

Figure 1

## 1. INTRODUCTION

This instruction sheet covers the use and maintenance of Seating Tool Assemblies 1585309-[ ]. Each tool is designed to seat two side-by-side UPM high power vertical receptacle assemblies (having the same number of positions). Each receptacle has compliant pin contacts to allow solderless pc board installation.

Read these instructions and understand them before using the seating tool.

### NOTE



*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 7, REVISION SUMMARY.

## 2. DESCRIPTION

The seating tool consists of a left tip, middle tip, right tip, and body. The tips are designed to engage the grooves on either side of each receptacle so that the tool firmly seats the receptacles. See Figure 1.

During seating, the body rests above the receptacle housings and, when the tips are fully seated, they engage the contact shoulders preventing the contacts from pushing out of the housings.

## 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 receptacles from damage. Design the pc board

support fixture for specific needs using the following recommendations:

- it should be at least 25.4 mm [1.0 in.] wider than the pc board
- it should have a flat surface with a cutout or holes to allow adequate clearance for the contacts

**3.2. Application Tooling**

Power for the seating tool must be provided by application tooling (with a ram) capable of supplying a downward force of 133 Newtons (N) [30 lb] per contact. For available machines, call PRODUCT INFORMATION at the number at the bottom of page 1.

**4. SEATING**

1. Set the application tooling shut height (shut height equals the seating height given in Figure 2 PLUS the combined thicknesses of the pc board and pc board support).
2. Place the pc board on the pc board support fixture making sure that the holes (or cutout) align.
3. Place the receptacles side-by-side on the pc board so that the contacts are properly aligned and started into, but not fully entered into, the appropriate holes in the pc board.
4. Position the seating tool onto the receptacles, making sure that the tips are fully inserted into the grooves of the receptacles.

5. Center the seating tool (with the receptacles) under the ram of the application tooling; then slowly lower the ram until it just meets the seating tool. Verify the alignment of the pc board, pc board support fixture, receptacles, and seating tool.



*Damage to the pc board, seating tool, or receptacles may occur if the wrong seating tool is used, if the seating height is improperly set, or if the seating tool is not properly aligned with the receptacles before cycling the application tooling.*

6. Cycle the application tooling to seat the receptacles onto the pc board. Retract the ram, and carefully remove the seating tool by pulling it straight from the receptacles.

7. Check the receptacles for proper seating according to Application Specification 114-1103.



*The receptacle assemblies are not repairable. Replace any damaged or defective receptacle assemblies.*

**5. 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 the seating tool has not been damaged during shipment.

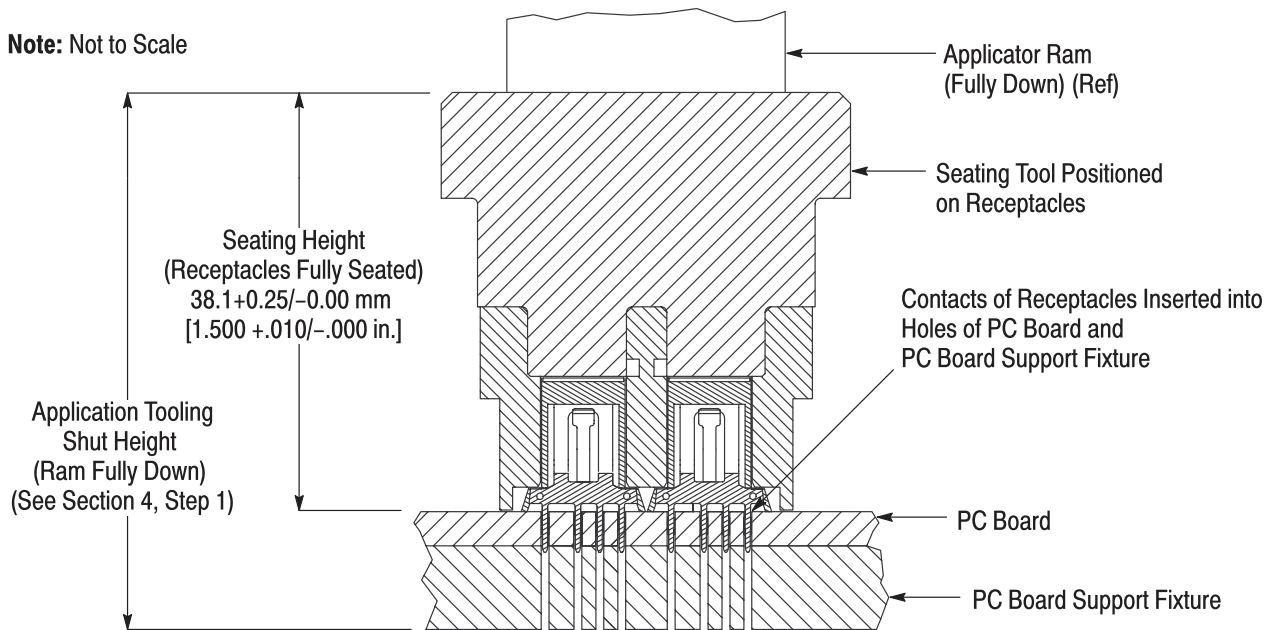


Figure 2

**5.1. 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 seating tool components.
2. Ensure that the screws are in place and secured.
3. When the seating 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 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.

