

PROPER USE GUIDELINES

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

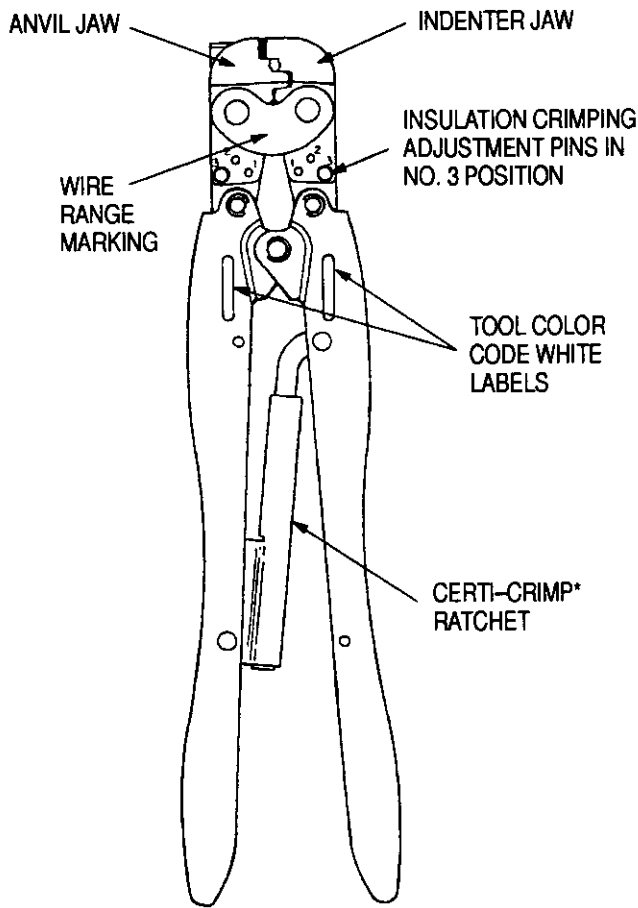


Figure 1

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1. INTRODUCTION

This instruction sheet covers the use of AMP Hand Crimping Tool (shown in Figure 1), which is designed

to crimp No. 29 coaxial cable and No. 22 AWG wire in PIDG splice 323975. Read these instructions thoroughly before using the tools.

Reasons for reissue are provided in Section 6, REVISION SUMMARY.

NOTE

Dimensions on this sheet are in millimeters [with inches in brackets].

2. DESCRIPTION

The tool features two sets of crimping dies (contained within the indenter and anvil jaws), a locator, and a CERTI-CRIMP ratchet.

The locator aids in positioning the splice in the crimping dies.

The CERTI-CRIMP ratchet assures full crimping of the splice. Once engaged, the ratchet will not release until the handles have FULLY closed.

CAUTION

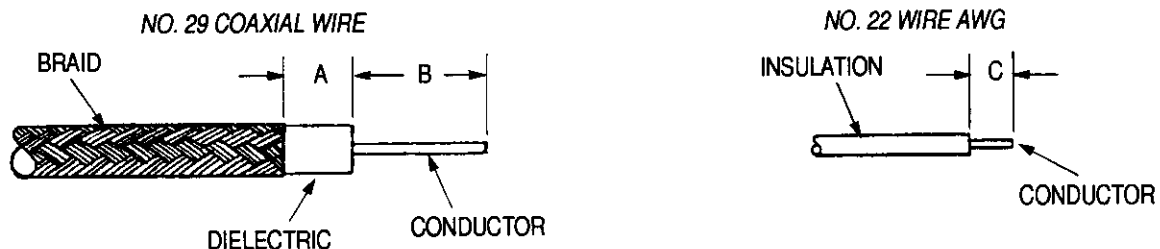
The crimping dies bottom before the CERTI-CRIMP ratchet releases. This design feature assures maximum electrical and tensile performance of the crimp. Do NOT re-adjust the ratchet.

3. CRIMPING PROCEDURE

NOTE

Each hand tool is coated with a preservative to prevent rust or corrosion. Wipe this preservative from the tool, particularly from the crimping jaws, before using the tool.

Refer to the chart in Figure 2 and strip both the coaxial cable and the No. 22 wire to the dimensions specified. Do NOT cut or nick the wire strands.



TOOL NUMBER	SPLICE NUMBER	WIRE	WIRE STRIP DIMENSIONS		
			A	B	C
46256	323975	NO. 29 COAXIAL	6.4 [.25]	12.7 [.5]	—
		NO. 22 AWG	—	—	5.1 [.20]

Figure 2

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NOTE

Always crimp coaxial cable first.

