

Figure 1

## 1. INTRODUCTION

The 626 Pneumatic Crimping Head, 1490191-1, is designed to crimp wire ferrules on solid or stranded copper wire. The crimping head is used with 626 Pneumatic Tooling Assemblies. Figure 1 shows the tool holder assembly, and lists the power units for the crimping head.

This instruction sheet provides recommended procedures for crimp head installation, crimping, and maintenance and inspection. For information concerning tool setup and operation, refer to the customer manual packaged with the appropriate tool.

Read these instructions thoroughly before proceeding



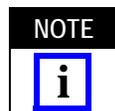
*Measurements are in metric units [followed by U.S. Customary units in brackets]. Figures are for reference only, and are not drawn to scale.*

## 2. DESCRIPTION

The pneumatic crimping head consists of integral jaws which close in an arc-like motion. After an operator locates the ferrule between the crimping jaws and inserts the stripped wire, the tool is activated to crimp the ferrule to the wire.

## 3. HEAD INSTALLATION AND REMOVAL

### 3.1. Installation



*Crimping heads are coated with a preservative to prevent rust and corrosion. Wipe any excess preservative from the head, particularly from the crimping surfaces.*



*To avoid personal injury, ALWAYS disconnect tool from air supply before installing crimping head.*



*Do NOT operate pneumatic tool without proper crimping head installed; make sure that the quick pins are FULLY tightened to avoid personal injury and damage to the tool.*

1. Remove quick pins from tool holder.
2. Insert crimping head into tool holder as shown in Figure 1.
3. After crimping head is properly aligned, insert and tighten the quick pins provided with the tool holder assembly.



*TE Connectivity recommends using Loctite No. 242, removable threadlock or equivalent, to prevent the quick pins from loosening.*

4. Connect tool to an adequate air supply between 620-690 kPa [90-100 psi]. For specific information on air line requirements and air hose installation, refer to the customer manual packaged with the pneumatic power unit.

**3.2. Removal**



*ALWAYS disconnect tool from air supply before removing crimping head.*

Remove quick pins from the crimping head; then remove crimping head from the tool holder.

**4. CRIMPING PROCEDURES**



*To avoid personal injury, always keep fingers clear of crimping jaws when operating the tool. Never place anything within the crimping jaws except terminals or splices.*



*Crimping head shown without guard for clarity.*

1. Strip wire to required length. DO NOT nick the wire strand or use wires with nicked or missing conductor strands.
2. Open crimping jaws by squeezing the rollers together simultaneously; then place the ferrule into the center of the appropriate chamber, as shown in Figure 2. Use the correct crimp chamber for the specific wire size.

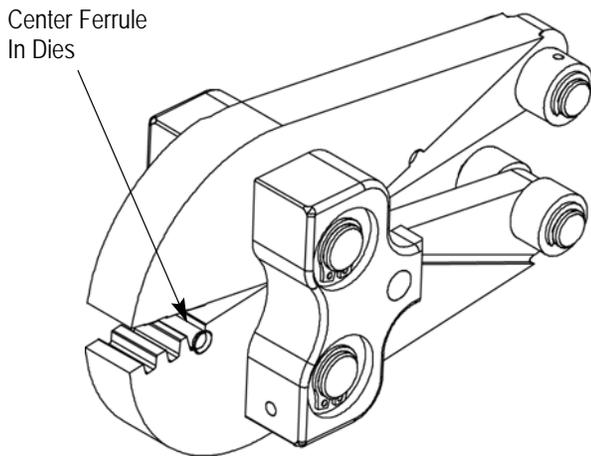


Figure 2

3. After ferrule is properly positioned, release the rollers to allow the jaws to spring shut, holding the ferrule in place.

4. Insert stripped wire into ferrule as shown in Figure 3.

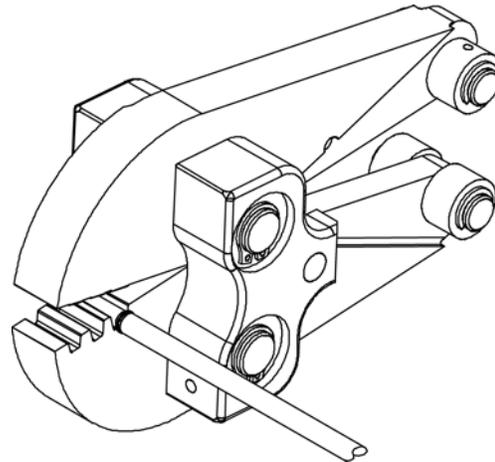
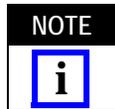


Figure 3

5. Activate the tool to complete the crimp. Open the crimping jaws by squeezing the rollers together simultaneously; then remove the crimped ferrule.



