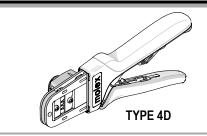




Application Tooling Specification Sheet



Order No. 200218-1200

FEATURES

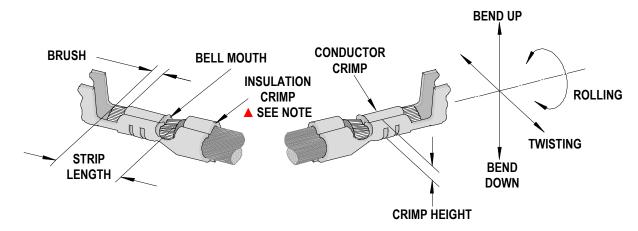
- A full-cycle ratcheting hand tool ensures complete crimps
- Ergonomic soft grip handles for comfortable crimping
- A precision user-friendly terminal locator holds terminals in the proper crimping position
- Right or left-handed operation
- Dies and Locator from this tool can be used in the Battery Powered Tool Order No.63816-0200 (110 V) or 63816-0250 (220 V), with the use of the 63816-0800 Crimp Head
- This tool is IPC/WHMA A-620 Class 2 compliant
- For 22 AWG crimps, use hand tool 200218-0200

SCOPE

Products: Mini-Fit™ TPA Male and Female Crimp Terminals, 22-24 AWG, large and small insulation grips.

Terminal Series	Terminal Order No.				Wire Size		Insulation Diameter Maximum+		Strip Length		
No.	Loose	Piece	*Reel		AWG	mm²	mm	ln.	mm	ln.	
172718	172718-5112	172718-5122	172718-5111	172718-5121	24	NA	1.65	0.065	20 20		
1/2/10	172718-6112	172718-6122	172718-6111	172718-6121	24		2.38	0.094		0.12 – 0.15	
172765	172765-5122		172765-5121		24	NA	1.65	0.065	3.2 – 3.0	0.12 - 0.15	
1/2/00	172765-6122		172765-6121		24		2.38	0.094		<u> </u>	
★Customer to cut off terminal from reel: 0.2mm (.008") maximum Cut-off Tab.											
+ See conditions on page 2											

DEFINITION OF TERMS



The above terminal drawing is a generic terminal representation. It is not an image of a terminal listed in the scope.

UNCONTROLLED COPY Doc No: ATS-2002181200 Release Date: 11-17-16 Page 1 of 7 Revision Date: 11-17-16

Revision: A

CONDITIONS

After crimping, the crimped terminal should measure as follows:

Tarminal	Wire Size		Conductor Crimp				Insulation Crimp				Pull Force		+ Profile		
Terminal Part No.			Height		Width (Ref.)		Height (Ref.)		Width (Ref.)		Minimum		* Profile		
Part No.	AWG	mm ²	mm	ln.	mm	ln.	mm	ln.	mm	ln.	N	Lb.	Α	В	С
172718-51xx							1.80	0.071	1.45	0.057					X
172718-51xx	24	NA	0.68 - 0.78	0.027 - 0.031	1.20	0.047	1.85	0.073	1.70	0.067	29	6.5	Χ		
172718-61xx							2.65	0.104	2.50	0.098				X	
172765-51xx							1.80	0.071	1.45	0.057					X
172765-51xx	24	NA	0.68 - 0.78	0.027 - 0.031	1.20	0.047	1.85	0.073	1.70	0.067	29	6.5	X		
172765-61xx							2.65	0.104	2.50	0.098				X	

+ To achieve IPC-A-620 Class 2 Crimps, the following over-all wire insulation diameter ranges are recommended:

Profile A: 1.30 - 1.55mm (0.051 - 0.061 inch) or UL1007 Profile B: 2.00 - 2.25mm (0.078 - 0.089 inch) or UL1015 Profile C: 1.00 - 1.15mm (0.039 - 0.045 inch) or UL1061

Tool Qualification Notes:

- 1. Pull Force should be measured with no influence from the insulation crimp.
- 2. The above specifications are guidelines to an optimum crimp.

▲ Note:

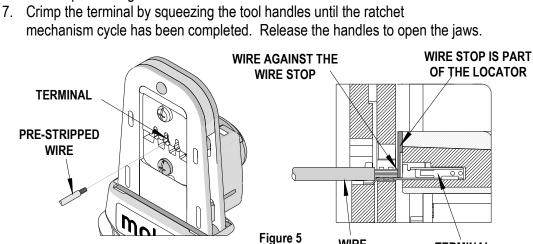
The crimp height chart is provided with this document as <u>Reference Only.</u> Due to the wide range of wires, strands, insulation diameters, and insulation hardness available, actual crimp height measurements may vary slightly. An occasional, destructive, pull force test should be performed to verify the conductor crimp. Pull force value <u>must</u>

