

AMP

AMP INCORPORATED
HARRISBURG, PA 17105

AMP* SEATING TOOL 58279-() FOR FOUR-ROW RECEPTACLE CONNECTORS WITH ACTION PIN* POSTS

IS 6979

CUSTOMER HOTLINE
1 800 722-1111

RELEASED
10-17-88

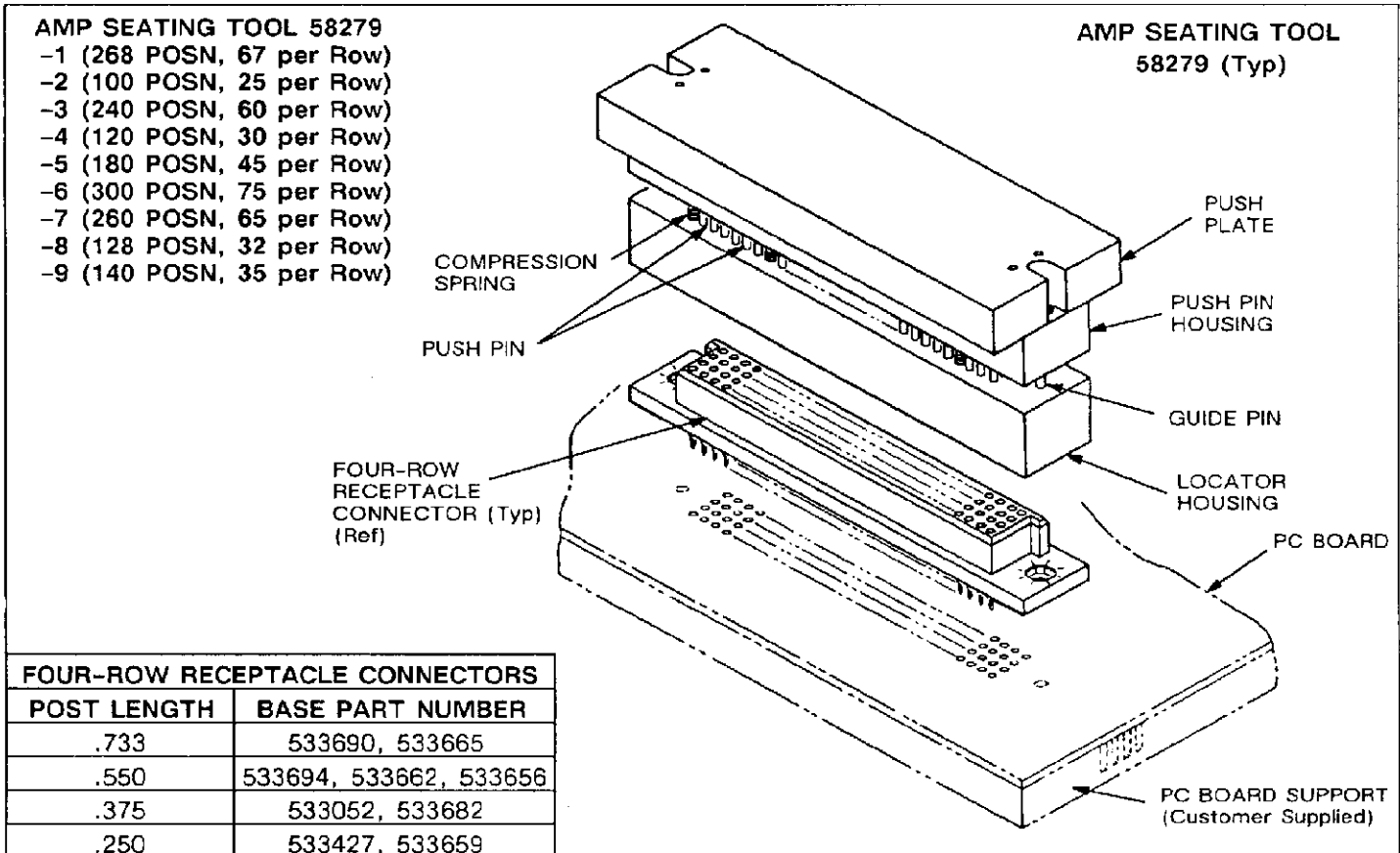


Fig. 1

1. INTRODUCTION

This instruction sheet (IS) covers the application and maintenance of AMP Seating Tools with base part number 58279 shown in Figure 1. The tools are used to seat four-row receptacle connectors, loaded with ACTION PIN contacts, on .100 by .100 centerlines, into printed circuit (pc) boards. Four-row connectors are designed with 100 to 300 contact positions and a choice of three post lengths. *Note that each tool dash number is assigned to a specific connector size (any post length) and can only be used to seat that size.* Contact AMP Incorporated concerning additional seating tool sizes. Read these instructions carefully before using the tool.

