

## AMP

#### 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.

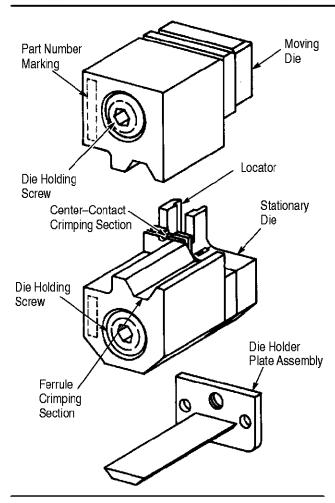


Figure 1

#### 1. INTRODUCTION

This instruction sheet covers the use and maintenance of AMP\* Crimping Die Assembly 58158–1, which is used in AMP Pneumatic Tool 69365–3 to crimp the AMP Miniature UHF Series Plug and Jack connectors listed in Figure 2.

AMP Pneumatic Tool 69365–3, is a semi–automatic tool which is bench–mounted and foot switch actuated. Refer to the AMP Customer Manual 409–1983, packaged with the tool, for application and operating procedures.



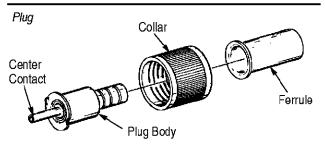
All dimensions on this document are in metric units [with U.S. customary units in brackets].

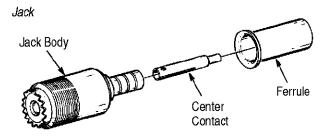
Reasons for reissue of this instruction sheet are provided in Section 7, REVISION SUMMARY.

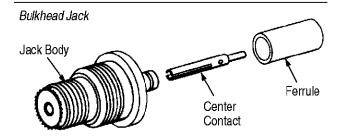
## 2. **DESCRIPTION** (Figure 1)

The die assembly, designed to terminate connectors on RG–58 cable, consists of a stationary die with locator, a moving die, and a die holder plate assembly which is used with the die assembly in place of the die holder packaged with the pneumatic tool. See Figure 1.

When closed, the dies form two crimping sections. The small crimping section is used to crimp the center contact onto the cable's center conductor, and the large crimping section is used to crimp the ferrule to the cable. The locator aids in positioning the cable and center contact in the proper position for crimping.







RG/U CABLE	CONNECTOR		
HG/U CABLE	TYPE	PART NUMBER	
58, 58A, 58B, 58C	Plug	226600-1	
	Jack	226602-1	
	Bulkhead Jack	228903-3	

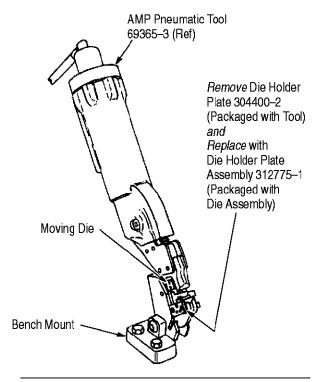
Figure 2

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\*Trademark This controlled document is subject to change. For latest revision call the AMP FAX\* number.

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LOC B





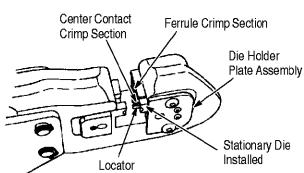


Figure 3

## 3. DIE INSTALLATION

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

- 1. Ensure that air supply is OFF and that moving die holder is retracted.
- 2. Remove Die Holder Plate 304400–2 (packaged with tool) from tool head by removing two button head cap screws. Retain die holder plate for use with other dies.
- 3. Replace Die Holder Plate 304400–2 with Die Holder Plate Assembly 312775–1, packaged with die assembly. Replace and tighten screws.
- 4. Install stationary die and moving die according to procedures given in Customer Manual 409–1983.

# 4. CONNECTOR ASSEMBLY AND CRIMPING PROCEDURE

NOTE

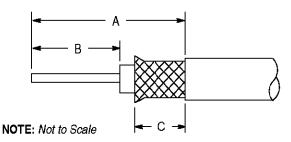
Refer to instruction sheet packaged with connector for specific assembly information.

