

49 TYPE CABLE TERMINAL TERMINATING CONDUCTORS

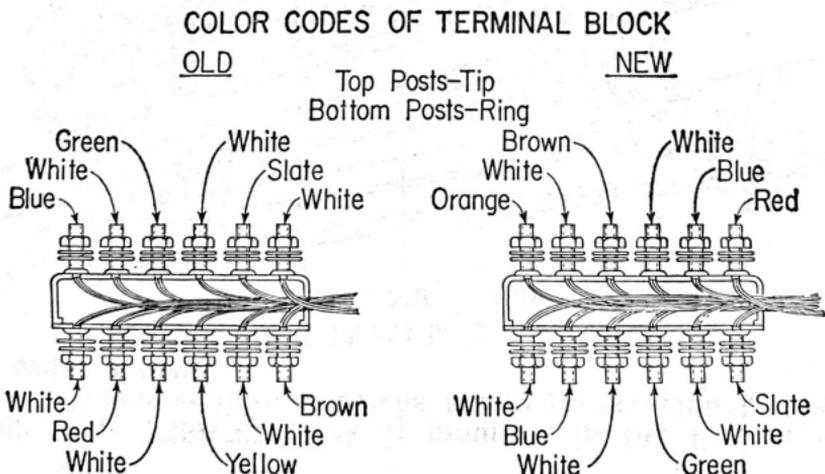
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1. GENERAL

- 1.01 This section describes the method of terminating conductors in the 49 Type Cable Terminals used on PIC cable.
- 1.02 Refer to Section G61.622.3 for the method of installing this type of terminal.
- 1.03 **PRECAUTION: Wear eye protection when cutting and terminating conductors.**

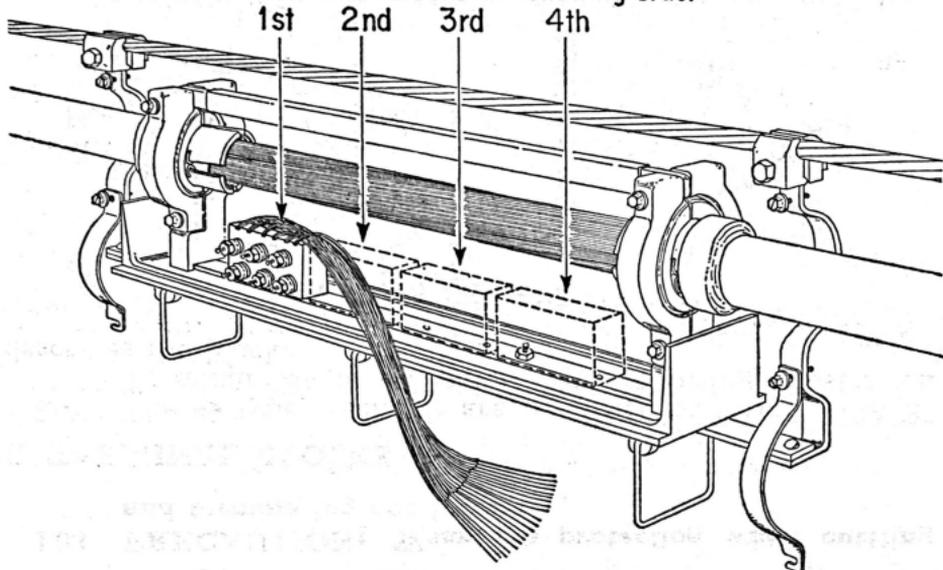
2. TERMINAL BLOCKS

2.01 The 49 type terminals are furnished with one P18A782 Terminal Block (6 pair). The following illustration describes the block.