NOTE

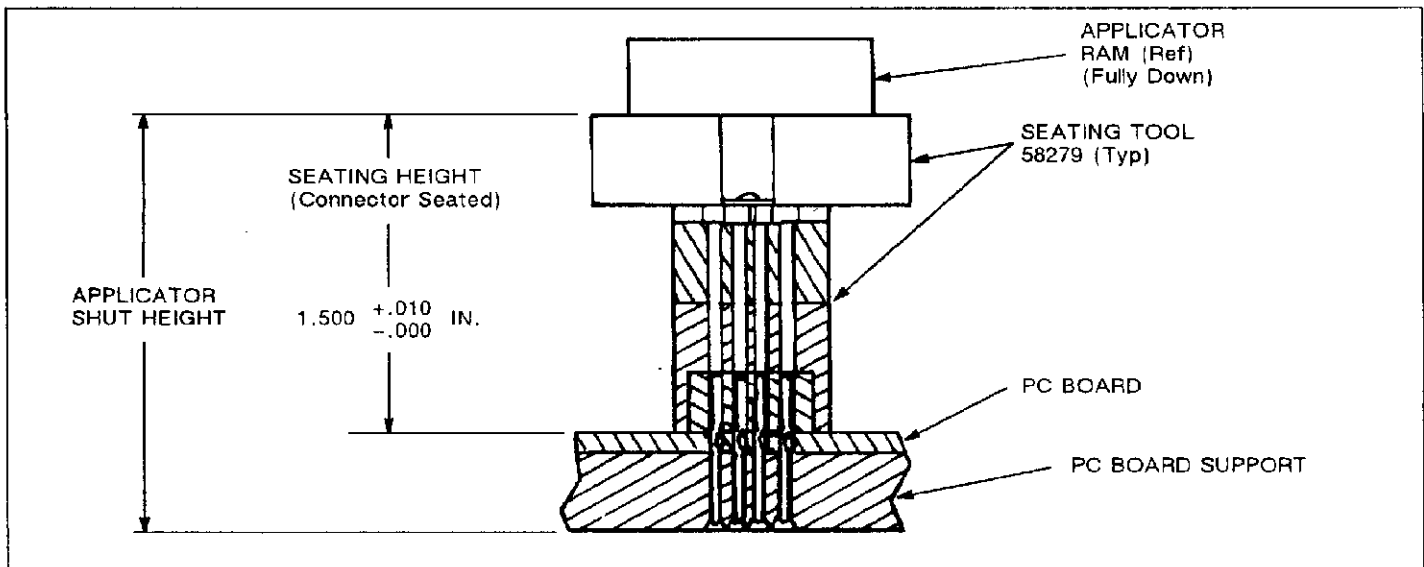
All dimensions on this instruction sheet are in inches.

2. DESCRIPTION (Figure 1)

Each spring-loaded seating tool features a push plate, push pin housing, and locator housing. The push plate, located at the top of the tool, provides the bearing surface for the application tooling which forces the ACTION PIN posts into the pc board. The push pin housing holds the same number of push pins as the connector size (no. of contact positions). The locator housing fits over the connector body to align the components for proper seating. Compression springs (approximately one for every seven contacts) and guide pins (one at each end) provide tool alignment and stability.

