78- AND 112-TYPE CONNECTING BLOCKS
DESCRIPTION AND USE
COSMIC® DISTRIBUTING FRAMES

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1. GENERAL

1.01 This practice describes the 78-and 112-type connecting blocks and their applications on the *COSMIC* I, IA, II, IIA, and II mini distributing frames.

1.02 This practice is reissued as a part of a general restructuring, updating, and combining of the 201-series of practices. This is a general revision and revision arrows are not used. The following practices are combined with this practice:

- 201-222-115
- 201-222-125

1.03 The 78- and 112-type connecting blocks are made of molded plastic. The 78-type connecting block has 2-piece, bifurcated, insulation displacement-type quick-clip terminals and a red and white checkerboard pattern on the front face. The 112-type connecting block has 1-piece, 3-beam, bifurcated, insulation displacement-type quick-clip or wire-wrap terminals and a blue and white checkerboard pattern on the front face. Both types of connecting blocks provide solder-plated wire-wrap terminals for cable terminations on the rear of the blocks.

1.04 The 756C5 and 950C multipurpose wire insertion tools permit mixing high-density 112-type connecting blocks with 78-type connecting blocks used on *COSMIC* distributing frames. These tools replace the 950A, 950B, 756C3, and 756C4. Further information on all the tools used with the 78- and 112-type connecting blocks is contained in AT&T 201-208-103.

1.05 Except for the type of terminal used and the difference in the color of the checkerboard pattern on the front of the block, the 78- and 112-type connecting blocks are identical.

1.06 Procedures for cross-connecting and repairing the connecting blocks are contained in AT&T 201-222-301.

1.07 These connecting blocks are listed by Underwriter's Laboratories as communication circuit accessories for use only with *COSMIC* distributing frames.

2. 78-TYPE CONNECTING BLOCKS

2.01 The 78-type connecting blocks are used with earlier *COSMIC* I and II distributing frames that were installed prior to the availability of the 112-type connecting blocks.

2.02 The 78C-type connecting block is made of molded plastic and utilizes bifurcated, insulation displacement-type, quick-clip terminals for cross-connections at the front of the block. Wire-wrap terminals are located at the rear for cable terminations. The terminals are solder plated.

2.03 The blocks are available in four size ranges:

1. 100 twin-clip terminals arranged in two paired rows and 25 columns for 50-pair terminations used with loop cable and tie cable requirements (Figure 1)

2. 128 twin-clip terminals arranged in four paired rows and 16 columns for 64-pair terminations used for *ESS*™ electronic switch line equipment (Figure 2)

3. 192 twin-clip terminals arranged in four paired rows and 24 columns for 96-pair terminations used with SMAS (Switched Maintenance Access System) 5A.

4. 200 twin-clip terminals arranged in four paired rows and 25 columns for 100-pair terminations used with loop cable, electromechanical switching equipment, and tie pair requirements (Figure 3).

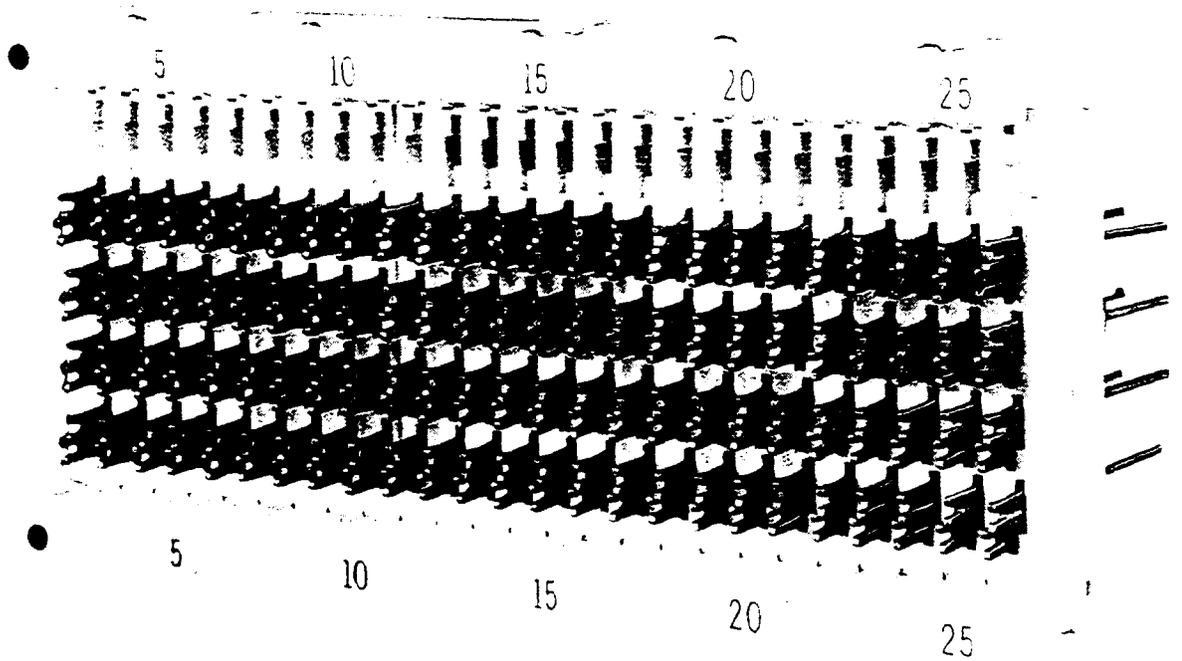


Figure 1—78-Type Connecting Block — 50-Pair Terminal Arrangement

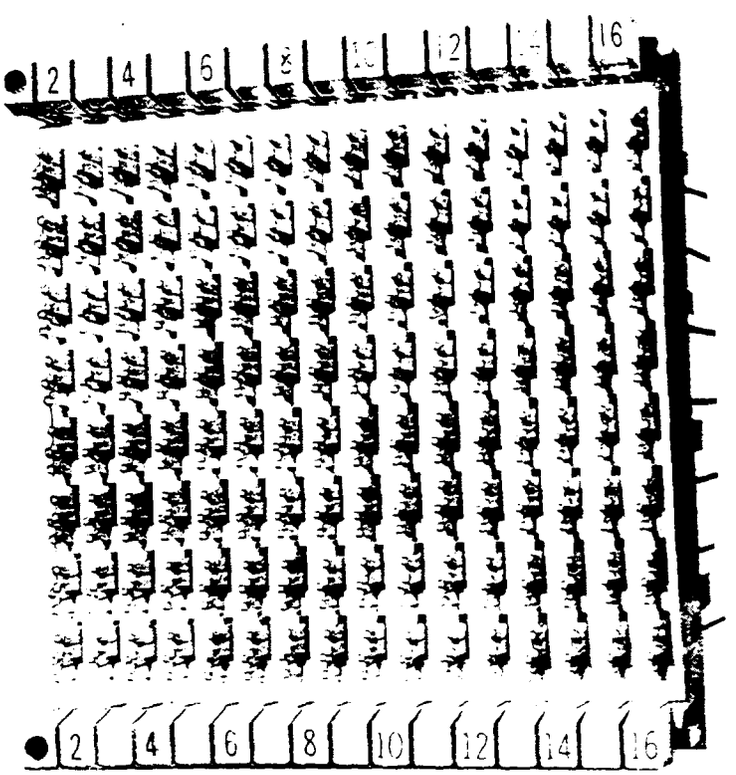


Figure 2—78-Type Connecting Block — 64-Pair Terminal Arrangement

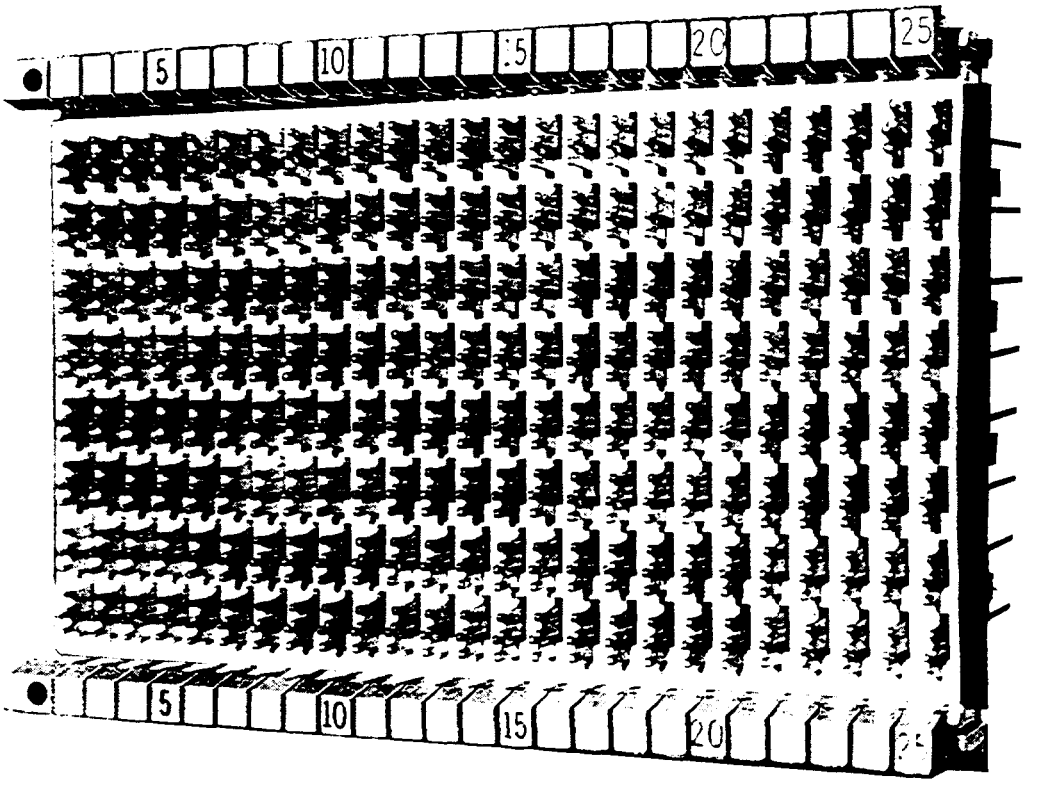


Figure 3—78-Type Connecting Block — 100-Pair Terminal Arrangement

2.04 A red and white checkerboard pattern on the front face of the block designates cable or switching equipment groupings. This pattern also delineates rows of paired terminals. The rear of the block has a grid pattern that groups the terminals in the same fashion as the front to facilitate cable terminations during installation.

2.05 Slotted fanning strips are provided at the top and bottom of the block. These fanning strips are color-coded to indicate the type of equipment being terminated. Color indications are blue for loop pairs, white for tie pairs, yellow for *ESS* and other digital switching equipment, green for crossbar, beige for miscellaneous and trunk applications, violet for SMAS, and orange for step-by-step equipment.

