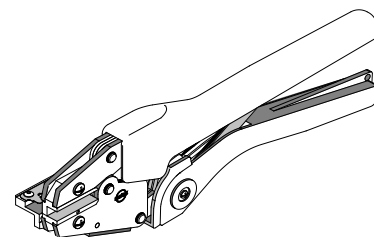**Order No. 64001-5200**
Engineering No. RHT 2749-CC
(Replaces 19285-0025)

molex®

Application Tooling Specification

FEATURES

- A full cycle ratcheting hand tool ensures complete crimps
- Long handles for comfortable crimping with reduced crimping force
- A precision user-friendly terminal locator wire stop holds terminals in the proper crimping position
- Single color-coded crimp pocket eliminates the possibility of using the wrong pocket

SCOPE

Products: InsulKrimp Female Fully Insulated Quick Disconnect 24-26 AWG Conductor Crimp Only.

Testing

Mechanical

The tensile test, or pull test, is a means of evaluating the mechanical properties of the crimped connections. The following charts show the UL specifications for various wire sizes. The tensile strength is shown in pounds and indicates the minimum acceptable force to break or separate the terminal from the conductor.

Wire Size (AWG)	*UL - 310
26	3
24	5

*UL – 310 – Quick Disconnects

The following is a partial list of the product part numbers and their specifications that this tool is designed to run. Please visit www.molex.com for the most up-to-date version of this list:

Terminal No.	Terminal Eng. No. (Ref.)	Wire Strip Length		Insulation Diameter Maximum	
		In.	mm	In.	mm
19003-0064	M-2210	.250	6.35	.075	1.905
19003-0068	M-2211	.250	6.35	.075	1.905
19003-0071	M-2212	.250	6.35	.075	1.905
19003-0138	M-2210V	.250	6.35	.075	1.905
19003-0141	M-2211V	.250	6.35	.075	1.905

Wire Size: 24-26 AWG: 0.20-0.12 mm²

OPERATION

Open the tool by first closing the jaws sufficiently for the ratchet mechanism to release.
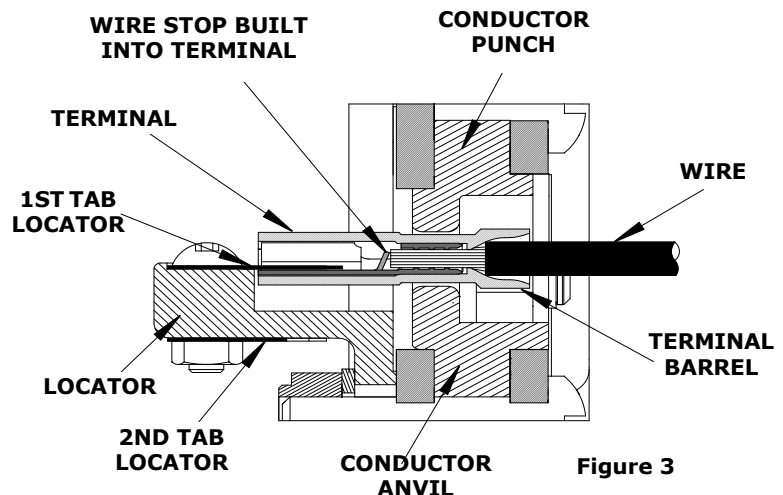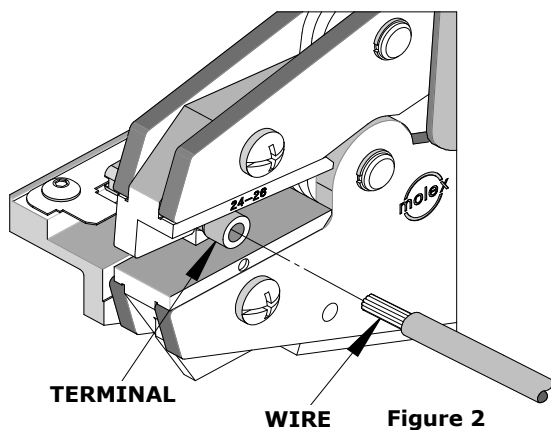
Crimping Terminals

1. There are two tab locator blades supplied with the tool. One is for .187 and .250 tabs; the other is for .205 tabs and .110 tabs. Make sure the proper blade is installed on the top of the locator and the other is stored on the bottom of the locator.
2. Push the terminal onto the tab locator all the way to the stop in the color-coded nest. The barrel of the terminal should be up (See Figure 1).
3. Partially close the tool to hold the terminal in place (See Figure 2).
4. Insert the properly-stripped wire into the terminal barrel (See Figures 2 and 3). Cycle the tool.

