

SEATING TOOL	HEADER ASSEMBLY CONFIGURATION [■]	SEATING TOOL	HEADER ASSEMBLY CONFIGURATION [■]	SEATING TOOL	HEADER ASSEMBLY CONFIGURATION [■]
1804872-1	5ACP+24S+5ACP	1-1804872-4	2P+16S+2P	2-1804872-7	1P+16S+1P
1804872-2	2P+24S+4P	1-1804872-5	3ACP+24S+3ACP	2-1804872-8	6P+24S+6P
1804872-3	1P+24S+1P	1-1804872-6	2P+24S+2P	1901220-1	2P+48S
1804872-4	3P+16S+2P	1-1804872-7	6ACP+24S+8P	1901220-2	2P+20S
1804872-5	4P+32S+4P	1-1804872-8	4P+24S+3ACP	1901220-3	2P+24S
1804872-6	6P+24S+6P	1-1804872-9	2P+16S+2P	1901220-4	1P+16S
1804872-7	2P+24S+2P	2-1804872-0	3P+56S+3P	1901220-5	3ACP+4P+8S
1804872-8	6P+32S+6P	2-1804872-1	6P+36S+2P	1901220-6	6P+12S
1804872-9	2P+16S+2P	2-1804872-2	2P+24S+2P	1901221-1	32S+8P
1-1804872-0	4P+24S+4P	2-1804872-3	4P+32S+4P	1901221-2	24S+8P
1-1804872-1	3P+16S+3P	2-1804872-4	2P+16S+2P	1901221-3	12S+4P
1-1804872-2	2P+88S+1P	2-1804872-5	3ACP+24S+3ACP		
1-1804872-3	1P+16S+1P	2-1804872-6	4P+24S+4P		

■ 'P' stands for power module with contact centerline spacing of 6.35 mm [.250 in.], 'S' stands for signal contacts, and 'ACP' stands for power module with contact centerline spacing of 7.62 mm [.300 in.]. **Note:** Tools with the same header assembly configuration have different inserts.

Figure 1



Dimensions in this instruction sheet are in metric units [with U.S. customary units in brackets]. Figures are not drawn to scale.

1. INTRODUCTION

The seating tool assemblies listed in Figure 1 are used to seat Multi-Beam XL vertical header assemblies also listed in Figure 1. These header assemblies have precision formed press-fit (compliant pin) contacts to allow solderless pc board installation.

Reasons for reissue of this instruction sheet are provided in Section 8, REVISION SUMMARY.

2. DESCRIPTION (Figure 1)

Each seating tool consists of a signal insert, one or two power inserts, and an adapter. The adapter provides a surface to accept the force applied by the application tool to seat the header assembly onto the pc board. During seating, the seating tool sits inside the header assembly and the inserts prevent the contacts from pushing out of the header assembly.

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 to protect the pc board and header assembly from damage. The board support fixture must be designed for specific needs using the following recommendations:

- it should be at least 25.4 mm [1 in.] wider than the pc board
- it should have a flat surface with a cutout of at least 28.5 mm [1.12 in.] deep (to allow adequate clearance for the header assembly)

3.2. Application Tooling

Power for the seating tool must be provided by application tools (with a ram) capable of supplying a maximum downward force of 890 Newtons (N) [200 lb] per power contact, 111 N [25 lb] per signal contact, and 27 N [6 lb] per hold-down clip. For available application tools, call PRODUCT INFORMATION at the number at the bottom of page 1.



Over-driving of the header assembly could cause damage to the pc board.

4. SETUP

When setting up equipment to seat the header assembly, pay particular attention to the following:

- the seating tool must be matched to the header assembly

CAUTION



If the seating tool and header assembly are mismatched or are improperly aligned, damage could occur to the tooling, header assembly, or both.

- the seating tool, header assembly, and application tool ram must be properly aligned before cycling the application tool

Set the seating height to the dimension shown in Figure 2 (application tool *shut height* will equal the 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 header assembly standoffs and the pc board is allowed.

NOTE



Use the seating height as a reference starting point. This height may need to be adjusted to obtain the amount allowed (maximum of 0.10 mm [.004 in.]) between the standoffs of the header assembly and the pc board.