*Damaged ferrules should not be used. If a damaged ferrule is evident, it should be cut from the wire and replaced.*

**5. MAINTENANCE AND INSPECTION**



*To avoid personal injury, disconnect tool from air supply before performing any maintenance, inspection, or repairs.*

It is recommended that a maintenance and inspection program be performed periodically to ensure dependable and uniform terminations. Heads should be inspected once a month. Frequency of inspection should be adjusted to suit your requirements through experience and depends on:

1. The care, amount of use, and handling of the head.
2. The type and size of the products crimped.
3. The degree of operator skill.
4. The presence of abnormal amounts of dust and dirt.
5. Your own established standards.

Each crimping head is thoroughly inspected before packaging. Since there is the possibility of crimping head damage in shipment, new crimping heads should be inspected immediately upon arrival at your facility.

**5.1. Daily Maintenance**

It is recommended that each operator be responsible for the following steps of daily maintenance:

1. Remove dust, moisture, and other contaminants with a clean, soft brush, or a lint-free cloth. Do NOT use objects that could damage the heads.
2. Make sure pins, rings, and other components are in place and secure.



*Make sure quick pins, are in place and FULLY tightened to avoid personal injury and damage to the tool.*

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 head assembly is not in use, store it in a clean, dry area.

### 5.2. Periodic Inspection

Regular inspections should be performed by quality control personnel. A record of scheduled inspections should remain with the crimping heads or be supplied to supervisory personnel responsible for the crimping heads. Though recommendations call for at least one inspection a month, the frequency should be based on amount of use, working conditions, operator training and skill, and your established company policies. These inspections should include a visual inspection (Paragraph 5.3 and a crimping chamber inspection (Paragraph 5.5).

### 5.3. Visual Inspection

1. Remove all lubrication and accumulated film by immersing the crimping head in a suitable commercial degreaser that will not affect paint or plastic.
2. Make certain all components are in place. If replacements are necessary, refer to Figure 6.
3. Check all bearing surfaces for wear. Make sure the rollers turn freely with minimal resistance. Replace any worn parts.
4. Inspect the crimp area for flattened, chipped, or broken areas. Although the crimping chambers may gage within permissible limits, worn or damaged die closure surfaces are objectionable and will affect the quality of the crimp.

### 5.4. Lubrication

Lubricate all pins, pivot points, and bearing surfaces with a high quality grease. TE recommends the use of Molykote paste, which is a commercially available lubricant. Lubricate according to the following schedule:

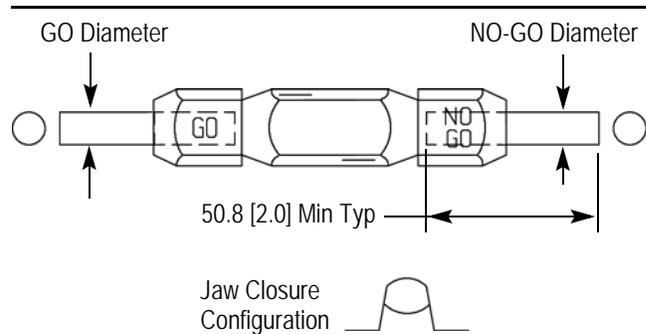
- Head used in daily production - lubricate daily
- Head used daily (occasional) - lubricate weekly
- Head used weekly - lubricate monthly

Wipe excess grease from crimping head, particularly from die closure areas. Grease transferred from the

die closure area onto certain terminations may affect the electrical characteristics of a termination.

### 5.5. Gaging the Crimping Chamber

This inspection requires the use of plug gages conforming to the dimensions shown in Figure 4. TE does not manufacture or market these gages.



CRIMPING HEAD	WIRE RANGE, mm <sup>2</sup>	GAGE ELEMENT DIMENSIONS	
		GO	NO-GO
1490191-1	2.4	1.371 - 1.379 [.0540 - .0543]	1.496 - 1.498 [.0589 - .0590]
	4.0	1.955 - 1.963 [.0770 - .0773]	2.080 - 2.082 [.0819 - .0820]
	6.0	2.362 - 2.369 [.0930 - .0933]	2.486 - 2.489 [.0979 - .0980]

Figure 4



*To avoid personal injury, disconnect air supply and remove crimping head from tool before inspection the crimping chambers.*

1. Remove oil and dirt from the bottom of the jaw surfaces, and plug gage element surfaces.
2. Close the crimping jaws until they are bottomed, but not under pressure.
3. Align the GO element with the crimping chamber. Push the GO element straight into the crimping chamber without using force. The GO element must pass completely through the crimping chamber. See Figure 5.
4. Align the NO-GO element with the crimping chamber, and try to insert it straight into the crimping chamber. The NO-GO element may start entry but must not pass completely through the chamber.

