



# Seating Tools 91312-[] and 91313-[] Z-PACK\* HS3 Backplane Header with ACTION PIN\* Contacts

Instruction Sheet 408–4546 24 JUN 02 Rev A

SEATING TOOL	NO. OF ROWS	NO. OF POSITIONS	Seating Tool
91312–1	10	50	Seating 1001
91312–2	10	100	
91313–1	6	30	
91313–2	6	60	
	ACTION PIN Board Retent Feature	Back Conn (Ref)	End Row of Ground Planes  al Z-PACK HS3 plane Header ector Assembly  PC Board (Ref)  PC Board Support (Customer Supplied) (Ref)

Figure 1

## 1. INTRODUCTION

This instruction sheet covers the use and maintenance of Seating Tools 91312–[] and 91313–[]. These tools are used to seat Z–PACK HS3 Backplane Connectors with ACTION PIN contacts to allow solderless printed circuit (pc) board installation.



All dimensions on this document are in metric units [with U.S. customary units in brackets].

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

## 2. DESCRIPTION

The seating tool is an assembly of plates, bars, and an adapter to seat various sizes of connectors.

Figure 1 matches tool part number to the size header to be seated.

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 89 Newtons (N) [20 lb] per contact. You may use the 10/20-Ton "H"-Frame Assembly 803880-6 (customer manual 409-5567 provides instructions) or the SM-3 Frame Assembly 814700-[] (409-5626).

### 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 into pc board so that header posts are properly aligned to the board and board support.
- 3. Insert header into pc board until the ACTION PIN 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.

NOTE

If the tool is not keyed, then be sure grounding arrow is pointing toward the end row of ground blades.

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.

- 6. Cycle applicator ram according to instructions for your power source. Check assembly for proper seating, using the requirements of the Application Specification 114–1131.
- 7. Remove board with seated pin header, or reposition board and support for seating additional headers.

CAUTION

Damaged headers may not be used. If a header is damaged, it must be replaced with a new one.

#### 5. TOOL INSPECTION

Each seating tool is assembled and inspected before shipment. Tyco Electronics recommends 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.

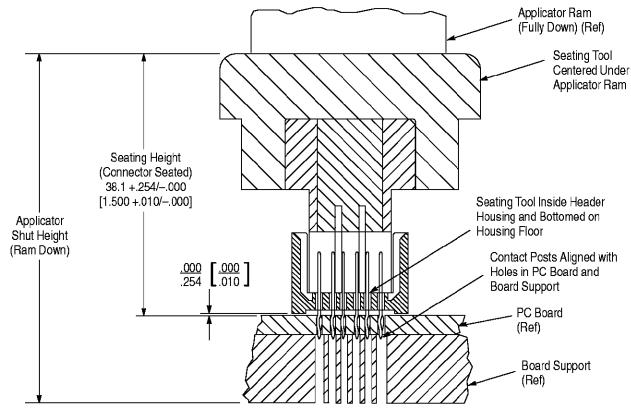
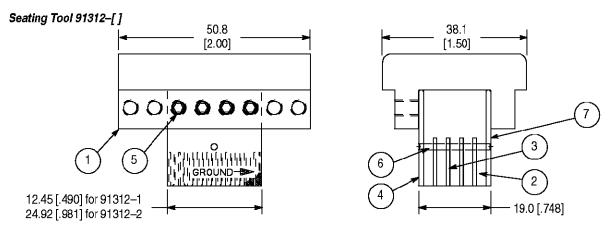


Figure 2

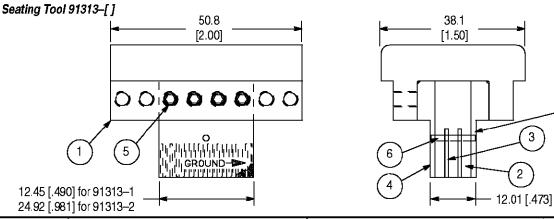
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ITEM NUMBER	SEATING TO	OL 91312-[]	DESCRIPTION	QTY PER
	-1 -2		DESCRIPTION	TOOLING ASSY
1	1320190–1	1320190–1	Adapter	1
2	1320192–1	1320192–2	10 Row Signal Pin Bar	1
3	1320194–1	1320194–2	Ground Pin Drive Bar	4
4	1320195–1	_	10 Row Side Plate	2
5	2–21012–8	2–21012–8	Screw, Socket Set 6-32 X .19	2■
6	1–21028–0	1–21028–0	Pin, Slotted Spring	1
7	_	1320195–2 1583844–1	10-Row Side Plate 10-Row Side Plate (Keyed)	1 1

<sup>■</sup> Seating T∞l 91312–2 uses 4 screws.



ITEM Number	SEATING TO	OL 91313-[]	DESCRIPTION	QTY PER
	-1	-2	DESCRIPTION	TOOLING ASSY
1	1320190–1	1320190–1	Adapter	1
2	1320193–1	1320193–2	6 Row Signal Pin Bar	1
3	1320194–1	1320194–2	Ground Pin Drive Bar	2
4	1320196–1	1320196–2	6 Row Side Plate	2
5	2–21012–8	2–21012–8	Screw, Socket Set 6-32 X .19	2■
6	21028–6	21028–6	Pin, Slotted Spring	1
7		1583646–1	Slide Plate (Keyed)	1

<sup>■</sup> Seating Tool 91313-2 uses 4 screws.

Figure 3

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# 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 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 tool repair service, please contact a Tyco Electronics Representative at 1–800–526–5136.

## 8. REVISION SUMMARY

Per EC 0990-0857-02

- Updated document to corporate requirements
- Added new note in Paragraph 4.4
- Added document number to Application Specification in Paragraph 4.6
- Added new item number 7 to both tables in Figure 3

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