

Figure 1

## 1. INTRODUCTION

This instruction sheet covers the operation and maintenance of Pistol Grip Seating Tool Head 58569-1. See Figure 1. The seating tool is used to seat contacts into single-row AMPMODU MTE contact housing assemblies. The seating head tool will seat contacts in individual or strip form in a wire size range of 30 to 22. Read these instructions thoroughly before using the head.



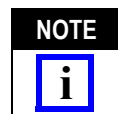
*All dimensions on this document are in metric units [with U. S. customary units in brackets]. Figures are for reference only and are not drawn to scale.*

Reasons for revision of this document are given in Section 7, REVISION SUMMARY.

## 2. DESCRIPTION

The seating tool is used in Manual Handle Assembly 58074-1, Bench-Mount Pneumatic Assembly 58338-1, or Electric Power Unit 931800-1. When installed into the appropriate power assembly, the seating tool will seat plastic housings over the previously terminated and inspected contacts of the single-row AMPMODU MTE contact housing assemblies. Refer to 408-6919 for a complete description of AMPMODU MTE connectors.

For information concerning the setup and operation of the power assemblies, refer to instruction sheets 408-6790 and 408-9393, and to customer manual 409-5746. Note that the pneumatic assemblies are designed to operate between 280-480 kPa [40 through 70 psi].



*Before contacts can be seated into the housing assemblies, all contact positions on the entire carrier strip must be cycled through an insertion station, even if a slot is intentionally left empty.*

Features of the head and their functions are as follows:

- *Adjuster (Insertion Rod)* - is a piston for the slide bar and regulates its travel.
- *Drive Bar* - is the reversible block that actually pushes against the contact housing.
- *Slide Bar* - is the guiding bar that maintains the alignment of the drive bar, and guides it.
- *Guide Cover* - goes between the wire and the carrier strip and provides backup support to the carrier strip during seating.

## 3. SETUP AND ADJUSTMENTS

The seating depth adjustment on the insertion rod adjuster is preset prior to shipment. If, after inspection, it is determined that the contacts are not seated properly, re-adjust the seating depth.

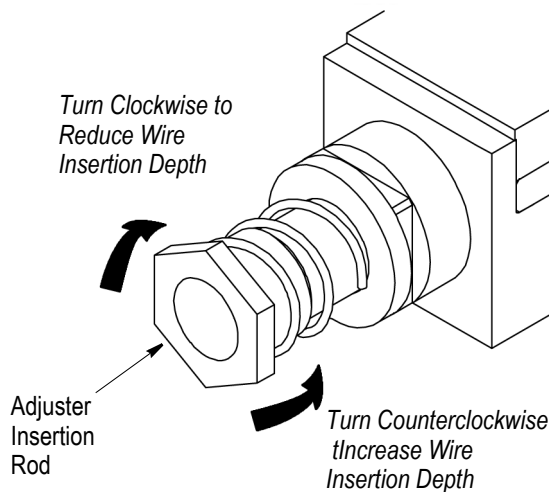
### 3.1. For Pistol Grip Manual Handle Assembly and Electric Power Unit

1. Select a terminated connector.
2. Load connector into the seating tool and cycle the tool.
3. Inspect seated connector according to Figure 6.
4. If contacts are properly seated in the housings, remove connector from the seating tool and

manually bend carrier strip up and down until it breaks off.

5. If contacts are seated too deeply, remove the head and turn the insertion rod adjuster **CLOCKWISE**. A 1/6-revolution adjustment will reduce the seating depth approximately 0.41 [.016]. See Figure 2.

6. Repeat Steps 1, 2, and 3.



NOTE: 1/6 Revolution Equals 0.41 [.016]

Figure 2

7. If contacts are not seated deeply enough, remove the seating tool and turn the insertion rod adjuster **COUNTERCLOCKWISE**. A 1/6-revolution adjustment will increase the seating depth approximately 0.41 [.016]. See Figure 2.

8. Repeat Steps 1, 2, and 3.

### 3.2. For Bench-Mount Pneumatic Assembly

1. Select a terminated connector.
2. Load connector into seating tool and cycle the tool.
3. Inspect seated connector according to Figure 6.
4. If contacts are properly seated in the housings, remove connector from the seating tool and manually bend the carrier strip up and down until it breaks off.
5. If contacts are seated too deeply, decrease air pressure by 69 kPa [10 psi] and repeat Steps 1, 2, and 3.

**NOTE** Do not reduce air pressure below 280 kPa [40 psi].

6. If contacts are still seated too deeply at 280 kPa [40 psi], remove the seating tool and turn the insertion rod adjuster. A 1/6 revolution **CLOCKWISE** (see Figure 2) will reduce seating depth approximately 0.41 [.016].

