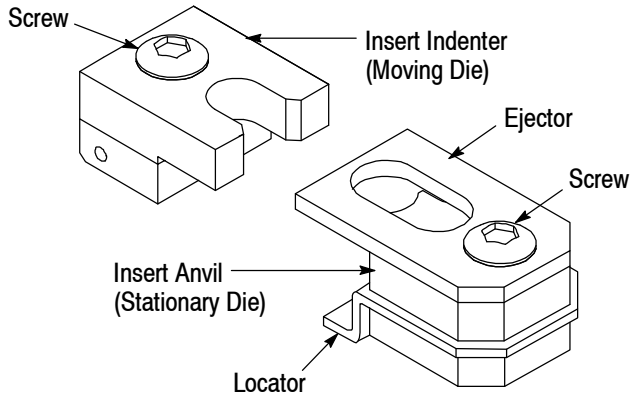


Figure 1

1. INTRODUCTION

Straight Action Air Tool Die Assembly 47811 (shown in Figure 1) is designed to be used with Hand Crimping Tool 69710-1, 626 Pneumatic Tooling Assembly 189721-1 or 189722-1 fitted with Straight Action Crimper 217200-1 or 189721-2, or 626 Pneumatic Tooling Assembly 189722-2 fitted with C-Head Pneumatic Adapter 318161-1 to crimp vinyl BOMB-TAIL* splices, nylon, and PVF[2] closed end splices onto solid and stranded wire sizes 22 through 10 AWG.

For splice part numbers, call PRODUCT INFORMATION at the number at the bottom of this page. For specific information concerning the hand tool, refer to Instruction Sheet 408-2095; for the pneumatic tooling assembly, refer to Customer Manual 409-5862; for the crimper, refer to 408-4195; and for the adapter, refer to 408-4190. Read these instructions and referenced materials before crimping any splices.

NOTE

Dimensions on 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 7, REVISION SUMMARY.

2. DESCRIPTION

The die assembly consists of an insert indenter (moving die) and an insert anvil (stationary die). The stationary die is identified by the chamfered corners. The stationary die is marked with the die assembly part number and "18-10 EC." When mated, the die assembly forms one crimping chamber. Each die is secured in the tool by a single screw.

3. INSTALLATION

Install the die assembly onto the tool according to the specific instructions supplied with the tool. If using the pneumatic tooling assembly, follow the instructions supplied with the applicable crimper or adapter.

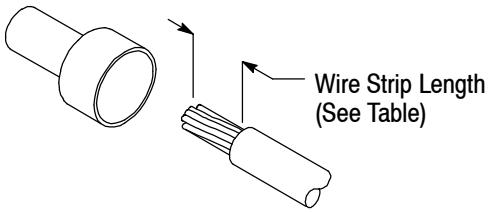
4. CRIMPING PROCEDURE

1. Select proper wire combinations as stated in the applicable wire combination instruction sheet specified in Figure 2. Strip the wires to length indicated in Figure 2. Do not use wires with nicked or missing strands.

NOTE

If conductors are twisted together to form a tight bundle before inserting them into the splice, the strip length must be maintained after twisting.

Typical Closed End Splice



SPLICE			WIRE COMBINATION INSTRUCTION SHEET	WIRE STRIP LENGTH
INSULATION	SIZE	TYPE		
Vinyl	22-12	ECV	408-1479	10.72-11.51 [.422-.453]
Nylon	22-10	EC	408-1003 (Natural Splice)	
			408-8807 (Black Splice)	
PVF[2]	22-12	—	408-2907	

Figure 2

2. Insert the splice, wire barrel first, into the ejector of the stationary die until splice bottoms. For nylon and PVF[2] splices, the shoulder must rest against the ejector; for vinyl splices, the end of the wire barrel must rest against the locator. See Figure 3. Close the dies until the splice is held in place.

3. Insert stripped wires into the splice wire barrel until the conductors bottom. See Figure 3.

4. Hold the wire in place, and actuate the tooling through a complete cycle.

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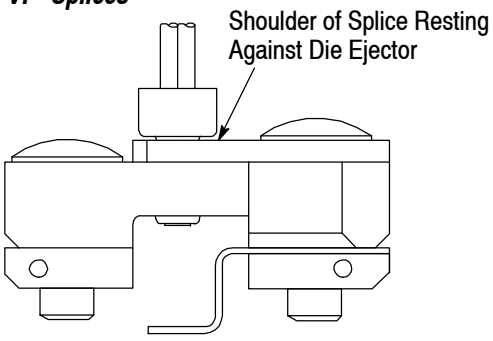
DANGER

Always keep fingers clear of dies during tool operation.

Nylon and PVF² Splices



Vinyl Splice

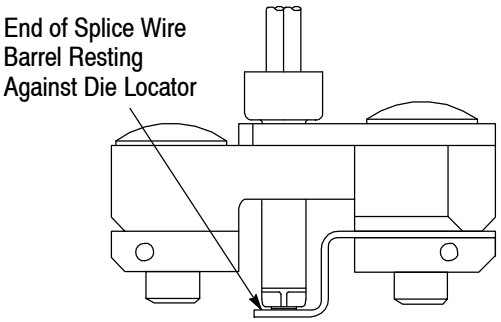


Figure 3

5. Allow the dies to open FULLY, then remove the crimped splice (if splice is difficult to remove, twist splice one-quarter turn). Inspect the crimped splice according to Figure 4.

NOTE

For detailed information on inspection requirements, refer to Application Specification 114-2147 for nylon and 114-2149 for vinyl splices.

