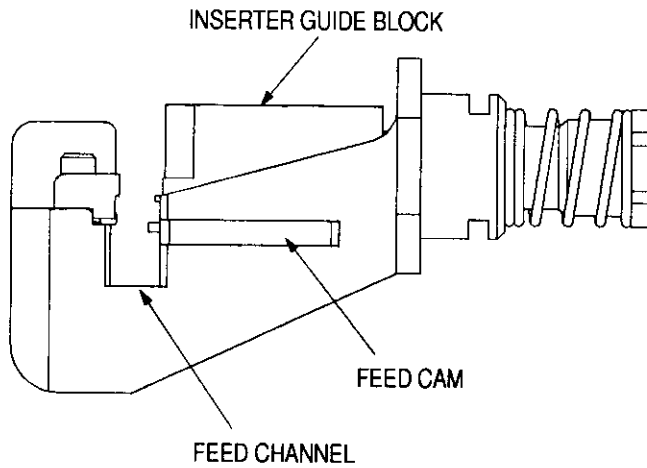


### TERMINATING HEAD 58395-1



WIRE SIZE (AWG)	CONNECTOR NUMBER
26 to 22	102935

Figure 1

## 1. INTRODUCTION

This instruction sheet covers the operation and maintenance of AMP Terminating Head 58395-1 which is used to terminate AMPMODU Level V Connectors. For complete selection information, see AMP Catalog 82107 and Application Specification 114-25020. Read these instructions thoroughly before using the head.

See Section 8, REVISION SUMMARY, for revision information.

### NOTE

All dimensions on this sheet are in metric units [followed by U.S. customary units in brackets].

## 2. DESCRIPTION (Figure 1)

The head is designed for use in AMP Pistol Grip Manual Handle Assembly 58074-1, in AMP Pistol Grip Pneumatic Handle Assembly 58075-1, or in AMP Bench Mount Power Assembly 58338-1. For head installation and removal instructions, refer to AMP Instruction Sheet 408-6790 for the manual handle assembly, 408-6789 for the pneumatic assembly, or to 408-9393 for the bench mount assembly.

The head is designed to terminate wires in the double-row AMPMODU Level V connectors listed in Figure 1 with contact spacing on 3.18 [.125] centers. The wires are terminated using the insulation displacement technique. An unstripped wire is

inserted into a slotted contact beam to form a reliable electrical connection between the wire and contact.

The connector kits consist of three components: a housing assembly with preloaded contacts, and two symmetrically designed covers. Preloaded housings, contacts, and covers are also available separately.

Features of the head and their functions are as follows:

**Insertor** – forces wire into two slotted beams of the contact. It provides support for the contact beams when applying insertion force on the wire.

**Feed Cam** – automatically advances the connector after each termination.

**Insertor Guide Block** – houses the insertor.

**Adjuster (Insertion Rod)** – regulates the travel of the wire insertion.

**Wire Slot** – open slot in insertor guide block into which unstripped wire is inserted and bottomed for terminating.

**Locating Pawl** – acts to position product in proper alignment for termination – prevents product from moving while feed finger moves back to pick up next feed rib.

## 3. SETUP ADJUSTMENTS AND TEST

### 3.1. Feed Adjustment

The feed slide should advance the product far enough for the locating pawl to hold the connector in position during the insertion cycle. If the product is not fed far enough, the locating pawl will not engage the connector and the connector will move back during the insertion cycle. If the connector is fed too far it might not be in proper alignment for the wire insertion, causing the insertor to miss the insulation tabs.

1. Obtain a housing assembly. Refer to Figure 1.
2. Squeeze the tool trigger (for the pneumatic handle assembly), cam handle (for the manual handle) or foot valve (for the bench mount pneumatic power assembly), and push the housing assembly against the wire insertor. See Figure 2.
3. Release the trigger, cam handle, or foot valve; the housing assembly will be indexed to the first contact position.
4. Squeeze the cam handle until the wire insertor is partially extended but does not touch the insulation barrel supports. If using a pneumatic

