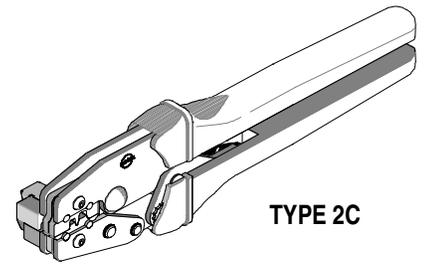# molex®

Hand Crimp Tool
Specification Sheet
Order No. 63811-7500

TYPE 2C

FEATURES

- A full cycle ratcheting hand tool ensures complete crimps
- Ergonomic soft grip handles for comfortable crimping
- A precision user-friendly terminal locator wire stop holds terminals in the proper crimping position
- This tool is IPC/WHMA-A-620 Class 2 and RoHS compliant as indicated.

SCOPE

Products: 3.96mm (.156") Pitch KK® Crimp Terminal for 18-24 AWG

Terminal Series No.	Terminal Order No.				Wire Size		*Insulation Diameter		Strip Length	
	Loose Piece		*Reel		AWG	mm²	mm	In.	mm	In.
2477	08-50-0109	08-56-0113	08-50-0110	08-56-0114	18-24	0.80-0.20	1.39-2.79	.055-.110	2.54-3.17	.100-.125
2478	08-50-0006	08-53-0812	08-50-0001	08-52-0046	18-24	0.80-0.20	1.39-2.79	.055-.110	2.54-3.17	.100-.125
	08-50-0016	08-55-0104	08-50-0014	08-52-0071						
	08-50-0045	08-55-0134	08-50-0015	08-52-0073						
	08-50-0046	08-56-0106	08-50-0047	08-52-0114						
	08-50-0056	08-56-0154	08-50-0055	08-53-0004						
	08-50-0064	08-58-0104	08-50-0063	08-53-0811						
	08-50-0074	08-58-0115	08-50-0073	08-55-0103						
	08-50-0093	08-58-0122	08-50-0091	08-55-0133						
	08-50-0106	08-65-0115	08-50-0103	08-56-0105						
	08-50-0120	40-01-1120	08-50-0119	08-56-0153						
	08-50-0147	50-29-1762	08-50-0146	08-58-0103						
	08-52-0024	50-30-4428	08-50-0271	08-58-0114						
	08-52-0045	50-30-4429	08-50-0281	08-58-0121						
	08-52-0047		08-51-0000	08-65-0114						
	08-52-0072		08-51-0720	40-01-1118						
	08-52-0074		08-52-0023	50-29-1689						
	08-52-0115		08-52-0027	50-29-1768						
	08-52-0812		08-52-0044							
2878	08-50-0116		08-50-0115	08-55-0138	18-20	0.80-0.50	1.52-2.79	.060-.110	2.54-3.17	.100-.125
	08-52-0127		08-51-0109	08-58-0127						
	08-58-0128		08-52-0126	08-65-0118						
	08-65-0119		08-53-0814							
4838	08-50-0132	08-55-0143	08-50-0131	08-55-0142	18-22	0.80-0.35	1.52-2.41	.060-.095	2.54-3.17	.100-.125
	08-55-0140	08-55-0146	08-55-0125	08-55-0145						
	08-55-0141	08-55-0148	08-55-0139	08-55-0147						
5167	08-70-0013	08-70-1034	08-70-0012	08-70-0097	18-24	0.80-0.20	1.39-2.48	.055-.098	2.54-3.17	.100-.125
6438	08-50-0165	08-56-0139	08-50-0164	08-53-0813	18-20	0.80-0.50	1.52-2.41	.060-.095	2.54-3.17	.100-.125
	08-51-0802		08-51-0801	08-56-0135						
	08-56-0133		08-51-0813	08-56-0137						

