

BACKBOARDS

IDENTIFICATION AND INSTALLATION

1. GENERAL

1.01 This section provides information on common use backboards and related devices. Refer to Division 506 for information on backboards for coin collectors and coin telephone sets.

1.02 This section is reissued to:

- Add 198A backboard (Fig. 37)
- Rate the 191C-59, -61, and -64 backboards MD (Table A).

2. IDENTIFICATION

2.01 The purpose of these backboards is to provide adequate mounting surfaces for the installation of telephone sets, connecting blocks, and various other apparatus.

2.02 When terminating and cross-connecting cables on customer premises, especially in large buildings, it is recommended that the backboards installed in these locations be standardized. These backboards are now available in several sizes and colors and should follow the color scheme plan outlined in Section 518-010-101.

2.03 Ordering Guide:

CODE NO.	FIG. NO.
Backboard, 79	1
Backboard, 81	2
Backboard, 147A	3
Backboard, 154A	4
Backboard, 155A (MD)	5
Backboard, 156A (MD)	6
Backboard, 163A	7
Backboard, 164A	8
Backboard, 165A	9

Backboard, 166A	10
Backboard, 168D*	11
Backboard, 168E*	12
Backboard, 168F*	13
Backboard, 169A (MD)	14
Backboard, 171A	15
Backboard, 172C* (MD)	16
Backboard, 173A	17
Backboard, 173B	18
Backboard, 176A	19
Backboard, 177A	20
Backboard, 180A	21
Backboard, 181A	22
Cover, Screen, D-180313	22
Backboard, 182B*	23,24
Backboard, 183A1, A2, A4, or A5†	25
Backboard, 183B1, B2, B3, B4, or B5†	26
Backboard, 184A1†	27
Backboard, 184B1†	28
Backboard, 184B2†	29
Backboard, 185A1†	30
Backboard, 186A†	31
Backboard, 187B1†	32
Backboard, 188A1 (MD)	33
Backboard, 188B1	34
Backboard, 191C*	35
Backboard, 197A	36
◆ Backboard, 198A	37◆
Backboard, KS-5796, L1 or L7	38
Backboard, KS-5796, L2 or L8	39
Backboard, KS-5796, L3 or L9	40
Assembly, Backboard, ED-69368-50, Group 1	41
Trough, Wiring, 840348288	42

* Add desired color code selected from Table A.

† Refer to appropriate figures for size and color information.

NOTICE

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

2.04 Color:

TABLE A4

COLOR ORDERING GUIDE

CODE	COLOR	BACKBOARD			
		168D, 168E, 168F	172C*	182B	191C
-03	Black		•	•	•
-49	Light Olive Gray	•			
-50	Ivory	•	•	•	•
-51	Green		•	•	•
-53	Red		•	•	•
-56	Yellow		•	•	•
-58	White		•	•	•
-59	Rose Pink		•	•	*
-60	Light Beige		•	•	•
-61	Light Gray		•	•	*
-62	Aqua Blue			•	•
-64	Turquoise		•	•	*

* MD

3. INSTALLATION

3.01 Use colored backboards on customer premises where installations are to be standardized according to the color plan. In other applications, employ backboards for mounting apparatus or equipment only when one or more of the following conditions exist:

- Mounting surface is uneven.
- Mounting surface is damp.
- A secure mounting could not be obtained otherwise.
- It is necessary to insulate special apparatus from current-conducting surfaces.

- It is necessary to avoid drilling too many holes.

3.02 Backboards used on customer premises where standardization is important should follow the color scheme plan in Section 518-010-101 where all central office cables terminate on the same color backboards, key equipment on same color, etc, regardless of terminating area terminal room, apparatus closet, etc.

3.03 Locating: Location of a backboard is dependent upon apparatus to be mounted thereon; however, select a location which will not expose craft personnel or equipment to injury or damage.

3.04 *Installing:*

(a) Refer to Table B for proper fastening device and quantity to be used for each backboard dependent upon:

- Type of surface
- Strength and rigidity of base material
- Weight to be supported.

(b) Refer to appropriate section on attachments and fasteners in 080 Division for method of installing fasteners.

Note: When fasteners extend into or through a surface, avoid damaging existing equipment and wiring.

(c) When a particular backboard is not listed in Table B, refer to backboard most similar for mounting information.

(d) If existing mounting holes in backboards do not align when securing mounting, drill additional holes with proper tools.

(e) If backboards are located on an uneven surface, shim to obtain a firm mounting. Use fasteners 1/2-inch longer than specified in Table B.

(f) Backboards located outdoors should be secured with rust-proof fasteners such as galvanized screws or bolts.

(g) If backboard must be mounted on a finely finished surface, such as glazed tile or marble which would be expensive to repair, consult supervisor and obtain instructions before proceeding.

(h) When backboard is mounted on plaster on wood lath, all screws must enter laths or studding (see Fig. 3).

(i) When mounting buzzer on wooden backboards, countersink backboard mounting screws to prevent screwheads from contacting buzzer base (see Fig. 8).

(j) The B beam clip and the B insulator support can be installed on I beams and angle irons 1/8- to 1/2-inch thick to fasten backboards at

indoor locations. The B beam clip will accept a 10-24 or a 1/4-20 size screw. The B insulator support will accept a 10-24 screw. (See Fig. 43, 44, and 45.)

(k) Holes designated by bosses (Fig. 24) on the rear of a 182B or 191C backboard must be drilled to permit mounting 500-type wall sets. Use an 11/64-inch drill bit when drilling the bosses.

(l) A small section of the thin wall at the top or bottom edge of the 182B or 191C backboard may be broken out to allow entry of inside wiring (Fig. 24).

(m) The telephone set is not fastened to a 182B or 191C backboard; instead, the backboard is held in place by the fasteners which support the telephone set.



To prevent damage to line switch assembly when installing set on a 182B or 191C backboard:

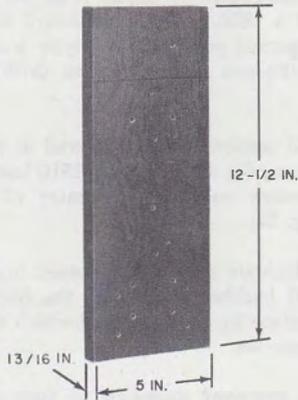
- **Place fasteners through backboard into supporting surface.**
- **Run up threads until head of fastener is 1/16-inch from backboard.**
- **Place the telephone set on fasteners using keyhole slots.**
- **Support screwdriver and tighten fasteners (Fig. 46).**

3.05 *Removing:*

(a) Carefully remove all wire, screws, bolts, and other fasteners used in mounting backboard.

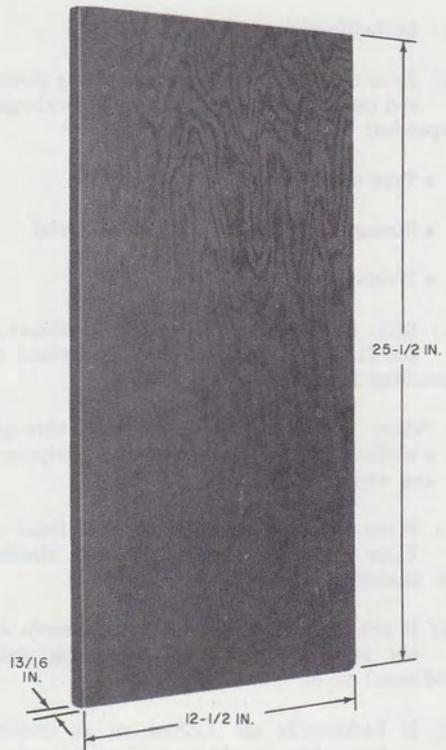
(b) In case backboard tends to stick to wall after fasteners have been removed, press palm of one hand tightly against backboard and tap upper end of backboard with a hammer.

(c) Whenever it is necessary to leave a backboard in place, remove all fasteners which hold the apparatus to the backboard. This prevents the possibility of personnel injury, damage to furniture, etc.



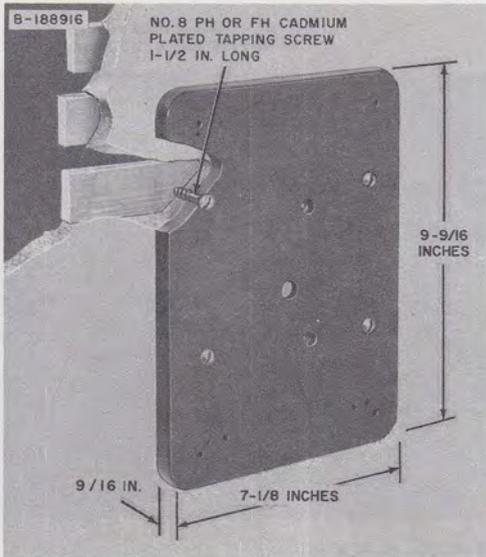
- WOOD, BLACK
- MOUNTS ONE 58-, 98-, OR 106-TYPE STATION PROTECTOR, OR TWO IIIA STATION PROTECTORS

