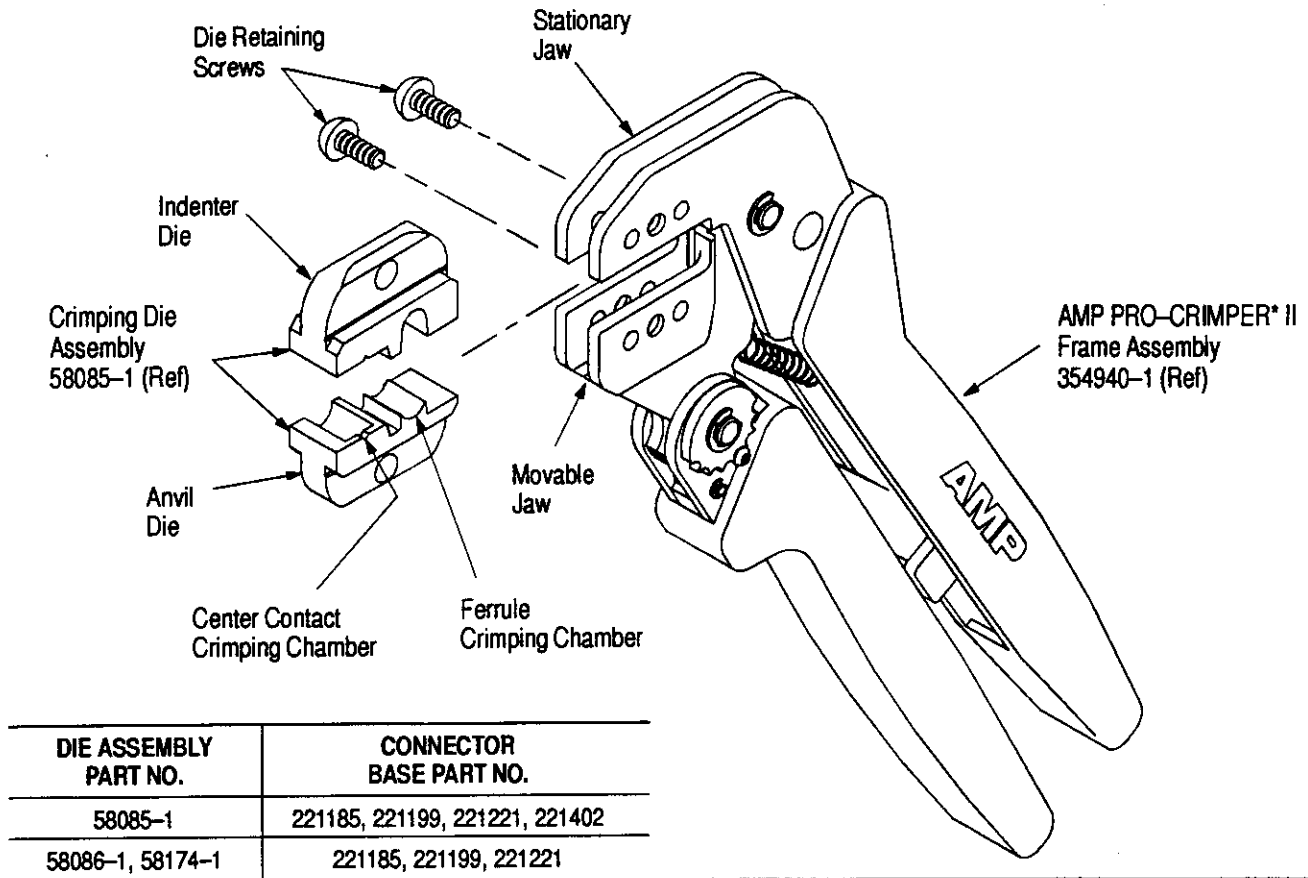


PROPER USE GUIDELINES

Cumulative Trauma Disorders can result from the prolonged use of manually powered hand tools. AMP hand tools are intended for occasional use and low volume applications. AMP offers a wide selection of powered application equipment for extended-use, production operations.



