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Hand Crimp Tool

**Application Tooling
Specification Sheet**



Order No. 200218-2300

FEATURES

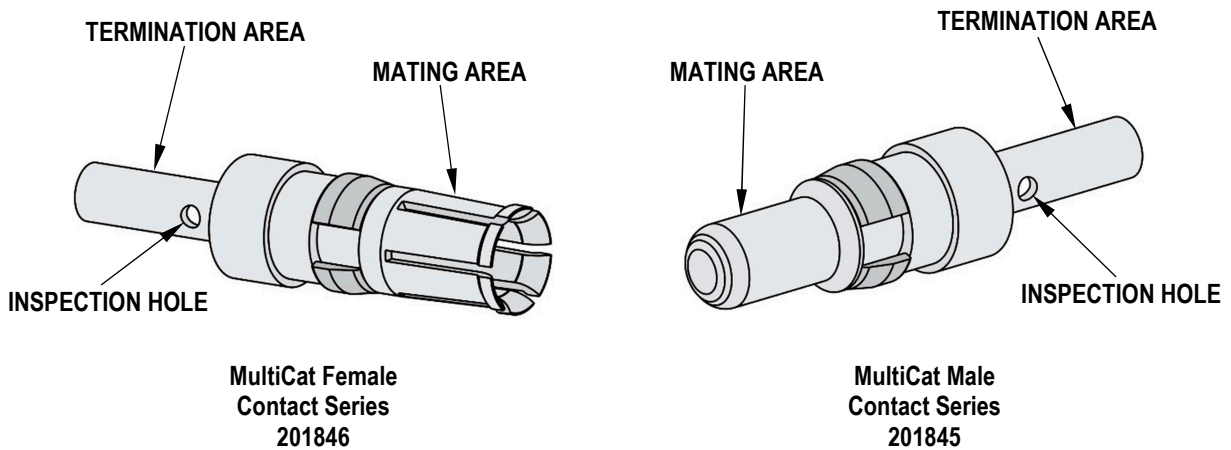
- % A full cycle ratcheting hand tool ensures complete crimps
- % Ergonomically designed soft handles
- % Precisely designed crimping profiles with simple contact positioning
- % Easy handling due to outstanding force ratio
- % Size: 9.75" by 2.5" by 1.25"
- % Weight: 15 oz.
- % This hand tool must not be used in any powered press
- % This tool is RoHS compliant

SCOPE

Products: Machined High Power Contact 8-18 AWG.

Terminal Series No.	Terminal Order No.
201845	201845-0010
	201845-0020
	201845-0030
	201845-0040
201846	201846-0010
	201846-0020
	201846-0030
	201846-0040

DEFINITION OF TERMS



TESTING

Mechanical Pull-Out Force

The tensile test, or pull test, is a means of evaluating the mechanical properties of the crimp connections. The following charts show the specification for various wire sizes. The tensile strength is shown in pounds. It indicates the minimum acceptable force to separate the contact from the conductor.

Wire Size (AWG)	Pull Out Force
18	20.2
16	30.3
14	45.0
12	61.9
10	79.8
8	83.2

The following is a partial list of the product part numbers and the specifications with which this tool is designed to operate. Additions to this list and an up-to-date copy are available at www.molex.com.

Terminal Series No.	Terminal Order No.	Wire Size	Insulation Diameter Maximum		Strip Length	
		AWG	mm	In.	mm	In.
201845	201845-0010	16	2.39	0.094	7.3-7.8	0.29-0.31
		18	2.03	0.080		
	201845-0020	12	3.23	0.127		
		14	2.67	0.105		
	201845-0030	10	3.99	0.157		
		12	3.23	0.127		
	201845-0040	8	6.35	0.250		
		10	3.99	0.157		
201846	201846-0010	16	2.39	0.094	7.3-7.8	0.29-0.31
		18	2.03	0.080		
	201846-0020	12	3.23	0.127		
		14	2.67	0.105		
	201846-0030	10	3.99	0.157		
		12	3.23	0.127		
	201846-0040	8	6.35	0.250		
		10	3.99	0.157		

OPERATION

Tool Setup Instructions

1. Open the tool by closing the jaws until the ratchet mechanism releases the tool to the open position. The tool must be in the open position. See Figure 1.
2. Refer to the data chart below to determine the correct selector number that corresponds with the contact and wire size being used.
3. Remove the spring clip from the selector knob.

