

CONNECTING BLOCKS

DESCRIPTION

"COSMIC" II MAIN DISTRIBUTING FRAME SYSTEM

CONTENTS	PAGE	CONTENTS	PAGE
1. GENERAL	1	O. 112E1A-128 (Fig. 12)	3
2. GENERAL DESCRIPTION	2		
3. FUNCTIONAL DESCRIPTION	2	Figures	
A. 78C1A-50 (Fig.5) or 112C1A-50	2	1. Views of Terminal Used on 78-Type Connecting Block	4
B. 78C1A-64 (Fig. 6) or 112C1A-64	2	2. Views of Terminal Used on 112-Type Connecting Block	4
C. 78C1A-100 (Fig. 7) or 112C1A-100	2	3. Connecting Block Features	4
D. 78C1B-50 or 112C1B-50	2	4. Fanning Strip Formats	5
E. 78C1B-100 or 112C1B-100	2	5. 78C1A-50 Connecting Block	7
F. 78C1C-100 (Fig. 8)	2	6. 78C1A-64 Connecting Block	8
G. 78C2A-50 or 112C2A-50	3	7. 78C1A-100 Connecting Block	9
H. 78C2A-64 (Fig. 9) or 112C2A-64	3	8. 78C1C-100 Connecting Block	10
I. 78C2A-100 (Fig. 10)	3	9. 78C2A-64 Connecting Block	11
J. 78C2B-50 or 112C2B-50	3	10. 78C2A-100 Connecting Block	12
K. 78C3A-100 (Fig. 11)	3	11. 78C3A-100 Connecting Block	13
L. 112C1C-50	3	12. 112E1A-128 Connecting Block	14
M. 112C1E-100	3	1. GENERAL	
N. 112E1A-64	3	1.01 This section describes the 78C-, 112C- and 112E-type connecting blocks and their application on the COSMIC II main distributing frame system.	

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NOTICE

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

SECTION 201-222-115

1.02 When this section is reissued, the reason for reissue will be listed in this paragraph.

1.03 Procedures for cross-connecting and repairing the connecting blocks are contained in Sections 201-222-310 and 201-222-810, respectively.

2. GENERAL DESCRIPTION

2.01 The connecting block is made of molded plastic. The 78-type has 2-piece, bifurcated, insulation piercing type terminals (Fig. 1) and a red and white checkerboard pattern on the front face. The 112-type has 1-piece, 3-beam, bifurcated, insulation piercing type terminals (Fig. 2) and a blue and white checkerboard pattern on the front face. Both types of terminals provide two quick-connect termination slots for cross-connections on the front and up to three solderless wire-wrap, hard-wired cable terminations on the rear. Except for the type of terminal and the difference in the color of the checkerboard pattern on the front of the block, the 78-type and 112-type connecting blocks are identical. **However, only one type (78 or 112) should be used on the same frame system.**

2.02 The checkerboard pattern on the front of the block designates cable or switching equipment increments and delineates rows of paired (tip and ring) terminals. The rear face of the block has a plastic grid pattern to designate terminals in the same manner as the front pattern.

2.03 Slotted plastic fanning strips, which hold the cross-connections in place, are provided on the top and bottom of the block. The fanning strips are color coded to indicate the type of equipment terminated on the block. Terminal identification is provided by factory stamped characters located on the face and upper and lower facets of the fanning strip.

2.04 The COSMIC II main distributing frame system uses two means of identifying cross-connection terminals. The Location Oriented Identification System (LOIS) identifies the assigned terminal by the module, shelf, block, row, and column numbers which direct the frame attendant to the correct terminal. The column number is hot stamped, in black, on the front surface of the fanning strips. The row number (1 to 4) is highlighted by the hot stamped checkerboard pattern on the body of the blocks. The rows are also designated by factory stencilled designation strips (ED6C003-70; Groups 28,29,30).

2.05 Equipment or cable pair (ECAP) identification is hot stamped in red on the top and bot-

tom facets of the fanning strip. Figure 3 is an example of the features of the 78C1A-64 connecting block used for ESS. Figure 4 shows the stamping formats for all types of connecting blocks used on a COSMIC II main distributing frame.

2.06 The capacity of the block is 50, 64, 100, or 128 pairs, depending on its function. The function of each connecting block is described in the following paragraphs.

3. FUNCTIONAL DESCRIPTION

A. 78C1A-50 (Fig.5) or 112C1A-50

3.01 This connecting block terminates 50 tie pairs. The pairs are stamped 01 to 50 and up to ten blocks may be installed on each of shelves 1 and 11. The fanning strip is white.

B. 78C1A-64 (Fig. 6) or 112C1A-64

3.02 No. 1 ESS offices with a 4:1 line concentration ratio are terminated on these blocks. Sixteen blocks, each with a capacity of 64 pairs, may be mounted on each of shelves 2 through 10. The fanning strip is yellow.

C. 78C1A-100 (Fig. 7) or 112C1A-100

3.03 One hundred tie pairs are terminated on this block. The pairs are stamped 01 to 00 and up to 10 blocks may be mounted on each of shelves 2 through 10. The fanning strip is white.

D. 78C1B-50 or 112C1B-50

3.04 This block is similar to the 78C1A-50 connecting block (Fig. 5 and paragraph 3.01) or the 112C1A-50 connecting block except the fanning strip is blue which indicates loop cable pairs are terminated on this block.

E. 78C1B-100 or 112C1B-100

3.05 This block is similar to the 78C1A-100 connecting block (Fig. 7 and paragraph 3.03) or the 112C1A-100 connecting block except the fanning strip is blue which indicates loop cable pairs are terminated on this block.

F. 78C1C-100 (Fig. 8)

3.06 One hundred pairs of step-by-step line equipment are terminated on this block. The pairs

are stamped 01 to 00 and up to 10 blocks may be mounted on each of shelves 2 through 10. The fanning strip is orange.

G. 78C2A-50 or 112C2A-50

3.07 This block is similar to the 78C1A-50 connecting block (Fig. 5 and paragraph 3.01) or the 112C1A-50 connecting block except the pairs are stamped 51 to 00. It may be mounted adjacent to a 78C1A-50 or a 112C1A-50 connecting block so that both blocks together represent one 100-pair sequence.

