

CONNECTING BLOCKS 57, 59, AND 60 TYPES IDENTIFICATION, INSTALLATION, AND WIRING

1. GENERAL

1.01 The connecting blocks covered in this section are equipped with insulation-crushing washers (MD) or insulation-crushing nuts. This permits terminating plastic insulated conductors without stripping or removing insulation.

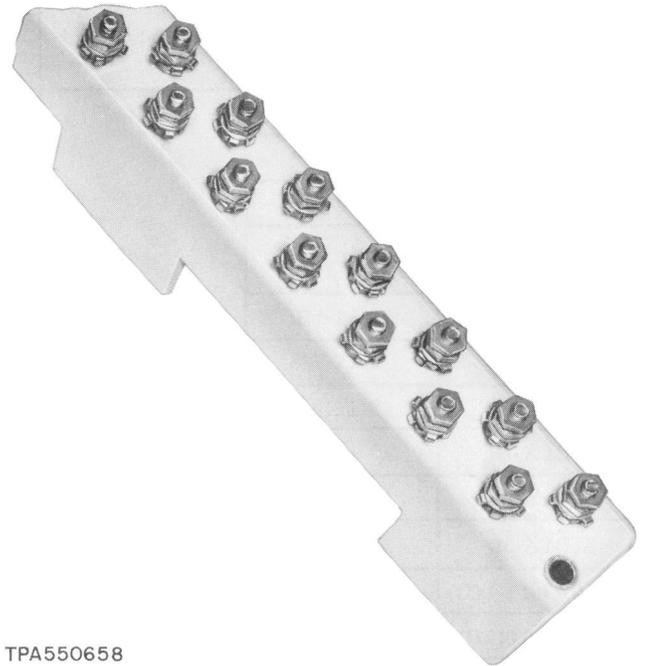
1.02 This section is reissued to:

- Add information that 57A2-type connecting blocks can now accommodate 14A fuse holders.
- Show 59A1-, 59A2-, and 59B2-type connecting blocks (MD).

2. IDENTIFICATION AND INSTALLATION

2.01 *57A2 Series Connecting Blocks (Fig. 1):*

- Consist of binding posts molded in injection molded blocks.
- Binding posts accommodate insulation-crushing washers (MD) or current production insulation-crushing nuts.
- Equipped with insulation crushing hardware, (except 57A2A-6) a hex nut, and flat washer for terminating one conductor on each binding post.
- Provided with additional insulation-crushing hardware for making second PIC conductor connection (packaged separately).
- Available with 10 or 16 pairs of binding posts.
- Height of 57A2-10 and 57A2-16 connecting blocks (Fig. 1) increased so that 14A fuse holders equipped with 60-type fuses can be



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Fig. 1—57A2-Type Connecting Block

installed on binding posts for sneak current protection.⚡

- See Table A for dimensions and intended use.
- Refer to the appropriate section in Division 631 for information on terminals and closures used to mount the connecting blocks.
- Mounting holes provided in connecting blocks.
- Mounting screws provided.