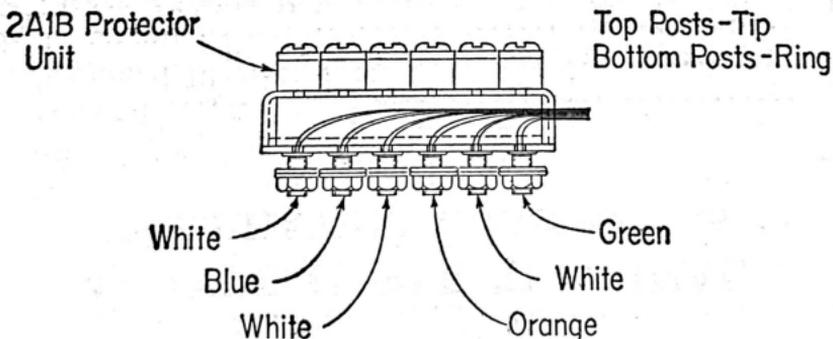
2.02 The P18A782 block is mounted in the first position. When additional blocks are required, mount them in the order shown.

Mount Terminal Blocks in following order:



2.03 If cable protection is required the P18A782 block should be removed and replaced with a 3A2B-3 (F-53458) Terminal Block (3 pair). The following illustration describes the block.

COLOR CODE OF 3A2B-3 (F-53458) TERMINAL BLOCK



Note: The initial shipments of the protected terminal blocks will be coded F-53458. This block is to be superseded by the 3A2B-3 protected Terminal Block.

2.04 In mounting a terminal block, pierce the neoprene base visible in the mounting holes, before working the studs of the block into the holes. Fasten securely with the nuts provided.

2.05 Each binding post on the block has two terminal block leads connected to it to provide an "in" and an "out" connection. The leads are skinned at each end. If dirty or tarnished they must be cleaned with emery cloth before joining.

3. TERMINATIONS

3.01 Remove the core wrapper from the sheath opening. On color coded cable having more than one binder group it is necessary to identify the group(s) containing the assigned terminations. Each of these groups must be marked before removing their unit binders, so that the color code of the groups can be determined at later visits to the terminal. Binder groups are marked with insulated wire or with colored plastic rings. The method is illustrated in Section G50.699.1. It is preferable to mark only the binder groups to which blocks are connected.

3.02 The selection of the cable pair(s) to be terminated should be done as called for on the work authorization, which should specify the method of identifying the pair, e.g., by color code or tone.

3.03 A number of methods of making the joints between the cable pair and the terminal binding post leads are available.

3.04 The H Splice Sleeves are 3/4-in. long brass sleeves. Three sizes of H sleeves are required at 49 type terminals which have 24 gauge binding post leads. These sizes are:

<u>H Splice Sleeve</u>	<u>Identifying Color Band</u>
064	Blue
054	None
044	Red

3.05 With the H Splice Sleeve, two types of insulating sleeves may be used.

- (a) **B Filled Sleeve:** This sleeve is made of plastic tubing (sealed at one end) and partially filled with a sealing

compound. This sleeve provides a water resistant seal around the H Splice Sleeve. The size used at 49 type terminals is as follows:

<u>Sleeve Size I.D.-Mils</u>	<u>Length In.</u>	<u>Color</u>	<u>Number per Package</u>
125	2-1/2 in.	Natural	260

(b) **B Plastic Sleeves:** The B Plastic Sleeves are made of plastic tubing. The sizes used at 49 type terminals are as follows:

<u>Sleeve Size I.D.-Mils</u>	<u>Length In.</u>	<u>Color</u>	<u>Number per Package</u>
106	3-1/2 in.	Black Stripe	750
133	3-1/2 in.	Red Stripe	450

3.06 The B Filled Sleeve, because of the sealing compound, is used at 49 type terminals under the following conditions:

(a) At seacoast locations subject to salt spray or at other locations where subject to corrosive industrial atmosphere.

(b) When specified in local instructions, such as for cables serving airports, defense installations or other important services.

3.07 The B Plastic Sleeve may be used at locations other than specified in Paragraph 3.06 or as specified in local instructions.