H. 78C2A-64 (Fig. 9) or 112C2A-64

3.08 No. 1 ESS offices with a 2:1 line concentration ratio are terminated on these blocks. Sixteen blocks, each with a capacity of 64 pairs may be mounted on each of shelves 2 through 10. The fanning strip is yellow.

I. 78C2A-100 (Fig. 10)

3.09 One hundred pairs of No. 5 crossbar equipment are terminated on these blocks. Ten blocks may be mounted on each of shelves 2 through 10. Figure 10 shows the stamping format. The fanning strip is green.

J. 78C2B-50 or 112C2B-50

3.10 This block is similar to the 78C1A-50 connecting block (Fig. 5 and paragraph 3.01) or the 112C2B-50 connecting block except the pairs are stamped 51 to 00 and the fanning strip is blue, indicating loop cable pairs are terminated on this block. It may be mounted adjacent to a 78C1B-50 connecting block or a 112C1B-50 connecting block, so that both blocks together represent one 100-pair sequence.

K. 78C3A-100 (Fig. 11)

3.11 No. 1 crossbar line equipment is terminated on this connecting block. It has a capacity of 100

line equipments. Ten blocks may be mounted on each of shelves 2 through 10. The fanning strip is green. The line equipment is designated as column, switch, and vertical. The column number shown in Fig. 11 refers to the column of block terminals; *not* the column of line equipment. Each connecting block is cabled to one column of 100 line equipments.

L. 112C1C-50

3.12 This connecting block terminates No. 3 ESS carrier facilities and miscellaneous circuits on the combined main distributing frame (CMDf). Up to ten blocks may be mounted on shelves 1 and 11. The fanning strip is beige and a flip-gate provides circuit identification.

M. 112C1E-100

3.13 Carrier facilities are terminated on this connecting block on the trunk main distributing main (TMDF). Up to ten connecting blocks can be mounted on each of shelves 2 through 10. The fanning strip is beige and a flip-gate provides circuit identification.

N. 112E1A-64

3.14 Trunk and miscellaneous circuits are terminated on this connecting block on the CMDf. Up to ten connecting blocks can be mounted on each of shelves 1 and 11. The fanning strip is beige and circuit identification is provided by a fixed designation strip.

O. 112E1A-128 (Fig. 12)

3.15 Trunk and miscellaneous circuits are terminated on this connecting block on SMDF/TMDFs and CMDf. Up to ten connecting blocks can be mounted on each of shelves 2 through 10. The fanning strip is beige and a designation strip provides circuit identification.