2.02 *57A2A-6 Connecting Blocks (Fig. 2):*

- Component of 116C protector

◆ TABLE A ◆
IDENTIFICATION

BLOCK CONN CODE (NOTE)	DIMENSIONS (APPROX. INCHES)			PROTECTOR UNITS	INTENDED USE		
	LENGTH	WIDTH	DEPTH				
57A2-10	11-9/16	1-1/4	1-7/8	None	38-Y-3915 cable terminal (MD) or 5-type closure		
57A2-16	18		1-1/2		5-type closure		
57A2A-6*	7-1/2	2	1-3/4	12, No. 2A1A	116D protector		
57A2A-10	11-1/2		1-7/8	20, No. 2A1A	5A1 closure		
57A2A-16	17-7/8		32, No. 2A1A	5B1 closure			
57A2B-6	7-1/2		1-3/4	12, No. 2A1B	116D2B-6, 116D3B-6 (MD) protector		
57A2B-10	11-1/2		1-7/8	20, No. 2A1B	5-type closure		
57A2B-16	17-7/8			32, No. 2A1B			
57B1A-10	12-3/4		4-1/4	2-1/8	20, No. 2A1A	G-type terminal box or 1A1 cable terminal sections	
57B1A-16	19-1/8			32, No. 2A1A			
57B1A-25	17-1/4	7-5/16	2-5/64	50, No. 2A1A	H202 cable terminal section		
57B1A-50	31-1/6	100, No. 2A1A					
59A1-11(MD)	9-11/16	3-5/8	1-15/16	None	G-type terminal boxes or No. 1A1 cable terminal sections		
59A1-16(MD)	12-13/16						
59A1-25(MD)	19-1/16	2-7/8					
59A1-50(MD)		5	2-1/16				
59A2-11(MD)	9-31/32	2-5/8	1-3/4				
59A2-16(MD)	12-13/16						
59A2-25(MD)	19-1/16					4-7/8	2-5/64
59A2-50(MD)							
59B2-75(MD)	28-13/16	4-1/4	3-11/16	H-type cable terminal section			
59B2-100(MD)	36-13/16						
59B2-300(MD)	54-3/4				6-5/8	4-5/16	
60A1-6(MD)	3-1/4	1-27/32	2-9/32	6, No. 2A1A	137 load coil cases or B cable closure		
60A2-6 (MD)			2-1/4				
60A1A-3		2-1/32	2-3/32	6, No. 2A1A	No. 467-type apparatus case		
60A1B-3				6, No. 2A1B	B cable closure		

* Insulation — crushing hardware not furnished; order separately as P-47L774 insulation crushing nut.

Note: The number(s) succeeding the dash in the connecting block code indicates the paired binding post capacity.

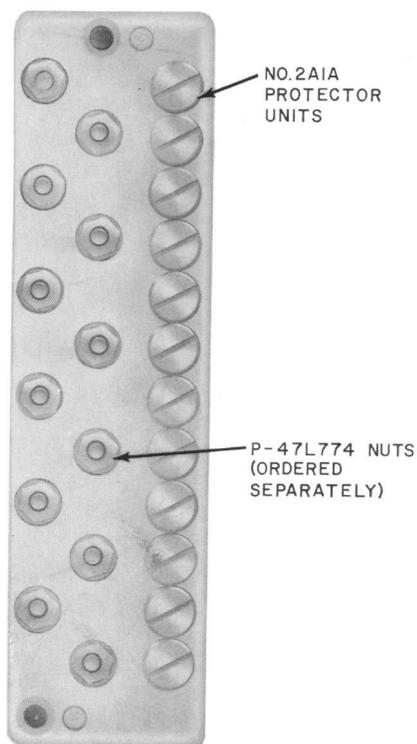


Fig. 2—57A2A-6 Connecting Block

- Used with multiple C drop wire only
- Not equipped with insulation-crushing hardware; can be ordered separately as P-47L774 insulation-crushing nut
- Provides 500-volt protection.



Station and signaling grounds shall be provided per Division 460.

2.03 57A2A-10 and 57A2A-16 Connecting Blocks:

- Equipped with P-47L774 insulation-crushing nuts
- Equipped with protector units to provide 500-volt protection.

2.04 57A2B-Type Connecting Blocks (Fig. 3):

- Furnished with a hex nut and flat washer; crushing hardware shipped loose

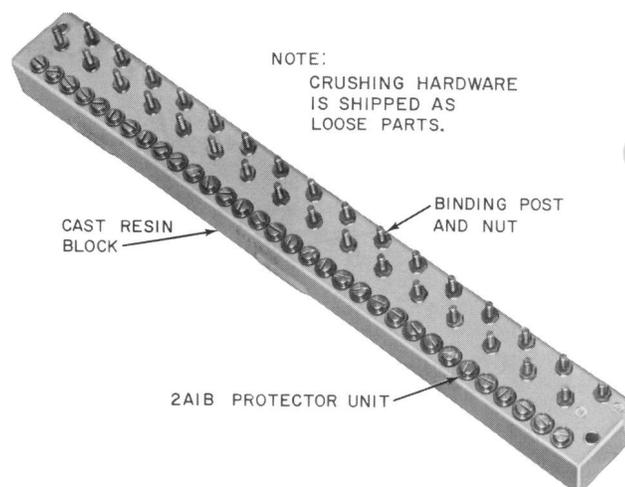


Fig. 3—57A2B-16 Connecting Block

- Equipped with protector units to provide 800-volt protection
- Available with 6, 10, or 16 pairs of binding posts (Table A).

