

# AMP

AMP INCORPORATED  
HARRISBURG, PA 17105

CUSTOMER HOTLINE  
1 800 722-1111

## APPLICATION AND MAINTENANCE FOR AMP\* CRIMPING DIE ASSEMBLIES 58248-1, -2, AND -3

REDUCED FOR PACKAGING

# IS 9261

RELEASED  
9-18-89

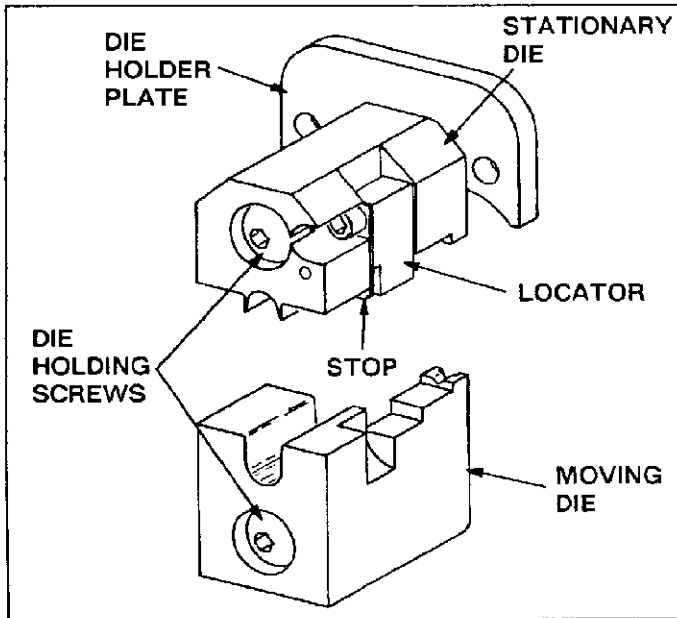


Fig. 1

### 1. INTRODUCTION

This instruction sheet (IS) covers application and maintenance procedures for AMP Crimping Die Assemblies 58248-1 through -3. The die assemblies are designed to crimp the AMP 75-Ohm Commercial BNC Connectors listed in Figure 2.

The crimping dies are used in AMP Pneumatic Tool 69365-3. AMP Pneumatic Tool 69365-3 is a semi-automatic tool which is bench-mounted and foot-switch-actuated. Refer to Customer Manual CM 1983, packaged with the tool, for application and operating procedures.

Read these instructions thoroughly before using the die assemblies.

#### NOTE

All dimensions on this instruction sheet are in inches.

RG/U CABLE	PRODUCT PART NUMBER	PRODUCT DESCRIPTION	DIE ASSEMBLY
6, 6A	221185-5	75-Ohm BNC Plug (IS 9088)	58248-1
Belden 8281, 9231	221185-7	75-Ohm BNC Plug (IS 9088)	58248-1
59, 59A, 59B	221185-2	75-Ohm BNC Plug (IS 9088)	58248-2
	221199-2	75-Ohm BNC Jack (IS 9090)	58248-2
	221203-2	75-Ohm BNC Panel Jack (IS 9087)	58248-2
	221221-2	75-Ohm BNC Bulkhead Jack (IS 9089)	58248-2
Belden 8218	221185-3	75-Ohm BNC Plug (IS 9088)	58248-3
	221199-3	75-Ohm BNC Jack (IS 9090)	58248-3
	221203-3	75-Ohm BNC Panel Jack (IS 9087)	58248-3
	221221-3	75-Ohm BNC Bulkhead Jack (IS 9089)	58248-3
Belden 1164A	1-221185-5	75-Ohm BNC Plug (IS 9088)	58248-3

Fig. 2

## 2. DESCRIPTION

The die assembly consists of a stationary die with a locator and stop, a moving die, die holding screws, and a die holder plate which replaces the die holder packaged with the pneumatic tool (see Figure 1).

When mated, the dies form two crimping sections; a square section and a round section. The square crimping section is used to crimp the center contact onto the connector's center conductor, and the round crimping section is designed to crimp the ferrule onto the cable. The locator and stop aid in positioning the cable and center contact in the proper position for crimping.

