

TANDEM BLOCKING ARRANGEMENT FOR
CONVENTIONAL DISTRIBUTING FRAMES
H400-450

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1. GENERAL INFORMATION

1.1 Description

- 1.11 "Tandem Blocking" used in the text of this section will refer to mounting 89 type connecting blocks on the front of existing terminal strips on the horizontal side of conventional distributing frames.

- 1.12 Tandem Blocking is a viable, economical and practical method developed to extend the use of a conventional distributing frame when electromechanical switching offices are replaced by ESS.

- 1.13 Tandem Blocking is a temporary arrangement; therefore, all installer operations must be viewed toward the removal of the old terminal strips and temporary mounting apparatus and the permanent mounting of the 89 type connecting blocks.

1.2 Scope

- 1.21 This section will describe (a) the methods and equipment necessary to temporarily mount 89 type connecting blocks to existing terminal strips, (b) the methods to remove the old terminal strips and permanently mount 89 type connecting blocks when ESS cut-over is complete.

- 1.22 Throughout the text, there will be references to TYPE I, TYPE II, TYPE III and TYPE IV terminal strips. Refer to Figure 1 for identification.

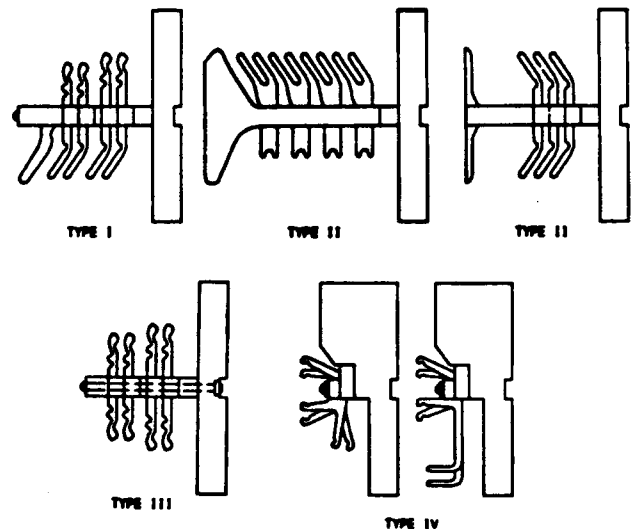


FIGURE 1

1.3 Associated Information

- 1.31 Modification drawing H400-450 orders the temporary mounting apparatus and illustrates typical mounting arrangements.

1.4 Precautions and General Notes

- 1.41 Precautions to be taken to prevent personal injury, equipment damage and service interruptions are covered in Handbooks 0 and 42 and are to be observed at all times as they apply to the operations being performed.

2. INSTALLING EQUIPMENT

2.1 Tools

2.11 The tools required for making the modification should normally be available.

2.2 Supplies

2.21 Refer to H400-450.

3. REQUIREMENTS AND METHODS

3.1 Rolling Ladder Modification

3.11 Prior to the addition of any 89 type connecting blocks, determine if the rolling ladders will strike the added connecting blocks.

3.12 One of the following methods may be used to provide sufficient clearance between the rolling ladders and the connecting blocks.

A) Extend the distributing frame guard rails in accordance with ED-95099-70.

B) Add shims to the rolling ladders per Figure 2. The depth of the shims is job dependent and will be selected locally.

3.13 Check alignment of the rolling ladder wheels as instructed in HB 30, Section 40D.

3.2 Mounting 89 Type Connecting Blocks

3.21 Only every other shelf may be Tandem Blocked to allow access to existing terminal strips.

3.22 Each location that has been selected for Tandem Blocking shall be inspected to determine if the molded guard has access holes to the mounting screws. If holes are not present, 5/16 inch holes will be drilled following normal precautions for dust collection and protection of working circuits.

3.23 Buildup retaining rods shall be installed at each vertical of shelves being Tandem Blocked. These retaining rods will be recessed approximately 6 inches from the front of the distributing frame.

NOTE: The location of the retaining rods is job dependent and shall be positioned in a manner to prevent damage to existing cross connects.