7. Repeat Steps 1, 2, and 3.

8. If contacts are not seated deeply enough, increase air pressure by 69 kPa [10 psi] and repeat Steps 1, 2, and 3.

**NOTE** Do not raise air pressure above 480 kPa [70 psi].

9. If contact is still not seated deeply enough, reduce air pressure back to 280 kPa [40 psi], remove seating tool and turn insertion rod adjuster. A 1/6 revolution **COUNTERCLOCKWISE** (see Figure 2) will increase depth approximately 0.41 [.016].

10. Repeat Steps 1, 2, 3, 8, and 9 until the proper seating depth is obtained.

### 3.3. Product Setup

The seating tool will seat the entire range of AMPMODU MTE connectors. The position of the drive bar is the only change that is required when using different types of connectors.

1. For shrouded pin connectors, use the side of the drive bar with the large shoulder.
2. For unshrouded pin and receptacle connectors, use the side of the drive bar with the small shoulder.

To change the drive bar, proceed as follows:

1. Remove the 4-40 socket head cap screw.
2. Lift the drive bar off of the locating pin on the slide bar.
3. Rotate the drive bar 180 degrees.
4. Replace the drive bar onto the same locating pin on the slide bar.

**NOTE** If you experience difficulty in replacing the drive bar onto the slide bar, apply pressure to the insertion rod adjuster to move the slide bar.

5. Replace the 4-40 socket head cap screw.

### 3.4. Loading the Product Into the Tool

The connector strip should be moved to the approximate center of the seating tool to ensure smoother operation. There are two different methods for loading product into the seating tool: side loading and front loading.

### A. Side Loading

To side load the connector into the seating tool, the corner of the carrier strip is positioned under the edge of the guide cover with the wires of the connector assembly over the top of the guide cover. Adjust the connector housing so that it is perpendicular to the shoulder of the drive bar; then push on the side of the connector until it is in proper position. See Figure 3.



*The connector may be loaded from either side of the seating tool.*

#### Side Loading Connectors Into Seating Tool

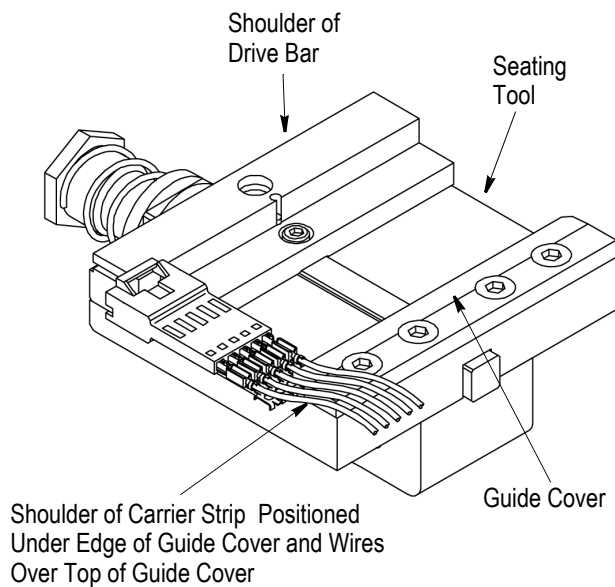


Figure 3

### B. Front Loading

To front load the connector into the seating tool, position the connector directly onto the face of the seating tool at the approximate seating position. The carrier strip must be positioned above the guide cover. With one finger, push down on the wires directly above the carrier strip. See Figure 4, Detail A.

While holding the carrier strip down, push on the edge of the housing so that the carrier strip is positioned under the guide cover (see Figure 4, Detail B). When the carrier strip is fully positioned under the guide cover, the housing will be positioned beyond the edge of the shoulder on the drive bar. At this point, push down on the housing to seat it onto the shoulder of the drive bar. See Figure 4, Detail B.