2.05 57B1A-Type Connecting Blocks (Fig. 4):

- Consist of binding posts molded in injection molded blocks.
- Equipped with protector units and insulation-crushing hardware.
- Furnished with one set of insulation-crushing hardware assembled to each binding post.
- Additional insulation-crushing hardware furnished (packed separately).
- Equipped with two fanning strips and clamp for No. 6 ground wire.



Station and signal grounds shall be provided per Division 460.

- A 2A ground terminal can be added when multiple signal grounds are required (refer to Division 638).
- Provides 500-volt protection.

BINDING POST,
NUT, FLAT WASHER
AND CRUSHING WASHER
(NOTE)

2A1A
PROTECTOR

FANNING
STRIP

NOTE:

ADDITIONAL NUTS,
FLAT WASHERS, AND
CRUSHING WASHERS
ARE FURNISHED.

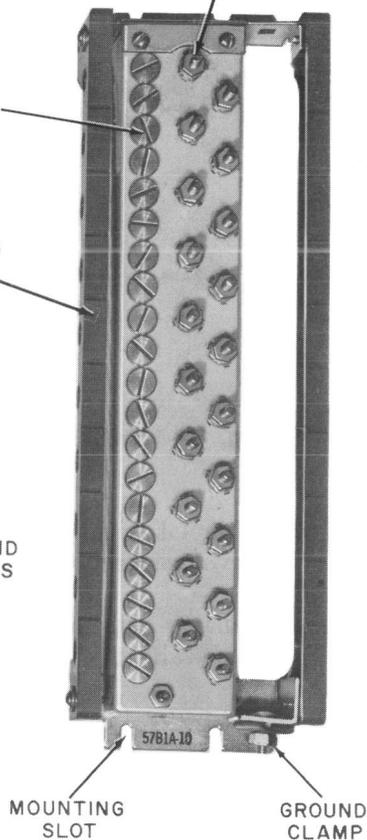


Fig. 4—57B1A-10 Connecting Block

- Can be mounted directly to wooden backboard.
- Use 3/8-inch No. 8 pan-head, type AB screws to mount connecting blocks to metal housings and 3/4-inch No. 8 screws when mounting to wooden backboards.

2.06 59A1 Series (MD) Connecting Blocks (Fig. 5):

- Consists of binding posts anchored in insulating panel.
- Assembled in light olive gray enamel finished metal chamber.
- Furnished with one set of insulation-crushing hardware installed on each binding post.

MOUNTING SLOT

FANNING STRIP

BINDING POST,
NUT, FLAT
WASHER AND
CRUSHING
WASHER
(NOTE)

NOTE:

ADDITIONAL
CRUSHING
WASHERS ARE
SHIPPED AS
LOOSE PARTS.

