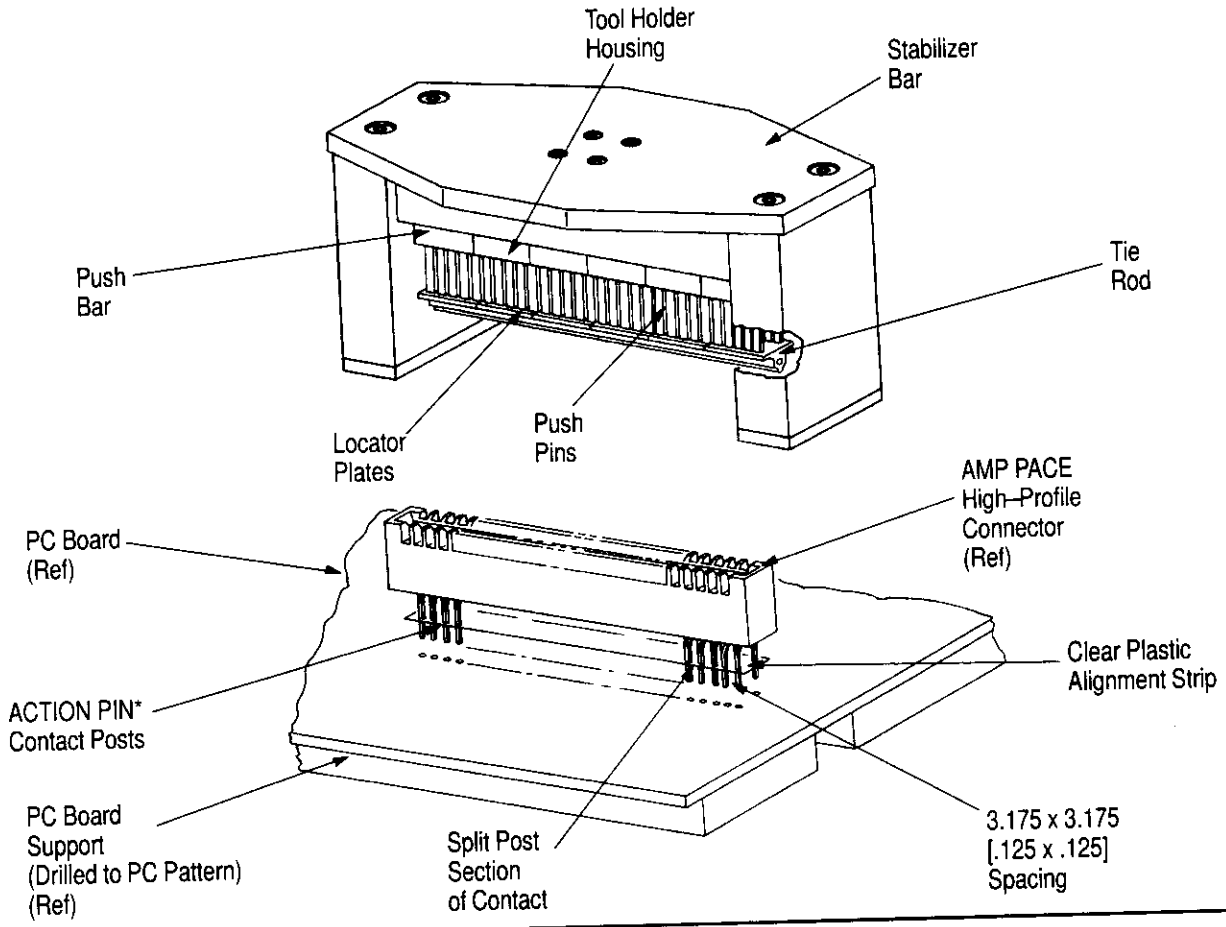
Manual Seating Tool 58214–[ ] for AMP PACE* High Profile Connectors



Seating Tool	AMP PACE Connector	
	Dual Position	Height (mm [In.])
58214–1	27	19.94 [.785]
58214–2	50	19.43 [.765]
58214–3	30	19.43 [.765]
58214–4	25	19.43 [.765]
58214–5	25	19.94 [.785]
58214–6	50	19.94 [.785]

Figure 1

1. INTRODUCTION

This instruction sheet covers AMP* Manual Seating Tools 58214–1 through –6, listed in Figure 1. The tools are used to insert AMP PACE high–profile connectors in specific dual–position sizes and heights into printed circuit (pc) boards. Read these instructions thoroughly before proceeding.

