



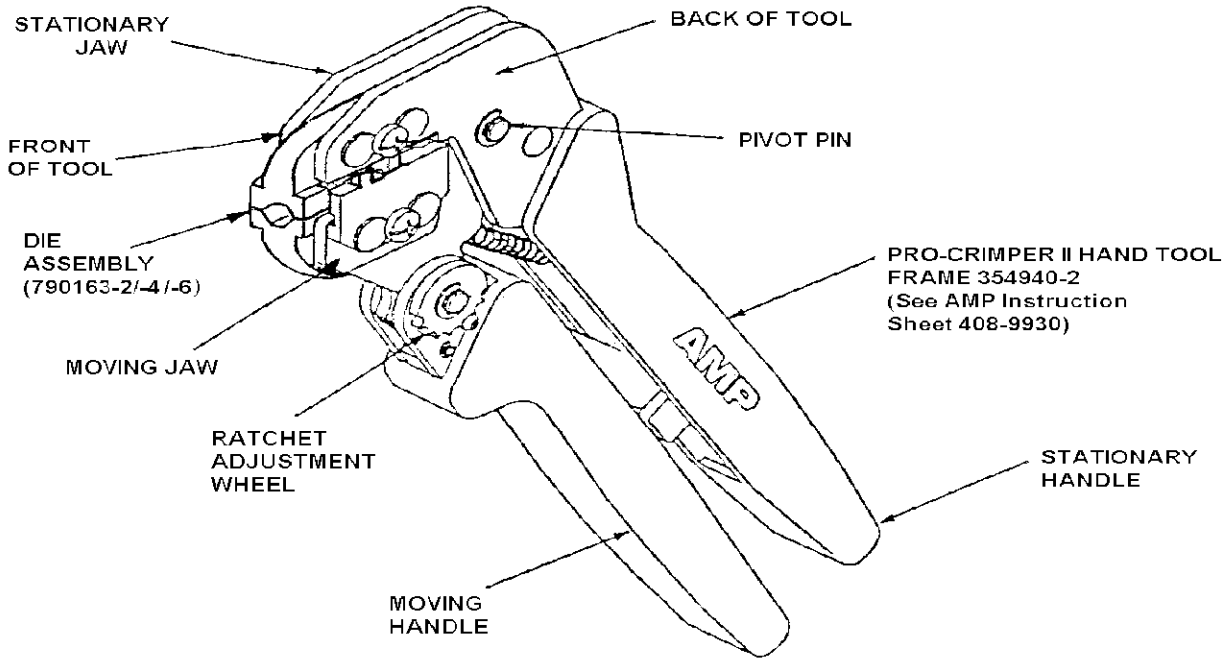
AMP* PRO-CRIMPER* II FOR EMT MODULAR PLUG
Hand Tool 790163-1/-3/-5 and Die Assembly 790163-2/-4/-6

Instruction Sheet
411-22021

07 Jan 2000 Rev. C

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.



T. MODULE + TERMINATOR	CONNECTOR TO BE APPLIED	CONDUCTOR		CABLE	
		(AWG)	INSUL. DIA (mm)	O.D. (mm)	STRIP LENGHT (mm)
HAND TOOL 790163-1	EMT M. PLUG 336330-1 or 336330-2	26-24	0,80 - 1,00	5,0 - 6,0	35 ± 5
HAND TOOL 790163-3	EMT M. PLUG 336349-1			6,0 - 7,0	
HAND TOOL 790163-5	EMT M. PLUG 336462-1				

Hand Tool Components

HAND TOOL	FRAME	DIE ASSY
790163-1	354940-2	790163-2
790163-3	354940-2	790163-4
790163-5	354940-2	790163-6

Figure 1



1. INTRODUCTION

AMP PRO-CRIMPER II Hand Tool Assembly consists of Die Assembly and hand tool frame as is specified in *Figure 1*. The die assembly consists of an insulation and connector shield stuffer, housing support, housing guides, die retaining pins, and mounting hardware.

NOTE All dimensions are in millimeters. Figures and illustrations are for identification only, and are drawn to scale.

