

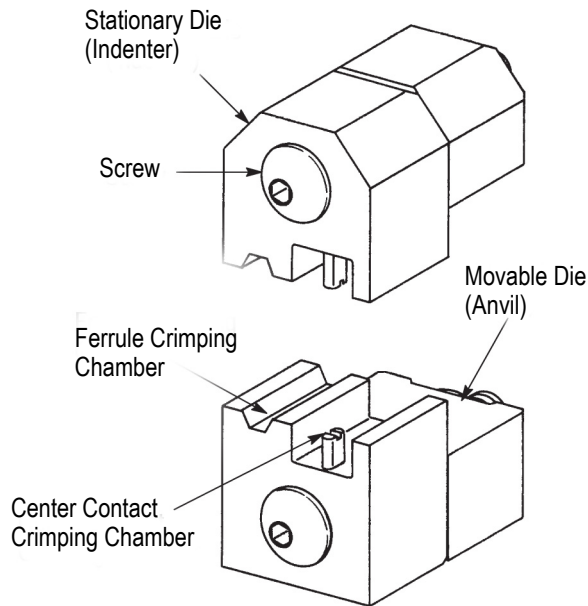
**Crimping Die Assembly 59993-1**


Figure 1

**1. INTRODUCTION**

Tyco Electronics Crimping Die Assembly 59993-1 is used to crimp Size 8 coaxial RF 50-ohm and non-impedance matched straight pin and socket contacts onto various types and sizes of coaxial cable.

The die assembly is used with Hand Crimping Tool 69710-1 or 69710-2, or 626 Pneumatic Tooling Assembly 189721-2 or 189722-2 fitted with "C"-HEAD Pneumatic Adapter 318161-1. The die assembly can also be used with Pneumatic Tool 69365-8.

For cable-to-contact selection, refer to Catalog 82074. Refer to 408-2095 for instructions concerning operation of the hand tool and 409-5862 for 626 pneumatic tooling assembly.



*Dimensions in this instruction sheet are in millimeters [with inches in brackets]. Figures are not drawn to scale.*

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

**2. DESCRIPTION** (Figure 1)

The die assembly consists of an indenter (stationary die) and anvil (movable die), both of which contain two crimping chambers. The small crimping chamber crimps the center contact, and the large crimping chamber crimps the ferrule. Each die is held in the tooling by a single screw.

**3. CRIMPING PROCEDURE**

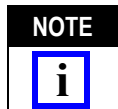
Install dies according to the instructions packaged with the tooling. Then proceed as follows:



*The tools are designed to accept interchangeable crimping dies and are used to crimp a variety of product. Make certain that the selected contact and cable are compatible with the die assembly.*

**3.1. Center Contact**

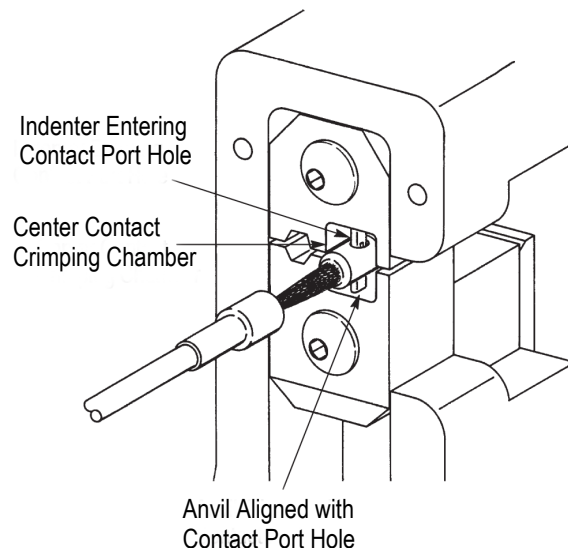
1. Prepare and assemble the center contact according to 408-6755.
2. Position contact assembly in the center contact crimping chamber so that the indenter aligns with the port hole of the contact. See Figure 2.
3. Close dies (according to the instructions packaged with the tool) onto contact until the indenter starts to enter the contact port hole. Align the other port hole over the anvil.