exceed the Minimum pull force specifications **LOCATOR** listed. IN DOWN HANDLE WILL **POSTION OPERATION SPRING OPEN** Molex **CAUTION:** Crimp only the Molex terminals listed in the scope for this tool. Do not crimp hardened objects as damage can occur to the tool frame and/or crimp dies. Ø Open the tool by squeezing the handles together. At the end of the closing stroke, the ratchet **PUSH ON THE SQUEEZE** mechanism will release the handles and the hand Figure 2 **LOCATOR BUTTON HANDLES** tool will spring open. See Figure 1. RELEASE **TOGETHER LOCATOR LOCATOR** Figure 1 **LOCATOR BUTTON PUSHED THRU TOOLING** LOCATOR **BUTTON PUSHED IN** Figure 3 **TERMINAL TERMINAL**

Doc No: ATS-2002181200 Release Date: 11-17-16 Revision: A Revision Date: 11-17-16

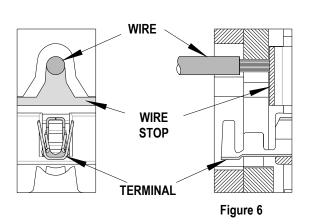
Crimping Terminals

- 1. Select the desired terminal listed in the preceding charts.
- 2. Make sure the center of the locator is in the down position. With the locator attached, push the locator button on the back of the hand tool to bring the locator forward through the tooling. See Figure 2.
- 3. While holding the locator button in, load the terminal into the proper nest opening in the locator based on the wire gauge or terminal type markings on the hand tooling. See Figure 3.
- 4. Release the locator button, allowing the locator to return to the crimping position.
- 5. Close the tool handle until the first ratchet position engages. See Figure 4.
- 6. Insert the properly stripped wire through the terminal and against the wire stop. See Figure 5.

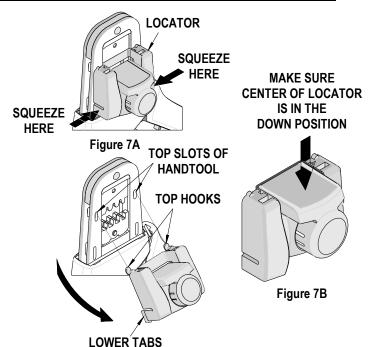


Note: The tamper proof ratchet action will not release the tool until it has been fully closed.

WIRE



- 8. Remove the crimped terminal from the terminal locator by pulling on the wire.
- 9. Visually inspect the crimped terminal for proper crimp location.



TERMINAL

TOOLING

PARTIALLY

CLOSED

Figure 4

Molex

PARTIALLY CLOSE HANDLE

OPEN **POSITION**

FIRST RATCHET

POSITION

Doc No: ATS-2002181200 Release Date: 11-17-16 Revision Date: 11-17-16 Revision: A

10. On some large O.D. wires, it may not be possible to insert the wire with the tool partially closed. Those wires should be inserted with the hand tool in the open position. Insert the wire above the terminal in the punch and against the wire stop then close the tool. See Figure 6.

Locator Replacement

See the parts list on the last page of this document for the proper locator order number. Follow the steps below to replace the locator.

- 1. Open the crimp hand tool.
- 2. Squeeze gently on the lower area shown in Figure 7A with your thumb and index finger. The lower tabs of the locator should disengage from the hand tool.
- JAWS OPEN

 PULL OPEN

 TOOLING

 M3 BHCS

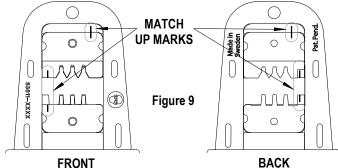
 Figure 8

 PUSH ON
 HANDLE
- 3. Lift and pull away from the hand tool. The top locator hooks should slip out of the top slots easily. See Figure 7A.
- 4. To reinstall the new locator, make sure the hand tool is in the open position.
- 5. Press the red insert down as far as it will go as shown in Figure 7B.
- 6. Holding onto the lower part of the locator with your thumb and index finger, insert the locators top hooks (2) into the hand tool top slots.
- 7. Rotate the locator down and press the lower tabs into the two bottom slots of the hand tool. To secure the locator into place, the lower tabs must snap into place on the hand tool frame.

Right or Left Hand Operation

This hand tool has an added feature that can be converted from a right handed application to a left handed application. It is necessary to reverse the tooling if using the left handed application along with the locator. Follow the steps below:

- 1. The locator must be removed before reversing the tooling.
- 2. Remove the M3 BHCS which is holding the upper tooling.
- 3. Flip the upper tooling to the opposite side and replace the M3 BHCS. Make sure the small markings on the front and back of the hand tool frame, match up and are on the outside of the hand tool frame. See Figure 8 and 9.