DIE ASSEMBLY PART NO.	CONNECTOR BASE PART NO.
58085-1	221185, 221199, 221221, 221402
58086-1, 58174-1	221185, 221199, 221221

Figure 1

1. INTRODUCTION

This instruction sheet covers the use and maintenance of AMP Crimping Die Assemblies 58085-1, 58086-1, and 58174-1, which are used to crimp AMP 75-Ohm RF Series BNC Dual Crimp Connectors. The die assemblies are designed to be used in AMP PRO-CRIMPER II Frame Assembly 354940-1.

Refer to Figure 1 for a list of connectors that are compatible with the die assemblies. For additional connector part number information, refer to AMP Catalog 82074. For instructions concerning the operation of the tool frame, refer to AMP Instruction Sheet 408-9930. Read these instructions thoroughly before using the die assemblies.

NOTE

All dimensions are in millimeters [with inch equivalents in brackets]. Figures are for identification only, and are not drawn to scale.

Reasons for reissue are provided in Section 8, REVISION SUMMARY.

2. DESCRIPTION (Figure 1)

Each die assembly consists of an indenter and an anvil, both of which contain two crimping chambers. The small crimping chamber produces a box crimp on the center contact of the connector, and the other crimping chamber crimps the connector ferrule. Each die is held in the tool frame by a single screw.

3. DIE INSTALLATION

- Slide the die assembly into the partially-opened tool jaws. The anvil die must be installed in the movable jaw of the tool and the indenter in the stationary jaw. The center contact crimping chamber *must* be toward the front of the tool as shown in Figure 1.
- Insert, but do not completely tighten, the die retaining screws.

3. Close the tool jaws and carefully align the dies so that the anvil die enters the indenter die. Once the anvil has entered the indenter, place a copper bus bar (1.57 ± 0.05 -mm [$.062 \pm .002$ -in.] diameter) into the center contact crimping chamber of the die assembly.

4. With bus bar in place, close the tool jaws completely. Hold the tool handles together and tighten the die retaining screws with the appropriate screwdriver.

4. CRIMPING PROCEDURE

NOTE

For detailed information on cable selection, cable strip lengths, and proper assembly of the connector, refer to the instructions provided with the connector.

Make sure the connector being used is compatible with the die assembly; then proceed as follows:

4.1. Center Contact (Figure 2)

1. Slide the ferrule onto the cable, then strip the cable to the proper dimensions.
2. Slide center contact onto center conductor of cable; then insert contact assembly into the center contact crimping chamber of the anvil die. See Figure 2.

NOTE

Make sure that the flange on the end of the center contact butts against the edge of the die. See Figure 2.

3. Crimp the center contact by holding the cable and contact in place and closing the tool handles until the ratchet releases.

4. Allow the handles to open fully, and remove the crimped center contact assembly from the crimping dies.

4.2. Ferrule (Figure 3)

1. Insert the crimped center contact into the connector body until the cable dielectric butts against the dielectric inside the connector body. The flared cable braid must fit around the support sleeve of the connector body.

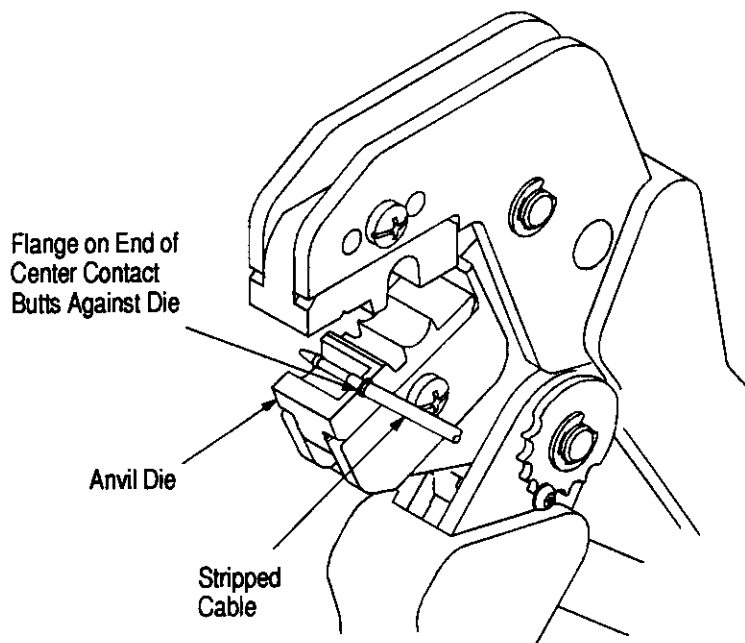
2. Slide the ferrule forward over the braid until the ferrule butts against the shoulder on the connector body.

