

Figure 1

## 1. INTRODUCTION

Seating Tool Assembly 91360-1 is used to seat Z-PACK 2mm HM Type M vertical male connector assemblies with ACTION PIN contacts to allow solderless pc board installation. The seating tool is specifically designed for the number of positions in the connector. Refer to Figure 1. Read these instructions thoroughly before using the seating tool.

### NOTE



All numerical values in this instruction sheet are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters [and inches]. Figures are not drawn to scale.

## 2. DESCRIPTION

The seating tool consists of an adapter, a signal contact blade, and a power contact blade.

During seating, the blades sit inside the connector engaging the housing floor and contacts preventing

the contacts from pushing out of the housing. The adapter presses on the top surface of the connector when the applicator ram applies force to the seating tool.

## 3. REQUIREMENTS

### 3.1. PC Board Support Fixture

A fixture 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 pc board support fixture must be designed for the specific needs according to 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 133 Newtons (N) [30 lb] per contact. SM-3 Frame Assembly 814700-[ ] (Customer Manual 409-5626 provides instructions) 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

**CAUTION**  *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 fixture).
2. Position the connector onto pc board so that the contacts (and alignment features) are properly aligned to the pc board and support fixture.
3. Place the connector onto pc board until the contacts are resting securely on, but have not fully entered, the pc board.
4. Position the seating tool onto 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. Slowly lower the ram until it just meets the seating tool. Verify alignment of the support fixture, pc board, connector, and seating tool.

**CAUTION**  *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 to make sure that the connector has been properly seated.
7. Repeat Steps 2 through 6 until all connectors are seated.

**NOTE**  *For application requirements for the connector, refer to Application Specification 114-19029.*

**5. MAINTENANCE AND INSPECTION**

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

**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 tool components.

**Note:** Not to Scale

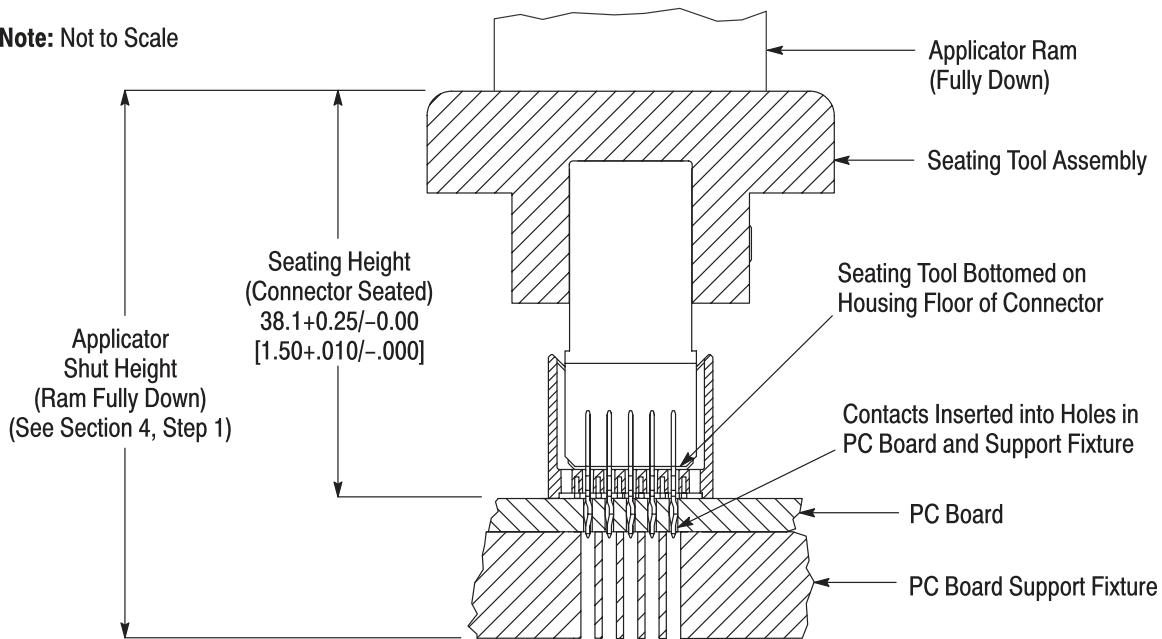


Figure 2

2. Ensure that setscrews are in place and secured.
3. 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**

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 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:

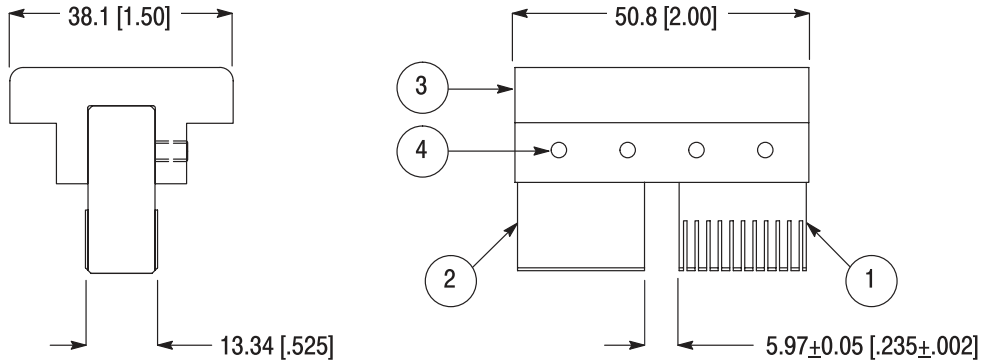
CUSTOMER SERVICE (038-035)  
 TYCO ELECTRONICS CORPORATION  
 PO BOX 3608  
 HARRISBURG PA 17105-3608

For customer repair service, please contact a representative at 1-800-526-5136.

**7. REVISION SUMMARY**

Revisions to this instruction sheet include:

- Updated document to corporate requirements



**REPLACEMENT PARTS**

ITEM	PART NUMBER	DESCRIPTION	QTY PER TOOL
1	354695-1	BLADE, Signal Contact	1
2	1490428-1	BLADE, Power Contact	1
3	354698-1	ADAPTER	1
4	2-21012-8	SETSCREW, Socket, 6-32 x .19 in. L	4

Figure 3