



molex[®]

BATTERY CRIMPING TOOL
Operation Manual
Order No. 63816-0270 (110V)
Order No. 63816-0280 (220V)

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1 Introduction

1.1 Product Specification

The battery crimping tool is an electric crimping tool for the Molex interchangeable crimping system.

The tool is especially developed for industrial applications. Because of the interchangeable tool heads as well as the crimp die sets of the Molex crimp system, which can easily be adapted, a wide range of different contacts can be crimped. Adapters, tool heads and die sets can easily be exchanged without any additional tooling.

The battery crimping tool incorporates an automatic retraction, which returns the ram into its starting position when the maximum force is reached. Furthermore, the tool is equipped with a special brake that stops the forward motion of the ram and the dies when the trigger is released.

The low weight, the small and handy design as well as the ergonomic 2-component housing guarantees a comfortable secure one-handed operation. To simplify operation and gain better access to tight corners and other difficult working areas, the crimping head may be rotated by hand 360° relative to the body.

All other applications of the battery crimping tool are only permitted with written permission of the manufacturer. For all unauthorized applications of the battery crimping tool, the manufacturer cannot be held liable for any resultant damage or injury.

1.2 Conformity



The tool may only be used for the purpose specified in the operating instruction. The manufacturers and suppliers will not be liable for any damages that may result due to the tool being used for a purpose other than that for which it was intended. This is done entirely at the user's own risk.

RoHS Information

The battery crimping tool complies with the EU-Guideline 2011/65/EU (RoHS2).

CE

The battery crimping tool is CE compliant.

The original declaration of conformity was supplied together with the operating instructions of the battery crimping tool in the tool case.

1.3 Understanding the Operating Instruction

The operating instruction contains all information concerning operating elements, operation, commissioning and maintenance work as well as technical data.

The operating instruction must be constantly within reach of the battery crimping tool. Every tool operator must read and understand the operating instruction to ensure safe and efficient production with this piece of equipment.

The manufacturer and the distributor decline to accept any liability for damages that are incurred due to the fact that the instructions on the tool or in the operating instruction have been disregarded.

The user is responsible for supplementing the operating instruction with any instructions resulting from current national regulations for accident prevention and protection of the environment.

2 Safety

2.1 Warnings and Safety Precautions in this Operating Instruction

The following warnings and safety-related cautionary notices in the individual chapters alert you to various levels of danger:



DANGER

- Identifies dangerous voltage and live parts, which will lead to serious injuries or even death when touching it.
-



DANGER

- Identifies an imminent, serious danger, which, if not avoided, will lead to serious injuries or death.
-



CAUTION

- Identifies a possible danger, which, if not avoided, will lead to serious injuries or death.
-



ATTENTION

- Identifies a potential dangerous situation, which, if not avoided, can lead to medium or minor injuries or material damages.
-



INFORMATION

- If this information is not followed, it can lead to a deterioration of the operating procedure.
-

2.2 Safety Precautions

The battery crimping tool has been constructed according to state-of-the-art technology and the acknowledged technical safety regulations.

When carrying out jobs such as installation, putting the tool into operation or setting it up, operation, changing the conditions of use and the mode of operation or carrying out maintenance and service jobs, it is important to observe the procedures for switching off the tool as described in the operation instruction.

Please observe the national regulations according to the minimum age of the personnel operating the battery crimping tool. Allowing younger persons access to the tool is strictly prohibited.

Do not operate the battery crimping tool before having read and understood all operating instructions.

- Every tool operator must have read and understood this operating instruction. The safety instructions, warnings and precautions contained in the individual chapters must be strictly observed by all users and operators when working on or with the battery crimping tool.
- Should the user make any changes to the tool without consulting the manufacturers or the suppliers, the latter will not be liable for any damage that may result.

