Double Action Hand Crimping Tool 58632–1

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.

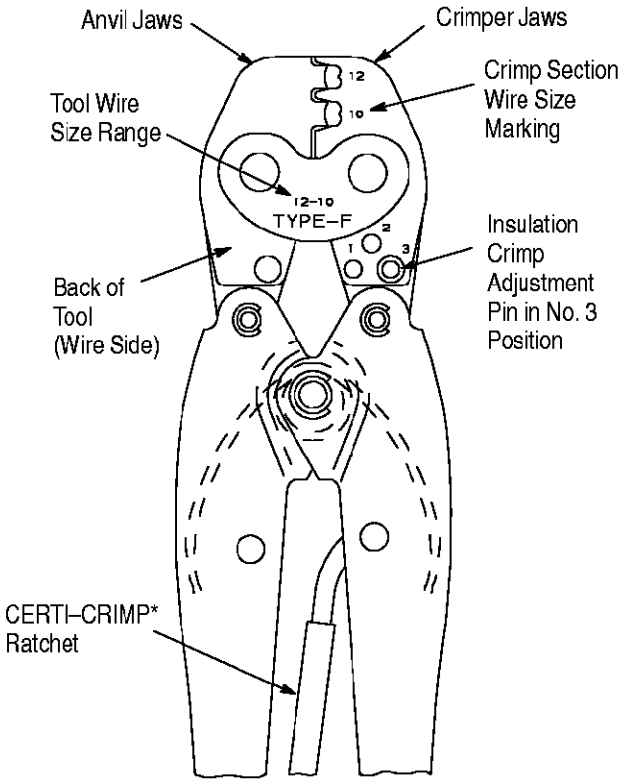


Figure 1

1. INTRODUCTION

AMP* Double Action Hand Crimping Tool 58632–1 is designed to crimp AMP MATE–N–LOK* .156 terminals listed in Figure 2 on wire sizes 12 through 10 AWG. Read these instructions thoroughly before crimping any terminals.

NOTE *All dimensions on this sheet are in metric units [with U.S. customary units in brackets].*

Reasons for reissue are provided in Section 7, REVISION SUMMARY.

2. DESCRIPTION (Figures 1 and 3)

The front of the tool has the "AMP" marking on the link. The back of the tool (wire side), into which the wire is inserted, has the tool wire size range marked on the link.

The tool features two crimper jaws, a terminal locator/insulation stop, an insulation crimp adjustment pin, and a CERTI–CRIMP ratchet.

The locator/insulation stop has two functions. First, it positions the terminal between the crimping jaws, and second, it aids in locating the wire in the terminal. In use, it rests in the terminal locator slot. See Figures 2 and 3.

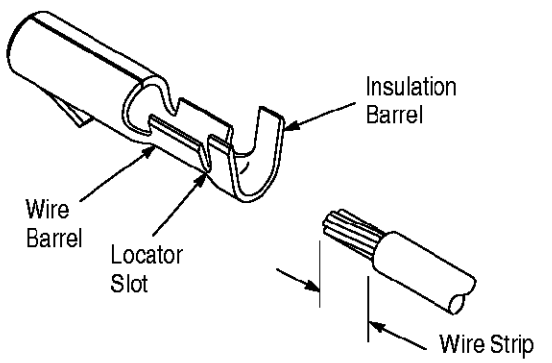
The insulation crimp adjustment pin is used to regulate the crimp height of the terminal insulation barrel. Refer to Section 4, INSULATION CRIMP ADJUSTMENT.

The CERTI–CRIMP ratchet ensures full crimping of the terminal. Once engaged, the ratchet will not release until the handles have been FULLY closed.

CAUTION *The crimping jaws bottom before the CERTI–CRIMP ratchet releases. This is a design feature that assures maximum electrical and tensile performance of the crimp. Do NOT re–adjust the ratchet.*

3. CRIMPING PROCEDURE

Select an applicable terminal and a wire of appropriate size and insulation diameter. Strip the wire to the length indicated in Figure 2. Do NOT cut or nick the wire strands.



NOTE: *Not to Scale*

WIRE		CRIMP SECT WIRE SIZE MARKING	LOOSE PIECE TERMINAL NO.	
SIZE (AWG)	INSUL DIA		SOCKET	PIN
12	4.70 [.185] Max.	12	61252–1	61253–1
10		10		

