

FIGURE 1

1. INTRODUCTION

This instruction sheet (IS) covers the recommended procedures for installing AMPMODU MOD II Style I, III, and IV posts which are (1) mounted in polyethylene carrier strips, or (2) in loose piece form.

Style I posts are designed to be installed in printed circuit boards. Style III and IV posts are designed to be installed in metal panels with nylon bushings.

2. SPECIFICATIONS

A. PRINTED CIRCUIT BOARDS

The dimensions of the post holes in boards *with* plated through holes must be $.036 \pm .002$ in. This dimension is *after* copper plating and *before* tin-lead plating the holes. The dimension of the post holes in boards *without* plated through holes must be $.036 \pm .001$ in.

B. METAL PANELS

The thickness of the metal panel must be $.080 \pm .0035$ in. The dimension of the nylon bushing holes must be $.075 \pm .001$ in.

3. INSTALLING NYLON BUSHINGS

Nylon bushings must be installed in metal panels before the posts are inserted. These bushings are available on .100 and .150-in. centers as shown in Figure 2.

To install the bushings, first determine the centerline spacing of the strip of posts. Then, construct an insertion tool using the dimensions shown in Figure 2.

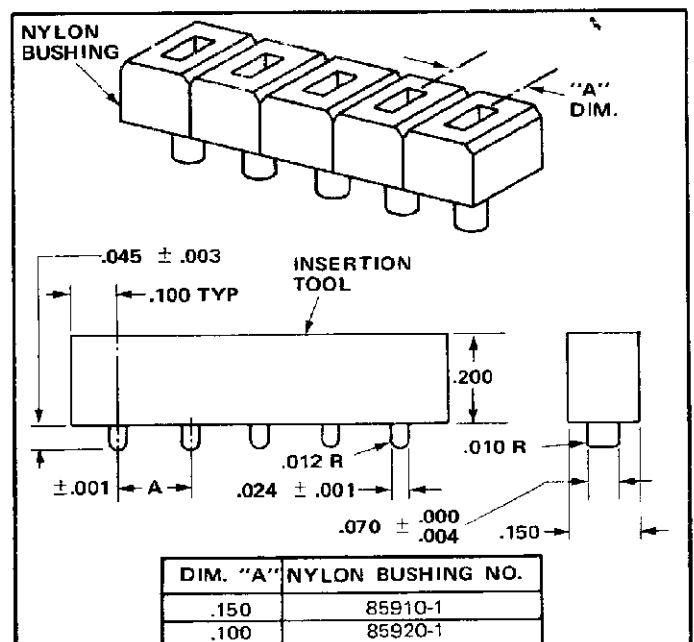


FIGURE 2

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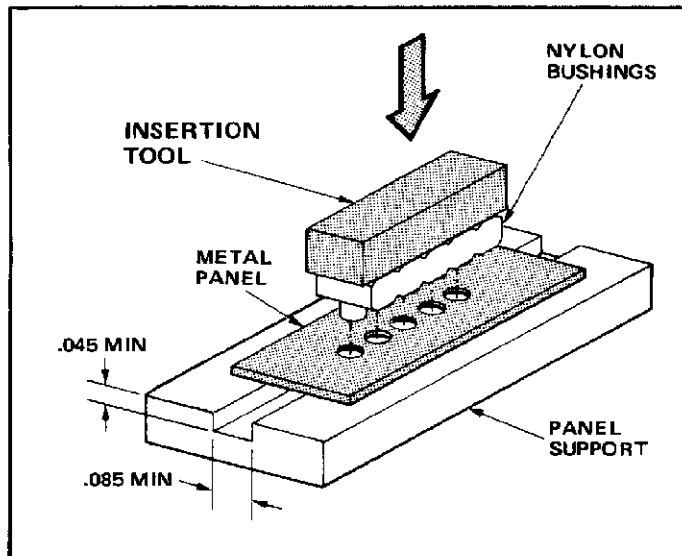


FIGURE 3

Using a suitable press, insert the nylon bushings as follows:

1. Place the metal panel on a suitable support in the press, as indicated in Figure 3.
2. Start the bushings into the holes in the metal panel. Make sure the insertion tool is parallel to the panel. Then, lower the ram of the press until the bushings are seated on the panel.

4. INSTALLING CARRIER STRIP MOUNTED POSTS

NOTE

We recommend that you do NOT insert strips of posts exceeding 6.6 in. in length.