NOTE *Measurements in these instructions are in metric units [with U.S. customary units in brackets].*

Reasons for reissue are in Section 6, REVISION SUMMARY.

2. DESCRIPTION (Figure 1)

The tool is designed for manual machine insertion of AMP PACE high profile connectors with ACTION PIN contacts into drilled pc boards. Each tool features a push bar to which the tool holder housings are attached. The tool holder housings contain push pins that are held in alignment by locator plates. Guide

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pins hold the locator plates in place; a tie rod, which passes through the locator plates, maintains their longitudinal alignment. The stabilizer bar which may be permanently attached to the ram of an arbor press, if desired, is mounted on two stabilizer legs to prevent over insertion.

NOTE *The tool is designed for use in manual machines capable of applying an insertion force of 178 newton [40 lb] (max) per contact post.*

3. APPLICATION REQUIREMENTS

3.1. PC Board Support (Customer Supplied)

A pc board support is required to ensure that 1) contact strips are aligned during the assembly process, and 2) contact posts are protected during the procedures. Board supports are not furnished by AMP, and must be supplied by the customer.

3.2. Seating Height

The seating height—the distance from the bottom of the ram to the top of the pc board when the ram is *down*—must be set at 67.31 mm [2.65 in.] to ensure complete, proper connector seating.

3.3. Alignment Strip

The connector's contact tips are held in alignment by a clear plastic strip. The strip also aids in the correct insertion of contacts into their corresponding holes in the pc board, and should *not* be removed during or after seating the connector.

3.4. Locator Plate

Each locator plate is keyed to fit into the connector entry slot. If assembling a tool, make sure that the locator plate at each end of the tool has the key area turned outward. The locator plates also feature positioning tabs that assist in seating the tool.

4. INSERTION PROCEDURE

1. Select the correct tool for seating the connector on the pc board. Make sure that the size (number of dual positions) and height of the connector are compatible with the tool.

CAUTION *Make sure you use the correct tool. Using the wrong tool will damage the connector, the tool, or both.*

2. Make certain that board hole pattern will accept the connector, and also provide clearance for the tool stabilizer legs during the seating process.

3. Place an appropriate board support (Figure 1) under the pc board to provide support for the board and to protect the contact posts during insertion.

4. Insert the contact posts into the pc board until the plastic strip bottoms on the split post section of the contacts.

5. Place seating tooling on connector, ensuring that locator plates are seated on top of the connector and centered under the ram.

6. *Slowly* lower the ram to verify that the connector is aligned with the tooling. (The seating tool locator plates will seat in the card entry slot, retract to the tool holder housings, and then seat the connector onto the board. The push pins will push the contact posts into the board to the correct depth.)

7. Apply force to the ram to seat the connector.

8. Retract the machine ram.

9. Repeat Steps 4 through 8 until all connectors are seated on the board.

5. TOOLING INSPECTION (Figure 2)

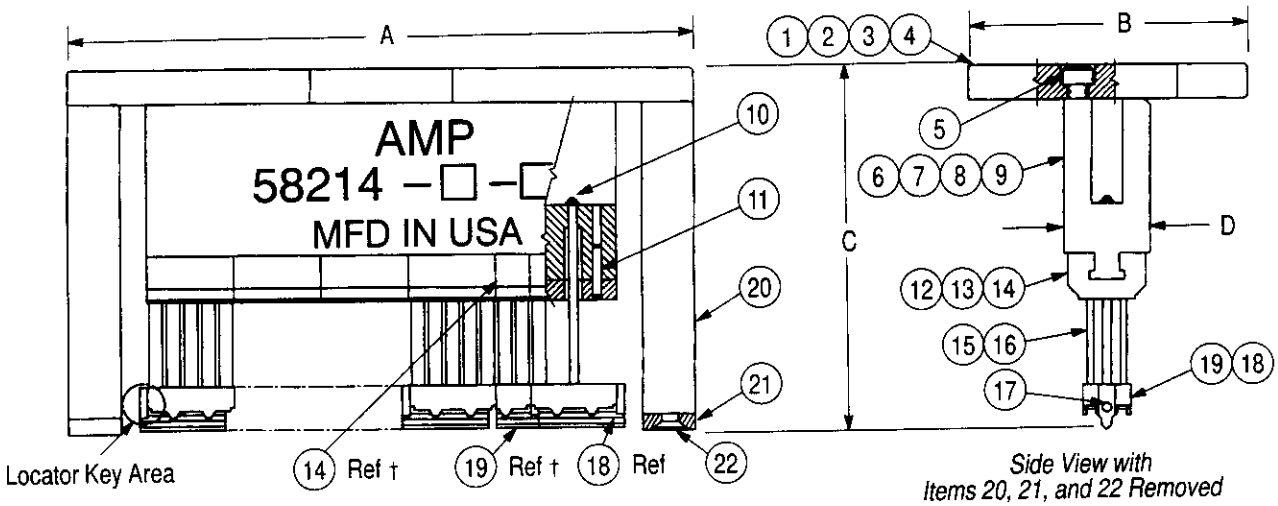
Each seating tool is assembled and inspected before shipment. AMP recommends that the tooling be inspected immediately upon its arrival at your location, and at regularly scheduled intervals to ensure that it has not been damaged during handling and operation.

