

Figure 1

1. INTRODUCTION

This instruction sheet covers the use and maintenance of Seating Tools 91347-[], 91350-[], and 91376-1 which are used to seat Hard Metric Zd (HM-Zd) Type connectors with Eye of Needle Type contacts. See Figure 1. Tools 91347-[] are used to seat four-pair HM-Zd Receptacle Connectors; tool 91350-1 is used to seat two-pair HM-Zd Receptacle Connectors; and tool 91376-1 is used to seat three-pair HM-Zd Receptacle Connectors. These tools allow solderless printed circuit (pc) board installation.

NOTE

All dimensions on this document are in metric units [with U.S. customary units in brackets]. Figures and illustrations are for reference only, and are not drawn to scale.

Read these instructions and understand them before using the seating tools and support anvil.

Reasons for reissue of this sheet are provided in Section 8, 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. The support anvil is positioned into a pc board support fixture to support the pc board.

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 tool to the receptacle pins, and to protect the pc board and connector contacts from damage. This pc board support is needed for use with this seating tool and

anvil. Design a pc board support fixture for your 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 89 Newtons (N) [20 lb] per contact.

4. SEATING

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 support.)

NOTE *The seating height of 38.1 [1.50] is a reference starting point. Seating height may need adjusted to properly seat connectors onto the pc board.*

2. Position the support anvil, grooved side up, into the pc board support fixture and center it under the applicator ram of the power source. Position pc board with connector over support anvil.
3. Position the connector onto the pc board so that the contacts are properly aligned to the pc board and pc support. See Figure 2.
4. Insert the connector into the pc board until the Eye of the Needle section of the contacts are

resting securely on, but have not fully entered, the pc board.

5. Position the seating tool onto the connector.
6. Center seating tool and header under the applicator ram of the power source you have chosen; slowly lower ram until it just meets the seating tool. Verify the alignment of the board support, pc board, connector, and seating tool.

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

7. Cycle applicator ram according to instructions for your power source. Check assembly for proper seating, using the requirements of the appropriate application specification.
8. Remove board with seated connector, or reposition board and board support for seating additional connectors.

5. TOOL INSPECTION

It is recommended that the tool be inspected, using Figure 3, immediately upon its arrival in your plant to ensure that it has not been damaged during shipment.