Refer to Figure 3, Figure 4, and Figure 5 and proceed as follows:

1. Open the tool's jaws by squeezing the handles until the ratchet releases and then allow the handles to open FULLY.
2. Place splice in crimping jaws as shown in Figure 3.
3. Close handles until the splice is held firmly in place. Do NOT deform splice wire barrel.
4. Insert stripped coaxial cable into splice so that the conductor passes through both splice wire barrels. Coaxial cable braid butts against end of splice. See Figure 3 and Figure 4, Detail A.
5. To complete crimp, close handles until ratchet releases. Handles will open automatically and crimped splice may be removed.
6. Position uncrimped half of splice in tool as shown in Figure 5. If splice cannot be turned, turn tool around.
7. Close handles until the splice is held firmly in place. Do NOT deform splice wire barrel.
8. Insert stripped No. 22 wire into splice as shown in Figure 5 and Figure 4, Detail B. When No. 22 conductor is inserted into wire barrel, ensure that coaxial cable conductor is not doubled back.
9. To complete crimp, close handles until ratchet releases. Allow handles to open fully. Crimped splice may be removed.

4. MAINTENANCE AND INSPECTION PROCEDURE

AMP recommends that a maintenance and inspection program be performed periodically to ensure dependable and uniform terminations. Frequency of inspection depends on:

1. The care, amount of use, and handling of the hand tool.
2. The presence of abnormal amounts of dust and dirt.
3. The degree of operator skill.
4. Your own established standards.

The hand tool is inspected before being shipped; however, AMP recommends that the tool be inspected immediately upon its arrival at your facility to ensure that the tool has not been damaged during shipment. Due to the precision design, it is important that no parts of these tools be interchanged except those replacement parts listed in Figure 9.

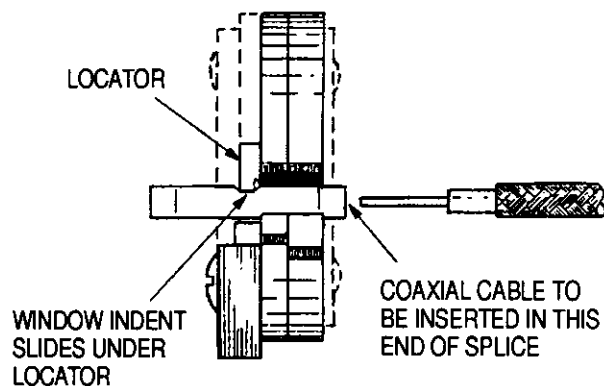
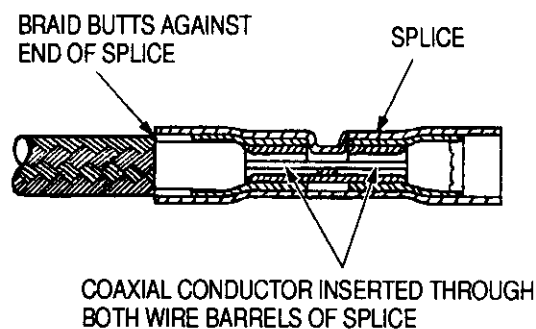


Figure 3

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DETAIL A



DETAIL B

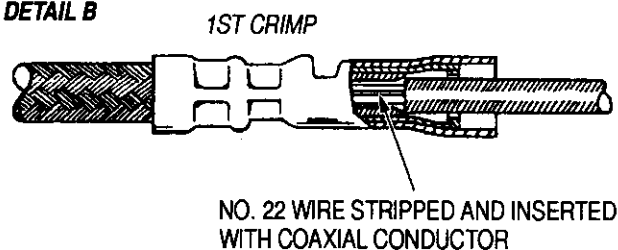


Figure 4

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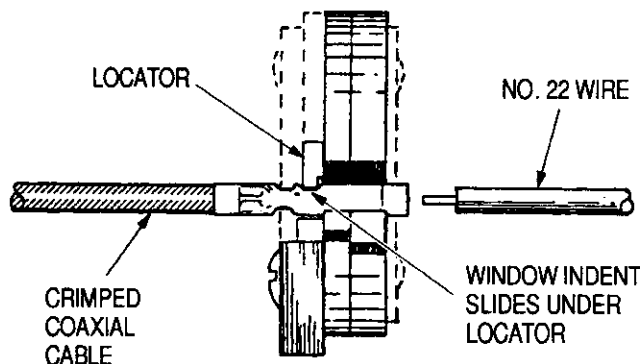


Figure 5

67-305B

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 tool.
2. Make certain that the retaining pins are in place and that they are secured with retaining rings.
3. All pins, pivot points, and bearing surfaces should be protected with a thin coat of any good SAE No. 20 motor oil. Do not oil excessively.
4. When the tool is not in use, keep handles closed to prevent objects from becoming lodged in the crimping dies. Store the tool in a clean, dry area.

