

Figure 1

## 1. INTRODUCTION

This instruction sheet covers the operation and maintenance of Terminating Head 122533-1 used with Pistol Grip Manual Handle Assembly 58074-1. Refer to instruction sheet 408-6790 (packaged with the pistol grip handle assembly) for details concerning head installation and removal. Read this instruction sheet thoroughly before using the terminating head.



*Dimensions on this sheet are in metric units [with U.S. customary units in brackets]. Figures are for identification only and are not drawn to scale.*

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

## 2. DESCRIPTION

The terminating head is used to terminate multi-pair, copper-conductor cables 22 through 26 AWG, shielded or unshielded, up to 8-pair using Communications Outlet - Edge Connector Kit 556524-1. To assemble the connector kit, follow the instructions supplied with the connector kit.

The Communications Outlet - Edge Connector Kit 556524-1 consists of three components:

1. Housing
2. Terminals
3. Stuffer Assembly

To make the edge connector compatible with the terminating head, the stuffer assembly (supplied with

the Edge Connector Kit) must be replaced with strain relief 556805-1. One strain relief is required for each connector and it must be placed onto the connector before the connector is loaded into the terminating head.



*Failure to use the strain relief may cause the following conditions:*

1. The wire insertion will not have the proper retaining force.
2. The wire may flex at the termination slot and break off at that point.
3. During termination in the tool, the product may not be at the proper depth alignment with the inserters, causing damage to the product and/or inserter.

The terminating head is inserted into the pistol grip handle assembly and serves as a guide and support for the connector during termination. It will shear and terminate two wires during a normal stroke. Features of the head (as shown in Figure 1) and their functions are listed as follows:

*Wire Inserter* - is one side of the shearing surfaces that cuts the wire at the proper dimension for insertion and guides the wire into the IDC (Insulation Displacement Connector) slot.

*Adjuster (Insertion Rod)* - is the piston for the wire inserter and regulates wire insertion travel.

*Ball Plunger* - aligns connector in proper position for wire insertion.

*Shear* - positions the connector at the proper depth location and is a shearing surface for the wire.

**NOTE**  
 The wire inserter and the shear can be rotated 180° to extend the usable life of these parts.

**3. SETUP ADJUSTMENTS AND TEST**

The insertion rod adjuster is preset for wire sizes 22 through 26 AWG. If, after a termination, the wire is inserted too deeply or not deeply enough inside the contact, it may be necessary to adjust the depth of the wire inserter.

**3.1. For Pistol Grip Manual Handle Assembly**

1. Select the appropriate cable size and prepare the cable as shown in Figure 2.
2. Select a connector and place it in the tool. Make a test termination using the procedures described in Section 4, TERMINATING PROCEDURE.

**NOTE**  
 The connector may be loaded and indexed (manually) from either side of the tool.

- *If wire is not deep enough in contact slot:* Remove the head and turn the adjuster COUNTER-CLOCKWISE. Refer to Figure 3. A 1/6-revolution adjustment will increase the wire insertion depth by approximately 0.41 mm [.016 in.]. Repeat Steps 2, 3, and 4 of Paragraph 3.1 until the desired insertion depth is attained.

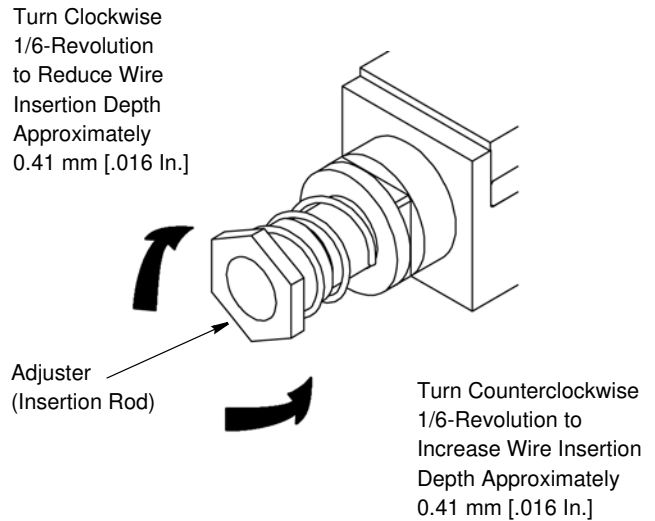


Figure 3

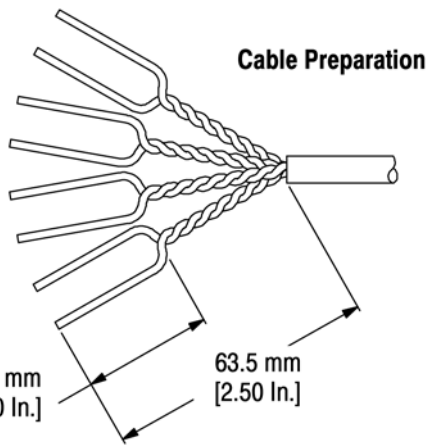


Figure 2

**4. TERMINATION PROCEDURE**

Multi-pair copper-conductor cables must be prepared as follows:

1. Strip the cable jacket and untwist the individual conductors to the dimension shown in Figure 2.
2. Insert connector into the terminating head (from either side) and position the connector so that the two terminals are aligned under the two wire slots.

**NOTE**  
 The terminating head will terminate two wires at the same time. Since the connector must be manually located and advanced, make sure that the proper terminals are located under the wire slots of the connector.

3. Select a pair of wires; then insert each wire into the appropriate wire slot that corresponds with the proper color code. Insert the wire until the twist of the wire pair is against the cover. See Figure 4.

**NOTE**  
 The wire ends must be visible from the back of the terminating head to ensure there is enough wire to shear.

3. Remove terminated connector.
4. Inspect the connector for proper termination using the inspection requirements in Figure 5.

If the wire insertion depth is incorrect, proceed to Paragraph 3.2, Wire Insertion Depth Adjustment.

**3.2. Wire Insertion Depth Adjustment.**

- *If the wire is too deep in the contact slot:* Remove the head and turn the adjuster CLOCKWISE. Refer to Figure 3. A 1/6-revolution adjustment will reduce the wire insertion depth by approximately 0.41 mm [.016 in.]. Repeat steps 2, 3, and 4 of Paragraph 3.1 until the desired insertion depth is attained.

4. Squeeze the cam handle of the pistol grip handle assembly until the ratchet releases. This will shear the wires and insert the wires into the wire slots of the connector.

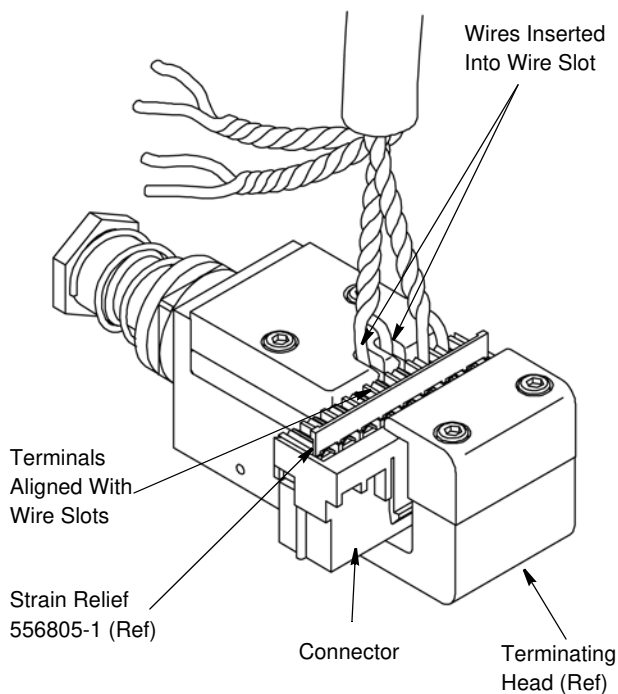


Figure 4

5. Discard the sheared wires from the terminating head.
6. Release the cam handle. The inserter will retract.

7. Manually reposition the connector in the terminating head to the next pair of terminals to be terminated.
8. Repeat Steps 2 through 7 until all the terminals have been terminated.
9. Remove connector from the tool.
10. Inspect each termination using the procedure in Section 5, INSPECTION.

5. INSPECTION

Inspect each termination to ensure it meets the inspection criteria shown in Figure 5.