Fig. 1—79 Backboard



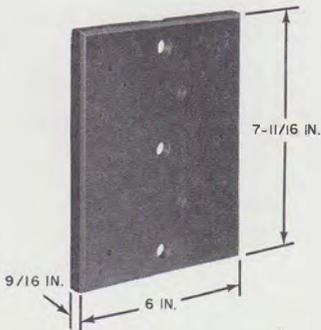
- WOOD, BLACK
- MOUNTS FIVE 58-, 98-, OR 106-TYPE STATION PROTECTORS

Fig. 2—81 Backboard



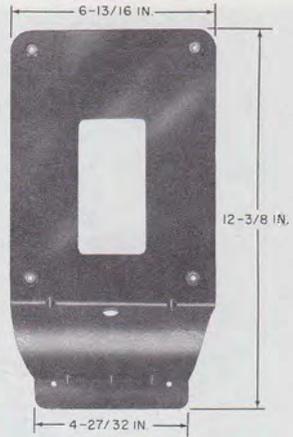
- WOOD, GRAY
- MOUNTS A J86205H RECTIFIER, 634-, OR 653-TYPE SUBSCRIBER SET

Fig. 3—147A Backboard Mounted on Plaster and Lath



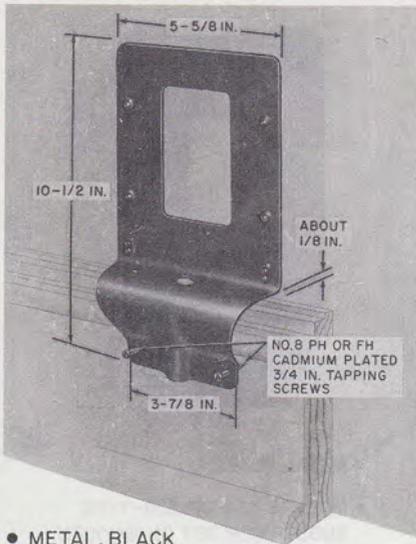
- WOOD, GRAY
- MOUNTS 584-, 684-, 685-, 686-, OR 687-TYPE SUBSCRIBER SET ON WALL OR OVER AN OUTLET

Fig. 4—154A Backboard



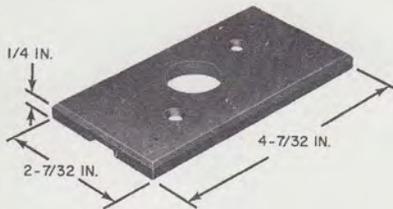
- METAL, BLACK
- MOUNTS 534-OR 634-TYPE SUBSCRIBER SET ON WOODEN BASEBOARD TO AVOID MOUNTING ON MASONRY OR TILE
- SCREWS PROVIDED

Fig. 5—155A (MD) Backboard



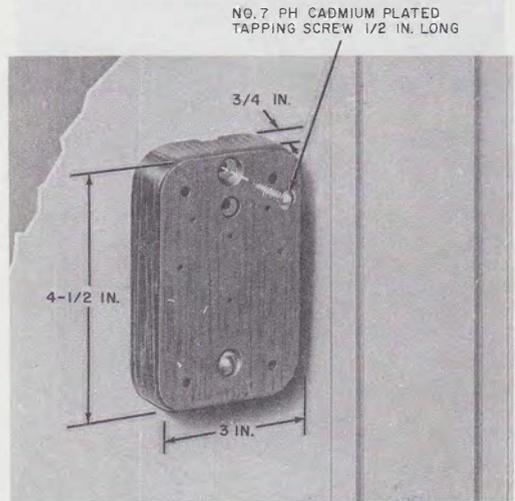
- METAL, BLACK
- MOUNTS 584-OR 684-TYPE SUBSCRIBER SET ON WOODEN BASEBOARD TO AVOID MOUNTING ON MASONRY OR TILE
- SCREWS PROVIDED

Fig. 6—Mounting 156A (MD) Backboard on Wooden Baseboard



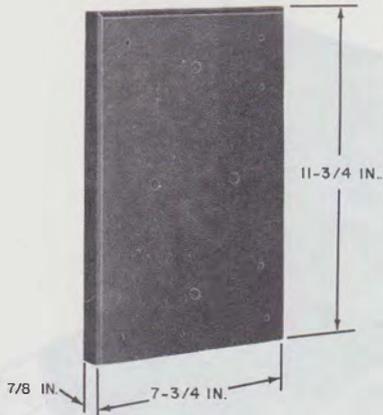
- PHENOL FIBER, GRAY
- MOUNTS 14A- OR 20A-TYPE INDICATOR
- SCREWS PROVIDED FOR MOUNTING INDICATOR AND BACKBOARD

Fig. 7—163A Backboard



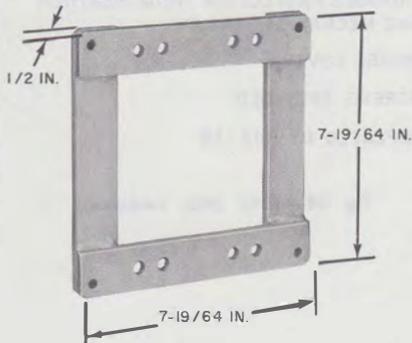
- WOOD, BLACK
- MOUNTS C- OR G-TYPE HAND TELEPHONE SET MOUNTINGS, OR 7-TYPE BUZZERS AND BELLS ON OTHER THAN WOOD SURFACES
- REPLACES 157A BACKBOARD

Fig. 8—164A Backboard Mounted on Metal Panel



- WOOD, GRAY
- MOUNTS KS-5250, J86205A OR B RECTIFIERS, OR 50-TYPE RECORDER CONNECTOR

Fig. 9—165A Backboard



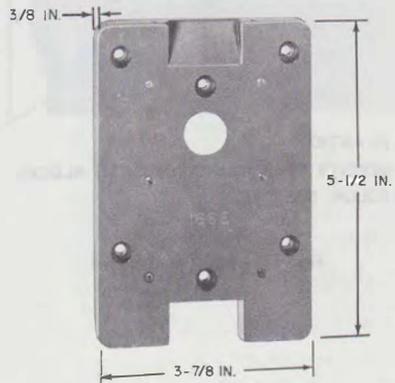
- METAL, GALVANIZED
- MOUNTS 320-TYPE TELEPHONE SET
- BOLTS PROVIDED

Fig. 10—166A Backboard



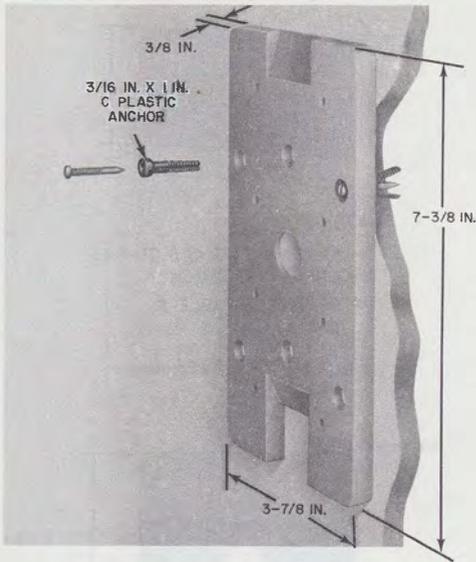
- PLASTIC
- MOUNTING ONE 42A OR 44A CONNECTING BLOCK
- COLOR, SEE TABLE A

Fig. 11—168D Backboard



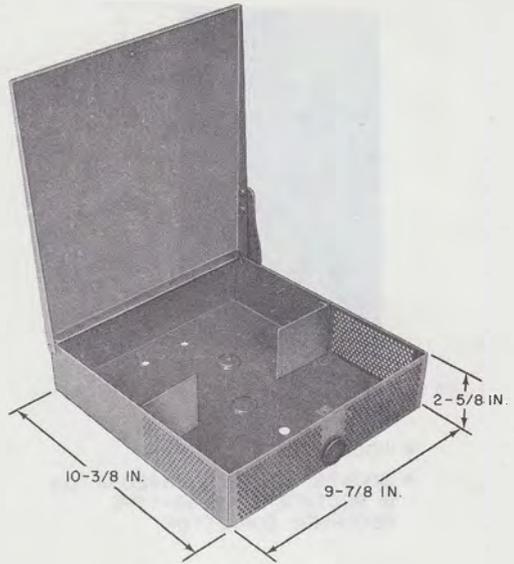
- PLASTIC
- MOUNTS TWO OR THREE 44A CONNECTING BLOCKS
- COLOR, SEE TABLE A

Fig. 12—168E Backboard



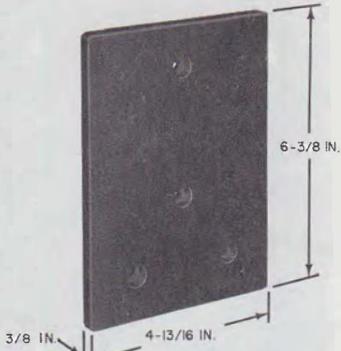
- PLASTIC
- MOUNTS FOUR 44A CONNECTING BLOCKS
- COLOR, SEE TABLE A

Fig. 13—168F Backboard



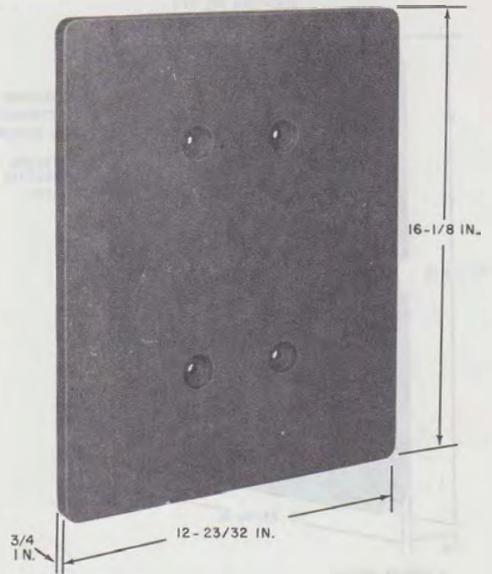
- METAL, STEEL GRAY
- MOUNTS 592-TYPE SUBSCRIBER SET
- PROVIDES PROTECTION FROM WEATHER AND MECHANICAL INJURY
- HINGED COVER
- SCREWS PROVIDED
- REPLACED BY 181A-49