## 3. INSTALLING THE DIE ASSEMBLY

To install the die assembly in the pneumatic tool, refer to Figure 3 and proceed as follows:

1. Make sure that the air supply is OFF and that the moving die holder is retracted.
2. Remove Die Holder Plate 304400-2 (packaged with tool) from the tool head by removing the two button head cap screws. Keep die holder plate for use with other dies.
3. Install Die Holder Plate 313537-1, packaged with the die assembly. Replace and tighten screws.
4. Install the stationary and moving dies according to the procedures given in CM 1983.

## 4. CONNECTOR ASSEMBLY AND CRIMPING PROCEDURE

### NOTE

Refer to the instruction sheet packaged with the connector (and listed in Fig. 2) for specific assembly information.

### A. Center Contact

1. Slide ferrule onto cable and strip the cable according to the dimensions given on the instruction sheet packaged with the connector.
2. Insert the center conductor into the center contact until the cable dielectric butts against the center contact.
3. Open the dies in the pneumatic tool and position the center contact in the center contact crimping chamber as follows:
  - a. Plug Center Contact — Place the plug center contact through the locator and against the stop. The crimp area of the center contact should be in the crimping chamber on the stationary die. See Figure 4,A.

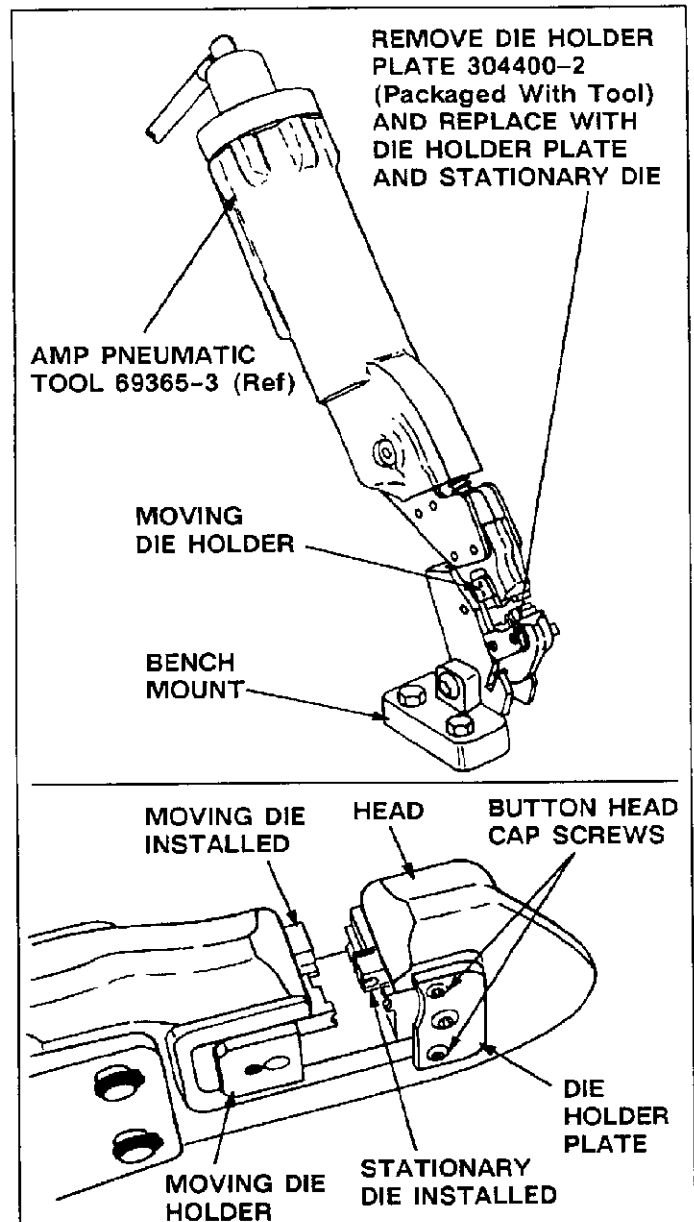


Fig. 3

- b. Jack Center Contact — Position the jack center contact against the locator. The crimp area of the center contact should be in the crimping chamber on the stationary die. See Figure 4,B.