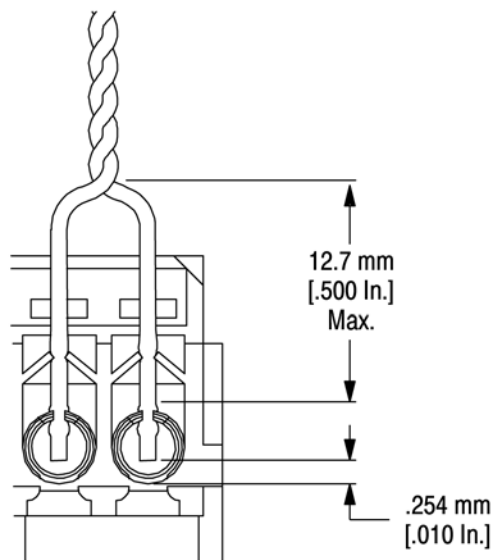
6. TOOL MAINTENANCE

The procedures that follow have been established to ensure the quality and reliability of terminating heads. A brief check should be made daily, and a more detailed inspection should be scheduled by your quality control personnel.

6.1. Daily Maintenance

Each operator should be aware of the following:

1. Remove dust moisture, and other contaminants with a clean brush, or soft, lint-free cloth. Do NOT use objects that will damage the tool.
2. Make sure all components are in place and properly secured. Refer to Figure 7.
3. Actuate handle assembly to ensure mechanisms inside terminating head move smoothly.



Inspection Requirements

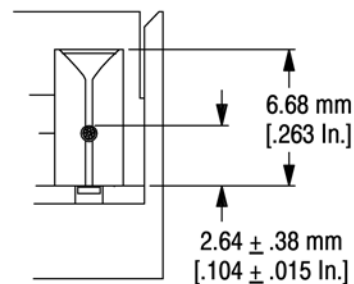


Figure 5

### 6.2. Periodic Maintenance

Regular inspections should be performed by your quality control personnel with a record of these control inspections remaining with the personnel responsible for the tool. TE recommends one inspection a month; however, operator training and skill, amount of use, ambient working conditions, and your company's established standards are all factors in establishing frequency of inspections.

These inspections should be performed in the following sequence:

1. Remove any accumulated film with a suitable cleaning agent that will NOT affect plastic material.
2. Make sure all components are in place and properly secured. See Figure 7.
3. Make a few test terminations and inspect the terminations in accordance with Section 5, INSPECTION.
4. Check for chipped, cracked, worn, or broken areas. If damage is evident, repair if necessary. See Section 7, REPLACEMENT AND REPAIR.


### 6.3. Occasional Maintenance

Because this tool shears wires before insertion, wear of the shearing surfaces can be expected as a normal operating condition. Since wire size, insulation diameter and hardness are all variables, a reasonable life expectancy of the shearing edges cannot be determined.

Shearing occurs along the edge where the inserter rides against the shear. When the operator of the tool starts to notice wire ends that are not cleanly cut, or if excessive force becomes necessary to shear the wires, it is time to change or replace the two components that do the shearing. Refer to Figure 6 and proceed as follows:

1. To change the position of the shear, remove the cover of the terminating head by loosening the two 4-40 socket head cap screws which hold the head in place. Carefully, lift off the cover. See Figure 6.

**NOTE** *DO NOT lift the inserter off with the cover.*



2. Lift off the inserter. (Make note as to which side is in contact with the shear.)
3. Lift off the shear. Rotate the shear 180° so that the surface that was facing down is now facing up. Place the shear back in place.
4. Replace the inserter, making sure that the surface (that was in contact with the shear when disassembling the tool) is now rotated 180° away from the shear.