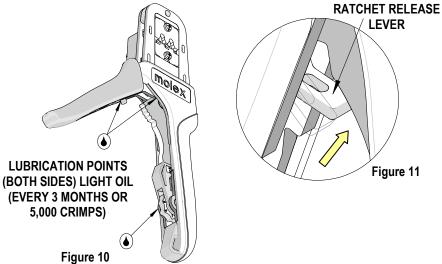
- 4. Do the same thing with the lower tooling and tighten the M3 screws. Be sure the small markings line up.
- 5. Reinstall the locator by following the Instructions in the locator replacement section.

Doc No: ATS-2002181200 Release Date: 11-17-16 **UNCONTROLLED COPY** Page 4 of 7 Revision: A Revision Date: 11-17-16

Maintenance

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

- 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.

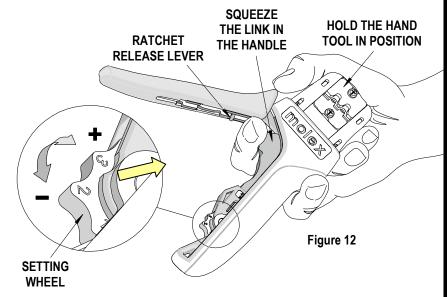
- 4. Wipe excess oil from hand tool, particularly from crimping area. Oil transferred from the crimping area onto certain terminations may affect the electrical characteristics of an application.
- 5. When tool is not in use, keep the handles closed to prevent objects from becoming lodged in the crimping dies, and store the tool in a clean, dry area.

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 pressing up on the ratchet release lever in the movable handle. See Figure 11.

How to Adjust Tool Preload (See Figure 12)

This hand tool is factory preset to 25-45 LBS. preload. It may be necessary over the life of the tool to adjust 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. Hold the hand tool in the palm of your hand as shown in Figure 12. Using the index finger squeeze the link towards the top of the hand tool frame. This will release the preload adjustment wheel.
- 2. Rotate the setting wheel counter-clockwise (CCW) to increase handle force. The numbers will display higher. To decrease handle force rotate the setting wheel clockwise (CW).
- 3. Release the link to lock the setting wheel in place.
- 4. Check the crimp specifications or conduct a pull test after tool handle preload force is adjusted.

Doc No: ATS-2002181200 Release Date: 11-17-16 **UNCONTROLLED COPY** Page 5 of 7 Revision: A Revision Date: 11-17-16

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

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.

Certification

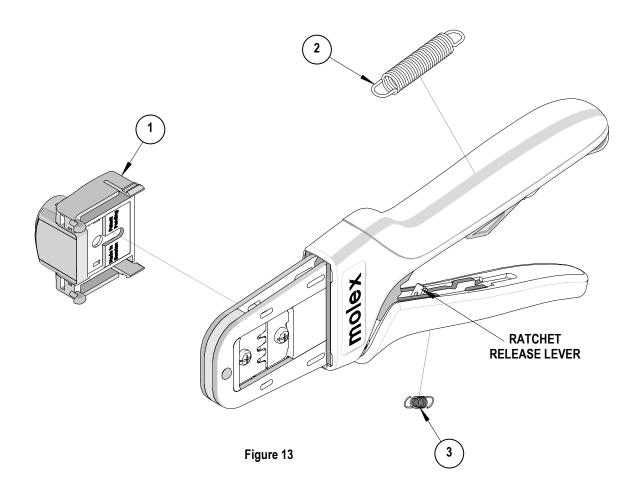
Molex does not certify or re-certify hand tools but rather supplies the following guidelines for customers to re-certify hand tools.

- This tool is qualified to pull force only. See the Molex web site for the Quality Crimp Handbook for more information on pull testing.
- % If the tool does not meet minimum pull force values, handle preload should be increased and the pull test rerun. (See How to Adjust Preload).
- When the hand tool is no longer capable of achieving minimum pull force, it should be taken out of service and replaced.

UNCONTROLLED COPY Doc No: ATS-2002181200 Release Date: 11-17-16 Page 6 of 7

PARTS LIST

Item Number	Order Number	Description	Quantity		
REF	200218-1200	Hand Crimp Tool	Figure 13		
1	200218-1275	Locator Assembly	1		
2	63810-0104	Spring, Return	1		
3	63810-0105	Spring, Ratchet	1		



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

Doc No: ATS-2002181200 Release Date: 11-17-16 **UNCONTROLLED COPY** Page 7 of 7 Revision: A Revision Date: 11-17-16

ПОСТАВКА ЭЛЕКТРОННЫХ КОМПОНЕНТОВ

многоканальный

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001 Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

Данный компонент на территории Российской Федерации Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г. Москва, ул. Щербаковская д. 3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru moschip.ru_6 moschip.ru 4 moschip.ru 9