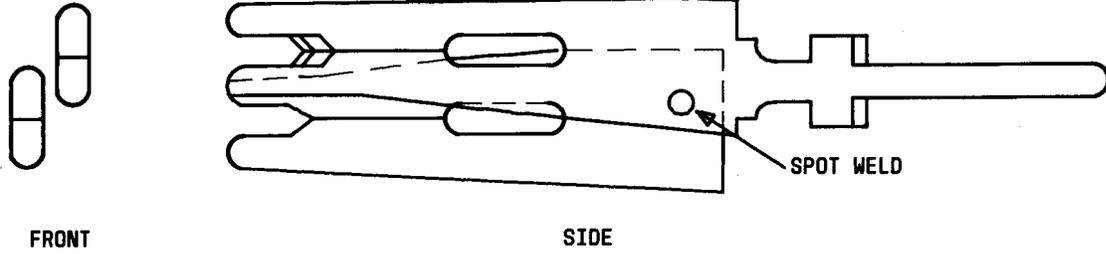


Fig. 1—Views of Terminal Used on 78-Type Connecting Block

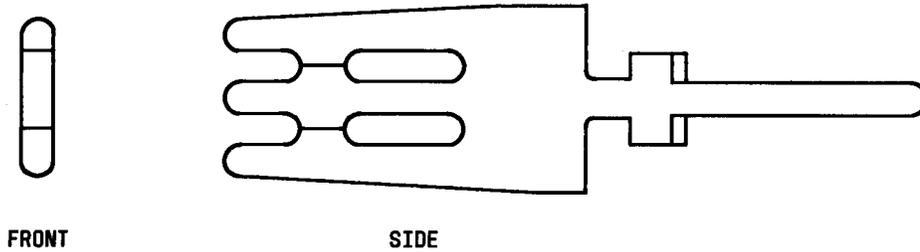


Fig. 2—Views of Terminal Used on 112-Type Connecting Block

