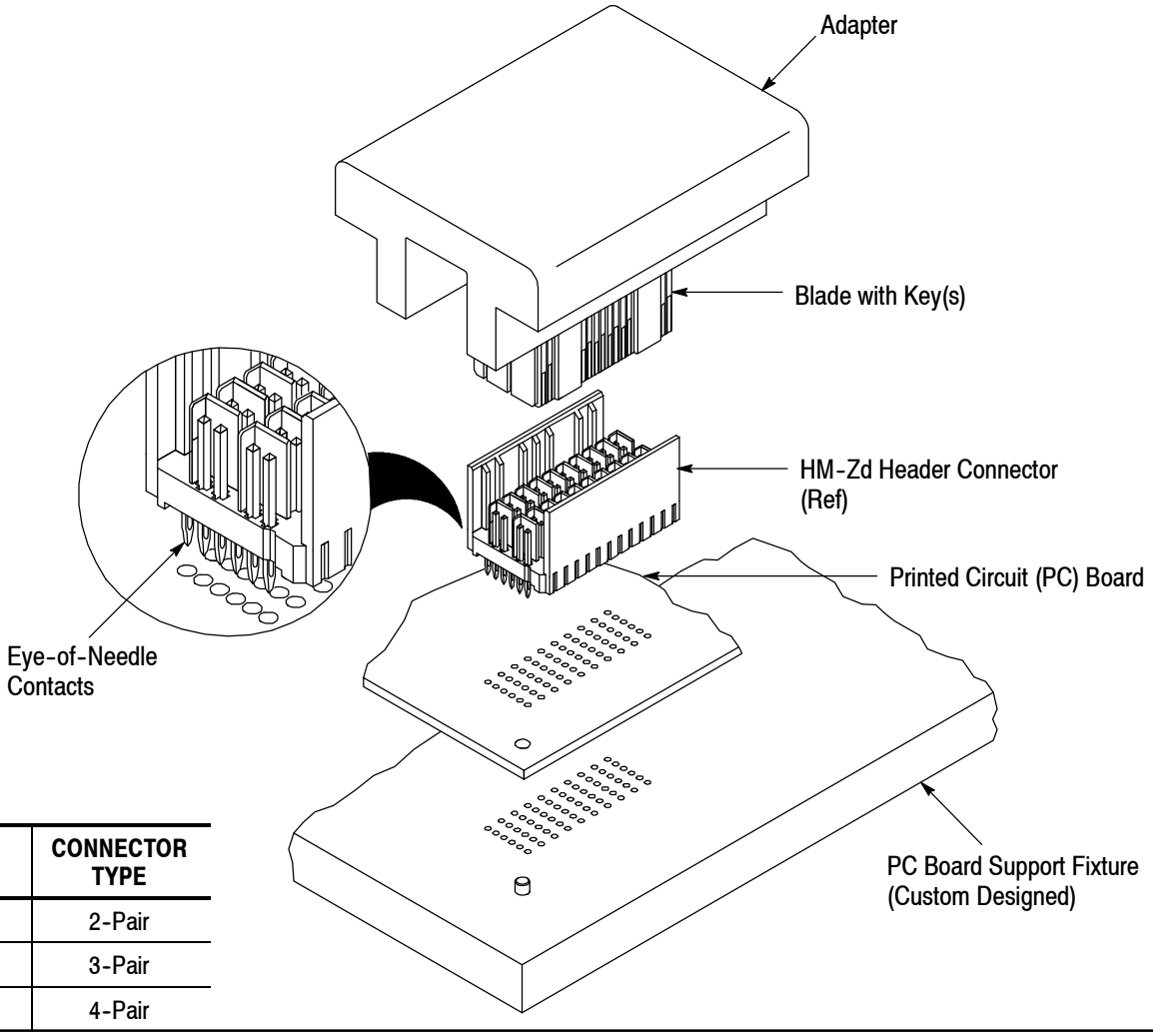


SEATING TOOL	CONNECTOR TYPE
91348-[ ]	2-Pair
91375-[ ]	3-Pair
91349-[ ]	4-Pair

Figure 1

1. INTRODUCTION

Seating Tools 91348-[ ], 91349-[ ], and 91375-[ ] are used to seat HM-Zd header 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 consists of an adapter and a blade. The blade contains a key(s) that properly orients the tool to the connector.

