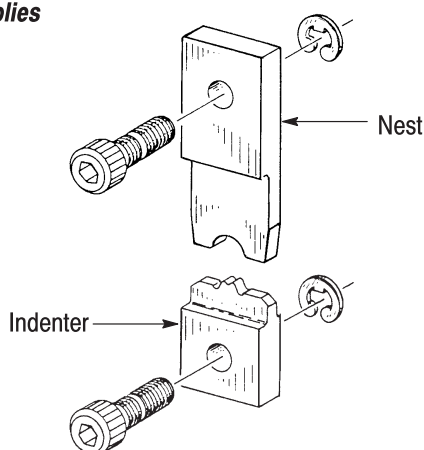
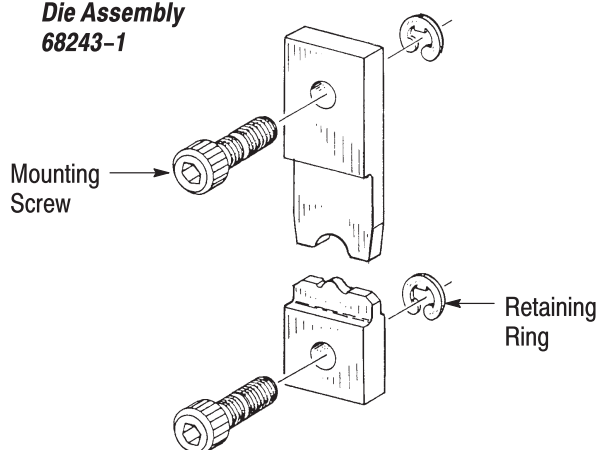


**Die Assemblies**  
 68240-1  
 68241-1  
 68242-1  
 68242-2  
 1338273-1



**Die Assembly**  
 68243-1



| DIE ASSEMBLY | POWER UNIT*                                  |                                                                             |                                                                               |                                                                               |                            |                       |
|--------------|----------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------------------|-----------------------|
|              | Model "T"<br>Terminating Machine<br>458000-4 | AMP-O-ELECTRIC*<br>Model "G"<br>Terminating Unit<br>354501-[]<br>(409-5853) | AMP-O-ELECTRIC<br>Model "G"<br>Terminating Machine<br>354500-[]<br>(409-5842) | AMP-O-ELECTRIC<br>Model "K"<br>Terminating Machine<br>565435-5●<br>(409-5128) | AMP-TAPETRONIC*<br>Machine |                       |
|              |                                              |                                                                             |                                                                               |                                                                               | 69875<br>(409-1993)        | 68250-1<br>(409-2586) |
|              | APPLICATOR                                   |                                                                             |                                                                               |                                                                               |                            |                       |
|              | 687658-1                                     | 567200-3                                                                    | 567200-3                                                                      | 567200-2                                                                      | ---                        | ---                   |
| 68240-1      | ×                                            | ×                                                                           | ×                                                                             | ×                                                                             | ×                          | ---                   |
| 68241-1      | ×                                            | ×                                                                           | ×                                                                             | ×                                                                             | ×                          | ---                   |
| 68242-1      | ×                                            | ×                                                                           | ×                                                                             | ×                                                                             | ×                          | ---                   |
| 68242-2      | ---                                          | ---                                                                         | ---                                                                           | ---                                                                           | ---                        | ×                     |
| 68243-1      | ×                                            | ×                                                                           | ×                                                                             | ×                                                                             | ×                          | ---                   |
| 1338273-1    | ×                                            | ×                                                                           | ×                                                                             | ×                                                                             | ×                          | ---                   |

■ Customer manual shown in parenthesis. Contact Tooling Assistance Center at the number at the bottom of this page for more information.

● Model "K" Terminating Machine 565435-5 has been superseded by Model "G" Terminating Machine 354500-1 for new applications. For existing applications, the Model "K" can still be used.

Figure 1

## 1. INTRODUCTION

Crimping Die Assemblies listed in Figure 1 are designed for use in the terminal applicators contained in the power units listed. Each die assembly, when installed in the terminal applicator, crimps SOLISTRAND terminals onto the appropriate wire size listed in Figure 2.

These instructions provide specific information regarding the die assemblies and applicable terminals. For information regarding operation of the power unit, refer to the applicable customer manual.

Read these instructions and any referenced instructions thoroughly before using the dies.

### 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.

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

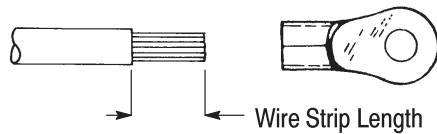
## 2. DESCRIPTION

Each die assembly features a nest die and indenter die with mounting screws and retaining rings for securing the dies to the applicator.

### NOTE



The dies are coated with a preservative to prevent rust and corrosion. Before use, wipe the preservative from the dies, particularly from the crimping surfaces.