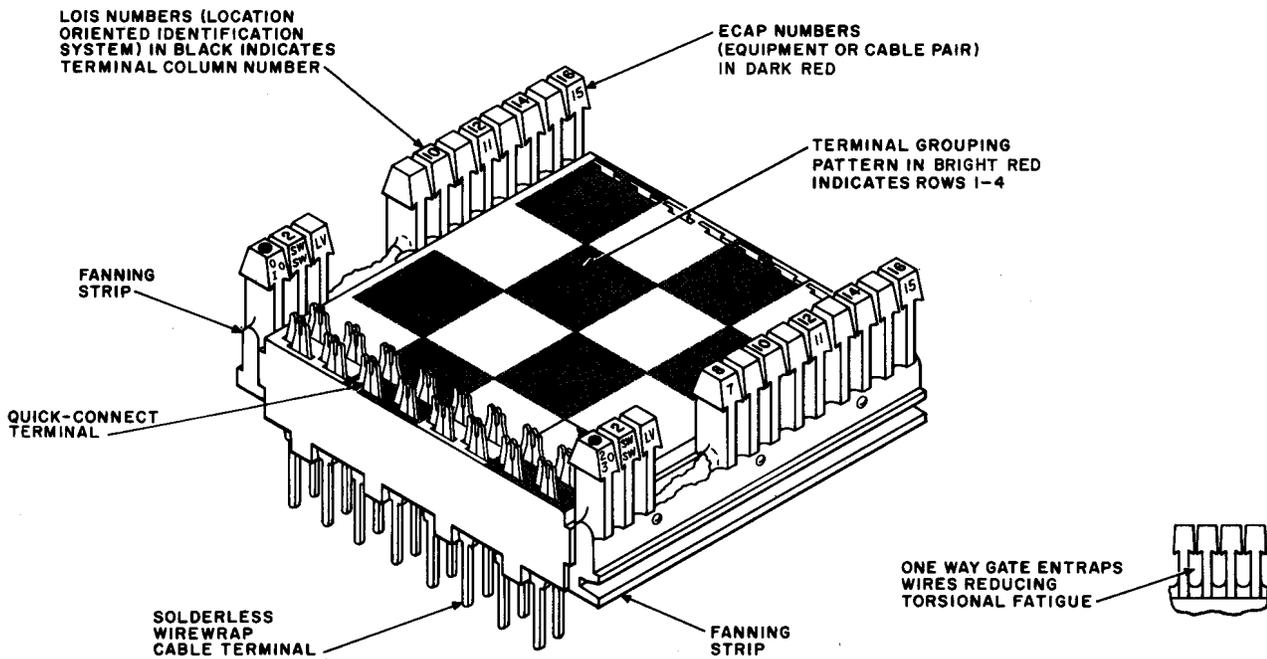
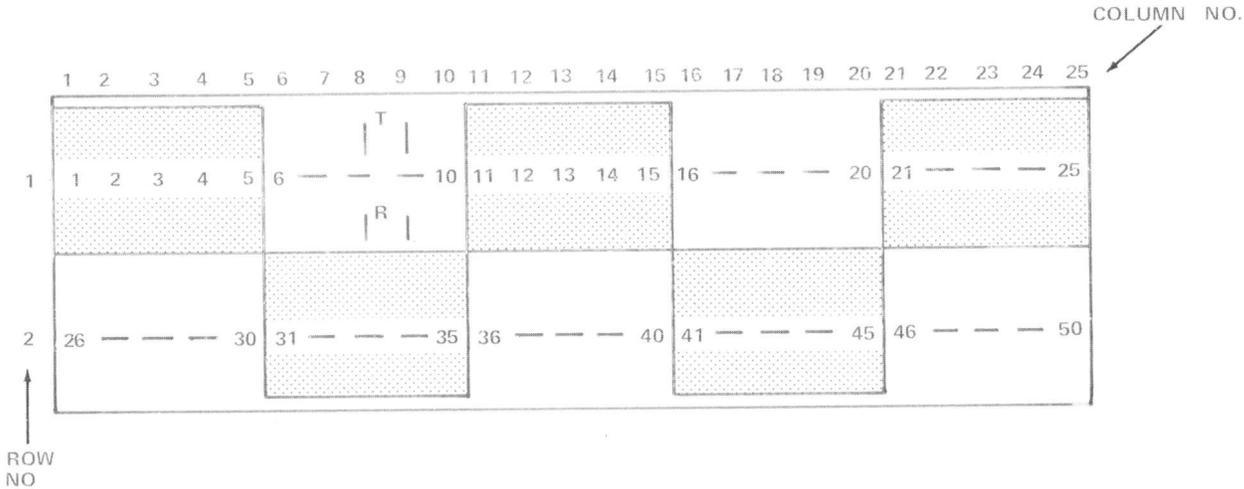
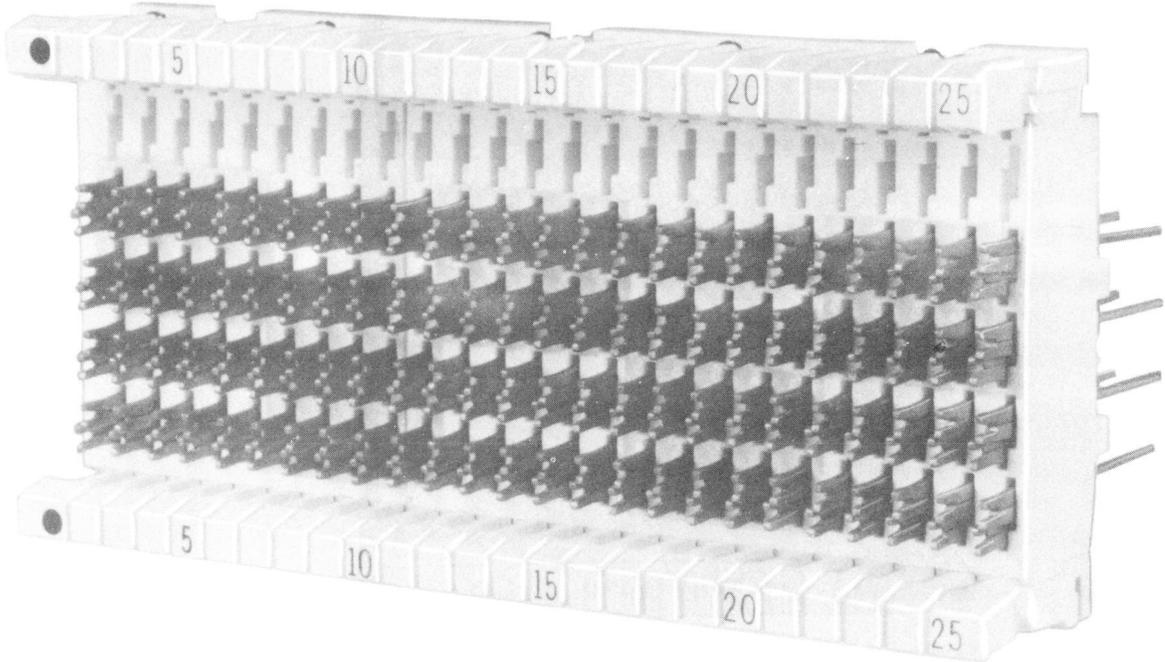
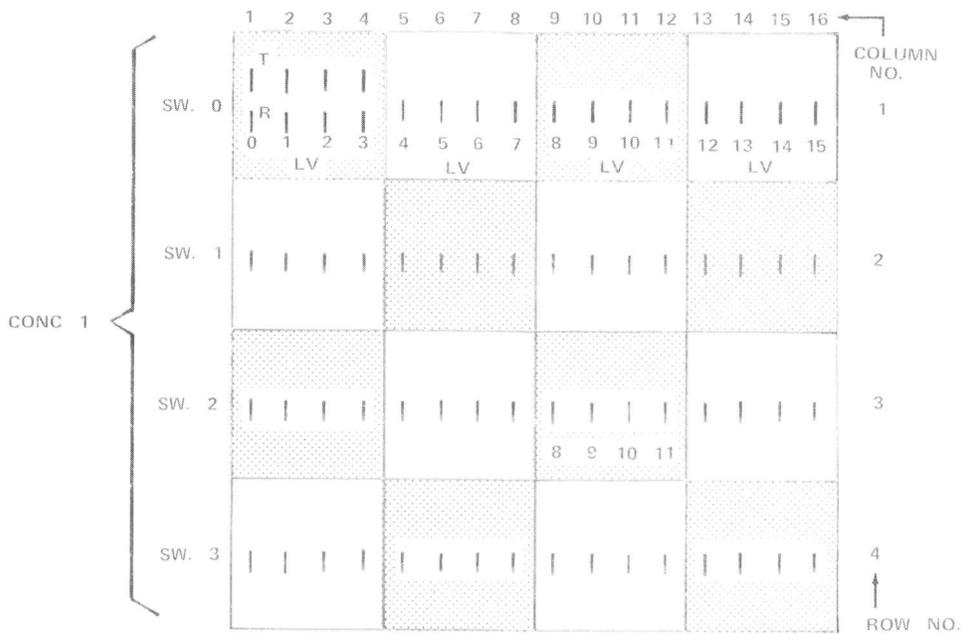
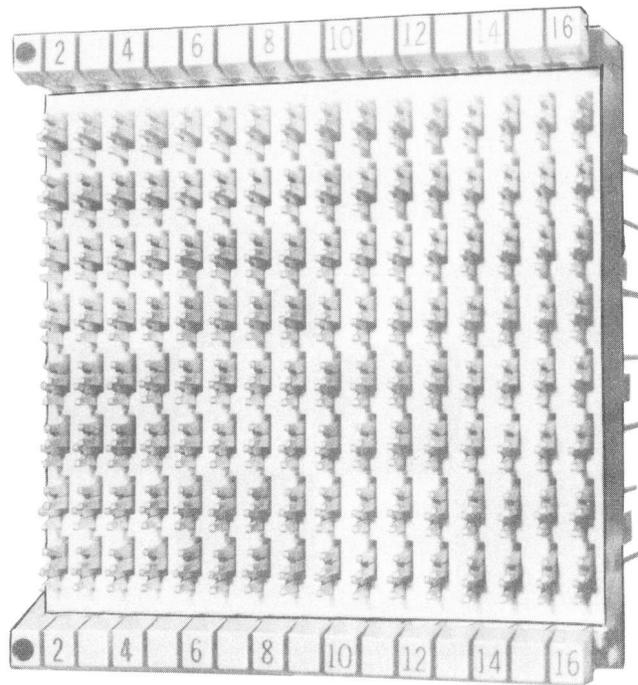