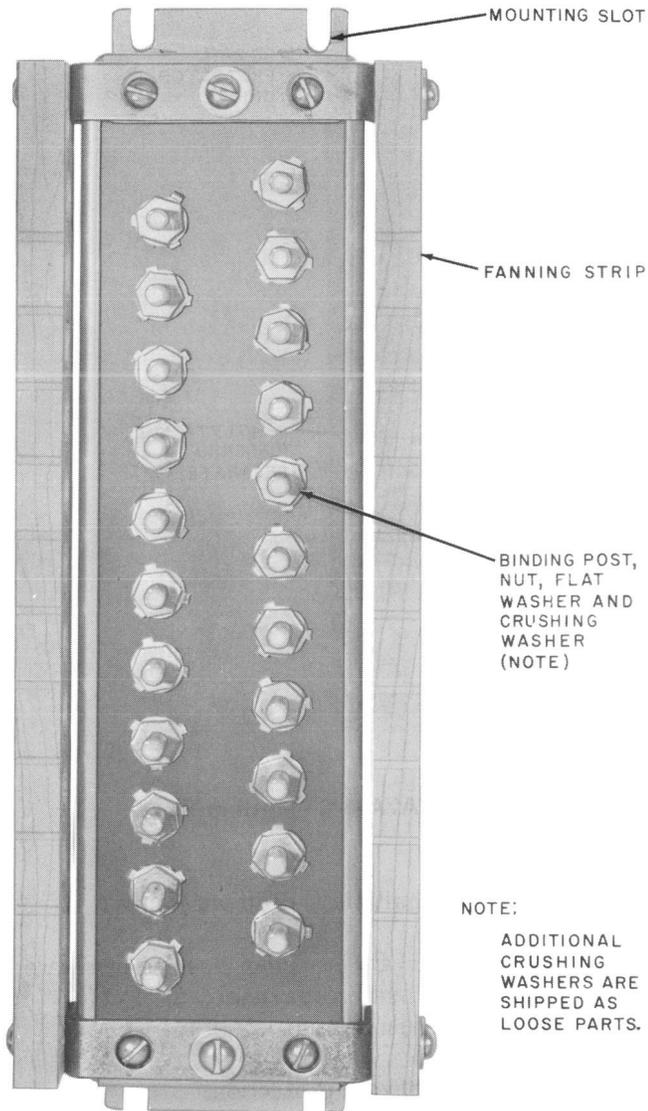


Fig. 5—59A1-11 Connecting Block

- Additional insulation-crushing hardware furnished (packed separately).
- Have fanning strip on each side of chamber.
- Available with 11, 16, 25, or 50 pairs of binding posts (see Table A).
- For use in building terminals to terminate PIC cable.
- Can be mounted to wooden backboard of H-type cable terminal section.

- When mounting to wooden backboard use 3/4-inch No. 8 pan-head, type AB screw.
- Refer to Division 631 for additional information on 59A-type connecting block installation. ♦66-type connecting block recommended to replace 59A (MD) type.♦

2.07 60 Series Connecting Blocks (Fig. 6 and 7):

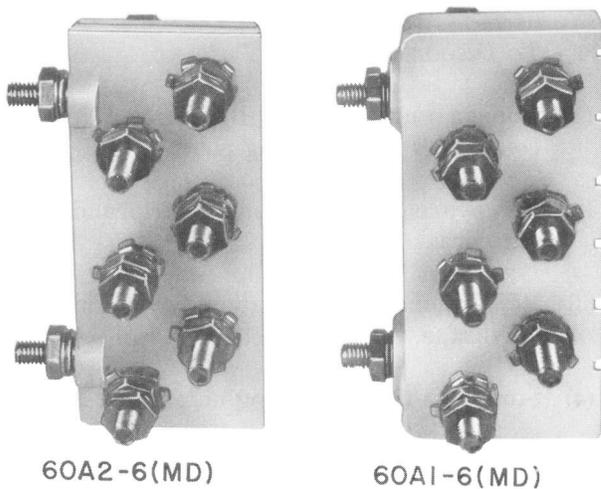


Fig. 6—60A1-6 (MD) and 60A2-6 (MD) Connecting Block

- Equipped with insulation-crushing hardware for terminating PIC conductors.

2.08 60A1-6 (MD) and 60A2-6 (MD) Connecting Block:

- A 6-pair connecting block (3 pairs each side).
- Intended for urban or rural distribution systems when loading is required.
- One set of insulation-crushing hardware and hex nut and flatwashers for making stripped wire connection installed on each binding post.
- 60A2-6 (MD) connecting block is superseded by 3A2-3 and 3A3-3 terminating blocks (refer to Division 631).

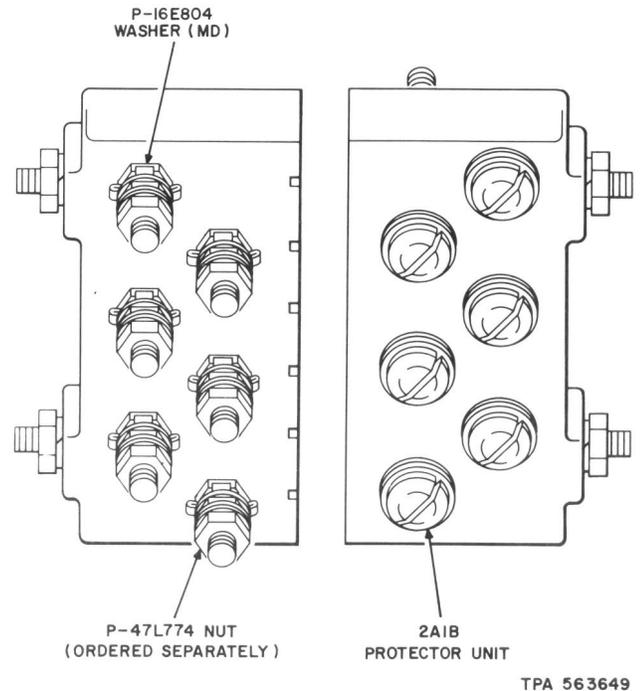


Fig. 7—60A1B-3 Connecting Block

2.09 60A1B-3 Connecting Block:

- A 3-pair fuseless protected connecting block.
- Used where lightning protection is required in vicinity of junction with exposed aerial plant.
- One set of insulation-crushing hardware and hex nut and flatwashers for making stripped wire connection installed on each binding post.
- Provides 800-volt protection.

3. WIRING AND TERMINATION

3.01 Terminate PIC Cable as Follows:

- (1) Loop the conductors through slack wire brackets and fanning strips where provided.
- (2) Form a hairpin loop in the conductor, place loop over binding post and position between flatwasher and pronged insulation-crushing washer (Fig. 8).

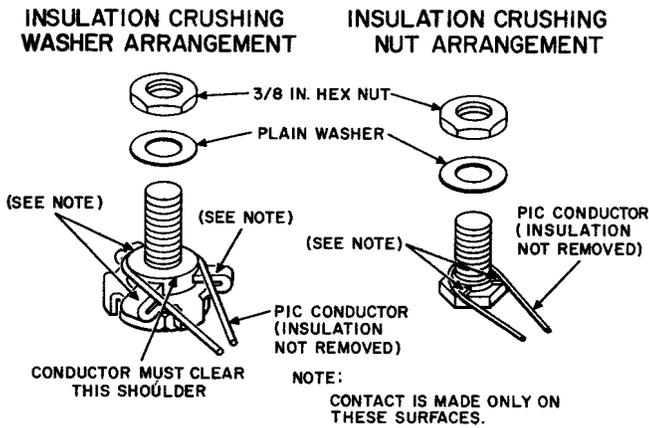


Fig. 8—Placing Plastic Insulated Conductors on Insulation-Crushing Washer (MD) or Insulation Crushing Nut

(3) Tighten the hex nut with a 216B tool to crush the insulation on the conductor. This permits an electrical connection to be made between the conductor and the anvils of the pronged nut.

Caution: Avoid pulling the conductor against the binding post threads, as the nut, when tightened, may cut the small gauge conductor.

3.02 At distribution terminals the conductor is looped through to cross-connecting terminals. The excess length of the conductor end should be cut as close to the binding post as feasible after the conductor is terminated.



Observe good housekeeping practices. Dress cable and conductors using cable ties or distribution rings to present a neat and serviceable installation.

3.03 Terminate Inside Wiring Cable and Station Wires as Follows:

- (1) Loop conductors through distribution rings when provided.
- (2) Feed conductors through appropriate holes of fanning strip.

(3) Form a hairpin loop in the end of the conductor and place around the binding post between pronged nut and plain washer (Fig. 8). Observe **Caution** in 3.01(3).

(4) Tighten hex nut with 216B tool to crush insulation of conductor, permitting electrical connection between conductor and anvils of pronged nut.

(5) Cut and remove the end of the conductor as close to the binding post as feasible.

3.04 To Disconnect a PIC Pair:

- (1) Loosen nuts with 216B tool and remove conductors from binding posts.
- (2) Remove pair from fanning strip and slack wire bracket.
- (3) Repair punctured insulation by covering with vinyl tape.
- (4) Store pair with remaining unterminated pairs.

3.05 To reuse a disconnected pair, terminate as outlined in 3.01.

3.06 Terminate Block or Drop Wire as Follows (Fig. 9):



Block or drop wires should enter the terminal through the grommet opposite the binding posts to be used. Do not cross over front of connecting block from one side of terminal to the other.

- (1) Feed block or drop wire conductor to binding post to be terminated, and strip insulation from conductor end.
- (2) Form a hairpin loop in stripped portion of conductor; place loop over binding post and between two flatwashers.
- (3) Tighten hex nut with 216B tool and cut excess conductor as close to binding post as feasible.