3.24 TYPE I or TYPE II - Remove and discard the top left, top right and two lower center mounting screws from an existing terminal strip. Insert 8 X 32 X 5 mounting screws thru these same positions in two 89 type connecting blocks and the predrilled holes of the wooden mounting strip. Refer to Figure 3.

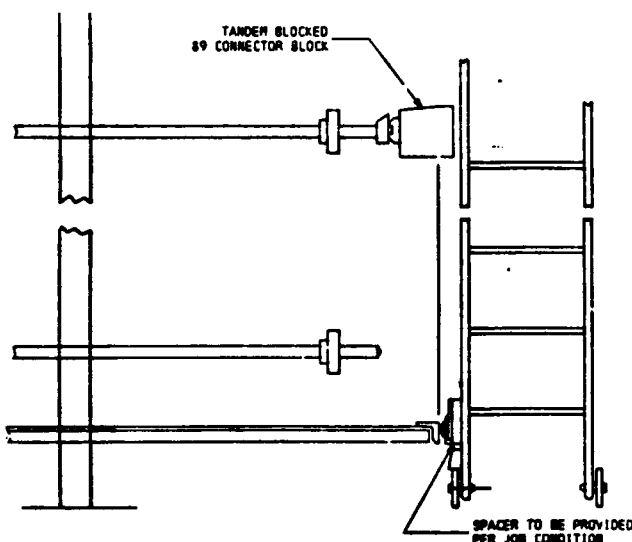


FIGURE 2

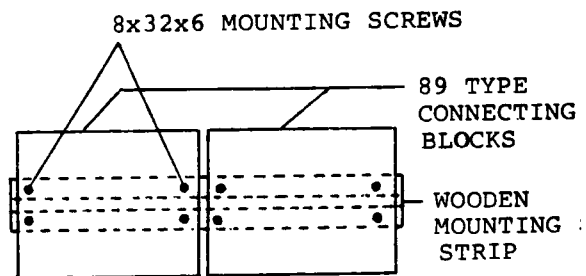
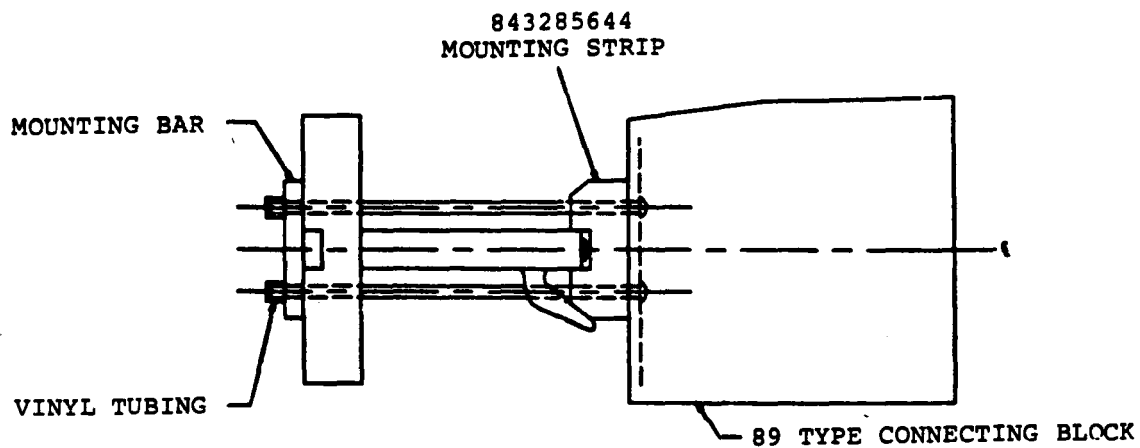