Fig. 3—Connecting Block Features



EXAMPLE: TIE PAIRS NUMBERED 301-350 ARE LOCATED AS SHOWN ABOVE. PAIRS NUMBERED 351 TO 400 ARE ARRANGED IN THE ADJACENT BLOCK IN THE SEQUENCE SHOWN ABOVE. THUS PAIR 362 WILL HAVE THE SAME RELATIVE POSITION IN THE 78C2A-50 BLOCK AS PAIR 312, OR COLUMN 12 AND ROW 1.

Fig. 5—78C1A-50 Connecting Block



NO. 1 ESS EQUIPMENT IS DESIGNATED BY CONCENTRATORS (CONC), SWITCHES (SW) AND LEVELS (LV).

EXAMPLE: CONCENTRATOR 1, SWITCH 2, LEVEL 9 WOULD BE LOCATED IN COLUMN 10 AND ROW 3.

Fig. 6—78C1A-64 Connecting Block

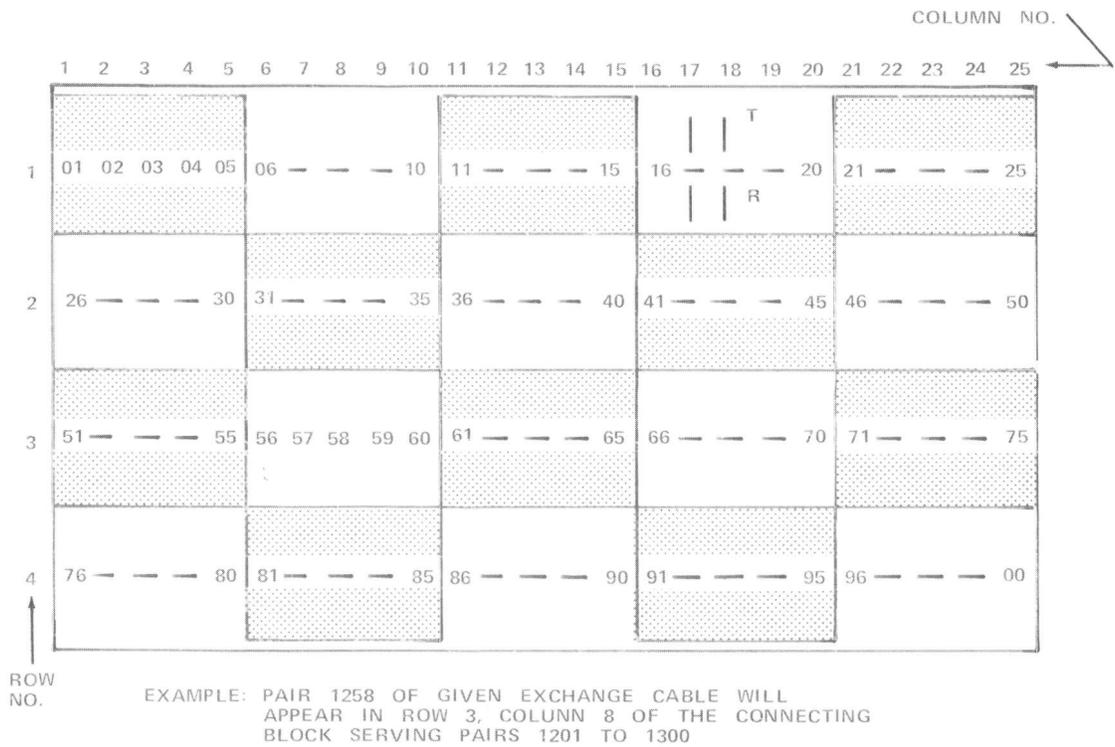
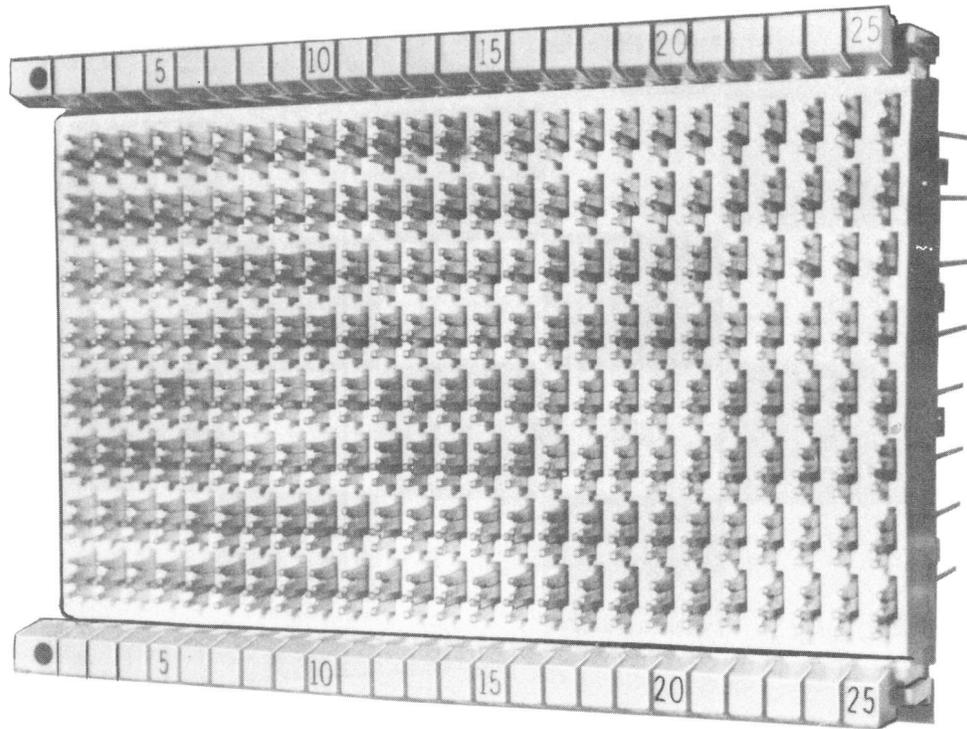
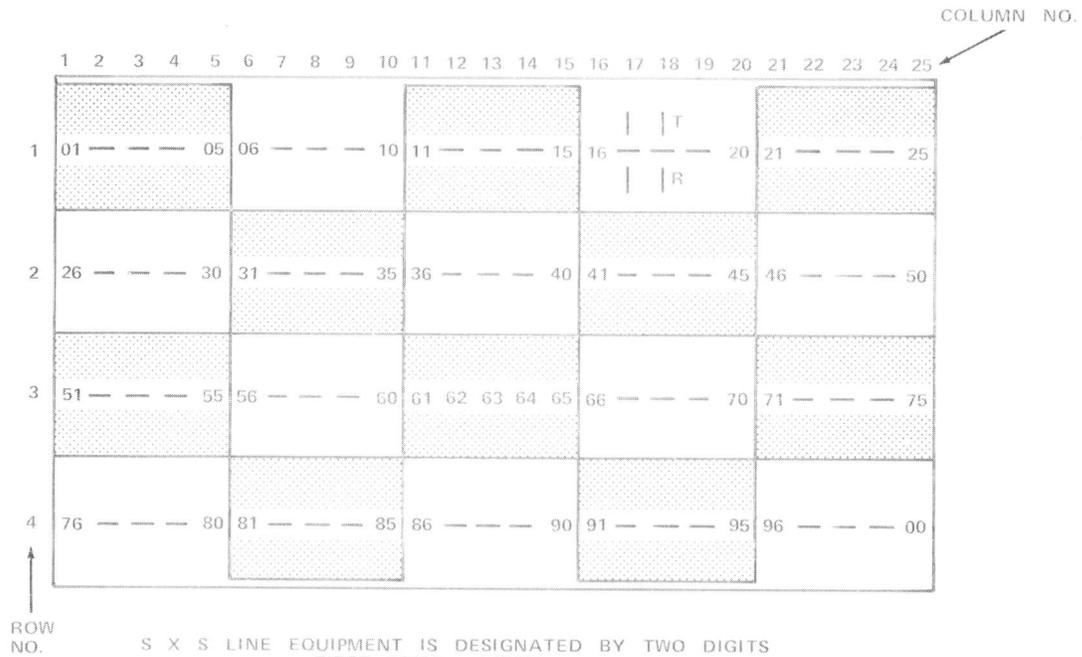
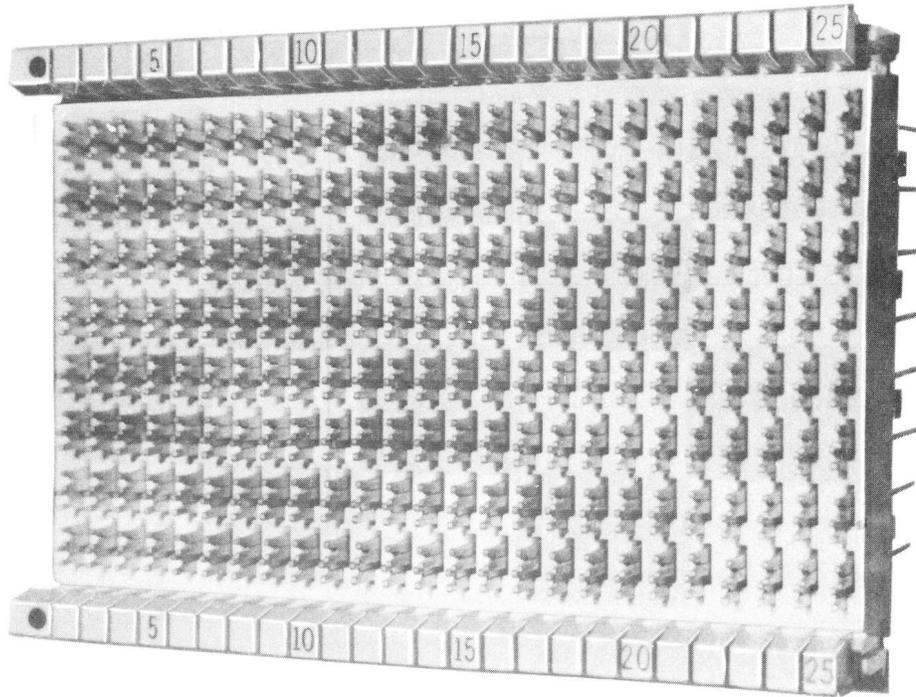


