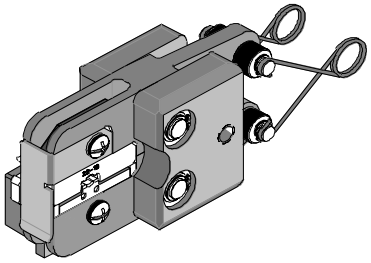
Air Powered Crimp Tool Head
Operating Instruction Sheet And Specifications
Part No. 64005-1400
Eng. No. AT 2100
(Replaces 19283-0009 and 19283-0010 AT 2150)



FEATURES

- Quick change tool head for the 19279-0001 (AT-200)
- Tooling kit is interchangeable with other kits in the 64001 and 64003 series
- A precision user-friendly terminal locator wire stop holds terminals in the proper crimping position
- Insulation crimp adjustment allows a precise insulation crimp. To meet or exceed the requirements of UL, CSA and Military Class II
- Pneumatic powered crimp tools help reduce fatigue and discomfort from repetitive manual crimping
- Single color-coded crimp pocket eliminates the possibility of using the wrong pocket

SCOPE

AviKrimp™ /InsulKrimp™ Terminals 14-16 AWG, (Rings, Spades, Hooks, Splices, Snap Spades, Flanged Spades and Wire Pin Terminals). Some Male Quick Disconnects and 3 to 4 Way Connectors. Also terminates ends of step down butt splices14-16 to 18-22 AWG. And Heavy Duty Terminals 16-20 AWG (Green color code). This tool head is intended for use in the 19279-0001 (AT-200) either hand held or with optional bench adapter 19078-0307 (ATBA) and foot switch.

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 and Government specifications (MIL-T-7928) for various wire sizes. The tensile strength is shown in pounds and indicates the minimum acceptable force to break or separate terminal from the conductor.

Wire Size (AWG)	*UL - 486 A	*UL – 486 C	**Military Class 2
22	8	8	15
20	13	10	19
18	20	10	38
16	30	15	50
14	50	25	70

*UL - 486 A - Terminals (Copper conductors only).
*UL - 486 C - Butt Splices, Parallel Splices, Closed End Connectors and Wire Nuts.
**Military Class 2– Military Approved Terminals only as listed

The following is a partial list of the product part numbers and their specifications that this tool is designed to run. We will be adding to this list and an up to date copy is available on www.molex.com.

