

PROPER USE GUIDELINES

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

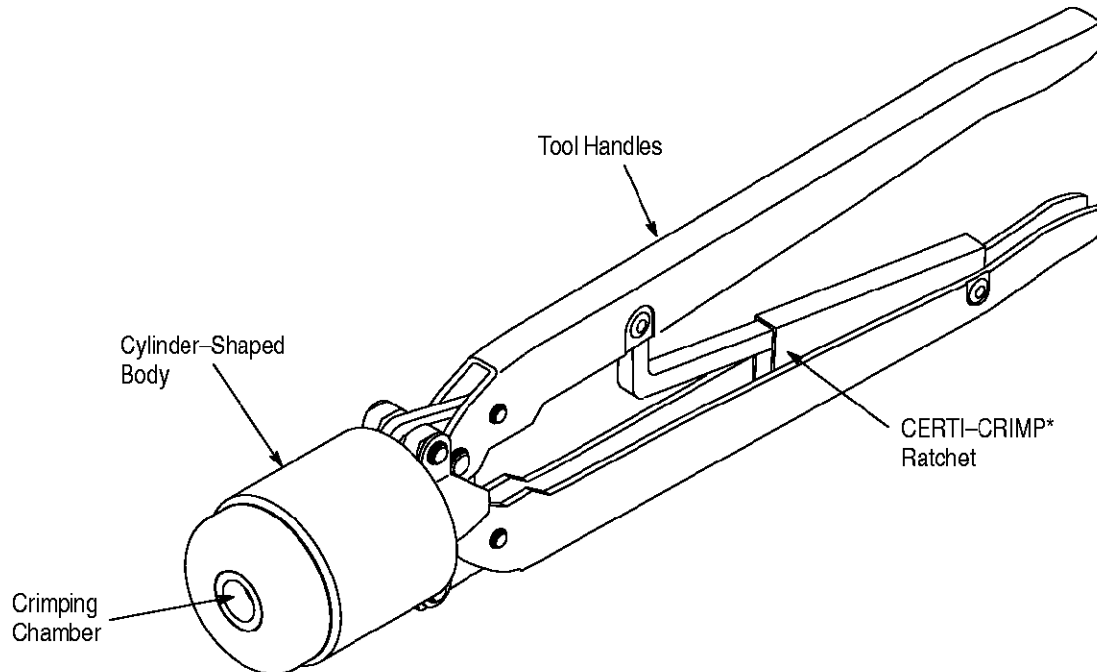


Figure 1

1. INTRODUCTION

AMP* Hand Crimping Tool 69453 (shown in Figure 1) is designed to crimp the UHF Series Connector Plug Assemblies (Figure 2) onto coaxial cable of various manufacturers. Read these instructions thoroughly before using the tool.

NOTE

Dimensions are in millimeters [followed by inch equivalents in brackets]. Figures are for identification only and are not drawn to scale.

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

2. DESCRIPTION

Hand Crimping Tool 69453 (shown in Figure 1) features a cylinder-shaped body with four spring-loaded collets in the crimping chamber. The body is mounted on a ram assembly which is actuated by the pivoted tool handles. A CERTI-CRIMP ratchet assures full crimping of the connector plug assembly. Once engaged, the ratchet will not release until the handles have been fully closed.