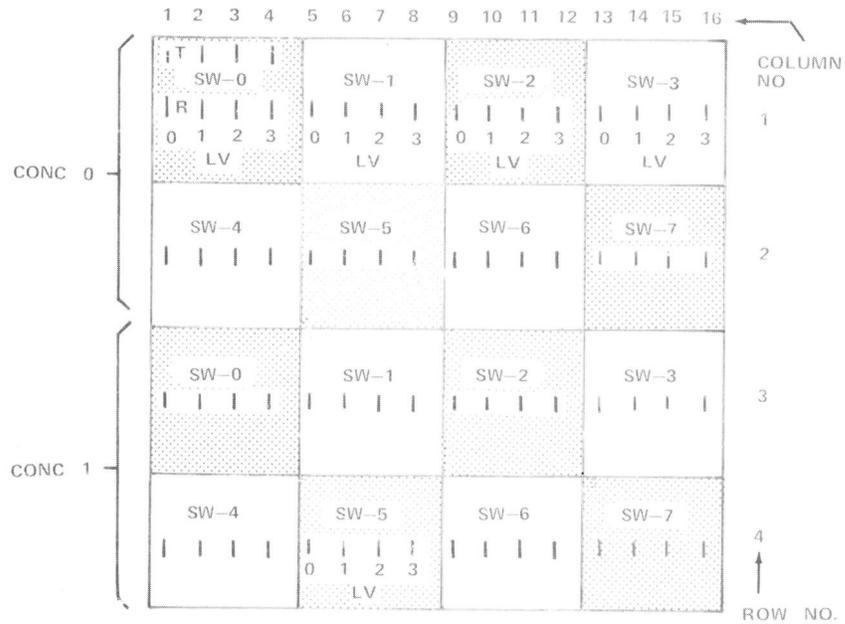
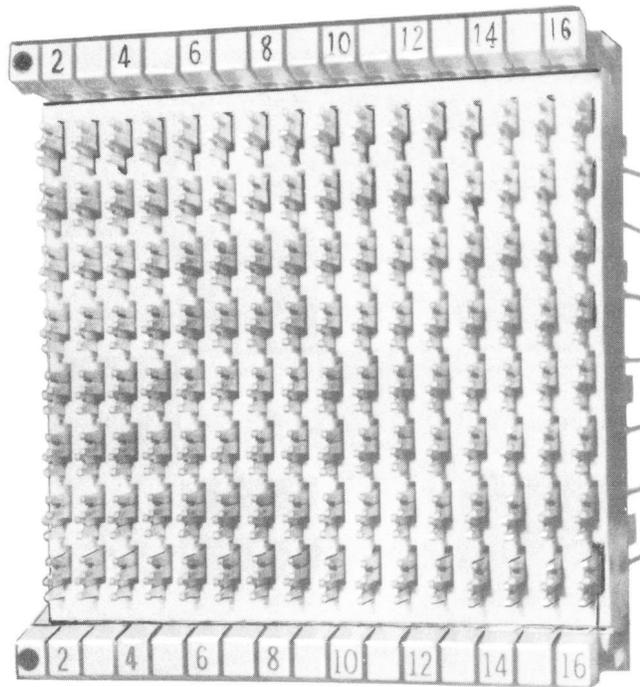
Fig. 7—78C1A-100 Connecting Block