**6. REPLACEMENT AND REPAIR**

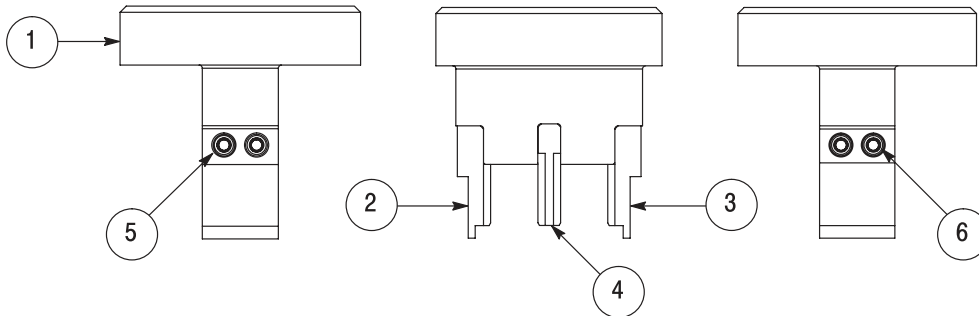
Customer-replaceable parts are listed in Figure 3. A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is necessary. Parts other than those listed should be replaced by Tyco Electronics Corporation to ensure quality and reliability. Order replacement parts 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, contact a representative at 1-800-526-5136.

**7. REVISION SUMMARY**

- Initial release of instruction sheet



ITEM	PART NUMBER	DESCRIPTION	QTY PER TOOL (Number of Receptacle Positions)									
			-1 (3)	-2 (4)	-3 (5)	-4 (6)	-5 (7)	-6 (8)	-7 (9)	-8 (10)	-9 (11)	-10 (12)
1	1585311-1	BODY	1	1	—	—	—	—	—	—	—	—
	1585311-2	BODY	—	—	1	1	1	1	—	—	—	—
	1585311-3	BODY	—	—	—	—	—	—	1	1	1	1

Figure 3 (Cont'd)

ITEM	PART NUMBER	DESCRIPTION	QTY PER TOOL (Number of Receptacle Positions)									
			-1 (3)	-2 (4)	-3 (5)	-4 (6)	-5 (7)	-6 (8)	-7 (9)	-8 (10)	-9 (11)	-10 (12)
2	1338316-1	TIP, Left, 3-Position	1	—	—	—	—	—	—	—	—	—
	1338316-2	TIP, Left, 4-Position	—	1	—	—	—	—	—	—	—	—
	1338316-3	TIP, Left, 5-Position	—	—	1	—	—	—	—	—	—	—
	1338316-4	TIP, Left, 6-Position	—	—	—	1	—	—	—	—	—	—
	1338316-5	TIP, Left, 7-Position	—	—	—	—	1	—	—	—	—	—
	1338316-6	TIP, Left, 8-Position	—	—	—	—	—	1	—	—	—	—
	1338316-7	TIP, Left, 9-Position	—	—	—	—	—	—	1	—	—	—
	1338316-8	TIP, Left, 10-Position	—	—	—	—	—	—	—	1	—	—
	1338316-9	TIP, Left, 11-Position	—	—	—	—	—	—	—	—	1	—
	1-1338316-0	TIP, Left, 12-Position	—	—	—	—	—	—	—	—	—	1
3	1338315-1	TIP, Right, 3-Position	1	—	—	—	—	—	—	—	—	—
	1338315-2	TIP, Right, 4-Position	—	1	—	—	—	—	—	—	—	—
	1338315-3	TIP, Right, 5-Position	—	—	1	—	—	—	—	—	—	—
	1338315-4	TIP, Right, 6-Position	—	—	—	1	—	—	—	—	—	—
	1338315-5	TIP, Right, 7-Position	—	—	—	—	1	—	—	—	—	—
	1338315-6	TIP, Right, 8-Position	—	—	—	—	—	1	—	—	—	—
	1338315-7	TIP, Right, 9-Position	—	—	—	—	—	—	1	—	—	—
	1338315-8	TIP, Right, 10-Position	—	—	—	—	—	—	—	1	—	—
	1338315-9	TIP, Right, 11-Position	—	—	—	—	—	—	—	—	1	—
	1-1338315-0	TIP, Right, 12-Position	—	—	—	—	—	—	—	—	—	1
4	1585310-1	TIP, Middle, 3-Position	1	—	—	—	—	—	—	—	—	—
	1585310-2	TIP, Middle, 4-Position	—	1	—	—	—	—	—	—	—	—
	1585310-3	TIP, Middle, 5-Position	—	—	1	—	—	—	—	—	—	—
	1585310-4	TIP, Middle, 6-Position	—	—	—	1	—	—	—	—	—	—
	1585310-5	TIP, Middle, 7-Position	—	—	—	—	1	—	—	—	—	—
	1585310-6	TIP, Middle, 8-Position	—	—	—	—	—	1	—	—	—	—
	1585310-7	TIP, Middle, 9-Position	—	—	—	—	—	—	1	—	—	—
	1585310-8	TIP, Middle, 10-Position	—	—	—	—	—	—	—	1	—	—
	1585310-9	TIP, Middle, 11-Position	—	—	—	—	—	—	—	—	1	—
	1-1585310-0	TIP, Middle, 12-Position	—	—	—	—	—	—	—	—	—	1
5	1-21000-0	SCREW, Socket Head Cap, 2-56 × .250	2	2	2	2	2	2	2	2	2	2
6	1-21000-2	SCREW, Socket Head Cap, 2-56 × .500	2	2	2	2	2	2	2	2	2	2

Figure 3 (End)