2. DESCRIPTION (Figures 1 and 2)

The tool features a tool frame with a stationary jaw and handle, a moving jaw, a moving handle, and an adjustable ratchet that ensures full crimping. The tool frame holds a die assembly with insulation and connector shield and contacts stuffer.

The die assembly features an insulation and connector shield stuffer, a wire stuffer, a housing support, housing guides, die retaining pins, and die retaining screws which secure the die set in the tool frame. Attached to the outside of the frame are the housing guides. A nut is used on the lower die retaining screw to secure the housing guides in place.

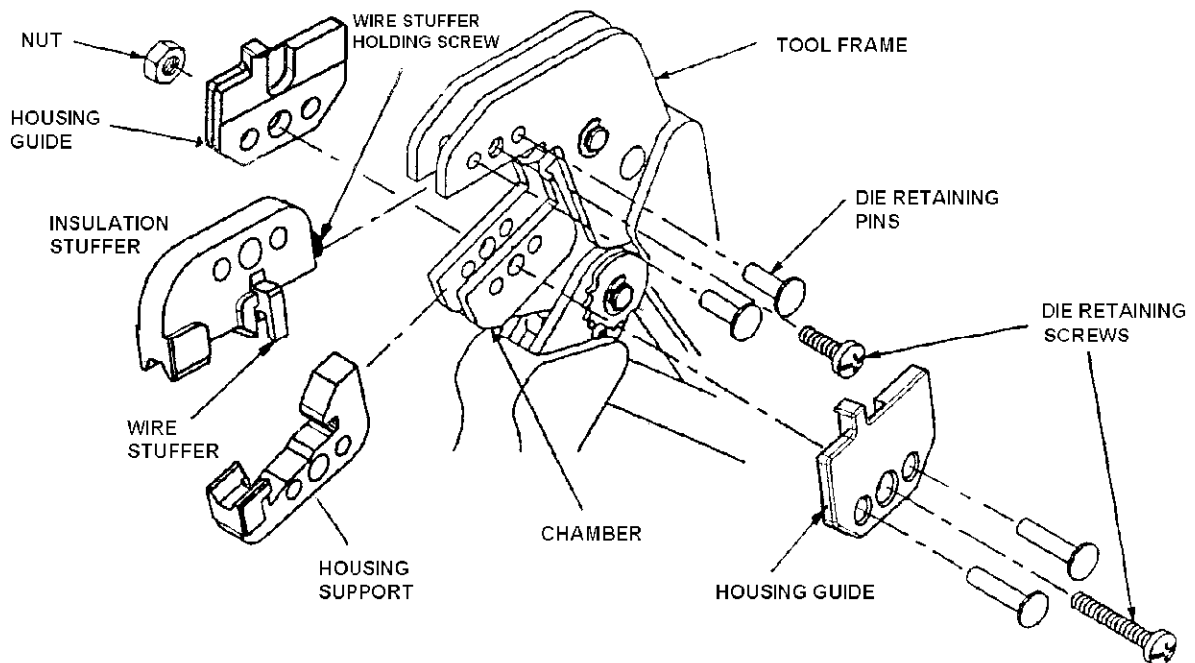


Figure 2



3. DIE SET INSTALLATION AND REMOVAL (Figure 2)

1. Close the tool handles until the ratchet releases, and allow the handles to open fully. Remove both die retaining screws from the tool jaws, if they are present.
2. Place the insulation-connector shield/wire stuffer assembly as shown in Figure 2. Insert short die retaining pins and short die retaining screw through the tool frame, and tighten the screw.
3. Place housing support in the moving jaw of the tool frame as shown in Figure 2. Mount right hand housing guide using long die retaining pins, and secure with long die retaining screw. Mount left hand housing guide and tighten nut.
4. To disassemble, close the tool handles until the ratchet releases, remove nut, screws, housing guides, retaining pins, housing support, and insulation-connector shield/wire stuffer assembly.