S X S LINE EQUIPMENT IS DESIGNATED BY TWO DIGITS
 FIRST DIGIT - LEVEL
 SECOND DIGIT - TERMINAL

EXAMPLE: LEVEL 6, TERMINAL 4, LINE EQPT. DESIGNATION: 64
 LOCATED IN COLUMN 14 AND ROW 3

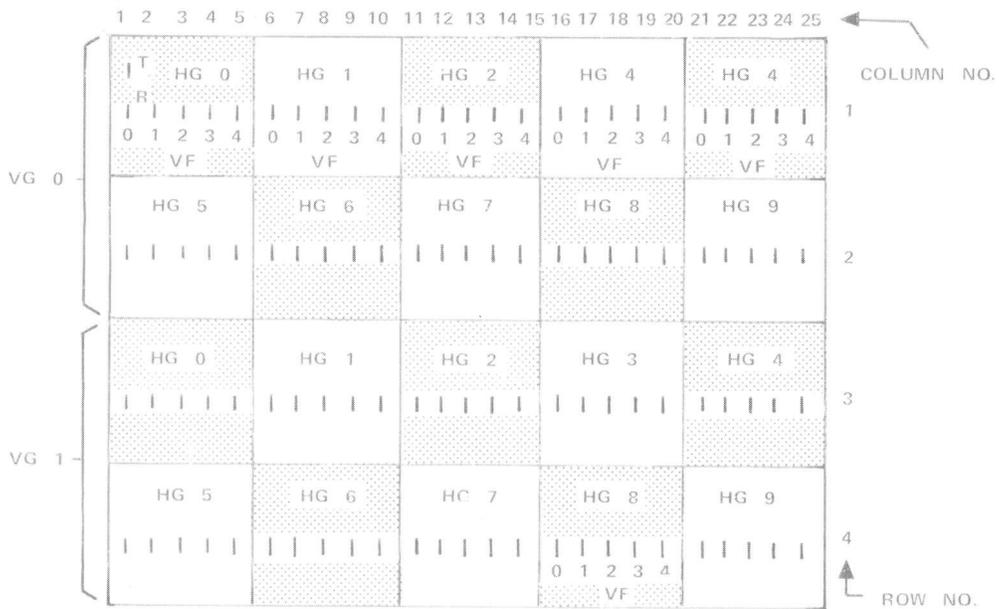
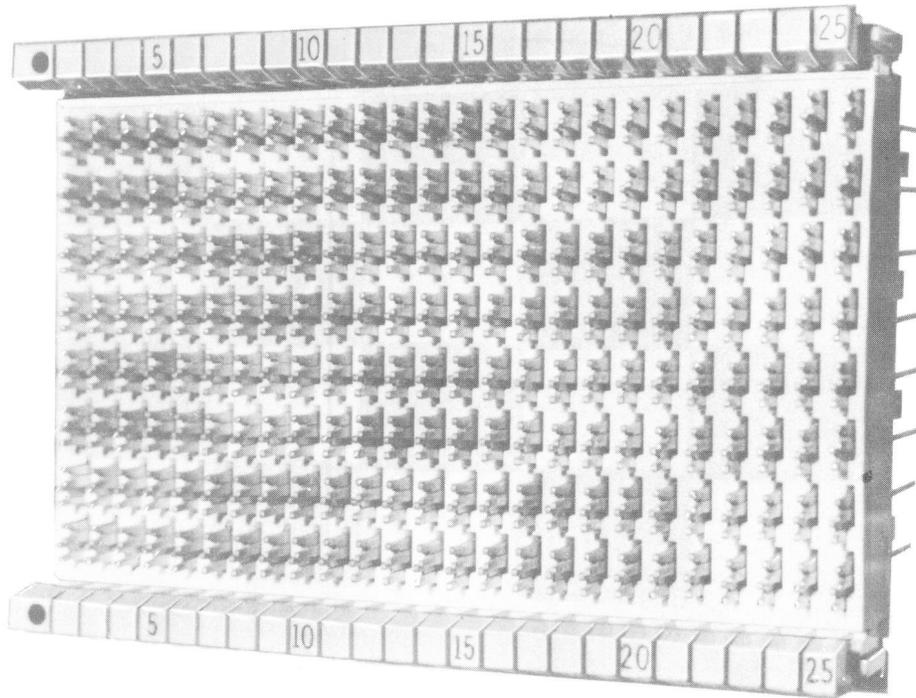
Fig. 8—78C1C-100 Connecting Block



NO. 1 ESS EQUIPMENT IS DESIGNATED BY CONCENTRATORS (CONC), SWITCHES (SW) AND LEVELS (LV).

EXAMPLE: CONCENTRATOR 1, SWITCH 5, LEVEL 3 WOULD BE LOCATED IN COLUMN 8 AND ROW 4.

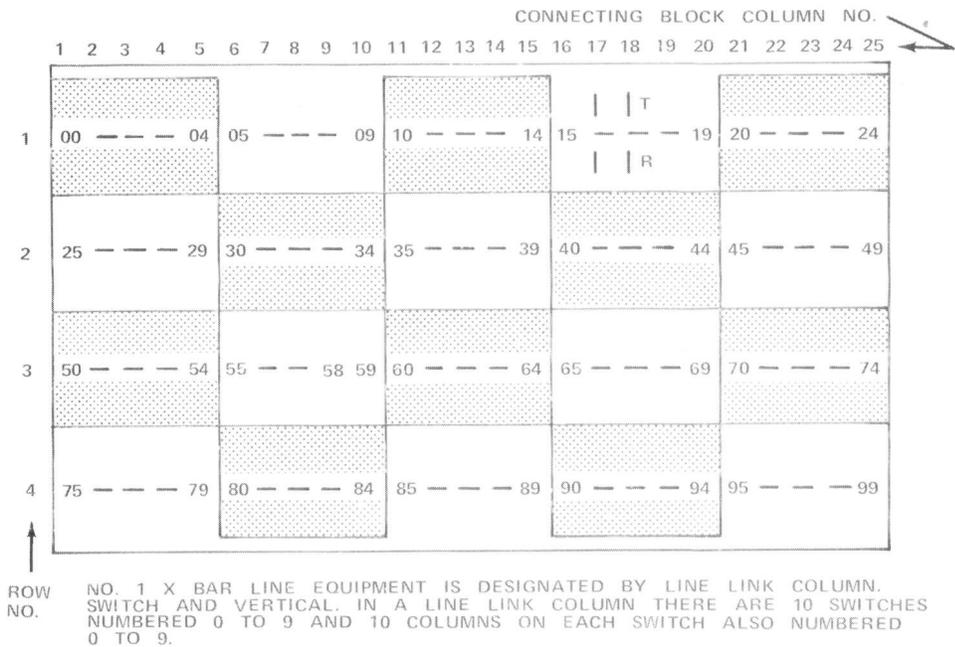
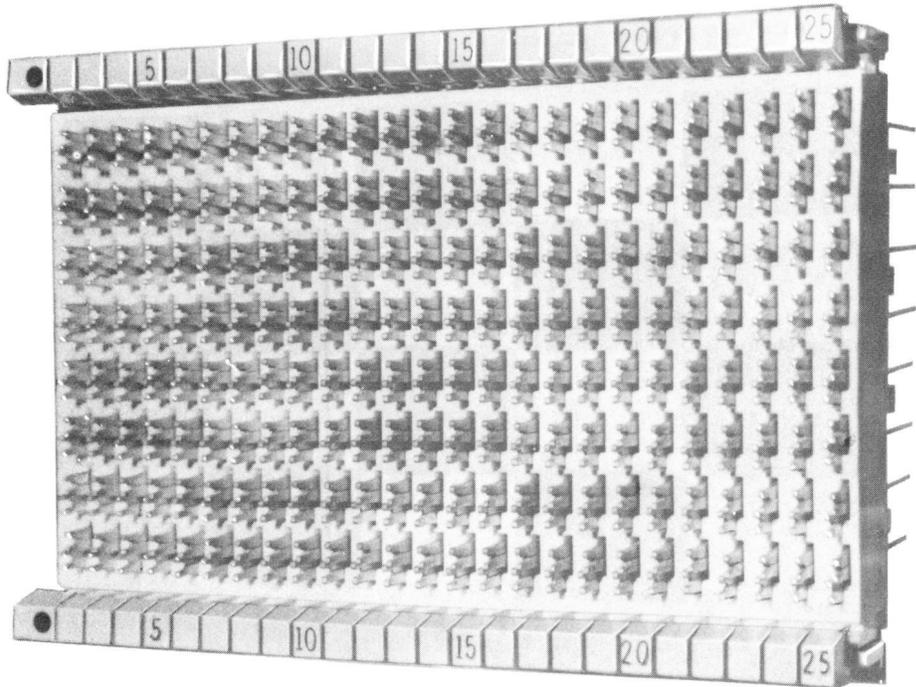
Fig. 9—78C2A-64 Connecting Block



