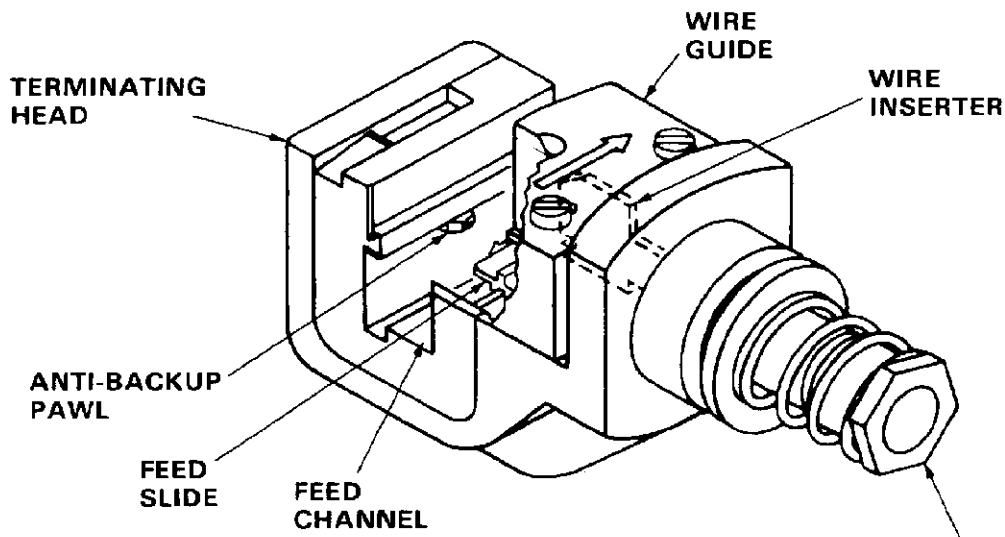
AMP INCORPORATED
Harrisburg, Pa. 17105

AMP★ TERMINATING HEAD 58062-1 FOR AMPMODU★ MT CONNECTORS

Instruction Sheet
IS 9085
RELEASED 4-22-85
REDUCED FOR PACKAGING



WIRE SIZE (AWG)	HOUSING ASSY	KIT* NO.	NO. CONTACT ROWS	ADAPTER REQUIRED
30 to 26	102747	--	1	Yes
30 to 26	102393	102392	2	No
26 to 22	102746	--	1	Yes
26 to 22	102398	102397	2	No
22 to 20	102745	--	1	Yes
22 to 20	102448	102447	2	No

* KITS INCLUDE CONNECTOR AND TWO COVERS.

Fig. 1

1. INTRODUCTION

This instruction sheet (IS) covers operation and maintenance of AMP Terminating Head 58062-1 which is designed to terminate wires in AMPMODU MT (Mass Termination) single- and double-row connectors on .100-in. centerlines. See Figure 1. Read these instructions thoroughly before using the head.

NOTE

All dimensions on this instruction sheet are in inches.

2. DESCRIPTION

The terminating head is designed for use in AMP Pistol Grip Manual Handle Assembly 58074-1, or AMP Pistol Grip Pneumatic Handle Assembly 58075-1. For head installation and removal instructions, refer to IS 6790 for the manual handle assembly or IS 6789 for the pneumatic handle assembly.

The wires are terminated in the connector using the Insulation Displacement Technique, which is a method of inserting unstripped wire into a slotted contact beam to form a reliable electrical connection between the conductor and contact.

After the head is inserted into the pistol grip handle assembly, it serves as a guide and support for the connector during termination. Features of the head (see Figure 1) and their functions are as follows:

Wire Inserter — forces wire into the two slotted beams of the contact. (Note that it provides support for the contact beams when applying insertion force on the wire.)

Adjuster (Insertion Rod) — is a piston for - and regulates travel of - the wire inserter.

Feed Slide — automatically advances the connector after each termination.

Anti-Backup Pawl — prevents connector from moving out of position after it has been advanced by the feed slide.

3. SETUP ADJUSTMENTS AND TEST

If the wire is being inserted too deep or not deep enough inside the contact, it may be necessary to adjust the depth of the wire inserter; or, if the pneumatic tool is being used, it may be necessary to adjust either the air pressure or the depth of the wire inserter. The wire guide may require adjustment if the connector does not enter the terminating head or if the connector is too loose in the head.