### DANGER

KEEP HANDS CLEAR OF DIES during crimping.

4. Hold the contact in place (by holding cable) and activate the pneumatic tool to crimp the center contact.
5. Open the dies and remove the crimped contact.

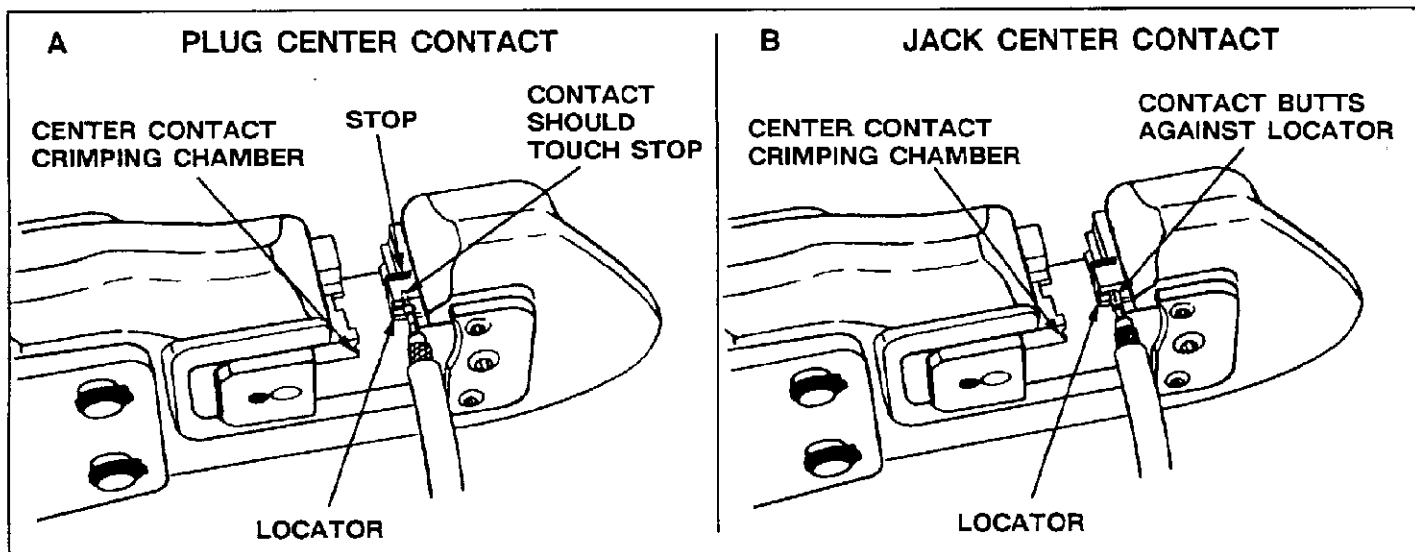


Fig. 4

## B. Ferrule

1. Insert the contact into the connector with the braid over the support sleeve of the connector.
2. Slide the ferrule forward over the braid and the support sleeve.
3. Place the ferrule in the large crimping section of the stationary dies shown in Figure 5.

