

AMP PACE CONNECTOR		MANUAL INSERTION TOOL	
IN-ROW AND ROW-TO-ROW CENTERLINE SPACING	PART NUMBERS	NUMBER OF DUAL POSITIONS	PART NUMBERS
.100 x .200	119725	15-60	58150-1 through -46
	119726		
	119791		
	119827		
	119828		
	119829	50	58151-3
	119530	50	58151-3
119535	44	58151-2	
119575	50	58151-3	
119881			

Fig. 1

1. INTRODUCTION

This instruction sheet (IS) covers AMP PACE Manual Insertion Tools 58150-[], 58151-2, and -3. These tools insert the connectors listed in Figure 1 into printed circuit (pc) boards. The connectors have .100- x .200-in. centerlines. Tools 58150-[] insert connectors with full card scoops. Tools 58151-2 and -3 insert connectors with partial card scoops.

2. DESCRIPTION (Figure 1)

The tool is designed for manual machine insertion of AMP PACE connectors with AMP ★ 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 pins hold the locator plates in place; a tie rod, which passes through the locator plates, maintains their longitudinal alignment.

NOTE All dimensions on this sheet are in inches.

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NOTE

The tool is designed for use in manual machines capable of applying an insertion force of 50 lb (max) per contact post.

NOTE

The length of the insertion tool must not exceed that of the push surface of the ram by more than 1 in. at each end.

3. SHUT HEIGHT

The shut height — the distance from the bottom press surface of the ram to the top of the pc board when the ram is down — must be set at 1.5 in. to ensure complete, proper connector insertion.

4. APPLICATION

CAUTION

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

The connector's contact tips are held in alignment by a plastic strip. The strip is not to be removed during or after application.

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.

The tool has a stabilizer pad, attached to the push bar with four screws, that may be permanently attached to the ram of the manual application assembly.

5. INSERTION PROCEDURE

1. Make sure that you have the proper tool and connector.
2. Make sure you have a pc board support

capable of supporting the board and protecting the contact posts during the insertion.

3. Insert the contact posts into the pc board until the splits on the posts begin to enter the pc board holes.
4. Place the pc board on the pc board support, and align the connector with the insertion tool assembly.
5. *Slowly* lower the ram to verify that the connector is aligned with the tooling.
6. Apply force to the ram to seat the connector on the board. (The insertion tool locator plates will seat in the card entry slot, retract to the tool holder housings, and then seat the connector on the board. The push pins will push the contact posts into the board to the correct depth.)
7. Retract the ram.
8. Repeat Steps 3 through 7 until all connectors are installed.

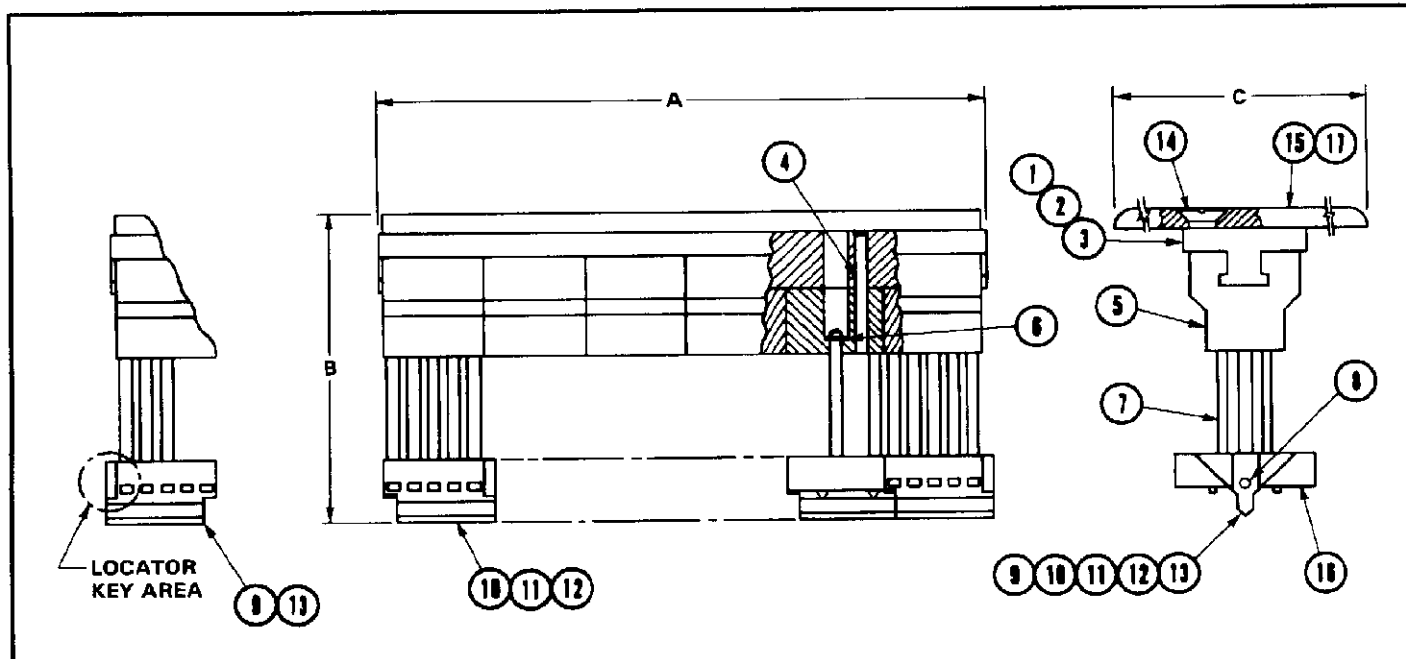
This completes the insertion procedure.