Wire Size: 14 – 16 AWG 2.00 – 1.30 mm²					
Terminal No.	Terminal Eng No. (REF)	Wire Strip Length		Insul. Dia. Max.	
		In	mm	In.	mm
19023-0012	MCT-2X	.312	7.94	.175	4.45
19025-0007	MCT-5	.312	7.94	.170	4.32
19025-0008	MCT-57	.312	7.94	.170	4.32
19034-0007	B-279X	.312	7.94	.175	4.45
19034-0009	B-289X	.312	7.94	.170	4.30
19035-0005	B-579	.312	7.94	.170	4.42
19035-0009	B-589	.312	7.94	.170	4.42
19036-0006	B-879	.312	7.94	.170	4.32
19036-0008	B-889	.312	7.94	.170	4.32
19070-0059	BB-218-38X	.234	5.95	.175	4.45
19070-0063	BB-218-56X	.234	5.95	.175	4.45
19070-0065	BB-223-02X	.234	5.95	.175	4.45
19070-0067	BB-223-04X	.234	5.95	.175	4.45
19070-0069	BB-223-06X	.234	5.95	.175	4.45
19070-0071	BB-223-08X	.234	5.95	.175	4.45
19070-0073	BB-225-10X	.234	5.95	.175	4.45
19070-0075	BB-225-14X	.234	5.95	.175	4.45
19070-0078	BB-225-56X	.234	5.95	.175	4.45
19070-0083	BB-237-06X	.234	5.95	.175	4.45
19070-0086	BB-237-08X	.234	5.95	.175	4.45
19070-0090	BB-237-10X	.234	5.95	.175	4.45
19070-0099	BB-239-08X	.234	5.95	.175	4.45
19070-0102	BB-239-10X	.234	5.95	.175	4.45
19073-0059	BB-818-38	.250	6.35	.170	4.32
19073-0061	BB-818-56	.250	6.35	.170	4.32
19073-0065	BB-823-04	.250	6.35	.170	4.32
19073-0067	BB-823-06	.250	6.35	.170	4.32
19073-0072	BB-823-08	.250	6.35	.170	4.32
19073-0074	BB-825-10	.250	6.35	.170	4.32
19073-0076	BB-825-14	.250	6.35	.170	4.32
19073-0079	BB-825-56	.250	6.35	.170	4.32
19073-0081	BB-837-04	.250	6.35	.170	4.32
19073-0083	BB-837-06	.250	6.35	.170	4.32
19073-0085	BB-837-08	.250	6.35	.170	4.32
19073-0087	BB-837-10	.250	6.35	.170	4.32
19073-0094	BB-839-08	.250	6.35	.170	4.32
19073-0097	BB-839-10	.250	6.35	.170	4.32
19080-0003	B-2006-MSX	.312	7.94	.175	4.45
19081-0003	B-5006-MS	.312	7.94		
19090-0044	BB-213-04X	.234	5.95	.175	4.45
19090-0046	BB-213-06X	.234	5.95	.175	4.45
19090-0048	BB-213-08X	.234	5.95	.175	4.45
190900071	BB-288-06X	.234	5.95	.175	4.45
19090-0075	BB-288-10X	.234	5.95	.175	4.45
19095-0135	BB-883-10	.250	6.35	.175	4.45
19095-0138	BB-886-08	.250	6.35	.170	4.32
19095-0140	BB-887-06	.250	6.35	.170	4.32
19095-0141	BB-887-08	.250	6.35	.170	4.32
19099-0025	BB-2707-05X	.234	5.95	.175	4.45
19099-0027	BB-2707-06X	.234	5.95	.175	4.45
19099-0032	BB-2716-08X	.234	5.95	.175	4.45
19115-0016	BB-8193-06	.250	6.35	.170	4.32
19115-0018	BB-8194-08	.250	6.35	.170	4.32
19115-0020	BB-8195-10	.250	6.35	.170	4.32
19115-0022	BB-8707-05	.250	6.35	.170	4.32
19115-0024	BB-8707-06	.250	6.35	.170	4.32
19115-0031	BB-8717-10	.250	6.35	.170	4.32
19115-0079	BB-8716-08	.250	6.35	.170	4.32
19121-0026	BB-216-06X	.234	5.95	.175	4.45
19121-0028	BB-216-08X	.234	5.95	.175	4.45
19121-0030	BB-216-10X	.234	5.95	.175	4.45

Wire Size: 14 – 16 AWG 2.00 – 1.30 mm²					
Terminal No.	Terminal	Wire Strip Length		Insul. Dia. Max.	
		In	mm	In.	mm
19121-0040	BB-283-10X	.234	5.95	.175	4.45
19127-0039	BB-816-06	.250	6.35	.170	4.32
19127-0042	BB-816-08	.250	6.35	.170	4.32
19127-0099	BB-816-10	.250	6.35	.170	4.32
19131-0007	BB-287-08X	.234	5.95	.175	4.45
19131-0014	BB-2781-10X	.234	5.95	.175	4.45
19131-0018	BB-2781-08X	.234	5.95	.175	4.45
19131-0020	BB-2781-06X	.234	5.95	.175	4.45
1913-10023	BB-2471-06X	.234	5.95	.175	4.45
19131-0025	BB-2471-04X	.234	5.95	.175	4.45
19139-0038	BB-8471-04	.250	6.35	.170	4.32
19139-0044	BB-8781-08	.250	6.35	.170	4.32
19139-0045	BB-8781-10	.250	6.35	.175	4.45
19144-0013	BB-207-04X	.312	7.94	.170	4.42
19144-0015	BB-207-06X	.234	5.95	.175	4.45
19144-0018	BB-224-06X	.234	5.95	.175	4.45
19144-0020	BB-224-08X	.234	5.95	.175	4.45
19154-0015	B-231X	.234	5.95	.175	4.45
19154-0022	BA-631X	.281	7.14	.175	4.45
19154-0023	BS-V-331X	.281	7.14	.179	4.57
19179-0008	BB-219-06X	.234	5.95	.175	4.45
19179-0010	BB-219-08X	.234	5.95	.175	4.45
19179-0012	BB-219-10X	.234	5.95	.175	4.45
19183-0009	BB-819-08	.250	6.35	.170	4.32
19183-0011	BB-819-10	.250	6.35	.170	4.32
19198-0012	BB-807-06	.234	5.95	.175	4.45
19198-0016	BB-824-06	.250	6.35	.170	4.32
19198-0019	BB-824-08	.250	6.35	.170	4.32
19198-0025	BB-827-10	.250	6.35	.170	4.32
19204-0013	B-2XCX	.312	7.94	.175	4.45
19204-0014	B-2YCX	.312	7.94	.175	4.45
19204-0017	B-5XC	.312	7.94	.170	4.42
19204-0018	B-5YC	.312	7.94	.170	4.42
19206-0004	B-204X	.281	7.14	.175	4.45
19206-0005	BS-V-304X	.281	7.14	.175	4.45
19212-0005	WP-2614X	.250	6.35	.170	4.32
19213-0011	WP-8614	.187	4.76	.175	4.45