2.06 Hot-stamped column numbers on all 78-type connecting blocks are compatible with the LOIS (Location Oriented Identification System) as it prints out in the COSMOS (Computer System for Main Frame Operations) or AT&T CFAS (Computerized Frame Administration System) computer program. This means increased efficiency in craft jumper running activities.

2.07 The capacities of the 78-type connecting blocks are 50, 64, 96, and 100 pairs as indicated by the last numbers in the product code. For example, 78C1A-50 is a 50-pair connecting block.

2.08 The height and width of the 78-type connecting blocks are:

- All 50-pair blocks are 6.4 inches by 3.1 inches.
- All 64-pair blocks are 4.0 inches by 4.4 inches.
- All 96- and 100-pair blocks are 6.4 inches by 4.4 inches.

2.09 Figure 4 shows the features of the 78-type connecting block; Figure 5 shows the bifurcated, insulation displacement-type, quick-connect terminal; Figures 6, 7, and 8 show the 50-, 64-, and 100-pair terminal arrangements; and Table A lists the various 78-type connecting blocks in application order beginning with tie pairs.

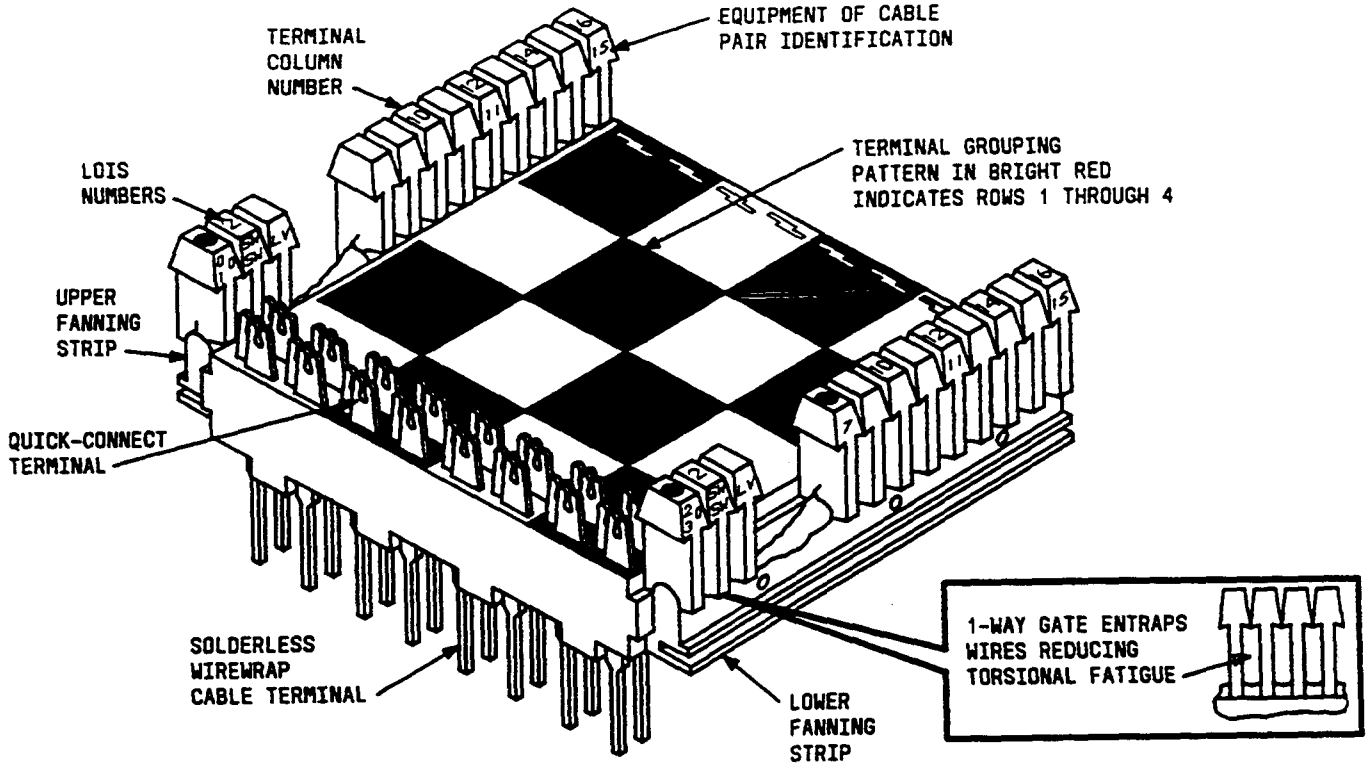


Figure 4—78C-Type Connecting Block Features

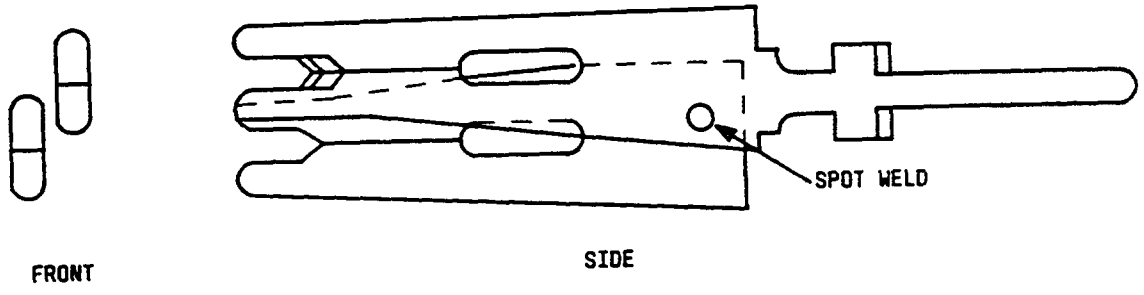


Figure 5—Views of Terminal Used on 78C-Type Connecting Blocks

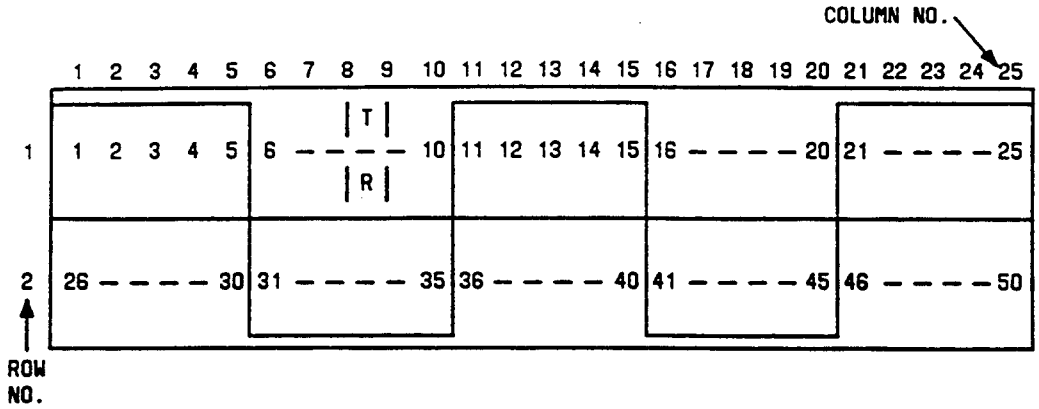
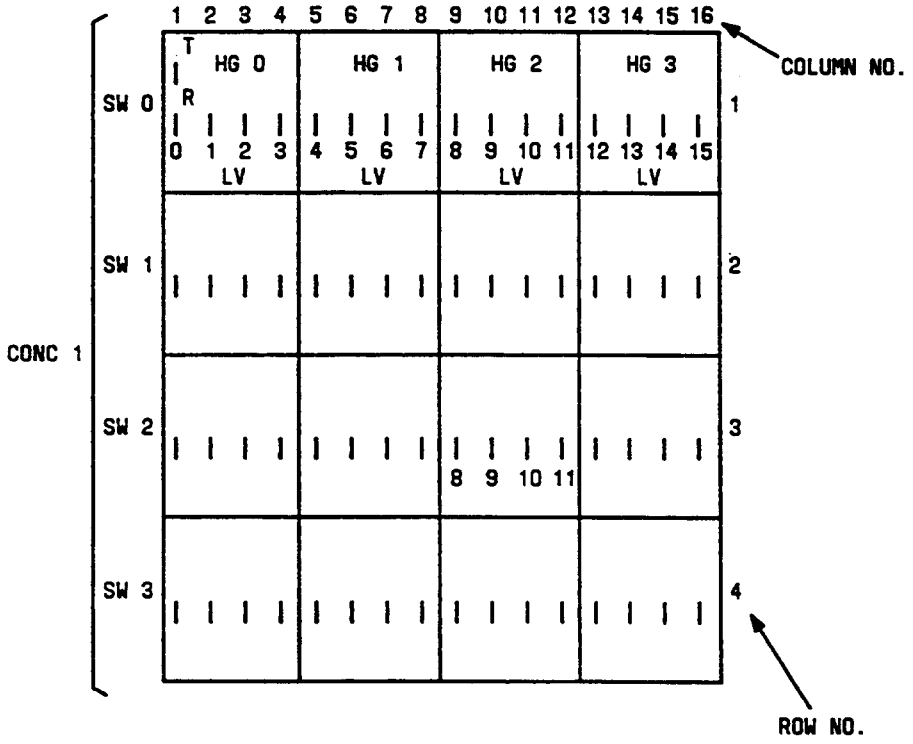