*When using Pneumatic Tool 69365-8, pull the handle (located on take-up attachment) forward to close dies on contact.*

4. Holding cable and contact in position, actuate tool through a complete cycle to crimp the contact.
5. Remove contact assembly from tool.

Figure 2



**3.2. Ferrule**

1. Slide the ferrule over the cable braid and contact support sleeve until the ferrule bottoms against the contact body.
2. Insert contact body through the ferrule crimping chamber from the FRONT of the tool. Make sure that the shoulder on the ferrule is against the edge of the ferrule crimping chamber. See Figure 3.

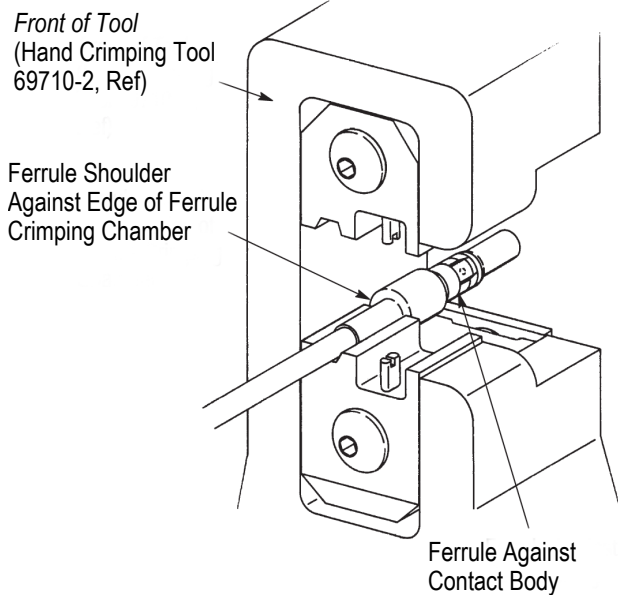


Figure 3

3. Holding the contact body and ferrule in place, actuate tool through a complete cycle to crimp the ferrule.
4. Removed contact assembly from tool.

**4. MAINTENANCE AND INSPECTION**

The die assembly is inspected before shipment. Tyco Electronics recommends that the die assembly be inspected immediately upon arrival at your facility to ensure that the die assembly was not damaged during shipment and that it conforms to the dimensions provided in Figure 4.

**4.1. Daily Maintenance**

Tyco Electronics recommends that each operator of the dies be made aware of—and responsible for—the following four 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 screws are in place and secured.

3. Make certain all surfaces are protected with a THIN coat of any good SAE 20 motor oil. Do NOT oil excessively.

When the dies are not in use, store them in a clean, dry area.

**4.2. 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 screws, retaining rings, and die components are in place. If replacements are necessary, refer to parts listed in Figure 5.
3. Check all bearing surfaces for wear. Remove and replace worn components.

**4.3. Gaging the Crimping Chamber**

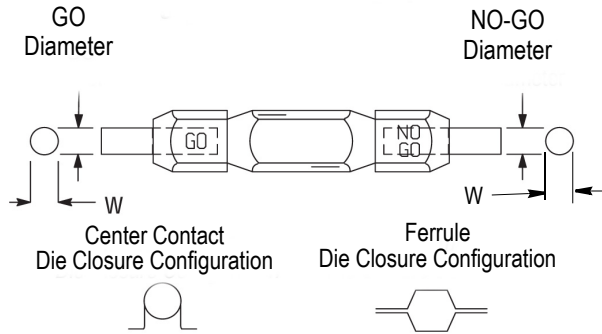
This inspection requires the use of plug gages conforming to the dimensions provided in Figure 4.

Tyco Electronics does not manufacture or market these gages. To gage the crimping chamber, proceed as follows:

1. Remove traces of oil or dirt from the crimping chamber and plug gage.
2. Mate the dies until the crimping surfaces have bottomed; then hold in this position. Do NOT force beyond initial contact.
3. Insert GO element into the crimping chamber; but do not force it. The GO element must pass completely through the crimping chamber. See Figure 4.
4. In the same manner, try to insert the NO-GO element into the crimping chamber. The NO-GO element may enter partially, but must not pass completely through the length of the crimping chamber. See Figure 4.