6. TOOLING CERTIFICATION (Figure 2)

The tool is assembled and certified before shipment. We suggest that the tool be inspected immediately upon its arrival and at regular intervals to ensure that it has not been damaged during handling and operation.

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

AMP Incorporated
P.O. Box 3608
Harrisburg, PA 17105-3608



ITEM	PART NUMBER	DESCRIPTION	58150-[]	58151-2	58151-3
1	312650-1	BAR, Push (For 15-30 Dual Positions)	1	--	--
2	312650-2	BAR, Push (For 31-45 Dual Positions)	1	1	--
3	312650-3	BAR, Push (For 46-60 Dual Positions)	1	--	1
4	21028-8	PIN, Slotted Spring	Note 3	9	10
5	312656-1	HOUSING, Tool Holder	Note 3	9	10
6	20612-1	E-RING	Note 3	9	10
7	312027-1	PIN, Push	Note 2	88	100
8	312021-1	ROD, Tie	1	1	1
9	312701-1	PLATE, Locator (5 Position)	Note 1	1	4
10	312702-1	PLATE, Locator (1 Position)	1 (If Req'd; Note 1)	--	--
11	312702-2	PLATE, Locator (2 Position)	1 (If Req'd; Note 1)	--	--
12	312702-3	PLATE, Locator (3 Position)	1 (If Req'd; Note 1)	--	--
13	312703-1	PLATE, Locator (4 Position)	1 (If Req'd; Note 1)	1	--
14	1- 21065-7	SCREW, Flt Skt Hd Cap, No. 6-32 x .18" L	4	4	4
15	312020-1	PAD, Stabilizer	1	--	--
16	312628-1	PLATE, Locator (5 Position)	--	7	6
17	312637-1	PAD, Stabilizer	--	1	1

TOOL SPECIFICATIONS				WEIGHT (Approx)	ENGINEERING APPROVAL	DATE
NUMBER	DIMENSION					
	A	B	C			
58150-1 thru 1-58150-6	3.04	3.165	2.0	1 lb	<i>E. Noon</i>	6/25/85
1-58150-7 thru 3-58150-2	4.54			1 lb 5 oz		
3-58150-3 thru 4-58150-6	6.04			2 lb		
58151-2	4.54			2 lb		
58151-3	6.04			3 lb		

NOTE 1: THE NUMBER OF LOCATOR PLATES REQUIRED FOR A GIVEN TOOL IS DETERMINED BY DIVIDING THE NUMBER OF DUAL CONTACT POSITIONS 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.

COMPONENTS LISTED IN FIGURE 2 ARE CUSTOMER-REPLACEABLE. FOR ADDITIONAL TOOLS AND REPLACEMENTS CONTACT:
AMP INCORPORATED, P.O. BOX 3608, HARRISBURG, PA 17105-3608.

Fig. 2