NOTE

If single-row contacts are to be terminated, an adapter must be installed on the head. Refer to Paragraph 4, SINGLE-ROW ADAPTER, for installation procedure.

A. For Pistol Grip Manual Handle Assembly

1. Refer to chart in Figure 1 and select a connector for the wire size to be terminated.

2. Place connector in head and make a test termination using procedure described in Paragraph 5, TERMINATING PROCEDURE, Steps 1 through 6. If the connector cannot be inserted into the head, or if it is too loose in the head, loosen the two screws on the wire guide (see Figure 1) and adjust the wire guide so the connector fits properly in the head.

3. Push connector out of right side of head.

4. Inspect termination in accordance with Paragraph 6, INSPECTION, Steps 1 through 5.

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

B. For Pistol Grip Pneumatic Handle Assembly

1. Perform the procedure outlined in Paragraph A, For Pistol Grip Manual Handle Assembly, Steps 1 through 3.

2. Inspect termination in accordance with Paragraph 6, INSPECTION, Steps 1 through 5.

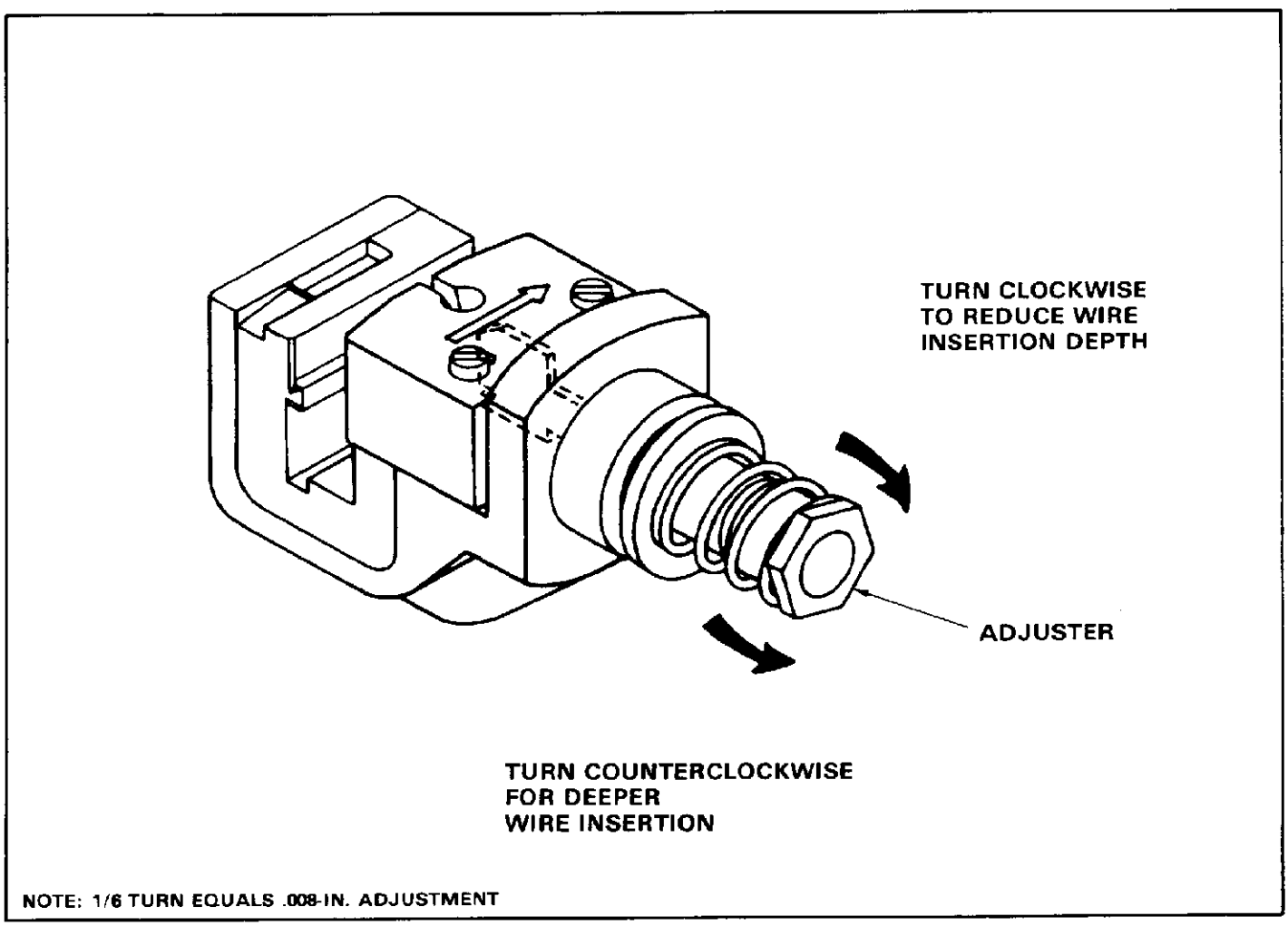


Fig. 2

If, upon inspection, it is determined that the wire is not inserted deep enough, increase the air pressure by 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 70 psi. If proper insertion depth is not achieved at 70 psi, return the air pressure to 40 psi and follow the procedure in Paragraph C, Wire Insertion Depth Adjustment.

If the wire is inserted too deep, refer to the procedure in Paragraph C, Wire Insertion Depth Adjustment.

C. Wire Insertion Depth Adjustment

Wire Too Deep in Contact Slot — If the wire is inserted too deep, remove the head, and turn the adjuster 1/6 revolution CLOCKWISE (see Figure 2). This will reduce the wire insertion depth by approximately .008 in. Repeat Steps 2, 3, and 4 of Paragraph A, For Pistol Grip Manual Handle Assembly.

Wire Not Deep Enough in Contact Slot — If the wire is not inserted deep enough in contact slot, remove the head and turn the adjuster 1/6 revolution COUNTERCLOCKWISE (see Figure 2). This will increase the wire insertion depth by approximately .008 in. Repeat Steps 2, 3, and 4 of Paragraph A, For Pistol Grip Manual Handle Assembly.

4. SINGLE-ROW ADAPTER (Figure 3)

The head can terminate contacts in single-row connectors when an adapter is installed on the head. Install the adapter as follows:

1. From left side of terminating head, insert bottom of adapter into slot on head and align clip on top of adapter with indentation on top of head (see Figure 3).