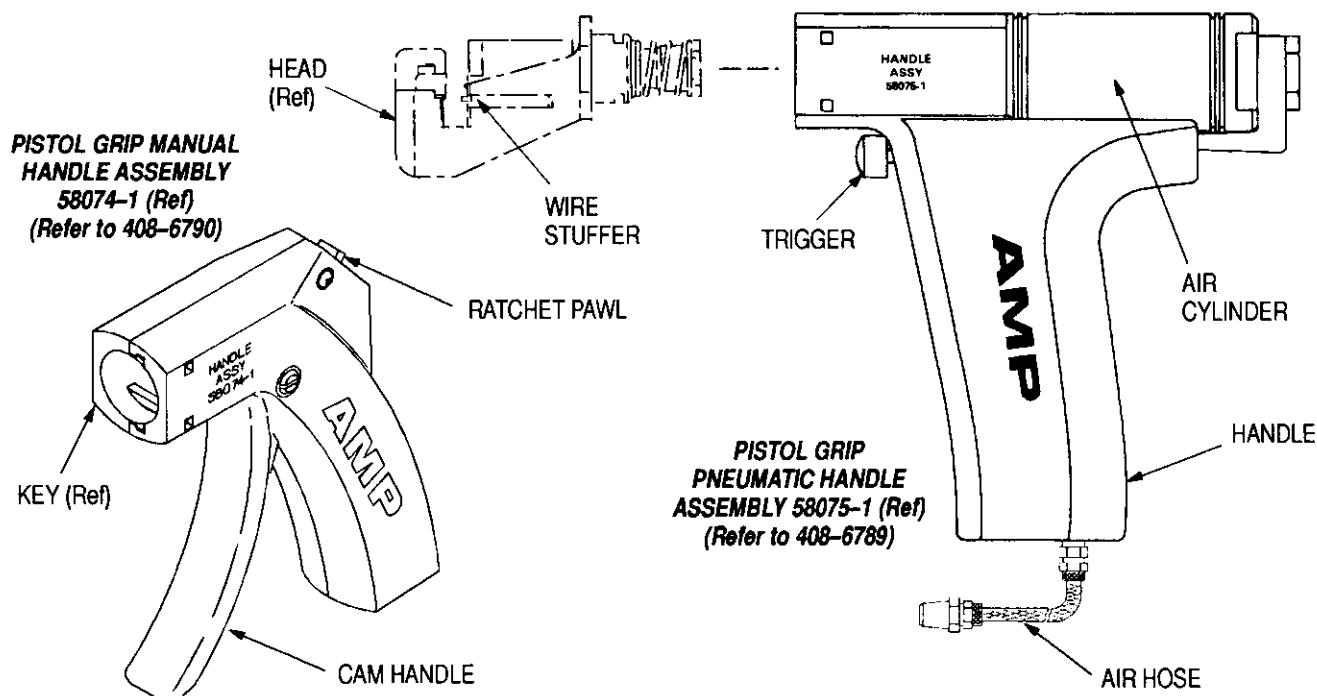


Figure 2

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assembly, reduce air pressure to zero, squeeze trigger or depress foot valve, and increase air pressure until wire inserter is partially extended.

5. Check to see that the wire inserter will engage both tabs of the insulation barrel.

6. Release handle, trigger, or foot valve. (If the ratchet mechanism on the manual handle is engaged, it will be necessary to depress the ratchet pawl in order to allow the handle to return.)

7. If the connector moved while the inserter was moving toward it, the feed is not far enough and must be advanced by turning the feed adjustment screw counterclockwise.

8. If the inserter was not aligned to both tabs of the insulation barrel, the feed is too far and must be adjusted by turning the feed adjustment screw clockwise.

9. After making adjustments, slide connector completely through tool and repeat Steps 2 through 8 until proper feed is obtained.

### 3.2. Insertion Depth Adjustment

The adjuster (insertion rod) of the wire inserter is preset for wire sizes 26 through 22 AWG. If the wire is being inserted too deeply or not deeply enough inside the contact, it may be necessary to adjust the depth of the wire inserter; or if the pneumatic handle assembly is being used, it may be necessary to adjust either the air pressure or the depth of the wire inserter.