3. Place the ferrule in the ferrule crimping chamber of the anvil die so that the shoulder on the connector body butts against the edge of the die. See Figure 3.

4. Holding the assembly in place, close the tool handles until the ratchet releases.

5. Allow the handles to open fully, and remove the crimped assembly from the crimping dies.

Crimping the Center Contact



Cross-Sectional View

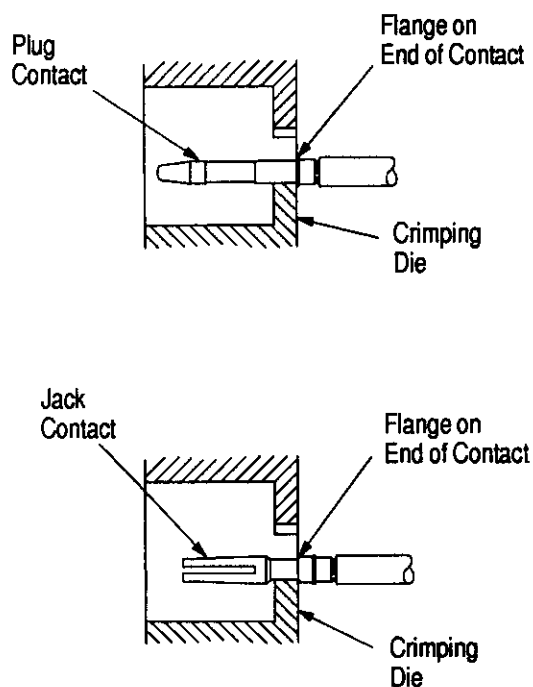


Figure 2

Crimping the Ferrule

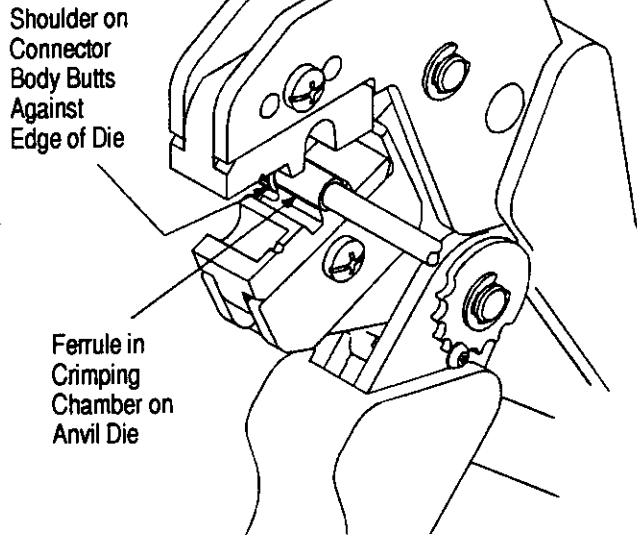


Figure 3

5. CRIMP HEIGHT ADJUSTMENT (Figure 4)

The tool frame assembly ratchet mechanism features an adjustment wheel with numbered settings. If the crimp height is not acceptable, adjust the ratchet as follows:

1. Remove the lock screw from the ratchet adjustment wheel.
2. With a screwdriver, adjust the ratchet wheel from the opposite side of the tool.
3. Observe the ratchet adjustment wheel. If a tighter crimp is required, rotate the adjustment wheel **COUNTERCLOCKWISE** to a higher-numbered setting. If a looser crimp is required, rotate the adjustment wheel **CLOCKWISE** to a lower-numbered setting.
4. Replace the lock screw.
5. Make a sample crimp and measure the crimp height. If the crimp height is acceptable, secure the lock screw. If the dimension is unacceptable, remove lock screw and continue to adjust the ratchet, and again measure a sample crimp.

6. MAINTENANCE AND INSPECTION

6.1. 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 dies.
2. Make sure the proper die retaining screws are in place and secured.

3. When the dies are not in use, mate and store them in a clean, dry area.
4. Store the tool with the tool handles closed to prevent objects from becoming lodged within the jaws.

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

A. 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 certain all die retaining screws, retaining rings, and die components are in place. If replacements are necessary, refer to Section 7, **REPLACEMENT**.
3. Check all bearing surfaces for wear. Remove and replace worn components.