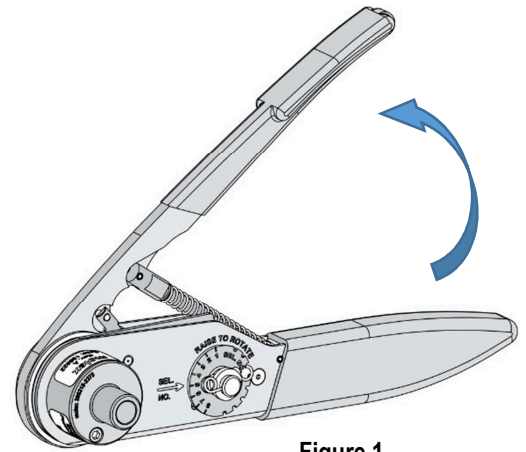


Figure 1

4. Pull the selector knob and rotate until the selector number is in line with "SEL. NO." index mark. See Figures 2 and 3.

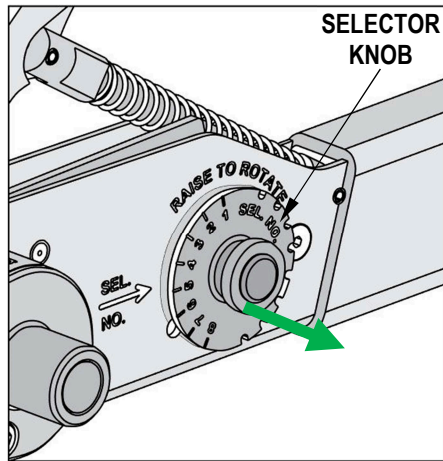
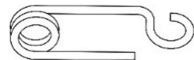


Figure 2

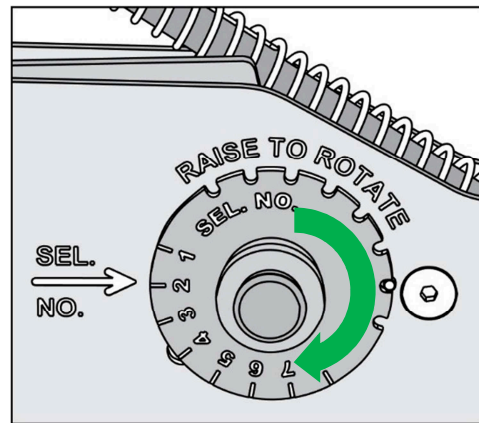


Figure 3

5. Replace the spring clip. See Figure 4.

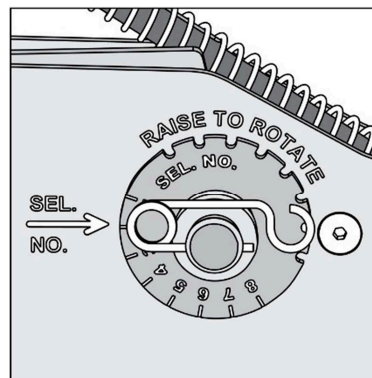


Figure 4

Contact Number	Wire Size (AWG)	Selector Number
201845-0010	16	3
201845-0010	18	2
201845-0020	12	5
201845-0020	14	4
201845-0030	10	7
201845-0030	12	6
201845-0040	10	6
201845-0040	8	7

Contact Number	Wire Size (AWG)	Selector Number
201846-0010	16	3
201846-0010	18	2
201846-0020	12	5
201846-0020	14	4
201846-0030	10	7
201846-0030	12	6
201846-0040	10	6
201846-0040	8	7

Machine Contact Crimping Instructions

1. With the hand tool in the open position, insert the machine contact through the opening on the hand tool indenter tool and through the opening on the positioner. See Figure 5.
 - **Note:** Check to be sure the tool is set to the correct selector number for the contact and wire size being used.
2. Partially close the tool to hold the machine contact in position.
3. Insert the properly stripped wire end into the contact. Be sure the stripped wire end is pushed far enough into the positioner. See Figure 6.

Note: Keep the clearance between the insulation and contact barrel less than 50% of the overall wire O.D. with a recommendation of a maximum clearance of 1mm.