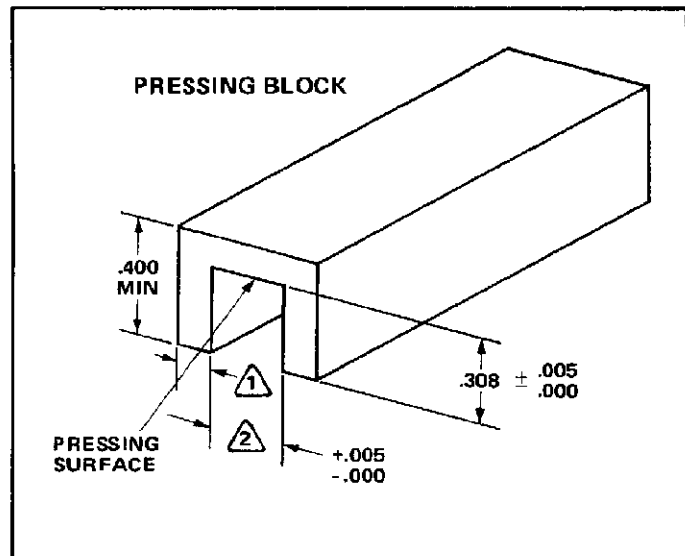
Four pieces of equipment are needed to insert these posts. They are as follows:

Arbor press or equivalent — The ram of the press must have no horizontal play in relation to the printed circuit board or metal panel. The press must be capable of applying 40 lb of force per post.

Pressing block — The length of this block must equal the length of the strip of posts. The pressing surface must have a rough texture (such as sandblasted surface) to prevent slippage. We suggest that you manufacture a block using the dimensions shown in Figure 4. Then, to prevent movement, securely mount it to the ram of the press. This will ensure constant and equal distribution of the applied force.

CAUTION

Before attempting to insert any posts, check to be sure the center of the pressing block is aligned with the center of the post holes, as indicated in Figure 1.



FLANGE WIDTHS TO BE AS WIDE AS PRACTICAL.



DIMENSION TO ACCOMMODATE CARRIER STRIP, SINGLE ROW OF POST .165, DOUBLE ROW .315.