3.07 For wiring and termination of 60A1-6, 60A2-6, and 60A1B-3 connecting blocks, see Division 631.

NOTES:

- 1. IF CABLE PROTECTION IS REQUIRED THE P-46L859 CONNECTING BLOCK SHOULD BE REPLACED WITH A 57A2B-6 CONNECTING BLOCK
- 2. DOTTED LINES INDICATE PATH OF CROSS-CONNECTING WIRE

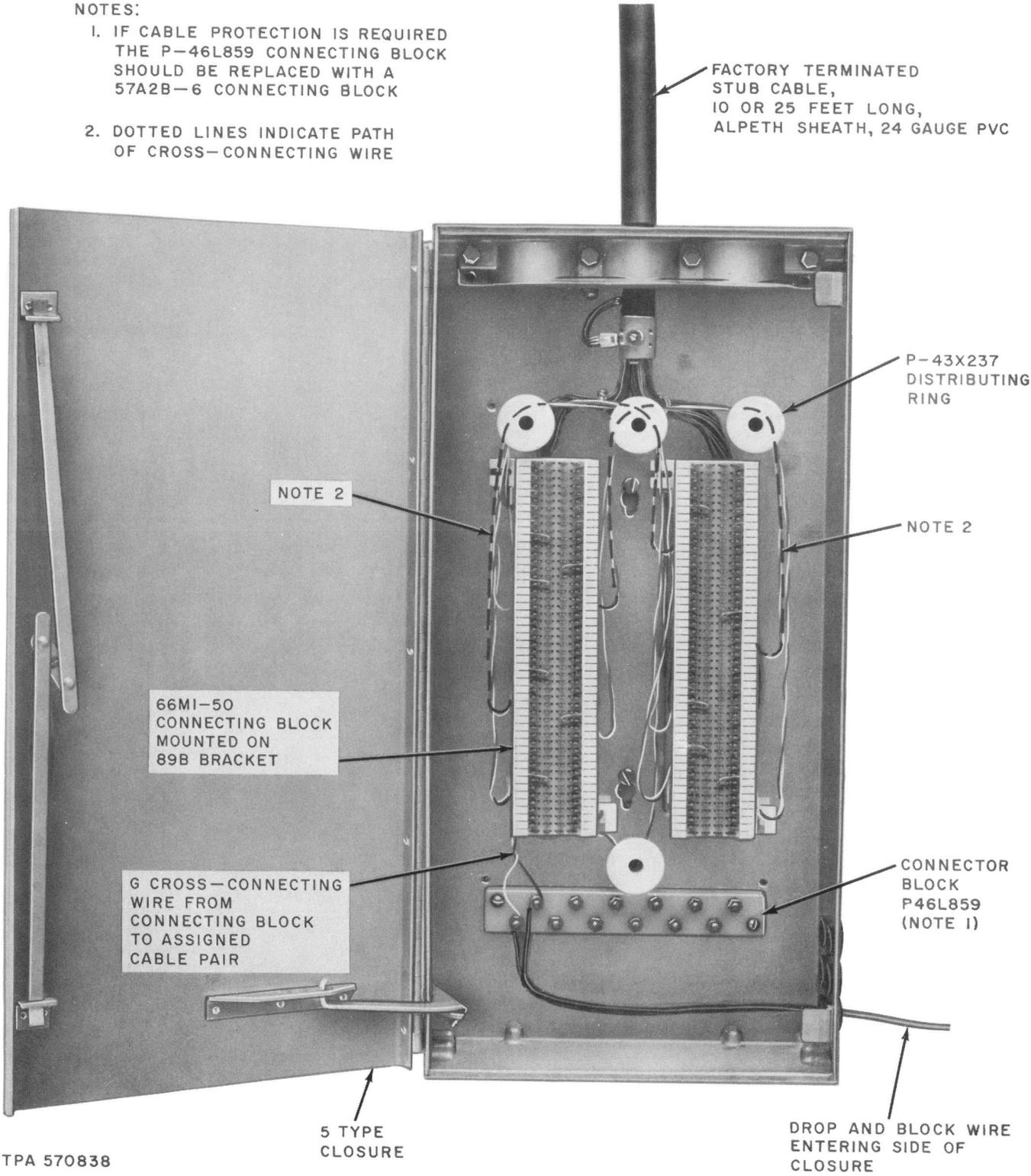


Fig. 9—Block or Drop Wire Terminated in 5-Type Closure