2. Push adapter to right until clip drops into indentation on head.

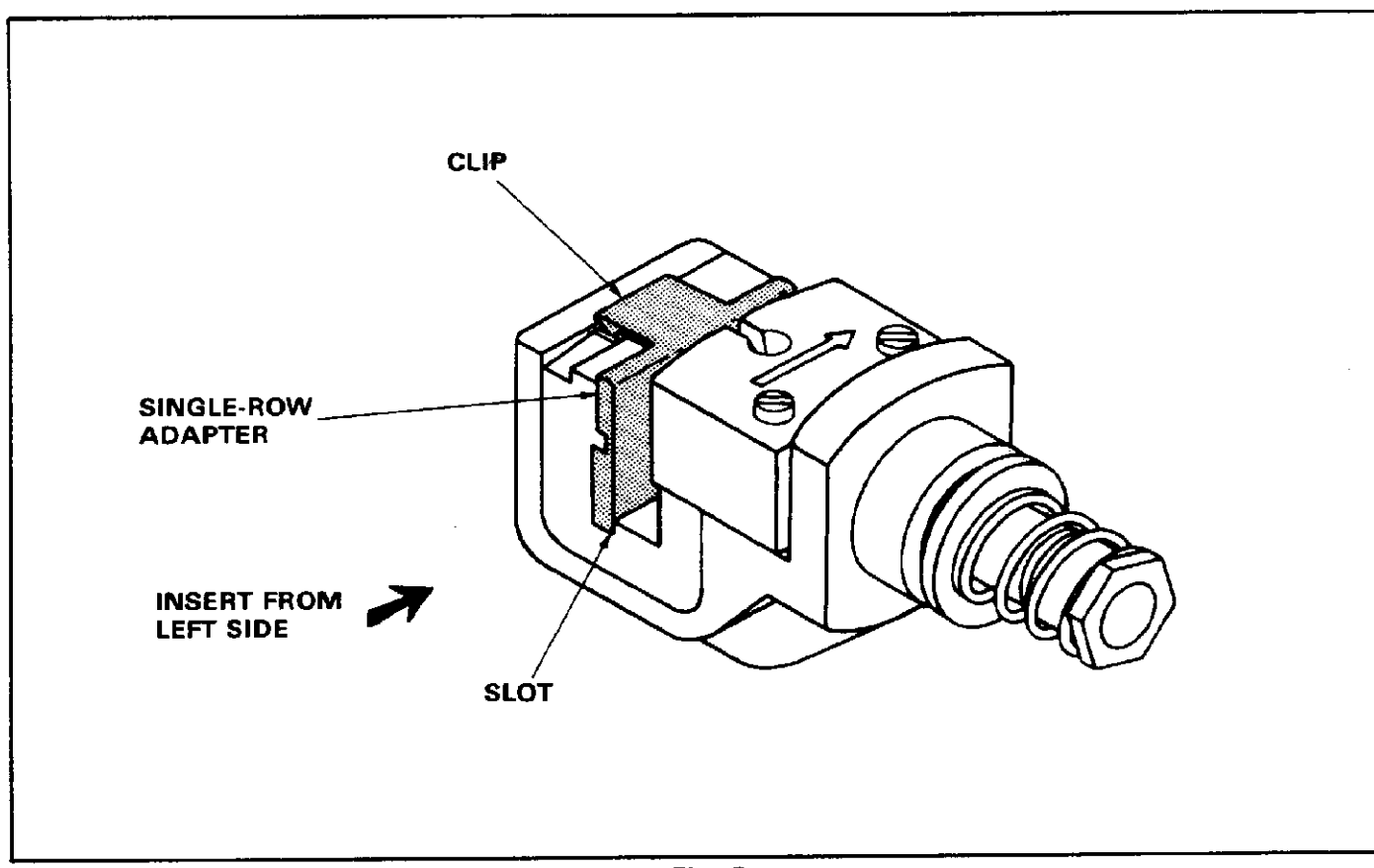


Fig. 3

5. TERMINATING PROCEDURE (Figure 4)

1. Insert connector into left side of head until the desired connector contact position aligns with the wire slot.

2. Insert an unstripped wire into the wire slot until the wire bottoms on the tool base.

3. Center the wire in the wire slot. Squeeze cam handle (or depress trigger) of pistol grip handle assembly until inserter bottoms.

4. Release cam handle (or trigger). The inserter will retract and the connector will advance to next contact position.

5. Repeat Steps 2, 3, and 4 until all contacts are terminated.

6. Remove connector from right side of feed channel.

7. Inspect each termination according to the procedure in Paragraph 6, INSPECTION.

6. INSPECTION (Figure 5)

Figure 5 represents properly and improperly terminated contacts. Each view gives a brief description of the termination.

Inspect each termination as follows:

1. Make sure the conductor is below the transition of the lead-in on the contact slot.

2. Make sure the wire extends beyond the front contact slot. See minimum dimension in Figure 5.

3. Make sure the contact channel is not deformed. If damage is apparent, replace the contacts in accordance with AMP Instruction