6838	08-50-0029	08-58-0119	08-50-0024	08-58-0105	18-20	0.80-0.50	1.52-2.79	.060-.110	2.54-3.17	.100-.125	
	08-50-0189	08-58-0132	08-50-0026	08-58-0108							
	08-50-0251	08-58-0189	08-50-0028	08-58-0110							
	08-51-0107	08-60-0002	08-50-0187	08-58-0118							
	08-52-0113	50-29-1763	08-50-0275	08-58-0131							
	08-53-1102	50-29-1879	08-51-0106	08-58-0187							
	08-58-0106		08-52-0112	08-60-0001							
	08-58-0109		08-53-1101	50-29-1639							
	08-58-0111		08-58-0102								
8818	08-50-0023	08-58-0136	08-50-0008	08-58-0135	18 - 22	0.80-0.35	1.52-2.79	.060-.110	2.54-3.17	.100-.125	
	08-50-0706	08-65-0129	08-50-0705	08-65-0128							
	08-52-0132		08-52-0131	40-01-1181							
	08-56-0188		08-56-0187	40-01-1182							
8993	08-50-0276		08-50-0011	08-50-0277	18-24	0.80-0.20	1.39-2.79	.055-.110	2.54-3.17	.100-.125	

✲Customer to cut off terminal from reel: 2.72±.13mm (.107±.005") maximum Cut-off Tab.
✲See Conditions on page 3.

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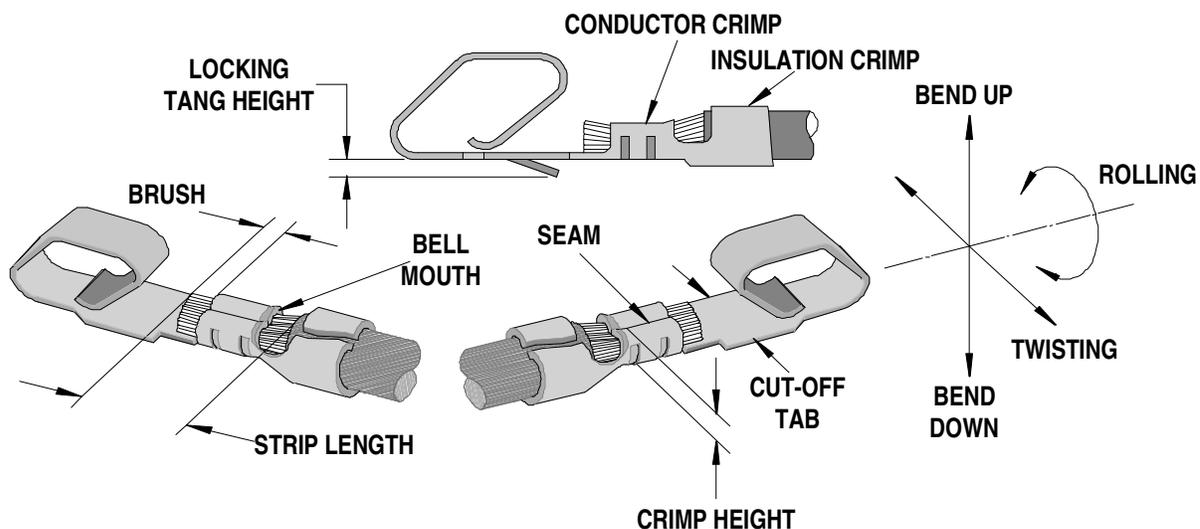
The above terminal drawing is a generic terminal representation. It is not an image of a terminal listed in the scope.

CONDITIONS:

After crimping, the conductor profiles should measure the following (see notes on page 5).

Termina Series No.	Hand Tool Locator	Wire Size		Conductor Crimp Height (REF)		Punch Width (Ref)				Pull Force Minimum		✲Profile	
						Conductor		Insulation					
		AWG	mm₂	mm	In.	mm	In.	mm	In.	N	Lb.	A	B
2477	Black	18	0.80	1.01-1.11	.040-.044	2.00	.079	2.50	.098	89.0	20.00	X	
		20	0.50	1.01-1.11	.040-.044	2.00	.079	2.50	.098	57.8	13.00	X	
		22	0.35	0.86-0.96	.034-.038	2.00	.079	2.50	.098	35.6	8.00		X
		24	0.20	0.86-0.96	.034-.038	2.00	.079	2.50	.098	22.2	5.00		X
2478	Black	18	0.80	1.01-1.11	.040-.044	2.00	.079	2.50	.098	89.0	20.00	X	
		20	0.50	1.01-1.11	.040-.044	2.00	.079	2.50	.098	57.8	13.00	X	
		22	0.35	0.86-0.96	.034-.038	2.00	.079	2.50	.098	35.6	8.00		X

