

Figure 1

1. INTRODUCTION

This instruction sheet covers the use and maintenance of Seating Tools 91348-[], 91349-[], and 91375-1 which are used to seat Hard Metric Zd (HM-Zd) Header Connectors with Eye of Needle Type contacts into printed circuit (pc) boards. See Figure 1. Tool 91348-1 is used to seat two-pair HM-Zd Header Connectors; tools 91349-[] are used to seat four-pair HM-Zd Header Connectors; and tool 91375-1 is used to seat three-pair HM-Zd Header 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 consists of a seating tool blade and an adapter to seat either two-, three-, or four-pair HM-Zd Header Connectors.

During seating, the tool sits inside the header housing engaging the housing floor and contact shoulders, preventing contacts from pushing out of the housing.

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 header pins, and to protect the pc board and header posts from damage. 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 45 Newtons (N) [10 lb] per contact.

4. SEATING A PIN HEADER

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 header on the pc board so that header posts are properly aligned to the board and board support.
3. Insert header into pc board until the Eye of Needle post sections are resting securely on, but have not fully entered, the board.
4. Position the appropriate seating tool into the header, making sure the tool is bottomed on the housing floor.
5. 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, header, and seating tool.

CAUTION

Damage to the pc board, tool, or header may occur if the wrong size tool is used, if seating height is improperly set, if grounding arrow is oriented incorrectly, or if tool is not properly seated in the header before cycling the applicator ram. Damaged product should not be used. If damaged product is evident, it should be removed and replaced with a new one.

6. Cycle applicator ram according to instructions for your power source. Check assembly for proper seating, using the requirements of the appropriate Application Specification.
7. Remove board with seated pin header, or reposition board and support for seating additional headers.

5. TOOL INSPECTION

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

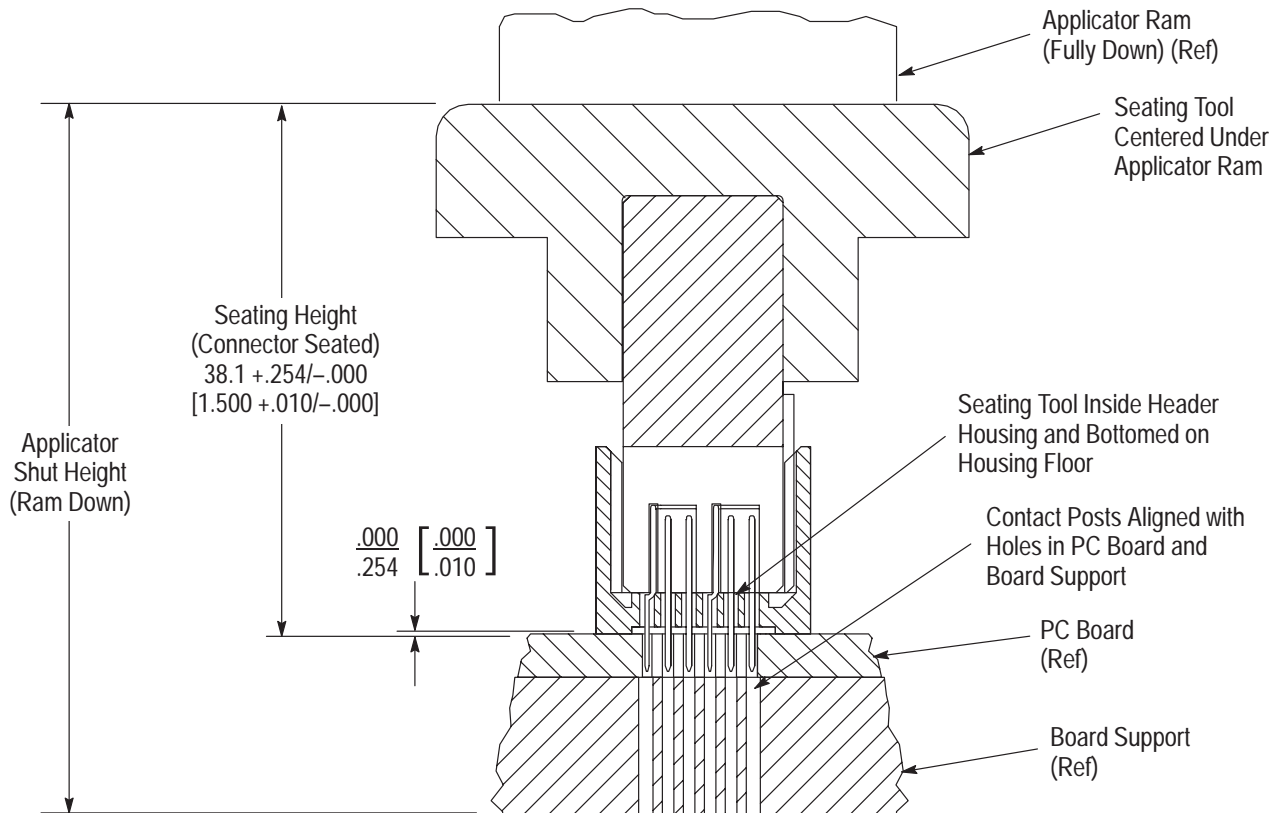
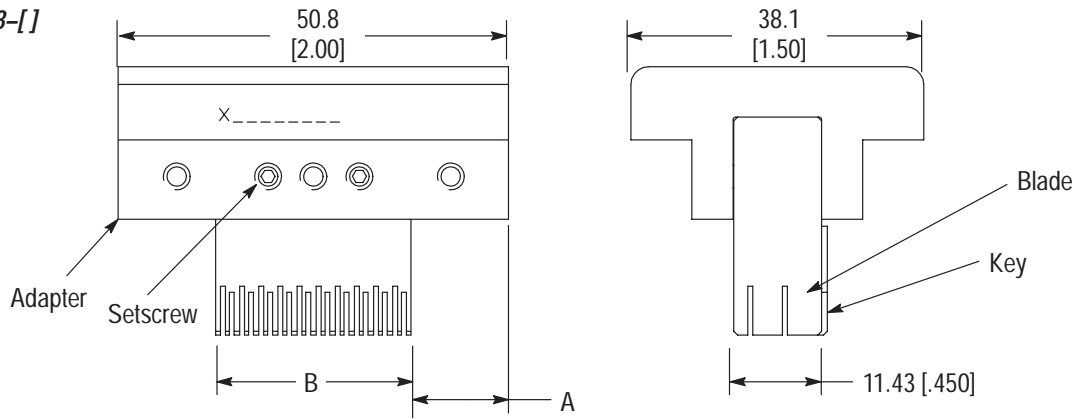