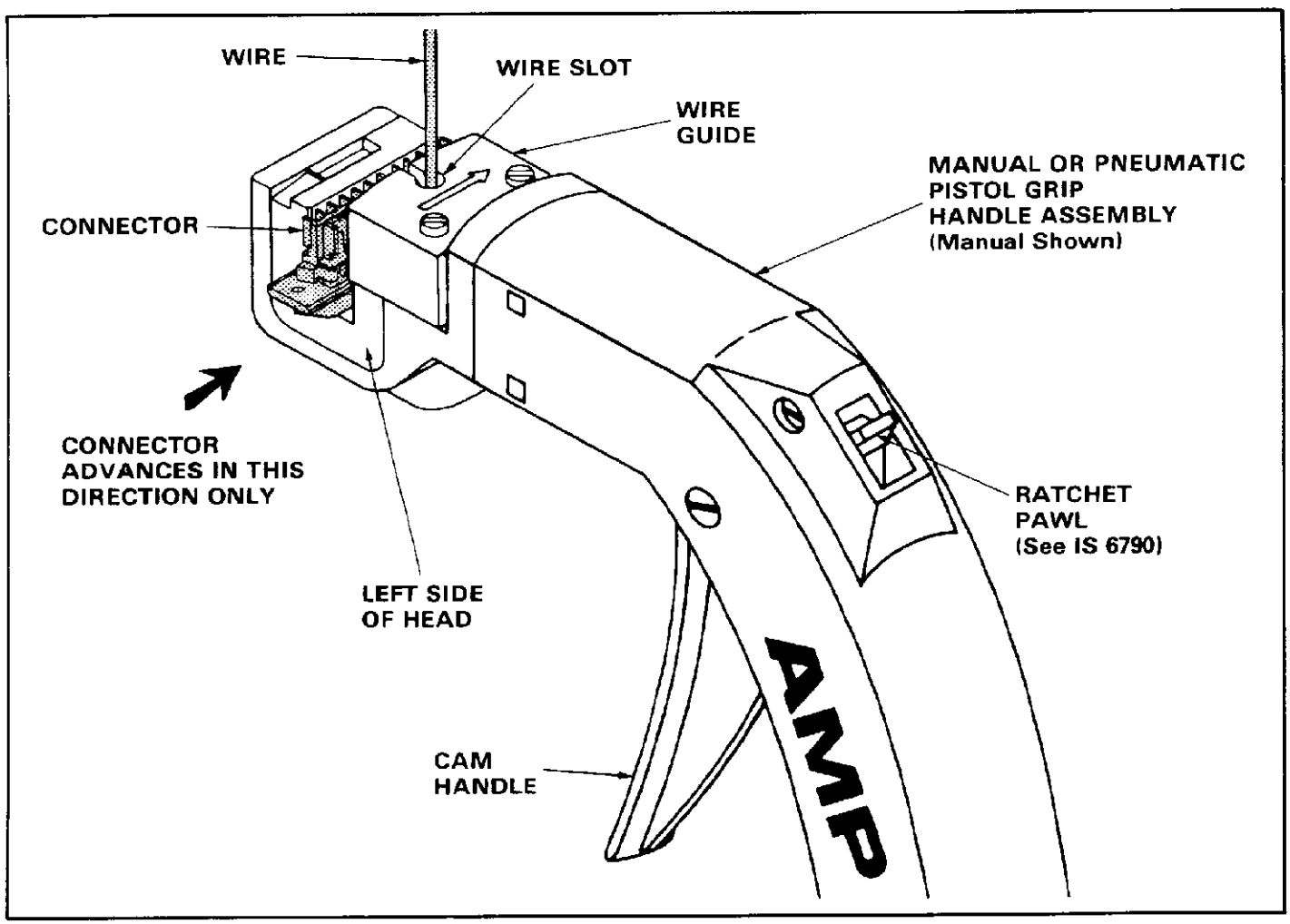


Fig. 4

Sheet IS 6532, which is packaged with the connector.

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.

For additional information, refer to AMP Application Specification 114-25015.

7. TOOL CERTIFICATION (Figure 6)

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 personnel.

A. Daily Maintenance

1. Remove dust, moisture, and other contaminants with a clean brush, or a 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. Actuate handle assembly to ensure that mechanisms inside head move smoothly.

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 to be considered in establishing frequency of inspections.

These inspections should be done 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 6.

3. Make a few test terminations and inspect the termination in accordance with Paragraph 6, INSPECTION.

4. Check for chipped, cracked, worn, or broken areas. If damage is evident, repair is necessary. See Paragraph 7, REPAIR.