STEP DOWN BUTT SPLICE Wire Size: 14 – 16 AWG 2.00 – 1.30 mm² to 18-22 AWG .080-0.35 mm²					
Terminal No.	Terminal Eng No. (REF)	Wire Strip Length		Insul. Dia. Max.	
		In	mm	In	mm
19154-0022	BA-631X	.281	7.14	.175	4.45

MILITARY CLASS 2 Wire Size: 14 – 16 AWG 2.00 – 1.30 mm²					
Terminal No.	Terminal Eng No. (REF)	Wire Strip Length		Insul. Dia. Max.	
		In	mm	In	mm
19095-0074	BB-882-2	.250	6.35	.171	4.36
19095-0076	BB-883-2	.250	6.35	.171	4.36
19095-0133	BB-880-2	.250	6.35	.171	4.36
19095-0134	BB-881-2	.250	6.35	.171	4.36
19095-0136	BB-884-2	.250	6.35	.171	4.36
19095-0137	BB-885-2	.250	6.35	.171	4.36
19095-0139	BB-886-2	.250	6.35	.171	4.36

HEAVY DUTY Wire Size: 16 – 20 AWG 1.30 – 0.50 mm²					
Terminal No.	Terminal Eng No. (REF)	Wire Strip Length		Insul. Dia. Max.	
		In.	mm	In.	mm
19054-0060	AB-225-10HD	.234	5.94	.170	4.32
19054-0061	AB-225-14HD	.234	5.94	.170	4.32
19054-0062	AB-225-56HD	.234	5.94	.170	4.32

HEAVY DUTY Wire Size: 16 – 20 AWG 1.30 – 0.50 mm²					
Terminal No.	Terminal	Wire Strip Length		Insul. Dia. Max.	
		In.	mm	In.	mm
19073-0051	AB-825-10HD	.234	5.94	.170	4.32
19073-0053	AB-825-14HD	.234	5.94	.170	4.32
19073-0055	AB-825-56HD	.234	5.94	.170	4.32

OPERATION

Refer to the instruction manual for the 19279-0001 (AT-200) for mounting this crimp tool head.

Crimping Terminals

1. Adjust the locator up or down until the terminal being run sits flat and straight in the tool.
2. Insert the wire into the terminal. Push up on the locator blade and push the terminal and wire with the barrel facing up into the color-coded nest with front edge of the barrel against the locator (See Figure 1). Release the locator blade to hold the terminal in position.

Caution: Never operate this tool without the supplied safety shield in place. Never place fingers in the tool nests.