CAUTION

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

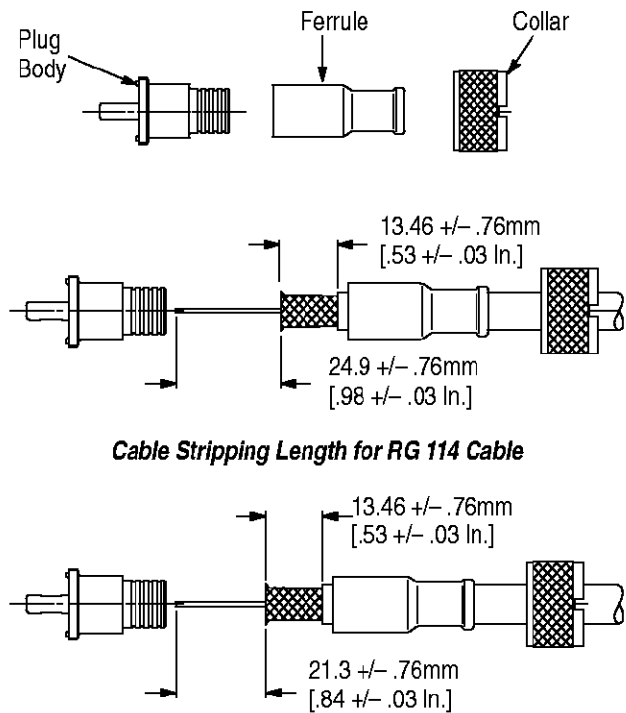
The crimping chamber also features a crimp tube in the bottom of the chamber which crimps the center contact of the UHF plug connector with four spring-loaded pins.

Each of the UHF Series Connector Plug Assemblies (Figure 2) consists of a plug body, a ferrule, and a collar. The plug body contains a threaded portion which threads into the collar.

3. CONNECTOR ASSEMBLY PROCEDURE

Refer to Figure 2 and select the appropriate UHF plug connector assembly and cable type. Strip the cable to the dimensions shown Figure 2, noting that RG 114 cable requires a different strip length than that required for other cables. Assemble the plug as follows:

1. Slip the collar and ferrule over the stripped cable. Make certain that the end of the collar containing the spanner wrench slots and the end of the ferrule with the folded-under edge are slipped onto the cable first.



Cable Stripping Length for RG 114 Cable

Cable Stripping Length for Cable Other Than RG 114

CABLE TYPE	UHF PLUG ASSEMBLY
RG 8, RG 8A, RG 213	330830
BELDEN 8214** AMPHENOL 621-111†	3-330830-1

** A Product of BELDEN Corporation

† A Product of Allied Corporation

Figure 2

2. Insert the stripped conductor into the plug body. The braid in the cable must pass over and around the support sleeve of the plug. Refer to Figure 3.

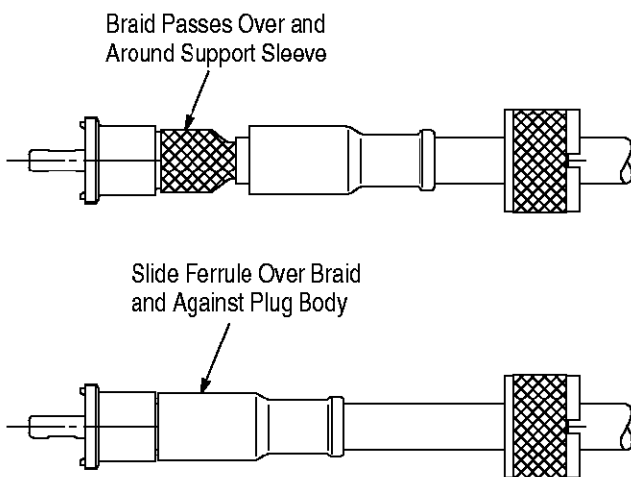


Figure 3

3. Slide the ferrule forward over the braid until the ferrule butts against the plug body. The assembly is now ready to be crimped.

4. CRIMPING PROCEDURE (Figure 4)

The crimping procedure for the coaxial cable requires careful attention to detail. It is important that this procedure be read and understood before you crimp the connector. Crimp the plug assembly as follows:

1. Close the tool handles until the CERTI-CRIMP ratchet releases and then open them fully.
2. Insert the plug and ferrule, as assembled on the cable, into the crimping chamber in the tool. Make certain that the plug is inserted straight, with the center contact entering the crimp tube at the bottom of the crimping chamber.