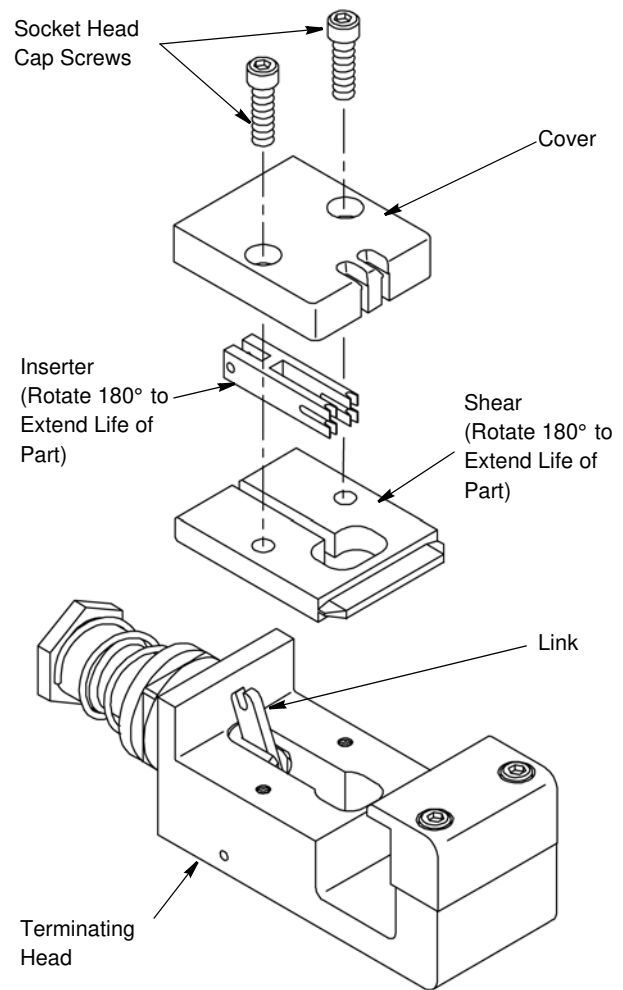




Figure 6

**NOTE** *Make sure that the roll pin going through the inserter is engaged in the slot of the link.*




5. Replace the cover. Align the edges of the terminating head, shear, and cover and tighten the two 4-40 socket head cap screws.

**NOTE** *This procedure can only be done one time for each set of inserter and shear. When the second shearing edge becomes dull, replacement of the inserter and shear will be necessary.*



**CAUTION** *Attempts to sharpen the inserter or shear might cause the inserter to be out of position during wire insertion and cause damage to the connector or tool.*



7. REPLACEMENT AND REPAIR

The parts listed in Figure 7 are customer-replaceable. A complete inventory may be stocked and controlled to prevent lost time when replacement of parts is necessary. Order replacement parts through your TE representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 1-717-986-7605, or write to:

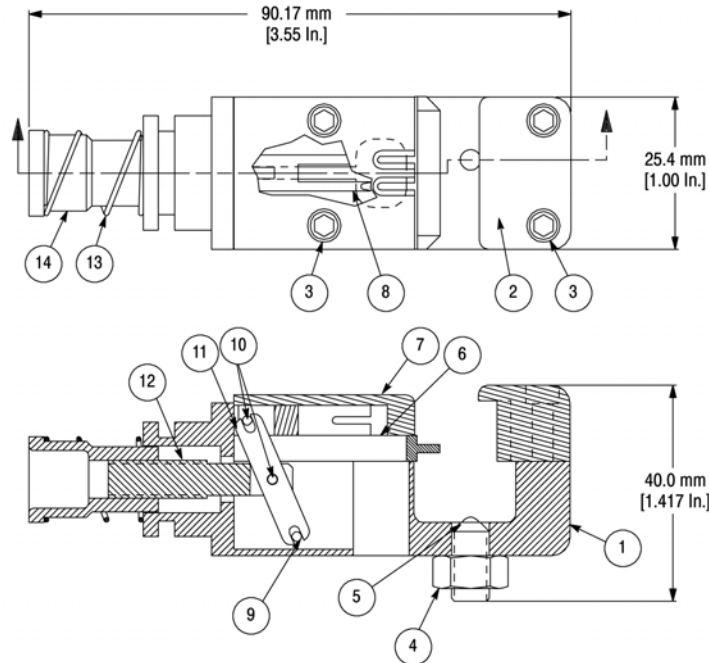
CUSTOMER SERVICE (038-035)  
 TYCO ELECTRONICS CORPORATION  
 PO BOX 3608  
 HARRISBURG PA 17105-3608

For repair service, please contact a representative at 1-800-526-5136.

8. REVISION SUMMARY

Revisions to this instruction sheet include:

- Changed company name and logo



WEIGHT: 141.7 g [5 oz.]

ITEM NUMBER	TE PART NUMBER	DESCRIPTION	QTY PER ASSY
1	189079-1	FRAME	1
2	189086-1	PAD, Friction	1
3	1-21000-6	SCREW, SHC 4-40 x .62	4
4	21019-1	NUT, Hex 1/4-20	1
5	1-22971-8	PLUNGER, Ball 1/4-20	1
6	189081-1	SHEAR	1
7	189082-1	COVER	1
8	189083-1	INSERTER	1
9	1-21028-2	PIN, Slotted Spring .062 Dia x .88	1
10	21028-1	PIN, Slotted Spring .062 Dia x .19	2
11	189084-1	LINK	1
12	189085-1	ROD, Inserter	1
13	22488-5	SPRING, Compression	1
14	312149-1	ADJUSTER, Inserter Rod	1

Figure 7