

SEATING TOOL	CONNECTOR TYPE
91350-[ ]	2-pair
91376-[ ]	3-Pair
91347-[ ]	4-Pair

Figure 1

## 1. INTRODUCTION

Seating Tools 91347-[ ], 91350-[ ], and 91376-[ ] are used to seat Z-PACK HM-Zd receptacle connectors onto a pc board. See Figure 1. Dash number indicates number of connector columns. The connectors contain eye-of-needle contacts which allow solderless pc board installation.



### 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.

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

Reasons for reissue of this instruction sheet are provided in Section 7, REVISION SUMMARY.

## 2. DESCRIPTION

The seating tool is a one-piece design. 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.

## 3. REQUIREMENTS

### 3.1. PC Board Support Fixture (Custom Designed)

A pc board support must be used to provide proper support for the pc board and alignment of the tool to the contacts and to protect the pc board and contacts from damage.

### 3.2. Application Tooling

Power for seating tools must be provided by a machine capable of supplying a downward force of 89 Newtons (N) [20 lb.] per contact. Manual Electric Servo Press (MEP 6T) 1585699-1, Bench Top Electric Servo Presses (BMEP 3T) 1585697-1, and (BMEP 5T) 1585696-1 are available for this seating tool. For information on the presses, visit the press-fit assembly equipment website at <http://tooling.te.com/pressfit.asp>.



**CAUTION**

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. SEATING**

1. Set seating height to the dimension shown in Figure 2 (application tool shut height will equal the tool seating height PLUS the combined thicknesses of the pc board and support fixture). After seating, a gap of no more than 0.10 mm [.004 in.] between the connector housing and the pc board is allowed.



**NOTE**

The seating height of 38.1 mm [1.50 in.] is a reference starting point. The seating height might have to be adjusted to properly seat the connector onto the pc board.

2. Position the connector on the pc board so that contacts are properly aligned with the holes in the pc board and pc board support fixture.
3. Sit the connector onto pc board until the open section of the contacts are resting securely on, but have not fully entered, the holes in the pc board.
4. Position the seating tool onto the connector.
5. Center the seating tool (with the connector) under the ram of the applicator tool; slowly lower the ram until it just meets the seating tool. Verify the alignment of the pc board support fixture, pc board, connector, and seating tool.



**CAUTION**

Damage to the pc board, seating tool, or connector may occur if the seating height is improperly set, the pc board is not properly positioned over the pc board support, or the seating tool is not properly seated on the connector before cycling the applicator ram.

6. Cycle the ram according to instructions included with the application tooling. Check the connector for proper seating using the requirements in Application Specification 114-13059.
7. Remove the pc board or re-position the pc board and pc board support fixture for seating additional connectors.