NOTE

MAKE SURE that the tool dash number corresponds to the correct connector size. For example, a seating tool with 100 push pins should be used to seat only a 100-position connector.



NOTE: IN FIGURE 2, SHUT HEIGHT EQUALS SEATING HEIGHT PLUS THICKNESS OF PC BOARD AND PC BOARD SUPPORT.

Fig. 2

3. REQUIREMENTS

A. PC Board Support (Customer Supplied)

A pc board fixture is required to ensure that: 1) each connector is aligned with the tool during the seating process, and 2) posts are protected during the procedures. Fixtures are not furnished by AMP, and must be supplied by the customer.

B. Application Tooling

The seating tool shown in Figure 1 is designed for use in AMP applicator assemblies, or similar manual applicators with sufficient ram surface and capability of applying an insertion force of 40 pounds (max) per contact post. A pneumatic machine can also be used, provided the machine is equipped with positive shut-height stops.

C. Seating Height

Seating height — the distance from the bottom surface of the ram to the top of the pc board when the ram is DOWN — must be set at 1.50 in. before starting the seating procedure. See Figure 2.

4. SEATING PROCEDURE

When setting up equipment to seat connectors, pay particular attention to the following:

- Make sure that the number of rows and positions in the connector is identical to the number of rows and push pins in the tool.
- Be sure that the seating tool and connector are properly aligned before cycling the application tooling.

CAUTION

If tool and connector are incompatible or improperly aligned in the equipment, damage could occur to tooling, connector, or both.

After the tool has been installed and the equipment has been set up with the pc board fixture in place, proceed as follows:

1. Place a pc board with proper hole pattern onto board support fixture.
2. Insert contact posts of connector(s) into the board until the compliant pin areas of the post start to enter the board holes.
3. Position the locator housing of the tool over the connector to be seated.
4. Center the tool and connector under the push surface of the ram.
5. Lower the ram slowly and verify alignment of the tool to the connector.
6. Apply force to the tool push plate to seat the connector to the pc board. (The tool will compress and the push pins will seat the contact posts into the pc board.)
7. Manually retract the ram, and carefully remove the seating tool.
8. Continue seating connectors as described in Steps 3 through 7 until all connectors have been seated.
9. Remove pc board with seated connectors from pc board fixture.

This completes the seating procedure.

5. TOOL INSPECTION

Each seating tool is assembled and inspected before shipment. AMP recommends that the tool be inspected immediately upon its arrival in your plant to ensure that it has not been damaged during shipment, and that it conforms to the dimensions given in Figure 3.

6. MAINTENANCE/QUALITY CONTROL

A. Daily Maintenance

It is recommended that each operator be made aware of, and responsible for, the following steps of daily maintenance:

1. Remove dust, moisture, and other contaminants with a clean, soft brush or lint-free cloth. Do NOT use objects that could damage the push pins or other tool components.
2. Ensure that the proper pins and rings are in place and secured.
3. When the tool is not in use, store it in a clean, dry area.