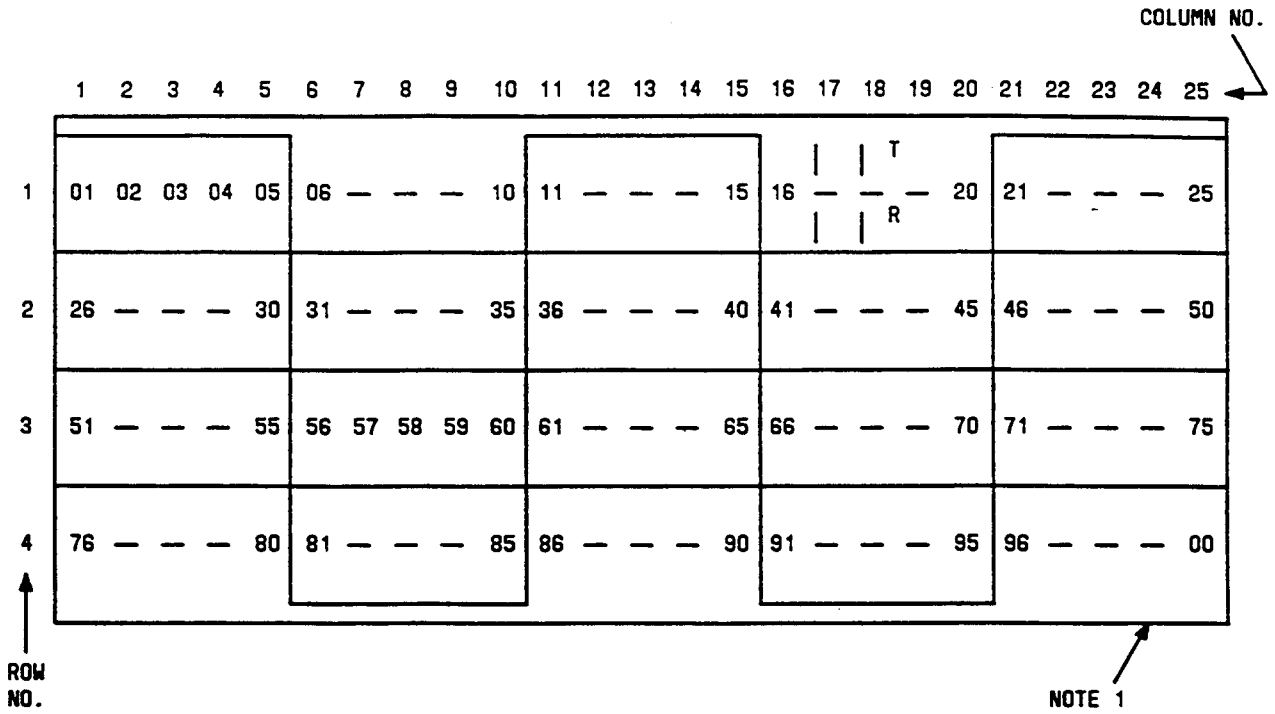
Figure 6—Typical 50-Pair Terminal Arrangement (Example is 78C1A-50)



NOTES:

1. THE 1 "ESS" SWITCH IS DESIGNATED BY CONC (CONCENTRATORS), SW (SWITCHES), AND LV (LEVEL).
2. EXAMPLE: CONCENTRATOR 1, SWITCH 2, LEVEL 9 WOULD BE LOCATED IN COMUMN 10 AND ROW 3.

Figure 7—Typical 64-Pair Terminal Arrangement (Example is 78C1A-64)



NOTE:

1. EXAMPLE: PAIR 1258 OF GIVEN EXCHANGE CABLE WILL APPEAR IN ROW 3. COLUMN 8 OF THE CONNECTING BLOCK SERVING PAIRS 1201 TO 1300.

Figure 8—Typical 100-Pair Terminal Arrangement (Example is 78C1A-100)

TABLE A

78-TYPE CONNECTING BLOCKS

APPLICATION	APPLICATION NOTES	*COSMIC* SHELF NO.	TERMINAL TYPE	ROW AND COLUMN FIELD	FANNING STRIP COLOR	ITEM CODE NUMBER	COMCODE
Tie pairs (1-50)	Both blocks must be ordered to terminate a 100-pair cable.	1, 11	BQC	4 x 25	White	78C1A-50	102371770
Tie pairs (51-100)		1, 11	BQC	4 x 25	White	78C2A-50	102995198
Tie pairs (1-100)		2-10	BQC	8 x 25	White	78C1A-100	102371796
Outside plant pairs (1-50)	Both blocks must be ordered to terminate a 100-pair cable. Used on *COSMIC* I or IA (supplied as part of 307B1-100 connector for *COSMIC* II or IIA).	1, 11	BQC	4 x 25	Blue	78C1B-50	102463486
Outside plant pairs (51-100)		1, 11	BQC	4 x 25	Blue	78C2B-50	102995206
Outside plant pairs (1-100)	Used on *COSMIC* I or IA (supplied as part of 307A1-100 connector for *COSMIC* II or IIA).	2-10	BQC	8 x 25	Blue	78C1B-100	102371804
1/1A *ESS*™ (4:1 LCR) line equip.		2-10	BQC	8 x 16	Yellow	78C1A-64	102371788
1/1A *ESS* (2:1, 4:1 LCR), *5ESS*® (4:1-10:1 LCR)—line equip.		2-10	BQC	8 x 16	Yellow	78C2A-64	102371838
5ESS ISLU or RISLU (2-wire), *DMS**-10/100 — line equip.		2-10	BQC	8 x 16	Yellow	78C2F-64	104017355
5ESS ISLU or RISLU (4-wire) line equip.		2-10	BQC	8 x 16	Yellow	78C3F-64	104404926
1/1A *ESS* (2:1 LCR), 2/2B *ESS*, *5ESS* (4:1-10:1 LCR) — line equip.		2-10	BQC	8 x 16	Yellow	78G1B-64	104411657
AXE† -10 line equip. (line interface cards 0-63)	Both blocks must be ordered to terminate a 128-pair cable in a switch module.	2-10	BQC	8 x 16	Yellow	78E3F-64	104432703
AXE-10 line equip. (line interface cards 64-127)		2-10	BQC	8 x 16	Yellow	78E4F-64	104432711
SMAS 5A (facility side) quadrant A		2-10	BQC	8 x 24	Violet	78C1A-96	103679551

* Trademark of Northern Telecom LTD.
† Trademark of Ericsson.

TABLE A (Contd)

78-TYPE CONNECTING BLOCKS

APPLICATION	APPLICATION NOTES	*COSMIC* SHELF NO.	TERM-INAL TYPE	ROW AND COLUMN FIELD	FAN-NING STRIP COLOR	ITEM CODE NUMBER	COMCODE
SMAS 5A (facility side) quadrant B		2-10	BQC	8 x 24	Violet	78C2A-96	103679569
SMAS 5A (facility side) quadrant C		2-10	BQC	8 x 24	Violet	78C3A-96	103679577
SMAS 5A (facility side) quadrant D		2-10	BQC	8 x 24	Violet	78C4A-96	103679585
SMAS 5B (facility side) (00-49)		2-10	BQC	8 x 25	Violet	78C4A-100	103679593
SMAS 5B (facility side) (50-99)		2-10	BQC	8 x 25	Violet	78C5A-100	103679601
Trunk and Misc Equipment	Used on *COSMIC* I	2-10	BQC	8 x 16	Beige	78E1-64	106005796
Trunk and Misc Equipment	Used on *COSMIC* I	2-10	BQC	8 x 16	Beige	78E1A-64	106005804
Misc applications, *SLC*®-96 carrier, shielded tie pairs		2-10	BQC	8 x 25	Beige	78C2E-100	103815528
No. 5 crossbar line equip.		2-10	BQC	8 x 25	Green	78C2A-100	102415882
No. 1 crossbar line equip.		2-10	BQC	8 x 25	Green	78C3A-100	102730462
Step-by-step line equip.		2-10	BQC	8 x 25	Orange	78C1C-100	102371812

Note: The following abbreviations are used in this table:

BQC = Bifurcated Quick Clip
ESS = Electronic Switching System
LCR = Line Concentration Ratio (:)
SMAS = Switched Maintenance Access System
ISLU = Integrated Service Line Unit
RISLU = Remote Integrated Service Line Unit.

3. ASSOCIATED EQUIPMENT FOR 78-TYPE CONNECTING BLOCK

Tools and Aids (Practice 201-208-103)

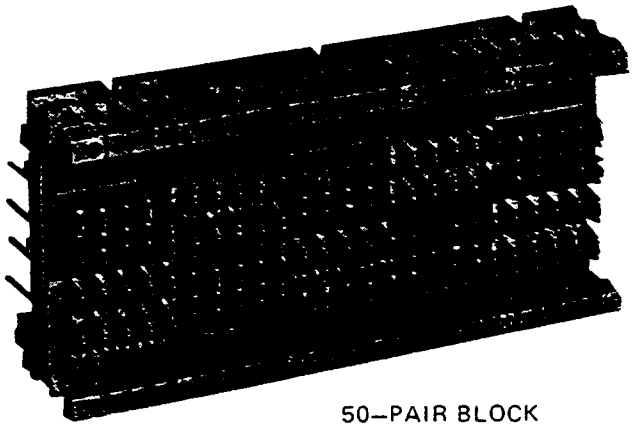
756C3	Wire Insertion Tool (Comcode 104012018)
756C4	Wire Insertion Tool (Comcode 104378351)
756C5	Multipurpose Quick-Clip Wire Insertion Tool (Comcode 105564827)
756C5-1	Replacement Bit for 756C3, 756C4, and 756C5 Tools (Comcode 105611545)
950A	Cutoff/Insertion/Removal Tool (Comcode 103318614)
950B	Cutoff/Insertion/Removal Tool (Comcode 104378369)
950C	Multipurpose Quick-Clip Wire Insertion Tool (Comcode 105564835)
950C-1	Replacement Bit for 950A, 950B, and 950C Tools (Comcode 105611537)
KS-21345,L2	Block Removal Tool (Comcode 403205008)
KS-22616,L1	Block Removal Tool (Comcode 402757173)

Indicators and Insulators (Practice 201-208-106)

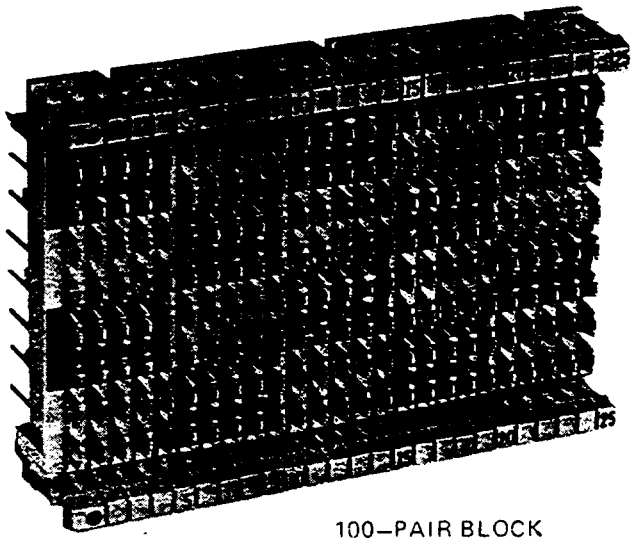
KS-6660 Indicator (Comcode 996698239)
KS-16847 Indicator (Comcode 997726088)
C Clip (AT-8300) Insulator (Comcode 400152005)
D Clip (AT-8301) Insulator (Comcode 400152013)

4. 112-TYPE CONNECTING BLOCKS

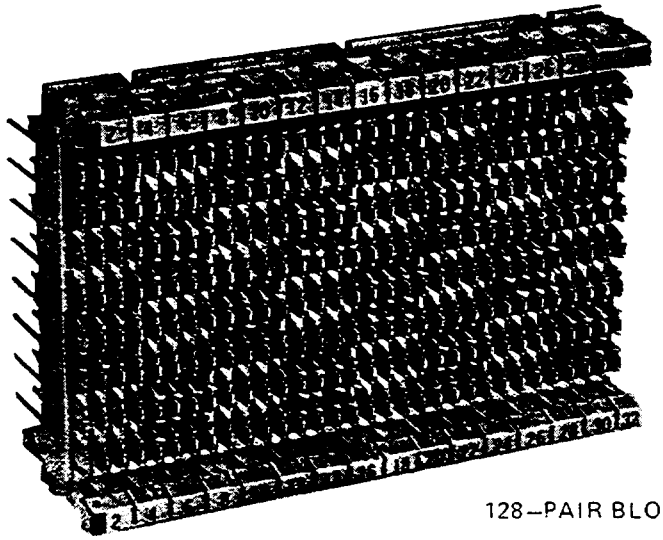
4.01 The 112-type connecting blocks (Figure 9) are designed for use with all AT&T *COSMIC* Distributing Frame Systems. These connecting blocks are a molded plastic design with bifurcated insulation displacement-type quick-clip or wire-wrap terminals. The front of the block is used for jumper cross-connections. Wire-wrap terminals for cable terminations are located at the rear of the block. The terminals are solder plated.