Battery Crimping Tool

- Wear suitable safety shoes when transporting the crimping tool.
- Due to the risk of hand or finger injury, never try to reach into the battery crimping tool before having assured that the battery has been removed.
- Before commissioning the tool, it is always important to check if a Molex-approved adapter, tool head or die set is installed and is functioning correctly.
- This tool is not to be used on live circuits.
- Remove the battery from the battery crimping tool before mounting or exchanging the adapter, tool head or die set.
- The battery crimping tool is only allowed to be operated with properly mounted Molex-approved adapters, crimp heads and crimp die sets.
- The battery crimping tool may only be set up and operated in perfect technical conditions, observing all the safety regulations and considering any possible dangers.
- In case of a die jam, press the slider for automatic retraction.
- In cases of tool malfunctions, production must be stopped and the malfunction must be fixed before continuing work with the battery crimping tool.
- Use the battery crimping tool only with specifically designated battery packs.
- Recharge only with the charger specified by the manufacturer.
- Do not expose the charger to rain or humidity.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the charger. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- When the battery pack is not in use, keep it away from other metal objects like paper, clips, coins, keys, nails, screws or other small metal objects that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritations or burns.
- Work with caution.
- Only one person is allowed to work on or with the tool at a time.
- Only trained personnel are allowed to work on or with the tool.
- When working with the battery crimping tool, do not wear loose clothing, jewelry or long, loose hair that can get caught in the mechanism.
- Use safety gear and always wear eye protection. Safety equipment will reduce personal injuries.
- Strictly observe the exchange and maintenance intervals.

2.3 Responsibilities

The battery crimping tool may only be operated by suitably trained and authorized personnel. The user must clearly define and observe the responsibilities of the personnel for operation, setup, maintenance and service.

Should the user make any changes to the tool without consulting the manufacturers or the suppliers, the latter will not be liable for any damage that may result.

The user of the battery crimping tool is responsible for making sure that all persons involved in any way, either in the installation or in the maintenance of the tool, have been thoroughly trained on the system using this operating instruction.

Battery Crimping Tool

The user is also responsible for the training of operators, and the instruction must include the following aspects:

- Purpose of the tool
- Hazardous areas
- Safety rules and regulations
- Functionality of the various components of the tool
- Proper operation of the tool

To assure full familiarization with the system, the training must be conducted in the native language of the operators involved.

Staff Qualifications Required in Conjunction with the Use of the Battery Crimping Tool	
Installation	Technical personnel with language proficiency in either English or German, in addition to the native language of the operator
Setup	
Instruction	
Operation	Through qualified personnel trained as indicated above
Maintenance	Technical personnel with proficiency in English or German
Service	

The safety instructions, warnings and precautions contained in the individual chapters must be strictly observed by all users and operators.

2.4 Designed Use

Realization of crimp connections up to a cable \varnothing of 16mm² (wire end ferrules up to 50mm²), depending on the terminal design.

The battery crimping tool is designed for use with Molex-approved adapters or tool heads. The adapter or tool head should only be used with the tool heads or dies specified by Molex. Users are only allowed to use the battery crimping tool together with the adapter, tool head and die set for the preparation of crimp connections.

2.5 Predictable Misuse

- Every application that is not mentioned in Section 2.4, Designed Use

2.6 Hazardous Areas

- **Hazardous area:** Area of interchangeable crimping dies or tool heads
- **Person at risk:** Operator
- **Type of hazard:** Hand injuries

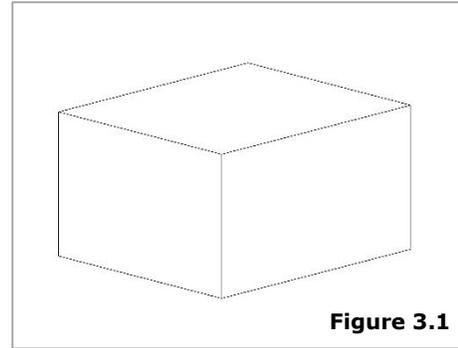
3 Shipment

3.1 Packing

Upon receipt, carefully unpack the battery crimping tool and check that you have received all components against the packing slip, declaration of conformity and operating instructions. It is recommended that you retain the packing for further dispatch and for storage.