All components in Figure 2 are customer-replaceable by qualified personnel. Additional tooling and replacement parts may be purchased from:

CUSTOMER REPAIR (001-012)
AMP INCORPORATED
1523 NORTH 4TH STREET
HARRISBURG, PA 17102-1604

6. REVISION SUMMARY

This sheet was revised per EC 0990-0840-95 to change Item 15 in Figure 2 to 312027-2.



† –1 Assembly Only

REPLACEMENT PARTS FOR SEATING TOOL 58214

ITEM	PART NUMBER	DESCRIPTION	QUANTITY					
			–1	–2	–3	–4	–5	–6
1	313080–1	BAR, Stabilizer				1	1	
2	313080–2	BAR, Stabilizer	1					
3	313080–3	BAR, Stabilizer			1			
4	313080–4	BAR, Stabilizer		1				1
5	1– 21000–8	SCREW, Socket Head Cap	8	8	8	8	8	8
6	313075–1	BAR, Push				1	1	
7	313075–2	BAR, Push			1			
8	313075–3	BAR, Push		1				1
9	313076–1	BAR, Push	1					
10	2– 21986–7	E–RING	5	10	6	5	5	10
11	21028–4	PIN, Slotted Spring	6	10	6	5	5	10
12	312074–1	HOUSING, Tool Holder	5				5	10
13	312073–1	HOUSING, Tool Holder		10	6	5		
14	312230–1	HOUSING, Tool Holder	1					
15	312027–2	PIN, Push	54		60	50	50	100
16	312075–1	PIN, Push Modified		100				
17	312021–1	TIE ROD	1	1	1	1	1	1
18	312085–1	PLATE, Locator	5	10	6	5	5	10
19	313077–1	PLATE, Special Locator	1					
20	313078–1	LEG, Stabilizer	2	2	2	2	2	2
21	313079–1	PAD	2	2	2	2	2	2
22	1– 21003–4	SCREW, Flat Hd Socket Cap	4	4	4	4	4	4

TOOL SPECIFICATIONS

PART NUMBER	Dimensions (mm [In.])				Weight (Approx)
	A	B	C	D	
58214–1	114.30 [4.50]	50.8 [2.00]	67.31 [2.650]	15.75 [0.620]	510 g [1 lb 2 oz]
58214–2	187.32 [7.375]	50.8 [2.00]	67.31 [2.650]	15.75 [0.620]	908 g [2lb]
58214–3	123.82 [4.875]	50.8 [2.00]	67.31 [2.650]	15.75 [0.620]	624 g [1 lb 6 oz]
58214–4	107.95 [4.250]	50.8 [2.00]	67.31 [2.650]	15.75 [0.620]	454 g [1 lb]
58214–5	107.95 [4.250]	50.8 [2.00]	67.31 [2.650]	15.75 [0.620]	454 g [1 lb]
58214–6	187.32 [7.375]	50.8 [2.00]	67.31 [2.650]	15.75 [0.620]	908 g [2 lb]

Note 1: *The number of locator plates required for a given tool Is determined by dividing the number of dual contact position by five. The remainder of the positions, if any, will require an appropriate modified locator plate.*

Note 2: *The number of push pins required for a given tool Is determined by multiplying the number of dual contact positions by two.*

Note 3: *The number of parts required Is equal to the number of dual positions in the tool divided by five with the remainder counting as one additional part.*

Figure 2