**NOTE:** Not to Scale

**View After Seating**

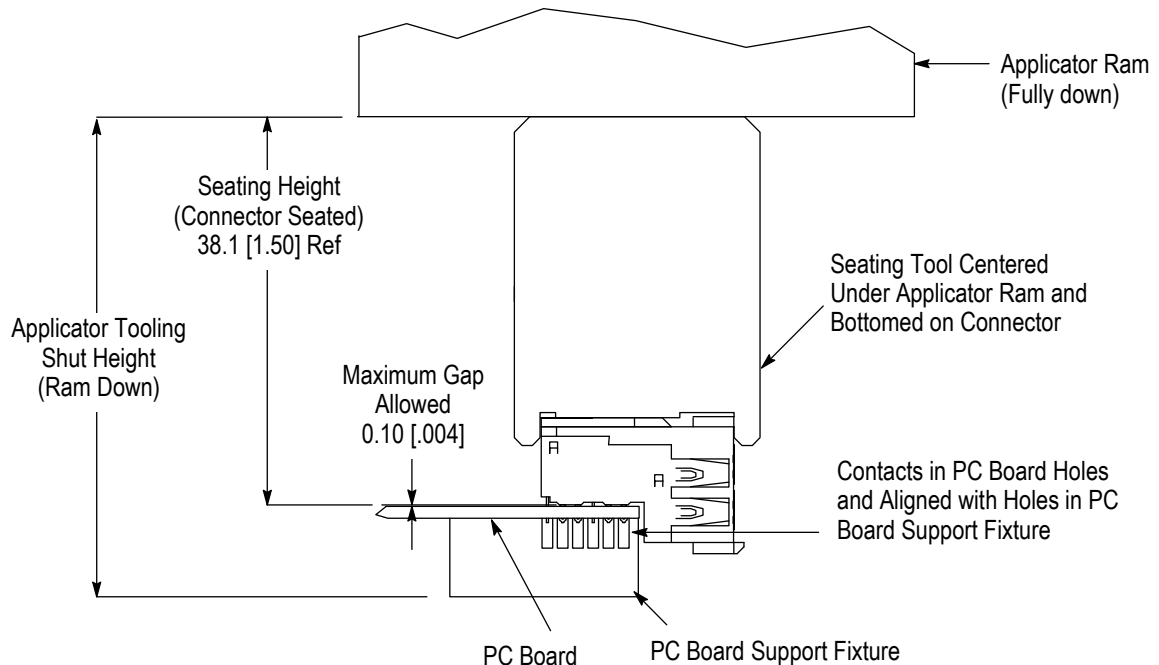


Figure 2

## 5. MAINTENANCE AND INSPECTION

It is recommended that each operator be made aware of, and responsible for, the following steps of daily maintenance:

1. Remove dust, moisture, and other contaminants with a clean, soft brush, or lint-free cloth. DO NOT use objects that could damage the tool or any of its components.
2. Ensure that the screws are in place and secured.
3. When the tool is not in use, store it in a clean, dry area.

Each seating tool is assembled and inspected before shipment. It is recommended that the tool be inspected using Figure 3 immediately upon arrival to assure that it has not been damaged during shipment.

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

## 6. REPLACEMENT AND REPAIR

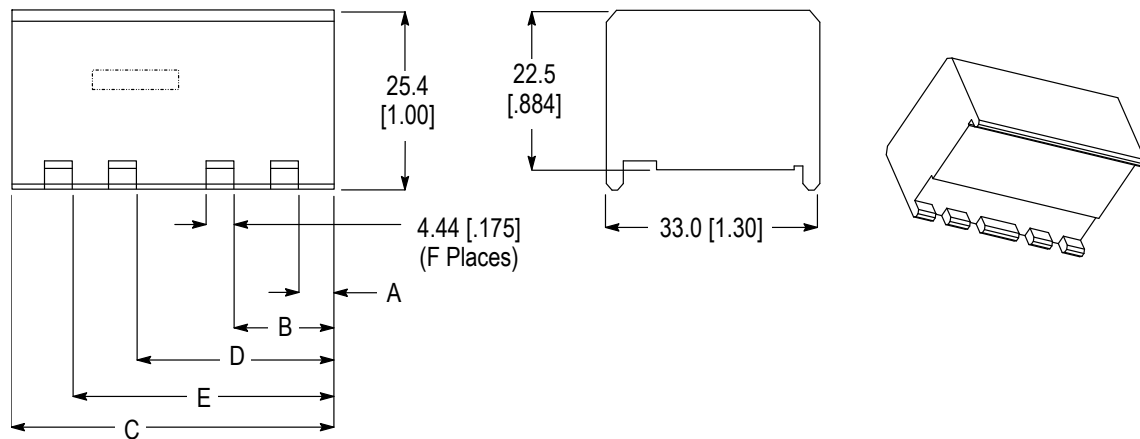
Order replacement seating tools through your local TE Connectivity Representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 717-986-7605, or write to:

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

## 7. REVISION SUMMARY

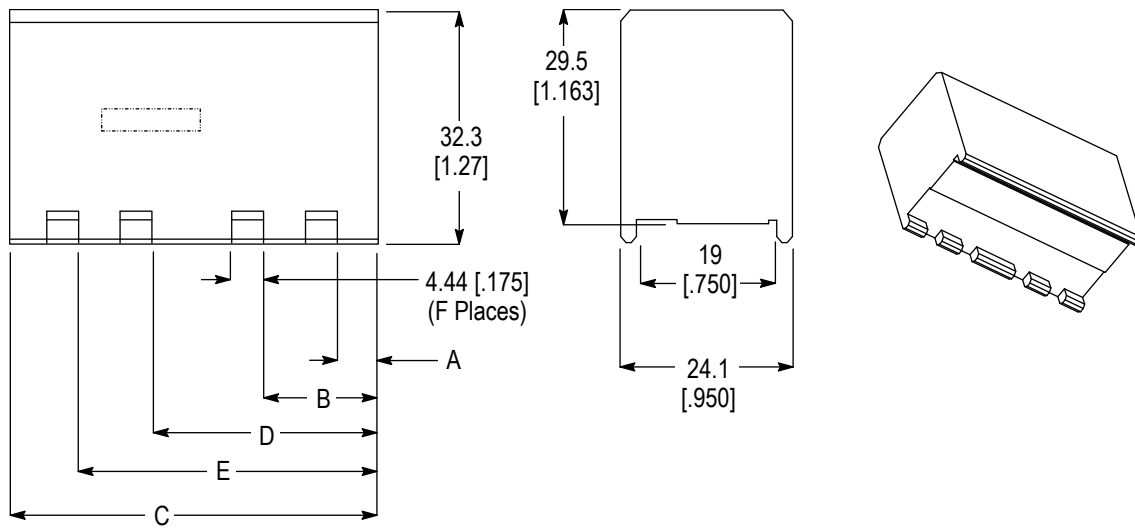
- Updated document to corporate requirements
- Added new part numbers (91350-3, -4) and related information to table in Figure 3