Termina Series No.	Hand Tool Locator	Wire Size		Conductor Crimp Height (REF)		Punch Width (Ref)				Pull Force Minimum		*Profile	
						Conductor		Insulation					
		AWG	mm₂	mm	In.	mm	In.	mm	In.	N	Lb.	A	B
		24	0.20	0.86-0.96	.034-.038	2.00	.079	2.50	.098	22.2	5.00		X
2878	Black	18	0.80	1.01-1.11	.040-.044	2.00	.079	2.50	.098	89.0	20.00	X	
		20	0.50	1.01-1.11	.040-.044	2.00	.079	2.50	.098	57.8	13.00	X	
4838	Black	18	0.80	1.01-1.11	.040-.044	2.00	.079	2.50	.098	89.0	20.00	X	
		20	0.50	1.01-1.11	.040-.044	2.00	.079	2.50	.098	57.8	13.00	X	
		22	0.35	0.86-0.96	.034-.038	2.00	.079	2.50	.098	35.6	8.00		X
5167	Black	18	0.80	1.01-1.11	.040-.044	2.00	.079	2.50	.098	89.0	20.00	X	
		20	0.50	1.01-1.11	.040-.044	2.00	.079	2.50	.098	57.8	13.00	X	
		22	0.35	0.86-0.96	.034-.038	2.00	.079	2.50	.098	35.6	8.00		X
		24	0.20	0.86-0.96	.034-.038	2.00	.079	2.50	.098	22.2	5.00		X
6438	Black	18	0.80	1.01-1.11	.040-.044	2.00	.079	2.50	.098	89.0	20.00	X	
		20	0.50	1.01-1.11	.040-.044	2.00	.079	2.50	.098	57.8	13.00	X	
6838	Black	18	0.80	1.01-1.11	.040-.044	2.00	.079	2.50	.098	89.0	20.00	X	
		20	0.50	1.01-1.11	.040-.044	2.00	.079	2.50	.098	57.8	13.00	X	
8818	Gray	18	0.80	1.01-1.11	.040-.044	2.00	.079	2.50	.098	89.0	20.00	X	
		20	0.50	1.01-1.11	.040-.044	2.00	.079	2.50	.098	57.8	13.00	X	
		22	0.35	0.86-0.96	.034-.038	2.00	.079	2.50	.098	35.6	8.00		X
8993	Black	18	0.80	1.01-1.11	.040-.044	2.00	.079	2.50	.098	89.0	20.00	X	
		20	0.50	1.01-1.11	.040-.044	2.00	.079	2.50	.098	57.8	13.00	X	
		22	0.35	0.86-0.96	.034-.038	2.00	.079	2.50	.098	35.6	8.00		X
		24	0.20	0.86-0.96	.034-.038	2.00	.079	2.50	.098	22.2	5.00		X

* To Achieve IPC-A-620 Class 2 Crimps, the following over-all wire insulation diameter ranges are recommended:
1. Profile A: 1.68mm (.066 inch max.)-Up to the maximum terminal rating.
2. Profile B: 1.39-2.38mm (.055-.094 inch)

OPERATION

CAUTION: Install only Molex terminals listed above with this tool. Do not crimp hardened objects as damage can occur to the tool or die.

Open the tool by squeezing the handles together, at the end of the closing stroke, the ratchet mechanism will release the handles, and the hand tool will spring open.

Crimping Terminals

1. Select the desired terminal listed in the preceding charts. Make sure that the proper locator is mounted on the tool.
2. Swing the terminal locator away from the crimp tool shown in Figure 2. Some terminals with large insulation grips may interfere with the crimp tooling when swinging the locator into position. The terminal must then be loaded into the locator in the closed/crimp position.
3. Press down on the wire stop on the locator as shown in Figure 2. Insert the proper terminal into the proper nest opening.
Make sure when choosing the nest opening, it will correspond with the A or B profile on the hand tool.
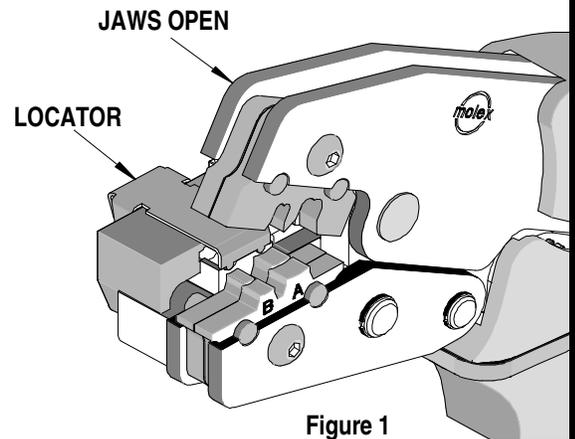