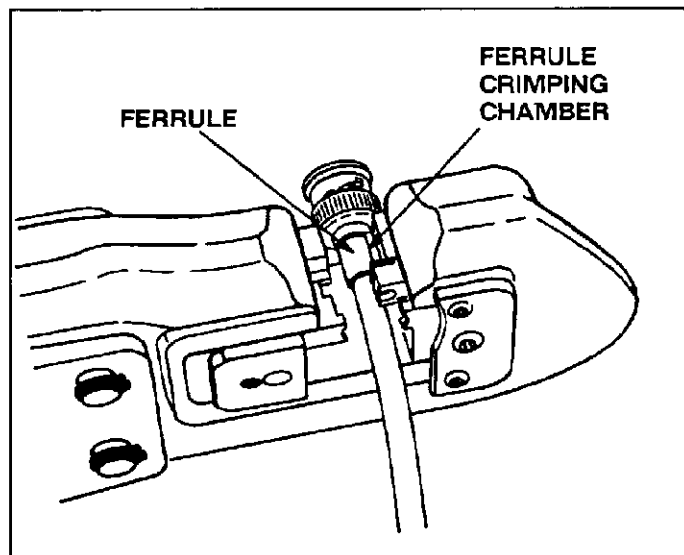


Fig. 5

4. Make sure that the connector is butted against the die.

**DANGER**

*KEEP HANDS CLEAR OF DIES during crimping.*

5. Activate the pneumatic tool to crimp the ferrule. Open the dies and remove the crimped ferrule and cable.

## 5. DIE INSPECTION

AMP Die Assemblies 58248-1, 2, and -3 are inspected before shipment. AMP recommends that the dies be inspected immediately upon arrival at your facility to ensure that the dies conform to the dimensions provided in Figure 6 and that the dies have not been damaged during transit.

## 6. MAINTENANCE/QUALITY CONTROL

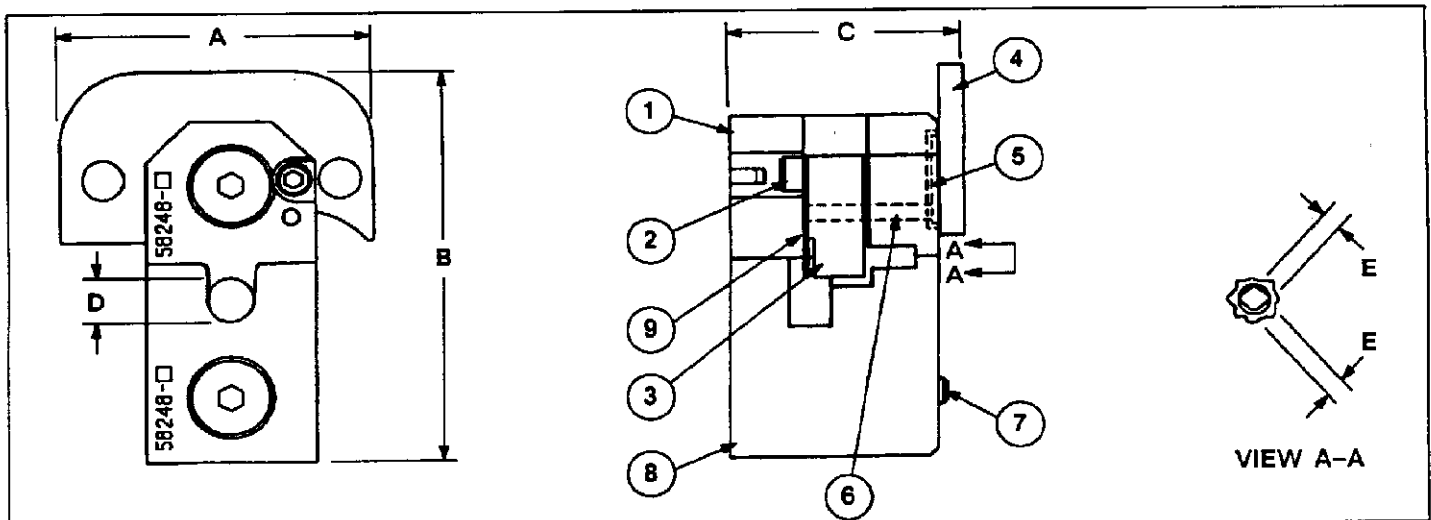
### A. Daily Maintenance

AMP recommends that each operator of the dies be responsible for the following three steps of daily maintenance:

1. Remove dust, dirt, and other contaminants with a clean brush, or a soft, lint-free cloth. Do NOT use objects that could damage the dies.
2. Make certain the dies are protected with a THIN coat of any good SAE No. 20 motor oil. DO NOT OIL EXCESSIVELY.
3. When the dies are not in use, mate and store them in a clean, dry area.

