

Fig. 1

1. INTRODUCTION

This instruction sheet (IS) covers operation and maintenance of the AMPMODU ★ Mass Termination (MT) Connector Pneumatic Pistol Grip Tool 91404-1. Read these instructions thoroughly before using the tool.

NOTE

All dimensions on this sheet are in inches.

2. DESCRIPTION (Figure 1)

This manual pistol grip tool is designed to terminate wires in the single- and double-row AMPMODU MT connectors listed in Figure 1 with contact spacing on .100-in. and .125-in. centers. The wires are terminated using the AMP Insulation Displacement Technique, which inserts unstripped wire 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 tool 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.

Handle — plastic molding which retains the trigger and head mechanism.

Head — serves as a guide and supports the connector during termination.

Insertor Pin — when positioned in one of two holes underneath insertor guide block, determines insertion depth of wire insertor.

Feed Pawl — automatically advances the connector after each termination.

Insertor Guide Block — houses the insertor and insertor pin.

NOTE

An AMP Conversion Kit 527030-1 is needed to change the tool for single-row connectors. Refer to AMP Instruction Sheet (IS) 6651 for proper conversion procedures.

3. TERMINATION PROCEDURES (Figure 2)

For proper terminations, proceed as follows:

1. Refer to the chart in Figure 1 and select a connector for the wire size to be terminated.
2. Adjust the air supply to 40 psi and attach air hose.
3. Insert the connector into the left side of the head until the desired connector contact position aligns with the inserter slot.
4. Insert an unstripped wire into the wire slot until it bottoms on wire stop.
5. Depress the tool trigger and hold it until the inserter bottoms. The inserter will retract and the connector will advance to the next contact position.
6. Repeat Steps 4 and 5 until all wires have been terminated, then pull the connector out of the head.
7. To terminate the other side of the connector, reverse the connector and insert it into the head according to Step 3.
8. Inspect terminations according to Paragraph 4, INSPECTION.

2. Make sure that the wire extends beyond the front contact slot. See the minimum dimension in Figure 3.
3. Make sure that the contact wire channel is not deformed. If damage is apparent, replace the contacts in accordance with AMP Instruction Sheet IS 6532, packaged with the connector.
4. Make sure that the wraparound insulation barrel is closed over the conductor.

NOTE

It is NOT necessary for the insulation barrel to be wrapped tightly around the insulation. The primary purpose of the insulation barrel is to prevent the conductor from being pulled from the wire slots of the contact.

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

Improper terminations shown in Figure 3 can be corrected by the operator of the tool. Review the termination procedures (Paragraph 3) and make adjustments (Paragraph 5).

For additional inspection procedures, see AMP Application Specification 114-25015.

4. INSPECTION

Figure 3 shows 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.

5. ADJUSTMENTS

A. Air Supply Adjustment

The tools are designed to operate at air pressure between 40 and 70 psi. Service life can be greatly extended when only the necessary air pressure is applied. Excessive pressure causes unnecessary wear and strain on tool components and connectors.