NO. 5 X BAR LINE EQUIPMENT IS DESIGNATED BY VERTICAL GROUPS (VG), HORIZONTAL GROUPS (HG) AND VERTICAL FILES (VF).

EXAMPLE VERTICAL GROUP 1, HORIZONTAL GROUP 8, VERTICAL FILE 3 WOULD BE LOCATED IN COLUMN 19 AND ROW 4

Fig. 10—78C2A-100 Connecting Block



EXAMPLE: IF THIS CONNECTING BLOCK IS CABLED TO COLUMN 65 AND THE LINE ASSIGNMENT IS DESIGNATED AS 65-58 IT WOULD BE LOCATED IN ROW 3, CONNECTING BLOCK COLUMN 9.

Fig. 11—78C3A-100 Connecting Block

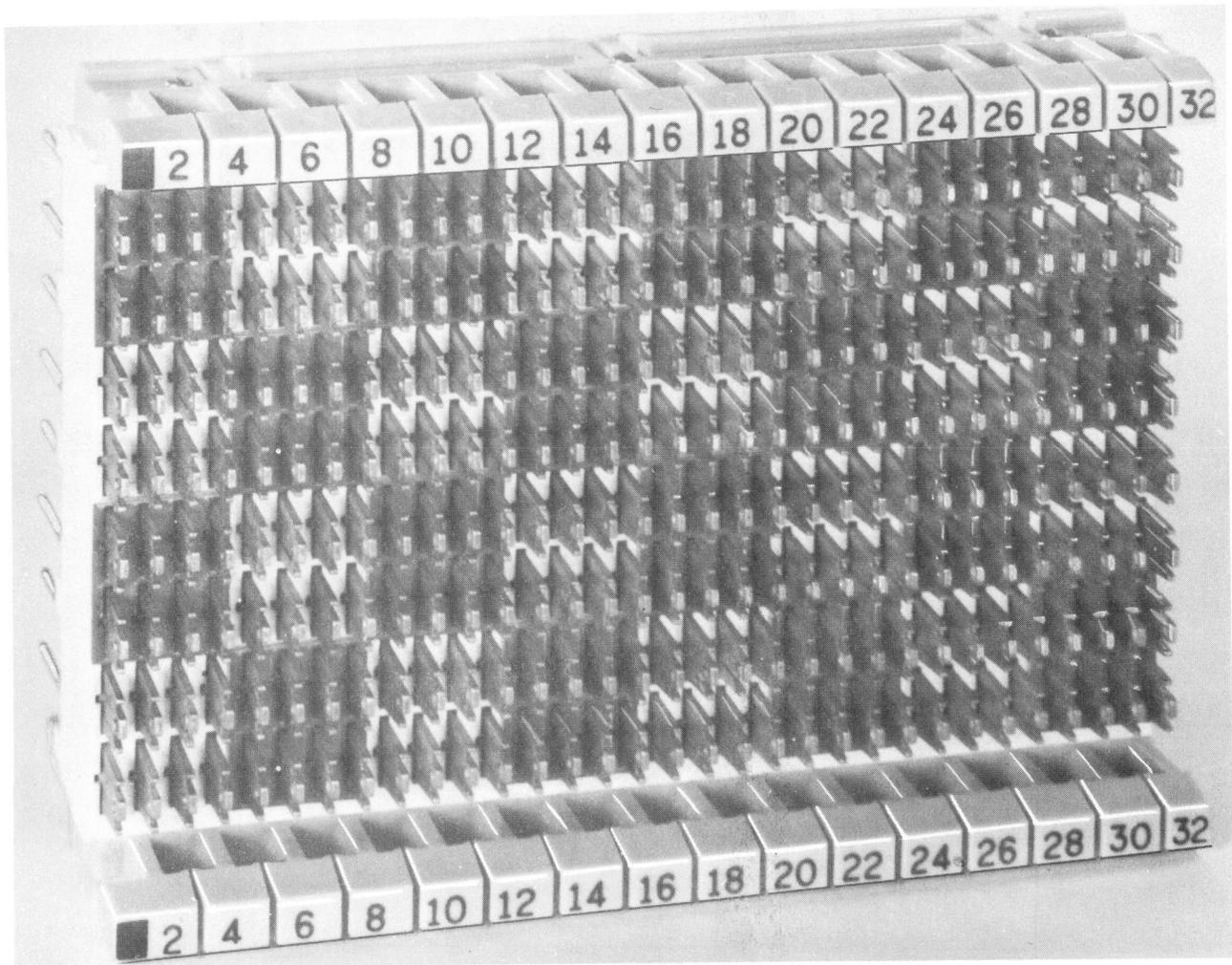


Fig. 12—112E1A-128 Connecting Block