3.08 The following table lists the recommended sleeve sizes for conductor joining at 49 type terminals.

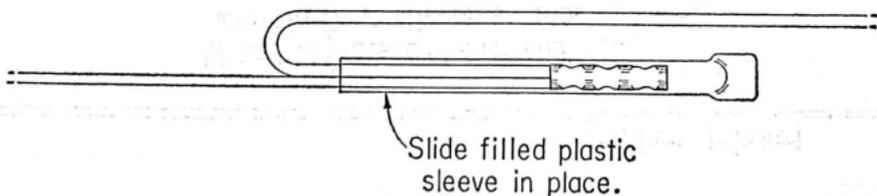
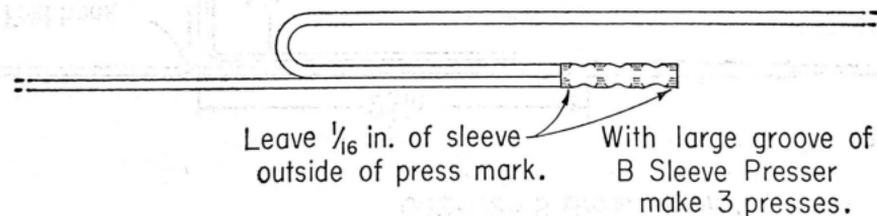
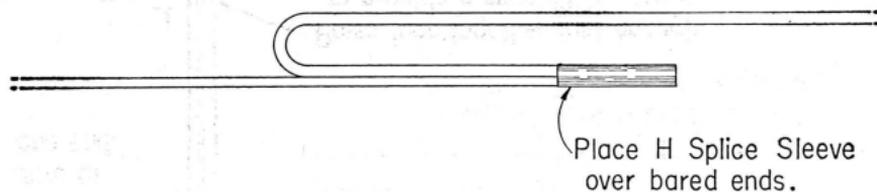
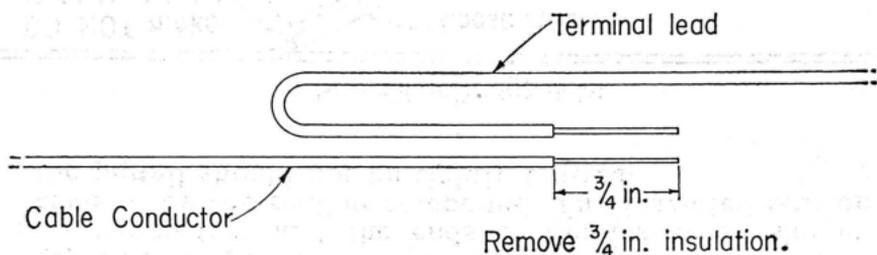
**Straight Joints
(2 Wires)**

<u>Cable Conductor</u>	<u>Terminal Block Conductor</u>	<u>H Splice Sleeve Size</u>	<u>B Filled Sleeve Size</u>	<u>B Plastic Sleeve Size</u>
19	24	064	125	133
20	24	054	125	133
22	24	054	125	106
24	24	044	125	106
26	24	044	125	106

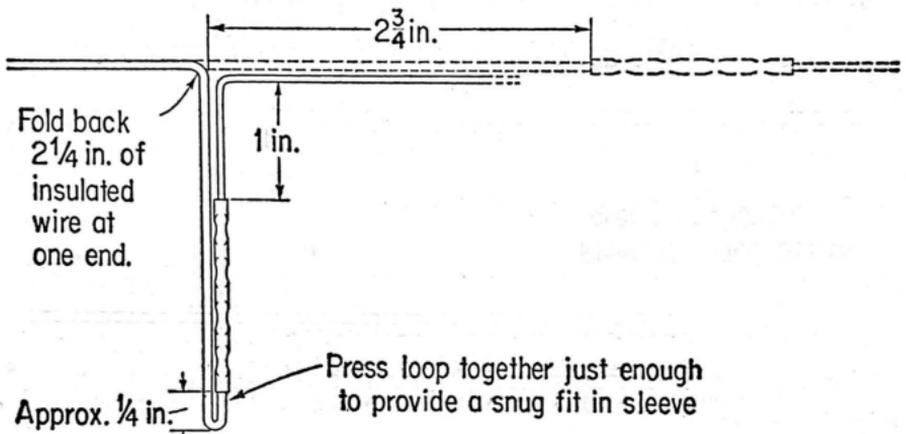
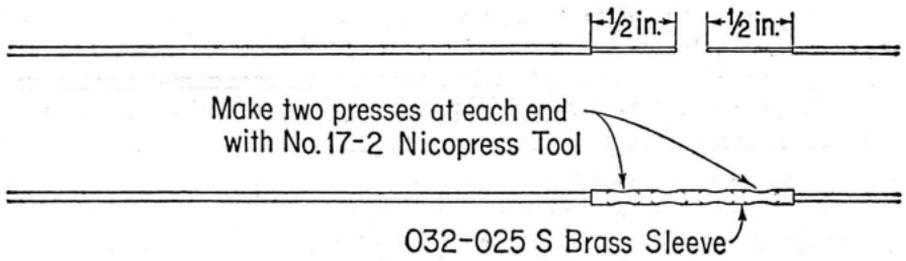
3.09 **Removing Insulation:** The insulation should be removed carefully, particular care being taken not to nick or scrape the conductor.