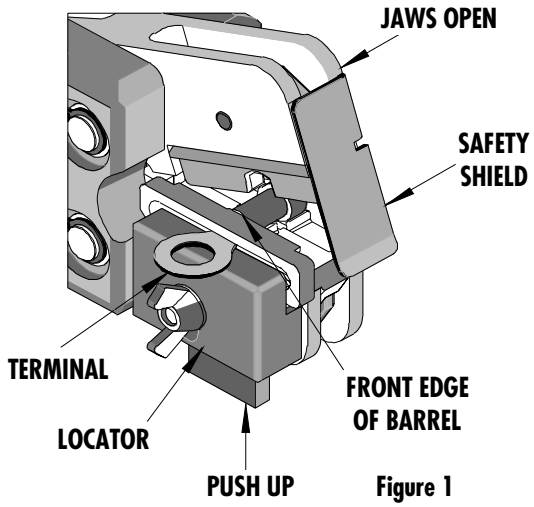


Figure 1

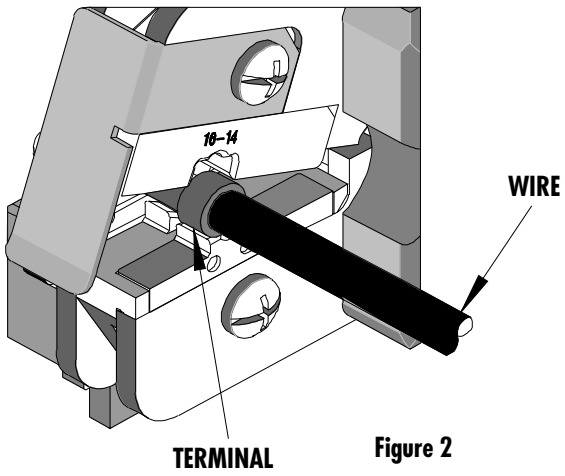


Figure 2

3. Push on wire to assure it is still fully seated in the terminal. (See Figure 2 and 3). Cycle the tool.
   Lift the locator blade or wire stop and remove the crimped terminal. Inspect for proper crimp location, and check for insulation closure. Locator is adjustable up and down to keep terminals straight after crimping.

4. When crimping butt splices, or 3-way and 4-way terminals the locator must be removed. Splices must be visually aligned with the tooling 1/16" inside the insulation crimp (See Figure 4).

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, as this will provide higher pull force values.