Dimensions

- **Length:** Approximately 410mm (16")
- **Width:** Approximately 460mm (18")
- **Height:** Approximately 120mm (5")
- **Gross weight:** Approximately 5 kg (11 lbs)



3.2 Packing Contents

Quantity	Description
1	Battery crimping tool with battery (without adapter, tool head and die set)
1	Battery charger
1	Operating instructions
1	Tool case with foam insert
1	Declaration of conformity

4 Technical Description

4.1 Overview Battery Crimping Tool



Figure 4.1

Item	Description
1	Holding device for adapter or tool head, 360° rotation
2	Locking pins
3	Trigger
4	LED for illumination of the workplace
5	10.8V Li-Ion battery
6	Unlocking device for the battery
7	Slider for manual retraction in case of an error or emergency
8	Service light
9	Battery charge level button
10	Battery charge level
11	Battery identification plate (on the bottom side of the battery)
12	Product seal with serial number (in the housing of the battery bay)

4.2 Tool Identification

Item	Description
1	Serial Number
2	Seal
3	Address



Figure 4.2

4.3 Overview Battery Charger

Item	Description
1	Charger connected to power supply and carries voltage
2	Charger defect
3	Charging
4	Battery fully charged
5	Battery defect
6	Battery too hot or too cold

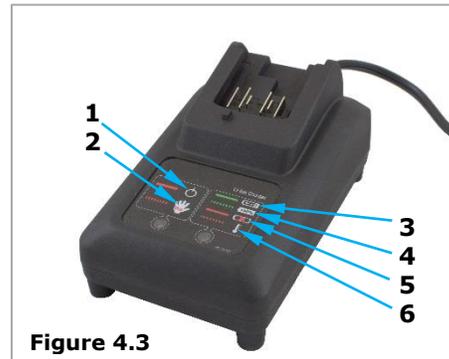


Figure 4.3

4.4 Technical Data

Dimension	Specification
Length	90mm (3.5")
Width	64mm (2.5")
Height	270mm (10.6")
Weight Including Battery	Approximately 1.3 kg (2.9 lb)
Crimp Speed	Approximately 2s (depending on the terminal cross section)
Crimp Force	13 kN (1.5t) Max
Stroke	Approximately 12mm
Noise Level	70 dB (A) in 1m distance
Vibrations	< 2.5 m/s ²
Environmental Temperature	-10-40°C
Battery Capacity	1.5 Ah, Li-Ion
Battery Charging Time	40 minutes
Battery Voltage	10.8V

4.5 Operating Elements

4.5.1 Slider for Manual Retraction

If the jaws become jammed because of operation or handling errors or wrongly placed contacts, the battery crimping tool can be opened as follows:

1. Push the retraction slide (1) in the direction of the battery.
2. The tool jaws will open.
3. Remove and discard the damaged contact.



Figure 4.4

4.5.2 Tool Head Holding Device

The tool head holding device may be rotated by hand 360° relative to the body, offering the operator the possibility to adjust the tool head to a suitable working position.



5 Transport

The weight of the battery crimping tool is approximately 1.3 kg (2.9 lbs).



ATTENTION

- Wear suitable safety shoes when transporting the machine.

Store and transport the battery crimping tool in the carrying case to protect it against damage.

6 Installation

6.1 Battery Charging

Before using the battery crimping tool for the first time, the batteries have to be charged.



DANGER

- Recharge only with the charger specified by the manufacturer.
- Do not expose the charger to rain or humidity.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the charger. Keep the cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.



DANGER

- Use the battery crimping tool only with specifically designated battery packs.
- When the battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws or other small metal objects that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, seek medical help. Liquid ejected from the battery may cause irritations or burns.
- Due to the risk of hand or finger injury, never try to reach into the battery crimping tool before having assured that the battery has been removed.

