Closed End Splice Hand Crimping Tool 48208

PROPER USE GUIDELINES

Cumulative Trauma Disorders can result from the prolonged use of manually powered hand tools. Hand tools are intended for occasional use and low volume applications. A wide selection of powered application equipment for extended-use, production operations is available.

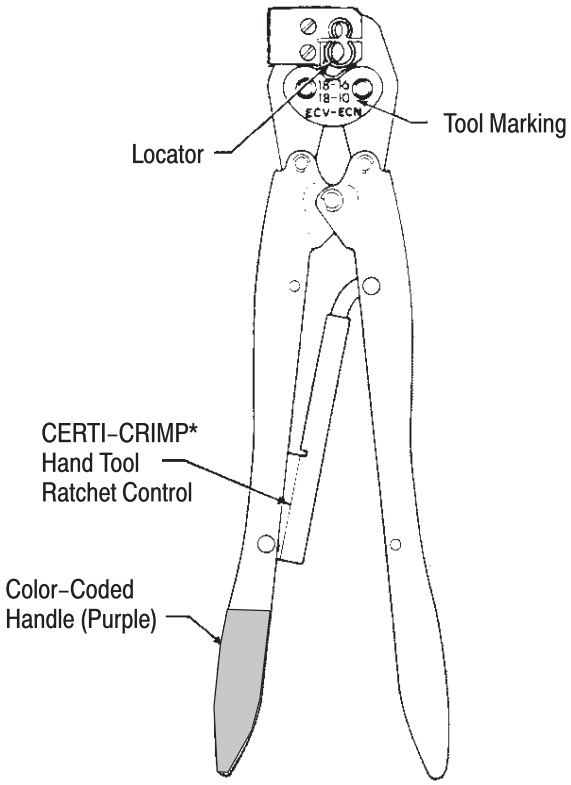


Figure 1

1. INTRODUCTION (Figure 1)

This instruction sheet provides procedures on the use of Closed End Splice Hand Crimping Tool 48208 used to crimp Closed End Splices listed in Figure 2.

For maximum and minimum wire sizes, and wire combinations that can be crimped in splices listed in Figure 2, refer to the Wire Combination Chart packaged with the Splices and listed in Figure 2.

NOTE

In cases where twisting conductors for minimum loading is required, strip length must be maintained after twisting.

See Section 4, REVISION SUMMARY, for revision information.

NOTE

All dimensions on this document are in metric units [with U.S. customary units in brackets]. Figures and illustrations are for reference only and are not drawn to scale.

2. WIRE STRIPPING AND CRIMPING PROCEDURE

1. Strip wire to dimensions shown in Figure 2.

TOOL MARKING	WIRE SIZE	SPLICE NO.	SPLICE TYPE	WIRE COMBO CHART	STRIP LENGTH†	
					MIN.	MAX.
18-16 18-10 ECV-ECN	22-14	34304 Vinyl	VS	408-1394	8.33 [.328]	9.12 [.359]
		35115 Nylon	ECN	408-1271		
		36964 Vinyl	VS	408-1394		
		328375 Vinyl	VS	408-1394		
		2-328375-1 Vinyl	VS	408-1394		
		330718 Nylon	ECN	408-1271		
	18-10	35653 Nylon	ECN	408-1021	10.72 [.422]	11.51 [.453]
		36965 Vinyl	VS	408-1029		
		1-36965-0 Vinyl	VS	408-1029		
		322666 Vinyl	VS	408-1029		
		324222 Nylon	ECN	408-1021		
		330905 Nylon	ECN	408-1021		
		321519 Vinyl	ECV	408-1002	14.27 [.562]	15.88 [.625]

†In cases where twisting conductors for minimum loading is required, strip length must be maintained after twisting.

Figure 2

TOOLING ASSISTANCE CENTER 1-800-722-1111
PRODUCT INFORMATION 1-800-522-6752

2. To open crimping jaws, close handles until CERTI–CRIMP Hand Tool Ratchet Control releases. Note that once the ratchet is engaged, handles cannot be opened until they are fully closed.

3. Insert stripped wires into splice barrel.

4. Place splice, with wires inserted, into crimping dies.

NOTE

No. 18–10 ECN nylon and ECV or VS vinyl splices are crimped in the bottom section of the locator. No. 22–14 ECN nylon and VS vinyl splices are crimped in the top section of the locator. See Figure 3.