### B. Periodic Inspection

Regular inspections should be performed by quality control personnel. A record of scheduled inspections should remain with the dies and/or be supplied to supervisory personnel responsible for the dies. Though recommendations call for at least one inspection a month, the inspection frequency should be based



CUSTOMER-REPLACEABLE PARTS

ITEM	DIE ASSEMBLY			DESCRIPTION	QTY
	58248-1	58248-2	58248-3		
1	313542-1	313540-2	313540-1	INSERT, Upper Barrel	1
2	1- 21000-1	1- 21000-1	1- 21000-1	SCREW, Skt Hd Cap, 2-56 UNC x .375 L	1
3	313539-1	313539-1	313539-1	LOCATOR	1
4	313537-1	313537-1	313537-1	PLATE, Die Holder	1
5	1- 21046-3	1- 21046-3	1- 21046-3	RING, Retaining	2
6	21119-4	21119-4	21119-4	PIN, Slotted	1
7	306592-1	306592-1	306592-1	SCREW, Special, 10-32 UNF-3A x .735 L	2
8	313541-3	313541-2	313541-1	INSERT, Lower Barrel	1
9	313538-1	313538-1	313538-1	STOP	1

DIE ASSEMBLY SPECIFICATIONS

DIE ASSEMBLY	A	B	C	D	E	DIE WEIGHT
58248-1	1.156	1.507	.963	.330 + .004 - .003	.044 + .003 - .002	3 oz Approx.
58248-2	1.156	1.507	.863	.240 + .004 - .003	.044 + .003 - .002	
58248-3	1.156	1.507	.863	.170 + .004 - .003	.044 + .003 - .002	

Fig. 6

on the amount of use, ambient working conditions, operator training and skill, and established company standards. These inspections should be performed in the following sequence:

**B-1. Visual Inspection**

1. Remove all lubrication and accumulated film by immersing the dies in a suitable commercial degreaser that will not affect paint or plastic material.
2. Make sure all die holding screws, retaining rings, and die components are in place. Refer to the parts listed in Figure 6 if replacements are needed.

3. Check components for wear. Remove and replace worn components.

4. Inspect the crimping sections for worn, cracked, or broken areas. If damage is evident, return the dies to AMP for evaluation and repair (see Section 7, DIE REPLACEMENT AND REPAIR).

**B-2. Gaging the Crimping Chamber**

This inspection requires the use of two plug gages. One gage, shown in Figure 7, is used to inspect the center contact crimping chamber. Figure 8 illustrates the gage which is required for checking the ferrule crimping chamber. AMP does not manufacture or market these gages.

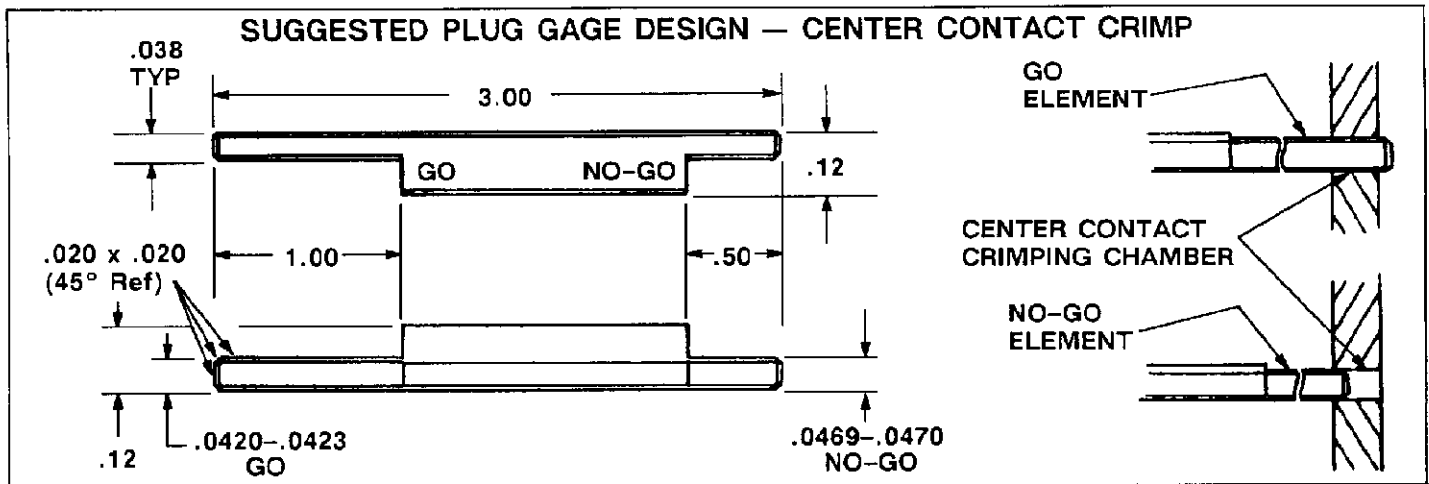


Fig. 7

Proceed as follows:

1. Mate the dies until it is evident that they have bottomed. Hold the dies in this position with a pressure of approximately 10 psi.
2. Align the GO element with the proper crimping chamber. Push element straight into the crimping chamber without using force. The GO element must pass completely through the crimping chamber as shown in Figure 7 and 8.
3. Align the NO-GO element and try to insert it straight into the same crimping chamber. The NO-GO element may start entry but must not pass completely through, as shown in Figures 7 and 8.

If the crimping chamber conforms to the gage inspection, the dies are considered dimensionally correct and should be lubricated with a THIN coat of SAE No. 20 motor oil. If not, the dies must be repaired before returning them to service.

For additional information concerning the use of a plug gage, refer to AMP Instruction Sheet IS 7424.

### 7. DIE REPLACEMENT AND REPAIR

The parts listed in Figure 6 are customer-replaceable parts. A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is necessary. Replacement dies can be purchased from:

AMP Incorporated  
P.O. Box 3608  
Harrisburg, PA 17105-3608

or a wholly owned subsidiary of AMP Incorporated.

The dies can also be returned to AMP for evaluation and repair. Send the dies with a written description of the problem to:

AMP Incorporated  
Customer Repair  
1523 North Fourth Street  
Harrisburg, PA 17105-1604

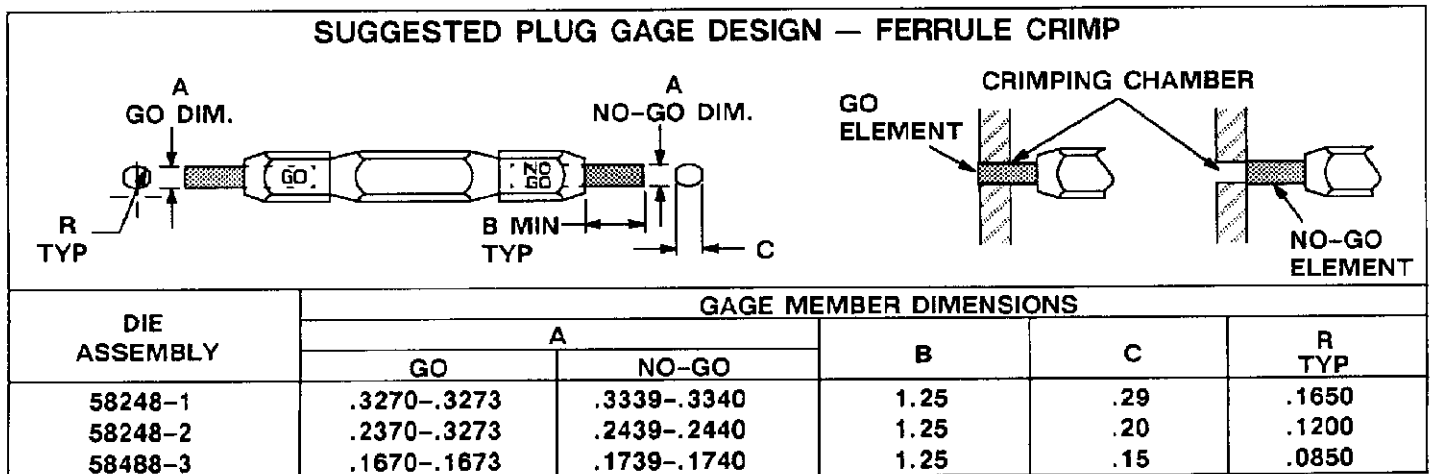


Fig. 8