JAWS OPEN

TERMINAL

TAB LOCATOR

LOCATOR

Figure 1
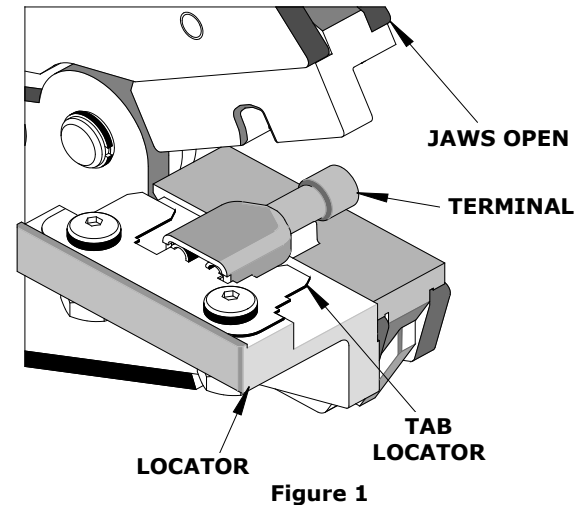
Note: The tamper-proof ratchet action will not release the tool until it has been fully closed.

5. Remove the crimped terminal and inspect for proper crimp location. Molex offers a Crimp Inspection Handbook for closed barrel industrial products. See the Molex website or contact your sales engineer.
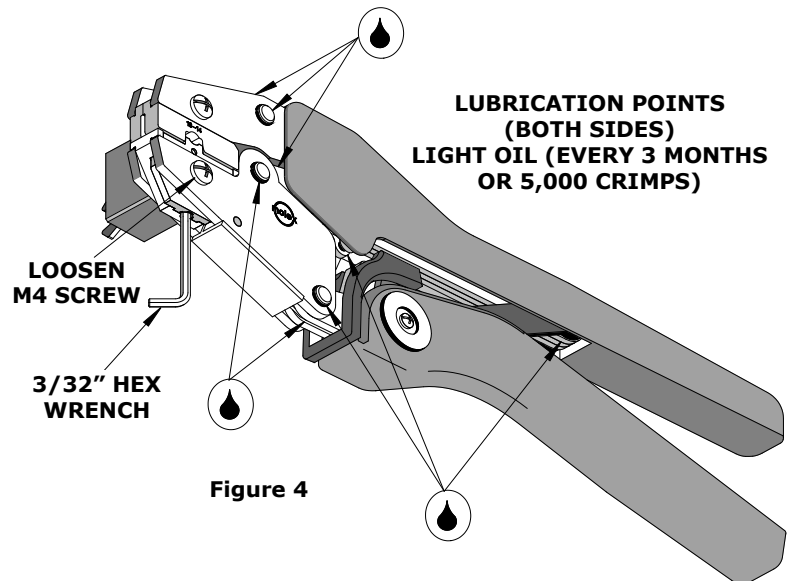
WIRE STOP BUILT INTO TERMINAL

CONDUCTOR PUNCH

TERMINAL

1ST TAB LOCATOR

WIRE

TERMINAL BARREL

LOCATOR

2ND TAB LOCATOR

CONDUCTOR ANVIL

Figure 3

TERMINAL

WIRE   **Figure 2**

Note: Whenever crimping without the locator, make sure the seam of the terminal is oriented up or down in the tool if using unbrazed product because this will provide higher pull force values.
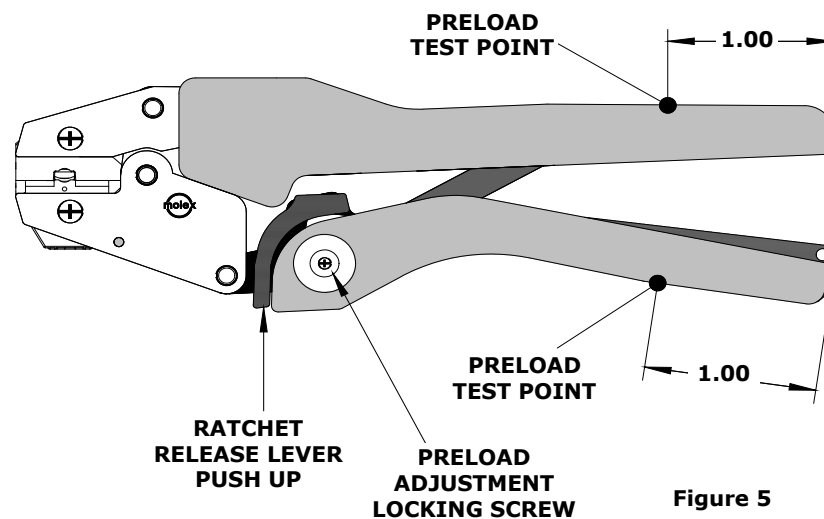
MAINTENANCE

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 a 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. This 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 shown in Figure 4 every 5,000 crimps or 3 months will significantly enhance the tool life and ensure a stable calibration.
4. When the 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.