#### 4.1. Jack Connectors 226602-1 and 228903-3

- 1. Install die assembly in pneumatic tool. Refer to Section 3, DIE INSTALLATION.
- 2. Slip ferrule over cable and strip cable to dimensions shown in Figure 4.
- 3. Insert center conductor of cable into center contact of connector until the cable dielectric butts against the contact.
- 4. Open dies in pneumatic tool and locate the center contact in the small crimping section of the stationary die so that the center contact rests in the die and the bushing is butted against the center contact. See Figure 5, Detail A.

DANGER

Keep hands clear of dies during crimping.



CONNECTOR	STRIP LENGTH				
CONNECTOR	Α	В	С		
226600-1	23.9 [.94]	15.0 [.59]	7.6 [.30]		
226602-1	13.5 [.53]	4.8 [.19]	8.6 [.34]		
228903-3	11.4 [.45]	4.8 [.19]	6.9 [.27]		

Figure 4

- 5. Hold contact in place (by holding cable) and activate pneumatic tool to crimp center contact.
- 6. Open dies and remove crimped contact.
- 7. Insert the crimped center contact into the connector body until the dielectric of the cable butts against the dielectric inside the connector body. The braid fits over the support sleeve of the connector body.
- 8. Slip ferrule over braid, butting ferrule against jack body.
- 9. Place ferrule in large crimping section of stationary die as shown in Figure 6, Detail A.

DANGER

Keep hands clear of dies during crimping.

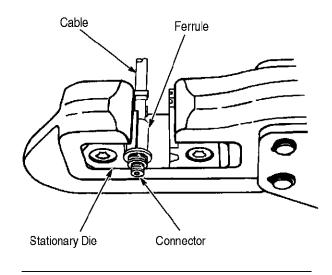
10. Activate pneumatic tool to crimp ferrule. Open tool and remove crimped ferrule and cable.

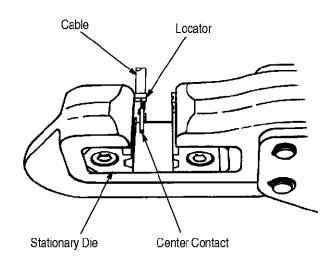
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#### 4.2. Plug Connector 226600-1

- 1. Install die assembly in pneumatic tool. Refer to Section 3, DIE INSTALLATION.
- 2. Slip ferrule over cable, followed by the collar, and then strip cable to dimensions shown in Figure 4.
- 3. Insert center conductor of stripped cable into plug body until conductor is exposed (front end) and cable dielectric butts against dielectric inside plug body. The braid fits over the support sleeve of the plug body.
- 4. Open dies in pneumatic tool, and locate the connector body in the small crimping section of the stationary die so that the center contact rests in the die and the connector flange is butted against the locator as shown in Figure 5, Detail B.





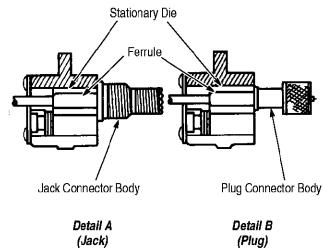


Figure 6

## DANGER

Keep hands clear of dies during crimping.

- 5. Hold connector in place (by holding cable) and activate pneumatic tool to crimp center contact.
- 6. Open dies and remove crimped connector.
- 7. Push collar forward onto plug assembly. Fit cable braid over support sleeve of connector.
- 8. Push ferrule over braid until ferrule butts against connector body.
- 9. Place ferrule in large crimping section of stationary die as shown in Figure 6, Detail B.

DANGER

Keep hands clear of dies during crimping.

10. Activate pneumatic tool to crimp ferrule. Open tool and remove crimped ferrule and cable.

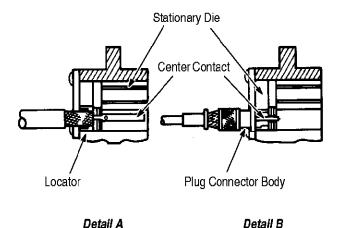


Figure 5

(Plug)

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(Jack)



#### 5. MAINTENANCE AND INSPECTION

AMP recommends that a maintenance and inspection program be performed periodically to ensure dependable and uniform terminations. Though recommendations call for at least one inspection a month, frequency of inspection depends on:

- 1. The care, amount of use, and handling of the dies.
- 2. The presence of abnormal amounts of dust and dirt.
- 3. The degree of operator skill.
- Your own established standards.

The dies are inspected before being shipped; however, AMP recommends that the dies be inspected immediately upon arrival to ensure that they have not been damaged during shipment.

