

**PROPER USE GUIDELINES**

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

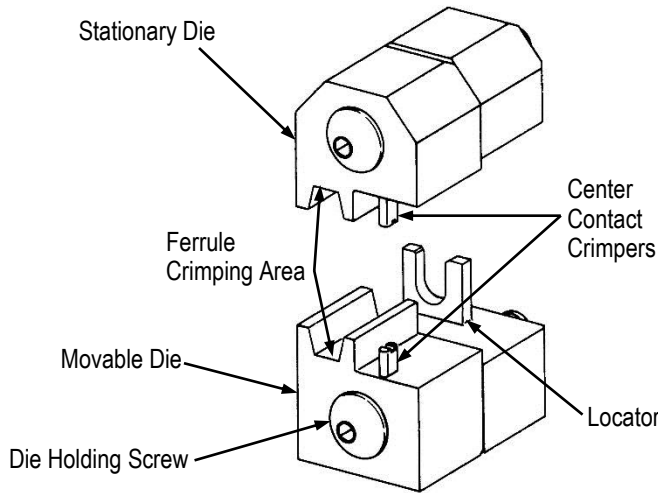


Figure 1

**1. INTRODUCTION**

This instruction sheet covers the use of Crimping Die Assembly 58212-1 which is used to crimp Size 8 straight pin and socket coaxial contacts.

The die assembly is used in Hand Crimping Tool 69710-1. Refer to Instruction Sheet 408-2095 packaged with the hand tool for information concerning die installation and general performance of the tool.

Read these instructions carefully before using the dies.



**NOTE**

All dimensions on this sheet are in metric units [with U.S. customary units in brackets.] Figures and illustrations are for reference only and are not drawn to scale.

Reasons for reissue of this document are provided in Section 6, REVISION SUMMARY.

**2. DESCRIPTION** (Figure 1)

The die assembly consists of a stationary die, a movable die, and a locator. The die assembly features two crimping areas. One to crimp the center contact and one to crimp the ferrule.

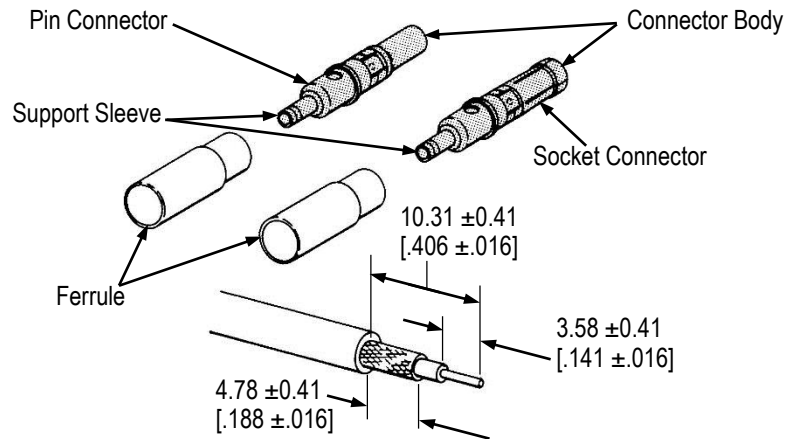
**3. CRIMPING PROCEDURE**

Refer to the table in Figure 2 and select the appropriate cable and connector. Strip the cable to the length indicated in Figure 2.

Refer to Figure 3 and proceed as follows:

**3.1. Center Contact**

1. Slide the ferrule over the cable.
2. Flare the braided cable so that it will slide easily onto the back of the pin or socket contact body.
3. Insert center conductor into the contact, making sure conductor is FULLY seated in the contact.