50–PAIR BLOCK



100–PAIR BLOCK



128–PAIR BLOCK

Figure 9—112-Type Connecting Blocks — 50-, 100-, and 128-Pair Terminal Arrangement

4.02 The blue and white checkerboard patterns on the front face of the 112-type connecting blocks delineate rows of paired terminals, which facilitate jumper running and minimize parallax.

4.03 Color-coded fanning strips clearly denote the connecting block function for quick, easy identification. Factory hot-stamping saves time by eliminating the need for costly stenciling in the field. Snap-in mountings make installation easy, and locking snap-through fanning strips provide strain relief protection against jumper wire breakage. The fanning strip color indications are blue for loop pairs, white for tie pairs, yellow for *ESS* and other digital switching equipment, green for crossbar, beige for miscellaneous and trunk applications, violet for SMAS, and orange for step-by-step equipment.

4.04 Hot-stamped column numbers on all 112-type connecting blocks are compatible with the LOIS (Location Oriented Identification System) as it prints out in the COSMOS (Computer System for Main Frame Operations) or AT&T CFAS (Computerized Frame Administration System) computer program. This means increased efficiency in craft jumper running activities.

4.05 Codes of the AT&T 112-type connecting blocks are available for virtually all central office switching applications, including AT&T's 1, 1A, 2, 2B, 3, and *5ESS*® Switching Systems, Northern Telecom *DMS** -100 System, and GTE *GTD*† -5 EAX Switches, Ericsson *AXE*-10‡, and Plessey *SYSTEM X*§.

4.06 High-density 112H-type connecting blocks are available for OSP and tie-pair terminations on *COSMIC* frames (*COSMIC* IA, IIA, and *COSMIC* Custom IA/IIA half modules). They provide 12,000 tie-pair density in each module while maintaining 100-pair complement numbers. These blocks also permit termination of 12,000 OSP pairs in each *COSMIC* IA facility module.

4.07 In prewired 307-type connector assemblies, where the 112-type connecting block is supplied as part of the 307-type connector, the high-density blocks provide 10,200 outside plant terminations and permit an additional 1,800 tie pairs on derived carrier terminations in each *COSMIC* IIA facility module.

4.08 Preprinted block labels for some of the more common circuits are available to make circuit identification simpler and more accurate.

4.09 The capacities of the 112-type connecting blocks are 50, 64, 96, 100, and 128 pairs as indicated by the last numbers in the product code. For example, 112C1A-50 is a 50-pair connecting block.

4.10 The height and width of the 112-type connecting blocks are:

- All 50-pair blocks are 6.4 inches by 3.1 inches, except the H-type 50-pair blocks that are 5.3 inches by 3.1 inches.
- All 64-pair blocks are 4.0 inches by 4.4 inches, except the 112E1A-64 that is 6.4 inches by 3.1 inches.
- All 96-, 100-, and 128-pair blocks are 6.4 inches by 4.4 inches, except the H-type 100-pair blocks that are 5.3 inches by 4.4 inches.

4.11 Figure 10 shows the features of the 112-type connecting block; Figure 11 shows the bifurcated insulation displacement-type, quick-clip terminal; and Table B lists the various 112-type connecting blocks in application order beginning with tie pairs.

* Trademark of Northern Telecom Ltd.

† Trademark of GTE.

‡ Trademark of Ericsson.

§ Trademark of Plessey.

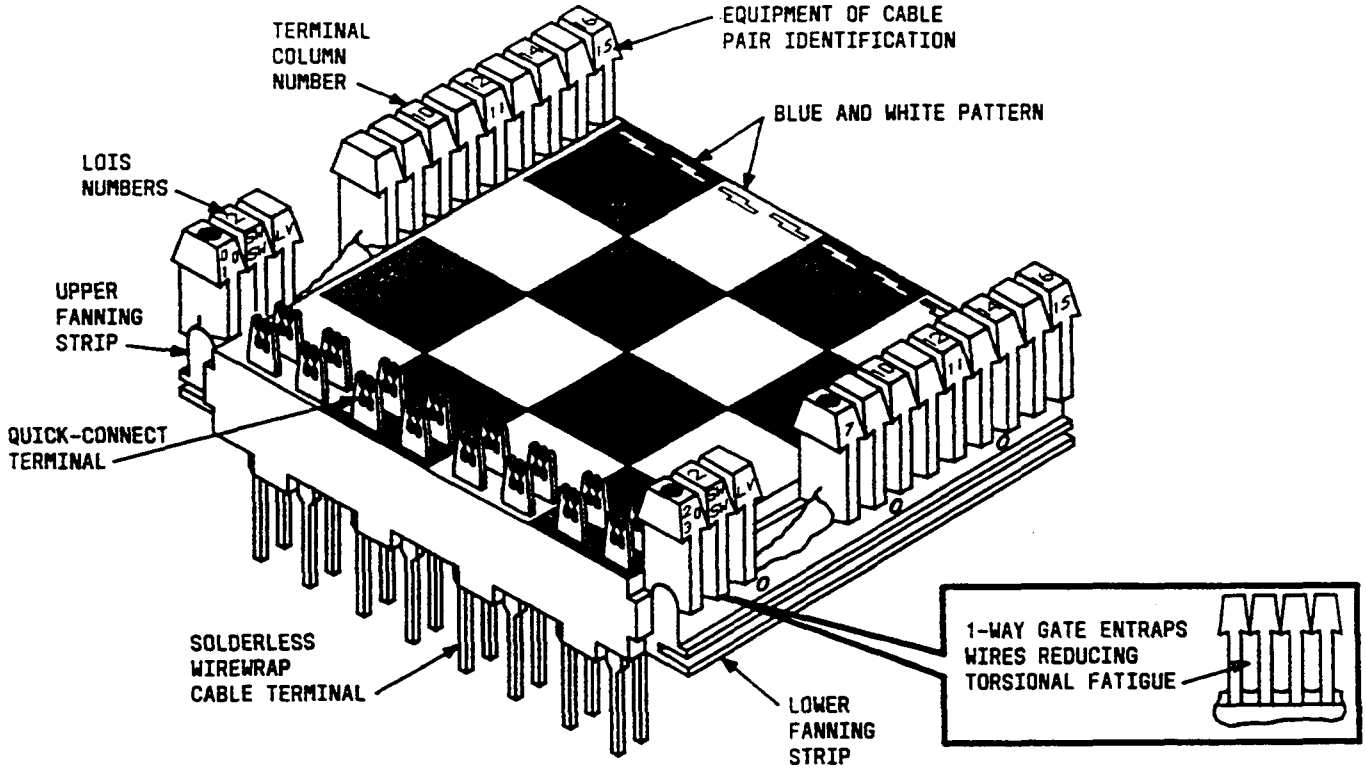


Figure 10—112-Type Connecting Block Features

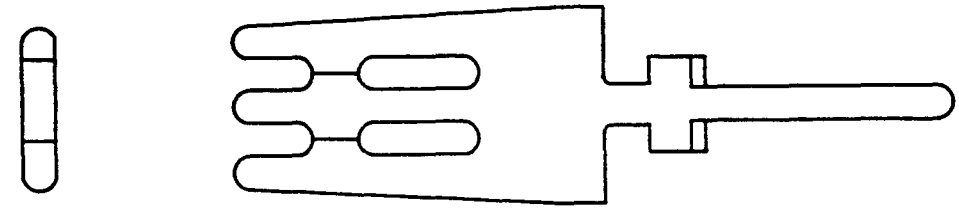


Figure 11—Views of Quick-Clip Terminal Used on 112-Type Connecting Block

TABLE B

112-TYPE CONNECTING BLOCKS

APPLICATION	APPLICATION NOTES	*COSMIC* SHELF NO.	TERM-INAL TYPE	ROW AND COLUMN FIELD	FAN-NING STRIP COLOR	ITEM CODE NUMBER	COMCODE
Tie pairs (1-50)	Both blocks must be ordered to terminate a 100-pair cable.	1, 11	BQC	4 x 25	White	112C1A-50	103288197
Tie pairs (51-100)		1, 11	BQC	4 x 25	White	112C2A-50	103288254
Tie pairs (1-100)		2-10	BQC	8 x 25	White	112C1A-100	103288189
Tie pairs (1-50)	Both blocks must be ordered to terminate a 100-pair cable.	1, 11	SWW	4 x 25	White	112C1AS-50	104440896
Tie pairs (51-100)		1, 11	SWW	4 x 25	White	112C2AS-50	104447669
Tie pairs (1-100)		2-10	SWW	8 x 25	White	112C1AS-100	104440888
Tie pairs (1-64)*		1, 11	BQC	4 x 32	White	112E1B-64	103317913
Tie pairs (1-128)		2-10	BQC	8 x 32	White	112E1D-128	103634879
Tie Pairs (1-128) (Interconnecting Equipment)		2-10	BQC	8 x 32	White	112E2D-128	106005838
Tie Pairs (129-256) (Interconnecting Equipment)		2-10	BQC	8 x 32	White	112E3D-128	106005846
Tie Pairs (257-384) (Interconnecting Equipment)		2-10	BQC	8 x 32	White	112E4D-128	106005853
Tie Pairs (385-512) Interconnecting Equipment)		2-10	BQC	8 x 32	White	112E5D-128	106005994
Tie pairs (1-50)	Used on *COSMIC* IA/IIA*.	1, 11	BQC	4 x 25	White	112H1D-50	104052097
Tie pairs (1-100)	Used on *COSMIC* IA/IIA.*	2-10	BQC	8 x 25	White	112H1D-100	104052089
Tie pairs (1-50)	Used on *COSMIC* IA/IIA.*	1, 11	SWW	4 x 25	White	112H1DS-50	104447792
Tie pairs (1-100)	Used on *COSMIC* IA/IIA.*	2-10	SWW	8 x 25	White	112H1DS-100	104447784
Tie pairs (51-100)	Used on *COSMIC* IA/IIA.*	1, 11	BQC	4 x 25	White	112H2D-50	104052113
Tie pairs (51-100)	Used on *COSMIC* IA/IIA.*	1, 11	SWW	4 x 25	White	112H2DS-50	104447800

* Shelf adapters required for use on *COSMIC* I/II frames per ED-6C142-30, Group 3 (shelves 2-10) and Group 4 (shelves 1 and 11).