If the crimping chambers conform to the gage inspection, the dies may be considered dimensionally correct and should be lubricated with a THIN coat of any good SAE 20 motor oil. If the crimping chamber does NOT conform to the gage inspection, refer to Section 5 for information on obtaining evaluation and repair.

**Suggested Plug Gage Design**



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

For customer repair service, please contact an Tyco Electronics representative at 1-800-526-5136.

**6. REVISION SUMMARY**

Since the previous release of this instruction sheet, the following revisions have been made:

- TE logo was applied;
- Figure 4 was updated; and
- Document format was updated to the current corporate requirements.

Crimping Chamber	Gage Element Diameter		
	GO	NO-GO	"W" Width (Max)
Center Contact	0.940-0.947 [.0370-.0373]	1.013-1.016 [.0399-.0400]	--
Ferrule	3.200-3.208 [.1260-.1263]	3.325-3.327 [.1309-.1310]	1.52 [.060]

**Inspection of Crimping Chamber**

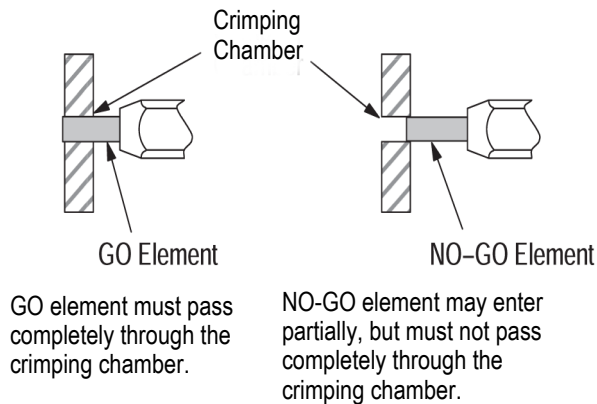


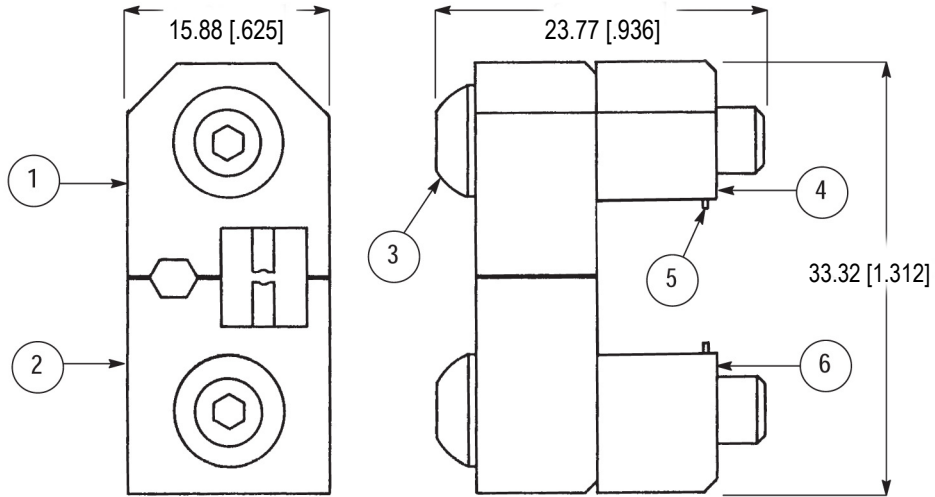
Figure 4

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

**5. REPLACEMENT AND REPAIR**

Customer-replaceable parts are listed in Figure 5.

A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is necessary. Parts other than those listed should be replaced by Tyco Electronics to ensure quality and reliability. Order replacement parts through your Tyco Electronics representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 717-986-7605, or write to:



Weight: 850 kg [3 oz] (Approx)

**Replacement Parts**

Item	Part Number	Description	Qty Per Assembly
1	312789-1	DIE, Stationary (Indenter)	1
2	312790-1	DIE, Movable (Anvil)	1
3	3-306131-4	SCREW	2
4	2-59674-6	SPACER, Upper	1
5	1-21046-3	RING, Retaining	2
6	3-59675-1	SPACER, Lower	1

Figure 5