**Cable Strip Lengths**

CABLE (RG/U)	CONNECTOR		HAND TOOL
	PIN	SOCKET	
142, 142A, 142B	228618-4	228596-4	69710-1
	221980-2●	221981-2●	

●50-Ohm Connector

Figure 2

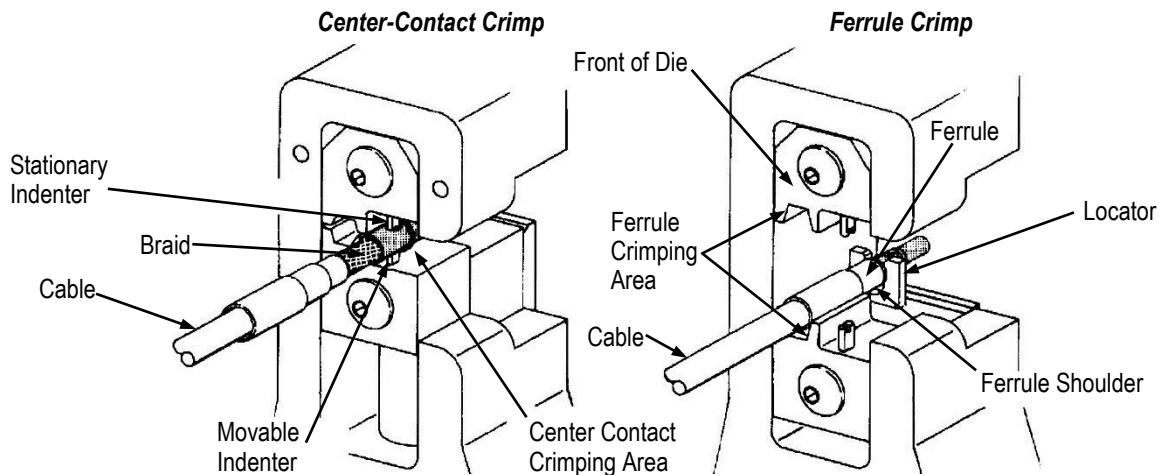


Figure 3

4. Insert contact and cable into the dies so that stationary die indenter (crimper) starts entering the crimping port of the contact. Visually align the other contact port hole over the movable die indenter (crimper).

**i** **NOTE**  
Squeeze handles slowly until movable die indenter (crimper) enters crimping port.

5. Holding cable in place, actuate tool through a complete cycle.
6. Remove the crimped center contact from the tool.

**3.2. Ferrule**

1. Slide the ferrule over the two port holes of the contact until ferrule bottoms on connector body.
2. Insert the connector body into the front of the die assembly and into the locator, making sure locator enters area between shoulder and spring of connector body. See Figure 3.

3. Holding the connector body and ferrule in place, actuate the tool through a complete cycle.

**NOTE**

Apply sufficient pressure on cable so shoulder on the connector body maintains contact against locator as shown in Figure 3.

4. Remove the crimped connector from the tool.

## 4. MAINTENANCE AND INSPECTION PROCEDURE

### 4.1. Daily Maintenance

TE Connectivity recommends that each operator of the dies be made aware of, and responsible for, the following steps of 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 holding screws are in place and secured with the proper retaining rings. Check die alignment and tighten die holding screws at least twice daily.
3. Make certain all surfaces are protected with a THIN coat of any good SAE 20 motor oil. Do not oil excessively.
4. When the dies are not in use, mate and store them in a clean, dry area.

### 4.2. 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 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:

#### A. Visual Inspection

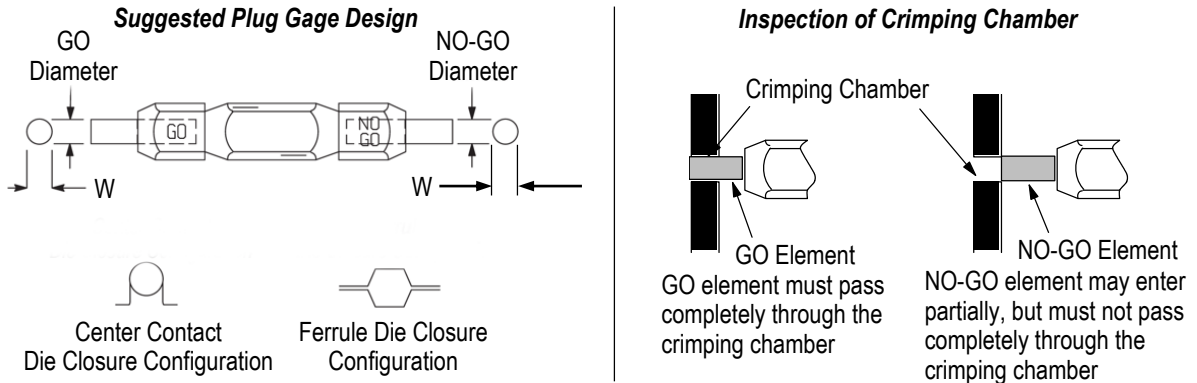
1. Remove all lubrication and accumulated film by immersing the dies in a suitable commercial degreaser that will not affect paint or plastic material.
2. Make sure all die holding screws, retaining rings, and die components are in place. Refer to the parts listed in Figure 5 if replacements are necessary.
3. Check all bearing surfaces for wear. Remove and replace worn components.
4. Inspect the crimp area for flattened, chipped, cracked, worn, or broken areas. If damage is evident, the dies must be repaired before returning them to service. See Section 5, REPLACEMENT AND