CAUTION



- Do not operate the battery crimping tool before having read and understood all operating instructions.
- Every tool operator must have read and understood this operating instruction. The safety instructions, warnings and precautions contained in the individual chapters must be strictly observed by all users and operators when working on or with the battery crimping tool.

Battery Crimping Tool

- The battery crimping tool may only be set up and operated in perfect technical conditions, observing all safety regulations and considering any possible dangers.
 - Before commissioning the tool, it is always important to check whether a Molex-approved adapter, tool head or die set is installed and is functioning correctly.
 - The crimp tool is only allowed to be used with a mounted, Molex-approved adapter with tool head or tool head with die set.
 - When working with the battery crimping tool, do not wear loose clothing, jewelry or long, loose hair that can get caught in the mechanism.
 - Work with caution.
 - In cases of a tool malfunction, production must be stopped, and the malfunction must be fixed before continuing work with the battery crimping tool.
 - Only one person is allowed to work on or with the battery crimping tool at a time.
 - Only trained personnel are allowed to work on or with the battery crimping tool.
-

Instructions

1. Remove the battery from the battery crimping tool by pressing the battery unlocking device.
2. Connect the charger to the power supply.
3. Insert the battery into the charger. The battery charging time is approximately 40 minutes.
4. When the battery is fully charged, remove it and reinsert it into the battery crimping tool.

The battery crimping tool is now ready for use.



INFORMATION

- Please pay attention that the battery has been removed from the charger if it is not connected to the power supply. Otherwise, the battery will be completely discharged.
-

6.2 Battery Charge Level

Press button **1** to check the charge level of the battery. See Figure 6.2:

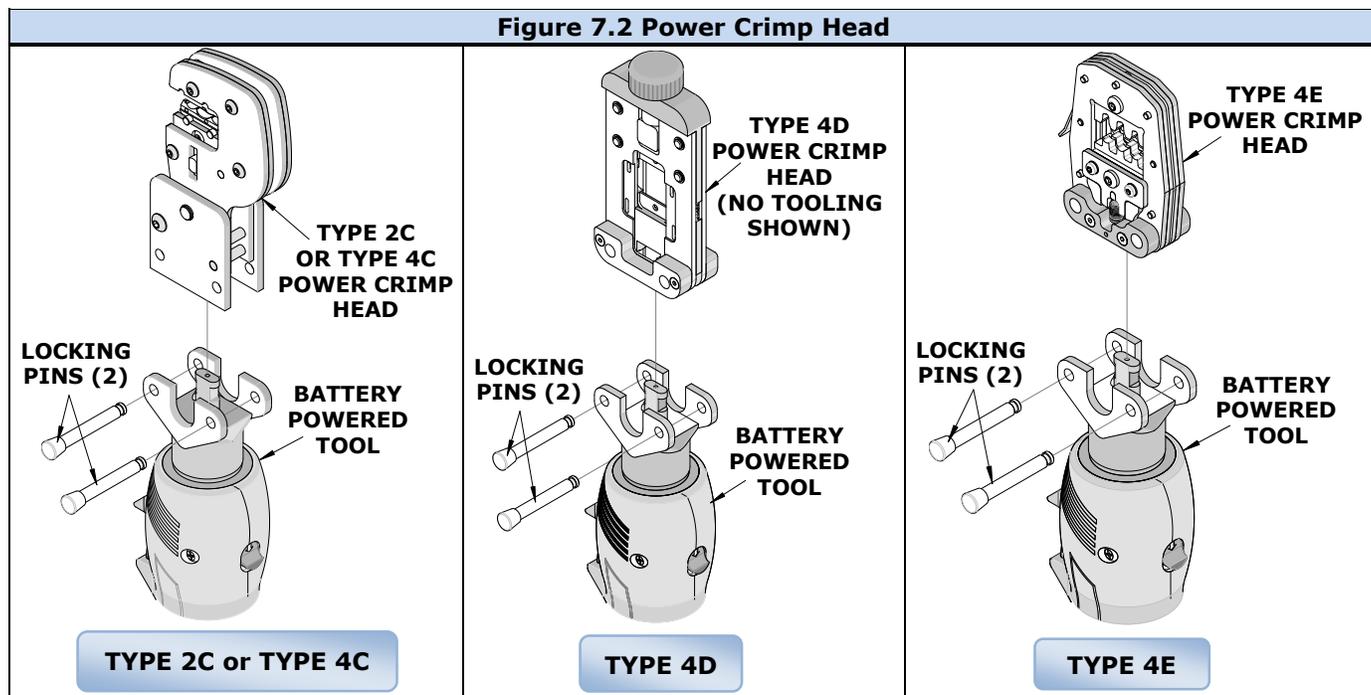
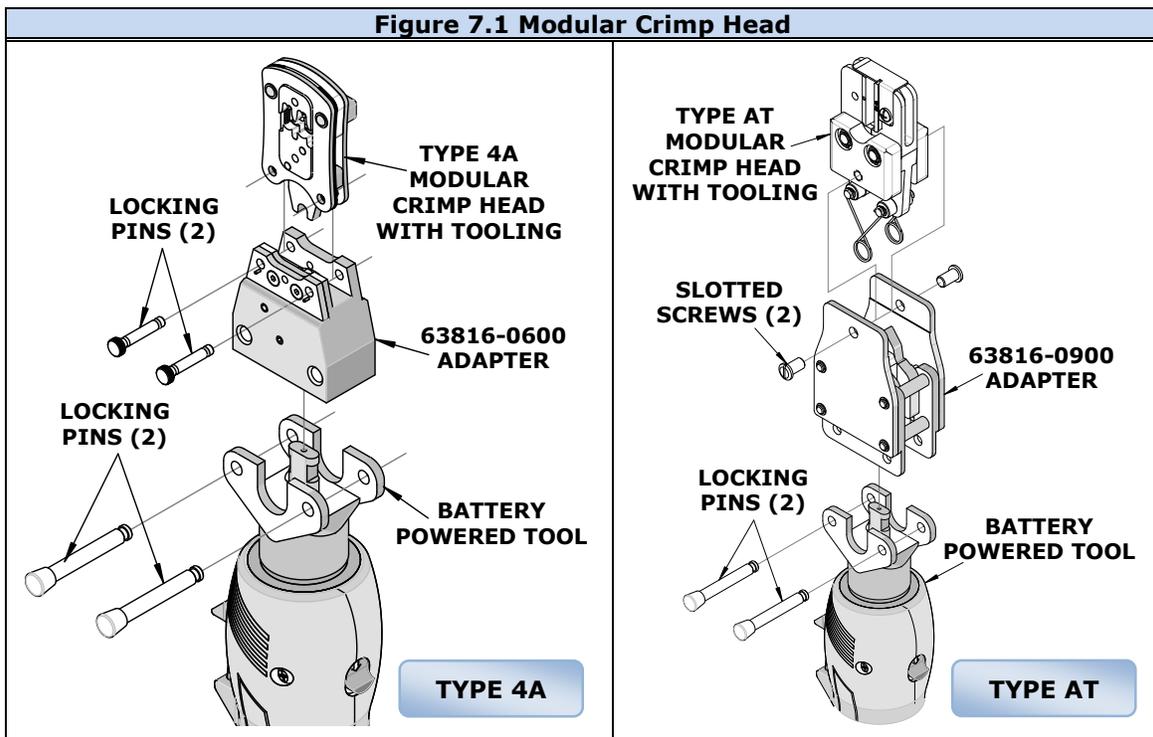
100 %	● ● ● ●
75 %	● ● ● ○
50 %	● ● ○ ○
25 %	● ○ ○ ○
0%	○ ○ ○ ○



7 Commissioning

7.1 Available Adapters, Tool Heads and Die Sets

The following charts show all applications for the battery powered tool. See Figures 7.1 and 7.2:



Note: The above modular crimp heads and battery powered crimp adapters are sold separately and are not included with the 63816-0270 (110V) or 63816-0280 (220V) battery crimping tool.