View After Seating

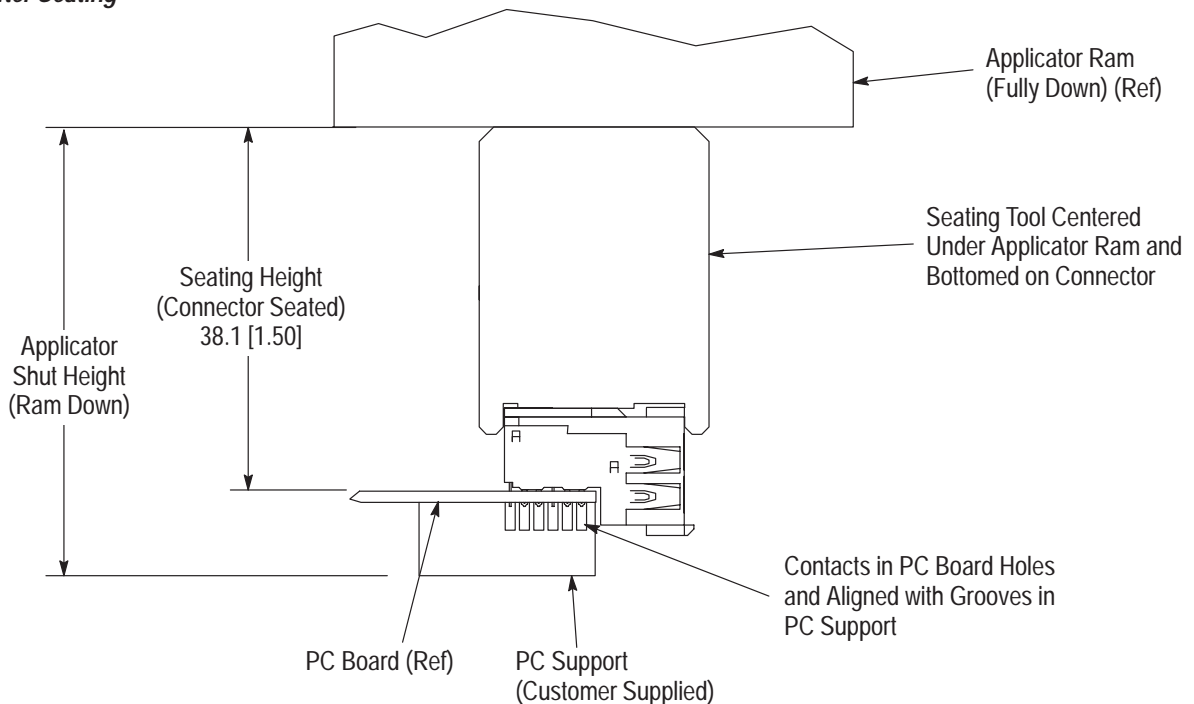
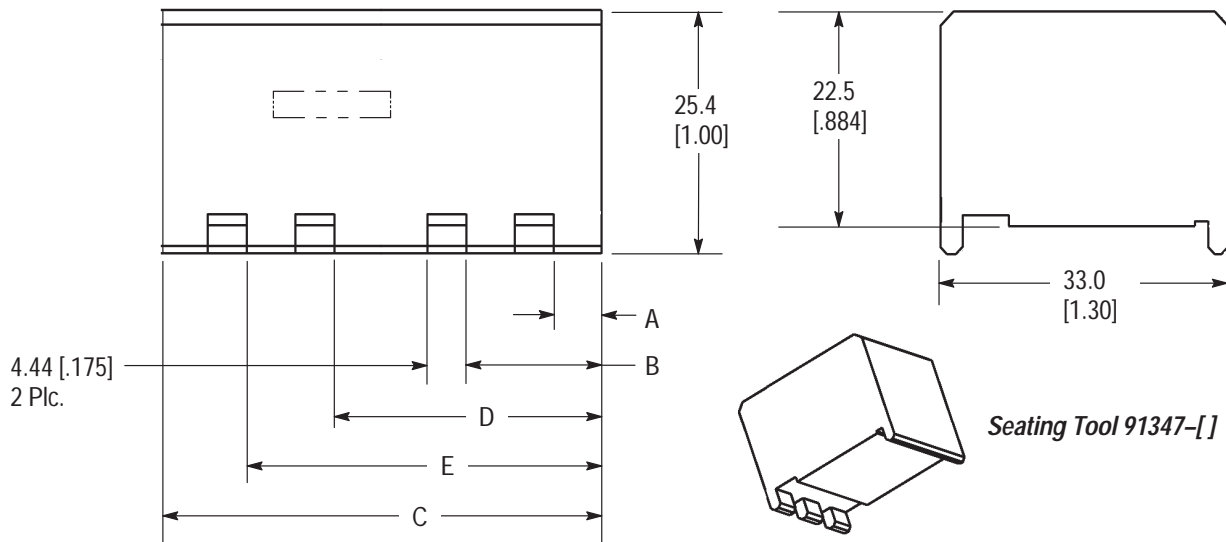
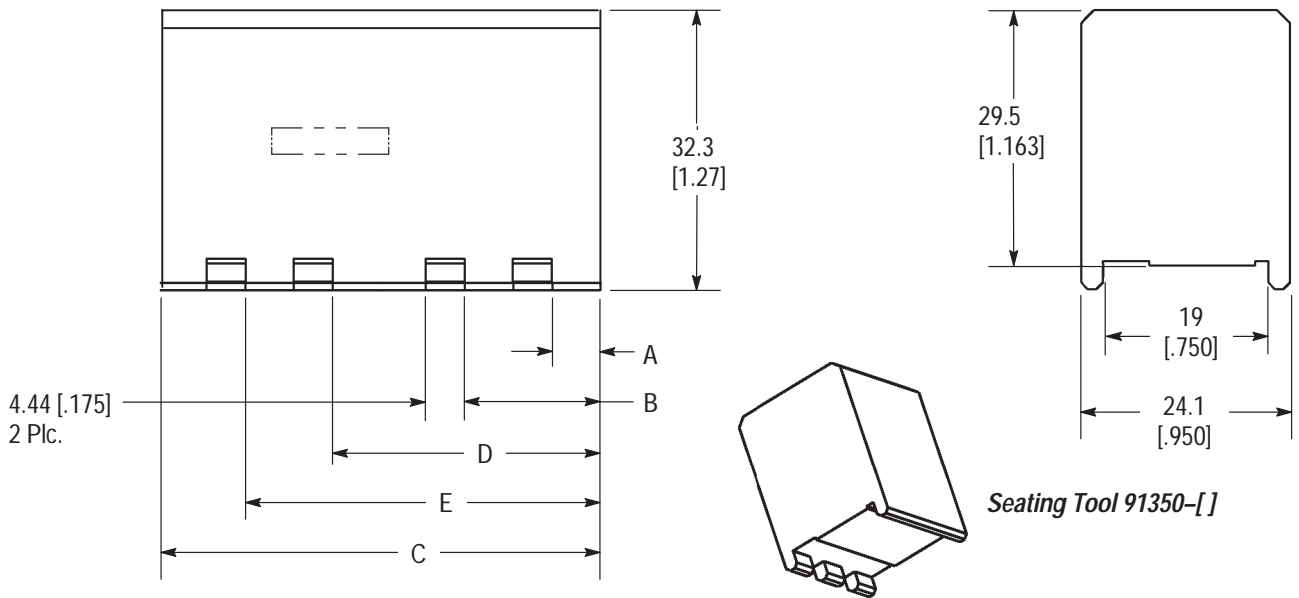