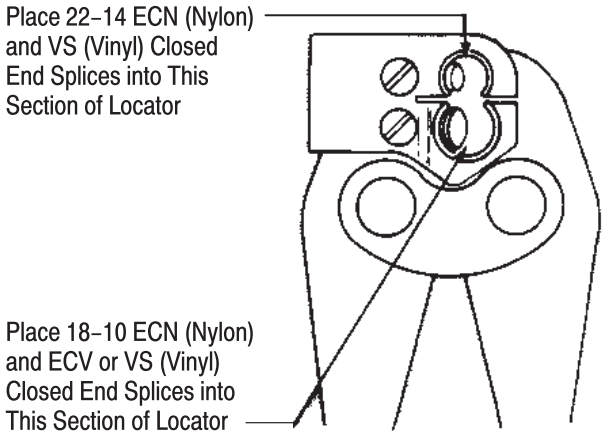
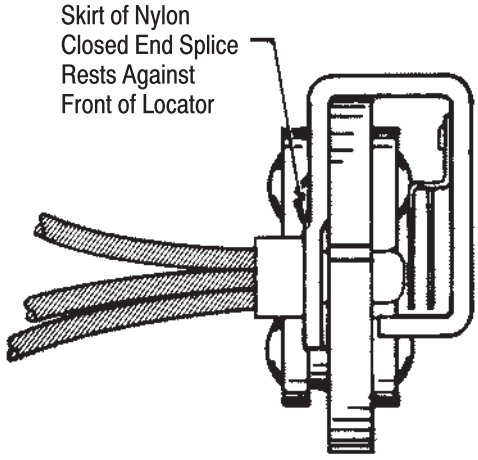


Figure 3

5. Hold splice in place as shown in Figures 4 and 5, and complete crimp by closing handles until CERTI–CRIMP Hand Tool Ratchet Control releases.



Nylon Closed End Splice Shown in Position for Crimping

Figure 4

NOTE

Skirt of nylon splice should rest against front of locator. End of vinyl splice should rest against rear section of locator.

6. Handles will open automatically and crimped splice may be removed from crimping dies.

3. MAINTENANCE

3.1. Lubrication

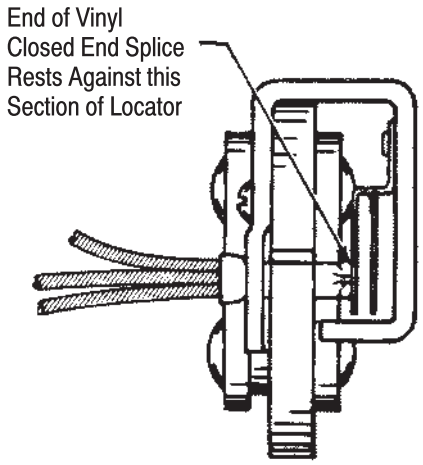
Keep all pins, pivot points, and bearing surfaces lubricated with a good grade S.A.E. No. 20 motor oil.

3.2. Die Closure Inspection

Every hand tool is inspected and tested for proper die (jaw) closure before being shipped from the factory. It is recommended, however, that an inspection be performed periodically to measure the tool die closure and to check the CERTI–CRIMP Hand Tool Ratchet Control feature. This is necessary to ensure that continued use of the tool will result in the same dependable and uniform terminations for which the tool was designed.

Tyco Electronics recommends an initial frequency of inspection of once a month. This frequency may be adjusted to suit your requirements through experience. The frequency of an inspection is dependent upon:

- The care, amount of use, and handling of tool.
- The type and size of the products crimped.
- The degree of operator skill.
- The presence of abnormal amounts of dust and dirt.
- Your own established standards.

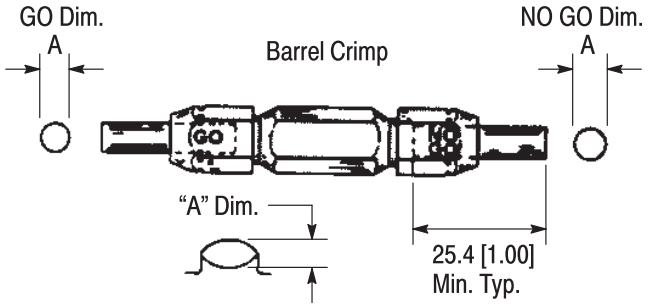


Vinyl Closed End Splice Shown in Position for Crimping

Figure 5

The tool die closure measurement is accomplished using a GO–NO GO plug gage. A suggested plug gage design is shown in Figure 6. The GO–NO GO dimensions of the plug gage for the wire barrel crimping dies are also listed in Figure 6.