Figure 2

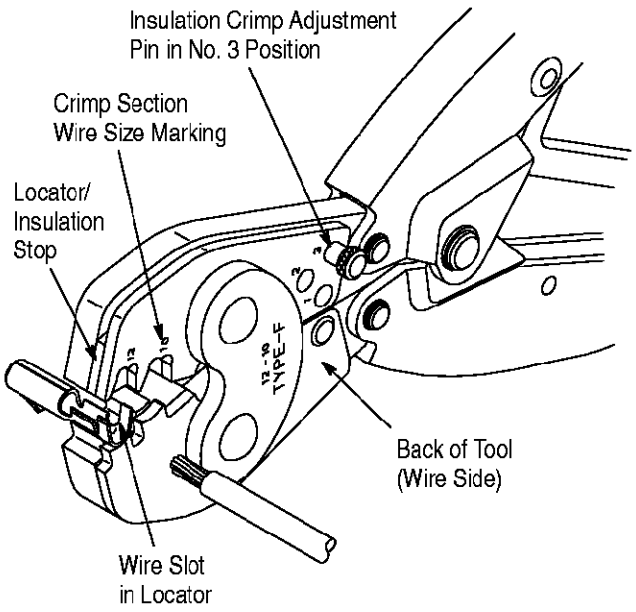


Figure 3

Select an applicable loose piece terminal and identify the appropriate crimp section (according to the wire size markings on the back of the tool).

Refer to Figure 3 and proceed as follows:

1. Hold the tool so the back (wire side) is facing you.

2. Make certain that the ratchet is released by squeezing the tool handles and allowing them to open fully.

3. Looking straight into the back of appropriate crimp section, insert terminal (insulation barrel first) into the front of the crimp section. Position terminal in crimpers so locator enters locator slot in terminal.

4. Hold terminal in this position and squeeze tool handles together until jaws close just enough to retain terminal. Do not deform wire barrel or insulation barrel.

5. Insert a properly stripped wire through wire slot in locator and into wire barrel of terminal until insulation butts against locator/insulation stop.

6. Hold the wire in place and squeeze the tool handles until the ratchet releases.

7. Allow the tool handles to open fully and remove the crimped terminal.

4. INSULATION CRIMP ADJUSTMENT

The hand tool has three insulation crimping adjustment positions to adjust the wire insulation grip: 1–Tight, 2–Medium, and 3–Loose. To obtain the desired insulation grip, proceed as follows:

1. Insert pins into the No. 3 position, as shown in Figure 3.

2. Position terminal into crimping jaws, as described in Section 3, Steps 3 and 4.

3. Insert an unstripped wire just into the insulation barrel sleeve.

4. Crimp the terminal using the procedure described in Section 3, Steps 5 through 7. Remove the crimped terminal from the crimping jaws and check the insulation support by bending the wire back and forth once. The insulation barrel sleeve should retain grip on the wire insulation. If the wire pulls out, move the insulation adjustment pins to the next tighter position (No. 2) and proceed to Step 5. If the wire does not pull out, the pins are properly adjusted and the tool is ready for crimping.

5. Perform another test crimp, as described in Step 4. Adjust pins, as necessary, until the desired insulation grip is obtained. *Do not* use a tighter setting than is required.

5. MAINTENANCE/INSPECTION

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.

5.1. 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. 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.

5.2. Lubrication

Lubricate all pins, pivot points, and bearing surfaces with SAE 20 motor oil as follows:

Tools used in daily production—lubricate daily
Tools used daily (occasional)—lubricate weekly
Tools used weekly—lubricate monthly

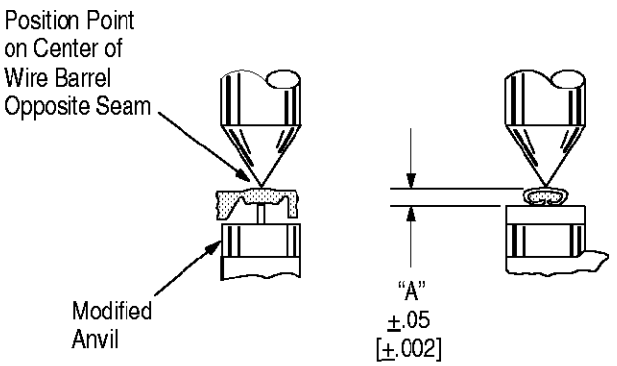
Wipe excess oil from tool, particularly from crimping area. Oil transferred from the crimping chambers onto certain terminations may affect the electrical characteristics of an application.

5.3. 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 the CERTI–CRIMP ratchet releases and then allow them to open fully. If the handles do not open quickly and fully, the spring is defective and must be replaced. Refer to Section 6, REPLACEMENT AND REPAIR.

3. Inspect tool head for worn, cracked, or broken dies. If damage is evident, return tool to AMP for evaluation and repair. See Section 6, REPLACEMENT AND REPAIR.



