

Seating Tools 58273-1 and 58274-[] For AMPLIMITE* HD-20 Series Plug Connectors with ACTION PIN* Contacts





Figure 1

1. INTRODUCTION

Seating Tools 58273-1 and 58274-[] are used to install an AMPLIMITE HD-20 Series front metal shell plug connector with ACTION PIN contacts onto a pc board. The seating tool is selected according to the number of rows and contact positions of the connector. Refer to Figure 1.



Measurements are in metric units [followed by U.S. customary equivalents in brackets]. Figures are not drawn to scale.

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

2. DESCRIPTION

Each seating tool consists of an inserter and an adapter that are held together by socket set screws.

During seating, the adapter provides a surface to engage the ram of the application tooling, while the

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ribs of the inserter straddle the contacts of the connector. See Figure 1.

3. SET UP REQUIREMENTS

When setting up application tooling to seat a connector, pay particular attention to the following:

 Make sure that the connector (number of rows and contact positions) is compatible with the seating tool.



To prevent damage to the tooling or connector, the connector must be compatible with the seating tool.

— Make sure that the seating tool and connector are properly aligned before cycling the application tooling.

3.1. Application Tooling

A. Selection

Power for each seating tool must be provided by a machine capable of supplying a downward force of 178 Newtons (N) [40 lb] per contact.

I, Harrisburg, PA TOOLING ASSISTANCE CENTER 1-800-722-1111 PRODUCT INFORMATION 1-800-522-6752 This controlled document is subject to change. For latest revision and Regional Customer Service, visit our website at **www.tycoelectronics.com**

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Manual Electric Servo Press (MEP 6T) 2–1399500–5 and Bench Top Electric Servo Presses (BMEP 3T) 1–1399400–5 and (BMEP 5T) 2–1399401–4 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.

B. Shut-Height Adjustment

The shut height (the distance from the bottom surface of the ram to the top surface of the pc board when the ram is fully DOWN) must be set at 38.1 mm [1.50 in.] before starting the seating procedure.

3.2. PC Board Support Fixture (Customer Supplied)

A pc board support fixture must be used to provide proper support for the pc board and alignment of the seating tool to the connector contacts and to protect the pc board and connector from damage. Design the pc board support fixture using the recommendations in Instruction Sheet 408–6927.

4. SEATING PROCEDURE (See Figure 1)

1. Place the pc board with the appropriate hole pattern onto the pc board support fixture.

2. Place the connector onto the pc board until the compliant pin area of each contacts start to enter the pc board holes.

3. Position the seating tool inserter into the connector. Make sure the ribs of the inserter straddle the contacts.

4. Center the top of the adapter of the seating tool under the ram of the application tooling.

5. Lower the ram slowly, applying force to the adapter.

6. Continue to lower ram until the connector housing bottoms on the pc board.

7. Manually retract the ram, and carefully remove the seating tool from the connector using a straight, upward motion.

5. MAINTENANCE AND INSPECTION

Seating tools are inspected before being shipped; however, it is recommended that the seating tool be inspected immediately upon arrival to ensure that it has not been damaged during shipment, and that it conforms to the dimensions given in Figure 3. It is recommended that a maintenance and inspection program be performed periodically. Though recommendations call for at least one inspection a month, frequency of inspection depends on the amount of use, working conditions, degree of operator skill, and your own established standards.

5.1. Daily Maintenance

1. Remove accumulated dirt, grease, and foreign matter with a clean, soft brush, or lint-free cloth. DO NOT use hard or abrasive objects that could damage the seating tool.

2. When the seating tool is not in use, store it in a clean, dry area.

5.2. Periodic Inspection

Inspect seating tool surfaces for worn, cracked, or broken areas. If damage is evident, return the seating tool for evaluation and repair. See Section 6, REPLACEMENT AND REPAIR.

6. REPLACEMENT AND REPAIR

Customer-replaceable parts are listed in Figure 2. A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is necessary. Parts other than those listed should be replaced by Tyco Electronics to ensure quality and reliability. Order replacement parts through your 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

For customer repair service, call 1-800-526-5136.

7. REVISION SUMMARY

Revisions to this instruction sheet include:

- Updated instruction sheet to corporate requirements
- Replaced Figure 1 with Figure 2
- Replaced reference to catalog in Section 1 with table in Figure 1
- Added tooling information to Paragraph 3.1
- Replaced address for customer repair service with phone number in Section 6





36.07 mm

[1.42 in.]

Seating Tools 58274-[]



SEATING TOOL	DIMENSION "A" (mm [in.]) +0.00/-0.10 [+.000/004]		
58273-1	46.74 [1.84]		
58274-1	35.56 [1.40]		
58274-3	13.51 [.532]		
58274-5	52.12 [2.05]		
58274-6	21.64 [.832]		

REPLACEMENT PARTS								
ITEM	PART NUMBER FOR SEATING TOOL				QTY PER			
	58273-1	58274-1	58274-3	58274-5	58274-6	DESCRIPTION	SEATING TOOL	
1	313455-1	313455-3	313455-5	313455-7	313455-3	ADAPTER	1	
2	313456-1	313462-1	313462-2	313462-3	313462-4	INSERTER	1	
3	2-21010-8	—	_	_	_	SCREW, 6-32 $ imes$.19 in. L	2	
4	_	2-21010-9	2-21010-9	_	2-21010-9	SCREW, 6-32 $ imes$.25 in. L	2	
	_	—	—	2-21010-9	—	SCREW, 6-32 $ imes$.25 in. L	3	

Figure 2