#### Front Loading Connector Into Seating Tool

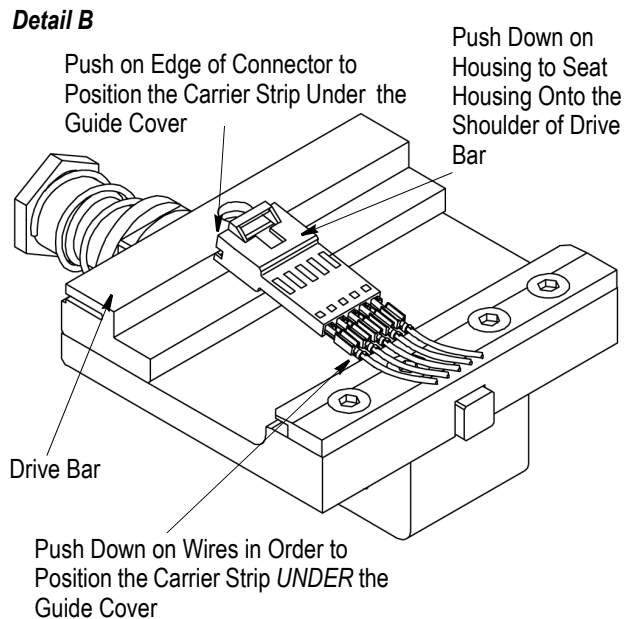
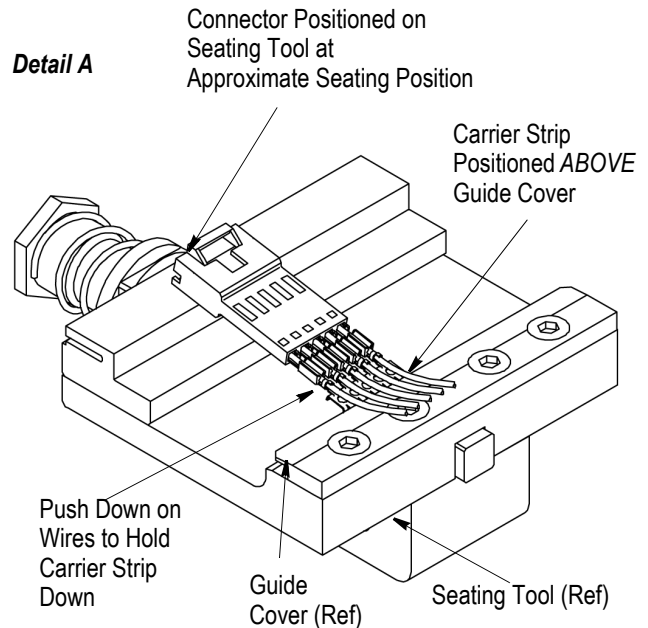
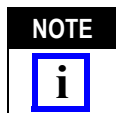


Figure 4

## 4. OPERATING PROCEDURE



*Before operating the seating tool, it must be set up for the proper seating edge, which is determined by the selected connector type.*

1. Select a terminated connector.
2. Load connector into tool.
3. Cycle the seating tool.



*When seating unshrouded pin connectors, it is necessary to maintain pressure against the contact housing until the pins enter the clearance slot. See Figure 5.*



*Damaged product should not be used. If a damaged product is evident, it should be removed and replaced with a new one.*

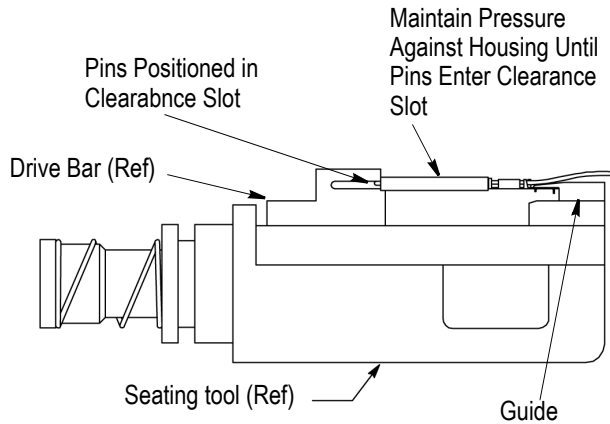


Figure 5

4. Inspect connector using the inspection criteria in Application Specification 114-25026.
5. Remove connector from tool.



*Contacts are properly seated when the locking lances are seated against the housing window. See Figure 6.*