### A. For Pistol Grip Manual Handle Assembly

1. Determine the wire size, and select the appropriate connector. Dash numbers are used to indicate number of contact positions.
2. Place the connector in the tool and make a test termination using the procedure described in Section 4, TERMINATING PROCEDURE, Steps 1 through 6.
3. Push connector out of the right side of the head.
4. Inspect termination in accordance with Section 5, INSPECTION, Steps 1 through 5.

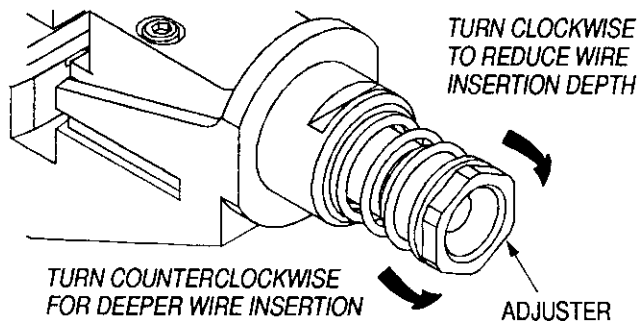
If you determine that the wire insertion depth is incorrect, proceed to Paragraph 3.2.C, Wire Insertion Depth Adjustment.

### B. For Pistol Grip Pneumatic Handle Assembly and Bench Mount Power Assembly.

1. Perform the procedure outlined in Paragraph 3.2,A, Steps 1 through 3.
2. Inspect termination to ensure that conductor is terminated past the transition points and is positioned about halfway into the contact slot.
3. Inspect termination to ensure that insulation is 0.51 [.020] beyond the front contact beam.
4. If, upon inspection, it is determined that the wire is not inserted deeply enough, increase the air pressure by 69 kPa [10 psi], and repeat the termination and inspection procedure. Continue in this manner until either the proper insertion depth

is obtained or the air pressure is set to 483 kPa [70 psi]. If the proper insertion depth is NOT reached at 483 kPa [70 psi], return the air pressure to 276 kPa [40 psi] and follow the procedure in Paragraph 3.2,C.

5. If the wire is inserted too deeply, refer to the procedure in Paragraph 3.2,C.



**NOTE:** 1/6 TURN EQUALS 0.20 mm [.008 IN.] ADJUSTMENT.

Figure 3

### C. Wire Insertion Depth Adjustment

1. **Wire Too Deep in Wire Contact Slot** – If the wire is inserted too deeply, remove the head, and turn the adjuster 1/6 revolution **CLOCKWISE** (see Figure 3). This will reduce the wire insertion depth by approximately 0.20 [.008]. Repeat Steps 2 and 3 of Paragraph 3.2,B.

2. **Wire Not Deep Enough in Contact Slot** – If the wire is not inserted deeply enough in contact slot, remove the head and turn the adjuster 1/6

revolution **COUNTERCLOCKWISE** (see Figure 3). This will increase the wire insertion depth by approximately 0.20 [.008]. Repeat Steps 2 and 3 of Paragraph 3.2,A.

### 4. TERMINATION PROCEDURE (Figure 4)

For proper terminations, proceed as follows:

1. Refer to Figure 1 and select a connector for the wire size to be terminated.
2. Insert the connector into the left side of the head until the desired connector contact position aligns with the wire slot.
3. Insert an unstripped wire into the wire slot until the wire bottoms.
4. Center the wire in the wire slot. Cycle the head by squeezing the tool trigger or cam handle, or by depressing the foot switch.
5. Release the trigger. The wire inserter will retract and the connector will advance to the next contact position.

#### NOTE

*When using the pneumatic power units, make sure that the trigger or the foot switch is held long enough to fully extend the wire inserter. Releasing the trigger or foot switch too quickly can result in wires not fully inserted into the contact slot, and can cause problems in the feeding of the connector.*

6. Repeat Steps 3, 4, and 5 until all contacts have been terminated.
7. Remove connector from right side of feed channel.