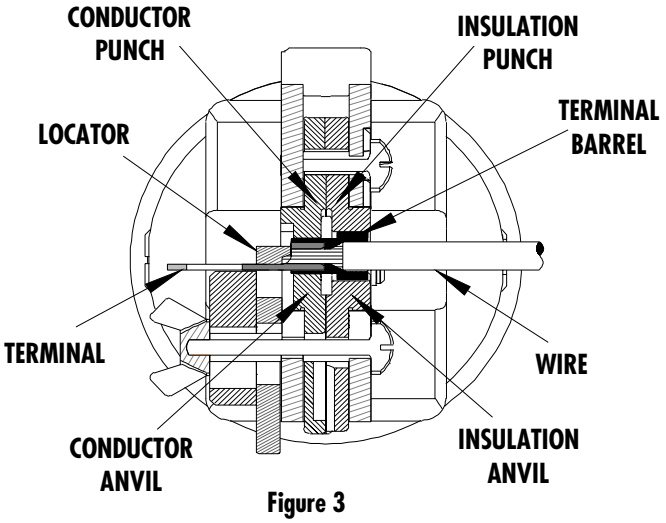


Figure 3

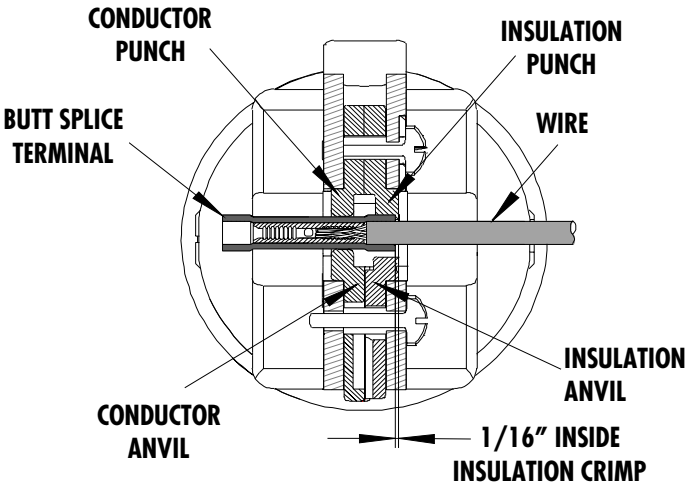


Figure 4

5. If the insulation part of the crimp needs to be adjusted, first disconnect air source and loosen the M4 screw on the bottom tool jaw, then insert a 3/32" hex wrench (supplied) into the bottom of the lower die (See Figure 5). A clockwise (CW) rotation decreases insulation crimp while a counter-clockwise (CCW) rotation increases insulation crimp. After adjusting retighten the M4 screw. Reconnect air source.

Maintenance

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

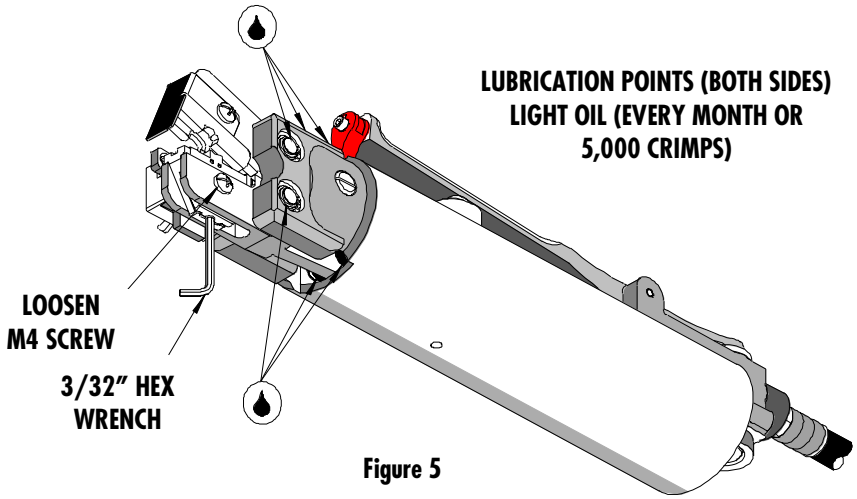
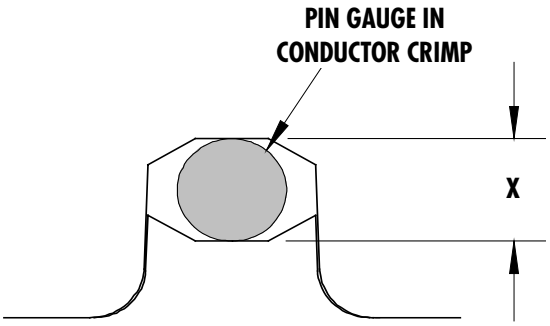


Figure 5

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 64005-1400 (AT-2100) was engineered for durability, but like any fine piece of equipment it needs cleaning and lubrication for a maximum service life of trouble-free crimping. A light oil, such as 30 weight automotive oil used at the oil points shown in Figure 5, every 5,000 crimps or monthly will significantly enhance the tool life and ensure a stable calibration.
4. When tool is not in use store the tool in a clean, dry area.

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.



"Confining" Crimp

Nest Color Code	Wire Range		"X" Dimension Conductor Crimp			Crimp Inspection Marking
	AWG	mm^2	Mean	Go	No Go	
Blue	14 - 16	1.30 - 2.00	.122	.116	.128	o o
	16 – 20 HD	0.50 - 1.30	.122	.116	.128	o o
	18 - 22*	0.80 - 0.35	.122	.116	.128	o o

* 18 - 22 End of step down butt splice only.

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 would repair or exchange the tool free of charge. This repair or exchange will not be applicable to altered, misused or damaged tools.

