

Figure 1

# **1. INTRODUCTION**

Manual Seating Tools 58200-[] are used to seat an AMP PACE connector with a contact centerline spacing of 2.54 by 2.54 mm [.100 by .100 in.] onto the pc board. The connector contains ACTION PIN contacts that allow solderless pc board installation.

Read these instructions thoroughly before using the seating tool.



Dimensions in this instruction sheet are in metric units [with U.S. customary units in brackets]. Figures are not drawn to scale.

Reasons for reissue of this instruction sheet are provided in Section 8, REVISION SUMMARY.

## 2. DESCRIPTION

Each seating tool consists of a tee top bar to which a cover plate and module locator bar are attached by socket head cap screws and module push blade bars, which are retained between the cover plate and module locator bar. The module push blades match the number of connector dual positions.

## 3. REQUIREMENTS

## 3.1. PC Board Support Fixture (Customer Supplied)

A pc board support must be used to provide proper support for the pc board and to protect the pc board and the connector from damage. The support fixture must be designed for specific needs using the following recommendations:

- it should be at least 25.4 mm [1 in.] longer and wider than the pc board
- it should have flat surfaces with holes or a channel large enough and deep enough to receive any protruding components of the connector

## 3.2. Application Tooling

Power for the seating tool must be provided by an application tool (with a ram) capable of supplying a downward force of 222.4 N [50 lb] per contact. Manual Electric Servo Presses (CMP 6T) 1585699-8 and (CMP 12T) 1585698-8, and Bench Top Electric Servo Press (CBP 5T) 1585696-9 are available for this seating tool.

For information on the presses, visit the press-fit assembly equipment website at <u>http://tooling.te.com/pressfit.asp</u>.

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Over-driving of the connector will deform parts critical to the quality of the connection. Maximum force occurs prior to the connector bottoming on the pc board.

4. SETUP

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

- The seating tool must be matched to the connector: the number of connector dual positions must equal the number of module push blade bars of the seating tool.
- The seating tool and connector must be properly aligned in the application tool before cycling the tool.



If the seating tool and connector are mismatched or are improperly aligned, damage could occur to the seating tool, connector, or both.

5. SEATING (See Figure 2)

1. Set the application tool *shut height*—the distance from the bottom of the ram to the top of the pc board when the ram is down—to 38.1 mm [1.50 in.].

2. Place the pc board on the support fixture.

3. Place the connector on the pc board so that the contacts are aligned and started into the matching holes in the pc board.

4. Center the seating tool over the connector so that the module push blade bars align with the card entry slot. For Tool -48, make sure that the modified module push blade bar aligns with the molded key of the connector.

Then, lower the seating tool onto the connector until the seating tool bottoms on the connector.

5. Center the seating tool (with the connector) under the ram of the application tool. Slowly lower the ram until it just meets the seating tool. Verify alignment of support fixture, pc board, connector, and seating tool.



Damage to the pc board, seating tool, or connector may occur if the seating tool is not properly seated on the connector before cycling the application tool.

6. Cycle the application tool to seat the connector on the pc board. Then retract the ram, and carefully remove the seating tool by pulling it straight from the connector.

- 7. Check the connector for proper seating according to the following:
- the contacts and pre-loaded tabs of the contacts are behind the pre-load barrier
- the connector housing is flat and square on the pc board
- the alignment strip is flush with the pc board
- a gap of no more than 0.10 mm [.004 in.] between the connector housing and the pc board is allowed



For detailed information on the connectors, refer to Instruction Sheet 408-9032.

# 6. MAINTENANCE AND INSPECTION

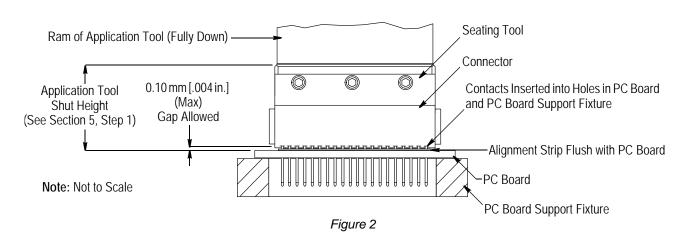
The seating tool is assembled and inspected before shipment. It is recommended that the seating tool be inspected immediately upon arrival at your facility to ensure that it has not been damaged during shipment.

#### 6.1. 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 contaminants with a clean, soft brush or a lint-free cloth. DO NOT use objects that could damage the components.

2. When the seating tool is not in use, store it in a clean, dry area.





## 6.2. Periodic Inspection

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

## 7. REPLACEMENT AND REPAIR

Customer-replaceable parts are listed in Figure 3. A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is necessary. Parts other than those listed should be replaced by TE Connectivity to ensure quality and reliability. Order replacement parts through your representative, or call 1-800-526-5142,

or send a facsimile of your purchase order to 717-986-7605, or write to:

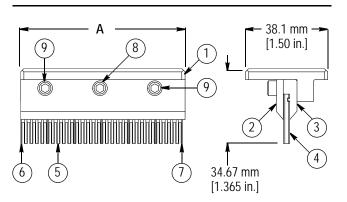
CUSTOMER SERVICE (038-035) TYCO ELECTRONICS CORPORATION PO BOX 3608 HARRISBURG PA 17105-3608

For customer repair service, call 1-800-526-5136.

## 8. REVISION SUMMARY

Revisions to this instruction sheet include:

- Changed company name and logo
- Changed presses in Paragraph 3.2
- Removed obsolete seating tools
- Added Items 5, 6, and 7 for Tool -48 and changed part number for Item 8 in Figure 3



TOOL 58200	DIMENSION A mm [in.]	WEIGHT (Approx)		
-6, -11	76.2 [3.00]			
-21, -26, -36	114.3 [4.50]	0 454 kg [1 lb]		
-46	127.0 [5.00]	0.454 kg [1 lb]		
-48, -56	177.8 [7.00]			

ITEM	PART NUMBER FOR SEATING TOOL 58200 (Dual Position of Connector)						QTY	
	-6, -11 (15-30)	-21, -26 (31-45)	-36 (46-50)	-46 (51-60)	-48 (25)	-56 (70)	DESCRIPTION	PER TOOL
1	313047-1	313047-2	313047-3	313047-4	313047-1	313047-5	BAR, Tee Top	1
2	313048-1	313048-2	313048-3	313048-4	313048-1	313048-5	PLATE, Cover	1
3	313049-1	313049-2	313049-3	313049-4	313049-1	313049-5	BAR, Module Locator	1
4	266285-1	266285-1	266285-1	266285-1	266285-1	266285-1	BAR, Module Push Blade	See NOTE
5	—	_	—	—	1804235-1	—	BAR, Modified Module Push Blade	1∎
6	_	_	—	—	1804236-1	—	BAR, Modified Module Push Blade, Left	1
7	—	—	_	—	1804236-2	—	BAR, Modified Module Push Blade, Right	1

ITEM PART NUMBER		DESCRIPTION	QTY PER TOOL 58200					
	DESCRIPTION	-6, -11	-21, -26	-36	-46	-48	-56	
8	7-21000-4	SCREW, Socket Head Cap, 8-32	1	2	3	4	3	5
9	2-21000-8	SCREW, Socket Head Cap, 8-32	2	2	2	2	2	2

NOTE Determined by dividing the number of connector dual positions by 5. If any positions are remaining, a modified module push blade bar is required.

This module push blade bar must be installed in the second position from the left.