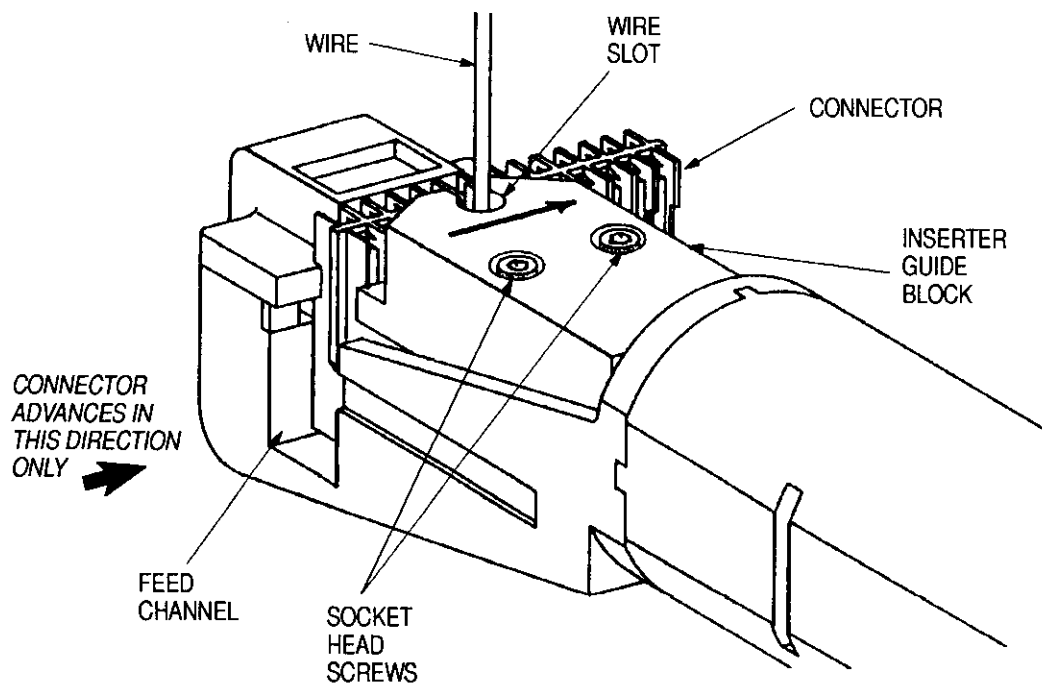


Figure 4

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8. To terminate the other side of the connector, reverse the connector and insert it into the head according to Step 2. Repeat Steps 3 through 7 until all contacts have been terminated.

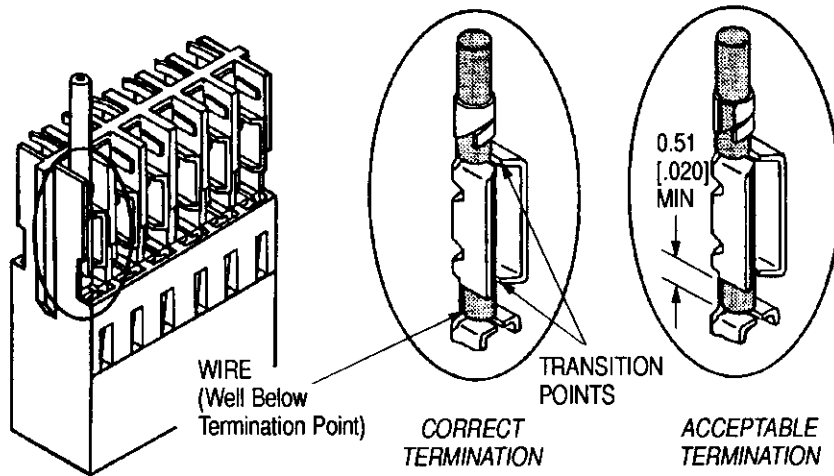
9. Inspect each termination according to the procedures in Section 5, INSPECTION.

**5. INSPECTION**

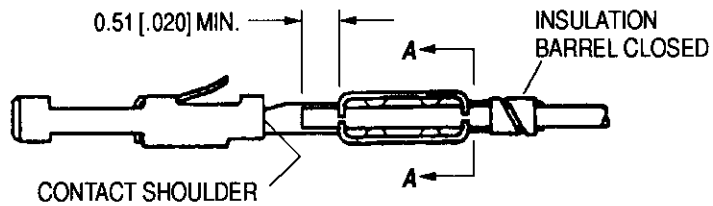
Figures 5 and 6 show the properly and improperly terminated contacts. Each view gives a brief description concerning the termination.