TERMINAL NUMBER (LP)	WIRE SIZE AWG (Max.)	CRIMP SECTION WIRE SIZE MARKING	CRIMP HEIGHT DIM. "A"
61252–1 (Socket)	12	12	2.21 [.087]
61253–1 (Pin)	10	10	2.64 [.104]

Figure 4

5.4. Crimp Height Inspection

This inspection requires the use of a micrometer with a modified anvil, as shown in Figure 4. AMP recommends the use of a modified micrometer (Crimp Height Comparator RS–1019–5LP) which can be purchased from:

Shearer Industrial Supply Co.
20 North Penn Street
York, PA 17401–1014

or

VALCO
1410 Stonewood Drive
Bethlehem, PA 18017–3527

1. Refer to the table in Figure 4 and select wire (maximum size) for each crimp section listed in the chart.

2. Refer to Section 3, CRIMPING PROCEDURE, and crimp the contact accordingly.

3. Using a crimp height comparator, measure the wire barrel crimp height as shown in Figure 4. If the crimp height conforms to that shown in the chart, the tool is considered dimensionally correct. If not, return the tool to AMP for evaluation and repair (see Section 6, REPLACEMENT AND REPAIR).

For additional information concerning the use of the crimp height comparator, refer to AMP instruction sheet 408–7424.

5.5. CERTI–CRIMP Ratchet Inspection

The CERTI–CRIMP ratchet feature on the hand tool should be checked to ensure it 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 jaws. Proceed as follows:

1. Select the maximum size wire and strip it according to the dimensions listed in Figure 2.

2. Position terminal and wire between the crimping jaws, as described in Section 3, CRIMPING PROCEDURE.

3. Hold wire in place and squeeze tool handles together until the CERTI–CRIMP ratchet releases. Hold tool handles in this position, maintaining just enough tension on the handles to keep the jaws closed.

4. Check the clearance between the bottoming surfaces of the crimping jaws. 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 6, REPLACEMENT AND REPAIR.

6. REPLACEMENT AND REPAIR

Replacement parts are listed in Figure 5. Parts other than those listed in Figure 5 should be replaced by AMP to ensure quality and reliability of the tool.

CAUTION *Do NOT remove the retaining pins or permanent damage will result to 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

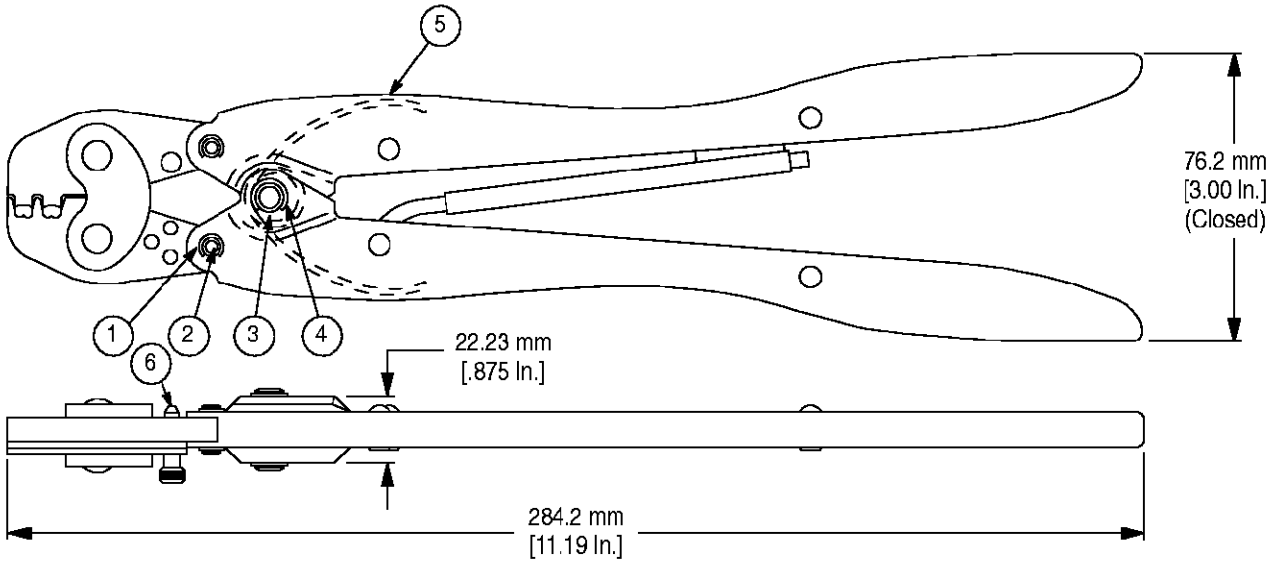
Return tools to AMP for tool repair or CERTI–CRIMP ratchet adjustment. For tool repair service, contact an AMP representative at 1–800–526–5136.

7. REVISION SUMMARY

The following changes were made since the previous release of this sheet:

Per EC 0990–0808–99

- Changed tool repair service information in Section 6, REPLACEMENT AND REPAIR
- Updated document format



NOTE: *Not to Scale*

Weight: Approximately 594 g [1 lb. 5 oz.]

REPLACEMENT PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY PER ASSY
1	21045–3	RING, Retaining	4
2	8–59558–2	PIN, Retaining	2
3	21045–6	RING, Retaining	2
4	2–23620–9	PIN, Retaining	1
5	39364	SPRING	1
6	39207	PIN, Adjustment	2

Figure 5