

SEATING TOOL	NO. OF CONNECTOR ROWS	CONNECTOR TYPE
1320142-1	40	Extended Height Press-Fit
1320142-2	80	
356198-1	80	Press-Fit
356198-2	40	
356198-3	20	

Figure 1

## 1. INTRODUCTION

Seating Tool Assemblies 1320142-[ ] and 356198-[ ] are designed to seat CHAMP .050 Series I Blindmate press-fit and extended height press-fit vertical receptacle connectors. The connectors contain compliant pin contacts to allow solderless pc board installation. Each seating tool is specifically designed for the number of rows in a connector. See Figure 1. Read these instructions and understand them before using the seating tool.

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

Reasons for reissue are provided in Section 7, REVISION SUMMARY.

## 2. DESCRIPTION

During seating, the seating tool covers the connector and presses on the top surface of the connector when the applicator ram applies force to the seating tool. The pc board is positioned onto a pc board support fixture for support.

## 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 alignment of the seating tool to the contacts, and to protect the pc board and connector from damage. The board support fixture must be designed for specific needs using the recommendations in Instruction Sheet 408-6927.

### 3.2. Application Tooling

Power for seating tools must be provided by a machine capable of supplying a downward force of 20 Newtons (N) [5 lb] per contact. 10/20-Ton "H" Frame Assembly 803880-6 (Customer Manual 409-5567 provides instructions), SM-3 Frame Assembly 814700-2 (409-5626), or Greenerd<sup>®</sup> Frame Assemblies 3A and 3B equipped with Adapter Kit (408-9027) can be used.

### 4. SEATING

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

- The seating tool must be matched to the connector
- The seating tool, connector, and applicator ram must be properly aligned before cycling the tool



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

1. Set seating height to the dimension shown in Figure 2 (applicator *shut height* will equal the seating height PLUS the combined thicknesses of the pc board and pc board support).

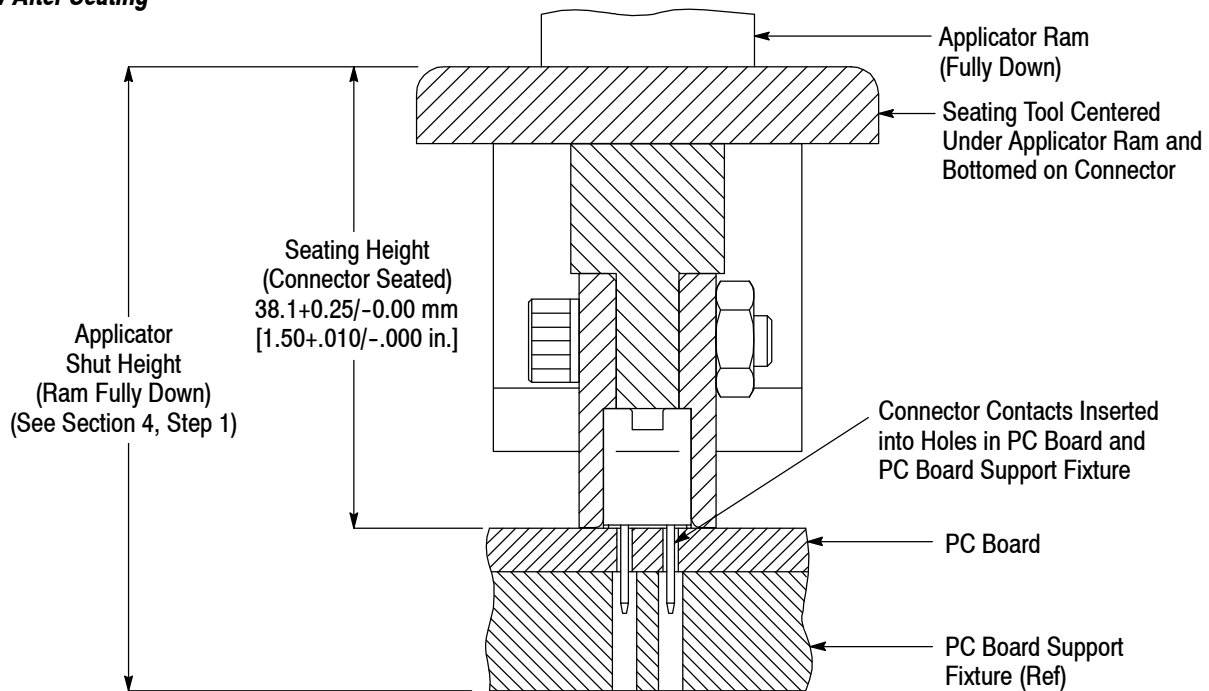
2. Position connector onto pc board so that the connector contacts are properly aligned to the pc board and pc board support fixture.
3. Insert connector into pc board until the contacts are resting securely on, but have not fully entered, the board.
4. Position the seating tool on the connector, making sure that the tool is bottomed on the housing floor.
5. Center the seating tool and connector under the applicator ram of the tool. Lower the ram slowly until it just meets the seating tool. Verify alignment of pc board support, pc board, connector, and seating tool.