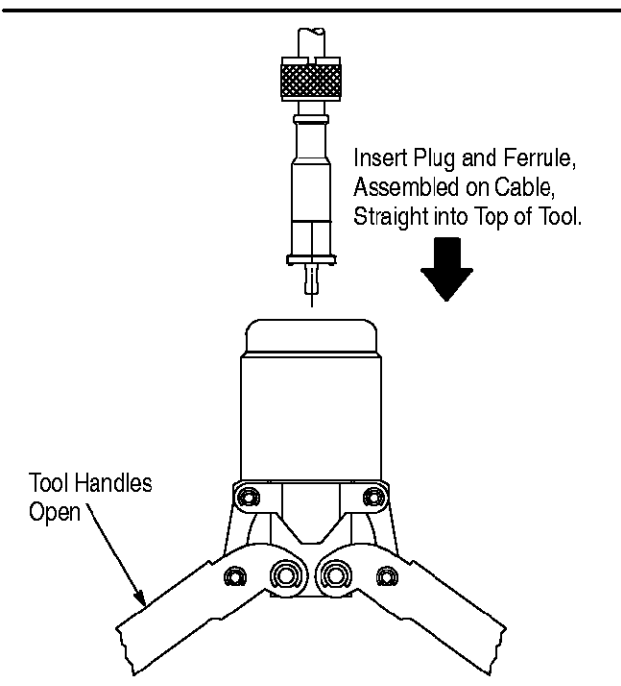


Figure 4

NOTE

When the plug bottoms inside the crimping chamber, no portion of the ferrule should be visible outside of the crimping chamber.

3. Complete the crimp by closing the tool handles fully until the ratchet releases.
4. Withdraw the crimped connector from the crimping chamber and thread the plug collar onto the plug.

5. MAINTENANCE AND INSPECTION

Periodic maintenance and inspection is recommended to ensure dependable and uniform terminations. Though recommendations call for at least one inspection a month, frequency of inspection depends on:

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

The hand tool is inspected before being shipped; however, the tool should be inspected immediately upon arrival at your facility to ensure that the tool has not been damaged during shipment.

5.1. Daily Maintenance

1. Hand tool should be immersed (handles partially closed) in a reliable commercial degreasing compound to remove accumulated dirt, grease, and foreign matter. When degreasing compound is not available, tool may be wiped clean with a soft, lint-free cloth. Do NOT use hard or abrasive 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 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.

5.2. Periodic Inspection

A. Lubrication

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

- Tool used in daily production—lubricate daily
- Tool used daily (occasional)—lubricate weekly
- Tool 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.

B. Visual Inspection

1. 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.
2. Inspect head assembly for worn, cracked, or broken dies. If damage is evident, return the tool for evaluation and repair. See Section 6, REPLACEMENT AND REPAIR.

C. Crimp Height Inspection

This inspection requires the use of a modified micrometer with a modified anvil and spindle, as shown in Figure 5. The recommended modified micrometer is 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
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Proceed as follows:

1. Select a UHF plug assembly and coaxial cable from the table in Figure 2.
2. Refer to Section 4, CRIMPING PROCEDURE, and crimp the contact accordingly.
3. Using the crimp height comparator, measure the crimp heights as shown in Figure 5. If the crimp heights conform to those in Figure 5, the tool is considered dimensionally correct. If not, the tool must be returned for evaluation and repair. See Section 6, REPLACEMENT AND REPAIR.