LUBRICATION POINTS (BOTH SIDES) LIGHT OIL (EVERY 3 MONTHS OR 5,000 CRIMPS)

LOOSEN M4 SCREW

3/32" HEX WRENCH

Figure 4

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 5.

PRELOAD TEST POINT

1.00

PRELOAD TEST POINT

1.00

RATCHET RELEASE LEVER PUSH UP

PRELOAD ADJUSTMENT LOCKING SCREW

Figure 5

HOW TO ADJUST TOOL PRELOAD (See Figure 5)

Over the life of the tool, it may be necessary to adjust the tool handle preload force. Listed below are the steps required to adjust the crimping force of the hand tool to obtain proper crimp conditions:

1. Remove the screw and plastic cover washer. Note the setting wheel position.
2. Lift the setting wheel off the axle. Turn the eccentric axle with a screwdriver.
3. Turning the eccentric axle counterclockwise (CCW) will increase handle force.
4. Replace the setting wheel to the axle, aligning the nearest notch in the setting wheel to the dowel pin.
5. Replace the plastic cover washer and screw.
6. Check the crimp specifications after tool handle preload force is adjusted.

Tool Calibration

A certificate of calibration (see last page) was supplied with the tool. To recalibrate this tool, pin gauge measurements should be taken in each conductor nest and compared to this chart. The tool should be lubricated prior to recalibration to ensure consistent measurements. Handle preload is factory set to 25-45 pounds. See How to Adjust Tool Preload to recalibrate.

PIN GAUGE IN CONDUCTOR CRIMP

X

"CONFINING" CRIMP
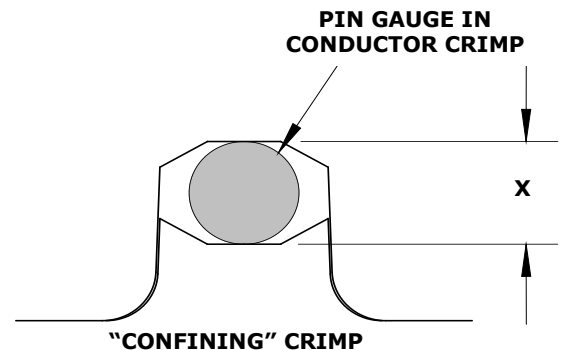
Nest Color Code	Wire Range		"X" Dimension Conductor Crimp			Crimp Inspection Marking
	AWG	mm²	Mean	Go	No Go	
Yellow	24-26	0.20-0.12	.075	.074	.077	—

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, Molex 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.

Handheld crimping tools are intended for low-volume, prototyping or repair requirements only.

CAUTION: Repetitive use of this tool should be avoided.

PARTS LIST

Item	Order No.	Description	Quantity
	64001-5200	**Hand Crimp Tool**	**(Fig. 6)**
1	64000-0076	Repair Kit (Springs, Pins and E-Rings)	1
2	63810-0000	Handle	1
3	64001-0275	Locator Assembly	1
4	64001-5270	Tooling Kit	1
	Tooling Kit Only		
5	64001-5202	Conductor Punch	1
6	64001-5201	Conductor Anvil	1