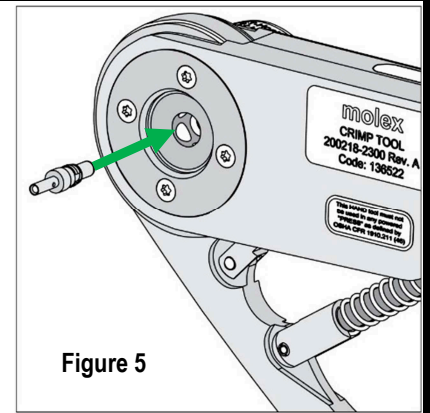
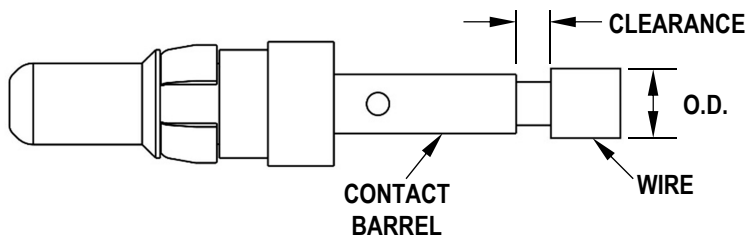


Figure 5

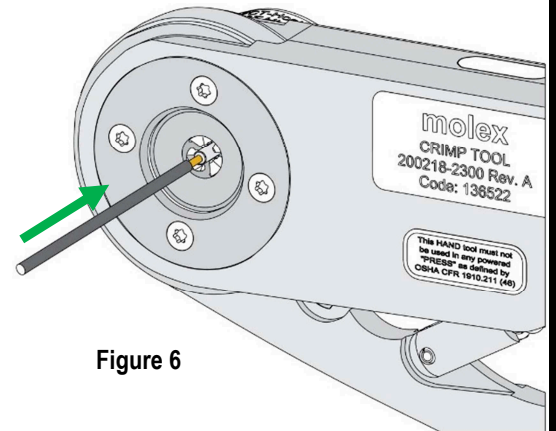


Figure 6

4. Squeeze the tool handles together until the ratchet releases. The tool will then return to the open position. See Figure 7.
 - **Note:** The tamper-proof ratchet action will not release the tool to the open position until it has been fully closed.
5. Remove the crimp machine contact from the tool.
6. Visually inspect for proper crimp location and indenter marks on the crimp contact. Inspect for conductor strands present in the inspection hole and no conductor strands outside of the contact body.

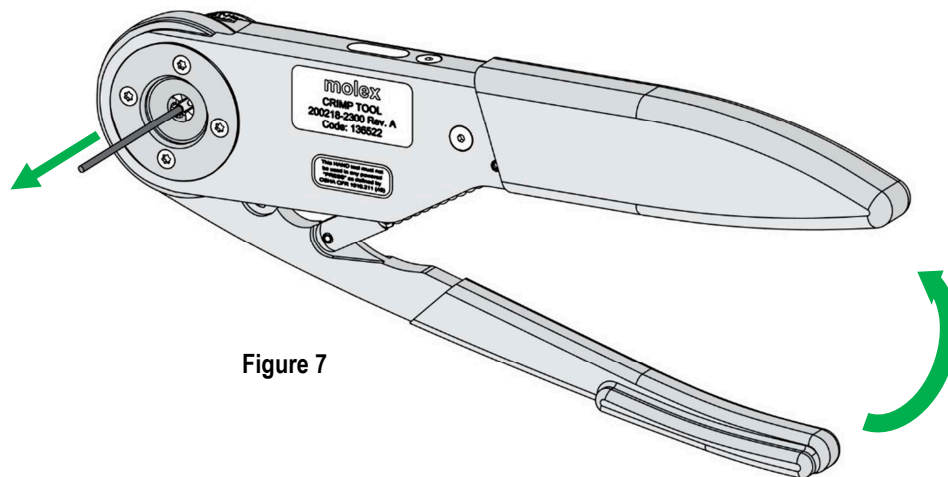


Figure 7

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. Variations in tools, terminals and wire stranding may affect crimp height.
3. This tool is intended for standard conductor sizes.
4. Molex does not repair hand tools. The replacement parts listed are the only parts available. If the handles or crimp tooling is damaged or worn, a new tool must be purchased.
5. Pull force should be used as the final criterion for an acceptable crimp.
6. Molex does not certify crimp hand tools.

Maintenance

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

1. Keep the indenter tips free of residual color band deposits and other debris.
2. Do not immerse this tool in a cleaning solution.
3. Do not spray oil into the tool to lubricate it.
4. Do not attempt to disassemble the tool or make repairs.
5. 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.

This is a precision hand crimp tool that should be used with care.

Tool Calibration

- Pin gauge measurements should be checked periodically in the indenter nest and compared to the numbers listed on the gauge limit table.
- A standard go/no-no gauge tool can be used to check the indenter closure dimension.
 - **Note:** Molex does not sell go/no-go gauge tools or pins, but they can be purchased from an industrial supplier.