TABLE B (Contd)

112-TYPE CONNECTING BLOCKS

APPLICATION	APPLICATION NOTES	*COSMIC* SHELF NO.	TERM-INAL TYPE	ROW AND COLUMN FIELD	FAN-NING STRIP COLOR	ITEM CODE NUMBER	COMCODE
Outside plant pairs (1-50)	Both blocks must be ordered to terminate a 100-pair cable. Used on *COSMIC* I or IIA (supplied as part of 307E1-100 connector for *COSMIC* II or IIA).	1, 11	BQC	4 x 25	Blue	112C1B-50	103288221
Outside plant pairs (51-100)		1, 11	BQC	4 x 25	Blue	112C2B-50	103288270
Outside plant pairs (1-100)	Used on *COSMIC* 1 or 1A (supplied as part of 307D1S-100 connector for *COSMIC* II or IIA).	2-10	BQC	8 x 25	Blue	112C1B-100	103288213
Outside plant pairs (1-50)	Both blocks must be ordered to terminate a 100-pair cable. Used on *COSMIC* I or IA (supplied as part of 307E1B-100 connector for *COSMIC* II or IIA).	1, 11	BWW	4 x 25	Blue	112C1BB-50	104440912
Outside plant pairs (51-100)		1, 11	BWW	4 x 25	Blue	112C2BB-50	104447677
Outside plant pairs (1-100)	Used on *COSMIC* I or IA (supplied as part of 307D1B-100 connector for *COSMIC* II or IIA).	2-10	BWW	8 x 25	Blue	112C1BB-100	104440904
Outside plant pairs (1-50)	Both blocks must be ordered to terminate a 100-pair cable. Used on *COSMIC* I or IA (supplied as part of 307E1S-100 connector for *COSMIC* II or IIA).	1, 11	SWW	4 x 25	Blue	112C1BS-50	104447644
Outside plant pairs (51-100)		1, 11	SWW	4 x 25	Blue	112C2BS-50	104447685
Outside plant pairs (1-100)	Used on *COSMIC* I or IA (supplied as part of 307D1S-100 connector for *COSMIC* II or IIA).	2-10	SWW	8 x 25	Blue	112C1BS-100	104448766
Outside plant pairs (1-50) (folded *COSMIC* IIA)	Wired to two 25-pair 711-type connectors. Nonstock Item.	1, 11	BQC	4 x 25	Blue	112G1B-50	104016886
Outside plant pairs (1-100) (folded *COSMIC* IIA)	Wired to four 25-pair 711-type connectors. Nonstock Item.	2-10	BQC	8 x 25	Blue	112G1B-100	104016878
Outside plant pairs (51-100) (folded *COSMIC* IIA)	Wired to two 25-pair 711-type connectors. Nonstock Item.	2-10	BQC	4 x 25	Blue	112G2B-50	104016894

TABLE B (Contd)

112-TYPE CONNECTING BLOCKS

APPLICATION	APPLICATION NOTES	*COSMIC* SHELF NO.	TERM-INAL TYPE	ROW AND COLUMN FIELD	FAN-NING STRIP COLOR	ITEM CODE NUMBER	COMCODE
Outside plant pairs (1-100)	Used on *COSMIC* IA* (supplied as part of 307F1-100 connector for *COSMIC* IIA).	2-10	BQC	8 x 25	Blue	112H1B-100	104052063
Outside plant pairs (1-100)	Used on *COSMIC* IA/IIA.*	2-10	SWW	8 x 25	Blue	112H1BS-100	105571681
Outside plant pairs (1-100)	Wired to four 25-pair 711-type connectors. Used on *COSMIC* IA/IIA.*	2-10	BQC	8 x 25	Blue	112H1G-100	104193925
1/1A *ESS*™ (4:1 LCR) line equip.		2-10	BQC	8 x 16	Yellow	112C1A-64	103288205
1/1A *ESS* (4:1 LCR) line equip.		2-10	BWW	8 x 16	Yellow	112C1AB-64	104440870
1/1A *ESS* (2:1, 4:1 LCR), *5ESS*® (4:1-10:1 LCR) — line equip.		2-10	BQC	8 x 16	Yellow	112C2A-64	103288262
1/1A *ESS* (2:1 LCR) 2/2B *ESS* (2:1, 4:1 LCR), *5ESS* (4:1-10:1 LCR) — line equip.		2-10	BWW	8 x 16	Yellow	112C2AB-64	104450192
5ESS ISLU or RISLU (2-wire), *DMS*†-10/100 line equip.	Replaces the F-61746 block.	2-10	BQC	8 x 16	Yellow	112C2F-64	104017330
5ESS ISLU (2-wire), *DMS*-10/100 line equip.		2-10	BWW	8 x 16	Yellow	112C2FB-64	104447719
5ESS ISLU or RISLU (4-wire) line equip.		2-10	BQC	8 x 16	Yellow	112C3F-64	104373204
5ESS ISLU (4-wire) line equip.		2-10	BWW	8 x 16	Yellow	112C3FB-64	104447727
1/1A *ESS* (2:1 LCR), 2/2B *ESS*, *5ESS* (4:1-10:1 LCR) line equip.		2-10	BQC	8 x 32	Yellow	112E1B-128	103288296

* Shelf adapters required for use on *COSMIC* I/II frames per ED-6C142-30, Group 3 (shelves 2-10) and Group 4 (shelves 1 and 11).

† Trademark of Northern Telecom, LTD.

TABLE B (Contd)

112-TYPE CONNECTING BLOCKS

APPLICATION	APPLICATION NOTES	*COSMIC* SHELF NO.	TERM-INAL TYPE	ROW AND COLUMN FIELD	FAN-NING STRIP COLOR	ITEM CODE NUMBER	COMCODE
1/1A *ESS* (2:1 LCR), 2/2B *ESS*, *5ESS* (4:1-10:1 LCR) line equip.		2-10	BWW	8 x 32	Yellow	112E1BB-128	104447750
5ESS line equip., 10A remote switching system		2-10	BQC	8 x 32	Yellow	112E1C-128	103556247
1/1A *ESS* (4:1 LCR) line equip.		2-10	BQC	8 x 32	Yellow	112E2B-128	103758140
1/1A *ESS* (4:1 LCR) line equip.		2-10	BWW	8 x 32	Yellow	112E2BB-128	104447768
5ESS ISLU or RISLU (2-wire and 4-wire), *DMS*-10/100 — line equip.	Replaces the F-61726 block.	2-10	BQC	8 x 32	Yellow	112E2F-128	104017348
5ESS ISLU or RISLU (2-wire and 4-wire), *DMS*-10/100 — line equip.		2-10	BWW	8 x 32	Yellow	112E2FB-128	104447776
5ESS (4:1-10:1 LCR) line equip.	Wired to four 32-pair 711-type connectors.	2-10	BQC	8 x 32	Yellow	112G1B-128	103665212
5ESS ISLU or RISLU (2-wire) line equip.	Wired to four 32-pair 711-type connectors.	2-10	BQC	8 x 32	Yellow	112G2B-128	104377429
5ESS ISLU or RISLU (4-wire) line equip.	Wired to four 32-pair 711-type connectors.	2-10	BQC	8 x 32	Yellow	112G4B-128	104407879
5ESS (4:1-10:1 LCR) line equip.	Wired to four 32-pair *TRW*‡ (or equiv) connectors.	2-10	BQC	8 x 32	Yellow	112J1B-128	104430459
DMS-10/100 line equip.	Wired to four 32-pair *TRW* (or equiv) connector.	2-10	BQC	8 x 32	Yellow	112G1D-128	104199781
AXE§-10 line equip. (line interface cards 0-63), *SYSTEM X*¶	Both blocks must be ordered to terminate a 128-pair cable in a switch module. Used on *COSMIC* I.	2-10	BQC	8 x 16	Yellow	112E3F-64	104432687
AXE-10 line equip. (line interface cards 64-127), *SYSTEM X*		2-10	BQC	8 x 16	Yellow	112E4F-64	104432695
AXE-10 line equip., *SYSTEM X*		2-10	BQC	8 x 32	Yellow	112E3F-128	104401302

* Shelf adapters required for use on *COSMIC* I/II frames per ED-6C142-30, Group 3 (shelves 2-10) and Group 4 (shelves 1 and 11).

‡ Trademark of TRW.

§ Trademark of Ericsson.

¶ Trademark of Plessey.

TABLE B (Contd)

112-TYPE CONNECTING BLOCKS

APPLICATION	APPLICATION NOTES	COSMIC SHELF NO.	TERM-INAL TYPE	ROW AND COLUMN FIELD	FAN-NING STRIP COLOR	ITEM CODE NUMBER	COMCODE
*GTD*** -5 line equip.	Horizontal wiring arrangement. See 112H1E-100 for preferred high-density apparatus. Used on *COSMIC* IA/IIA.*	2-10	BQC	8 x 25	Yellow	112C1F-100	104017322
GTD-5 line equip.	Horizontal wiring arrangement. Used on *COSMIC* IA/IIA.	2-10	BQC	8 x 25	Yellow	112H1E-100	104188024
GTD-5 line equip.	Vertical wiring arrangement. Used on *COSMIC* IA/IIA.	2-10	BQC	8 x 25	Yellow	112H1E1-100	104199799
GTD-5 line equip.	Horizontal wiring arrangement. Wired to four 25-pair *TRW* (or equiv) connectors. Used on *COSMIC* IA/IIA.	2-10	BQC	8 x 25	Yellow	112H2G-100	104199807
SMAS 5A (facility side) quadrant A		2-10	BQC	8 x 24	Violet	112C1A-96	103634812
SMAS 5A (facility side) quadrant B		2-10	BQC	8 x 24	Violet	112C2A-96	103634820
SMAS 5A (facility side) quadrant C		2-10	BQC	8 x 24	Violet	112C3A-96	103634838
SMAS 5A (facility side) quadrant D		2-10	BQC	8 x 24	Violet	112C4A-96	103634846
SMAS 5B (facility side) circuits 00-49		2-10	BQC	8 x 25	Violet	112C4A-100	103634861
SMAS 5B (facility side) circuits 50-99		2-10	BQC	8 x 25	Violet	112C5A-100	103634853
Misc applications, *SLC*®-96 carrier, shielded tie pairs from SDDF		2-10	BQC	8 x 25	Beige	112C2E-100	103815510
Misc applications, *SLC*-96 carrier, shielded tie pairs without shield grounds		2-10	BWW	8 x 25	Beige	112C2EB-100	104447693
Misc applications, *SLC*-96 carrier, shielded tie pairs without shield grounds		2-10	SWW	8 x 25	Beige	112C2ES-100	104447701

* Shelf adapters required for use on *COSMIC* I/II frames per ED-6C142-30, Group 3 (shelves 2-10) and Group 4 (shelves 1 and 11).