5. SEATING (See Figure 2)

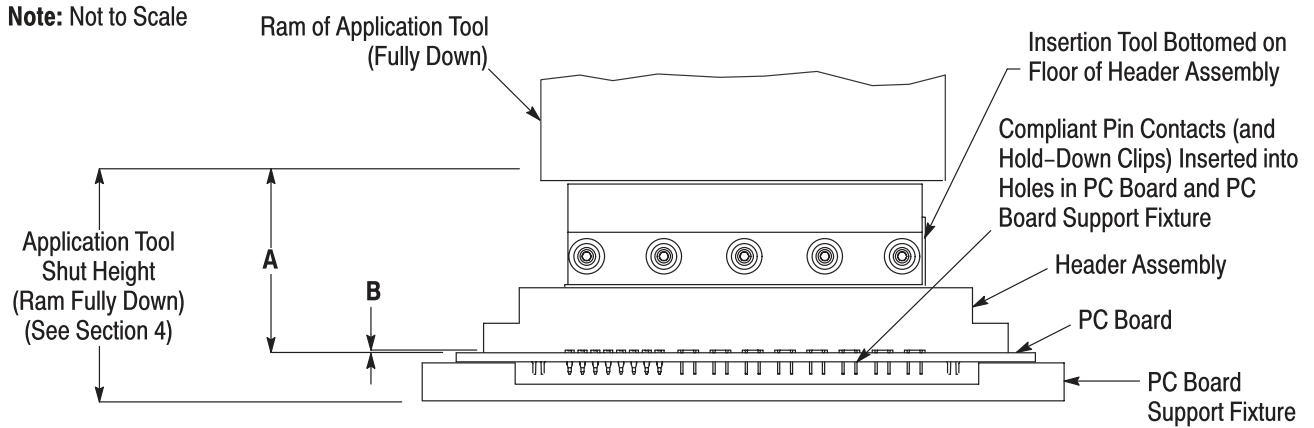
1. Place the pc board on the support fixture.
2. Place the header assembly on the pc board so that the contacts (and hold-down clips) are aligned and started into the matching holes in the pc board.
3. Hold the seating tool over the header assembly, then lower the seating tool into the header assembly until it bottoms on the floor of the header assembly.
4. Center the seating tool (with the header assembly) under the ram of the application tool. Slowly lower the ram until it just meets the seating tool. Verify alignment of pc board support, pc board, header assembly, and seating tool.

CAUTION



Damage to the pc board, seating tool, or header assembly may occur if the seating tool is not properly inserted into the header assembly before cycling the application tool.

5. Cycle the application tool to seat the header assembly on the pc board. Then retract the ram, and carefully remove the seating tool by pulling it straight from the header assembly.
6. Check the header assembly for proper seating according to the following:
 - a. the widest section of each compliant pin contact is inside its intended pc board hole
 - b. the header assembly is seated on the pc board with the seating height—measured from the top of the header assembly to the top of the pc board—given in Figure 2
 - c. if present, the gap between the standoffs and the pc board is no more than 0.10 mm [.004 in.]



DIMENSION A Seating Height (Header Assembly Seated)	DIMENSION B Maximum Gap Allowed
34.93±0.13 mm [1.375±.005 in.]	0.10 mm [.004 in.]

Figure 2



For detailed application requirements of the header assembly, refer to Application Specification 114-13038.

3. Check that the inserts are tight against each other. If not, loosen the socket set screws, adjust the inserts, then tighten the socket set screws.

6. MAINTENANCE AND 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 contaminants with a clean, soft brush or a lint-free cloth. DO NOT use objects that could damage the seating tool components.
2. When the seating tool is not in use, store it in a clean, dry area.

6.2. Periodic Inspection

1. Regular inspections should be performed by quality control personnel. A record of scheduled inspections should remain with the seating tool or be supplied to personnel responsible for the seating tool. Inspection frequency should be based on amount of use, working conditions, operator training and skill, and established standards.
2. Check that the socket set screws are in place and tight.

7. 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. 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.

8. REVISION SUMMARY

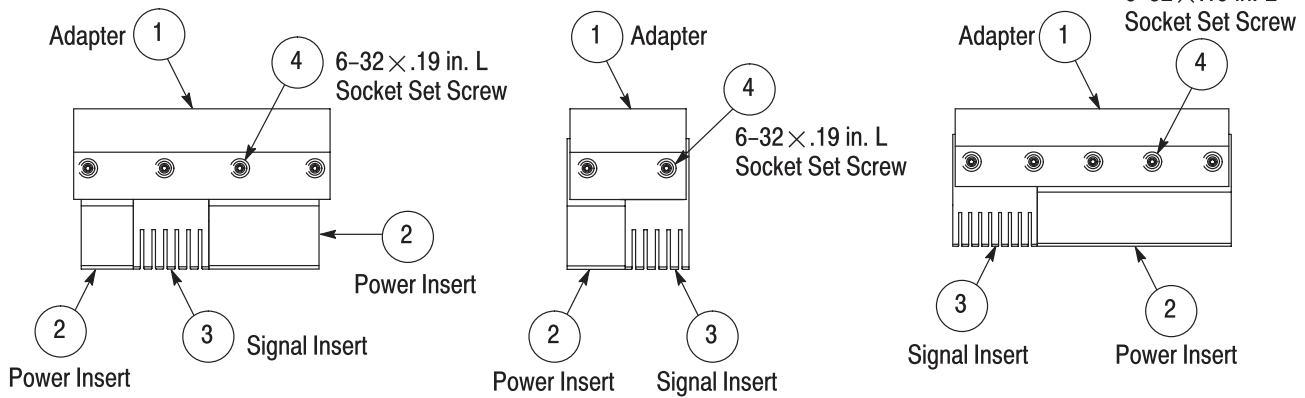
Revisions to this instruction sheet include:

- Updated document to corporate requirements
- Added Seating Tool Assembly 2-1804872-8