7.2 Mounting a Tool Head or Adapter on the Tool



DANGER

- Due to the risk of hand or finger injury, never try to reach into the battery crimping tool before having assured that the battery has been removed.
- Remove the battery from the battery crimping tool before mounting or exchanging the adapter, tool head or die set.



CAUTION

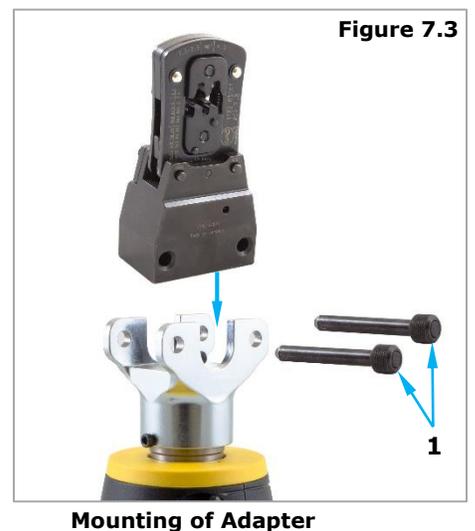
- Every tool operator must have read and understood this operating instruction. The safety instructions, warnings and precautions contained in the individual chapters must be strictly observed by all users and operators when working on or with the battery crimping tool.
- The battery crimping tool may only be set up and operated in perfect technical conditions, observing all the safety regulations and considering any possible dangers.
- Before commissioning the tool, it is always important to check if a Molex-approved adapter, tool head or die set is installed and is functioning correctly.
- The crimp tool is only allowed to be used with the mounted adapter with tool head or tool head with die set.
- When working with the battery crimping tool, do not wear loose clothing, jewelry or long, loose hair that can get caught in the mechanism.
- Work with caution.
- In cases of a tool malfunction, production must be stopped, and the malfunction must be fixed before continuing work with the battery crimping tool.
- Only one person is allowed to work on or with the battery crimping tool.
- Only trained personnel are allowed to work on or with the battery crimping tool.

Before mounting the tool head or adapter, please pay attention that the ram of the tool is in the lowest position. If the ram is in another position, press the trigger until the ram automatically returns to the lowest position.

- Pull out the pins (**1**) of the holding device.
- Install the adapter on the tool from above.

Or

- Install the tool head from behind and pay attention that the ram of the tool head engages correctly into the notch of the tool ram.



Mounting of Adapter

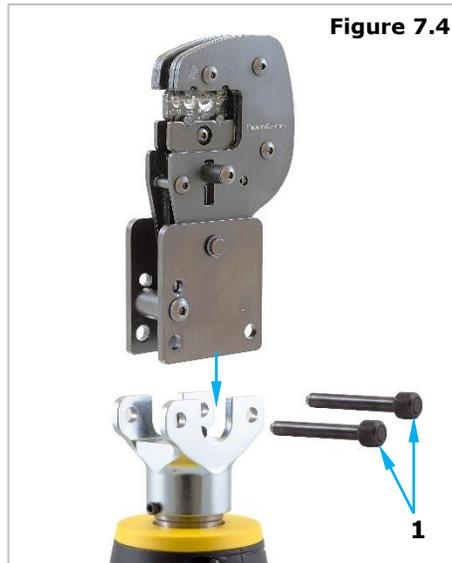


INFORMATION

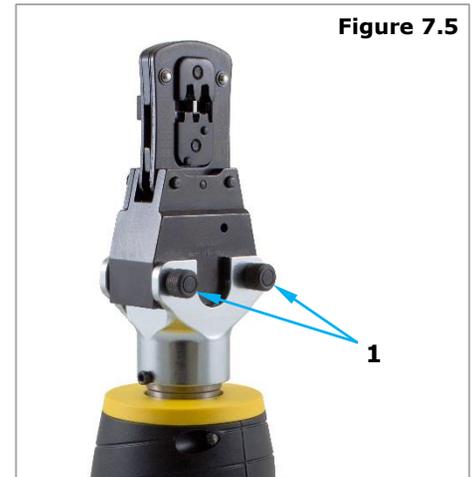
- The tool heads of the 2C or 4C frames supplied as of March 2016 have been optimized according to the latest guidelines. Due to the spring-guided closing mechanism, the tool heads are always closed.