JAWS OPEN

LOCATOR

Figure 1

4. Return the locator to its original position.
5. Insert the proper wire over the terminal. Gently touch the wire stop with the end of the wire. See Figure 3.
6. Compress the terminal by squeezing the tool handles until the ratchet mechanism cycle has been completed. Release handles to open the jaws.

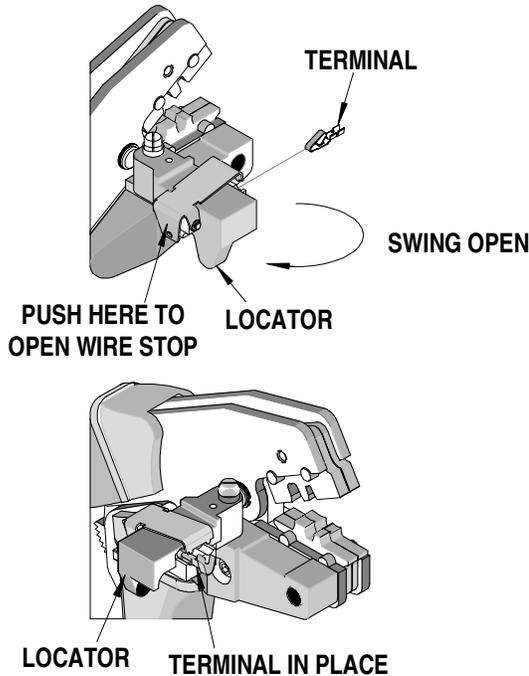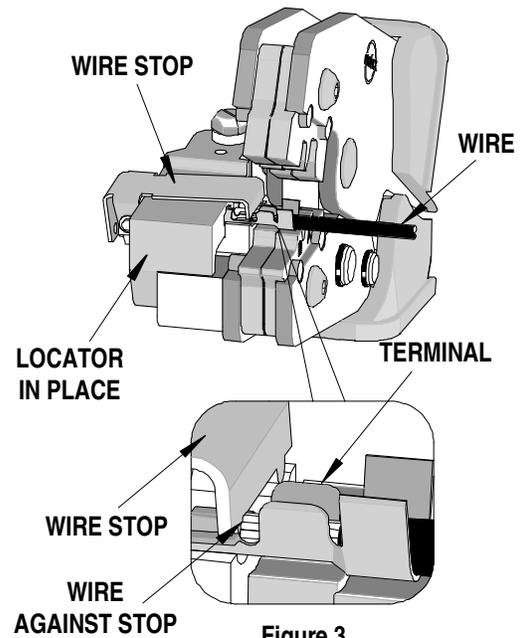Note: The tamper proof ratchet action will not release the tool until it has been fully closed.

TERMINAL

SWING OPEN

PUSH HERE TO
OPEN WIRE STOP

LOCATOR

WIRE STOP

WIRE

LOCATOR
IN PLACE

TERMINAL

LOCATOR   TERMINAL IN PLACE

WIRE STOP

WIRE
AGAINST STOP

Figure 3

Figure 2

7. Remove the crimped terminal from the terminal locator by pressing down on the wire stop and gently pulling on the wire. The terminal locator can be in either position.
8. Visually inspect the crimped terminal for proper crimp location.

Note:
A crimp height chart is provided with this manual as Reference Only. Due to the wide range of wires, strands, insulation diameters, and durometers, actual crimp height measurements may very slightly. An occasional, destructive, pull force test should be preformed to check hand tool crimp. Pull Force value Must exceed the Minimum pull force specifications listed on page 2 and 3.

Locator Change Over

Two styles of locators are provided with the crimp hand tool 63811-7500. They are 63811-7576, which is black and 63811-7575, which is gray. Make sure the correct locator is installed for the proper terminal and wire. Follow the steps below to change the locators.