Fig. 14—169A (MD) Backboard



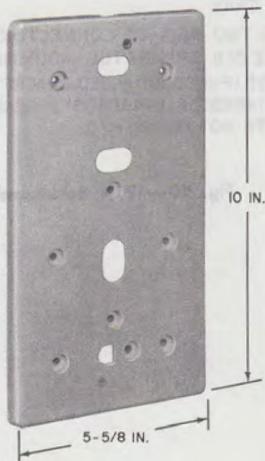
- WOOD, GRAY
- MOUNTS 531- OR 592-TYPE SUBSCRIBER SET

Fig. 15—171A Backboard



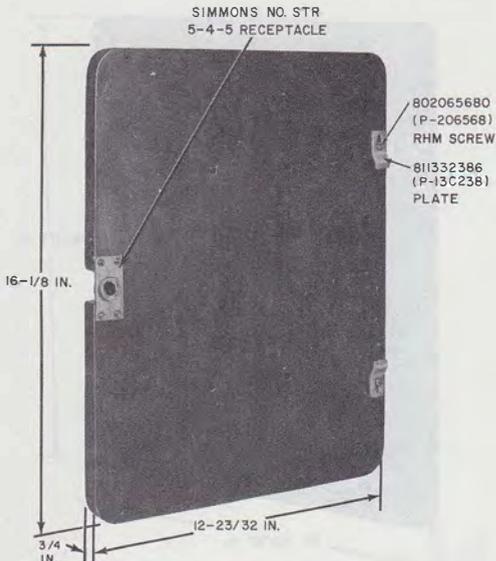
- WOOD, GRAY
- MOUNTS TWO 15A APPARATUS MOUNTINGS

Fig. 17—173A Backboard



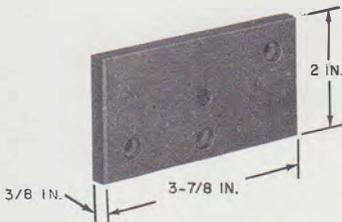
- PLASTIC
- MOUNTS 354-, 356-, 357-, 554-, 556-, OR 558-TYPE WALL TELEPHONE SET
- SCREWS PROVIDED
- COLOR, SEE TABLE A

Fig. 16—172C (MD) Backboard



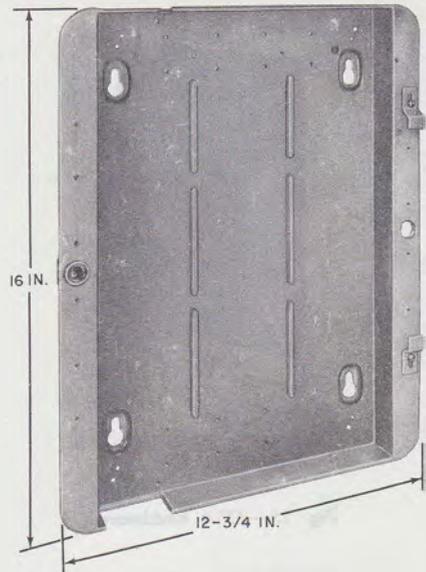
- WOOD, GRAY
- MOUNTS ONE 3IA APPARATUS MOUNTING

Fig. 18—173B Backboard



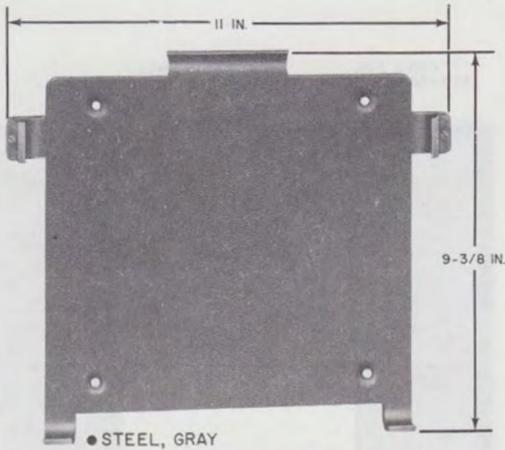
- WOOD, GRAY
- MOUNTS SMALL MISCELLANEOUS APPARATUS SUCH AS JACKS, BUZZERS, INDICATORS, AND KEYS

Fig. 19—176A Backboard



- METAL, (EARLY MODEL) FIBER GLASS (CURRENT MODEL) GRAY
- MOUNTS TWO 66BI-25 CONNECTING BLOCKS, AND ONE 3IB APPARATUS MOUNTING USING A 811333095 (P-15C309) HINGED BRACKET ASSEMBLY AND A 814863056 (P-48F305) BRACKET ASSEMBLY. BRACKETS NOT FURNISHED.

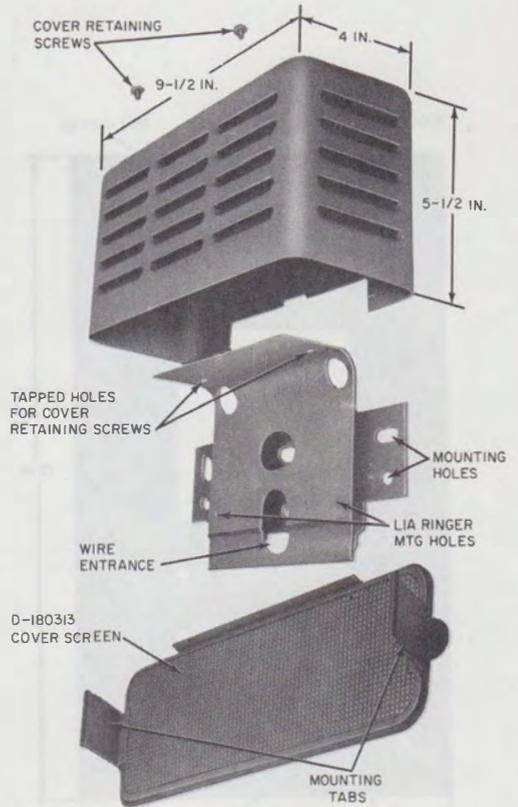
Fig. 20—177A Backboard



● STEEL, GRAY

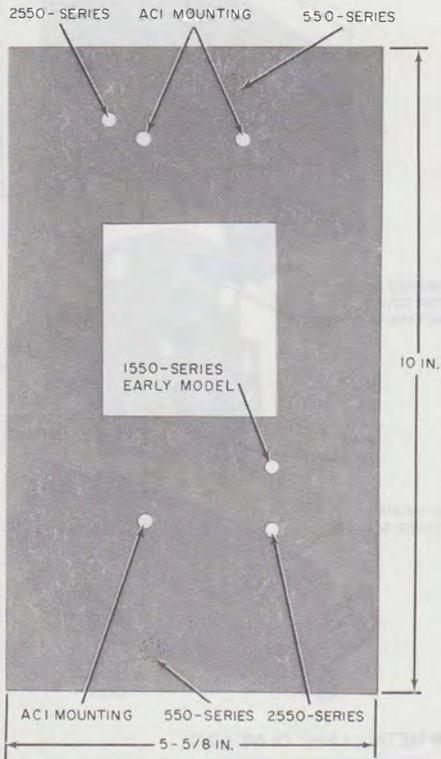
- MOUNTS 103 OR 202 DATA SETS OR 820 DATA AUXILIARY SETS

Fig. 21—180A Backboard



- METAL, LIGHT OLIVE GRAY
- CONSISTS OF BACKBOARD AND COVER
- MOUNTS LIA RINGER IN OUTDOOR LOCATIONS
- OPTIONAL EQUIPMENT—COVER SCREEN FOR PROTECTION AGAINST BIRDS AND INSECTS, ORDER SEPARATELY

Fig. 22—181A Backboard, Exploded View



- PLASTIC 9/32 -IN. THICK
- MOUNTS 550-2550-SERIES WALL SET, OR ACI TELEPHONE BASE
- MAY BE USED TO MASK UNSIGHTLY WALL CONDITIONS EXITING WHEN LARGER WALL SETS ARE REPLACED BY SMALLER SETS