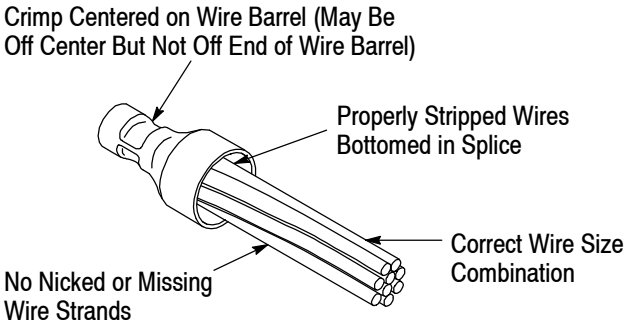


Figure 4

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5. MAINTENANCE AND INSPECTION

5.1. Daily Maintenance

It is recommended that each user of the die assembly be made aware of, and responsible for, the following steps of daily maintenance:

1. Remove all foreign particles from the dies with a clean, soft brush, or a clean, soft, lint-free cloth. Do not use objects that could damage the dies.

2. Make sure that the proper screws are in place and are secured. Check die alignment and tighten the screws (twice daily is recommended for production use).

3. Make certain that the dies are protected with a thin coat of any good SAE 20 motor oil. DO NOT oil excessively.

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

5.2. Periodic Inspection

Regular inspections should be performed by quality control personnel with a record of scheduled inspection remaining with the die assembly or supplied to personnel responsible for them. Though recommendations call for at least one inspection per month, inspection frequency should be based upon amount of use, working conditions, operator training and skill, and established company standards in the following order:

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 that screws and die components are in place.

3. Check all bearing surfaces for wear. Replace worn components.

4. Inspect the crimping chamber for flattened, chipped, cracked, worn, or broken areas. If damage is evident, the dies must be repaired before returning them to service.

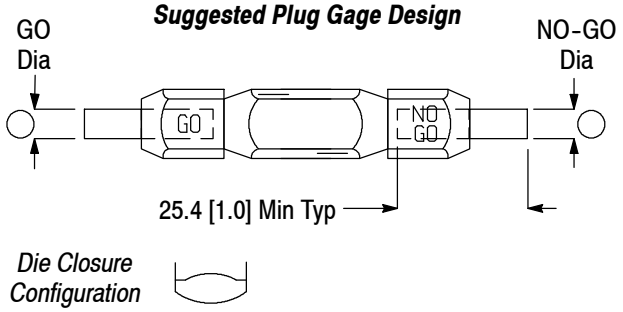
5.3. Gaging the Crimping Chamber

This inspection requires the use of a plug gage conforming to the dimensions provided in Figure 5. Gage the crimping chamber as follows:

1. Remove traces of oil or dirt from the crimping chamber and plug gage.

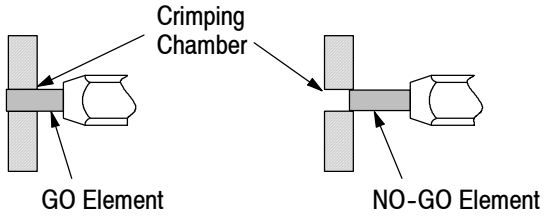
2. For pneumatic tools, reduce air supply pressure on tool to between 103 and 138 kPa [15 and 20 psi]. Actuate the tool until the dies bottom. For

Suggested Plug Gage Design



GAGE ELEMENT DIAMETER	
GO	**NO-GO**
2.921-2.929 [.1150-.1153]	3.071-3.073 [.1209-.1210]

Inspection of Crimping Chamber



Wire barrel 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 5

manual tools, close the handles until the dies bottom. DO NOT force beyond initial contact.

3. Insert the GO element into the crimping chamber; but do not force it. 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 crimping chamber conforms 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, the die assembly must be returned for further evaluation and repair. Refer to Section 6.

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

6. REPLACEMENT AND REPAIR

Customer-replaceable parts are listed in Figure 6. Parts other than those listed should be replaced by Tyco Electronics to ensure quality and reliability of the tool. Order replacement parts through your Representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 1-717-986-7605, or write to:

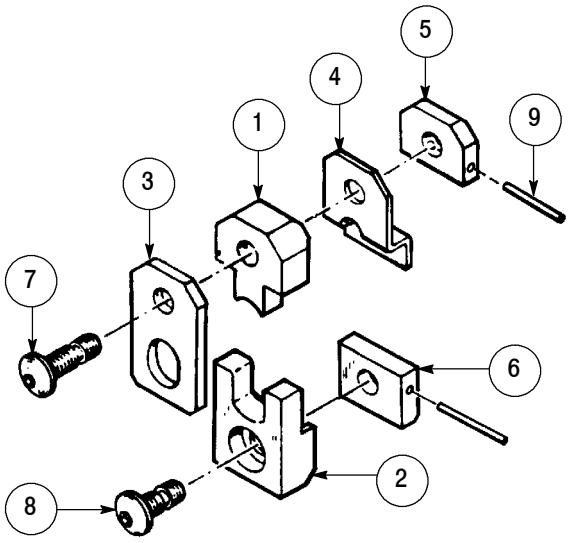
CUSTOMER SERVICE (38-35)
TYCO ELECTRONICS CORPORATION
PO BOX 3608
HARRISBURG PA 17105-3608

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

7. REVISION SUMMARY

Revisions to this instruction sheet include:

- Updated instruction sheet to corporate requirements



REPLACEMENT PARTS			
ITEM	**PART NUMBER**	**DESCRIPTION**	**QTY PER ASSEMBLY**
1	46108	INSERT ANVIL	1
2	46109	INSERT INDENTER	1
3	46184	EJECTOR	1
4	305035	LOCATOR	1
5	303995	SPACER	1
6	304994	SPACER	1
7	305037	SCREW	1
8	5-59576-1	SCREW	1
9	21041-6	PIN	2

Figure 6