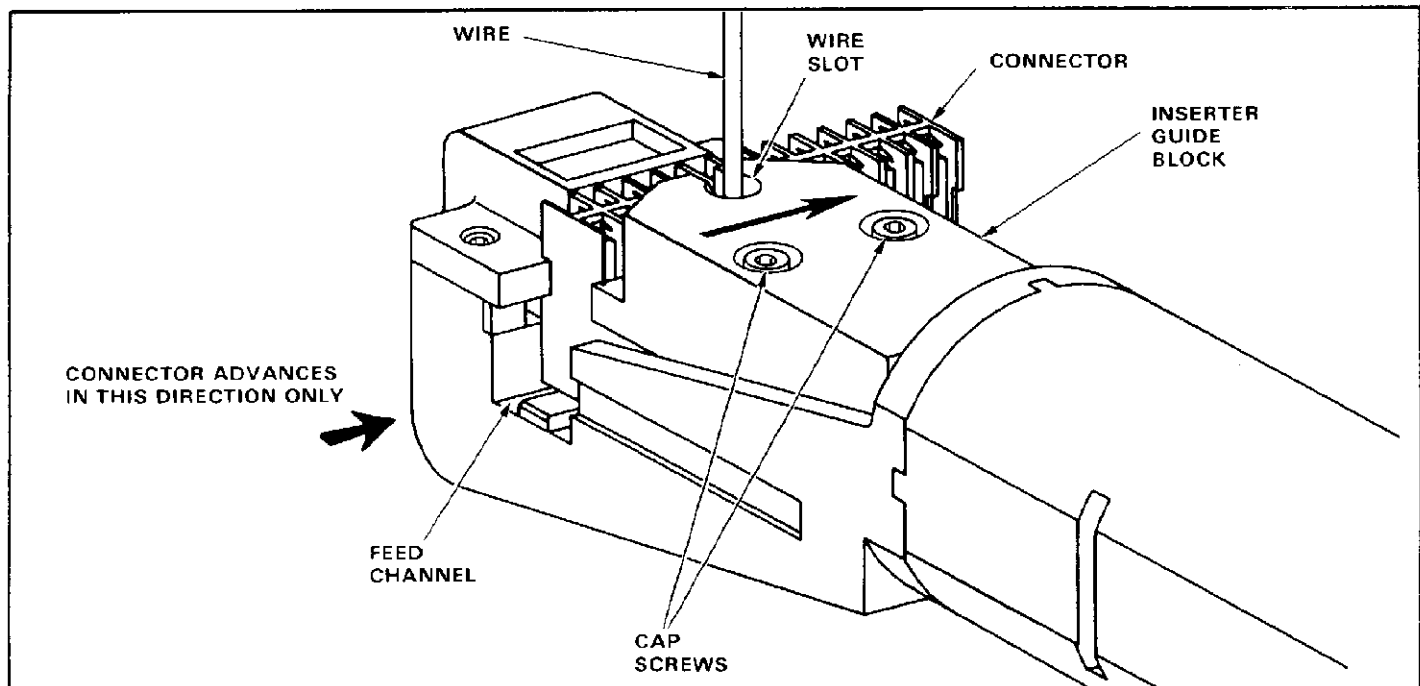


Fig. 2

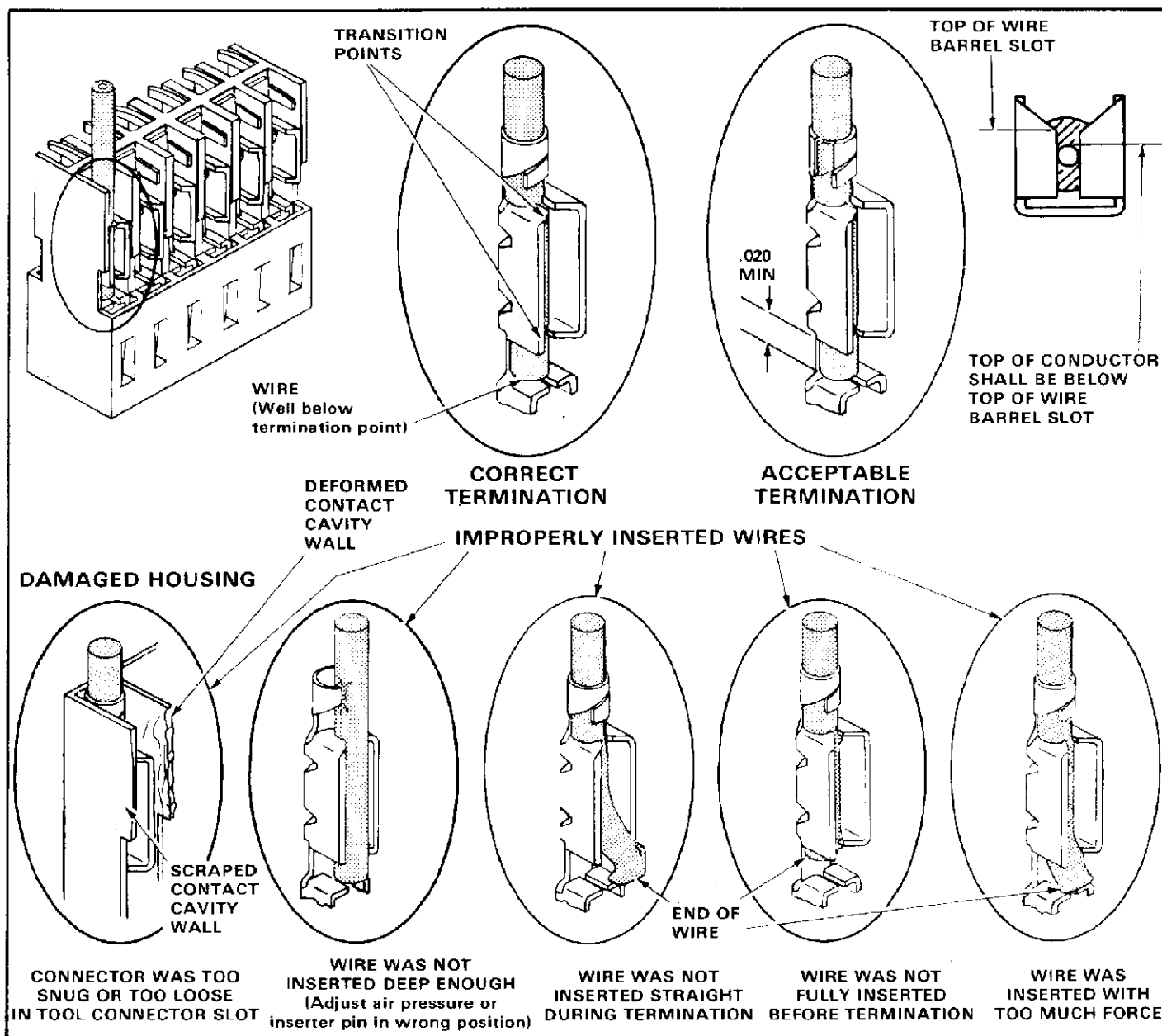


Fig. 3

If wire is not inserted deep enough, increase air pressure by 10 psi and repeat termination procedure, Steps 3, 4, and 5. Repeat this procedure until the proper insertion depth is reached, OR until 70 psi is reached. If 70 psi does not produce the desired results, the tool must be repaired. See Paragraph 7, REPAIR.

B. Inserter Adjustment

Procedures for changing the pin position for terminating contacts between .100-in. and .125-in. centers are as follows:

1. Remove inserter guide block by removing the two cap screws. Move the guide block forward and lift off.

2. Carefully remove the pin from the forward position of the inserter with a pointed tool.
3. Using needle-nosed pliers or a similar type tool, insert the inserter pin into the rear hole.
4. Replace the inserter guide block and start the screws into the two holes.
5. To align the inserter, insert a .125-in. connector into the feed channel and center it in the tool head.
6. Visually align the inserter with a connector cavity.
7. Slide inserter guide block forward and tighten the two cap screws.