Fig. 23—182B Backboard

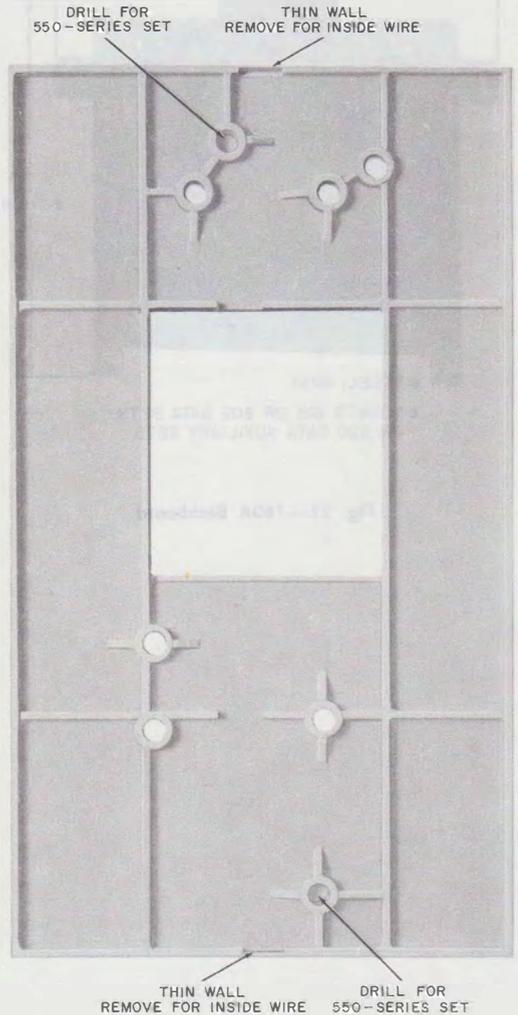
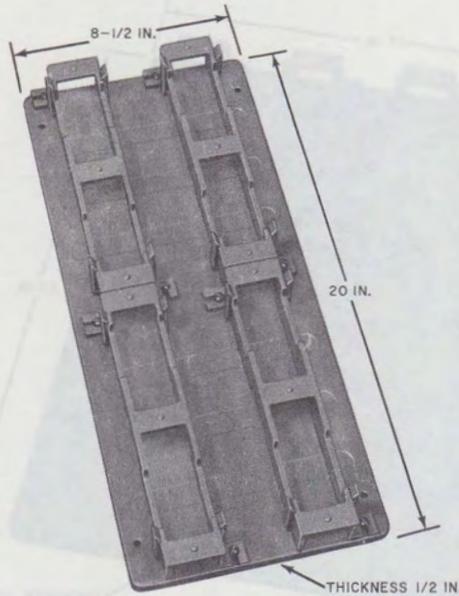
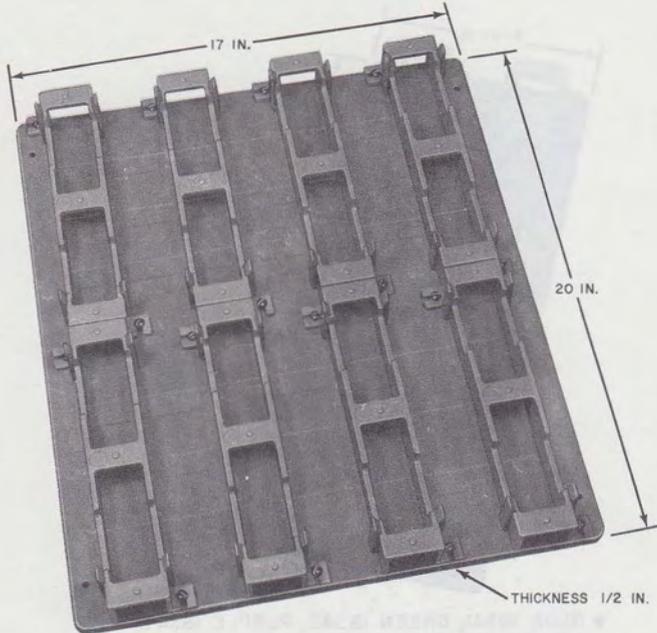


Fig. 24—182B Backboard, Rear View



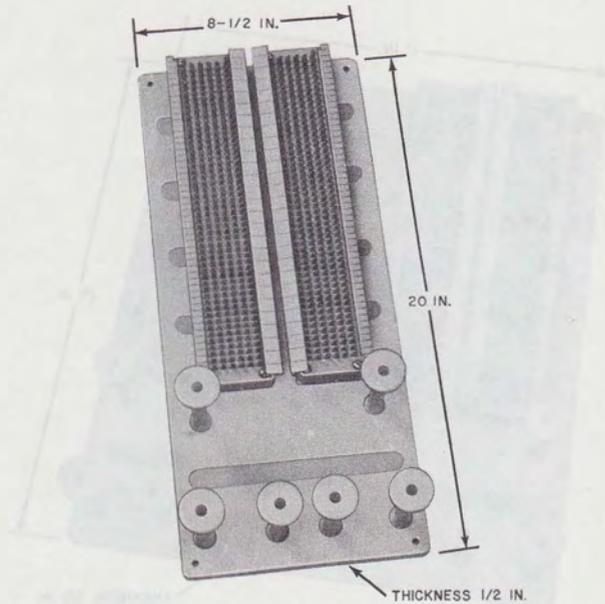
- BLUE 183A1, GREEN 183A2, PURPLE 183A4, YELLOW 183A5.
- CONSISTS OF METAL BOARD AND FOUR PLASTIC 89B BRACKETS SECURED BY TWO SCREWS EACH.
- MOUNTS FOUR 66-TYPE CONNECTING BLOCKS ORDERED SEPARATELY.
- USEFUL IN MODULAR CONNECTING BLOCK ARRANGEMENT FOR TERMINATING AND CROSS CONNECTING ON CUSTOMER'S PREMISES, REFER TO SECTION 518-010-101.

Fig. 25—183A1, A2, A4, or A5 Backboard



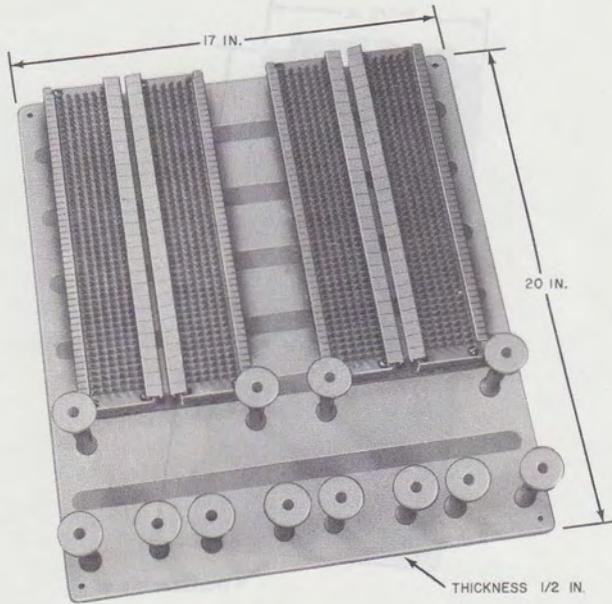
- BLUE 183B1, GREEN 183B2, RED 183B3, PURPLE 183B4, YELLOW 183B5.
- CONSISTS OF METAL BOARD AND EIGHT PLASTIC 89B BRACKETS SECURED BY TWO SCREWS EACH.
- MOUNTS EIGHT 66-TYPE CONNECTING BLOCKS, ORDERED SEPARATELY.
- USEFUL IN MODULAR CONNECTING BLOCK ARRANGEMENT FOR TERMINATING AND CROSS CONNECTING ON CUSTOMER'S PREMISES, REFER TO SECTION 518-010-101.

Fig. 26—183B1, B2, B3, B4, or B5 Backboard



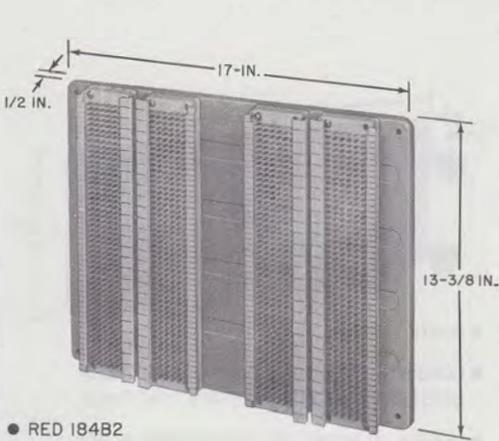
- RED 184A1.
- CONSISTS OF METAL BOARD, TWO 66B4-25 CONNECTING BLOCKS, AND SIX 834372377 (P-43X237) DISTRIBUTING RINGS.
- USEFUL IN MODULAR CONNECTING BLOCK ARRANGEMENT FOR TERMINATING AND CROSS CONNECTING ON CUSTOMER'S PREMISES, REFER TO SECTION 518-010-101.

Fig. 27—184A1 Backboard



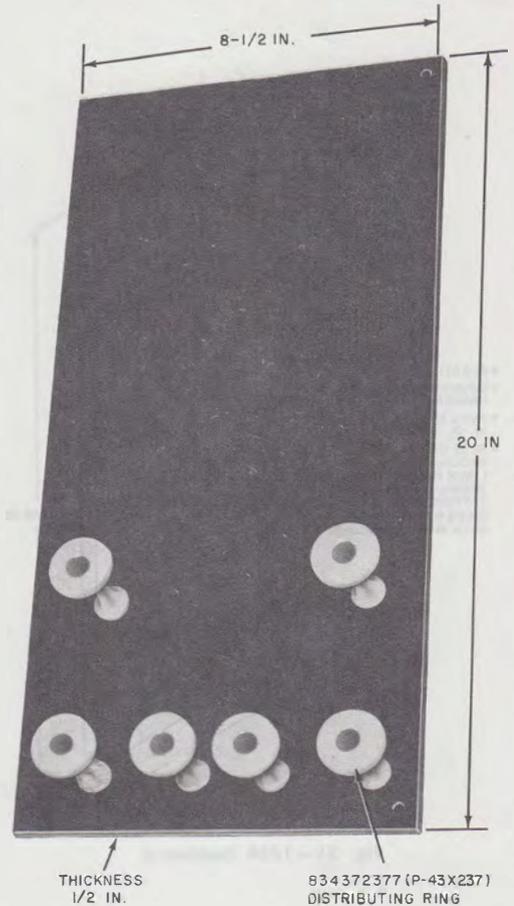
- RED 184B1.
- CONSISTS OF METAL BOARD, FOUR 66B4-25 CONNECTING BLOCKS, AND TWELVE 834372377 (P-43 X237) DISTRIBUTING RINGS.
- USEFUL IN MODULAR CONNECTING BLOCK ARRANGEMENT FOR TERMINATING AND CROSS CONNECTING ON CUSTOMER'S PREMISES, REFER TO SECTION 518-010-101.

Fig. 28—184B1 Backboard



- RED 184B2
- CONSISTS OF METAL BOARD AND FOUR 66B4-25 CONNECTING BLOCKS.
- USEFUL IN MODULAR CONNECTING BLOCK ARRANGEMENT FOR TERMINATING AND CROSS CONNECTING ON CUSTOMER'S PREMISES, REFER TO SECTION 518-010-101.