During seating, the adapter provides a surface to accept the force applied by the application tool, and the blade sits inside the connector engaging the housing floor and contact shoulders preventing the contacts from pushing out of the housing.

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 45 Newtons (N) [10 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.tycoelectronics.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 standoffs and the pc board is allowed.

NOTE

The seating height of 38.1 mm [1.50 in.] is a reference starting point. Seating height may need adjusted to obtain the 0.1 mm [.004 in.] maximum gap between the connector and 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. Orient the key(s) of the blade with the groove(s) on the inside of the connector housing, then position the seating tool onto the connector, making sure the blade bottoms on the housing floor.

CAUTION

Damage to the pc board, seating tool, or connector may occur if the wrong seating tool is used, if the seating height is improperly set, or if the seating tool is not properly seated in the connector before cycling the ram. DO NOT use damaged product.

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

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 reposition the pc board and pc board support fixture for seating additional connectors.

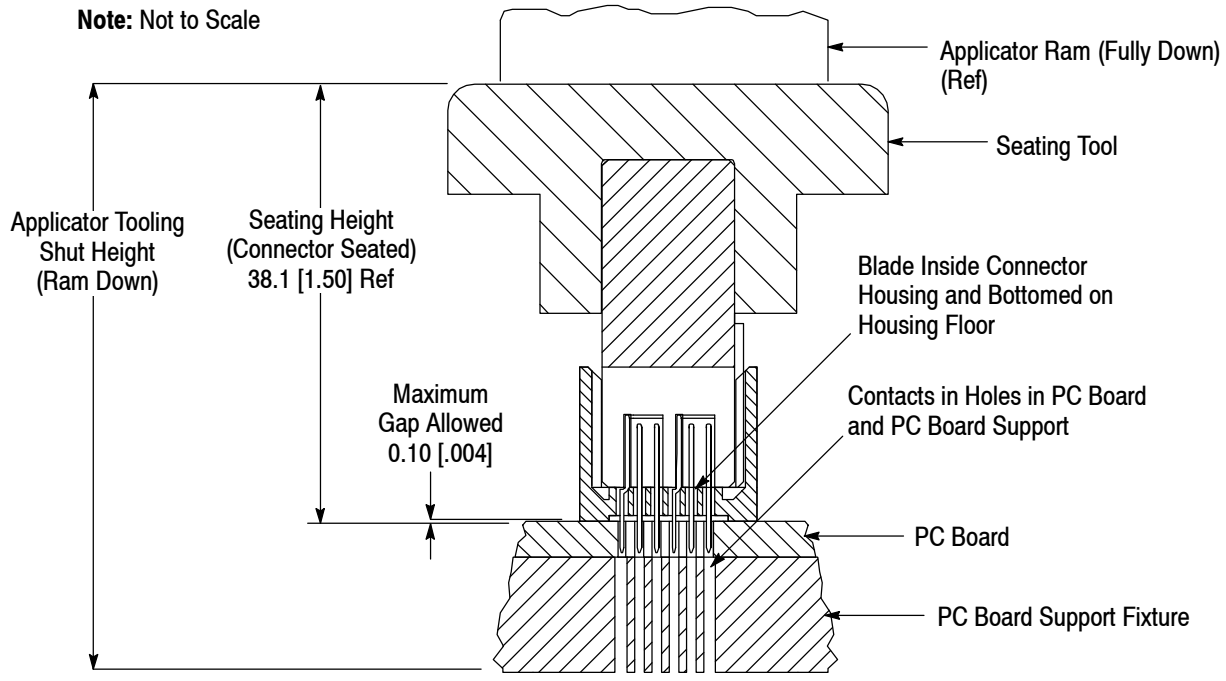


Figure 2

5. MAINTENANCE AND INSPECTION

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 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.