3.10 The **method of making conductor joints** using the B-Filled Sleeve is shown below.

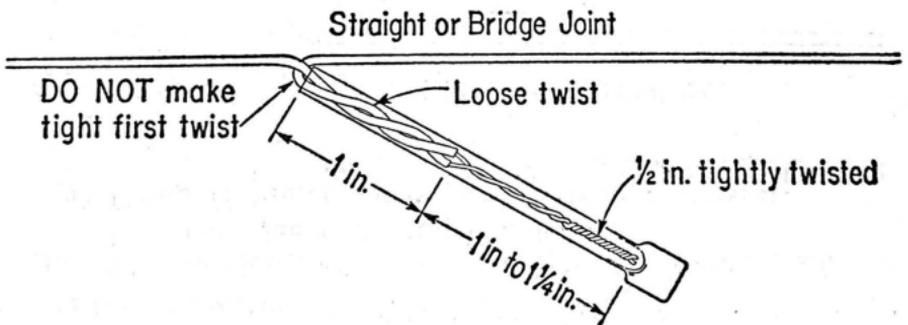
(a) Using H Splice Sleeve and B Sleeve Presser.



(b) Using 032-025 S Brass Sleeve.

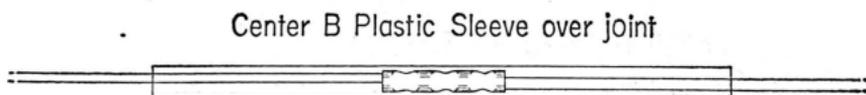
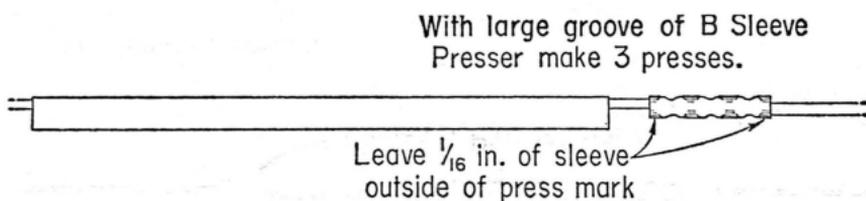
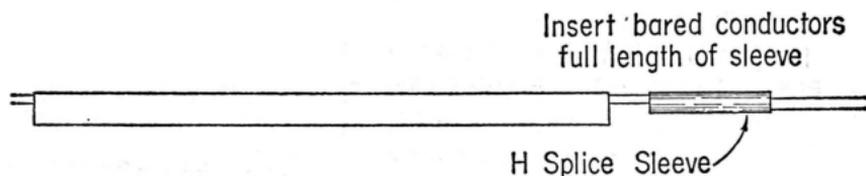
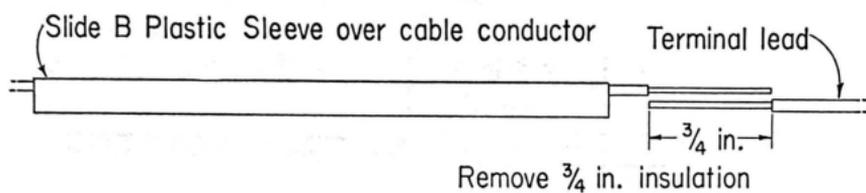


(c) Twisted Joints are formed as illustrated below. The bare conductors and the ends of the insulation should be covered by the sealing compound. The insulated portion of the pigtail should not be tightly twisted.