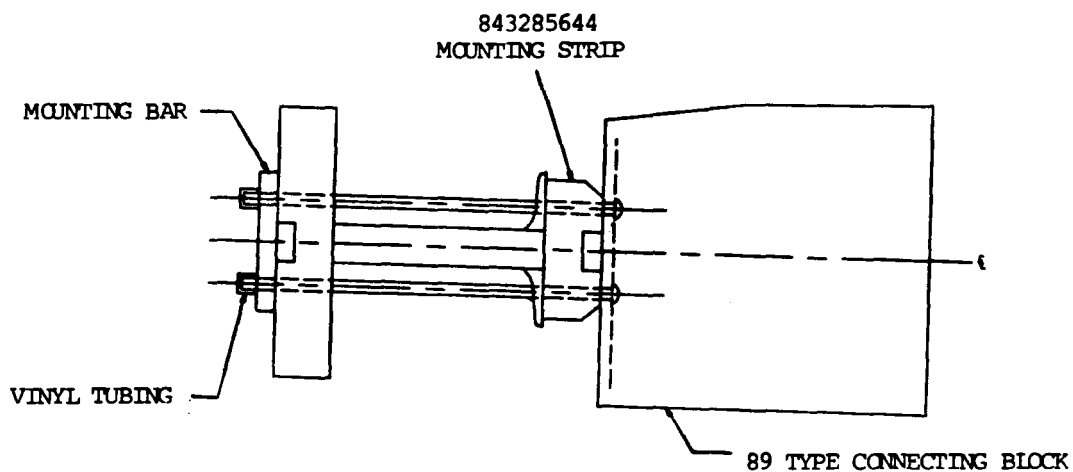
FIGURE 3

3.241 Insert the long screws from the pre-assembled mounting thru the terminal strip to the threaded holes in the distributing frame bar and tighten. The long screws now fasten both the 89 type connecting block and the existing terminal strip to the distributing frame in accordance with Figure 4A or 4B.



TYPICAL MOUNTING ARRANGEMENT
FOR 89 TYPE CONNECTING BLOCK
TO TYPE I TERMINAL STRIPS

FIGURE 4A



TYPICAL MOUNTING ARRANGEMENT
FOR 89 TYPE CONNECTING BLOCK
TO TYPE II TERMINAL STRIPS

FIGURE 4B

3.25 Type III - (Refer to Figure 5) Remove and discard the two screws at each end of the existing terminal strip. Insert 8 X 32 X 5 mounting screws thru these same positions in two 89 type connecting blocks and the predrilled holes of the wooden mounting strip. Fasten the opposite end of each 89 type connecting blocks to the wooden mounting strip with 8 X 3/4 RH wood screws.

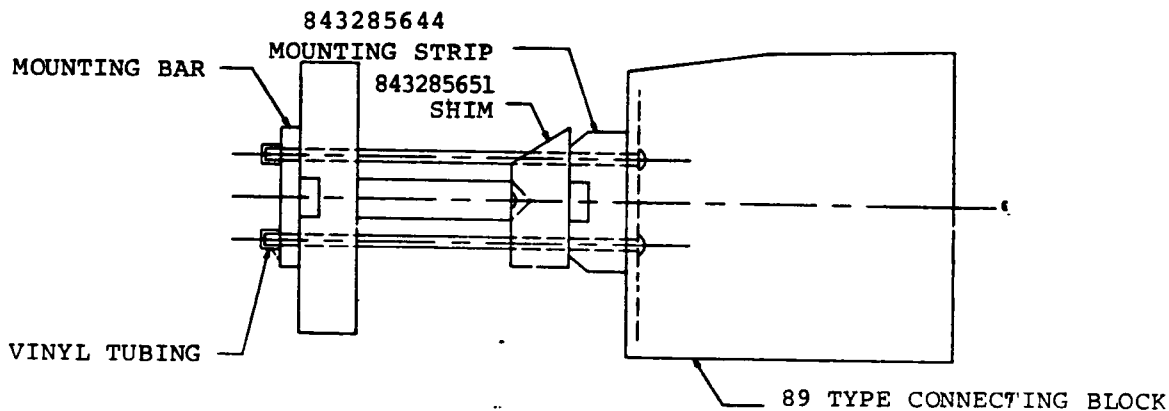
3.251 Place a shim over the mounting screws. Insert the long screws from the pre-assembled mounting thru the terminal strip to the threaded holes in the distributing frame bar and tighten. The long screws now fasten both the 89 type connecting block and the existing terminal strip to the distributing frame.

3.26 TYPE IV - Refer to Figure 6. Remove and discard the lower left and lower right mounting screws from an existing terminal strip. Insert 8 X 32 X 5

mounting screws thru these same positions in two 89 type connecting blocks and the predrilled holes of the wooden mounting strip. Fasten the opposite end of each 89 type connecting block to the wooden mounting strip with 8 X 3/4 RH wood screws. Place a 2 1/4" length of PVC sleeving over the screws to protect the adjacent terminals.