Battery Crimping Tool

After having mounted the adapter or tool head, lock the pins (1) of the holding device.



Mounting of Tool Head



7.3 Turning the LED Light On/Off for Illumination of the Workplace

7.3.1 Turn On the LED

- Remove the battery from the battery crimping tool.
- Reinsert the battery without pressing the trigger (1).

The LED (2) lights up during and after the crimping process.

7.3.2 Turn Off the LED

- Remove the battery from the battery crimping tool.
- Press the trigger (1), and keep it pressed while inserting the battery.
- Keep the trigger pressed for some seconds.

The LED (2) is turned off.



Figure 7.6

8 Normal Operation: Production Cycle



DANGER

- Due to the risk of hand or finger injury, never try to reach into the battery crimping tool before having assured that the battery has been removed.
 - Remove the battery from the battery crimping tool before mounting or exchanging the adapter, tool head or die set.
-



CAUTION

- Do not operate the battery crimping tool before having read and understood all operating instructions.
 - Every tool operator must have read and understood this operating instruction. The safety instructions, warnings and precautions contained in the individual chapters must be strictly observed by all users and operators when working on or with the battery crimping tool.
 - The battery crimping tool may only be set up and operated in perfect technical conditions, observing all the safety regulations and considering any possible dangers.
 - Before commissioning the tool, it is always important to check if a Molex-approved adapter, tool head or die set is installed and functioning correctly.
 - The crimp tool is only allowed to be used with mounted adapter with tool head or tool head with die set.
 - When working with the battery crimping tool, do not wear loose clothing, jewelry or long, loose hair that can get caught in the mechanism.
 - Work with caution.
 - In cases of a tool malfunction, production must be stopped, and the malfunction must be fixed before continuing work with the battery crimping tool.
 - Only one person is allowed to work on or with the battery crimping tool at a time.
 - Only trained personnel are allowed to work on or with the battery crimping tool.
-



