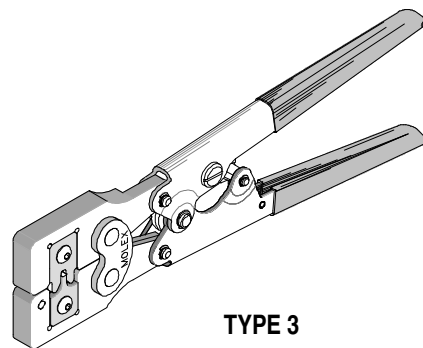




Hand Crimp Tool Specification Sheet Order No. 11-01-0068 Engineering No. HTR4971D



TYPE 3

FEATURES

- Simple trouble-free full cycle mechanism assures consistent complete terminations
- All crimp cavities are fully machined in high carbon steel, then heat treated
- Replaceable crimp inserts

SCOPE

Products: Board-In Crimp Terminal, 18-24 AWG.

Terminal Series No.	Terminal Order No.			Wire Size		Insulation Diameter Maximum		Strip Length	
	Loose Piece	Reel		AWG	mm ²	mm	In.	mm	In.
4706-3		02-07-2101	50-29-1688	18-24	0.80-0.20	3.05	.120	5.94-6.35	.234-.250

CRIMPED TERMINAL

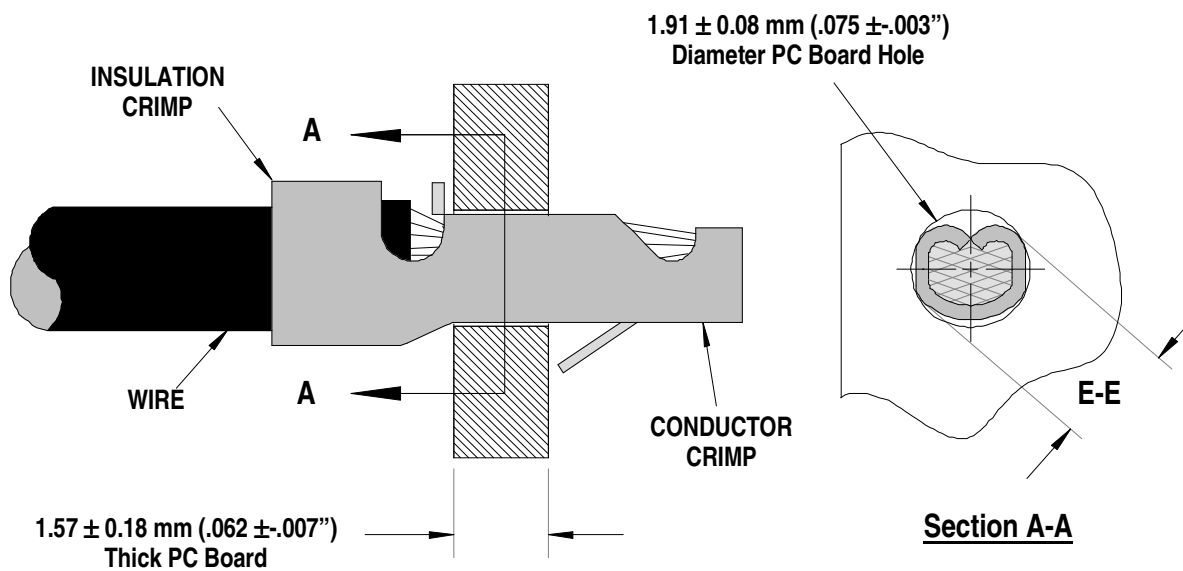


Figure 1

CONDITIONS:

After crimping, the conductor profiles should measure the following (see notes on page 4).

Terminal Series No.	Wire Size		E-E Dimension (Figure 1)		* Pull Force Minimum	
	AWG	mm ₂	mm	In.	N	Lb.
4706-3	18	0.80	1.72-1.78	.068-.070	13.3	3.0
	20	0.50	1.72-1.78	.068-.070	13.3	3.0
	22	0.35	1.72-1.78	.068-.070	13.3	3.0
	24	0.20	1.72-1.78	.068-.070	13.3	3.0

- * The crimp on this terminal is not an electrical crimp; the final soldering operation is the electrical connection. This minimum force is what should be expected when pulling the terminal with both insulation and conductor crimped.

OPERATION

Open the tool by squeezing the handles together, at the end of the closing stroke, the ratchet mechanism will release the handles, and the hand tool will spring open.

Before attempting to crimp any terminals, make sure all the inserts are correctly placed into the upper and lower jaws of the hand tool. See Figure 2.