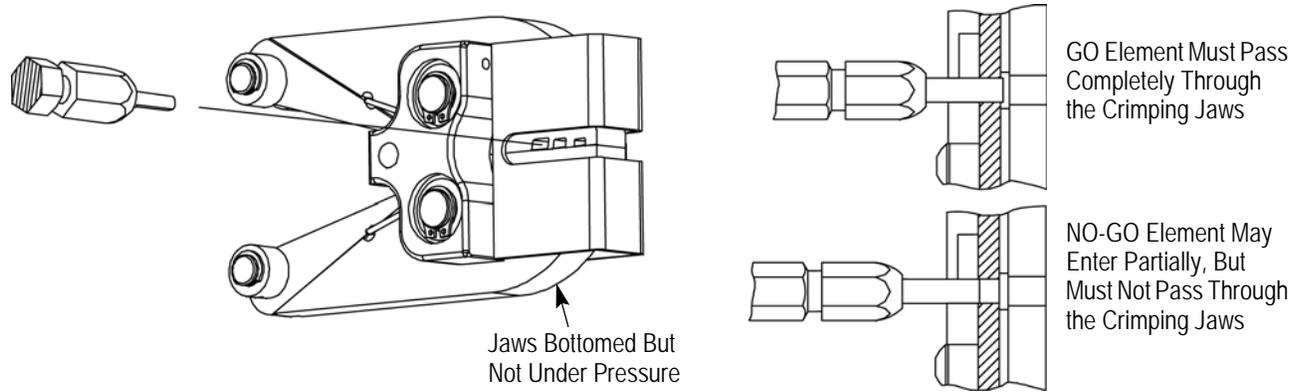


Figure 5

If the jaw closure meets the plug gage conditions, the crimping head is considered dimensionally correct and should be lubricated with a THIN coat of any good SAE 20 motor oil. If the crimping chambers do not conform to the plug gage conditions, contact your local TE Field Service Engineer, or refer to Section 6, REPLACEMENT AND REPAIR.

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

6. REPLACEMENT AND REPAIR

Replacement parts and recommended spares are listed in Figure 6. The recommended spares should be stocked for immediate replacement. Parts should be replaced by TE to ensure quality and reliability of the tool.

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:

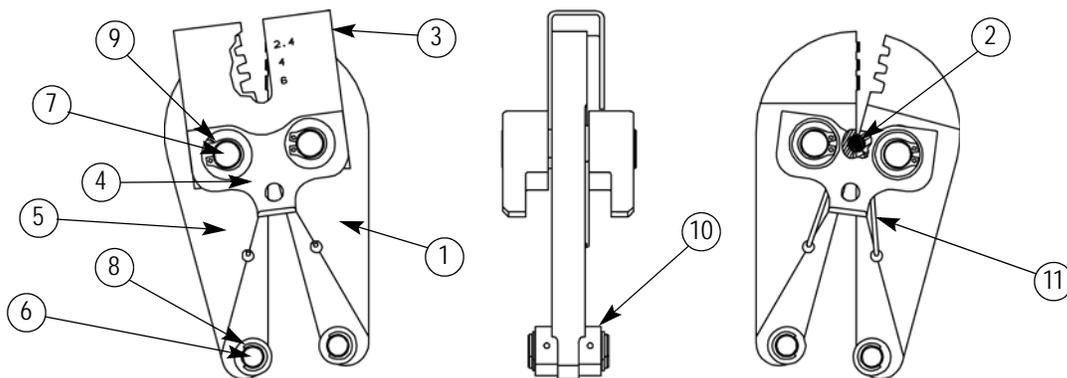
CUSTOMER SERVICE (038-035)  
 TYCO ELECTRONICS CORPORATION  
 PO BOX 3608  
 HARRISBURG PA 17105-3608

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

7. REVISION SUMMARY

Since the previous version of this document, the following changes were made:

- Updated document to corporate requirements.



ITEM NO.	PART NO.	DESCRIPTION	QTY PER HEAD	ITEM NO.	PART NO.	DESCRIPTION	QTY PER HEAD
1	1725731-1	ANVIL, Wire Ferrule	1	7	6-23629-0	PIN, Retain, Grvd, 5/16 x 1.488	2
2	23241-2	BALL, Steel	1	8†	21045-6	RING, Retaining	4
3	1725733-1	GUARD	1	9	1-21048-0	RING, Retaining	4
4	768521-2	LINK	2	10†	314479-6	ROLLER	4
5	1725732-1	NEST, Wire Ferrule	2	11†	679942-1	SPRING	1
6†	3-23620-3	PIN, Retain, Grvd, 1/4 x .894	2	† Recommended Spares			

Figure 6