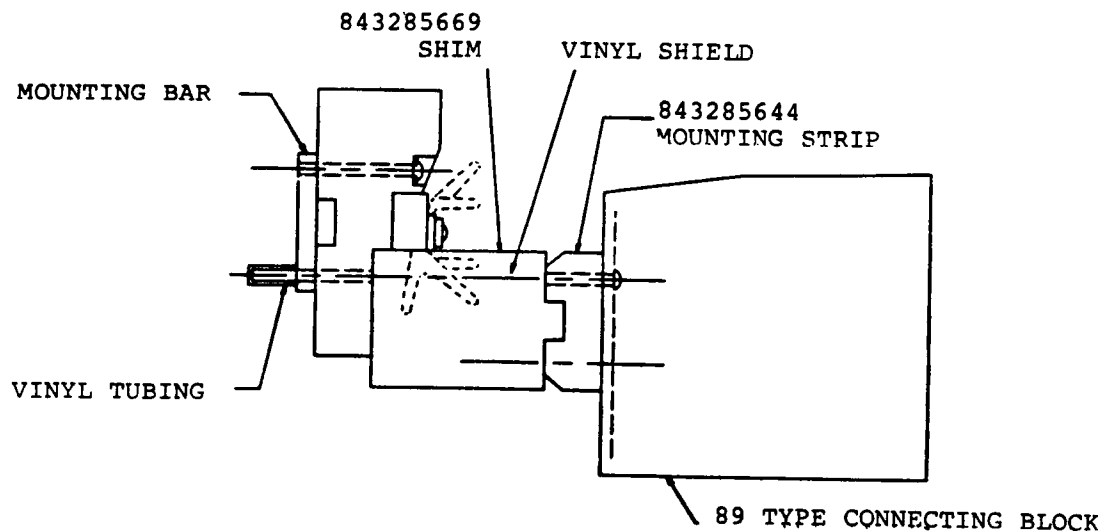
3.261 Insert the long mounting screws from the preassembled mounting thru the terminal strip to the threaded holes in the distributing frame bar. The screws should be started but not tightened. Position a notched shim in the slot of the mounting bar and, holding connecting block in place, lightly tighten the screws. Place another notched shim in the opposite end of the mounting bar. Tighten all screws.

NOTE: The notched shim is designed to support two adjacent mounting strips.



TYPICAL MOUNTING ARRANGEMENT
FOR 89 TYPE CONNECTING BLOCK
TO TYPE III TERMINAL STRIPS

FIGURE 5



TYPICAL MOUNTING ARRANGEMENT
FOR 89 TYPE CONNECTING BLOCK
TO TYPE IV TERMINAL STRIPS

FIGURE 6

3.27 Sleeve ends of the screws used to mount the 89 type connecting blocks if they protrude into the jumper area.

3.3 Cabling and Cross Connections

3.31 Switchboard cable from the new ESS machine shall be temporarily fastened to the transverse arm of the DF along with the existing cable. When the existing cables have been cut dead and the old terminal strips removed, this cable must be mined in accordance with HB 42, Section 430, Paragraph 2. Switchboard cables are then permanently fastened to the DF.

3.32 The added jumper wires must be dressed around the retaining rods with sufficient slack to permit removing old terminal strips and allow access to the existing terminals.

3.33 The old jumper wires must be removed per Handbook 42, Section 430.

3.4 Removal

3.41 The switchboard cable and cross-connections should be cut as close as possible to the old terminal strips to facilitate removal.

3.42 Open and lock both 89 blocks associated with the same mounting strips.

3.43 Remove the long screws that hold the old terminal strips and new connecting blocks to the distributing frame mounting bar. Support the new connecting block until it is remounted.

3.44 Remove the wood screws holding the 89 blocks to the wooden mounting strip. Remove and discard the wooden mounting strip.

3.45 Remove any remaining screws and remove the old terminal strip.

3.46 Permanently mount the new 89 type connecting blocks to the distributing frame bar using original mounting screws.