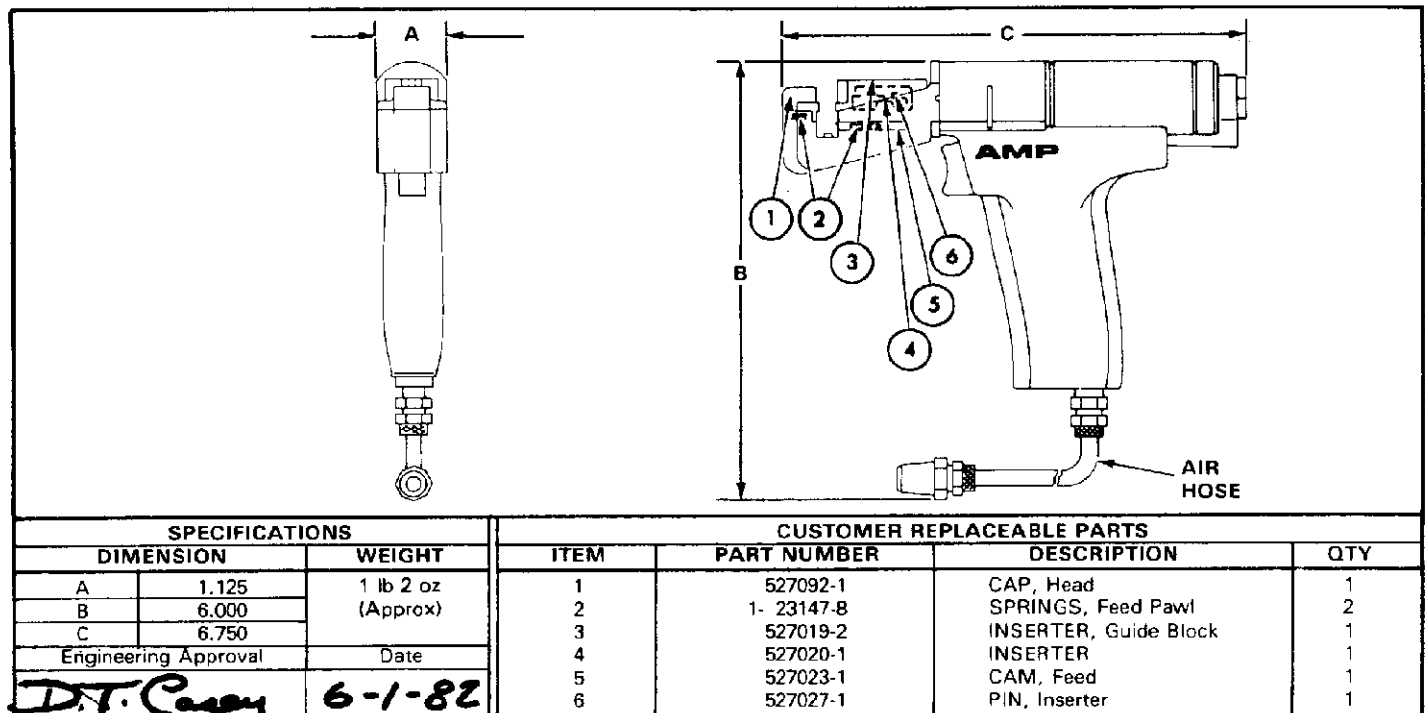


Fig. 4

NOTE

Allow enough space between the connector and the inserter guide block to allow the connector to be fed freely.

8. Squeeze trigger to cycle the tool and to terminate a contact.
9. To realign the tool, loosen the two inserter guide block screws and repeat Steps 6 and 7.

6. TOOL CERTIFICATION (Figure 4)

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

A. 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 tool.
2. Make sure all components are in place and properly secured. (If not, return the tool to your supervisor.)
3. Squeeze and release the trigger to be sure the mechanism inside the body moves freely and does not bind.

B. Quality Control Maintenance

Regular inspections should be performed by your Quality Control personnel with a record of quality control inspections remaining 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 established standards are all factors in establishing inspection frequency.

These inspections should be done in the following sequence:

1. Remove any accumulated film with a suitable cleaning agent that will not affect polycarbonate 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 Paragraph 4, INSPECTION.
4. Check for chipped, cracked, worn, or broken areas. If damage is evident, repair is necessary. See Paragraph 7, REPAIR.

7. REPAIR

Customer replaceable parts are listed in Figure 4. A complete inventory should be stocked and controlled to prevent lost time when replacement is required.

Parts other than those specified in Figure 4 must be replaced by AMP to ensure certification of the tool. When repair by AMP is necessary, return the tool with a written description of the problem to:

AMP Incorporated
Customer Repair
300 East Durham Road
Cary, NC 27511

or a wholly owned subsidiary of AMP Incorporated.