*Damage to the pc board, seating tool, or connector may occur if seating height is improperly set or if tool is not properly seated in the connector before cycling the tool.*

6. Cycle the tool to seat the connector in the pc board. Then retract the ram and carefully remove the seating tool. Check assembly for proper seating according to Application Specification 114-6061.
7. Repeat Steps 2 through 6 until all the connectors are seated.

#### View After Seating



**Note:** Not to Scale

Figure 2

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**5. MAINTENANCE AND INSPECTION**

The seating tool is assembled and inspected before shipment. TE Connectivity recommends that the tool be inspected immediately upon arrival at your facility to ensure that the tool has not been damaged during shipment, and that the tool conforms to the dimensions provided in Figure 3.

**5.1. Daily Maintenance**

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

**5.2. Periodic Inspection**

Regular inspections should be performed by quality control personnel. A record of scheduled inspections

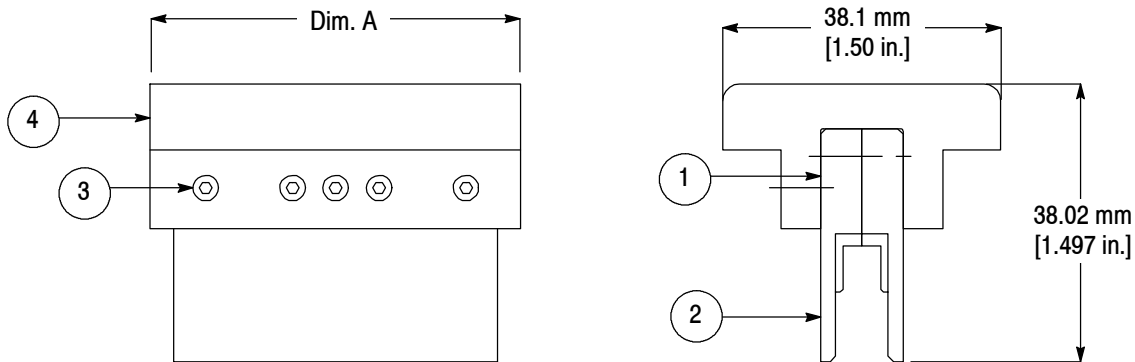
should remain with the tooling or be supplied to supervisory personnel responsible for the tool. Inspection frequency should be based on amount of use, working conditions, operator training and skill, and established standards.

**6. REPLACEMENT AND REPAIR**

Refer to Figure 3 for customer-replaceable parts. A complete inventory should be stocked to prevent production downtime when replacement of parts is necessary. Order replacement parts through your TE 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, please contact a TE representative at 1-800-526-5136.