Inspection of Wire Barrel Crimping Dies with Plug Gage



TOOL	CRIMP SIZE	BARREL CRIMP DIMENSIONS "A"‡	
		GO	NO GO
48208	22–14 (Small)	2.41 [.095]	2.57 [.101]
	18–10 (Large)	3.53 [.139]	3.68 [.145]

‡Plug gage dimensions apply when tool is bottomed, but not under pressure.

Figure 6

The following procedure is recommended for measuring the tool die closure.

1. Remove traces of oil or dirt from tool crimping area and plug gages.

2. Close handles of tool until crimping jaws are bottomed. Do NOT apply additional pressure to tool handles.

3. Measure closure of both the 22–14 (small) and 18–10 (large) wire barrel crimping areas of the tool using the proper plug gage. Hold gage in straight alignment with the tool and carefully try to insert, without forcing the GO element, and then the NO GO element. See Figure 7. The GO element must pass completely through the length of the crimping surface.

4. The NO GO element may enter partially, but must NOT pass completely through the length of the crimping surface.

5. If the wire barrel dies meet the GO–NO GO conditions, the tool may be considered dimensionally correct.

6. If you find the tool crimping dies do not conform with the GO–NO GO gage conditions, contact your local Tyco Electronics Representative.

Suggested Plug Gage Design

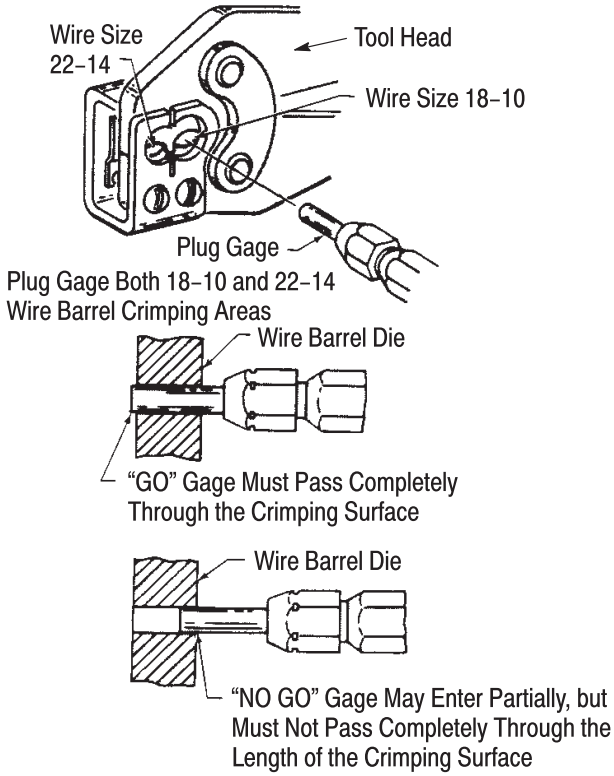


Figure 7

3.3. CERTI–CRIMP Hand Tool Ratchet Control Feature

The CERTI–CRIMP hand tool ratchet control feature on hand tools should be checked to ensure that the ratchet does not release prematurely allowing dies to open before they have fully bottomed. To check the ratchet feature:

1. Make a test crimp using the maximum wire load, (i.e.) the maximum numbers of wires permitted from the wire combination chart for the splice being used. When this crimp is made, squeeze handles until the ratchet is free, however, DO NOT RELAX PRESSURE ON TOOL HANDLES.

2. If a 0.03 mm [.001 in.] or smaller shim can be inserted between the bottoming surfaces of the dies, the CERTI–CRIMP hand tool ratchet control is satisfactory.

3. If the clearance between the bottoming surfaces of the dies is greater than 0.03 mm [.001 in.], the dies are considered as not bottoming. Contact your local Tyco Electronics Representative.

4. REVISION SUMMARY

- Updated document to corporate requirements
- Re–activated document
- New format