Fig. 29—184B2 Backboard



- WOOD, YELLOW
- CONSISTS OF A BOARD AND SIX DISTRIBUTING RING ASSEMBLIES SECURED BY ONE SCREW EACH
- USEFUL IN MODULAR CONNECTING BLOCK ARRANGEMENT FOR TERMINATING AND CROSS CONNECTING ON CUSTOMER'S PREMISES REFER TO SECTION 518-010-101

Fig. 30—185A1 Backboard

- PLASTIC
- MOUNTS 10A-HANDSET HANGER
- AVAILABLE IN -3, -61 COLORS
- SLOT ON REAR OF BACKBOARD FOR 1 INCH NO. 8 PH OR FH CADMIUM PLATED TAPPING SCREW (SCREW FURNISHED WITH 186A BACKBOARD)

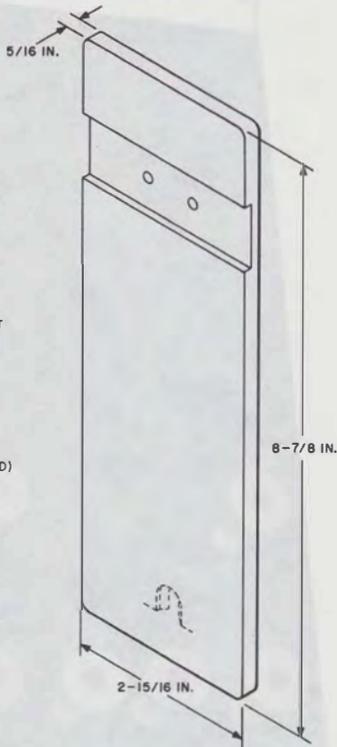
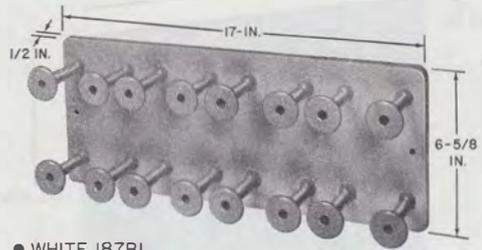
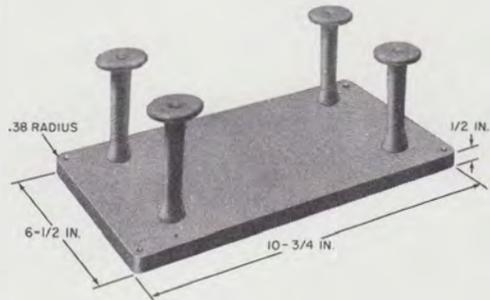


Fig. 31—186A Backboard



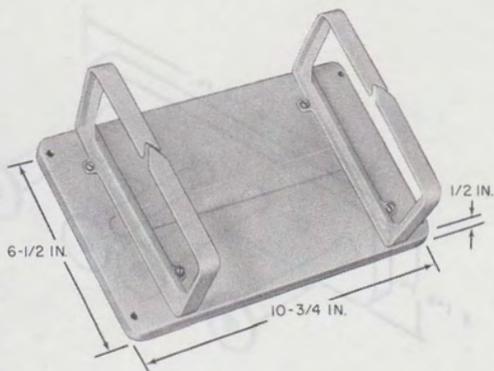
- WHITE 187B1
- CONSISTS OF WOOD BOARD AND SIXTEEN 834372377 (P-43 X 237) DISTRIBUTING RINGS.
- USEFUL IN MODULAR CONNECTING BLOCK ARRANGEMENT FOR TERMINATING AND CROSS CONNECTING ON CUSTOMER'S PREMISES. REFER TO SECTION 518-OIO-IOI.

Fig. 32—187B1 Backboard



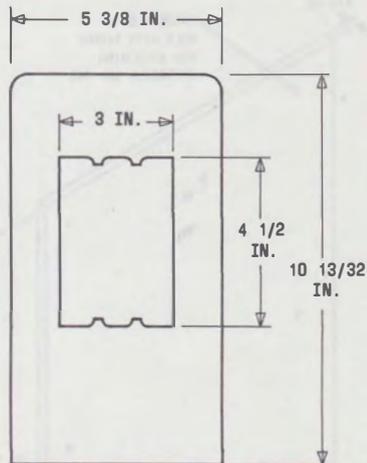
- WHITE STAMPED METAL PANEL WITH FOUR 834372377 (P-43 X 237) DISTRIBUTING RINGS
- USED WITH 88-TYPE MODULAR CONNECTING BLOCKS TO RETAIN CROSS-CONNECT WIRES

Fig. 33—188A1 (MD) Backboard



- WHITE STAMPED METAL PANEL WITH TWO 842139248 (COMCODE) DISTRIBUTION RINGS
- USED WITH 88-TYPE MODULAR CONNECTING BLOCKS TO RETAIN CROSS-CONNECTING WIRES.

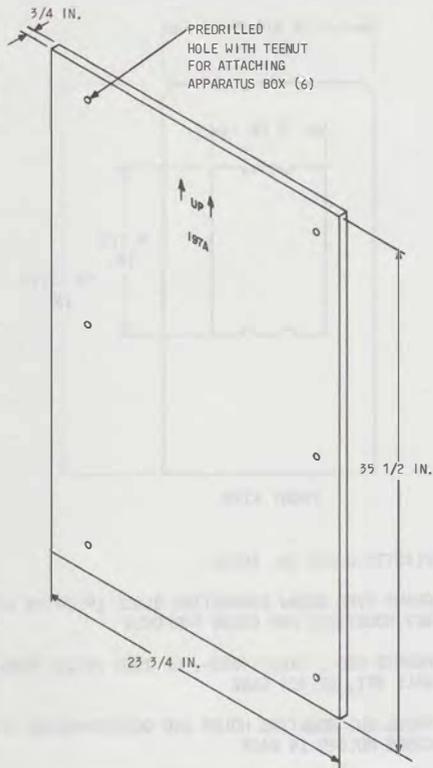
Fig. 34—188B1 Backboard



FRONT VIEW

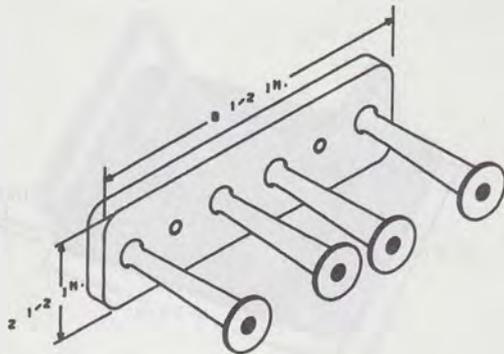
- PLASTIC 0.235 IN. THICK
- SNAPS OVER 630A4 CONNECTING BLOCK (PLUG-IN WALL SET MOUNTING) FOR DECOR PURPOSES
- MOUNTS 550-, EARLY 1550-, DR 2550-SERIES MODULAR WALL SET, DR AC1 BASE
- KNOCK-OUT MOUNTING HOLES AND CORRESPONDING SET CODES MOLDED IN BACK
- REPLACES 182B AND 191B BACKBOARD
- COLOR, SEE TABLE A

Fig. 35—191C Backboard



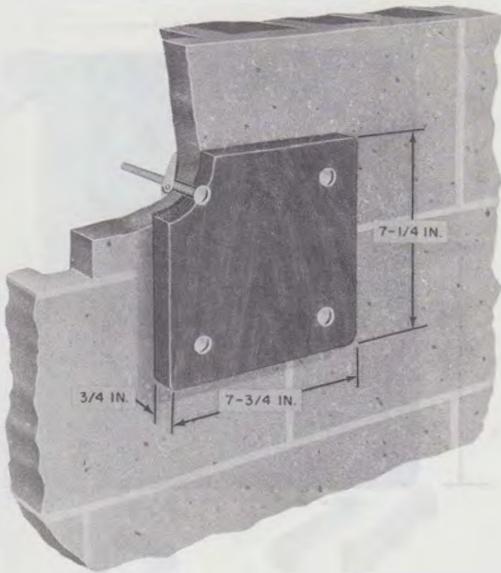
- WOOD, LIGHT OLIVE GRAY
- INTENDED FOR WALL MOUNTING OF 121-TYPE APPARATUS BOX
- INCLUDES SIX SCREWS FOR ATTACHING APPARATUS BOX TO BACKBOARD
- WALL MOUNTING HOLES MUST BE DRILLED AND COUNTERSUNK BY INSTALLER
- MOUNT ON WALL WITH AT LEAST SIX FLATHEAD SCREWS