**Note:** For terminal selection information, refer to Catalog 82042.

| DIE ASSEMBLY | WIRE             |                          |
|--------------|------------------|--------------------------|
|              | SIZE RANGE (AWG) | STRIP LENGTH             |
| 68240-1      | 22-16            | 4.37-5.16<br>[.172-.203] |
| 68241-1      | 16-14            |                          |
| 68242-1      | 12-10            | 6.35-7.14<br>[.250-.281] |
| 68242-2      |                  |                          |
| 68243-1      | 8                | 8.33-9.12<br>[.328-.359] |
| 1338273-1    | 22-16            | 4.37-5.16<br>[.172-.203] |

Figure 2

### 3. CRIMPING PROCEDURE

#### DANGER



To avoid personal injury, disconnect machine from power sources (air and electric) when installing dies. Before operating machine, make certain that all guards and protective covers are in place.

For die installation, machine setup, and machine operation, refer to the instructions packaged with the machine. Use the appropriate wire size and strip length according to Figure 2.

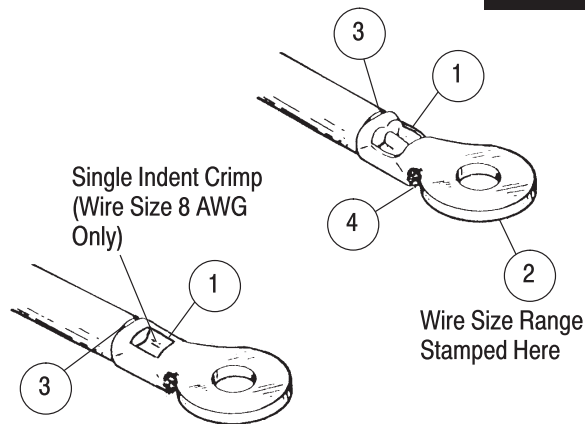
Inspect crimped terminals according to Figure 3. Use only the terminals that meet the conditions shown in the "ACCEPT" column. "REJECT" terminals can be avoided by following the above procedures and by performing regular die maintenance, as provided in Section 4, MAINTENANCE AND INSPECTION.

### 4. MAINTENANCE AND INSPECTION

It is recommended that a maintenance and inspection program be performed periodically to ensure dependable and uniform terminations.

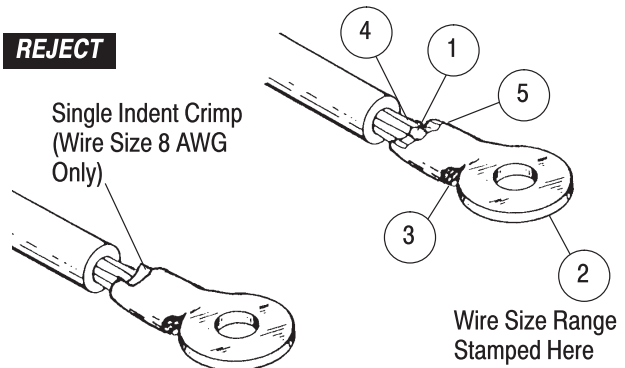
#### Crimp Inspection

##### ACCEPT



- 1 Crimp centered on wire barrel. Crimps may be off center BUT NOT OFF END OF WIRE BARREL.
- 2 Wire size being used matches wire size range stamped on terminal and die.
- 3 Wire fully inserted and insulation does not enter terminal wire barrel.
- 4 Wire is flush with or extends slightly beyond end of terminal wire barrel.

##### REJECT



- 1 Crimp not centered on wire barrel. Refer to "Terminal In/Out Adjustment" in applicable customer manual.
- 2 Wire size being used does not match wire range stamped on terminal and die.
- 3 Wire not fully inserted or wrong strip length. Refer to "Strip Length Adjustment," "Press Timing," or "Wire Adjustment (In/Out)" in applicable customer manual.
- 4 Nicked or missing wire conductor strands. Refer to "Strip Depth Adjustment" in applicable customer manual.
- 5 Excessive "flash" on terminal indicates wrong dies, wire, or terminal combination or damaged dies.

**Note:** If wire insulation enters wire barrel of terminal, the wire was inserted too far or wrong strip length was used. Refer to "Wire Adjustment (In/Out)" or "Strip Length Adjustment" in applicable customer manual.

Figure 3

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.
4. Your own established standards.

The dies are inspected before being shipped; however, it is recommended that the dies be inspected immediately upon arrival at your facility to ensure that no damage occurred during shipment. Due to the precision design, it is important that no parts of these dies be interchanged except those replacement parts listed in Section 5.

#### 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, store them 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 die crimp area for worn, cracked, or broken surfaces. If damage is evident, refer to Section 5, REPLACEMENT AND REPAIR, for information on obtaining customer repair service.

#### 4.3. Gaging the Crimping Chamber

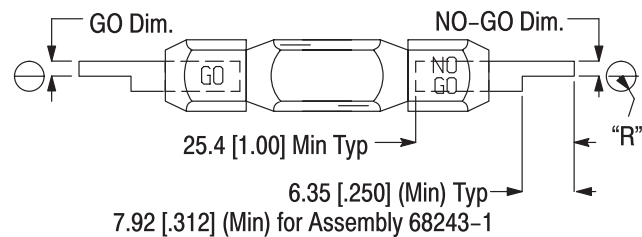
This inspection requires the use of a plug gage conforming to the dimensions shown in Figure 4. To gage the crimping chamber, refer to Figure 4, and proceed as follows:

1. Remove traces of oil or dirt from the crimping chamber and plug gage.
2. Align the GO element with the crimping chamber. Push element straight into the chamber without using force. The GO element must pass completely through the crimping chamber.
3. Check the crimping chamber with the NO-GO element in the same manner as Step 2. The NO-GO element may start entry, but must not pass completely through the crimping chamber.