#### B. Gaging the Crimping Chamber

This inspection requires the use of a plug gage conforming to the dimensions provided in Figure 4. TE does not manufacture or market these gages. Refer to Instruction Sheet [408-7424](#) for more information on plug gages. 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 69 kPa [10 psi].
2. Align the GO element with the appropriate crimping area. Push element straight into the crimping area without using force. The GO element must pass completely through the crimping area as shown in Figure 4.
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 4.
4. Repeat Steps 2 and 3 for each crimp section listed in Figure 4.

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 repaired before returning them to service. See Section 5, REPLACEMENT AND REPAIR.



CONNECTOR	CRIMPING CHAMBER	GAGE ELEMENT DIAMETER		
		GO	NO-GO	"W" WIDTH (MAX)
221980-2	Center Contact	0.940-0.947 [.0370-.0373]	1.013-1.016 [.0399-.0400]	---
221981-2				
228596-4	Ferrule	5.359-5.367 [.2110-.2113]	5.484-5.486 [.2159-.2160]	2.54 [.100]
228618-4				

Figure 4

**5. REPLACEMENT AND REPAIR**

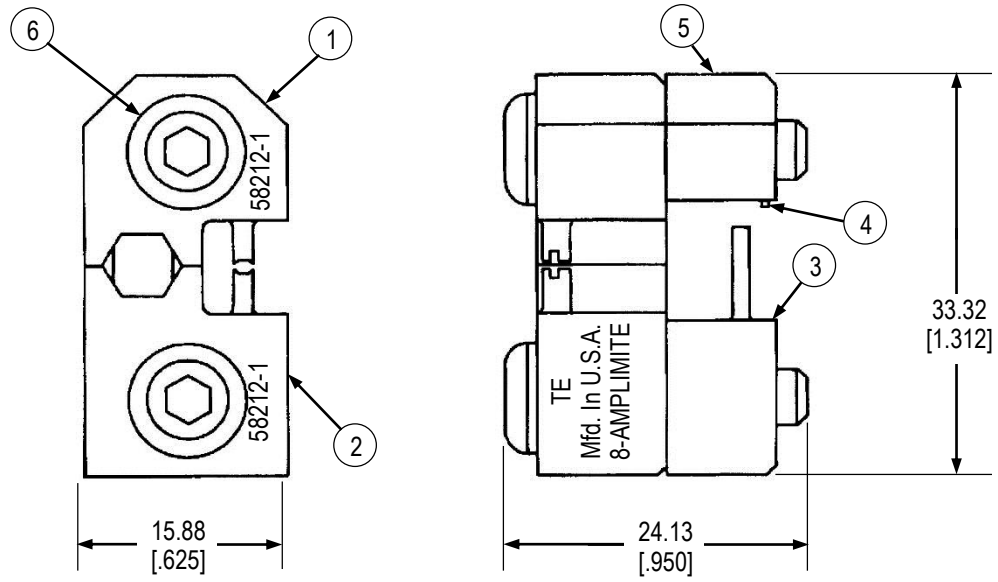
Replacement parts are listed in Figure 5. A complete inventory can be stocked and controlled to prevent lost time when replacement of parts is necessary. Order replacement parts through your TE Representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 1-717-986-7605, or write to:

CUSTOMER SERVICE (038-035)  
 TYCO ELECTRONICS CORPORATION  
 PO BOX 3608  
 HARRISBURG PA 17105-3608

For repair service, please contact a TE Representative at 1-800-526-5136.

**6. REVISION SUMMARY**

- Updated document to corporate requirements
- Changed artwork in Figure 4
- Changed information in table in Figure 4.



**REPLACEMENT PARTS**

ITEM	PART NUMBER	DESCRIPTION	QTY PER DIE ASSY
1	313053-1	CRIMPER, Stationary	1
2	313054-1	CRIMPER, Movable	1
3	313055-1	LOCATOR	1
4	1-21046-3	RING, Retaining	2
5	2-59674-7	SPACER, Upper	1
6	306105-7	SCREW	2

Figure 5