Fig. 36—197A Backboard



- STEEL PANEL, WHITE FINISH
- FOR CROSS-CONNECT WIRE WHERE MODULAR PANELS ARE STACKED VERTICALLY

Fig. 37—198A Backboard



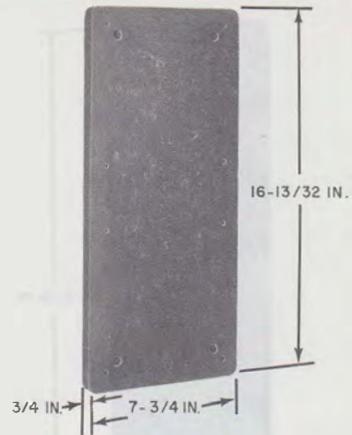
LIST 1

- WOOD, BLACK
- MOUNTS ONE IO5A APPARATUS BOX
- REPLACES I60A

LIST 7

- WOOD, BEIGE - GRAY
- MOUNTS ONE IO5B APPARATUS BOX

Fig. 38—KS-5796, List 1 or List 7 Backboard Mounted on Cinder Block



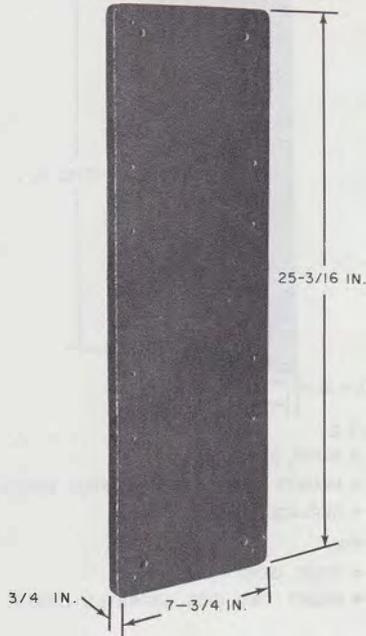
LIST 2:

- WOOD, BLACK
- MOUNTS TWO IO5A APPARATUS BOXES
- REPLACES IGIA

LIST 8:

- WOOD, BEIGE - GRAY
- MOUNT TWO IO5B APPRATUS BOXES

Fig. 39—KS-5796, List 2 or List 8 Backboard



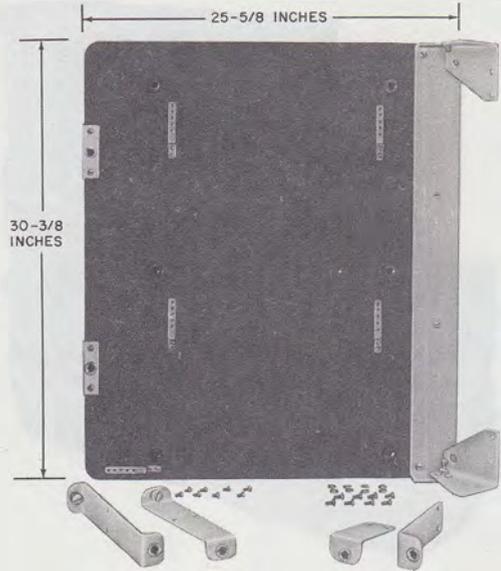
LIST 3

- WOOD, BLACK
- MOUNTS THREE 105A APPARATUS BOXES
- REPLACES I62A

LIST 9

- WOOD, BEIGE-GRAY
- MOUNTS THREE 105B APPARATUS BOXES
- REPLACES A-2857

Fig. 40—KS-5796, List 3 or List 9 Backboard



- WOOD, LIGHT OLIVE GRAY
- MOUNT ONE 26A APPARATUS MOUNTING AND ONE ED-69366-50, G3 TERMINAL PLATE ASSEMBLY
- CAN BE EQUIPPED WITH ED-69368-50, G2 COVER

Fig. 41—ED-69368-50, Group 1 Backboard Assembly

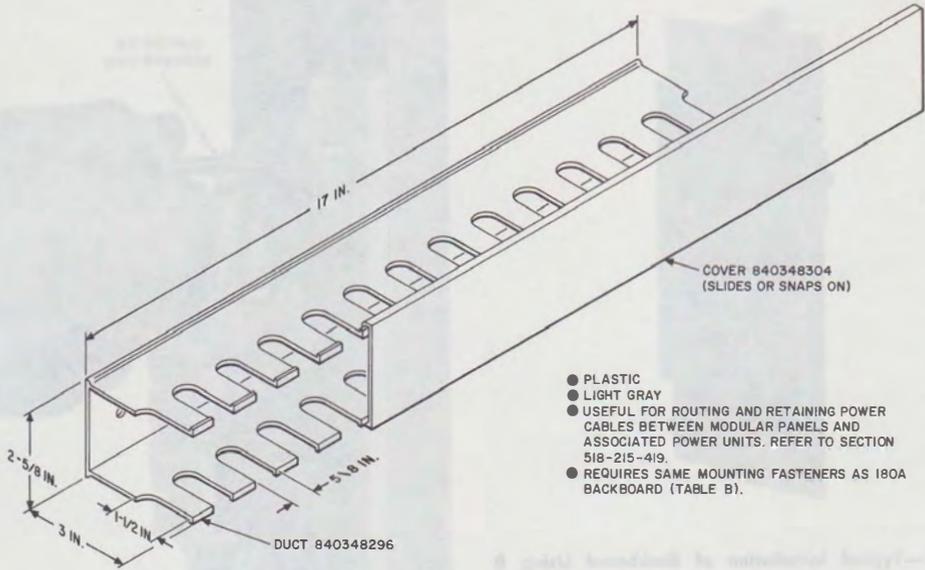


Fig. 42—Wiring Trough, 840348288

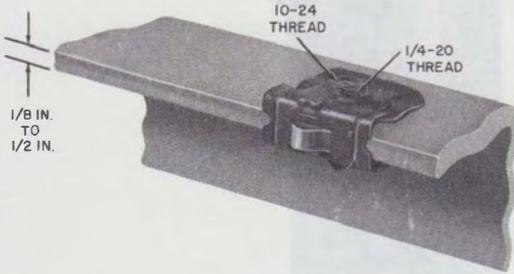


Fig. 43—B Beam Clip Mounted on Angle Iron



Fig. 44—B Insulator Support



Fig. 45—Typical Installation of Backboard Using B Beam Clip

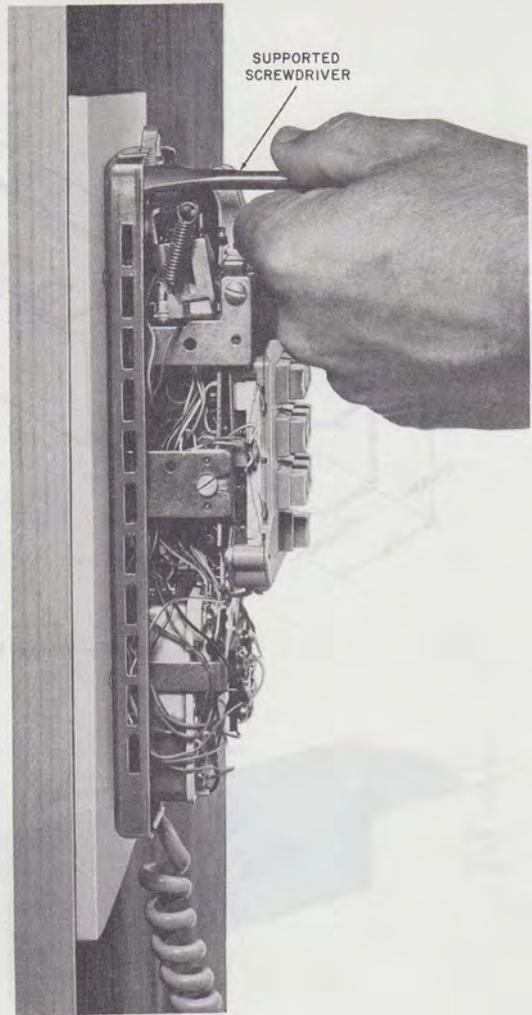


Fig. 46—Tightening Fasteners Which Support Telephone Set and 182B or 191C Backboard

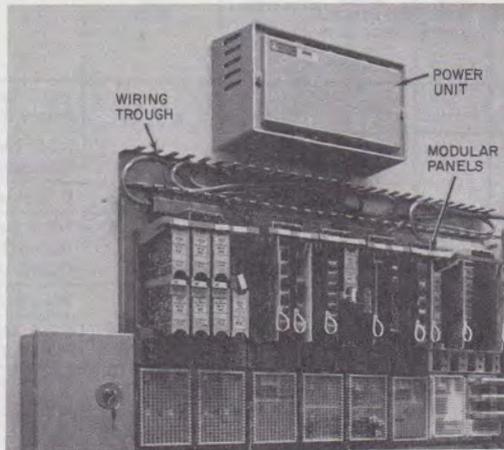


Fig. 47—Typical Installation of 840348288 Wiring Trough (Cover Removed)

TABLE B
FASTENERS USED IN MOUNTING BACKBOARDS

BACK-BOARD	MOUNTING SURFACES						HOLE SIZE REQD	FASTENERS		
	TYPE	SOFT-WOOD	HARD-WOOD	MASONRY* (CONCRETE, BRICK)	LATH AND PLASTER†	PLASTER, CINDER BLOCK, HOLLOW TILE, METAL LATH, PLASTER-BOARD†		METAL (DESK OR PANELING)	SIZE AND TYPE (NOTE 2 AND 3)	QTY (NOTE 1)
79, 81		•						3/32 or No. 33	1-1/2 Inch No. 8 FH Cadmium Plated Tapping Screw	4
			•						1-1/2 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	
				•				None	B Masonry Fastener, Size 6	
								3/16	1-1/2 Inch No. 8 FH Cadmium Plated Tapping Screw in No. 10 Plastic Anchor	
					•			1/4	Wall Screw Anchor, 1/4 Inch	
								3/32 or No. 33	1-1/2 Inch No. 8 FH Cadmium Plated Tapping Screw	
						•		None	B Masonry Fastener, Size 8	
							•	1/4	Wall Screw Anchor, 1/4 Inch	
147 154		•						3/32 or No. 33	1-1/2 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	4
			•						1-1/4 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	
				•				None	B Masonry Fastener, Size 5	
								3/16	1-1/2 Inch No. 8 PH or FH Cadmium Plated Tapping Screw in No. 10 Plastic Anchor	
					•			1/4	Wall Screw Anchor, 1/4 Inch	
								3/32 or No. 33	1-1/2 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	
						•		None	B Masonry Fastener, Size 6	
							•	1/4	Wall Screw Anchor, 1/4 Inch	
155, 156		•						3/32 or No. 33	3/4-Inch No. 8 PH or FH Cadmium Plated Tapping Screw	2
			•							
163		•						3/32 or No. 33	1-1/2 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	4
			•						1-1/4 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	