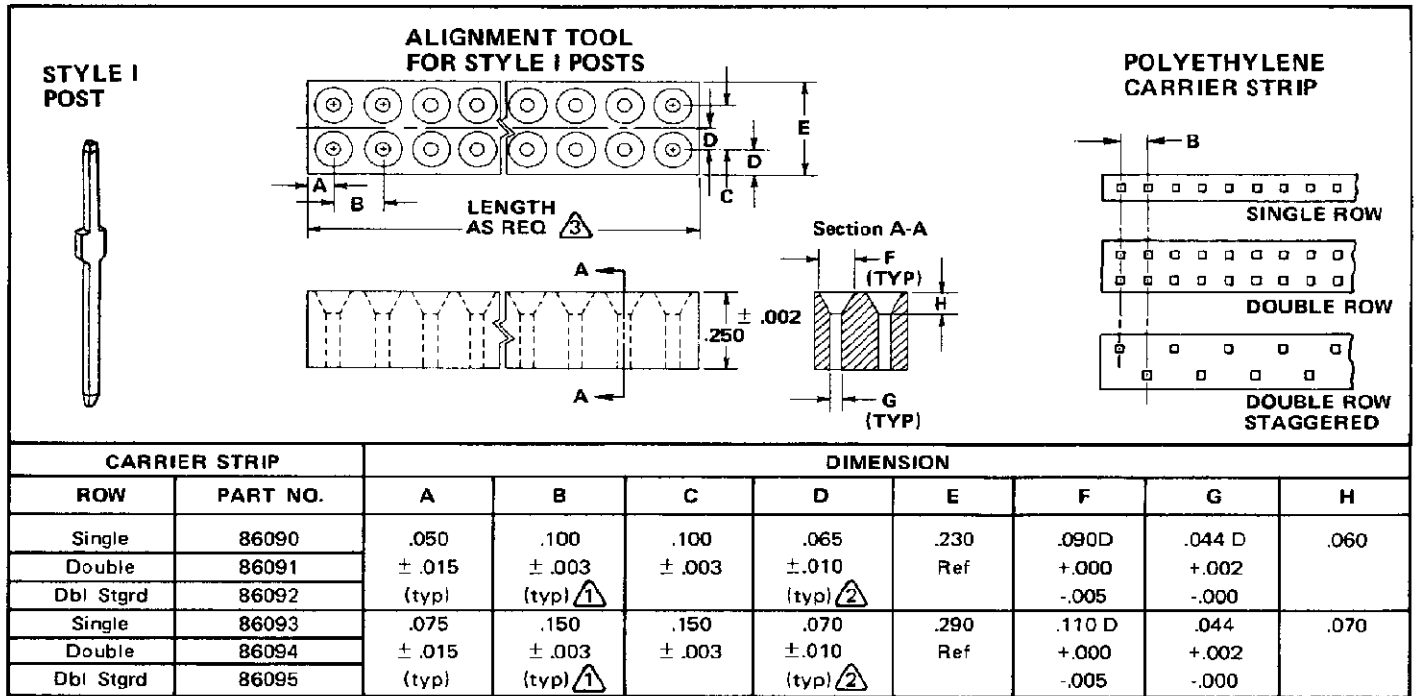
FIGURE 4

Board support — These supports must be wide enough and deep enough to allow insertion without deforming the posts. The printed circuit board or metal panel must be held rigidly on the support to prevent horizontal movement.

Alignment tool — The length of this tool will be determined by the number of posts in the strip. The dimensions for manufacturing the Style I post alignment tool are shown in Figure 5. The dimensions for manufacturing the Style III and IV post alignment tool are shown in Figure 6. Note that the tool for the Style I posts is a one-piece construction, and the tool for the Style III and IV posts is a three-piece construction. Make sure the tool is manufactured within the specified tolerances.

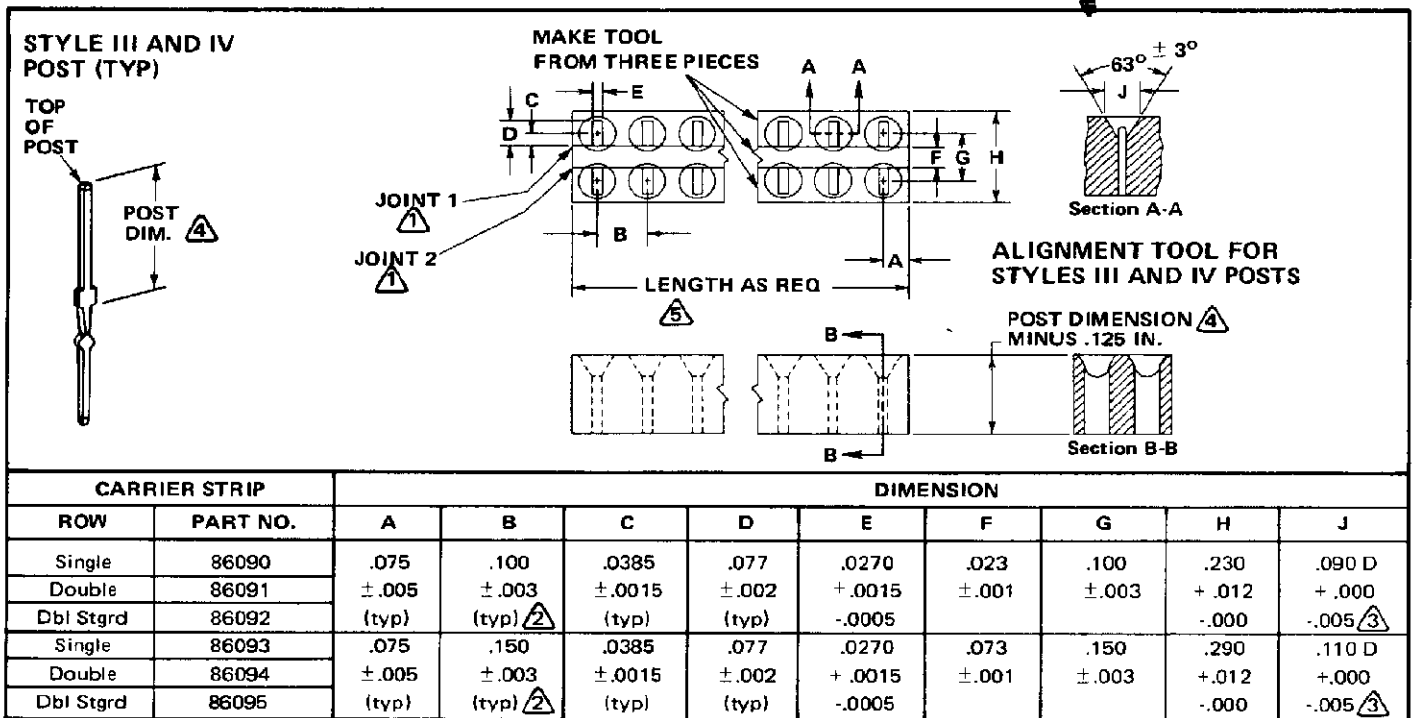
Install the posts as follows:

1. Insert the posts into the chamfered holes of the alignment tool, as indicated in Figure 1.
2. Start the first two posts into the printed circuit board or nylon bushings. Then, insert row after row until all posts are started. See Figure 7(A).
3. Press down evenly on the carrier strip until all posts are firmly seated. The carrier strip must be parallel to the board before using the press; otherwise, damage to the board or posts may result. See Figure 7(B).
4. Place the printed circuit board or metal panel on the board support.



- ① TOLERANCE NON-CUMULATIVE.
- ② CENTERLINE DIMENSION FOR SINGLE ROW CARRIER STRIP.
- ③ SINGLE ROW OR DOUBLE ROW STAGGERED: TOTAL NO. OF POSN TIMES "B" DIM. (EX: 56 POSN x .100 = 5.600). DOUBLE ROW: TOTAL NO. OF DUAL POSN TIMES "B" DIM. (EX: 28 DUAL POSN x .100 = 2.800).

FIGURE 5



- ① JOINTS 1 AND 2 CAN BE BONDED, OR FASTENED BY MECHANICAL MEANS.
- ② TOLERANCE NON-CUMULATIVE.
- ③ LEAD-IN CHAMFER INSTALLED AFTER 3-PIECE TOOL IS ASSEMBLED.
- ④ SEE CUSTOMER DRAWING OR MEASURE POST.
- ⑤ SINGLE ROW OR DOUBLE ROW STAGGERED: TOTAL NO. OF POSN TIMES "B" DIM. (EX: 56 POSN x .100 = 5.600). DOUBLE ROW: TOTAL NO. OF DUAL POSN TIMES "B" DIM. (EX: 28 DUAL POSN x .100 = 2.800).