M4 LOCKNUT W/ HEX NYLON INSERT

M4 FLAT WASHER

RATCHET RELEASE LEVER

SCREW AND PLASTIC COVER FOR HAND TOOL PRELOAD ADJUSTMENT

M4 X 12LG PAN HEADSCREW

M4 X 25LG PAN HEAD SCREW

SWING OPEN COVER FOR SPRING ACCESS

REPAIR KIT. ALL PARTS REQUIRED FOR REPAIR. (ONLY MAIN SPRING SHOWN)
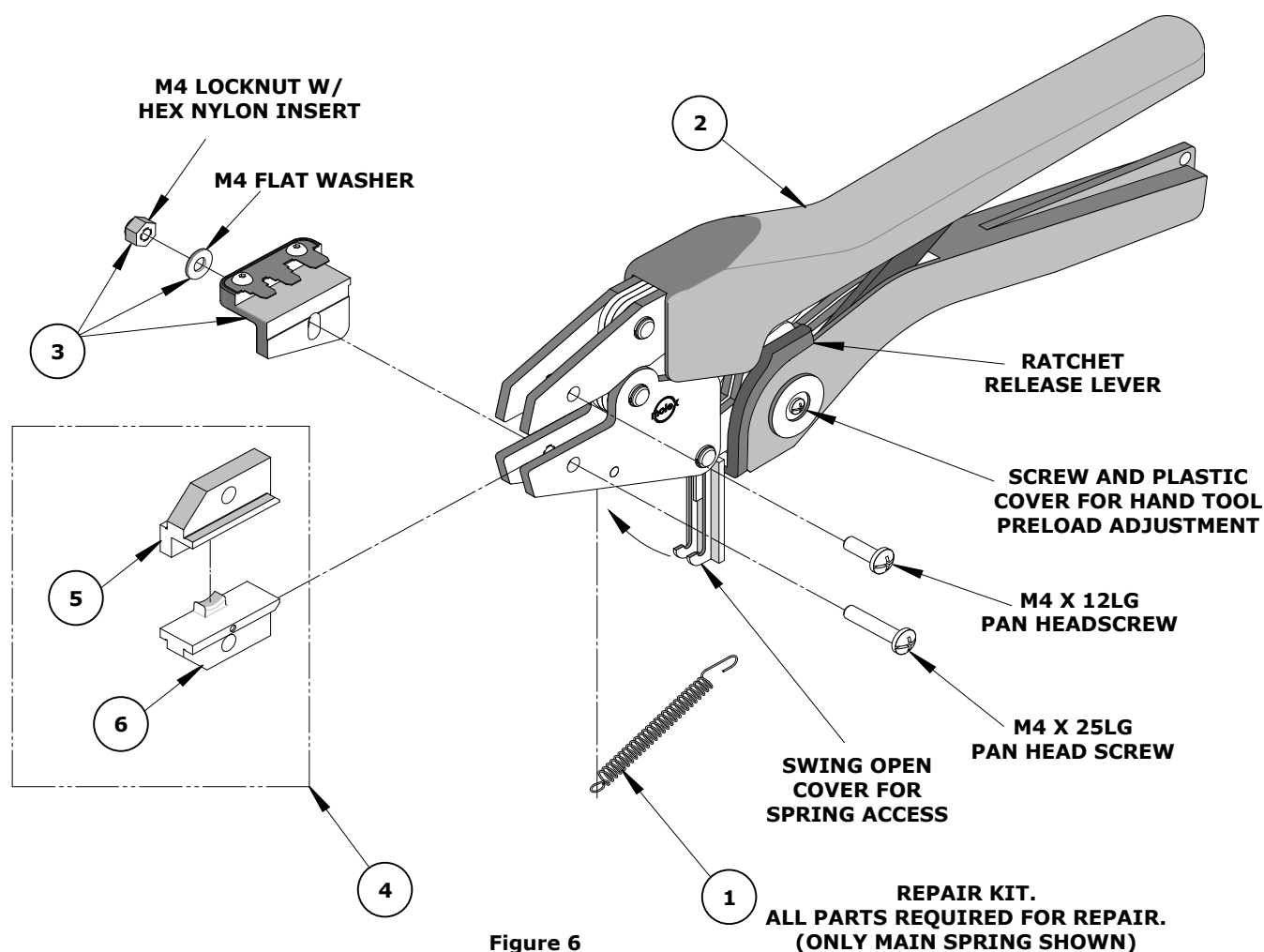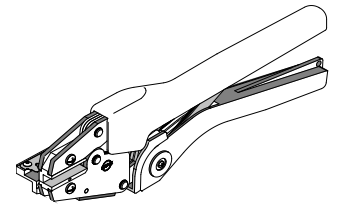
Figure 6

Application Tooling Support

Phone: (402) 458-TOOL (8665)
E-Mail: applicationtooling@molex.com
Website: www.molex.com/applicationtooling

molex®

Certificate of Calibration

Tool Order Number: _____

Tool Eng. Number: _____

Tool Revision: _____

Serial Number: _____

Date of Manufacture: _____

Handle Load Range at 1 Inch from the Tips =_____

Actual =_____

Pin Gauge of Conductor Nest/Nests or Slug height if the nest is the "F" Crimp style.

Range Conductor Nest #1 =_____ Actual =_____

Range Conductor Nest #2 =_____ Actual =_____

Range Conductor Nest #3 =_____ Actual =_____

Technician: _____

Date of Calibration: _____

Calibration should be done every 5,000 cycles or 3 months. Tools should be lubricated during this operation.

Application Tooling Support

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