B. Center Contact Crimp Height Inspection

This inspection requires the use of a micrometer with a modified anvil as shown in Figure 5. AMP recommends the modified micrometer (Crimp Height Comparator RS-1019-5LP), which can be purchased from:

Shearer Industrial Supply Co.
20 North Penn Street
York, PA 17401-1014

or
VALCO
1410 Stonewood Drive
Bethlehem, PA 18017-3527

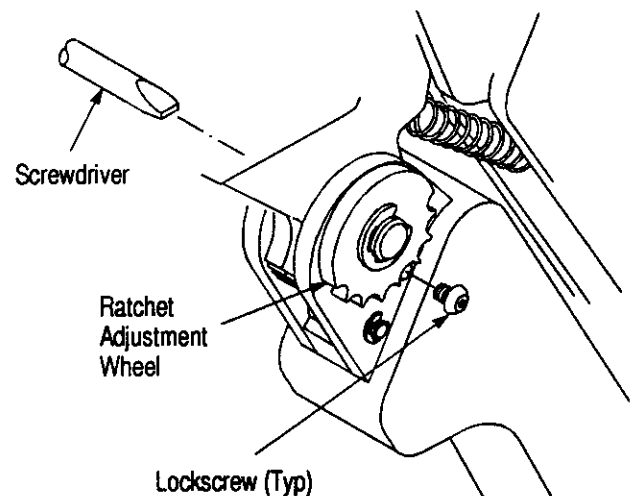
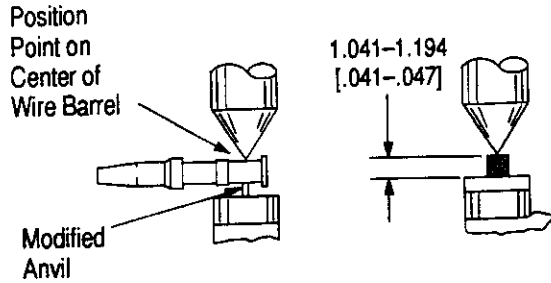
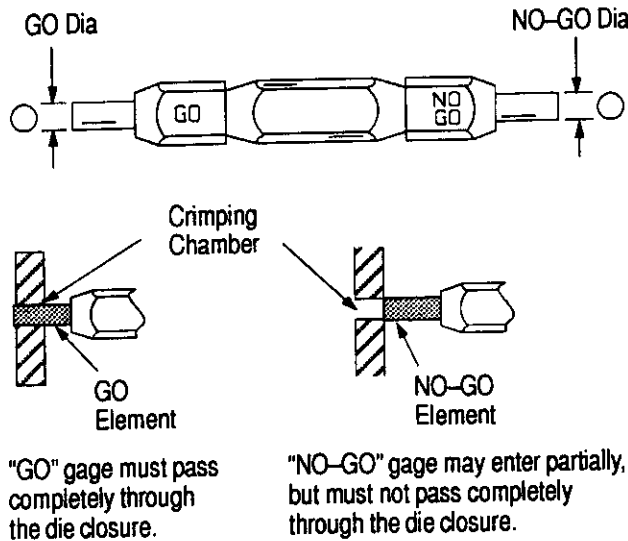


Figure 4

Measuring Center Contact Crimp



Suggested Plug Gage for Ferrule Crimping Chamber



"GO" gage must pass completely through the die closure.

"NO-GO" gage may enter partially, but must not pass completely through the die closure.

DIE ASSEMBLY PART NO.	GAGE ELEMENT DIAMETER	
	GO	NO-GO
58085-1	5.9690-5.9766 [.2350-.2353]	6.2205-6.2230 [.2449-.2450]
58086-1	6.6040-6.6802 [.2600-.2603]	6.8555-6.8580 [.2699-.2700]
58174-1	4.1910-4.1986 [.1650-.1653]	4.4425-4.4450 [.1749-.1750]

Figure 5

Proceed as follows to check the crimp height of the center contact:

1. Select a center contact for the connector being used.
2. Refer to Section 4, CRIMPING PROCEDURE, and crimp the center contact accordingly.
3. Using a crimp height comparator, measure the crimp height as shown in Figure 5. If the crimp height conforms to that shown, the die assembly is

considered dimensionally correct. If not, the dies must be replaced before returning them to service (refer to Section 7, REPLACEMENT).