FIGURE 6

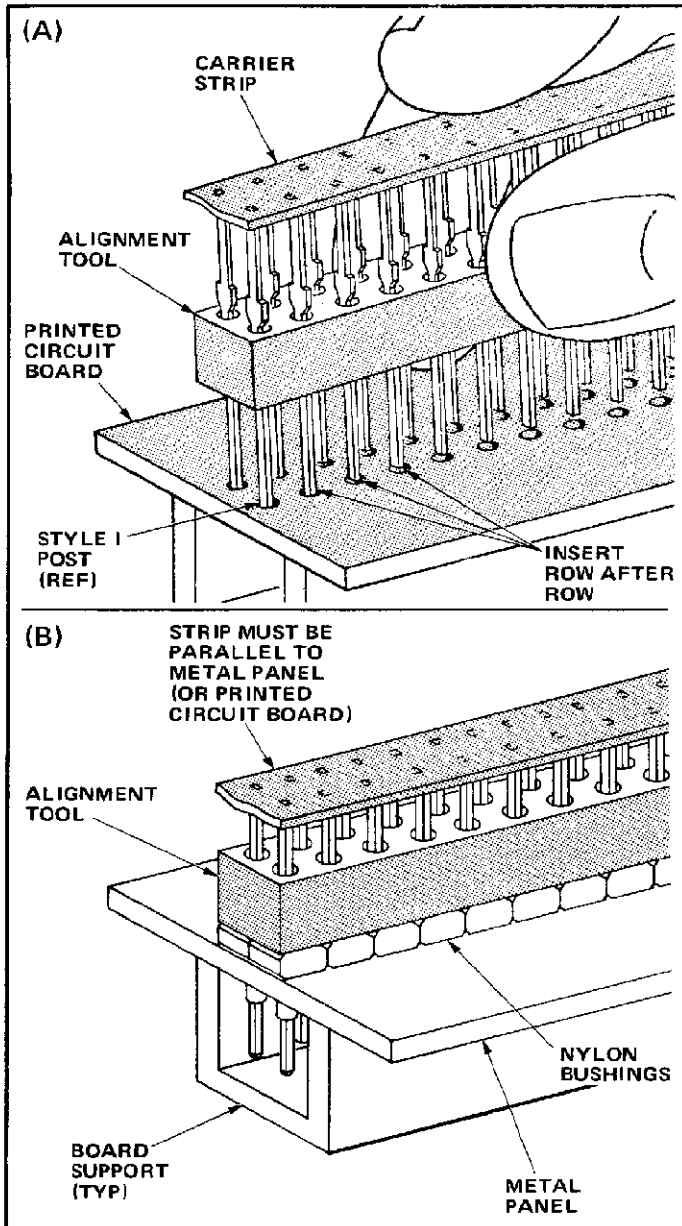


FIGURE 7

5. Make sure the center of the pressing block is aligned with the center of the post holes. Then lower the pressing block until the posts are fully inserted. Style I posts are fully inserted when the shoulder of the post is flush with the printed circuit board. Style III and IV posts are fully inserted when the shoulder of the post is flush with the TOP of the nylon bushing. See Figure 1.

6. After the posts are fully inserted, peel the carrier strip off and remove the alignment tool.

5. INSTALLING LOOSE PIECE POSTS

Install loose piece Style I posts in printed circuit boards, and Style III and IV posts in metal panels with nylon bushings. Construct the applicable insertion tool using the dimensions shown in Figure 8.

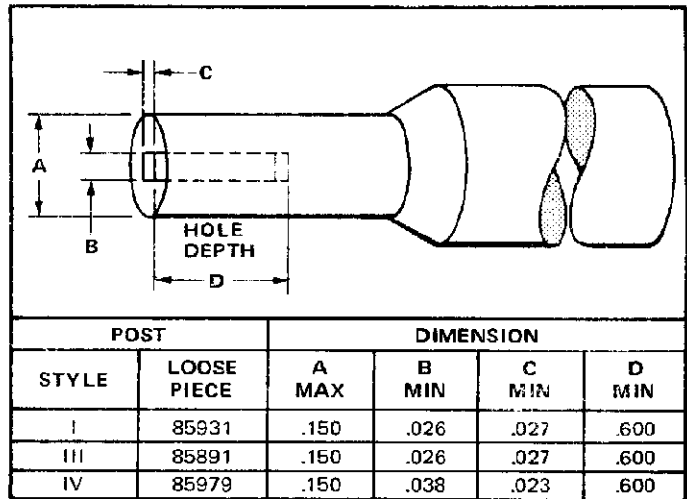


FIGURE 8

Proceed as follows:

1. Position the post in the tool as shown in Figure 9.
2. Start the post in the printed circuit board, or nylon bushing. Push on the tool until the post bottoms.
3. Remove the insertion tool and check for proper fit. Style I posts are fully inserted when the shoulder of the post is flush with the printed circuit board. Style III and IV posts are fully inserted when the shoulder of the post is flush with the TOP of the nylon bushing. See Figure 1.

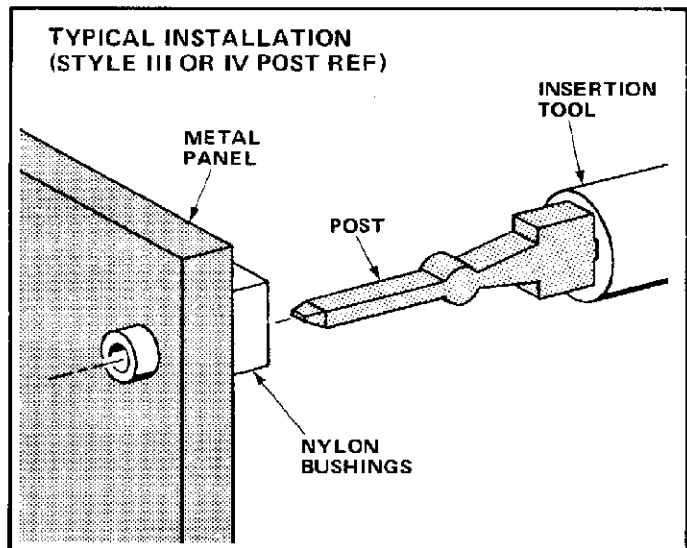


FIGURE 9

6. SOLDERING STYLE I POSTS

Style I posts should be soldered in the printed circuit board to ensure retention and maximum utilization of electrical characteristics. The carrier strip must be removed before soldering operations begin.