** Trademark of GTE.

TABLE B (Contd)

112-TYPE CONNECTING BLOCKS

APPLICATION	APPLICATION NOTES	*COSMIC* SHELF NO.	TERMINAL TYPE	ROW AND COLUMN FIELD	FANNING STRIP COLOR	ITEM CODE NUMBER	COMCODE
Misc Equipment		2-10	BWW	8 x 32	Yellow	112A1A-128	106005812
Misc Equipment		2-10	BWW	8 x 32	Yellow	112A1AB-128	106005820
Misc and trunk equip.		2-10	BQC	4 x 32	Beige	112E1A-64	103317905
Misc and trunk equip. on CMDF, TMDF, high freq. *SLC*, SMAS on SMDF, *5ESS* trunk units		2-10	BQC	8 x 32	Beige	112E1A-128	103288288
		2-10	BWW	8 x 32	Beige	112E1AB-128	104447735
		2-10	SWW	8 x 32	Beige	112E1AS-128	104447743
Misc and trunk equip. for *5ESS* trunk units	Wired to four 32-pair 711-type connectors.	2-10	BQC	8 x 32	Beige	112G1A-128	103665204
5ESS metallic service unit, resistor, 13A announcement	Wired to four 32-pair 711-type connectors.	2-10	BQC	8 x 32	Beige	112G1C-128	103749354
Carrier pairs with shield ground terminations	Modified blue checkerboard stamping.	2-10	SWW	4 x 25	Orange	112C1CS-50	104447651

Note: The following abbreviations are used in this table:

BWW - Bifurcated Wire Wrap
BQC - Bifurcated Quick Clip
SWW - Single Wire Wrap
ESS - Electronic Switching System
LCR - Line Concentration Ratio (:)
SMAS - Switched Maintenance Access System
SDDF - Subscriber Digital Distributing Frame
SMDF - Subscriber Main Distributing Frame
CMDF - Combined Main Distributing Frame
TMDF - Trunk Main Distributing Frame
ISLU - Integrated Service Line Unit
RISLU - Remote Integrated Service Line Unit.

5. ASSOCIATED EQUIPMENT FOR 112-TYPE CONNECTING BLOCK

Tools and Aids (Practice 201-208-103)

756C3 Wire Insertion Tool (Comcode 104012018)

756C4 Wire Insertion Tool (Comcode 104378351)

756C5 Multipurpose Quick-Clip Wire Insertion Tool (Comcode 105564827)

756C5-1 Replacement Bit for 756C3, 756C4, and 756C5 Tools (Comcode 105611545)

950A Cutoff/Insertion/Removal Tool (Comcode 103318614)

950B Cutoff/Insertion/Removal Tool (Comcode 104378369)

950C Multipurpose Quick-Clip Wire Insertion Tool (Comcode 105564835)

950C-1 Replacement Bit for 950A, 950B, and 950C Tools (Comcode 105611537)

KS-21345,L2 Block Removal Tool (Comcode 403205008)

KS-22616,L1 Block Removal Tool (Comcode 402757173)

Insulators (Practice 201-208-106)

J Clip (AT-8993) Insulator (Comcode 402946313)
KS-16604, L2 Insulator (Comcode 400809042) for blocks with wire-wrap terminals

6. WIRE

6.01 Generally, DT 24-type wire is used for cross-connections. It is twisted pair, 24-gauge, solid copper conductor with irradiated, polyvinyl chloride insulation. The wire is available in different color codes for specific applications. The KS-21955 wire reel is recommended for use with this wire.

6.02 For applications requiring shielded cross-connect wire, P6-type wire is recommended. It is twisted pair, 22- or 24-gauge, solid copper conductor with polyvinyl insulation, a braided shield, and a polyvinyl sheath.

7. DESIGNATION STRIPS (LABEL HOLDER)

7.01 Designation strips (Table C and Figures 12, 13, and 14) provide mounting space for designation labels (ED-6C144-12) that identify the circuits terminated on each terminal of a connecting block.

7.02 Designation strips (also called Flip Gates) are usually used only on those shelves with connecting blocks terminating circuits that do not have connecting blocks with pre-stamped circuit identification. Examples include blocks terminating trunk and toll equipment.

TABLE C

DESIGNATION STRIPS (LABEL HOLDER)

FRAME APPLICATION	APPLICATION NOTES	ORDERING CODE
COSMIC I/IA/II/IIA	Mounts on shelves 2 through 10 of a facility or equipment half module	ED-6C142-30 Group 8
	Mounts on any shelf with test/talk panel	ED-6C142-30 Group 9
	Mounts on shelf 1 of a facility or equipment half module	ED-6C142-30 Group 10
	Mounts on shelf 11 of a facility or equipment half module	ED-6C142-30 Group 11
COSMIC Mini	Mounts on any shelf of a facility or equipment module	ED-6C314-70 Group 7