PARTS LIST

Item	Order No	Description	Quantity
	64005-1400	**Crimp Tool Head**	**(Fig. 6)**
1	64005-0000	Basic Air Tool Head	1
2	64007-0375	Locator Assembly	1
3	64001-1470	Tooling Kit	1
Tooling Kit Only			
4	64001-1402	Conductor Punch	1
5	64001-1401	Conductor Anvil	1
6	64001-1404	Insulation Punch	1
7	64001-1403	Insulation Anvil	1
8	N/A	4 mm Dia. by 5.0 mm Lg.Roll Pins	2**
9	N/A	#10-32 by 5/16" Lg. Cup Pt. Set Screw	1**

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

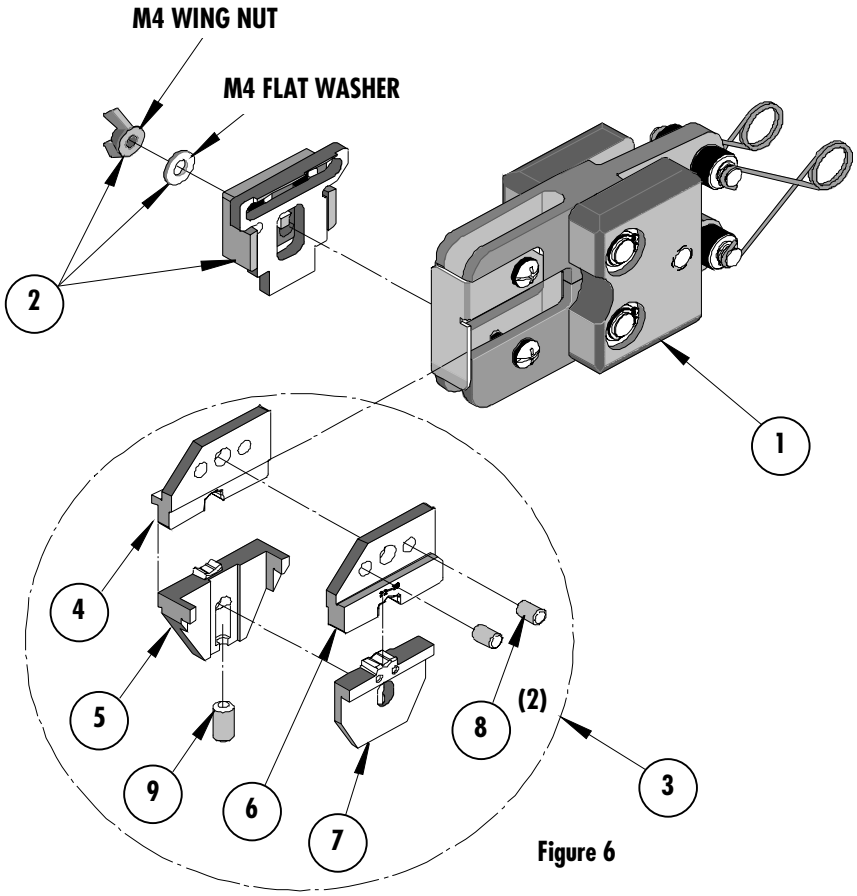


Figure 6

Parts List (Continued)

Item	Order No.	Description	Quantity
	64005-0000	**Basic Air Tool Head**	**(Fig. 7)**
	64005-0103	Nose Guard	1
	64000-0077	Repair Kit (Springs, Rods Pivots ,Rings, and Washers)	1
	N/A	M4 by 12LG. Freedrive Pan Head Screw	1**
	N/A	M4 by 30LG. Freedrive Pan Head Screw	1**
	N/A	3/16″ by 3/8″ Long Dowel Pin	1**