TABLE B (Contd)

FASTENERS USED IN MOUNTING BACKBOARDS

BACK-BOARD	MOUNTING SURFACES						HOLE SIZE REQUIRED	FASTENERS		
	TYPE	SOFT-WOOD	HARD-WOOD	MASONRY* (CONCRETE, BRICK)	LATH AND PLASTER†	PLASTER, CINDER BLOCK, HOLLOW TILE, METAL LATH, PLASTER-BOARD‡		METAL (DESK OR PANELING)	SIZE AND TYPE (NOTE 2 AND 3)	QTY (NOTE 1)
163				•				None	B Masonry Fastener, Size 5	4
				•				3/16	1-1/2 Inch No. 8 PH or FH Cadmium Plated Tapping Screw in No. 10 Plastic Anchor	
				•				1/4	Wall Screw Anchor, 1/4 Inch	3
					•			3/32 or No. 33	1-1/2 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	
						•		None	B Masonry Fastener, Size 6	
								1/4	Wall Screw Anchor, 1/4 Inch	
								1/2	1/8- by 4-Inch BH Toggle Bolt	
							•	No. 33	1-Inch No. 8 RH Self-Tapping Screw	
164	•							3/32 or No. 33	1-1/4 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	4
		•							1-Inch No. 8 RH Blued Wood Screw	
				•				None	B Masonry Fastener, Size 6	
								3/16	1-1/2 Inch No. 8 PH or FH Cadmium Plated Tapping Screw in No. 10 Plastic Anchor	
					•			1/4	Wall Screw Anchor, 1/4 Inch	
								3/32 or No. 33	1-1/4 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	
						•		None	B Masonry Fastener, Size 8	
								1/4	Wall Screw Anchor, 1/4 Inch	
165								1/2	1/8- by 4-Inch BH Toggle Bolt	4
	•							No. 33	5/8-Inch No. 8 RH Self-Tapping Screw	
		•						3/32 or No. 33	2-1/2 Inch No. 8 RH Galvanized Wood Screw	
				•				None	B Masonry Fastener, Size 8	
								3/16	2-1/2 Inch No. 8 RH Galvanized Wood Screw in No. 10 Plastic Anchor	
					•			7/16	Wall Screw Anchor, 7/16 Inch	
								3/32 or No. 33	2-1/2 Inch No. 8 RH Galvanized Wood Screw	

TABLE B (Contd)

FASTENERS USED IN MOUNTING BACKBOARDS

BACK-BOARD	MOUNTING SURFACES						HOLE SIZE REQUIRED	FASTENERS	
	TYPE	SOFT-WOOD	HARD-WOOD	MASONRY* (CONCRETE, BRICK)	LATH AND PLASTER†	PLASTER, CINDER BLOCK, HOLLOW TILE, METAL LATH, PLASTER-BOARD‡		METAL (DESK OR PANELING)	SIZE AND TYPE (NOTE 2 AND 3)
165						•	None	B Masonry Fastener, Size 10	4
							7/16	Wall Screw Anchor, 7/16 Inch	
							5/8	3/16- by 4-Inch BH Toggle Bolt	
166		•					3/32 or No. 33	1-1/2 Inch No. 14 RH Galvanized Wood Screw	4
			•					1-Inch No. 14 RH Galvanized Wood Screw	
				•			5/16	1-1/4 Inch No. 14 RH Galvanized Wood Screw in No. 16 Plastic Anchor	
					•		7/16	Wall Screw Anchor, 7/16 Inch	
						•	1/8 or No. 30	1-1/2 Inch No. 14 RH Galvanized Wood Screw	
						•	7/16	Wall Screw Anchor, 7/16 Inch	
							3/4	1/4- by 4-Inch RH Toggle Bolt	
168		•					3/32 or No. 33	1-Inch No. 8 PH or FH Cadmium Plated Tapping Screw	4
			•					3/4-Inch No. 8 PH or FH Cadmium Plated Tapping Screw	
				•			None	B Masonry Fastener, Size 4	
					•		3/16	1-1/4 Inch No. 8 PH or FH Cadmium Plated Tapping Screw in No. 10 Plastic Anchor	
					•		3/16	C Plastic Anchor, /16 by 1 Inch C Plastic Anchor, /16 by 1 Inch	
					•		1/4	Wall Screw Anchor, 1/4 Inch	
						•	3/32 or No. 33	1-Inch No. 8 PH or FH Cadmium Plated Tapping Screw	
						•	None	B Masonry Fastener, Size 5	
						•	1/4	Wall Screw Anchor, 1/4 Inch	
						•	1/2	1/8- by 4-Inch BH Toggle Bolt	
						3/16	C Plastic Anchor, 3/16 by 1 Inch		
						•	No. 33	5/8-Inch No. 8 RH Self-Tapping Screw	
						•	3/16	C Plastic Anchor, 3/16 by 1 Inch	

TABLE B (Contd)
FASTENERS USED IN MOUNTING BACKBOARDS

BACK-BOARD	MOUNTING SURFACES						HOLE SIZE REQUIRED	FASTENERS	
	TYPE	SOFT-WOOD	HARD-WOOD	MASONRY* (CONCRETE, BRICK)	LATH AND PLASTER†	PLASTER, CINDER BLOCK, HOLLOW TILE, METAL LATH, PLASTER-BOARD†		METAL (DESK OR PANELING)	SIZE AND TYPE (NOTE 2 AND 3)
169		•						1-1/2 Inch No. 14 RH Galvanized Wood Screw	4
			•					1-Inch No. 14 RH Galvanized Wood Screw	
				•				None C Masonry Fastener, Size 42	
					•			5/16 1-Inch No. 14 RH Galvanized Wood Screw in No. 16 Plastic Anchor	
						•		1/4 Wall Screw Anchor, 1/4 Inch	3
							•	1/8 or No. 30 1-1/2 Inch No. 14 RH Galvanized Wood Screw	
							•	None C Masonry Fastener, Size 52	
							•	3/8 Wall Screw Anchor, 3/8 Inch	
							•	5/8 3/16- by 4-Inch BH Toggle Bolt	
							•	1/4 12-24 by 9/16-Inch RH Galvanized Iron Machine Screw	
171		•						3/32 or No. 33 1-Inch No. 8 PH or FH Cadmium Plated Tapping Screw	4
			•					3/4-Inch No. 8 PH or FH Cadmium Plated Tapping Screw	
				•				None B Masonry Fastener, Size 4	
								3/16 1-Inch No. 8 PH or FH Cadmium Plated Tapping Screw in No. 10 Plastic Anchor	
								3/16 C Plastic Anchor, 3/16 by 1 Inch	
					•			1/4 Wall Screw Anchor, 1/4 Inch	
								3/32 or No. 33 1-Inch No. 8 PH or FH Cadmium Plated Tapping Screw	
								None B Masonry Fastener, Size 5	
						•		1/4 Wall Screw Anchor 1/4 Inch	
								1/2 1/8- by 4-Inch BH Toggle Bolt	
								3/16 C Plastic Anchor, 3/16 by 1 Inch	
							•	3/16 C Plastic Anchor, 3/16 by 1 Inch	
							No. 33 5/8-Inch No. 8 RH Self-Tapping Screw		
172		•						3/32 or No. 33 1-1/2 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	4
			•					1-1/4 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	

TABLE B (Contd)

FASTENERS USED IN MOUNTING BACKBOARDS

BACK-BOARD	MOUNTING SURFACES						HOLE SIZE REQUIRED	FASTENERS	
	TYPE	SOFT-WOOD	HARD-WOOD	MASONRY* (CONCRETE, BRICK)	LATH AND PLASTER†	PLASTER, CINDER BLOCK, HOLLOW TILE, METAL LATH, PLASTER-BOARD†		METAL (DESK OR PANELING)	SIZE AND TYPE (NOTE 2 AND 3)
172				•			None	B Masonry Fastener, Size 5	4
							3/16	1-1/2 Inch No. 8 PH or FH Cadmium Plated Tapping Screw in No. 10 Plastic Anchor	
					•		1/4	Wall Screw Anchor, 1/4 Inch	
							3/32 or No. 33	1-1/2 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	3
						•	None	B Masonry Fastener, Size 6	
							1/4	Wall Screw Anchor, 1/4 Inch	
							1/2	1/8- by 4-Inch BH Toggle Bolt	
						•	No. 33	1-Inch No. 8 RH Self-Tapping Screw	
173	•						1/8 or No. 30	2-1/2 Inch No. 14 FH Cadmium Plated Tapping Screw with 5/16-by 3/4-Inch Round Washer	4
		•						1-1/4 Inch No. 14 FH Cadmium Plated Tapping Screw with 5/16-by 3/4-Inch Round Washer	
				•			None	B Masonry Fastener, Size 6	
							5/16	1-3/4-Inch No. 14 FH Cadmium Plated Tapping Screw with 5/16-by 3/4-Inch Round Washer in No. 16 Plastic Anchor	
					•		7/16	Wall Screw Anchor, 7/16 Inch	
							1/8 or No. 30	1-3/4 Inch No. 14 FH Cadmium Plated Tapping Screw with 5/16-by 3/4-Inch Round Washer	
						•	None	B Masonry Fastener, Size 8	
						7/16	Wall Screw Anchor, 7/16 Inch		
						•	3/4	1/4- by 4-Inch RH Toggle Bolt with 5/16- by 3/4-Inch Round Washer	
176	•						3/32 or No. 33	1-Inch No. 8 PH or FH Cadmium Plated Tapping Screw	4
		•						3/4-Inch No. 8 PH or FH Cadmium Plated Tapping Screw	
				•			None	B Masonry Fastener, Size 4	
							3/16	1-1/4 Inch No. 8 PH or FH Cadmium Plated Tapping Screw in No. 10 Plastic Anchor	
							3/16	C Plastic Anchor, 3/16 by 1 Inch	