4.2. Lubrication

Lubricate all pins, pivot points, and bearing surfaces with SAE No. 20 motor oil as follows:

- Tools used in daily production – lubricate daily
- Tools used daily (occasional) – lubricate weekly
- Tools used weekly – lubricate monthly

Wipe excess oil from tool, particularly from crimping area. Oil transferred from the crimping area onto certain terminations may affect the electrical characteristics of an application.

4.3. Periodic Inspection

1. Hand tool should be immersed (handles partially closed) in a reliable commercial degreasing compound to remove accumulated dirt, grease, and foreign matter.
2. Close tool handles until ratchet releases and then allow them to open freely. If they do not open quickly and fully, the spring is defective and must be replaced. See Section 5, REPLACEMENT AND REPAIR.
3. Inspect head assembly for worn, cracked, or broken dies. If damage is evident, return the tool to AMP for evaluation and repair. See Section 5, REPLACEMENT AND REPAIR.

4.4. Crimping Die Closure Inspection

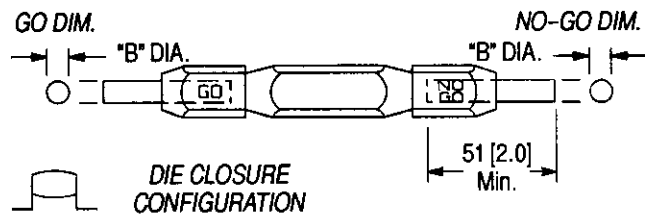
This inspection requires the use of two plug gages conforming to the dimensions shown in Figures 6 and 7. AMP does not manufacture or market these gages.

To gage die closure, refer to Figure 8 and proceed as follows:

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

NOTE Do not lose spring in locator assembly.

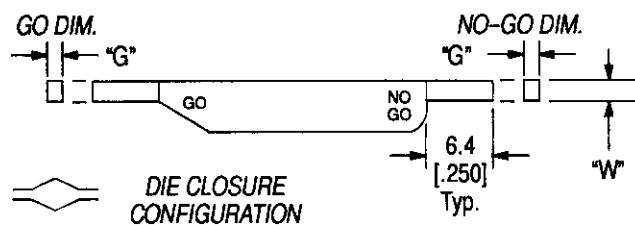
SUGGESTED PLUG GAGE DESIGN – WIRE BARREL CRIMP



TOOL NUMBER	GAGE ELEMENT DIM'S. "B" DIA.	
	GO	NO-GO
46256	1.50 – 1.51 [.0590 – .0593]	1.64 – 1.65 [.0649 – .0650]

Figure 6

SUGGESTED PLUG GAGE DESIGN – INSULATION CRIMP



NOTE: Set Insulation Crimping Adjustment Pins at No. 1 Position.

TOOL NUMBER	GAGE ELEMENT DIM'S. "G"		WIDTH "W" (Max.)
	GO	NO-GO	
46256	.76 – .77 [.0300 – .0303]	1.26 – 1.27 [.0499 – .0500]	2.36 [.093]

Figure 7

3. Close the tool handles until it is evident that the jaws have bottomed; then hold in this position. Do NOT force the jaws beyond initial contact.
4. Align the wire barrel crimp gage GO element with the wire barrel crimping chamber. Push element straight into the crimping chamber without using force. The GO element must pass completely through the crimping chamber.
5. Check the wire barrel crimping chamber with the NO-GO element in the same manner as step 4. The NO-GO element may start entry, but must not pass completely through the crimping chamber.
6. Re-install locator assembly on tool.
7. Insert insulation crimping adjustment pins in the No. 1 position.
8. Check the insulation crimping chamber using the proper plug gage in the same manner as steps 3 thru 5.

If die closure conforms to the gage inspection, the crimping chambers are considered dimensionally correct. If correct, the tool should be lubricated with a