Gauge Pin Limit Table

Selector Number	"Go" Diameter $\pm .0001$ "	"No-Go" Diameter $\pm .0001$ "
1	.0380	.0410
2	.0450	.0500
3	.0520	.0570
4	.0610	.0660
5	.0690	.0740
6	.0760	.0810
7	.0860	.0950
8	.1000	.1100

Gauging Instructions

“Go” Gauging Instructions

1. Operate the tool to the fully closed position.
2. Maintain firm hand pressure on the tool handles.
3. With the tool closed, insert the go gauge pin through the indenter dies.
4. The gauge pin must pass freely through the indenter tips.

“No-Go” Gauging Instructions

1. Operate the tool to the fully closed position.
2. Maintain firm hand pressure on the tool handles.
3. With the tool closed, insert the no-go gauge pin through the indenter dies.
4. The no-go gauge pin may partially enter the indenter opening, but it must not completely pass through the die opening.

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.

CAUTION: Repetitive use of this tool should be avoided.

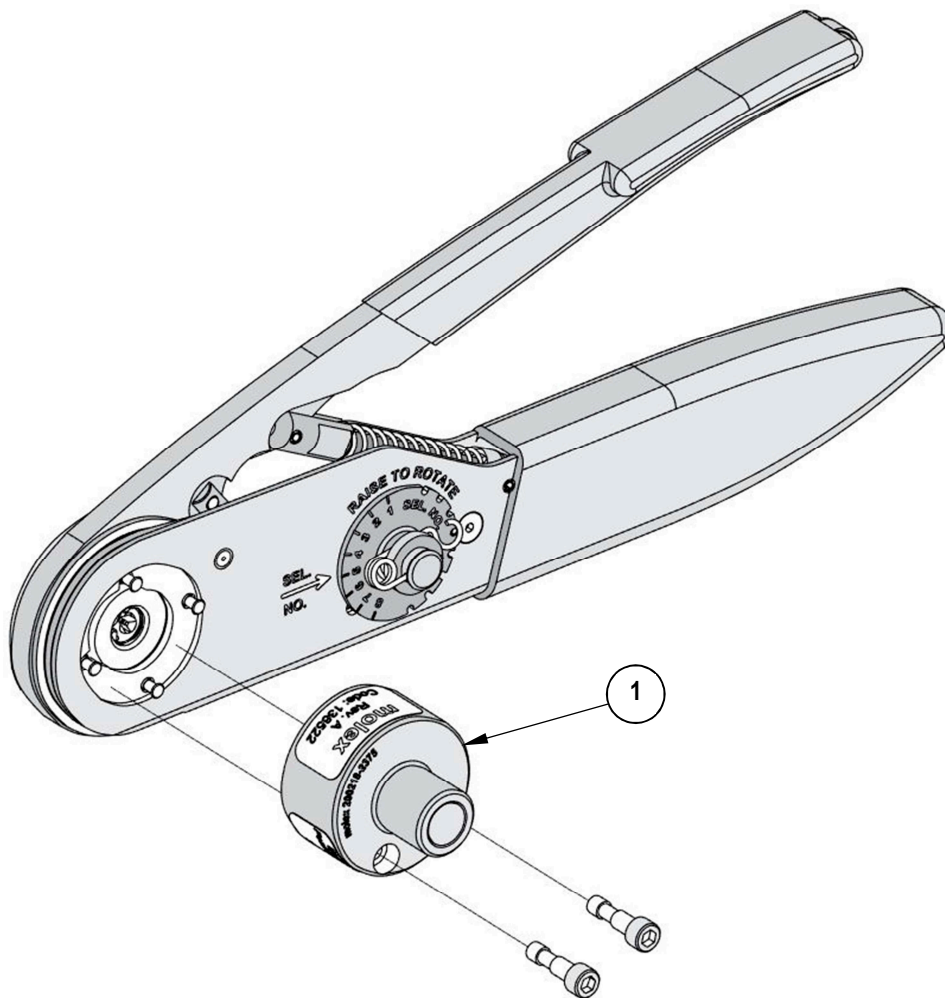
CAUTIONS:

1. Manually powered hand tools are intended for low-volume use 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.

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

PARTS LIST

Hand Crimp Tool 200218-2300			
Item	Order No.	Description	Quantity
1	200218-2375	Locator Assembly	1



Application Tooling Support

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