cable (Fig. 1 and 2) in a 115A1 or 115C1 apparatus box as follows:

- (1) Place distributing ring at opposite end of box from which cable will leave box.
- (2) Remove cable sheath for approximately twice the length of connecting block, allowing for sheath end to extend inside housing.
- (3) Fasten outgoing cable at location shown in Fig. 1, 2, and 3 using appropriate cable clamps.

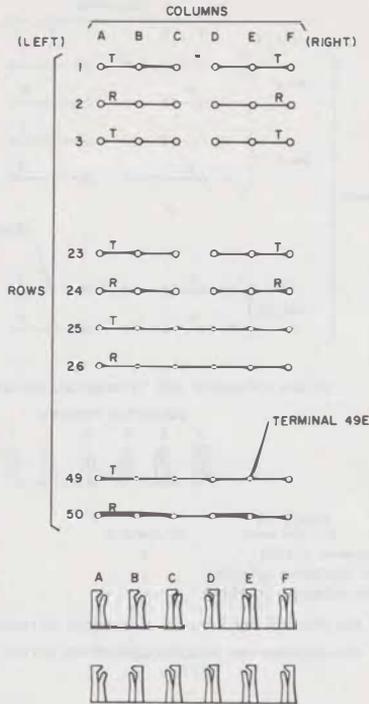


**Fig. 5—Numbering and Wiring Plan for 66B3-50 and 66B3-50C Connecting Blocks**

- (4) Pass conductors over distributing ring.
- (5) Place conductors through fanning strip and terminate in normal terminating sequence. Refer to Fig. 4 through 9 for the particular block used.
- (6) Repeat steps (2) through (5) for all other outgoing cables.

**3.05** The 66B4-25C and 66B3-50C connecting blocks are factory-wired so that the wiring sequence is in the proper order when the cable stub and plug are at the top (Table A).

**3.06** The 66B4-25C is furnished with a single 12-inch cable stub and plug, and the 66B3-50C has two 12-inch cable stubs and plugs.



NOTE:

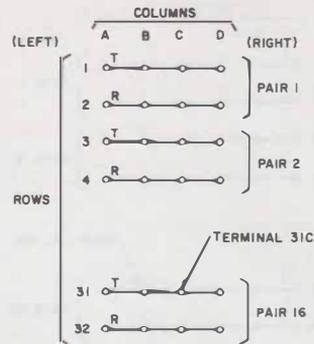
SEE FIG. 5 FOR WIRING PLAN FOR ROWS 1 THROUGH 24. FIG. 4 FOR ROWS 25 THROUGH 50.

Fig. 6—Numbering and Wiring Plan for 6685-37 Connecting Blocks

**Wiring Plan 66E3-25 and 66E4-25 Connecting Blocks**

3.07 Connect a raw-ended cable to the 66E3-25 and 66E4-25 connecting blocks as follows:

- (1) Remove cable sheath approximately twice the length of terminal block. Allow sheath to extend inside connecting block housing.
- (2) Fasten cable at entrance point with appropriate fastener.
- (3) Untwist cable so that groups of conductors are lying straight.



COLUMN ASSIGNMENT AND TERMINATING SEQUENCE

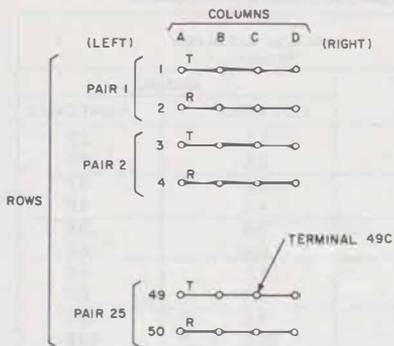
CABLE OR STATION WIRE	CONNECTOR POSITION	
	COLUMNS *	COLUMNS †
INCOMING (FEED)	A	D
1ST OUTGOING (STATION)	D	A
2ND OUTGOING (STATION)	C	B
3RD OUTGOING (STATION)	B	C

\* FAN INCOMING CONDUCTORS IN FROM LEFT, OUTGOING FROM RIGHT.  
 † FAN INCOMING CONDUCTORS IN FROM RIGHT, OUTGOING FROM LEFT.