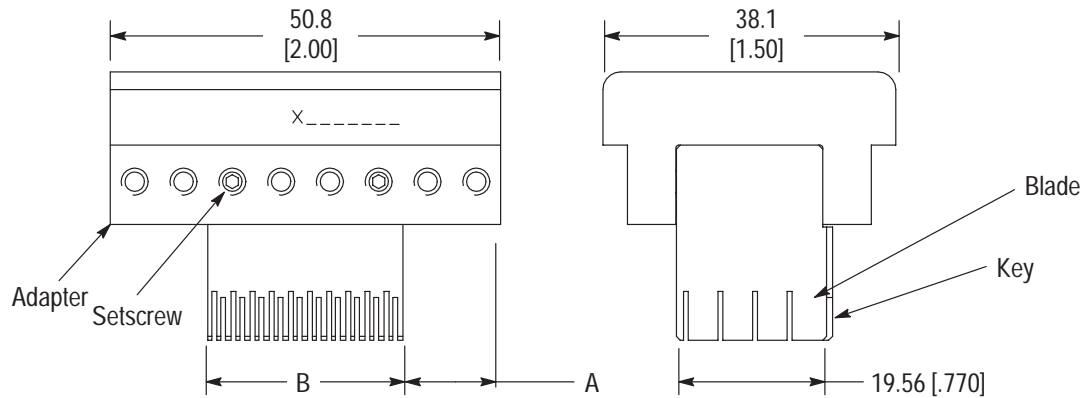
Figure 2

Seating Tool 91348-[]



SEATING TOOL	"A"	"B"
91348-1	12.7 [.500]	24.97 [.983]
91348-2	---	49.86 [1.963]

Seating Tool 91349-[]



SEATING TOOL	"A"	"B"
91349-1	12.70 [.500]	24.97 [.983]
91349-2	7.11 [.280]	37.41 [1.473]
91349-3	10.41 [.410]	29.95 [1.179]
91349-4	---	49.86 [1.963]

Seating Tool 91375-1

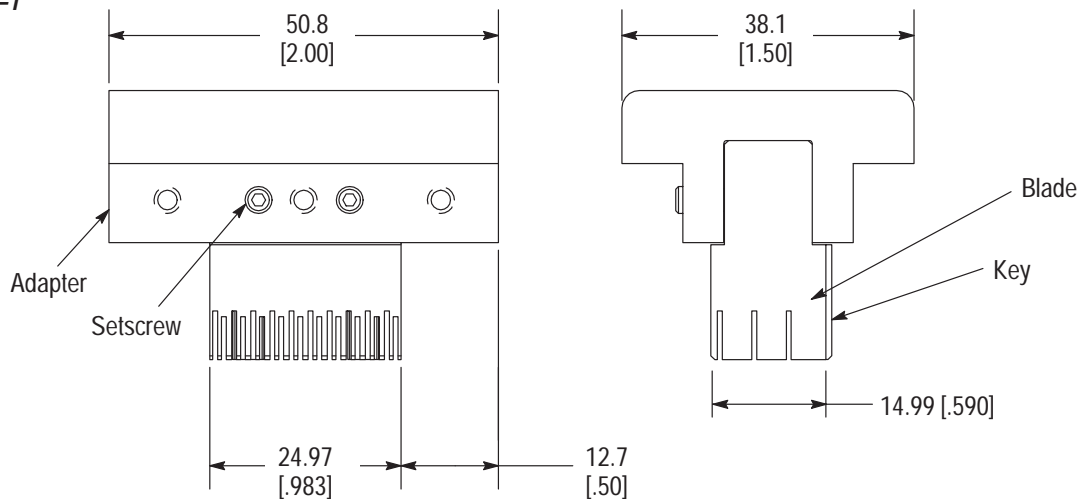


Figure 3

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

The parts listed in Figure 3 are customer-replaceable. A complete inventory can be stocked and controlled to prevent lost time when replacement of parts is necessary. Order replacement parts through your field 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

Tools may also be returned to Tyco Electronics for evaluation and repair. For customer repair service, contact a Tyco Electronics Representative at 1-800-526-5136.

8. REVISION SUMMARY

Per EC 0990-0164-04

- Updated document to corporate requirements
- Added new part numbers 91348-2 and 91349-4
- Added new part number information to Figure 3