4. WIRE STUFFER ADJUSTMENT

If wire stuffer is not assembled onto insulation stuffer (or there are doubts about a correct adjustment of these two parts), it is required to proceed as follows:

1. Assemble wire stuffer onto insulation stuffer with the 4-40 UNC x .621 SHC Screw included within die set. Do not tighten now this screw (loosen it if already tight).
2. Open the tool jaws and insert a plug assembly without cable into die cavity.
3. Squeeze handles and keep them closed.
4. Insert a key in the wire stuffer holding screw and tighten it.
5. Open the tool and remove the crimped plug. Now the wire stuffer is hold in its proper position.

5. CRIMPING PROCEDURE

NOTE *This tool is provided with a crimp adjustment feature, initially, the crimp height should be verified as specified in Figure 3. Refer to Section 6, CRIMP HEIGHT INSPECTION, and Section 7, CRIMP HEIGHT ADJUSTMENT, to verify crimp height before using the tool to crimp desired connector.*

Before proceeding, ensure that cable and plug are compatible, and that cable polarity is correctly maintained for your specific application.

Refer to Application Specification 114-22008 for cable preparation, conductors arrangement, insertion and crimping. Proceed as follows:

1. Hold the tool so that the back is facing you. Squeeze the tool handles together and allow them to open fully.



2. Insert plug assembly (plug, cable and shield) fully into die cavity until plug bottoms in die cavity.

CAUTION Before inserting the plug into the die, make sure that the connector shield is fully bottomed onto the body. In some cables with Shielded Twisted Pairs, this check is specially important.

3. Squeeze handles until ratchet releases, and remove terminated Modular Plug cable assembly.
4. Check the crimp height as described in Section 6, CRIMP HEIGHT INSPECTION. If necessary, adjust the crimp height as described in Section 7, CRIMP HEIGHT ADJUSTMENT.

6. CRIMP HEIGHT INSPECTION

Figure 3 shows a cutaway of a typical terminated plug and the required location of the conductors. A visual inspection through the plastic housing of the plug should reveal whether the conductors are within the acceptable range.

Inspect connector for proper crimp height using an indicator with needle-point probes. Refer to Figure 3 for correct crimp height measurement. If necessary, adjust the crimp height as described in Section 7, CRIMP HEIGHT ADJUSTMENT.