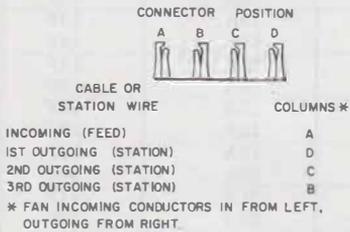
Fig. 7—Numbering and Wiring Plan for 66C1-16, 66C2-16, and 66C2-32 Connecting Blocks

- (4) Pass conductors over distributing ring (in 66E3-25 only).
- (5) Place conductors into both fanning strip and hook portion of terminals.
- (6) Terminate the first 25-pair cable on rows 1, 3, 5, 7, and 9 (Fig. 10). When multiple connections are required, a second 25-pair cable may be connected by following steps (1) through (5) and terminating on rows 2, 4, 6, 8, and 10.

3.08 Conductor terminating sequence of factory internal wiring is shown in Table B.

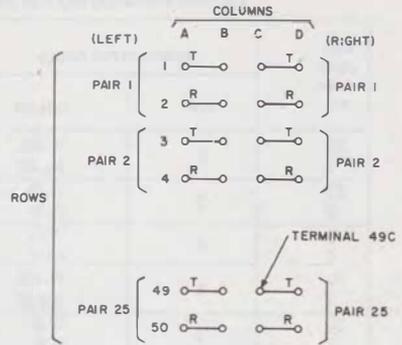


COLUMN ASSIGNMENT AND TERMINATING SEQUENCE



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Fig. 8—Numbering and Wiring Plan for 66M1-25 Connecting Blocks