## 5.1. Daily Maintenance

- 1. Remove dust, moisture, and other contaminants with a clean, soft brush, or a clean, soft, lint-free cloth. Do NOT use any objects that could damage the dies.
- 2. Make certain the dies are protected with a thin coat of any good SAE 20 motor oil. Do not oil excessively.
- 3. When the dies are not in use, mate them and store them in a clean, dry area.

#### 5.2. Periodic Inspection

#### A. Visual Inspection

- 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 components are in place. Refer to the parts listed in Figure 9 if replacements are necessary.
- 3. Check all bearing surfaces for wear. Remove and replace worn components.
- 4. Inspect the crimping sections for flattened, chipped, cracked, worn, or broken areas. If damage is evident, the dies must be repaired before returning them to service. See Section 6, REPLACEMENT AND REPAIR.

### B. Gaging the Crimping Chambers

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.

- 1. Mate the dies until it is evident that they have bottomed. Hold the dies in this position with a pressure of 69 kPa [10 psi].
- 2. Align the GO element with proper crimping chamber. Push element straight into the crimping chamber. The GO element must pass completely through the crimping chamber as shown in Figures 7 and 8.

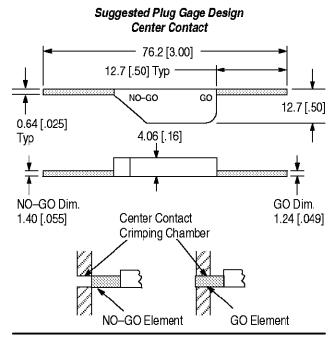
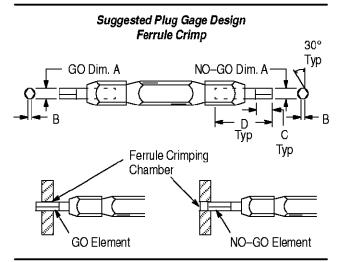


Figure 7



GAGE ELEMENT DIMENSIONS							
A		В	•				
GO	NO-GO	В	С	D			
4.902–4.910 [.1930–.1933]	5.052–5.055 [.1989–.1990]	3.05 [.120]	12.7 [.500]	31.75 [1.25]			

Figure 8

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- 3. Now 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 Figure 7 and 8.
- 4. Repeat the test using the plug gage for the other crimping chamber.

If the crimping chambers conform to the gage inspection, the dies are considered dimensionally correct and should be lubricated with a thin coat of SAE 20 motor oil. If not, refer to Section 6, REPLACEMENT AND REPAIR for customer repair service.

For additional information concerning the use of a plug gage, refer to AMP instruction sheet 408–7424.

#### 6. REPLACEMENT AND REPAIR

Replacement parts are listed in Figure 9. A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is necessary.

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

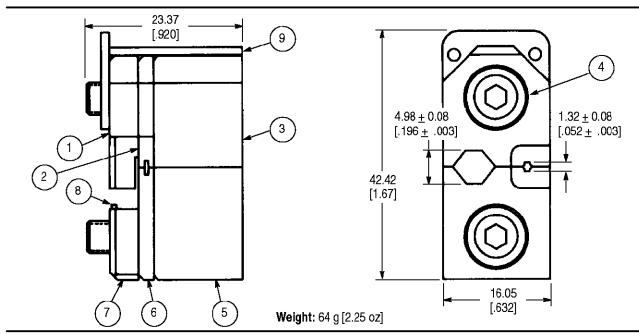
For die repair service, please contact an AMP representative at 1–800–526–5136.

#### 7. REVISION SUMMARY

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

Per EC 0990-1266-99

- Updated document to corporate requirements
- Changed document title
- Changed die repair service information in Section 6, REPLACEMENT AND REPAIR



## REPLACEMENT PARTS

REPLACEMENT PARTS						
ITEM	PART NUMBER	DESCRIPTION	QTY PER ASSY			
1	312800–1	LOCATOR	1			
2	312798–1	INSERT, Upper Ctr Cont	1			
3	312794–1	INSERT, Upper Braid	1			
4	4–306131–3	SCREW, Special	2			
5	312796–1	INSERT, Lower Braid	1			
6	312799–1	INSERT, Lower Ctr Cont	1			
7	3–59675–2	SPACER	1			
8	1–21046–3	RING, Retaining	2			
9	312775-1	DIE HOLDER PLATE ASSY	1 1			

Figure 9

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