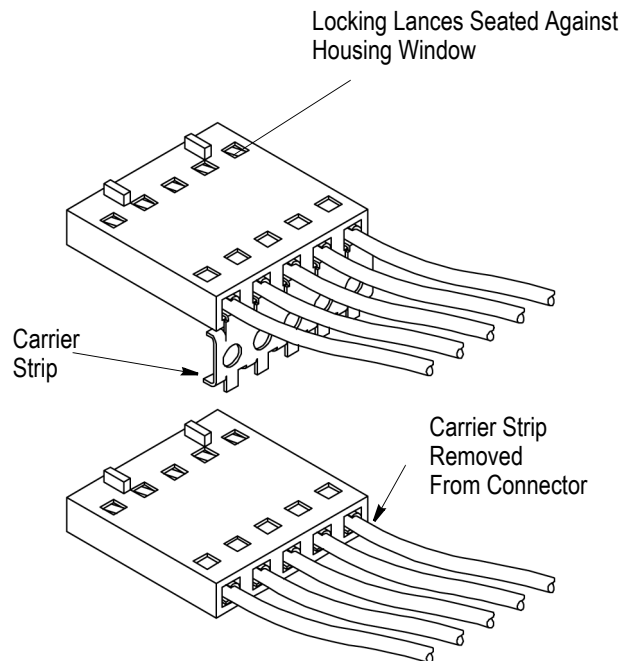


Figure 6

6. Manually bend carrier strip up and down until it breaks off.

## 5. TOOL INSPECTION

The procedures that follow have been established to ensure the quality and reliability of seating tools. A brief inspection should be made daily, and a more detailed inspection should be scheduled regularly by your Quality Control personnel.

### 5.1. User Maintenance

Each user should be made aware of, and responsible for, the following:

1. Remove dust, moisture, and contaminants using a clean brush or a soft, lint-free cloth. Do not use objects that could damage the seating tool.
2. Make sure all components are in place and properly secured. If not, return the seating tool to your supervisor.
3. Squeeze and release the cam handle to be sure the mechanism inside the body moves freely and does not bind.

### 5.2. Quality Control Maintenance

Regular inspections should be performed by your Quality Control personnel, and a record of quality control inspections should remain with the personnel responsible for the tool.

We recommend one inspection a month; however, operator training and skill, amount of use, ambient working conditions, and your company's standards are all factors to consider when establishing inspection frequency.

These inspections should be performed in the following sequence:

1. Remove any accumulated film with a suitable cleaning agent that will not affect paint or polycarbonate plastic.
2. Make sure all components are in place and are tightly secured.
3. Make a few test seatings and inspect the results using the inspection criteria in Application Specification 114-25026.

## 6. REPAIR

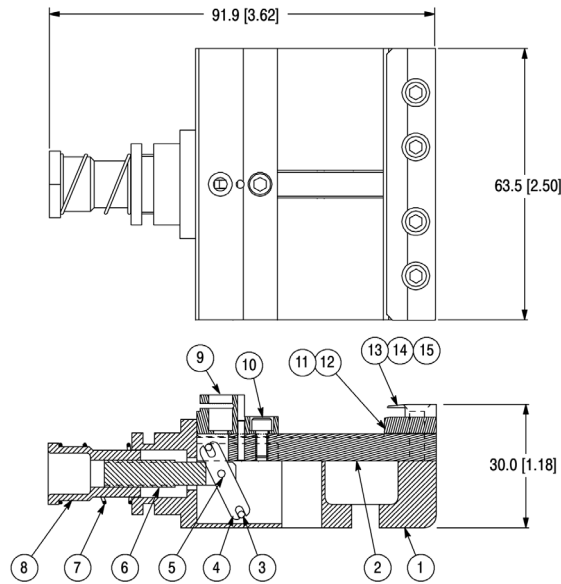
A complete inventory of customer-replaceable parts for the seating head tool should be stocked and controlled to prevent lost time when replacement of parts is necessary. See Figure 7. Order replacement parts through your Tyco Electronics Representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 1-717-986-7605, or write to:

CUSTOMER SERVICE (038-035)  
 TYCO ELECTRONICS CORPORATION  
 PO BOX 3608  
 HARRISBURG PA 17105-3608

**7. REVISION SUMMARY**

Since the previous release, the TE logo was applied.

Tools and/or seating head tools may also be returned for evaluation and repair. For repair service, contact a Tyco Electronics Representative at 1-800-526-5136.



**Weight:** 1952 g [4 lb. 5 oz.]

ITEM NO.	TE PART NUMBER	DESCRIPTION	QTY PER ASSY
1	189079-1	FRAME	1
2	217844-1	BAR, Slide	1
3	1-21028-2	PIN, Slotted Spring [.0632 Dia X .880]	1
4	217845-1	LINK	1
5	21028-1	PIN, Slotted Spring [.062 X .190]	1
6	189085-1	ROD, Inserter	1
7	22488-5	SPRING, Compression	1
8	312149-1	ADJUSTER, Inserter Rod	1
9	217846-1	BAR, Drive	1
10	1-21000-3	SCREW, Socket Head Cap 4-40 X .250	1
11	217842-1	GUIDE	1
12	1-21003-5	SCREW, Flat-Head Cap 4-40 X .500	2
13	217843	COVER, Guide	1
14	1-21003-4	SCREW, Flat Head Cap 4-40 X .380	2
15	1-21003-7	SCREW, Flat Head Cap 4-40-40 X .750	2

Figure 7