C. Gaging the Ferrule Crimping Chamber

This inspection requires the use of a plug gage conforming to the diameters in Figure 5. AMP does not manufacture or market these gages.

To gage the ferrule crimping chamber, proceed as follows:

1. Close the jaws until the dies have bottomed, then HOLD the tool handles in this position. Do NOT force the dies beyond initial contact.
2. Align the GO element with the proper crimping chamber. Push the element straight into the crimping chamber without using force. The GO element must pass completely through the crimping chamber.
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.

If the crimping chamber conforms to the gage inspection, the dies are considered dimensionally correct, and should be lubricated with a THIN coat of any good SAE 20 motor oil. If not, the dies must be replaced (refer to Section 7, REPLACEMENT).

For additional information regarding the use of a plug gage, refer to 408-7424.

7. REPLACEMENT

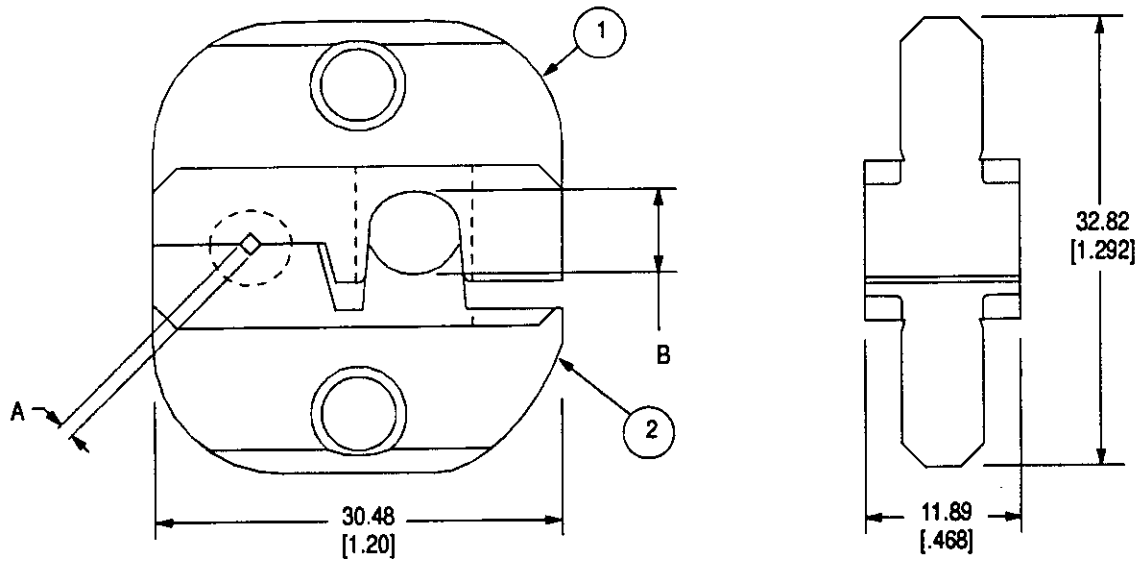
Parts listed in Figure 6 are customer-replaceable. A complete inventory can be stocked and controlled to prevent lost time when replacement of parts is necessary. Order replacements through your local AMP representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 1-717-986-7605, or write to:

CUSTOMER SERVICE (38-35)
AMP INCORPORATED
P.O. BOX 3608
HARRISBURG, PA 17105-3608

8. REVISION SUMMARY

Revisions to this document include:

- Per EC 0150-3358-95:
- Corrected instruction sheet reference in Section 1
 - Corrected die assembly part number and dimensions in Figure 6



WEIGHT: 85 g [3 oz]

DIE ASSEMBLY PART NO.	DIE OPENING DIMENSIONS		CUSTOMER-REPLACEABLE PARTS		
	CENTER CONTACT "A" ± 0.05 [$\pm .002$]	FERRULE "B" ± 0.10 [$\pm .004$]	INDENTER (Item 1)	ANVIL (Item 2)	QTY PER ASSEMBLY
58085-1	1.12 [.044]	6.10 [.240]	313134-1	313135-1	1
58086-1	1.12 [.044]	6.73 [.265]	313134-2	313135-2	1
58174-1	1.12 [.044]	4.32 [.170]	313134-3	313135-3	1

Figure 6