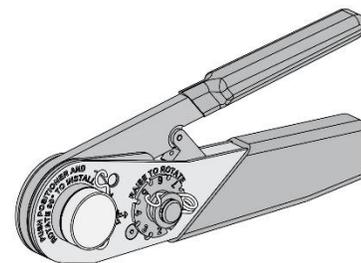


**Order Number  
200218-5300**



**Application Tooling Specification**



**FEATURES**

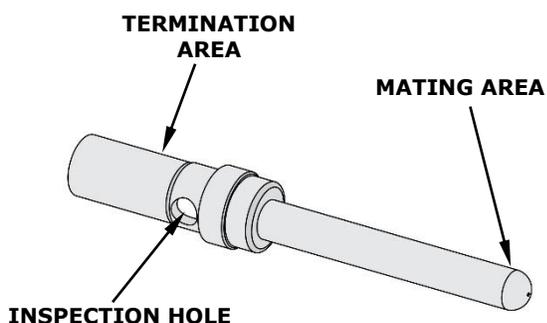
- A full cycle ratcheting hand tool ensures complete crimps
- Ergonomically designed soft handles
- Precisely designed crimping profiles with simple contact positioning
- Easy handling due to outstanding force ratio
- Weight: 8 oz.
- This hand tool must not be used in any powered press
- This tool is RoHS compliant

**SCOPE**

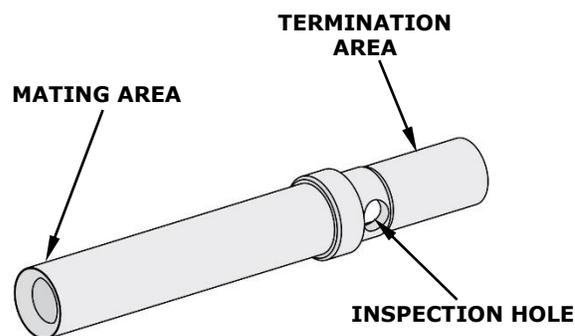
**Products:** Machined MultiCat Mid-Power Contact 20-28 AWG.

Terminal Series No.	Terminal Order No.	Locator Order No.
202935	202935-1000	200218-5376
	202935-2000	200218-5376
	202935-3000	200218-5376
	202935-4000	200218-5376
202936	202936-0100	200218-5376
	202936-0200	200218-5376
	202936-1000	200218-5375
	202936-2000	200218-5375
	202936-3000	200218-5375
	202936-4000	200218-5375

**DEFINITION OF TERMS**



**MultiCat Male  
Contact Series  
202935**



**MultiCat Female  
Contact Series  
202936**

**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 Newtons. It indicates the minimum acceptable force to separate the contact from the conductor.

Wire Size (AWG)	Pull Out Force (N)
28	11
26	15
24	35
22	60
20	80

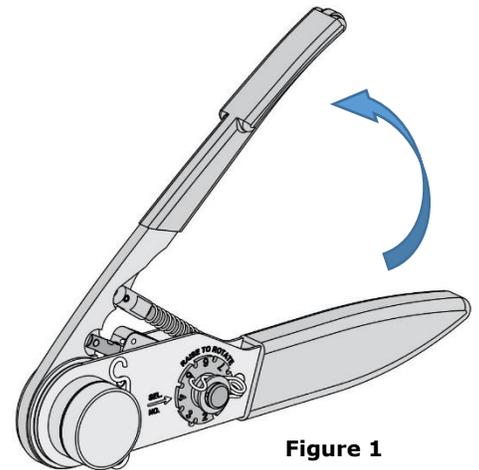
The following is a partial list of the product part numbers and the specifications with which this tool is designed to operate. Additions to this list and an up-to-date copy are available at [www.molex.com](http://www.molex.com).

Terminal Series No.	Terminal Order No.	Wire Size	Insulation Diameter Maximum		Strip Length	
		AWG	mm	In.	mm	In.
202935	202935-1000	20	1.9	.075	4.05-4.55	.159-.179
		22				
		24				
	202935-2000	26				
		28				
		20				
	202935-3000	22				
		24				
		26				
	202935-4000	28				
		20				
		22				
202936	202936-0100	24	1.9	.075	4.05-4.55	.159-.179
		26				
		28				
	202936-0200	20				
		22				
		24				
	202936-1000	26				
		28				
		20				
	202936-2000	22				
		24				
		26				
	202936-3000	28				
		20				
		22				
202936-4000	24					
	26					
	28					

**OPERATION**

**Tool Setup Instructions**

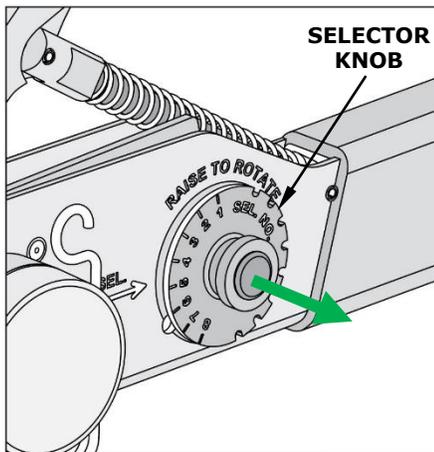
1. Open the tool by closing the jaws until the ratchet mechanism releases the tool to the open position. The tool must be in the open position. See Figure 1.
2. Refer to the data chart below to determine the correct selector number that corresponds with the contact and wire size being used.
3. Refer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