If dies conform to the gage inspection, they are considered dimensionally correct. If not correct, refer to Section 5, REPLACEMENT AND REPAIR, for information on obtaining customer repair service.

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

#### Suggested Plug Gage Design for Insulation Barrel Section



#### Die Closure Configuration

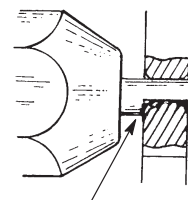
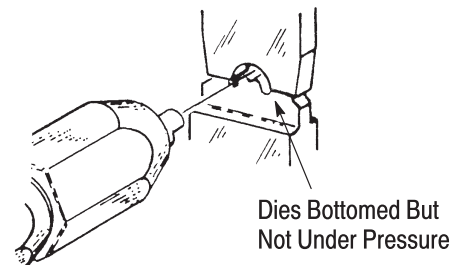
Assemblies 68240-1, 68241-1,  
68242-1, 68242-2, 1338273-1

Assembly 68243-1  
(Wire Size 8 AWG Only)

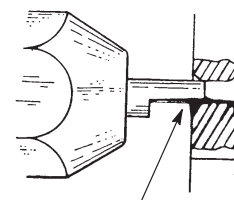


| DIE ASSEMBLY | GAGE ELEMENT DIAMETER        |                              | R (Radius) Max |
|--------------|------------------------------|------------------------------|----------------|
|              | GO                           | NO-GO                        |                |
| 68240-1      | 1.168-1.176<br>[.0460-.0463] | 1.318-1.321<br>[.0519-.0520] | 1.57<br>[.062] |
| 68241-1      | 1.372-1.379<br>[.0540-.0543] | 1.521-1.524<br>[.0599-.0600] | 1.98<br>[.078] |
| 68242-1      | 1.930-1.938<br>[.0760-.0763] | 2.080-2.083<br>[.0819-.0820] | 2.77<br>[.109] |
| 68242-2      |                              |                              |                |
| 68243-1      | 2.540-2.548<br>[.1000-.1003] | 2.690-2.692<br>[.1059-.1060] | 3.58<br>[.141] |
| 1338273-1    | 1.295-1.303<br>[.0510-.0513] | 1.445-1.447<br>[.0569-.0570] | 1.57<br>[.062] |

#### Inspection of 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.

Figure 4

## 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:

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

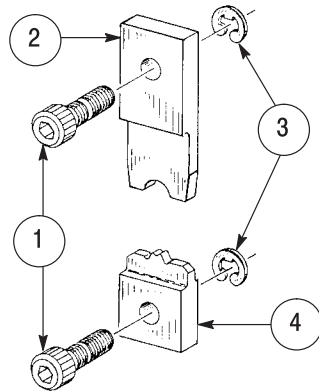
For customer repair service, please contact a Tyco Electronics Representative at 1-800-526-5136.

## 6. REVISION SUMMARY

- Updated document to corporate requirements
- Changed dimension in table in Figure 4

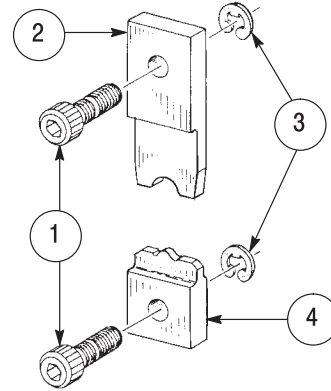
### Die Assemblies

68240-1  
68241-1  
68242-1  
68242-2  
1338273-1



### Die Assembly

68243-1



### REPLACEMENT PARTS

| ITEM | PART NUMBER FOR DIE ASSEMBLY |           |           |           |           |           | DESCRIPTION     | QTY PER ASSEMBLY |
|------|------------------------------|-----------|-----------|-----------|-----------|-----------|-----------------|------------------|
|      | 68240-1                      | 68241-1   | 68242-1   | 68242-2   | 68243-1   | 1338273-1 |                 |                  |
| 1    | 1-59781-3                    | 1-59781-3 | 1-59781-3 | 1-59781-3 | 2-59781-9 | 1-59781-3 | SCREW           | 2                |
| 2    | 308209-1                     | 308209-2  | 308209-3  | 308209-3  | 308211-1  | 308209-7  | NEST            | 1                |
| 3    | 1-21046-3                    | 1-21046-3 | 1-21046-3 | 1-21046-3 | 1-21046-3 | 1-21046-3 | RING, Retaining | 2                |
| 4    | 308210-1                     | 308210-2  | 308210-3  | 308210-7  | 308212-1  | 308210-8  | INDENTER        | 1                |

Figure 5

# Mouser Electronics

Authorized Distributor

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[68242-1](#) [68243-1](#)