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

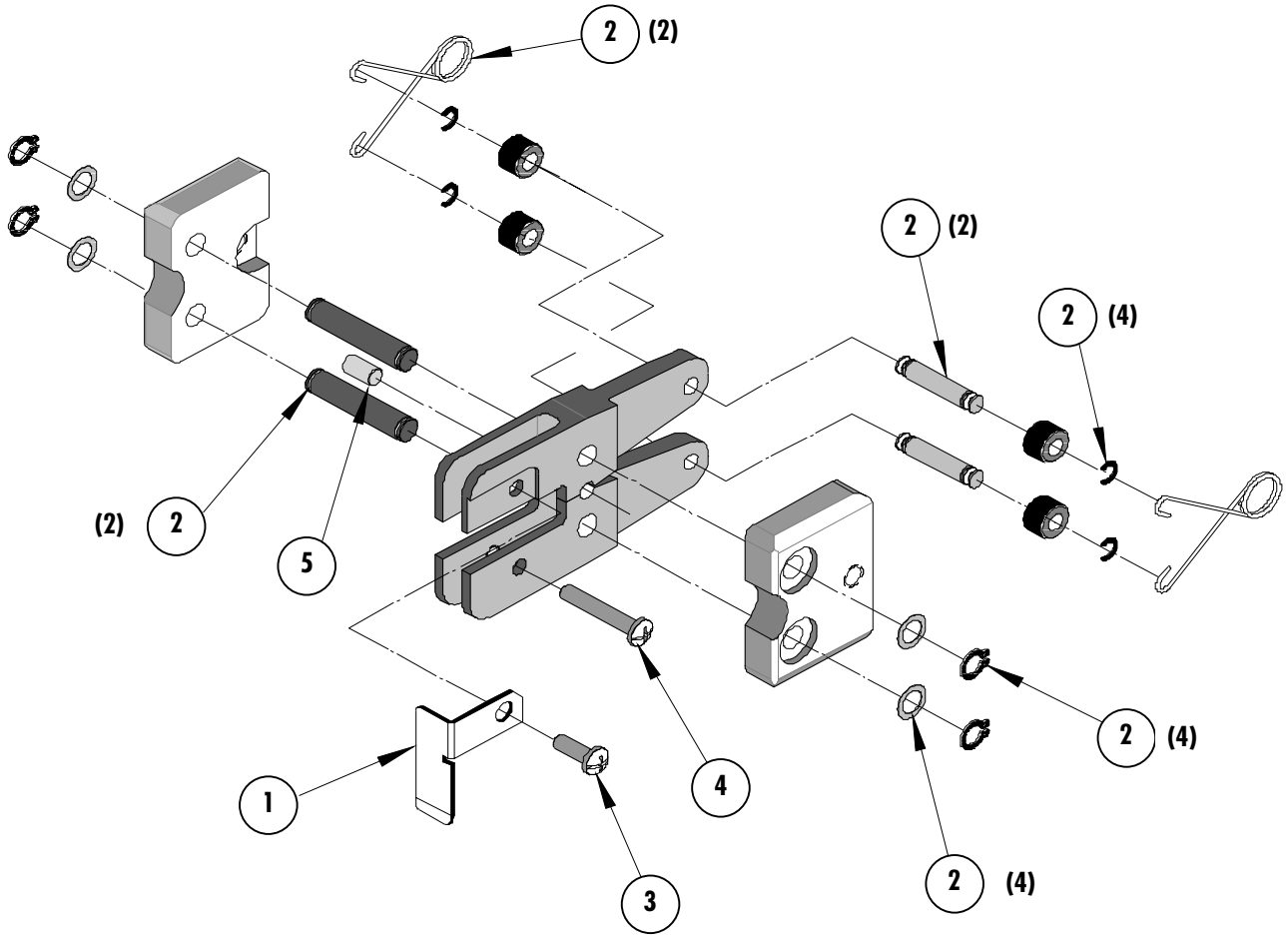
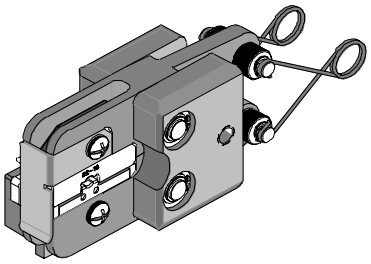


Figure 7



Certificate of Calibration

Tool Order Number _____

Tool Eng. Number_____

Tool Revision_____

Serial Number_____

Date of Manufacture

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.

Molex Application Tooling Group
1150 E. Diehl Road
Naperville, IL 60563
Tel: (630) 969-4550
Fax: (630) 505-0049