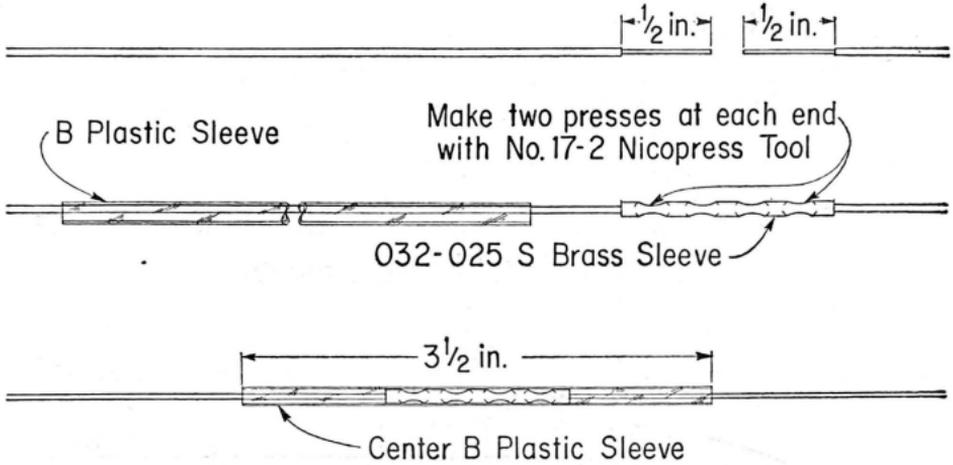


3.11 The method of making conductor joints using B Plastic Sleeves is shown below:

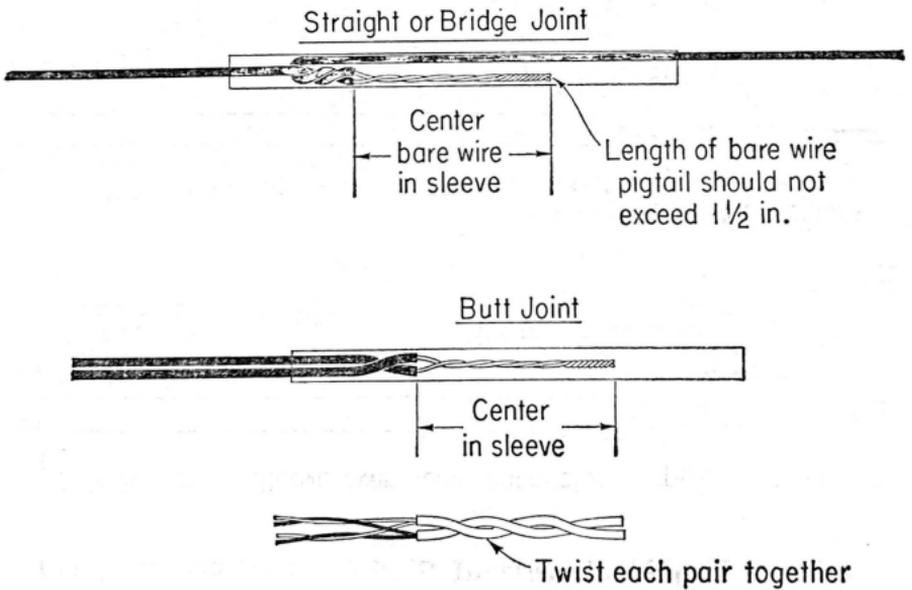
(a) H Splice Sleeve and B Plastic Sleeve.