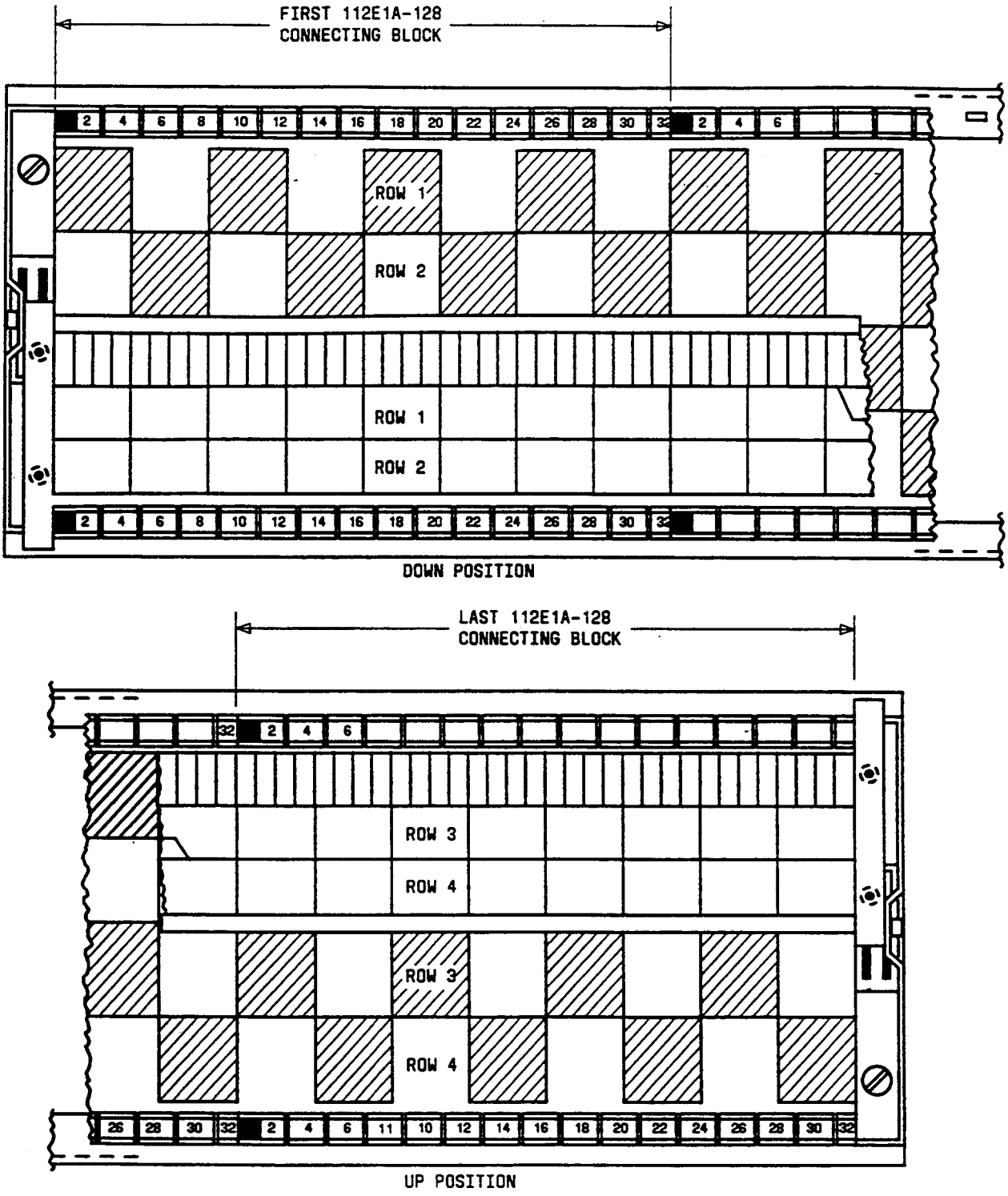


Figure 12—ED-6C142-30, Group 8 Designation Strip Label Holder for *COSMIC* DFs

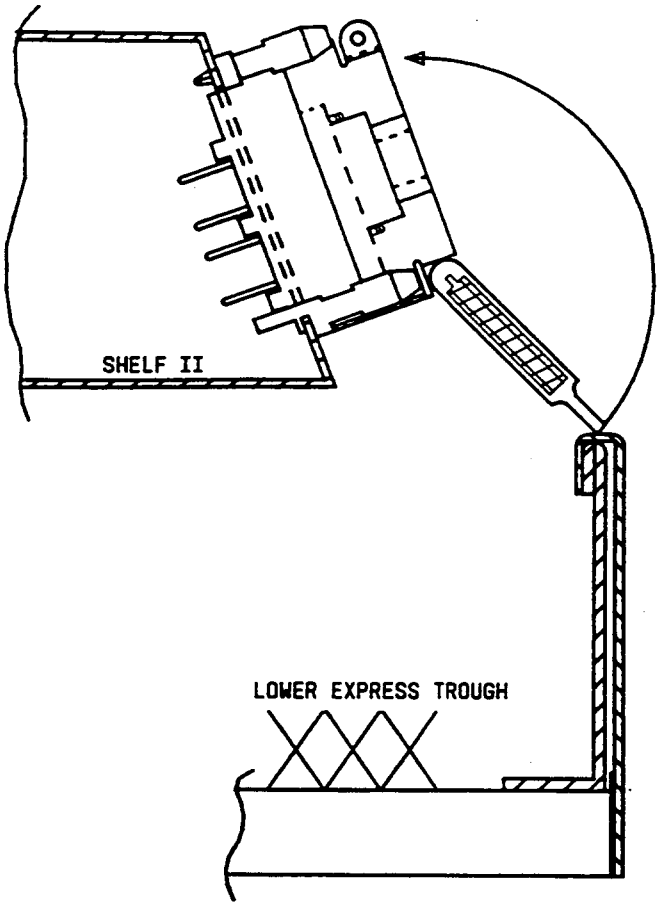


Figure 13—ED-6C142-30, Group 11 Designation Strip Label Holder for *COSMIC* DFs

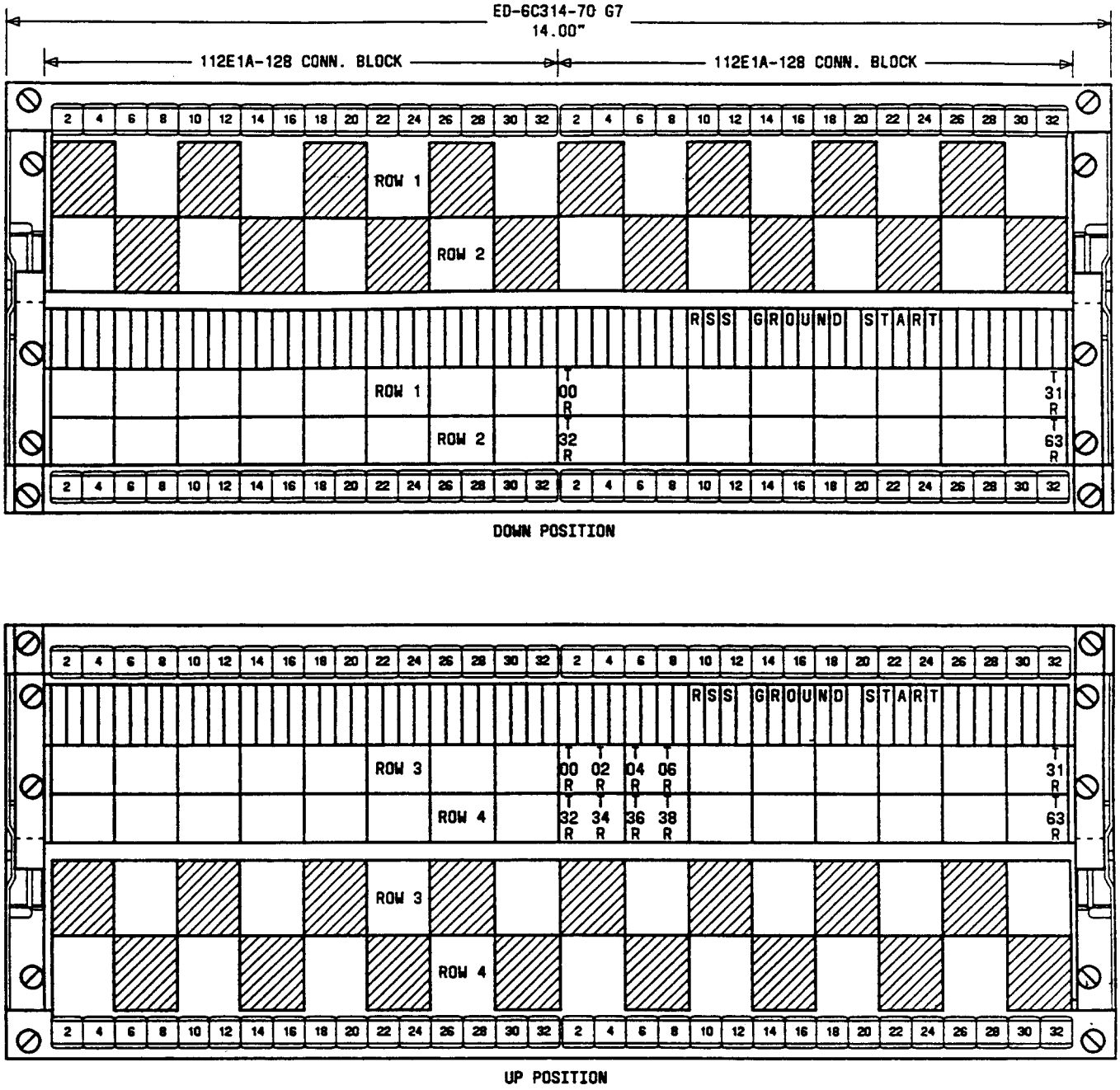


Figure 14—ED-6C314-70, Group 7 Designation Strip Label Holder for *COSMIC* Mini DFs

8. DESIGNATION STRIP LABELS (FOR FLIP GATES)

ED-6C144-12 Labels for *COSMIC* DF Designation Strips

8.01 Sets of labels (Table D) are available for field-stenciling. These labels mount on the half-shelf designation strip and provide room for high-level identification (relay rack, bay, shelf, and mounting plate number).

TABLE D

ED-6C144-12 LABELS

APPLICATION	ED-6C144-12	COMCODE
64-Pair Blocks (16 per shelf) Shelves 2-10	Group 1	104437710
96-Pair Blocks (10 per shelf) Shelves 2-10	Group 2	104437728
100-Pair High Density 112H-Blocks (12 per shelf) Shelves 2-10 50-Pair High Density 112H-Blocks (12 per shelf) Shelves 1 and 11	Group 3	104400379
100-Pair Regular Density Blocks (10 per shelf) Shelves 2-10 50-Pair Regular Density Blocks (10 per shelf) Shelves 1 and 11	Group 4	104211065
128-Pair Blocks (10 per shelf) Shelves 2-10 64-Pair Blocks (10 per shelf) Shelves 1 and 11	Group 5	104366653

Note: Each label set provides upper and lower labels for 3 blocks.

9. DESIGNATION FANNING STRIPS (FOR TERMINAL ROW IDENTIFICATION)

ED-6C142-30 Designation Fanning Strips (End Finish)

9.01 Designation fanning strips (end finish) provide designation information space and end finish (to secure jumper wires) on the connecting blocks when the half-shelf designation strip is not provided, or a half-shelf is partially filled with connecting blocks. Each ordering group provides a left and right fanning strip (see Table E and Figures 15, 16, and 17).

TABLE E

DESIGNATION FANNING STRIPS

APPLICATION	USED ON SHELVES	ORDERING CODE
General use with 50-pair connecting block T, R	1 and 11	ED-6C142-30 Group 23
General use with 100-pair connecting block T, R	2 thru 10	ED-6C142-30 Group 24
Use with SMAS 5A or 5B connecting block TA, RA, TB, RB	2 thru 10	ED-6C142-30 Group 25
Blank fanning strip, stamp as required	2 thru 10	ED-6C142-30 Group 26
Use with shelves associated with *5ESS* T, R, SG0, SG1	2 thru 10	ED-6C142-30 Group 27

