

APPLICATOR		POWER UNIT	
Part Number	Document	Part Number	Document
567200-2 or -3	408-8082	AMP-O-LECTRIC* Model "G" Terminating Machine 354500-1	409-5842
		Entry Level Terminator (ELT) Machine 1338600-[ ]	409-10016
687658-1	408-8044	AMP-O-LECTRIC Model "G" Terminating Machines 356500-[ ]	409-5842
—	—	AMP-TAPETRONIC* Machine 69875	409-1993

Figure 1

## 1. INTRODUCTION

Die Assembly 90566-1 is used with the applicators and power units listed in Figure 1 to crimp tape-mounted SOLISTRAND ring tongue terminals (reference part number 1-321828-0) onto stranded or solid wire sizes 14 through 12 AWG.

Read these instructions and all referenced documents before using the die assembly.

**NOTE** Dimensions in this instruction sheet are in millimeters [with inches in brackets]. Figures and illustrations are for reference only and are not drawn to scale.

Reason for revision is given in Section 6, REVISION SUMMARY.

## 2. DESCRIPTION

The die assembly consists of an indenter die and nest die. Each die is held in the tool by a single screw. See Figure 1. When mated, the dies form one crimping chamber.

## 3. USING THE DIE ASSEMBLY

1. Make sure that the wire size being used matches the wire size range stamped on the terminal.
2. Strip the wire within the dimension given in Figure 2.

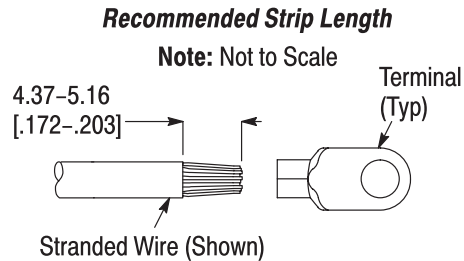


Figure 2

3. Install the die assembly into the applicator or machine according to the applicable document listed in Figure 1.
4. Crimp the terminal according to the document included with the machine (listed in Figure 1).
5. Inspect the crimped terminal. Use only the terminals that meet the conditions shown Figure 3.

Wire is Fully Inserted  
and Insulation Does  
Not Enter Wire Barrel

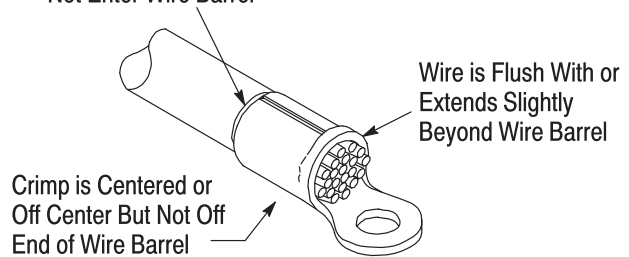


Figure 3

## 4. MAINTENANCE AND INSPECTION

A maintenance and inspection program should be performed periodically to ensure dependable and uniform terminations. Frequency of inspection depends on:

1. the presence of abnormal amounts of dust and dirt,
2. the degree of operator skill,
3. and your own established standards.

The die assembly is inspected before being shipped; however, it is recommended that the die assembly be

inspected immediately upon arrival at your facility to ensure that no damage occurred during shipment.

**4.1. 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. When the dies are not in use, mate them, and store in a clean, dry area.

**4.2. Periodic Inspection**

1. Remove accumulated dirt, grease, and foreign matter by immersing the dies in a suitable commercial degreaser.
2. Inspect crimping area for worn, cracked, or broken surfaces. If damage is evident, return the dies to Tyco Electronics for evaluation and repair. Refer to Section 5, REPLACEMENT AND REPAIR.

**4.3. Gaging the Crimping Chamber**

This inspection requires the use of a plug gage conforming to the dimensions shown in Figure 4.

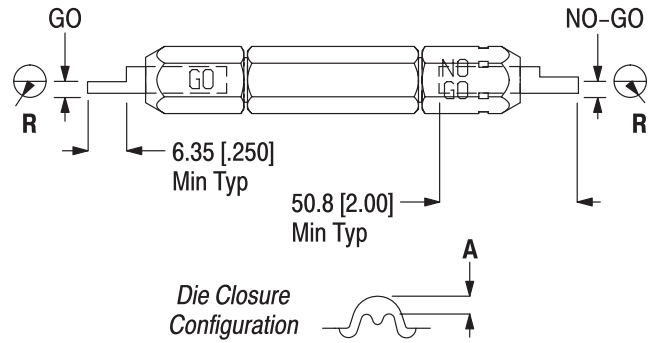
To gage the crimping chamber, refer to Figure 4, and proceed as follows:

1. Remove traces of oil or dirt from the crimping chamber and plug gage.
2. Mate the dies but do not apply pressure.
3. Align the GO element with the crimping chamber. Push the element straight into the crimping chamber without using force. The GO element must pass completely through the crimping chamber.
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.

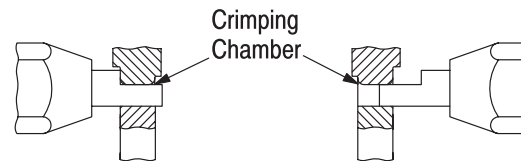
If the dies conform to the gage inspection, they are considered dimensionally correct. If not, the dies must be returned to Tyco Electronics for further evaluation and repair. Refer to Section 5, REPLACEMENT AND REPAIR.

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

**Suggested Plug Gage Design**



**Gaging the Crimping Chamber**



“GO” Element Must Pass Completely Through the Crimping Chamber

“NO-GO” Element May Enter Partially, But Must Not Pass Completely Through the Crimping Chamber

GAGE ELEMENT DIMENSION		PLUG GAGE DIMENSION	
GO	NO-GO	R (Radius)	A (Die Closure)
4.699-4.706 [.1850-.1853]	4.899-4.902 [.1929-.1930]	5.54 [.218]	1.83+0.05/-0.08 [.072+.002/-0.003]

Figure 4

**5. REPLACEMENT AND REPAIR**

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

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

For customer repair service, call 1-800-526-5136.

**6. REVISION SUMMARY**

- Updated document to corporate requirements
- Changed artwork in Figure 3