COLUMN ASSIGNMENT AND TERMINATING SEQUENCE

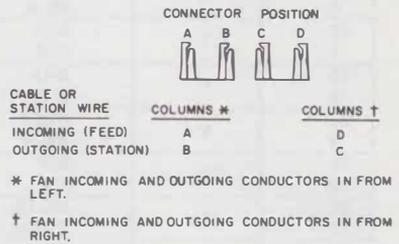


Fig. 9—Numbering and Wiring Plan for 66M1-50 Connecting Blocks

◆ TABLE A ◆

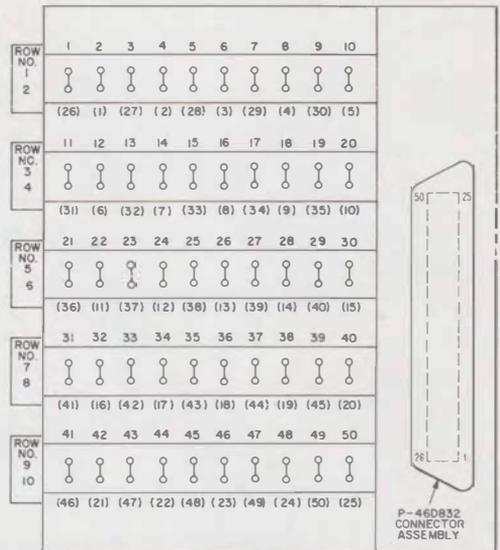
## FACTORY WIRING 66A1-25 (MD), 66B3-50C AND 66B4-25C CONNECTING BLOCKS

AMP CONN TERM. NO.	CONNECTING CABLE		CONNECTING BLOCK TERMINAL *		
	PAIR	COLOR	66B4-25C 66B3-50C	66B3-50C	
				LEFT CABLE	RIGHT CABLE
26	1	W-BL	1A	1A	1F
1		BL-W	2A	2A	2F
27	2	W-O	3A	3A	3F
2		O-W	4A	4A	4F
28	3	W-G	5A	5A	5F
3		G-W	6A	6A	6F
29	4	W-BR	7A	7A	7F
4		BR-W	8A	8A	8F
30	5	W-S	9A	9A	9F
5		S-W	10A	10A	10F
31	6	R-BL	11A	11A	11F
6		BL-R	12A	12A	12F
32	7	R-O	13A	13A	13F
7		O-R	14A	14A	14F
33	8	R-G	15A	15A	15F
8		G-R	16A	16A	16F
34	9	R-BR	17A	17A	17F
9		BR-R	18A	18A	18F
35	10	R-S	19A	19A	19F
10		S-R	20A	20A	20F
36	11	BK-BL	21A	21A	21F
11		BL-BK	22A	22A	22F
37	12	BK-O	23A	23A	23F
12		O-BK	24A	24A	24F
38	13	BK-G	25A	25A	25F
13		G-BK	26A	26A	26F
39	14	BK-BR	27A	27A	27F
14		BR-BK	28A	28A	28F
40	15	BK-S	29A	29A	29F
15		S-BK	30A	30A	30F
41	16	Y-BL	31A	31A	31F
16		BL-Y	32A	32A	32F
42	17	Y-O	33A	33A	33F
17		O-Y	34A	34A	34F
43	18	Y-G	35A	35A	35F
18		G-Y	36A	36A	36F
44	19	Y-BR	37A	37A	37F
19		BR-Y	38A	38A	38F
45	20	Y-S	39A	39A	39F
20		S-Y	40A	40A	40F
46	21	V-BL	41A	41A	41F
21		BL-V	42A	42A	42F
47	22	V-O	43A	43A	43F
22		O-V	44A	44A	44F
48	23	V-G	45A	45A	45F
23		G-V	46A	46A	46F
49	24	V-BR	47A	47A	47F
24		BR-V	48A	48A	48F
50	25	V-S	49A	49A	49F
25		S-V	50A	50A	50F

\*Connecting blocks are intended to mount with the cable stub and plug at the top.

**TABLE B**  
**FACTORY INTERNAL WIRING**  
**66E3-25 AND 66E4-25**  
**CONNECTING BLOCKS**

AMP CONN TERM. NO.	CONNECTING CABLE		CONNECTOR TERM.
	PAIR	COLOR	
26 1	1	W-BL	1
		BL-W	2
27 2	2	W-O	3
		O-W	4
28 3	3	W-G	5
		G-W	6
29 4	4	W-BR	7
		BR-W	8
30 5	5	W-S	9
		S-W	10
31 6	6	R-BL	11
		BL-R	12
32 7	7	R-O	13
		O-R	14
33 8	8	R-G	15
		G-R	16
34 9	9	R-BR	17
		BR-R	18
35 10	10	R-S	19
		S-R	20
36 11	11	BK-BL	21
		BL-BK	22
37 12	12	BK-O	23
		O-BK	24
38 13	13	BK-G	25
		G-BK	26
39 14	14	BK-BR	27
		BR-BK	28
40 15	15	BK-S	29
		S-BK	30
41 16	16	Y-BL	31
		BL-Y	32
42 17	17	Y-O	33
		O-Y	34
43 18	18	Y-G	35
		G-Y	36
44 19	19	Y-BR	37
		BR-Y	38
45 20	20	Y-S	39
		S-Y	40
46 21	21	V-BL	41
		BL-V	42
47 22	22	V-O	43
		O-V	44
48 23	23	V-G	45
		G-V	46
49 24	24	V-BR	47
		BR-V	48
50 25	25	V-S	49
		S-V	50



NOTE:  
 NUMBERS IN PARENTHESES INDICATE INTERNAL CONNECTIONS TO  
 P-46D832 CONNECTOR ASSEMBLY

**Fig. 10—Numbering and Wiring Plan for 66E3-25  
 and 66E4-25 Connecting Blocks**