8. REPAIR

The parts listed in Figure 6 are customer-replaceable parts. A complete inventory can be stocked and controlled to prevent lost time when replacement of parts is necessary. The terminating head can also be returned to AMP for evaluation and repair. Send the tool with a written description of the problem to:

AMP Incorporated
Customer Repair
1523 North 4th Street
Harrisburg, PA 17102

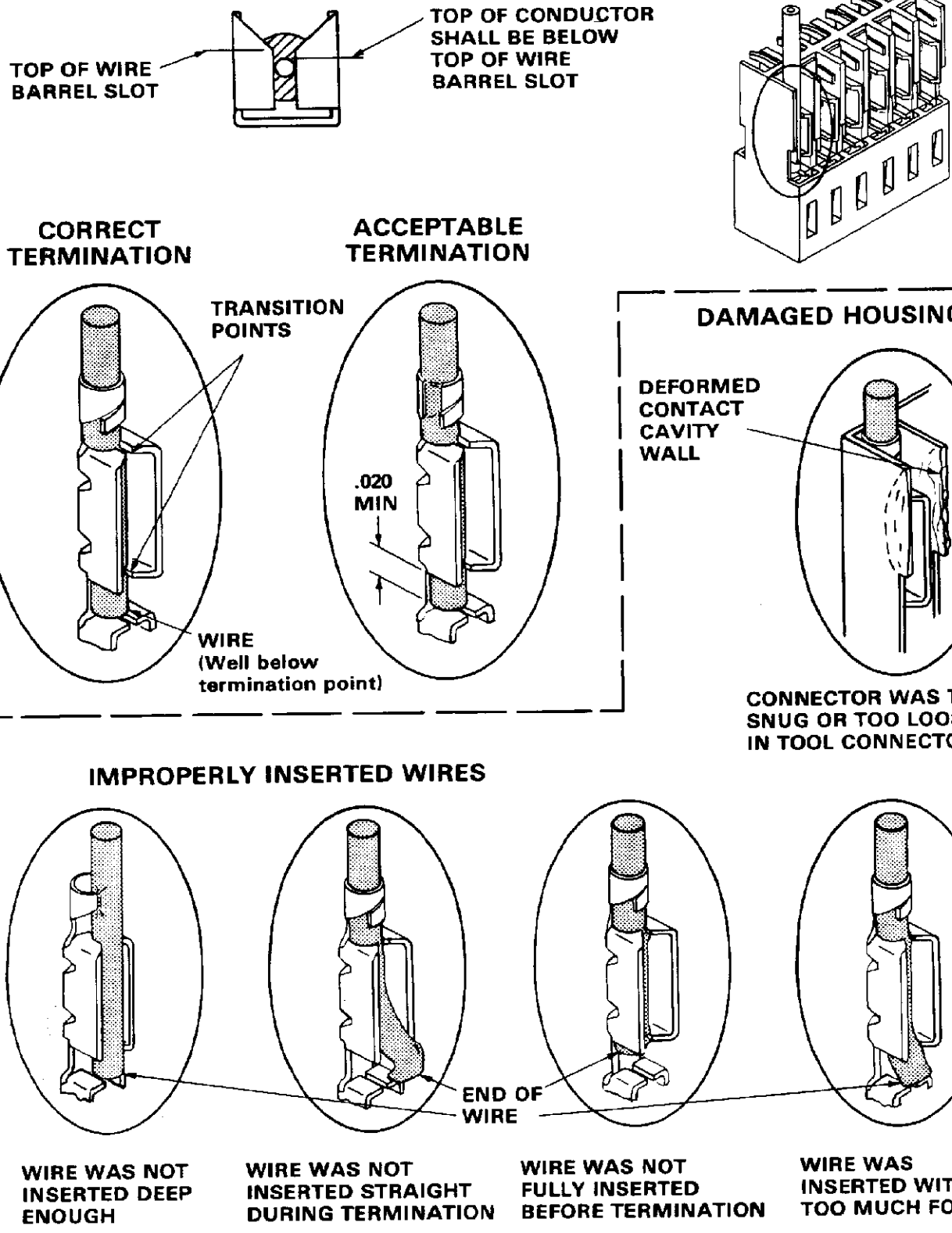
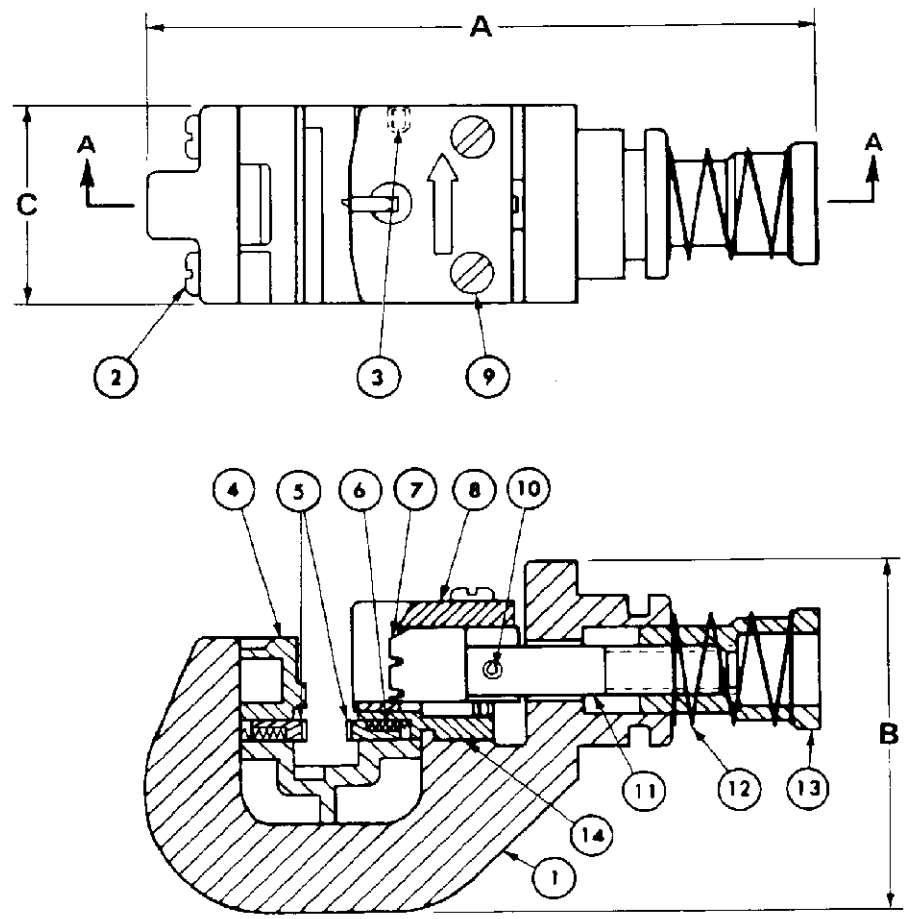