**Seating Tool 91347-[ ] (4-Pair Connector)**

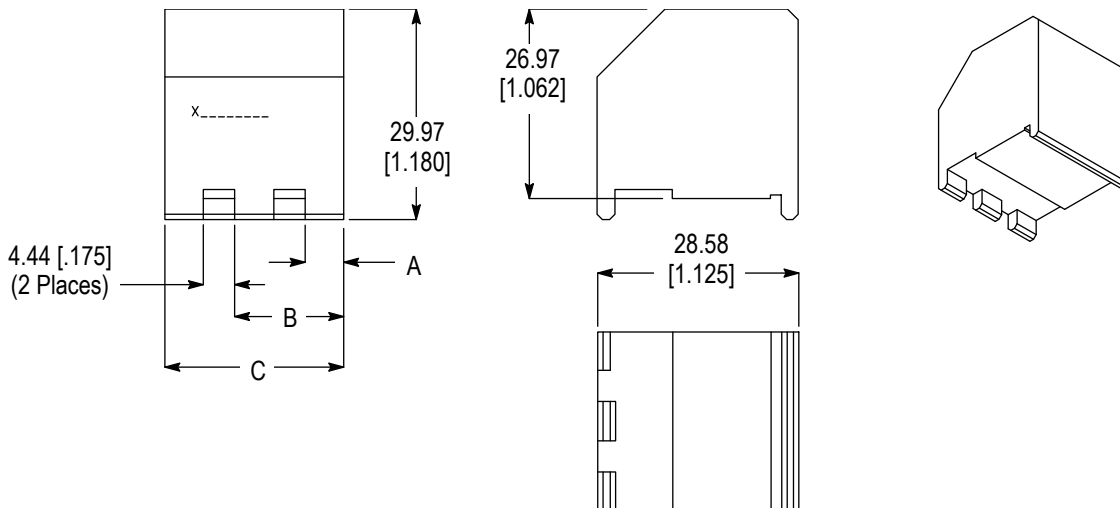


SEATING TOOL	DIMENSION					F
	A	B	C	D	E	
91347-1	5.46 [.215]	15.49 [.610]	25.4 [1.00]	---	---	2
91347-2	5.21 [.205]	27.69 [1.090]	37.34 [1.470]	---	---	2
91347-3	5.26 [.207]	20.24 [.797]	29.97 [1.180]	---	---	2
91347-4	5.18 [.204]	15.19 [.598]	49.78 [1.960]	30.18 [1.188]	40.18 [1.582]	4
91347-5	5.38 [.212]	---	12.70 [.500]	---	---	1

Figure 3 (cont'd)

**Seating Tool 91350-[ ] (2-Pair Connector)**


SEATING TOOL	DIMENSION					F
	A	B	C	D	E	
91350-1	5.46 [.215]	15.49 [.610]	25.4 [1.00]	---	---	2
91350-2	5.18 [.204]	15.19 [.598]	49.78 [1.960]	30.18 [1.188]	40.18 [1.582]	4
91350-3	5.25 [.207]	---	10.70 [.421]	---	---	1
91350-4	5.25 [.207]	---	14.90 [.587]	---	---	1

**Seating Tool 91376-[ ] (3-Pair Connector)**


SEATING TOOL	DIMENSION		
	A	B	C
91376-1	5.46 [.215]	15.49 [.610]	25.4 [1.00]
91376-2	5.18 [.204]	15.19 [.598]	49.78 [1.960]

Figure 3 (end)