TABLE B (Contd)

FASTENERS USED IN MOUNTING BACKBOARDS

BACK-BOARD	MOUNTING SURFACES						HOLE SIZE REQUIRED	FASTENERS	
	TYPE	SOFT-WOOD	HARD-WOOD	MASONRY * (CONCRETE, BRICK)	LATH AND PLASTER†	PLASTER, CINDER BLOCK, HOLLOW TILE, METAL LATH, PLASTER-BOARD†		METAL (DESK OR PANELING)	SIZE AND TYPE (NOTE 2 AND 3)
176							3/16	C Plastic Anchor, 3/16 by 1 Inch	4
					•		1/4	Wall Screw Anchor, 1/4 Inch	
							3/32 or No. 33	1-Inch No. 8 PH or FH Cadmium Plated Tapping Screw	
							None	B Masonry Fastener, Size 5	
						•	1/4	Wall Screw Anchor, 1/4 Inch	
							1/2	1/8- by 4-Inch BH Toggle Bolt	
							3/16	C Plastic Anchor, 3/16 by 1 Inch	
							No. 33	5/8-Inch No. 8 RH Self-Tapping Screw	
						•	3/16	C Plastic Anchor, 3/16 by 1 Inch	
177	•						1/8 or No. 30	1-1/2 Inch No. 14 FH Cadmium Plated Tapping Screw	4
		•						1-Inch No. 14 FH Cadmium Plated Tapping Screw	
				•			5/16	1-1/4 Inch No. 14 FH Cadmium Plated Tapping Screw in No. 16 Plastic Anchor	
						•	None	C Masonry Fastener, Size 52	
							3/4	1/4- x 3- or 4-Inch Toggle Bolt	
180A	•						3/32 or No. 33	1-Inch No. 8 PH or FH Cadmium Plated Tapping Screw	4
		•						3/4-Inch No. 8 PH or FH Cadmium Plated Tapping Screw	
				•			None	B Masonry Fastener, Size 5	
							3/16	1-1/2 Inch No. 8 PH or FH Cadmium Plated Tapping Screw in No. 10 Plastic Anchor	
					•		1/4	Wall Screw Anchor, 1/4 Inch	
							3/32 or No. 33	1-Inch No. 8 PH or FH Cadmium Plated Tapping Screw	
						•	1/4	Wall Screw Anchor, 1/4 Inch	
							1/2	1/8- by 4-Inch BH Toggle Bolt	
						•	No. 33	3/4-Inch No. 8 RH Self-Tapping Screw	
181	•						1/8 or No. 30	1-1/2 Inch No. 14 RH Galvanized Wood Screw	4
		•						1-Inch No. 14 RH Galvanized Wood Screw	

◆ TABLE B (Contd) ◆

FASTENERS USED IN MOUNTING BACKBOARDS

BACK-BOARD TYPE	MOUNTING SURFACES						HOLE SIZE REQUIRED	FASTENERS	
	SOFT- WOOD	HARD- WOOD	MASONRY* (CONCRETE, BRICK)	LATH AND PLASTER†	PLASTER, CINDER BLOCK, HOLLOW TILE, METAL LATH, PLASTER- BOARD†	METAL (DESK OR PANELING)		SIZE AND TYPE (NOTE 2 AND 3)	QTY (NOTE 1)
181			•				None	C Masonry Fastener, Size 42	4
							5/16	1-Inch No. 14 RH Galvanized Wood Screw in No. 16 Plastic Anchor	
				•			1/4	Wall Screw Anchor, 1/4 Inch	
							1/8 or No. 30	1-1/2 Inch No. 14 RH Galvanized Wood Screw	3
					•		None	C Masonry Fastener, Size 52	
							3/8	Wall Screw Anchor, 3/8 Inch	
						•	5/8	3/16- by 4-Inch BH Toggle Bolt	
						1/4	12-24 by 9/16-Inch RH Galvanized Iron Machine Screw		
182, 191	•						3/32 or No. 33	1-1/4 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	2
		•					None	B Masonry Fastener, Size 5	
			•				3/16	1-1/2 Inch No. 8 PH or FH Cadmium Plated Tapping Screw in No. 10 Plastic Anchor	
							1/4	Wall Screw Anchor, 1/4 Inch	
				•			3/32 or No. 33	1-1/4 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	
					•		None	B Masonry Fastener, Size 6	
							1/4	Wall Screw Anchor, 1/4 Inch	
							1/2	1/8- by 4-Inch BH Toggle Bolt	
						•	No. 33	1-Inch No. 8 RH Self-Tapping Screw	
							3/16	C Plastic Anchor, 3/16 by 1 Inch	
183, 184, 185, 187‡, 188 198‡	•						3/32 or No. 33	1-1/2 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	4
		•					None	B Masonry Fastener, Size 5	
			•				3/16	1-1/2 Inch No. 8 PH or FH Cadmium Plated Tapping Screw in No. 10 Plastic Anchor	
							1/4	Wall Screw Anchor, 1/4 Inch	
					•		3/32 or No. 33	1-1/2 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	

◆ TABLE B (Contd) ◆

FASTENERS USED IN MOUNTING BACKBOARDS

BACK-BOARD	MOUNTING SURFACES						HOLE SIZE REQUIRED	FASTENERS	
	TYPE	SOFT-WOOD	HARD-WOOD	MASONRY * (CONCRETE, BRICK)	LATH AND PLASTER†	PLASTER, CINDER BLOCK, HOLLOW TILE, METAL LATH, PLASTER-BOARD‡		METAL (DESK OR PANELING)	SIZE AND TYPE (NOTE 2 AND 3)
183 184, 185, 187‡, 188 198‡						•	None	B Masonry Fastener, Size 6	4
							1/4	Wall Screw Anchor, 1/4 Inch	
							1/2	1/8- by 4-Inch BH Toggle Bolt	
						•	No. 33	1-Inch No. 8 RH Self-Tapping Screw	
186		•					3/32 or No. 33	1-Inch No. 8 FH Cadmium Plated Tapping Screw	2
			•				None	B Masonry Fastener, Size 5	
							3/16	1-1/2 Inch No. 8 FH Cadmium Plated Tapping Screw in No. 10 Plastic Anchor	
					•		1/4	Wall Screw Anchor, 1/4 Inch 1-Inch No. 8 FH Cadmium Plated Tapping Screw	
KS-5796, L1, 2, 3, 7, 8, 9		•					3/32 or No. 33	1-1/4 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	4
			•					1-Inch No. 8 RH PH or FH Cadmium Plated Tapping Screw	
							None	B Masonry Fastener, Size 4	
				•			1/4	1-1/4 Inch No. 8 PH or FH Cadmium Plated Tapping Screw in No. 10 Plastic Anchor	
							3/16	C Plastic Anchor, 3/16 by 1 Inch	
					•		1/4	Wall Screw Anchor, 1/4 Inch	
							3/32 or No. 33	1-1/4 Inch No. 8 PH or FH Cadmium Plated Tapping Screw	
							None	B Masonry Fastener, Size 6	
						•	1/4	Wall Screw Anchor, 1/4 Inch	
							1/2	1/8- by 4-Inch BH Toggle Bolt	
							3/16	C Plastic Anchor, 3/16 by 1 Inch	
							•	No. 33	
							3/16	C Plastic Anchor, 3/16 by 1 Inch	

TABLE B (Contd)

FASTENERS USED IN MOUNTING BACKBOARDS

BACK-BOARD	MOUNTING SURFACES						HOLE SIZE REQUIRED	FASTENERS	
	TYPE	SOFT-WOOD	HARD-WOOD	MASONRY* (CONCRETE, BRICK)	LATH AND PLASTER†	PLASTER, CINDER BLOCK, HOLLOW TILE, METAL LATH, PLASTER-BOARD‡		METAL (DESK OR PANELING)	SIZE AND TYPE (NOTE 2 AND 3)
ED-69368-50, G-1	•						1/8 or No. 30	2-1/2 Inch No. 14 FH Cadmium Plated Tapping Screw with 5/16 x 3/4 and 7/16 x 1-Inch Flat Washers under screwhead	6
		•						2-1/2-Inch No. 14 FH Cadmium Plated Tapping Screw with 5/16 x 3/4 and 7/16 x 1-Inch Flat Washers under screwhead	
				•			5/16	2-1/2-Inch No. 14 FH Cadmium Plated Tapping Screw with 5/16 x 3/4 and 7/16 x 1-Inch Flat Washers under screwhead in No. 16 Plastic Anchor	6
					•		5/8	3/16 x 3 or 4-Inch BH Toggle Bolt with 5/16 x 3/4 and 7/16 x 1-Inch Flat Washers under bolt head	
197	Refer to Section 518-450-111								

Notes:

- Additional fasteners may be placed to ensure mounting.
 - When using toggle bolts, cut off excess length.
 - Size shown for wall screw anchors is diameter only. Length will be determined by wall thickness.
- * When mounting on plastered masonry, use fasteners 1/2-inch longer than specified.
- † When mounting on plasterboard, plaster on lath, etc, fasteners must be embedded in stud at least 1 inch.
- ‡ Requires only 2 fasteners.