The terminals should be cut from the reel as shown. See Figure 3. The carrier strip may be used to assist in crimping and can be removed after crimp is complete.

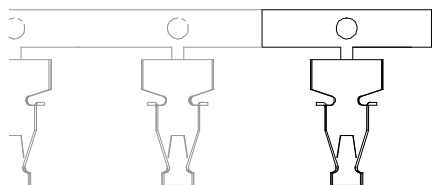


Figure 3

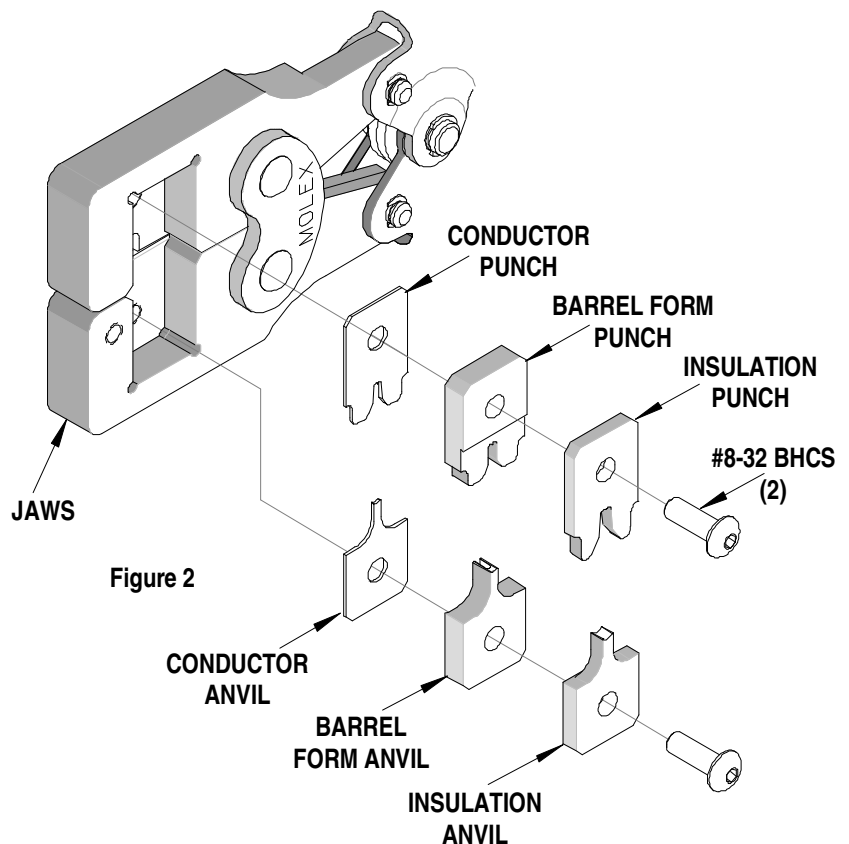


Figure 2

Crimping Terminals

1. While holding onto the terminal strip with the properly strip wire, insert into the lower jaw of the hand tool until the front of the terminal is flush with the conductor anvil insert. See Figure 4 and 5.
2. Partially close the hand tool jaws until the terminal is held snug in place.
3. Complete the crimp by closing the hand tool handles until they release.
4. Remove the crimp and inspect for proper crimp. Molex offers a Crimp Inspection Handbook for closed barrel industrial product. See our website or contact your sales engineer.

Note: The tamper proof ratchet action will not release the tool until it has been fully closed.