LIFT UP
LOCATOR

JAWS
OPEN

PRESS DOWN ON
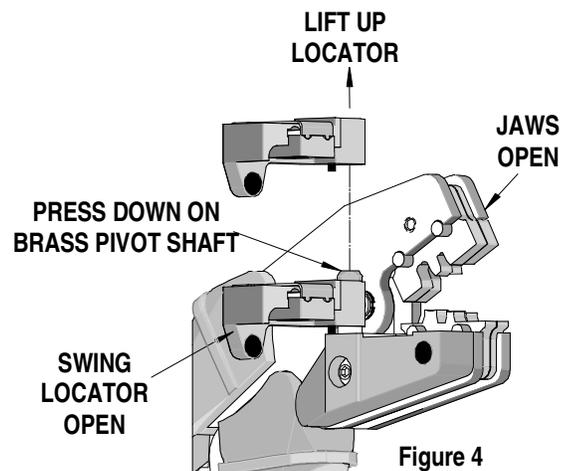BRASS PIVOT SHAFT

SWING
LOCATOR
OPEN

Figure 4

1. Open the crimp hand tool.
2. Swing the existing locator open and away from the hand tool.
3. Firmly press down on the brass pivot shaft with your thumb, while pulling the locator up. Slip the locator off the top of the brass pivot shaft. See Figure 4.
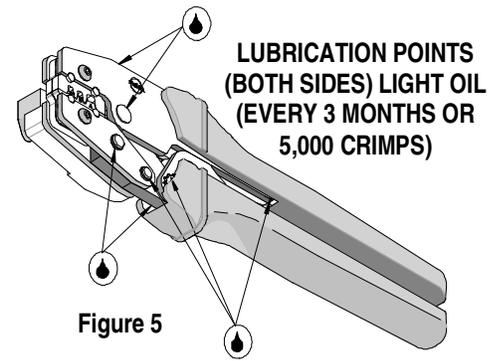4. Replace it with the desired locator by putting over the brass pivot shaft and snapping it into place.

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

Figure 5

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 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 fine piece of 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, , shown in Figure 6 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 the ratchet release lever. See Figure 6.

How to Adjust Tool Preload (See Figure 6)

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:

PRELOAD CHECK POINT 25.4MM

SETTING WHEEL ECCENTRIC AXLE

HANDLE GRIP REMOVED

WRENCH SET (SOLD SEPERATELY)

LOCKING SCREW

HANDLE GRIP

RATCHET RELEASE LEVER

Figure 6

1. Remove or fold back the handle grip from the handle to expose the eccentric axle and setting wheel.
2. Remove the locking screw with a 2mm hex wrench. The wrench set (63810-0101), is not supplied. It is sold separately from the hand tool.
3. Turn the eccentric axle and setting wheel with the wrench or pliers Counter-clockwise (CCW) to increase handle force.
4. Replace the locking screw, aligning the nearest notch in the setting wheel to locking screw.
5. Replace the handle grip.
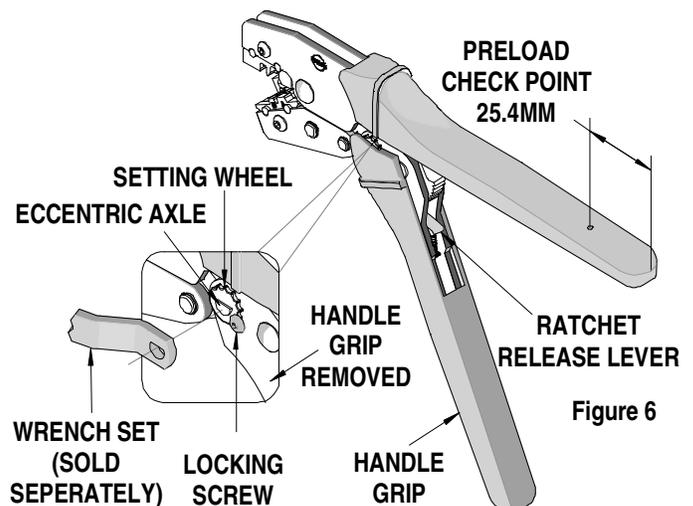6. Check the crimp specifications or conduct a pull test after tool handle preload force is adjusted.

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 commercial grade hand tools but rather supplies the following guidelines for customers to re-certify hand tools.