B. Periodic Inspection

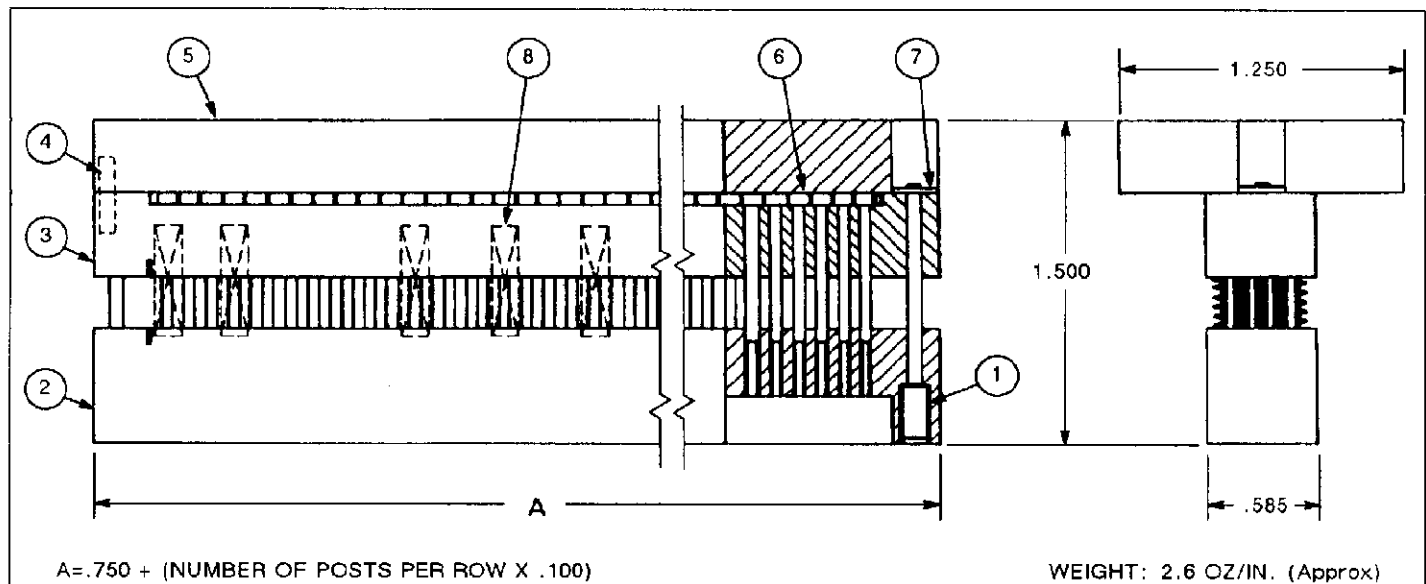
Regular inspections should be performed by quality control personnel. A record of scheduled inspections should remain with the tool or be supplied to supervisory personnel responsible for the tool. The inspection frequency should be based on the amount of use, working conditions, operator training and skill, and established company standards.

7. REPAIR

The parts listed in Figure 3 are customer-replaceable. A complete inventory may be stocked and controlled to prevent lost time when replacement of parts becomes necessary. The tool may also be returned to AMP for evaluation and repair, if desired. For repairs, send the tool with a written description of the problem to:

AMP Incorporated
 Customer Repair
 1523 North 4th Street
 Harrisburg, PA 17102-1604

or a wholly-owned subsidiary of AMP Incorporated.



REPLACEMENT PARTS FOR TOOL NUMBER 58279				NOTE 1: THE NUMBER OF PUSH PINS REQUIRED FOR A GIVEN TOOL IS THE SAME AS THE SIZE OF THE CONNECTOR (NUMBER OF POSITIONS).
ITEM	PART NUMBER	DESCRIPTION	QTY	
1	313454-1	PIN, Guide	2	NOTE 2: NUMBER OF COMPRESSION SPRINGS IS DETERMINED BY CONNECTOR SIZE (APPROXIMATELY ONE SPRING FOR EVERY SEVEN POSITIONS).
2	313534-††	HOUSING, Locator	1	
3	313536-††	HOUSING, Push Pin	1	
4	21028-4	PIN, Roll	4	
5	313535-††	PLATE, Push	1	
6	312705-1	PIN, Push Pin	Note 1	
7	2- 21986-7	E-RING	2	
8	1- 22278-7	SPRING, Compression	Note 2	

†† ITEM DASH NUMBER IS THE SAME AS TOOL DASH NUMBER: -1, -2, OR -3, FOR EXAMPLE. CONTACT AMP INCORPORATED CONCERNING ADDITIONAL TOOL DASH NUMBERS AND CONNECTOR SIZES.

Fig. 3