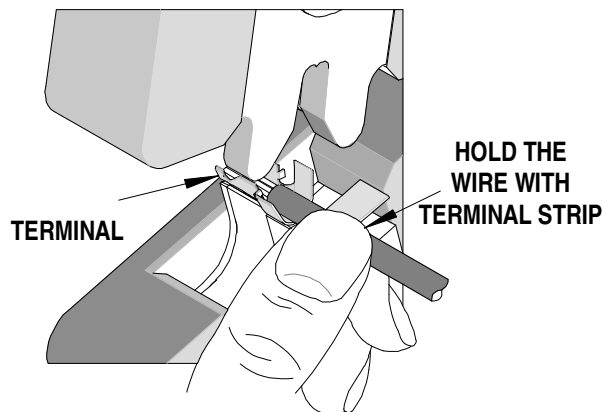


Figure 4

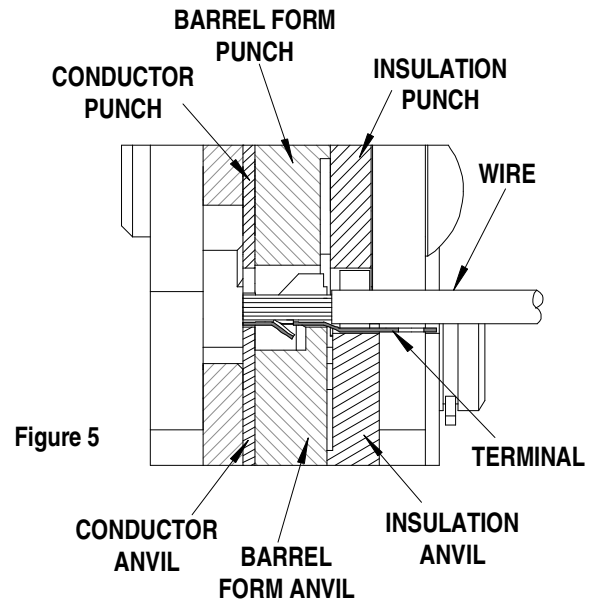


Figure 5

Maintenance

It is recommended that each operator of the tool be made aware of, and responsible for, the following maintenance steps:

1. Remove dust, moisture, and other contaminants with a clean brush, or soft, lint free cloth.
2. Do not use any abrasive materials that could damage the tool.
3. Make certain all pins; pivot points and bearing surfaces are protected with a thin coat of high quality machine oil. Do not oil excessively. The tool was engineered for durability but like any other equipment it needs cleaning and lubrication for a maximum service life of trouble free crimping. Light oil (such as 30 weight automotive oil) used at the oil points, every 5,000 crimps or 3 months, will significantly enhance the tool life.
4. Wipe excess oil from hand tool, particularly from crimping area. Oil transferred from the crimping area onto certain terminations may affect the electrical characteristics of an application.
5. When tool is not in use, keep the handles closed to prevent objects from becoming lodged in the crimping dies, and store the tool in a clean, dry area.

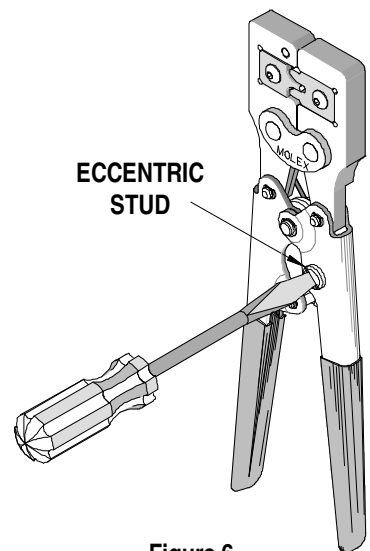


Figure 6

Miscrimps or Jams

Should this tool ever become stuck or jammed in a partially closed position, **Do Not** force the handles open or closed. The tool will open easily by lifting the ratchet release lever. See Figure 7.

How to Adjust Tool Crimp Force (See Figure 6)

It may be necessary over the life of the tool to adjust tool-crimping force. Listed below are the steps required to adjust the crimping force of the hand tool to obtain proper crimp conditions:

1. Loosen the stud nut on the back of the handle.
2. With a screwdriver in the slot on the other side of the stud, adjust the force. Clockwise will increase the force, counter clockwise will decrease the force.
3. Retighten the nut.
4. Check the crimp specifications after tool force adjustment.

Warranty

This tool is for electrical terminal crimping purposes only. This tool is made of the best quality materials. All vital components are long life tested. All tools are warranted to be free of manufacturing defects for a period of 30 days. Should such a defect occur, we will repair or exchange the tool free of charge. This repair or exchange will not be applicable to altered, misused, or damaged tools. This tool is designed for hand use only. Any clamping, fixturing, or use of handle extensions voids this warranty.

CAUTION: Repetitive use of this tool should be avoided.

CAUTIONS:

1. Manually powered hand tools are intended for low volume or field repair. This tool is **NOT** intended for production use. Repetitive use of this tool should be avoided.
2. Insulated rubber handles are not protection against electrical shock.
3. Wear eye protection at all times.
4. Use only the Molex terminals specified for crimping with this tool.