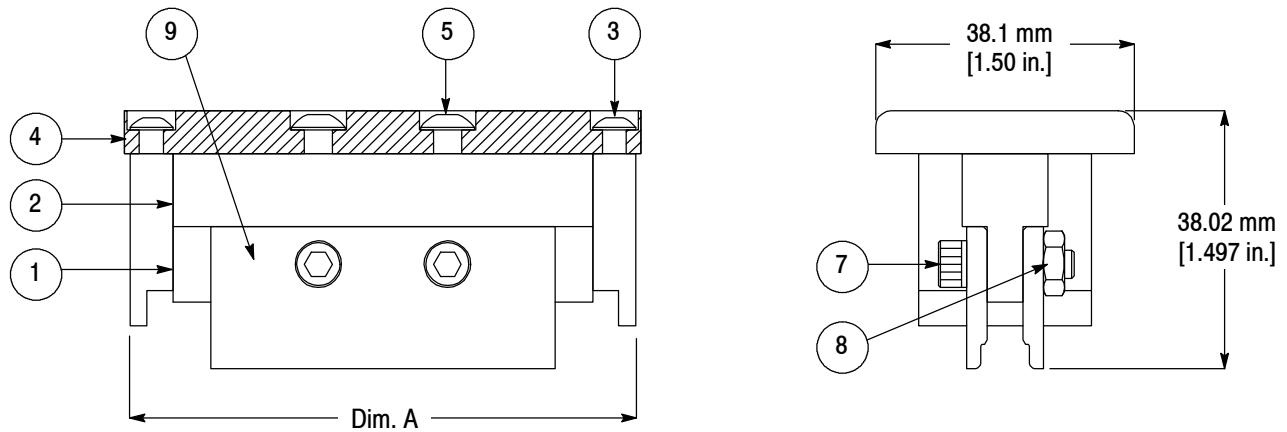


DIMENSION A (Length mm [in.]) FOR SEATING TOOL	
1320142-1	1320142-2
95.3 [3.75]	50.8 [2.00]

**REPLACEMENT PARTS**

ITEM	PART NUMBER FOR ASSEMBLY		DESCRIPTION	QTY PER ASSEMBLY
	1320142-1	1320142-2		
1	1-21002-3	—	SCREW, Button Head Cap 4-40	2
	—	1-21002-3	SCREW, Button Head Cap 4-40	4
2	1320143-1	1320143-2	BLADE, Insertion	2
3	2-21012-8	—	SCREW, Socket Set 6-32	5
	—	2-21012-8	SCREW, Socket Set 6-32	10
4	354698-2	354699-1	ADAPTER	1

Figure 3 (cont'd)



DIMENSION A (Length mm [in.]) FOR SEATING TOOL		
356198-1	356198-2	356198-3
74.7 [2.94]	49.3 [1.94]	35.6 [1.40]

**REPLACEMENT PARTS**

ITEM	PART NUMBER FOR ASSEMBLY			DESCRIPTION	QTY PER ASSEMBLY
	356198-1	356198-2	356198-3		
1	356195-1	356195-2	356195-3	BAR, Push	1
2	1214044-1	1214044-1	1214044-1	PLATE, End	2
3	1-21002-7	1-21002-7	1-21002-7	SCREW, Button Head Cap 6-32	4
4	1214041-1	1214041-2	1214041-2	PLATE, Stabilizer	1
	2-21002-1	2-21002-1	—	SCREW, Button Head Cap 8-32	2
5	—	—	2-21002-1	SCREW, Button Head Cap 8-32	1
	356194-1	356194-2	356194-3	PLATE, Side	2
6	2-21000-9	2-21000-9	—	SCREW, Socket Head Cap 8-32	2
	—	—	2-21000-9	SCREW, Socket Head Cap 8-32	1
7	21018-6	21018-6	—	NUT, Hex 8-32	1
	—	—	21018-6	NUT, Hex 8-32	2

Figure 3 (end)

**7. REVISION SUMMARY**

Since the previous version of this document, the following changes were made:

- Updated document to corporate requirements.