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

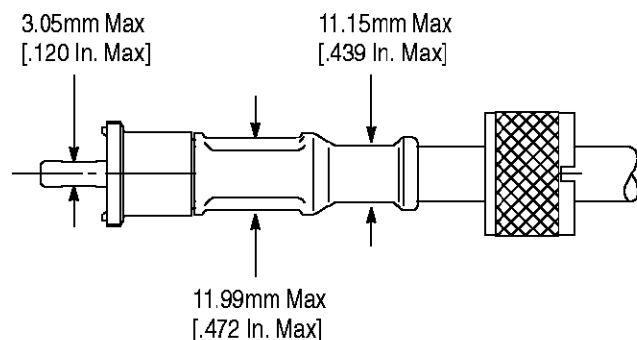
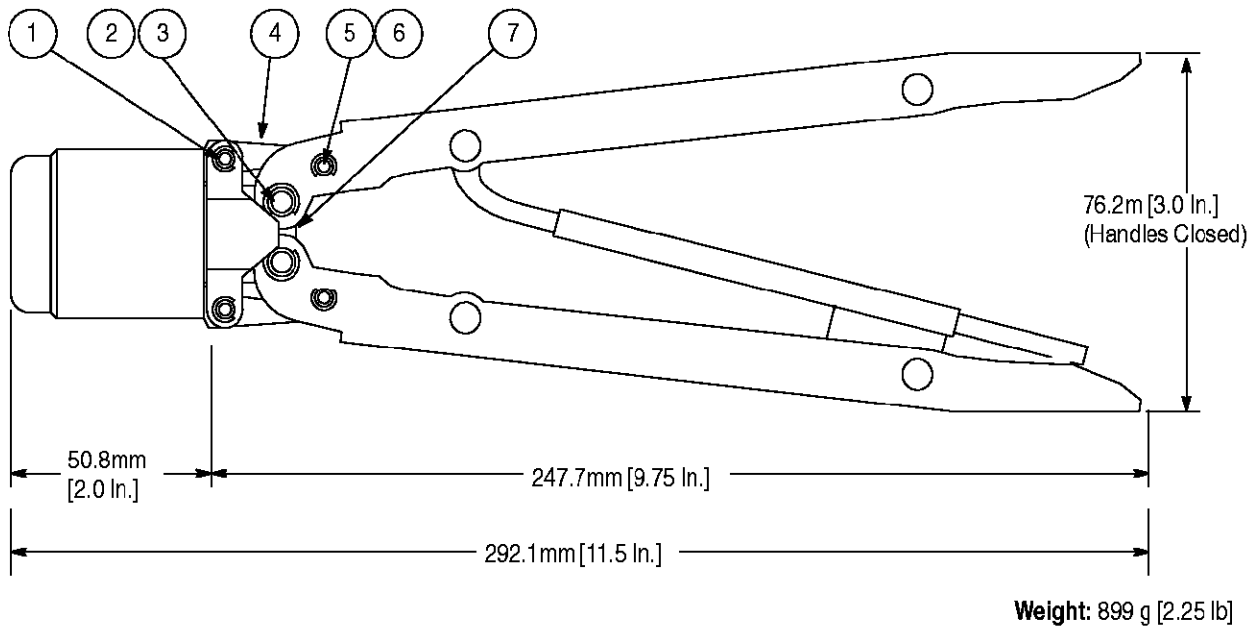


Figure 5



CUSTOMER REPLACEMENT PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY PER TOOL
1	302487	PIN, Retaining	2
2	38807	PIN, Retaining	2
3	21045-6	RING, Retaining	4
4	303104	LINK	6
5	21045-3	RING, Retaining	8
6	300388	PIN, Retaining	2
7	306249	GUIDE	2

Figure 6

6. REPLACEMENT AND REPAIR

The parts listed in Figure 6 are customer-replaceable. A complete inventory can be stocked and controlled to prevent lost time when replacement of parts is necessary. Parts other than those listed should be replaced by Tyco 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 717-986-7605, or write to:

CUSTOMER SERVICE (38-35)
 TYCO ELECTRONICS CORPORATION
 P.O. BOX 3608
 HARRISBURG, PA 17105-3608

Tools may also be returned for evaluation and repair. For tool repair service, contact a representative at: 1-800-526-5136.

7. REVISION SUMMARY

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

Per EC 0990-1363-99

- Changed tool repair service information in Section 6, REPLACEMENT AND REPAIR
- Deleted obsolete product part numbers
- Updated crimp height comparator information
- Updated document format