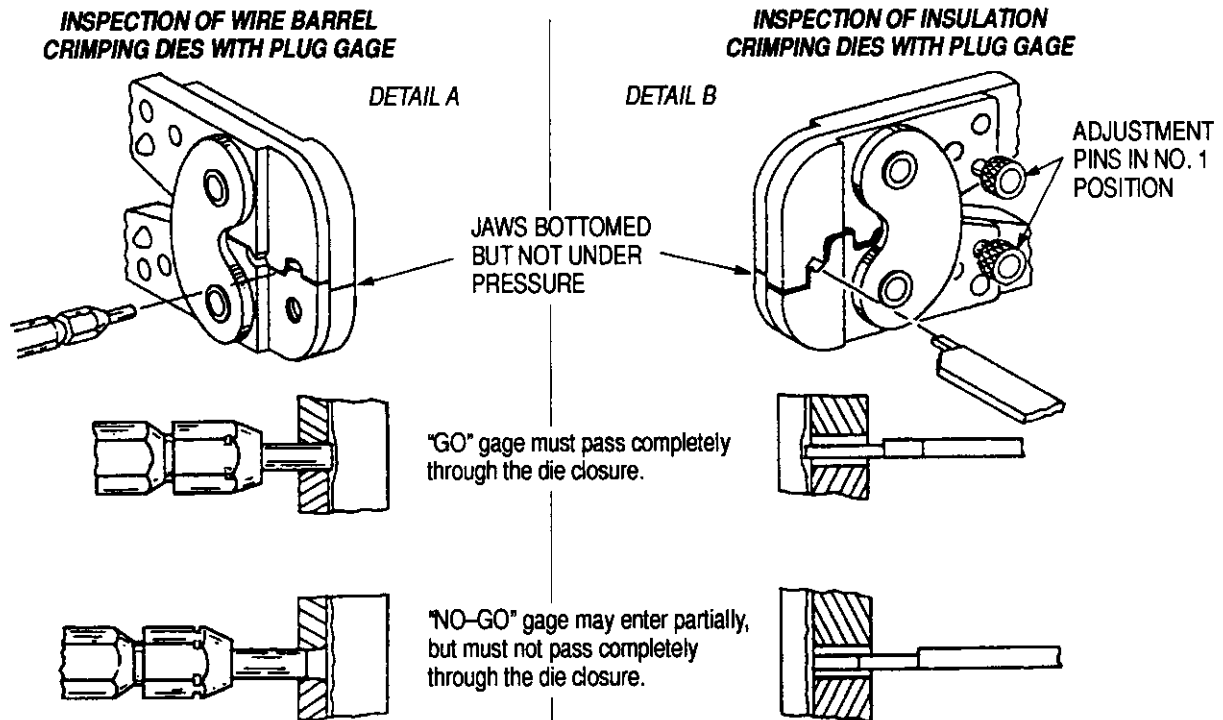


Figure 8

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thin coat of any good SAE No. 20 motor oil and returned to service. If not correct, the tool must be returned to AMP for further evaluation and repair. Refer to Section 5, REPLACEMENT AND REPAIR. For additional information regarding the use of a plug gage, refer to AMP instruction sheet 408-7424.

4.5. CERTI-CRIMP Ratchet Inspection

The CERTI-CRIMP ratchet feature on AMP hand tools should be checked to ensure that the ratchet does not release prematurely, allowing the crimping dies to open before they have fully bottomed. Obtain a 0.025-mm [.001-in.] shim that is suitable for checking the clearance between the bottoming surfaces of the crimping dies. Proceed as follows:

1. Strip a No. 29 coaxial cable to the dimensions specified in Figure 2.
2. Position the splice and cable between the crimping dies, as described in Section 3, CRIMPING PROCEDURE.
3. Hold the splice and cable in place and squeeze the handles until the CERTI-CRIMP ratchet releases. Hold the handles in this position, maintaining just enough tension to keep the dies closed.
4. Check the clearance between the bottoming surfaces of the crimping dies. If the clearance is 0.025 mm [.001 in.] or less, the ratchet is satisfactory. If clearance exceeds 0.025 mm [.001 in.], the ratchet is out of adjustment and must

be repaired. See Section 5, REPLACEMENT AND REPAIR.

4.6. Insulation Crimp Adjustment

The insulation barrel crimp height is controlled by the positioning of the insulation crimping adjustment pins shown in Figure 1. To determine the proper setting, test crimp a terminal using the setting which approximates the insulation size (1-small, 2-medium, 3-large). For the test crimp, use UNSTRIPPED wire placed ONLY into the insulation barrel portion of the terminal or splice. If the crimped insulation barrel is too tight or too loose, change the setting accordingly. The crimp should hold the insulation firmly without cutting into it.