Seating Tools 1804872-[], -2 Shown
(Power/Signal/Power)

Seating Tools 1901220-[], -2 Shown
(Power/Signal)

Seating Tools 1901221-[], -1 Shown
(Signal/Power)



REPLACEMENT PARTS

ITEM	PART NUMBER						QTY PER TOOL
	1804872-1	1804872-2	1804872-3	1804872-4	1804872-5	1804872-6	
1	1804870-1	1804870-2	1804870-3	1804870-3	1804870-1	1804870-1	1
2	1725770-5	1725770-9	1725770-8	1725770-6	1-1725770-2	1-1725770-3	1
	1725770-5	1725770-6	1725770-8	1-1725770-0	1-1725770-2	1-1725770-3	1
3	1804871-1	1804871-1	1804871-1	1804871-5	1804871-2	1804871-1	1
4	2-21006-8 (5)	2-21006-8 (4)	2-21006-8 (3)	2-21006-8 (3)	2-21006-8 (5)	2-21006-8 (5)	Qty in ()

ITEM	PART NUMBER						QTY PER TOOL
	1804872-7	1804872-8	1804872-9	1-1804872-0	1-1804872-1	1-1804872-2	
1	1804870-3	1804870-1	1804870-3	1804870-1	1804870-3	1804870-1	1
2	1725770-6	1-1725770-4	1725770-6	1-1725770-2	1725770-3	1725770-6	1
	1725770-6	1-1725770-4	1725770-6	1-1725770-2	1725770-3	1-1725770-8	1
3	1804871-1	1804871-2	1804871-5	1804871-1	1804871-5	1804871-8	1
4	2-21006-8 (3)	2-21006-8 (5)	2-21006-8 (3)	2-21006-8 (5)	2-21006-8 (3)	2-21006-8 (5)	Qty in ()

ITEM	PART NUMBER						QTY PER TOOL
	1-1804872-3	1-1804872-4	1-1804872-5	1-1804872-6	1-1804872-7	1-1804872-8	
1	1804870-3	1804870-3	1804870-1	1804870-3	1804870-1	1804870-2	1
2	1976090-1	1-1725770-9	1725770-4	1725770-6	2-1725770-0	1725770-9	1
	1976090-1	1-1725770-9	1725770-4	1725770-6	2-1725770-1	2-1725770-2	1
3	1804871-5	1804871-5	1804871-1	1804871-1	1804871-1	1804871-1	1
4	2-21006-8 (3)	2-21006-8 (3)	2-21006-8 (5)	2-21006-8 (3)	2-21006-8 (5)	2-21006-8 (4)	Qty in ()

Figure 3 (Cont'd)

ITEM	PART NUMBER						QTY PER TOOL
	1-1804872-9	2-1804872-0	2-1804872-1	2-1804872-2	2-1804872-3	2-1804872-4	
1	1804870-3	1804870-1	1804870-1	1804870-3	1804870-1	1804870-3	1
2	1725770-6	1-1725770-0	1725770-5	1-1725770-9	1-1725770-7	1-1725770-9	1
	1725770-6	1-1725770-0	1-1725770-9	1-1725770-9	1-1725770-7	1-1725770-9	1
3	1804871-5	1804871-9	1-1804871-0	1804871-1	1804871-2	1804871-1	1
4	2-21006-8 (3)	2-21006-8 (5)	2-21006-8 (5)	2-21006-8 (3)	2-21006-8 (5)	2-21006-8 (3)	Qty in ()

ITEM	PART NUMBER						QTY PER TOOL
	2-1804872-5	2-1804872-6	2-1804872-7	2-1804872-8			
1	1804870-2	1804870-1	1804870-3	1804870-1			1
2	1725770-4	1-1725770-7	1976090-2	1725770-2			1
	1725770-4	1-1725770-7	1976090-2	1725770-2			1
3	1804871-1	1804871-1	1804871-5	1804871-1			1
4	2-21006-8 (4)	2-21006-8 (5)	2-21006-8 (3)	2-21006-8 (5)			Qty in ()

ITEM	PART NUMBER						QTY PER TOOL
	1901220-1	1901220-2	1901220-3	1901220-4	1901220-5	1901220-6	
1	1804870-3	1804870-4	1804870-4	1804870-4	1804870-2	1804870-2	1
2	1725770-6	1725770-6	1725770-6	1725770-8	1725770-7	1-1725770-6	1
3	1804871-4	1804871-3	1804871-1	1804871-5	1804871-6	1804871-7	1
4	2-21006-8 (3)	2-21006-8 (2)	2-21006-8 (2)	2-21006-8 (2)	2-21006-8 (4)	2-21006-8 (4)	Qty in ()

ITEM	PART NUMBER						QTY PER TOOL
	1901221-1	1901221-2	1901221-3				
1	1804870-1	1804870-1	1804870-2				1
2	1725770-7	1725770-7	1725770-9				1
3	1804871-2	1804871-1	1804871-7				1
4	2-21006-8 (5)	2-21006-8 (5)	2-21006-8 (3)				Qty in ()

Figure 3 (End)