% This tool is qualified to pull force only. To re-certify, crimp a terminal to a wire, which has been stripped 12.7mm (1/2") long, so there is no crimping of the insulation. Pull the terminal and wire at a rate no faster than 25mm (1.00") per minute. 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.

PARTS LIST

Item Number	Order Number	Description	Quantity
REF	63811-7500	**Hand Crimp Tool**	Figure 7
1	63810-0101	Wrench Set (Not included)	0
2	63810-0102	Locator Base Assembly	1
3	63810-0103	Repair Kit (Not included)	0
4	63811-7576	Locator-Black	1
4	63811-7575	Locator-Gray	1
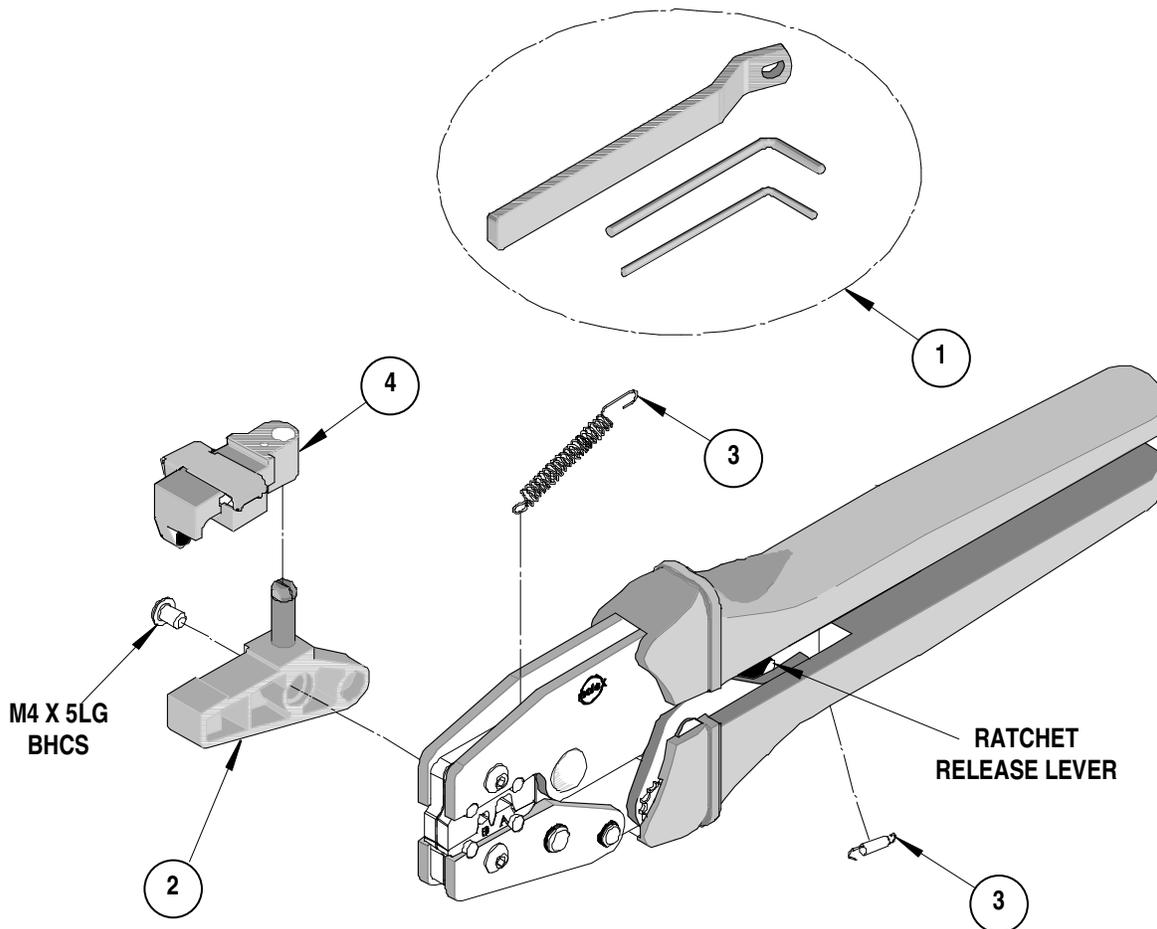
M4 X 5LG BHCS

RATCHET RELEASE LEVER

Figure 7

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

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