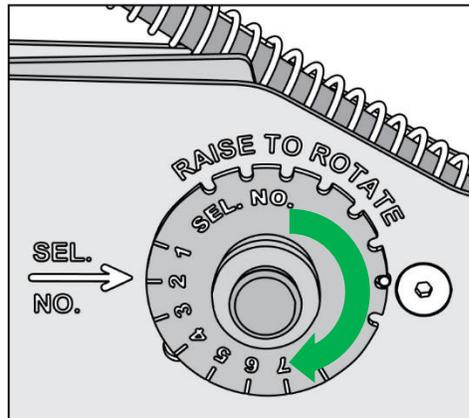
**Figure 1**



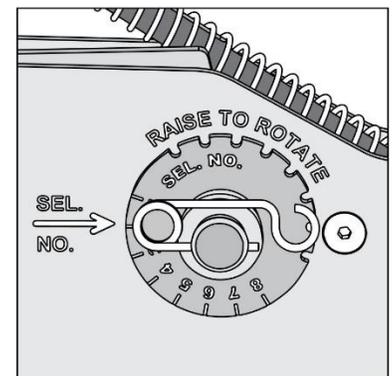
5. Pull the selector knob and rotate until the selector number is in line with "SEL NO." index mark. See Figures 2 and 3.



**Figure 2**



**Figure 3**



**Figure 4**

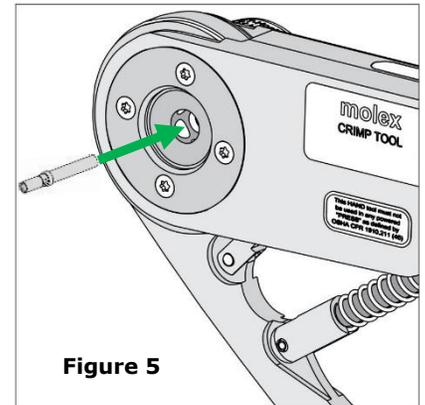
6. Replace the spring clip. See Figure 4.

Contact Number	Wire Size (AWG)	Selector Number
202935-1000	20	6
202935-1000	22	6
202935-1000	24	5
202935-2000	26	6
202935-2000	28	6
202935-3000	20	5
202935-3000	22	6
202935-3000	24	5
202935-4000	26	6
202935-4000	28	5

Contact Number	Wire Size (AWG)	Selector Number
202936-1000	20	6
202936-1000	22	6
202936-1000	24	5
202936-2000	26	6
202936-2000	28	6
202936-3000	20	5
202936-3000	22	6
202936-3000	24	5
202936-0100	20	6
202936-0100	22	6
202936-0100	24	5
202936-0200	26	6
202936-0200	28	5
202936-4000	26	6
202936-4000	28	5

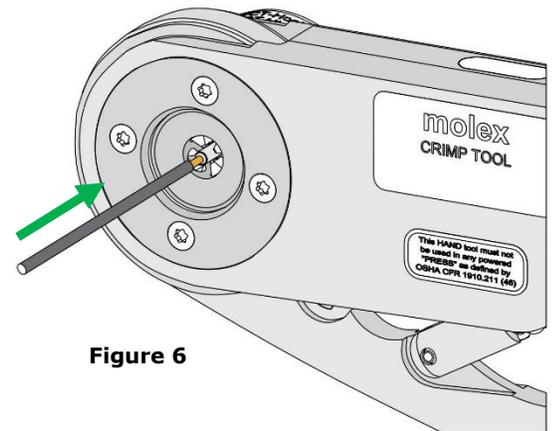
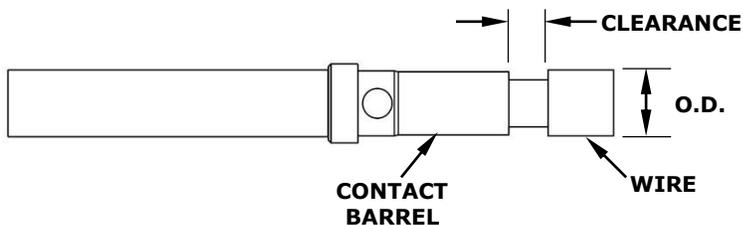
### Machine Contact Crimping Instructions

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.
  - o **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.