TOP OF WIRE BARREL SLOT
TOP OF CONDUCTOR SHALL BE BELOW TOP OF WIRE BARREL SLOT
CORRECT TERMINATION
ACCEPTABLE TERMINATION
TRANSITION POINTS
.020 MIN
WIRE (Well below termination point)
DAMAGED HOUSING
DEFORMED CONTACT CAVITY WALL
CONNECTOR WAS TOO SNUG OR TOO LOOSE IN TOOL CONNECTOR SLOT
IMPROPERLY INSERTED WIRES
END OF WIRE
WIRE WAS NOT INSERTED DEEP ENOUGH
WIRE WAS NOT INSERTED STRAIGHT DURING TERMINATION
WIRE WAS NOT FULLY INSERTED BEFORE TERMINATION
WIRE WAS INSERTED WITH TOO MUCH FORCE

Fig. 5



SECTION A-A

SPECIFICATIONS		
DIMENSION		WEIGHT
A	3 5/16	3 oz
B	1 3/4	
C	1	

ENGINEERING APPROVAL

E. Grunden

DATE

4-22-85

CUSTOMER REPLACEABLE PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY
1	312331-1	HEAD, Finished	1
2	28593-1	SCREW, Self-Tapping	2
3	1- 21010-9	SETSCREW, Socket	1
4	312332-1	HOUSING, Insert	1
5	312333-1	PAWL	2
6	1- 23147-2	SPRING, Compression	2
7	312334-1	INSERTER, Wire	1
8	312335-1	GUIDE, Wire	1
9	4- 23715-7	SCREW, Mach (4-40 x .750 L)	2
10	3- 21028-2	PIN, Slotted Spring	1
11	312148-2	ROD, Inserter	1
12	22488-5	SPRING, Compression	1
13	312149-1	ADJUSTER, Inserter Rod	1
14	312336-1	SLIDE, Feed	1
--	312337-1	ADAPTER, Single-Row	1

Fig. 6