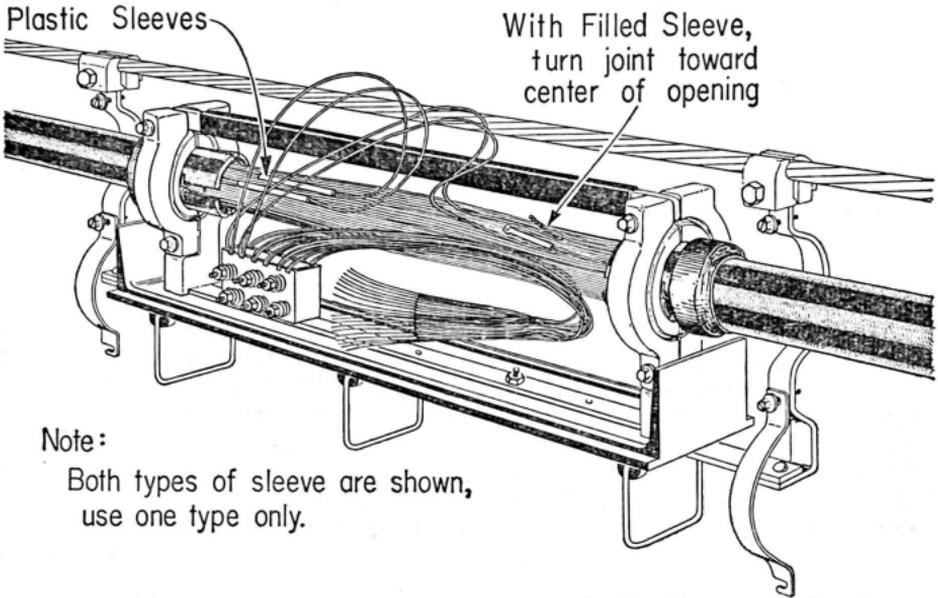
(b) Using 032-025 S Brass Sleeve and No. 17-2 Nicopress Tool.



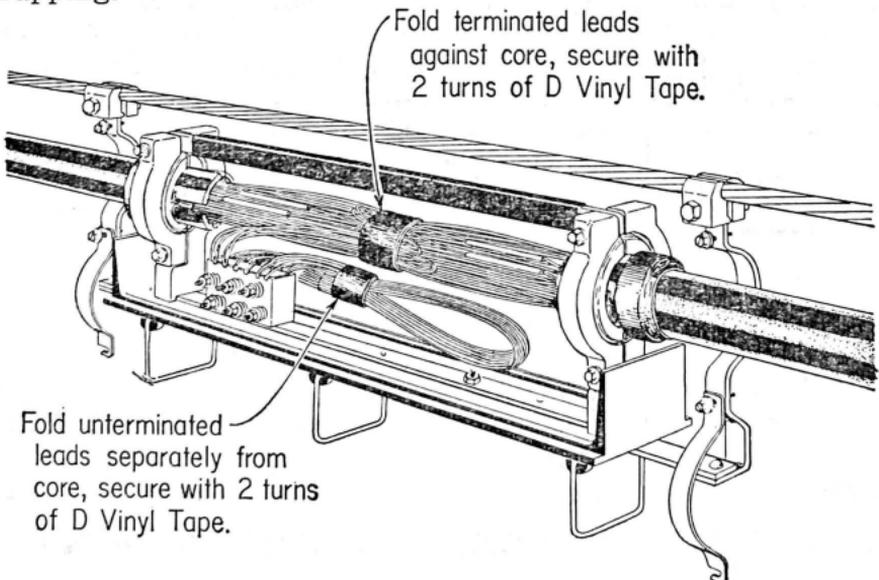
(c) Twisted Joints.



3.12 Terminate those pairs covered by the work authorization.



3.13 Leave all the slack in the cable conductors and the terminal block leads, folding the slack parallel to the cable conductors. Secure the folds to the cable with two turns of D Vinyl Tape as shown. The wire bundle requires no further wrapping.



4. CLEARING CABLE PAIR END

- 4.01 **At Cable Ends:** Use the method covered in Section G61.622.5 for capping cable ends.
- 4.02 **Individual Pairs:** Clean individual pairs.