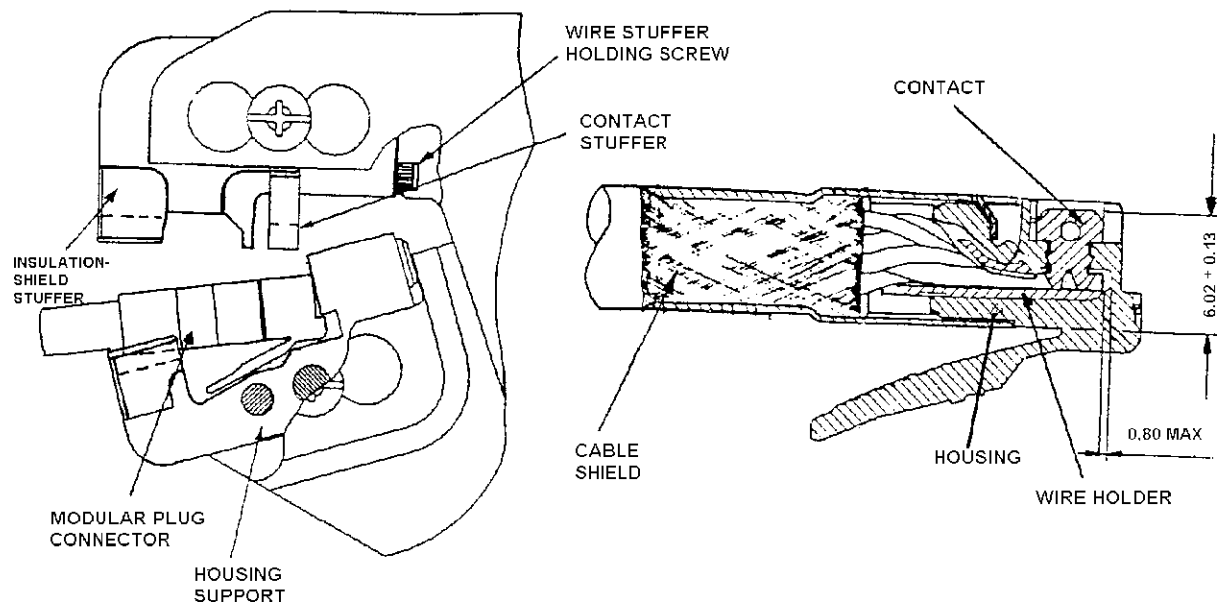


Figure 3



7. CRIMP HEIGHT ADJUSTMENT (Figure 4)

1. Remove the lock screw from the ratchet adjustment wheel.
2. With a screwdriver, adjust the ratchet wheel from the opposite side of the tool.
3. Observe the ratchet adjustment wheel; if a tighter crimp is required, rotate the adjustment wheel COUNTERCLOCKWISE to a higher-numbered setting. If a looser crimp is required, rotate adjustment wheel CLOCKWISE to a lower-numbered setting.

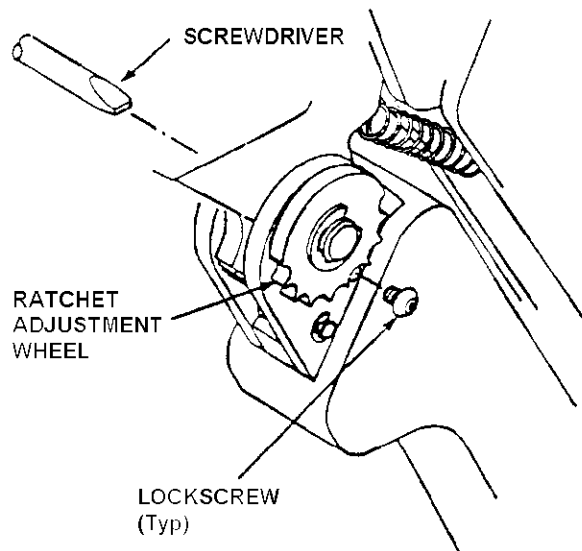


Figure 4

4. Replace the lock screw.
5. Make a sample crimp and measure the crimp height. If the dimension is acceptable, secure the lock screw. If the dimension is unacceptable, continue to adjust the ratchet, and again measure a sample crimp.

If correct crimp height cannot be obtained, tool and/or dies must be replaced. See Section 9, PARTS REPLACEMENT.

8. MAINTENANCE AND INSPECTION

8.1 Daily Maintenance

AMP recommends that operators of the tool be made aware of, and responsible for, the following steps of daily maintenance:



1. Remove dust, moisture, and any other contaminants from the tool with a clean, soft brush, or a clean, 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 jaws. Store the tool in a clean, dry area.

8.2 Periodic Inspection

Regular inspection of the tool should be performed by quality control personnel. A record of scheduled inspections should remain with the tool or be supplied to supervisor personnel responsible for the tool.

Inspection frequency should be based upon amount of use, working conditions, operator training and skill, and established company standards.

8.3 Visual Inspection

The crimping dies should be inspected on a regular basis to ensure that they have not become worn or damaged. Inspect the crimp sections for flattened, chipped, worn, or broken areas. If damage or abnormal wear is evident, the tool must be replaced. See Section 9, PARTS REPLACEMENT.

1. Remove all lubrication and accumulated film by immersing the tool (handles partially closed) in a suitable commercial degreaser that will not affect paint or plastic material.
2. Make certain that all retaining pins are in place and secured with retaining rings.
3. 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 9, PARTS REPLACEMENT.
4. Inspect the tool frame for wear or damage, paying particular attention to the tool jaws and pivot points. If damage is evident, refer to Section 9, PARTS REPLACEMENT. If tool is acceptable, lubricate and return to service.
5. Check the crimping dies occasionally to make sure dies are not broken or chipped. If damage is evident, refer to Section 9, PARTS REPLACEMENT.

9. PARTS REPLACEMENT

Customer-replaceable parts are shown in Figure 1. Available separately, AMP PRO-CRIMPER II Hand Tool Repair Kit 679221-1 includes a replacement nut and a variety of pins, rings, screws and springs. If the dies are damaged or worn excessively, they must be replaced. Order the repair kit and replaceable parts through your AMP representative