Inspect each termination as follows:

1. Make sure the conductor is below the transition points on the contact.
2. Make sure the wire extends beyond the front contact slot. See minimum dimension in Figure 5.



**NOTE:** END OF WIRE SHOULD BE BETWEEN MINIMUM LIMITS AND CONTACT SHOULDER.



**SECTION A-A**

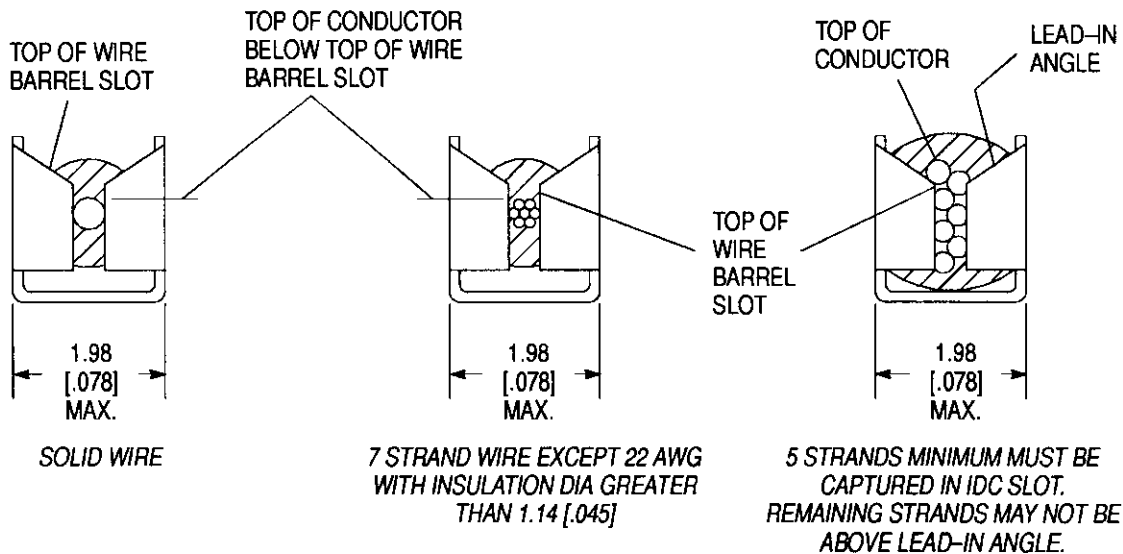


Figure 5

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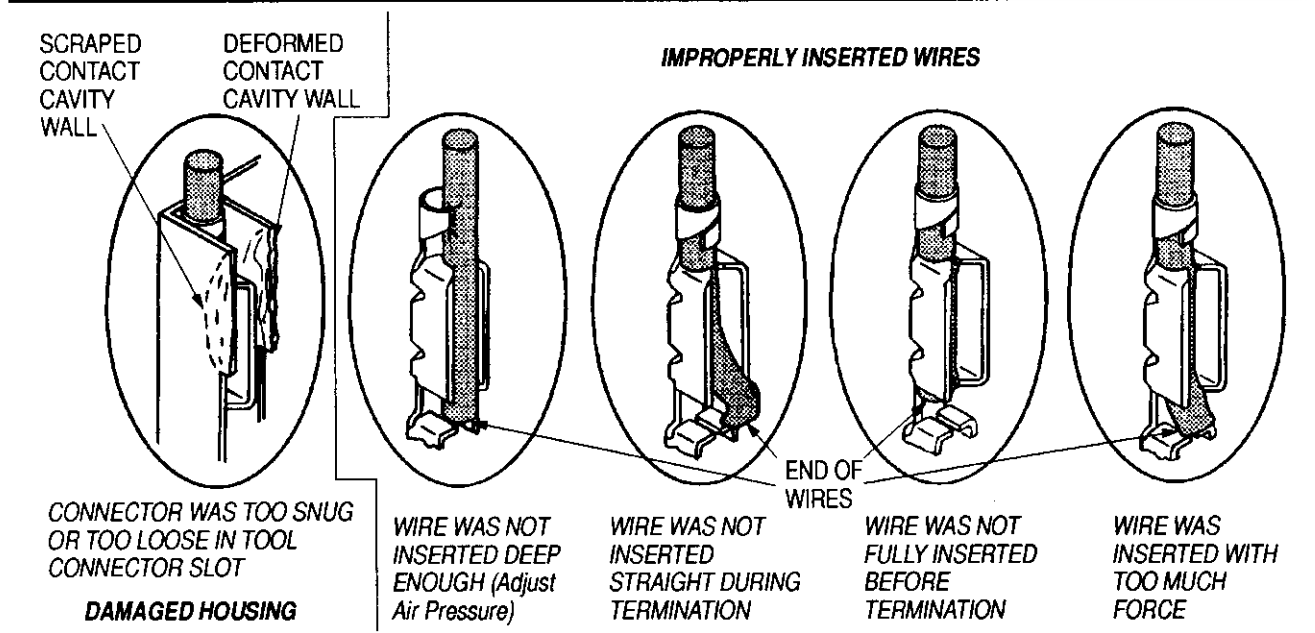