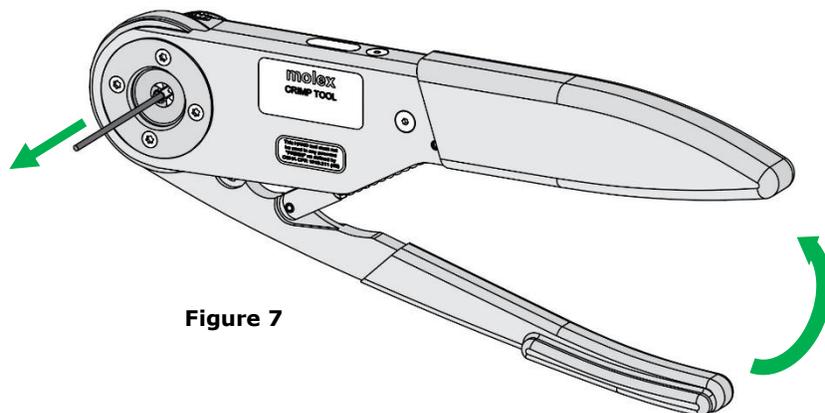


#### Note

- Avoid creating a gap between the contact barrel and insulation O.D.
- At worst, the clearance between the insulation and contact barrel should be less than 50% of the overall wire O.D. with a recommended maximum clearance of 1mm.



4. Squeeze the tool handles together until the ratchet releases. The tool will then return to the open position. See Figure 7.
  - o **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.



## NOTES

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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

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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

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- 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-go 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 ± .0001"	"No-Go" Diameter ± .0001"
1	.0130	.0180
2	.0160	.0210
3	.0190	.0240
4	.0220	.0270
5	.0260	.0310
6	.0300	.0350
7	.0340	.0390
8	.0390	.0440

## 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

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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 200218-5300			
Item	Order No.	Description	Quantity
1	200218-5301	Hand Crimp Frame	1
2	200218-5375	Locator Assembly 1	1
3	200218-5376	Locator Assembly 2	1

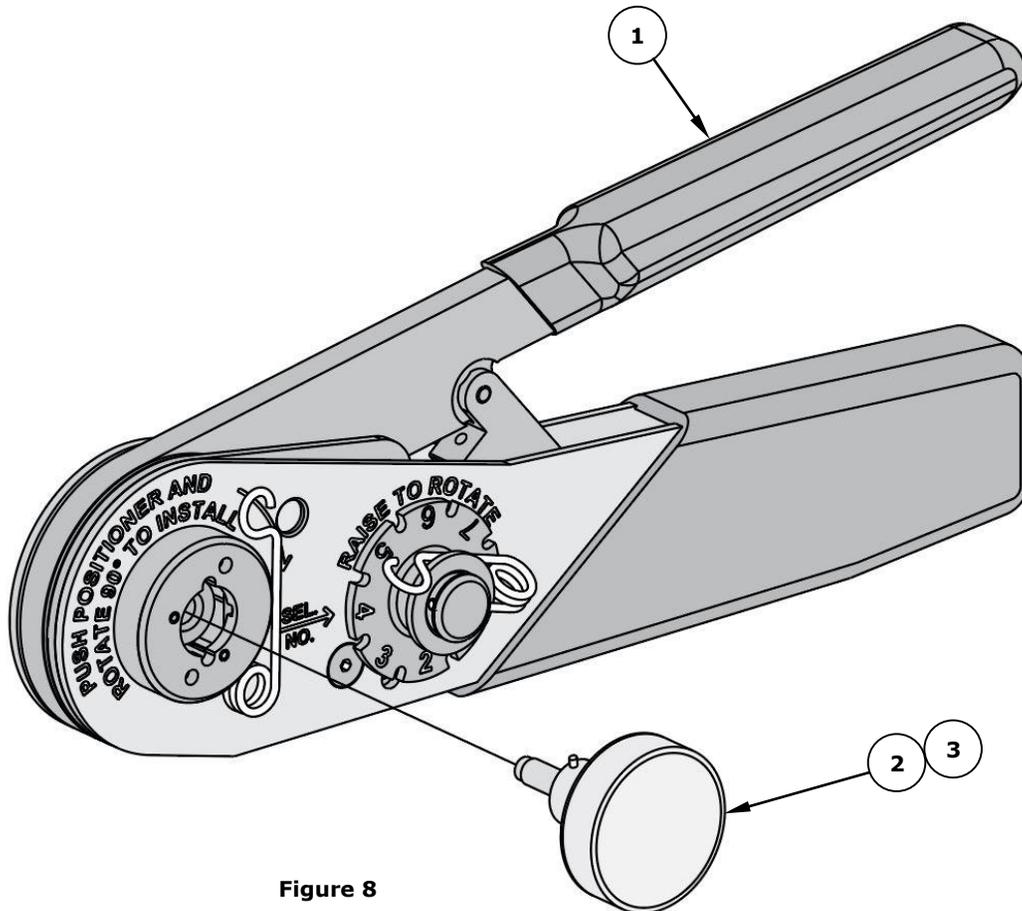


Figure 8

### Application Tooling Support

**Phone:** (402) 458-TOOL (8665)

**E-Mail:** [applicationtooling@molex.com](mailto:applicationtooling@molex.com)

**Website:** [www.molex.com/applicationtooling](http://www.molex.com/applicationtooling)

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