Notes:

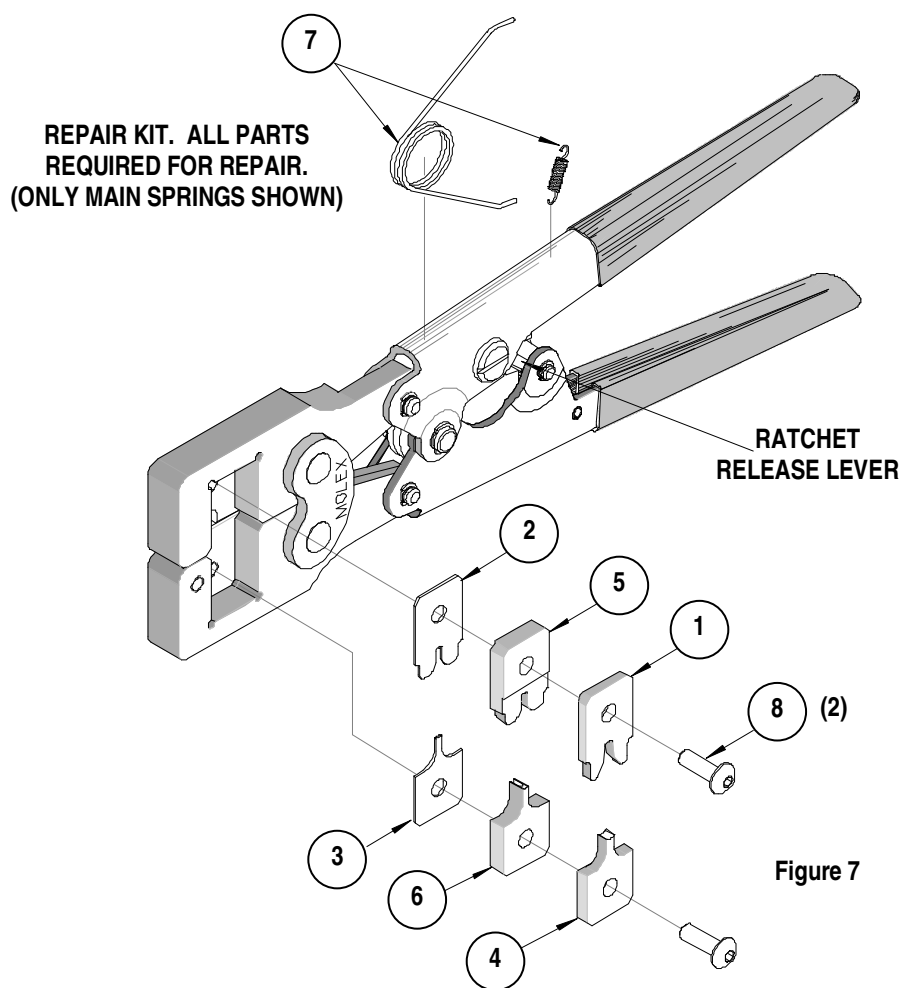
1. This tool should only be used for the terminals and wire gauges specified on this sheet.
2. This tool is not adjustable for crimp height, however crimp force is adjustable (See instructions above). Variations in tools, terminals, wire stranding and insulation types may affect crimp height.
3. This tool is intended for standard conductor sizes. It may not give a good insulation crimp support for all insulation sizes.
4. Molex does not repair hand tools (see warranty above). The replacement parts listed are the only parts available for repair. If the handles or crimp tooling is damaged or worn, a new tool must be purchased.
5. Molex does not certify crimp hand tools.

CAUTION: Molex crimp specifications are valid only when used with Molex terminals and tooling.

PARTS LIST

Item	Order No.	Engineering No.	Description	Quantity
1	11-11-0048	4971-1	Insulation Punch	1
2	11-11-0056	4971-9	Conductor Punch	1
3	11-11-0057	4971-10	Conductor Anvil	1
4	11-11-0051	4971-4	Insulation Anvil	1
5	11-11-0054	4971-7	Barrel Form Punch	1
6	11-11-0055	4971-8	Barrel Form Anvil	1
7	64000-0073	64000-0073	Repair Kit (Springs, Pins and E-Rings)	1
8	N/A	N/A	#8-32 by 1/2 long BHCS	2**

** The following purchased parts are available from an Industrial supply company such as MSC (1-800-645-7270).



Americas Headquarters
 Lisle, Illinois 60532 U.S.A.
 1-800-78MOLEX
 amerinfo@molex.com

Far East North Headquarters
 Yamato, Kanagawa, Japan
 81-462-65-2324
 feninfo@molex.com

Far East South Headquarters
 Jurong, Singapore
 65-6-268-6868
 fesinfo@molex.com

European Headquarters
 Munich, Germany
 49-89-413092-0
 eurinfo@molex.com

Corporate Headquarters
 2222 Wellington Ct.
 Lisle, IL 60532 U.S.A.
 630-969-4550
 Fax: 630-969-1352

Visit our Web site at <http://www.molex.com>