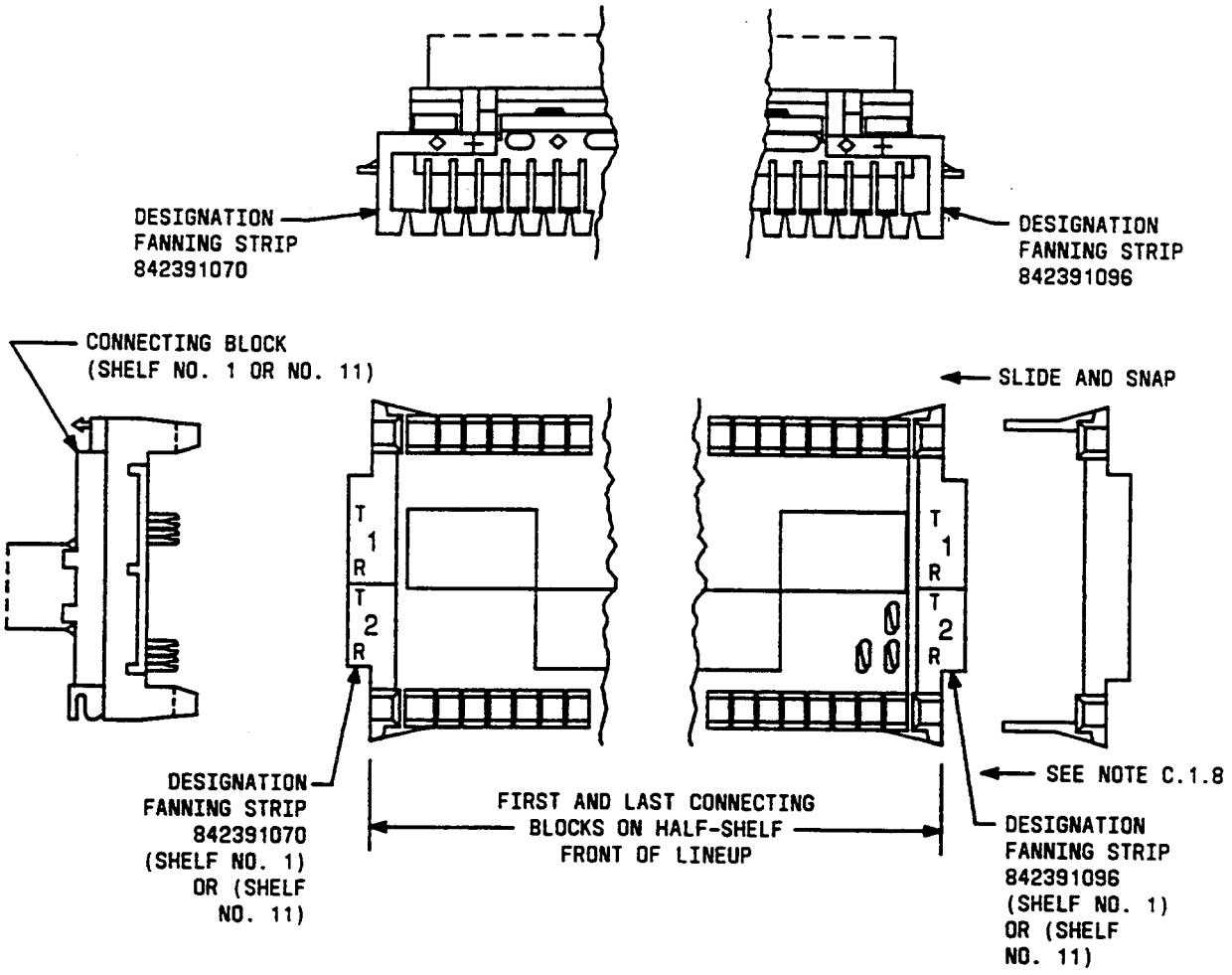


Figure 15—ED-6C142-30 Designation Fanning Strips for Shelf No. 1 or Shelf No. 11

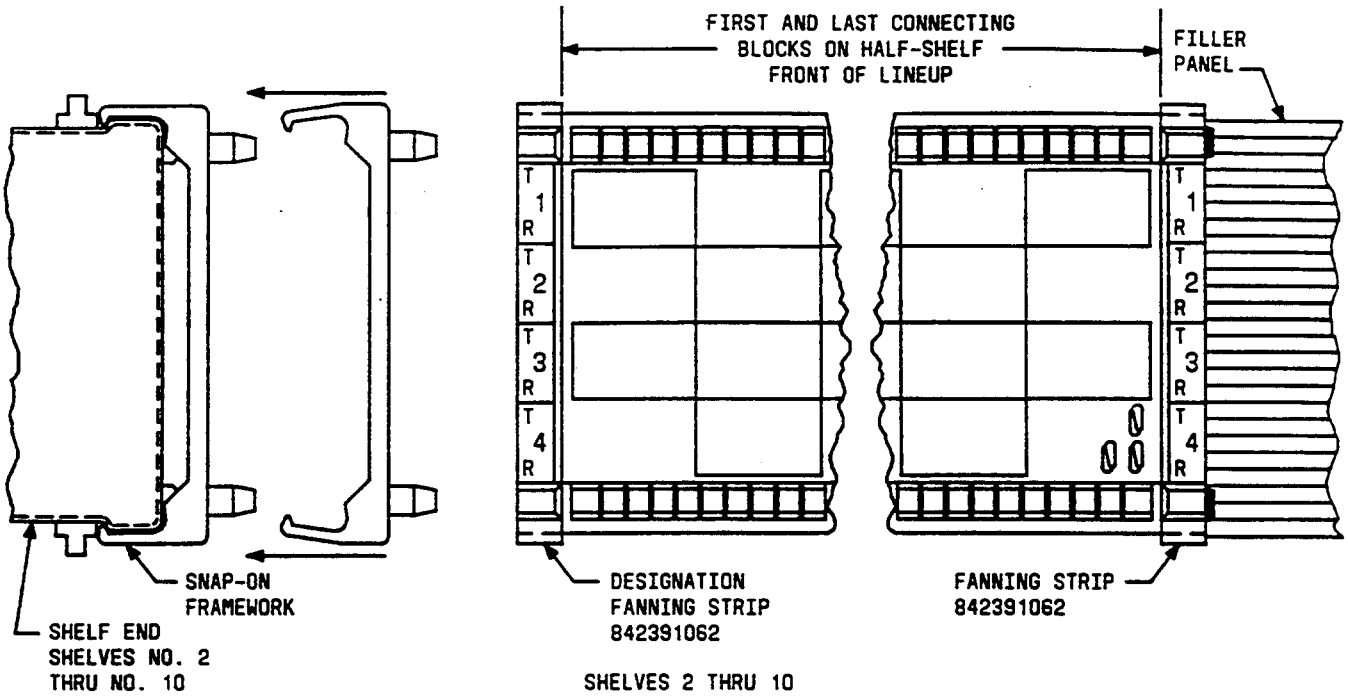


Figure 16—ED-6C142-30 Designation Fanning Strips for Shelves 2 Through 10

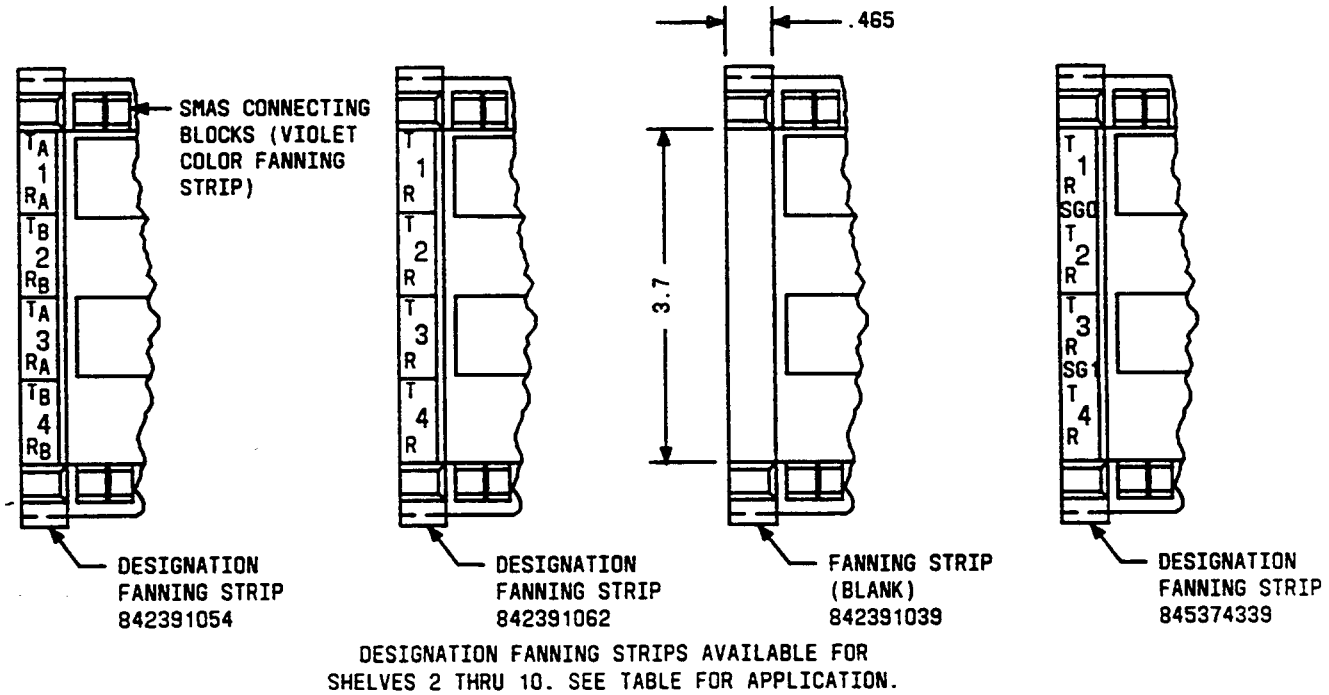


Figure 17—ED-6C142-30 Designation Fanning Strips for Shelves 2 Through 10

10. 112H SERIES CONNECTING BLOCK MOUNTING ADAPTERS

10.01 High density 112H series blocks (100-pair OSP or tie pairs) can be mounted on earlier *COSMIC* I/II framework using these adapters. A maximum 1200 pairs per shelf (12 blocks per module shelf) or 600 pairs (6 blocks per half- module shelf) may be mounted. Each adapter spans 33 inches for a half module. Two are needed for an entire shelf of a module. Group 3 is used for shelves 2 through 10, and Group 4 is used for top and bottom shelves 1 and 11. Installation of these adapters is normally done with unoccupied shelves. Mounting fasteners are included with each adapter ordered (see Figure 18 and Table F).

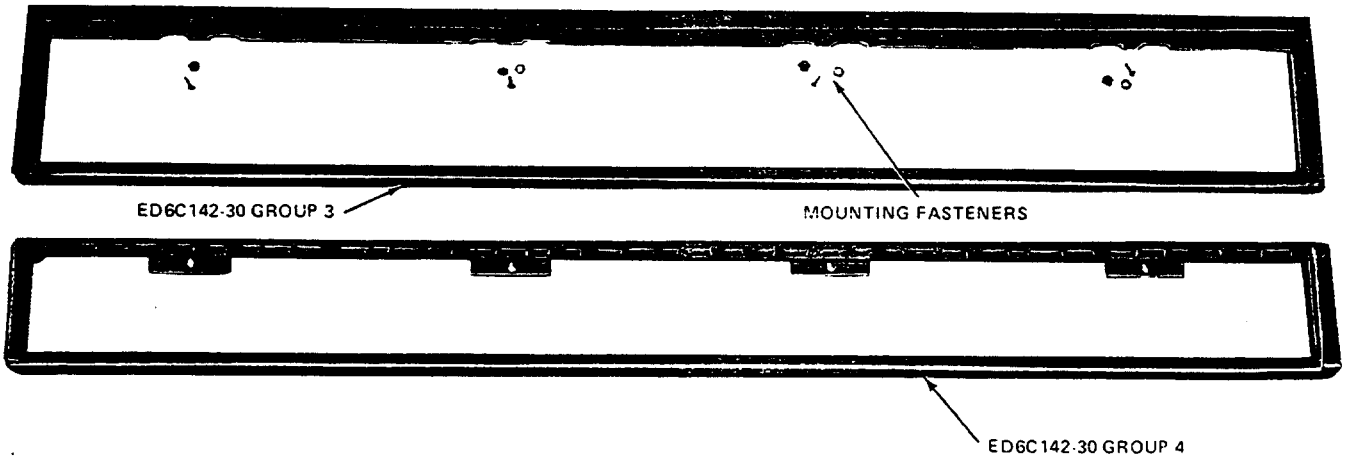


Figure 18—112H Series Connecting Block Mounting Adapters

TABLE F

112H SERIES CONNECTING BLOCK MOUNTING ADAPTERS

FRAME APPLICATION	SHELVES	DIMENSIONS			ORDERING CODE
		HEIGHT	WIDTH	DEPTH	
COSMIC I/II	2-10	4″	33″	3/4″	ED-6C142-30, G3
	1 and 11	4″	33″	3/4″	ED-6C142-30, G4

11. REFERENCES

PRACTICE	TITLE
201-208-103	Tools and Aids — Distributing and Protector Frames
201-208-106	Test Equipment, Cords, Plugs, Warning Markers, Guards, Insulators, and Indicators — Description and Use — Distributing and Protector Frames
201-222-101	*COSMIC* I, IA, II, and IIA Distributing Frame Systems — Description
201-222-120	*COSMIC* II Mini Combined Distributing Frame System — Description
201-222-301	78- and 112-Type Connecting Blocks, Method of Making Connections, Repair and Replacement Procedures — *COSMIC* Distributing Frames
201-222-501	Inspections — *COSMIC* Distributing Frames

12. ISSUING ORGANIZATION

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