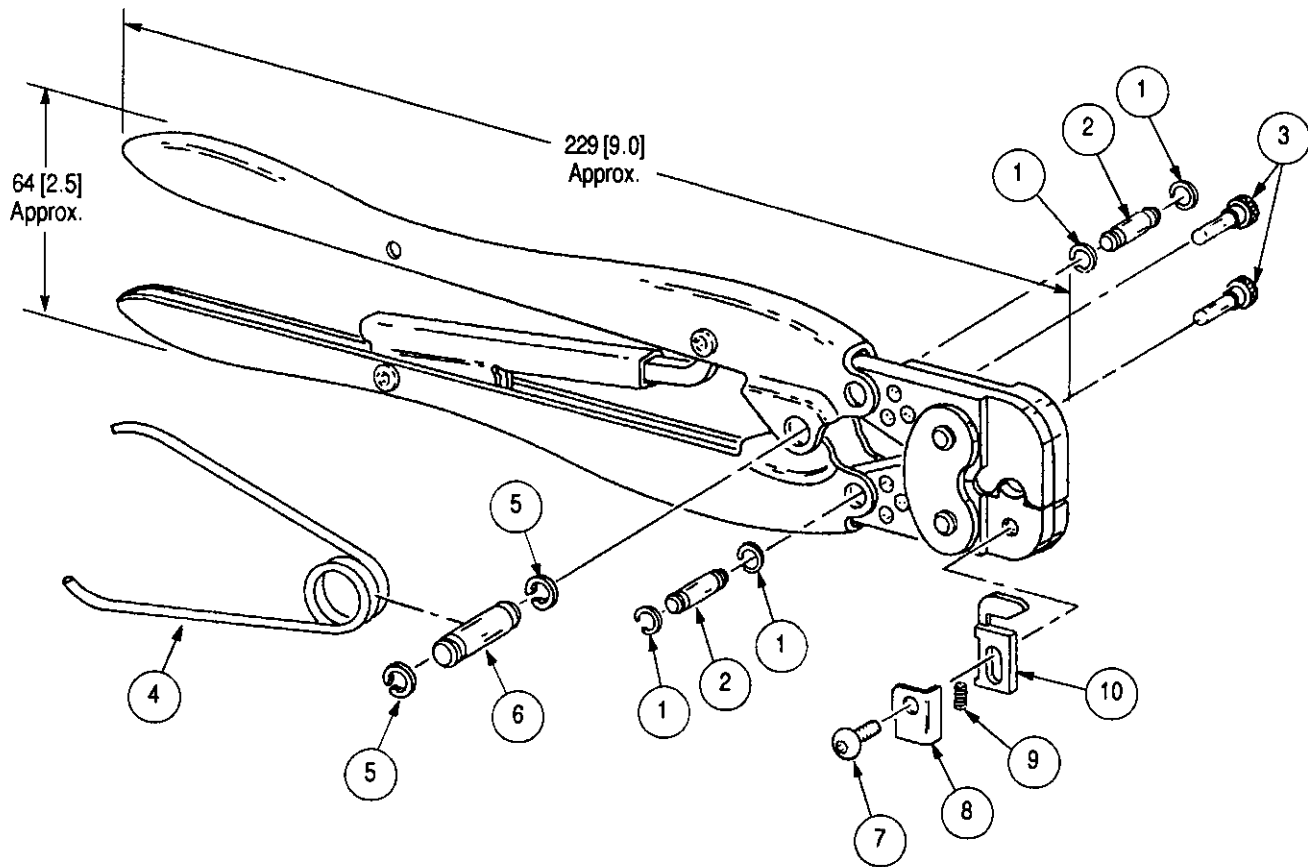
NOTE

For all settings, the pins must be in the same numbered position, i.e., for setting 3, both pins must be in position 3.

5. REPLACEMENT AND REPAIR

Replacement parts are listed in Figure 9. Parts other than those listed in Figure 9 should be replaced by AMP to ensure quality and reliability of the tool. Order replacement parts through your AMP 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)
AMP INCORPORATED
P.O. BOX 3608
HARRISBURG, PA 17105-3608



REPLACEABLE PARTS

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	21045-3	RING, Retaining	1
2	1-23619-6	PIN, Retaining	1
3	39207	PIN, Adjustment	1
4	39364	SPRING	1
5	21045-6	RING, Retaining	1
6	2-23620-9	PIN, Retaining	1
7	9-305927-1	SCREW	1
8	302994	HOUSING, Locator	1
9	301201	SPRING	1
10	303542	LOCATOR	1

Figure 9

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For tool repair service or CERTI-CRIMP ratchet adjustment, return the tool, with a written description of the problem, to:

CUSTOMER REPAIR (01-12)
 AMP INCORPORATED
 1523 NORTH 4TH STREET
 HARRISBURG, PA 17102-1604

6. REVISION SUMMARY

Since the previous release, the following changes and additions were made to this document:

Per EC A-380492:

- Deleted collar and changed part numbers of items 2 and 5 in Figure 9

Per EC 0990-0252-93:

- Updated format
- Added metric units