5.2. Inspection

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

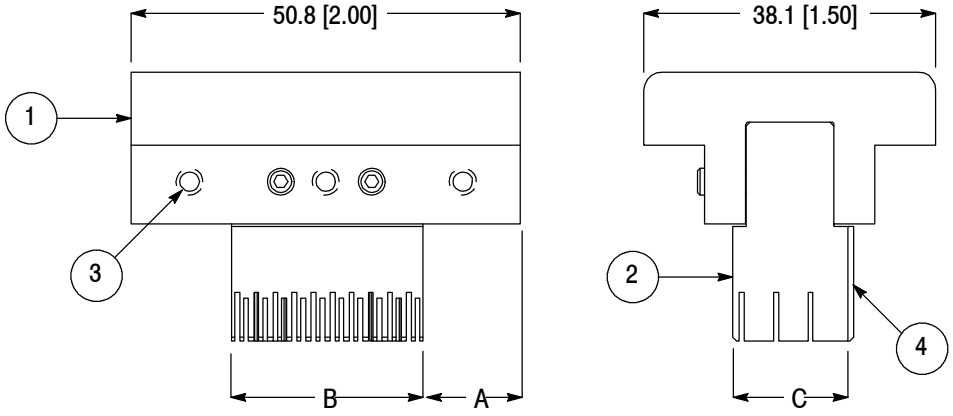
Customer-replaceable parts are listed in Figure 3. A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is necessary. Order replacement parts through your local Tyco Electronics Representative, or call 1-800-526-5142, or send a facsimile of your purchase 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

Revisions to this instruction sheet include:

- Updated document to corporate requirements
- Added new text to Paragraph 3.2
- Added NOTE to Paragraph 4.1
- Corrected seating tool dimension to Figure 2



SEATING TOOL	DIMENSION		
	A	B	C
91348-1	12.70 [.500]	24.97 [.9830]	11.43 [.450]
91348-2	—	49.86 [1.963]	
91349-1	12.70 [.500]	24.97 [.9830]	19.56 [.770]
91349-2	7.11 [.280]	37.41 [1.473]	
91349-3	10.41 [.410]	29.95 [1.179]	
91349-4	—	49.86 [1.963]	
91349-5	12.70 [.500]	12.40 [.4880]	
91375-1	12.70 [.500]	24.97 [.9830]	14.99 [.590]
91375-2	6.71 [.264]	37.39 [1.472]	

Figure 3 (Cont'd)

REPLACEMENT PARTS						
ITEM	PART NUMBER (Number of Connector Columns)				DESCRIPTION	QTY PER TOOL
	91348-1 (10-Column)	91348-2 (20-Column)	91375-1 (10-Column)	91375-2 (15-Column)		
1	354698-1	354698-1	354698-1	354698-1	ADAPTER	1
2	1424662-1	1424662-2	1673266-1	1673266-2	BLADE	1
3	2-21006-8	2-21006-8	2-21006-9	2-21006-9	SETSCREW, 6-32×.188 in.	2
4	1490807-1	1490807-1	1490807-1	1490807-1	KEY	2

ITEM	PART NUMBER (Number of Connector Columns)					DESCRIPTION	QTY PER TOOL
	91349-1 (10-Column)	91349-2 (15-Column)	91349-3 (12-Column)	91349-4 (20-Column)	91349-5 (5-Column)		
1	1320190-1	1320190-1	1320190-1	1320190-1	1320190-3	ADAPTER	1
2	1424661-1	1424661-2	1424661-3	1424661-4	1424661-5	BLADE	1
3	2-21006-9	2-21006-9	2-21006-9	2-21006-9	2-21006-9	SETSCREW, 6-32×.188 in.	2
4	1490807-1	1490807-1	1490807-1	1490807-1	—	KEY	2
	—	—	—	—	1490807-1		1

Figure 3 (End)