Figure 2



SEATING TOOL	"A"	"B"	"C"	"D"	"E"
91347-1	5.46 [.215]	15.49 [.610]	25.4 [1.000]	---	---
91347-2	5.21 [.205]	27.69 [1.090]	37.34 [1.470]	---	---
91347-3	5.26 [.207]	20.24 [.797]	29.97 [1.180]	---	---
91347-4	5.18 [.204]	15.19 [.598]	49.78 [1.960]	30.18 [1.188]	40.18 [1.582]



SEATING TOOL	"A"	"B"	"C"	"D"	"E"
91350-1	5.46 [.215]	15.49 [.610]	25.4 [1.000]	---	---
91350-2	5.18 [.204]	15.19 [.598]	49.78 [1.960]	30.18 [1.188]	40.18 [1.582]

Figure 3 (cont'd)

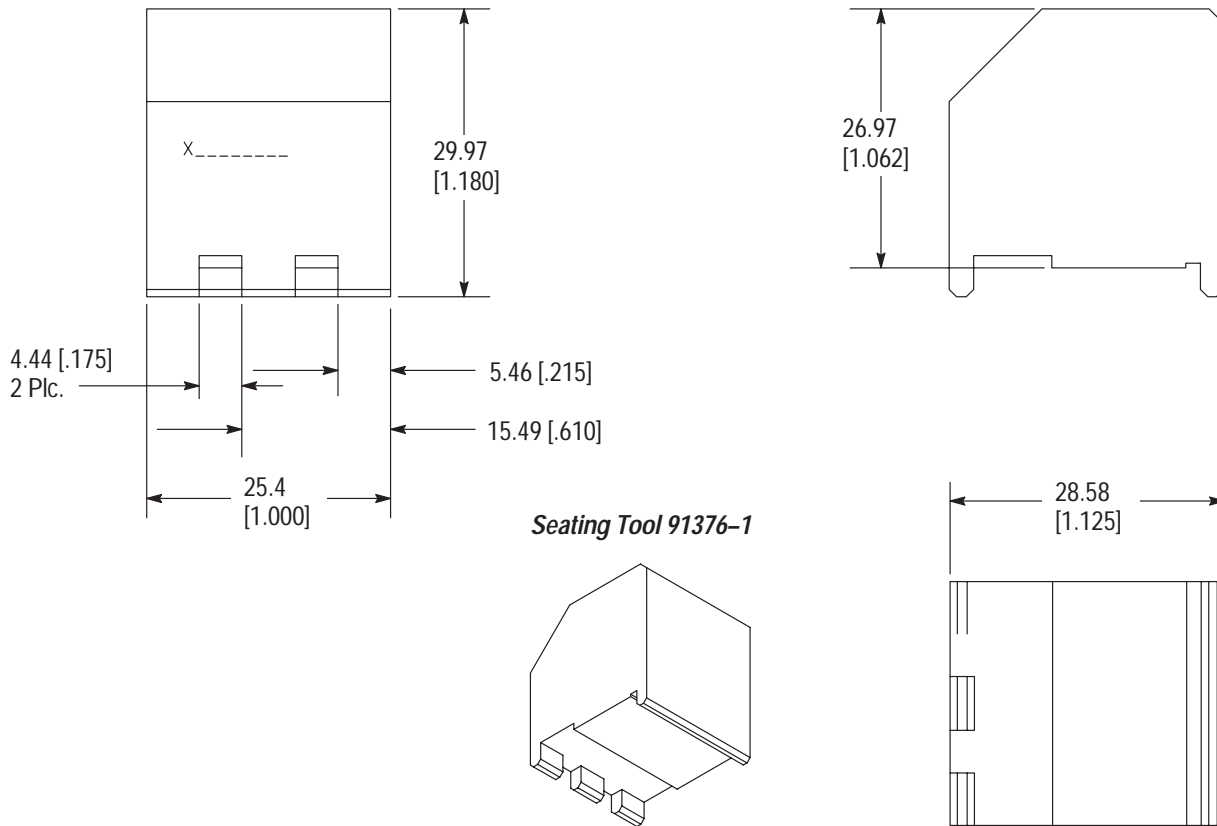


Figure 3 (end)

6. MAINTENANCE/INSPECTION

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 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.

6.2. Periodic Inspection

Regular inspections should be performed by quality control personnel. A record of scheduled inspections should remain with the tool or be supplied to supervisory 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.

7. REPLACEMENT AND REPAIR

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

CUSTOMER SERVICE (38-35)
TYCO ELECTRONICS CORPORATION
P.O. BOX 3608
HARRISBURG, PA 17105-3608

For seating tool repair service, please contact a Tyco Electronics Representative at 1-800-526-5136.

8. REVISION SUMMARY

Per EC 0990-0163-04

- Updated document to corporate requirements
- Added new 91350-2 and related information
- Added new information and art to Figure 3