Figure 6

47T-40A

3. Make sure the contact wire channel is not deformed. If damage is apparent, replace the contact(s).

4. Make sure the insulation barrel is closed to secure the insulation of the wire.

**NOTE** *The insulation barrel does not have to be wrapped tightly around the insulation. The purpose of the insulation barrel is to prevent the wire from being lifted from the wire channel.*

5. Make sure the contact cavity wall has NOT been deformed or scraped.

## 6. MAINTENANCE (Figure 4)

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

### 6.1. Operator Maintenance

Each operator should be aware of and responsible for the following:

1. Remove dust, moisture, and other contaminants with a clean brush or soft, lint-free cloth. Do not use objects that could damage the head.
2. Make sure all components are in place and properly secured.
3. Cycle the head in the tooling to be sure that the mechanism inside the body moves freely and does not bind.

### 6.2. Quality Control Maintenance

Regular inspections should be performed by quality control personnel to assure the performance of the tool, with a record of scheduled inspections remaining with the personnel responsible for the tool. AMP recommends one inspection per month; however, operator training and skill, amount of use, working conditions, and established company standards are all factors in 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 plastic.
2. Make sure all components are in place and tightly secured.
3. Make a few test terminations and inspect the termination in accordance with Section 5, INSPECTION.
4. Check for chipped, cracked, worn, or broken areas. If damage is evident, repair is necessary. See Section 7, REPAIR.

## 7. REPAIR

Customer replaceable parts are listed in Figure 7. A complete inventory should be stocked and controlled to prevent lost time when replacement is required.

Order replacement parts through your AMP 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)  
AMP INCORPORATED  
P.O. BOX 3608  
HARRISBURG, PA 17105-3608

Parts other than those specified in Figure 7 must be replaced by AMP to ensure quality and reliability of the tool. When repair by AMP is necessary, return the tool with a written description of the problem to:

AMP INCORPORATED  
 CUSTOMER REPAIR  
 1523 NORTH 4th STREET  
 HARRISBURG, PA 17102-1604

Per EC 0150-3278-94:

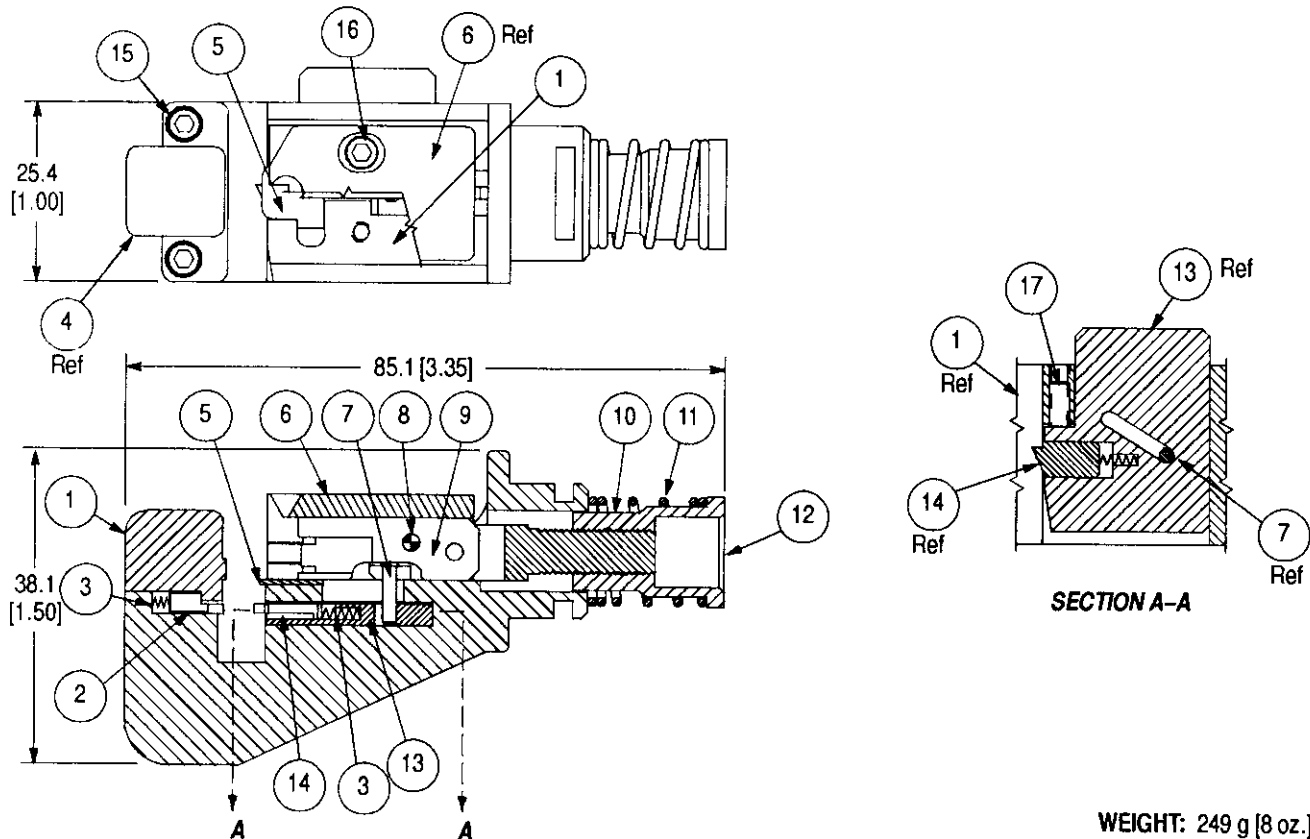
- Deleted wire sizes and connector part numbers from Figure 1
- Added additional art to Figure 5
- Added Section 3, SETUP ADJUSTMENTS AND TEST
- Revised SECTION 4, TERMINATION PROCEDURE

**8. REVISION SUMMARY**

Since the previous release of this sheet, the following changes were made:

Per EC 0990-0252-93:

- Updated format
- Added metric units
- Added Section 8, REVISION SUMMARY



WEIGHT: 249 g [8 oz.]

**CUSTOMER-REPLACEABLE PARTS**

ITEM	PART NUMBER	DESCRIPTION	QTY PER TOOLING ASSEMBLY	ITEM	PART NUMBER	DESCRIPTION	QTY PER TOOLING ASSEMBLY
1	527102-1	HEAD, LEVEL V Hand Tool	1	10	189327-1	HOLDER, Inserter	1
2	527100-1	PAWL, Connector Locator	1	11	22488-5	SPRING, Compression	1
3	1-23147-8	SPRING, Compression	2	12	312149-1	ADJUSTOR, Inserter Rod	1
4	527259-1	HEAD CAP, Hand Tool	1	13	527023-1	CAM, Feed Pawl	1
5	527105-1	WIRE STOP	1	14	527099-1	PAWL, Feed, LEVEL V	1
6	527158-1	GUIDE BLOCK, Inserter	1	15	1-21000-3	SCREW, SHC, 4-40 x .25	2
7	527025-1	PIN, Cam Actuator	1	16	1-21000-5	SCREW, SHC, 4-40 x .50	2
8	527027-1	PIN, Inserter	1	17	2-21012-1	SCREW, Soc Set, 4-40 x .25	1
9	527101-1	INSERTER, LEVEL V	1				

Figure 7