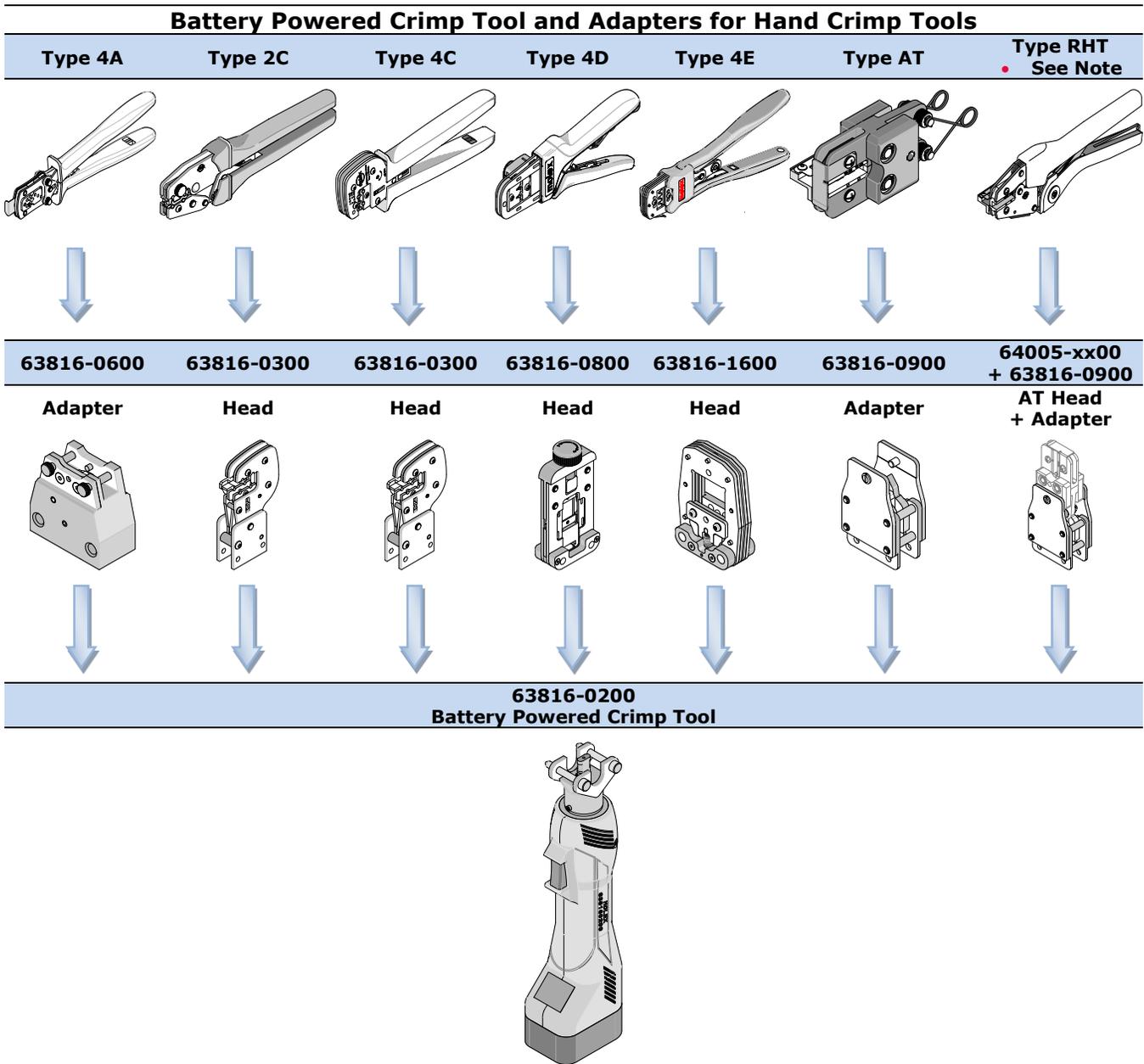
INFORMATION

- If you release the trigger, the crimping process will be interrupted. If you press the trigger again, the crimping process will continue until its completion.
-

Battery Crimping Tool

8.1 Overview

Modular crimp heads, power crimp heads, adapters and dies are easily and quickly interchanged between the hand crimp tools and the battery powered tools. Refer to the following compatibility chart:

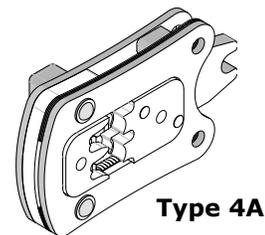


• **NOTE:** Untooled AT heads are not available separately. Customers can install RHT tooling into one of their existing AT heads.
 Caution must be taken as the markings on the AT head will not match the tooling from an RHT tool for a different terminal.

63816-0600 Power Crimp Adapter

molex®

Application Tooling



8.2 63816-0600 Power Crimp Adapter for Type 4A Hand Crimp Tools

Scope

The 63816-0600 power crimp adapter was created for use with the Type 4A modular crimp heads when used with the battery powered tool (Order No. 63816-0270 or 63816-0280).

Installation of Type 4A Modular Crimp Heads onto the Power Crimp Adapter

To mount the Type 4A modular crimp heads to the 63816-0600 modular crimp adapter, slide the locking pins outward until they stop. Then, place the crimp head in the upper slot and align the holes with the pins. Push the pins inward until they lock. See Figure 8.1.

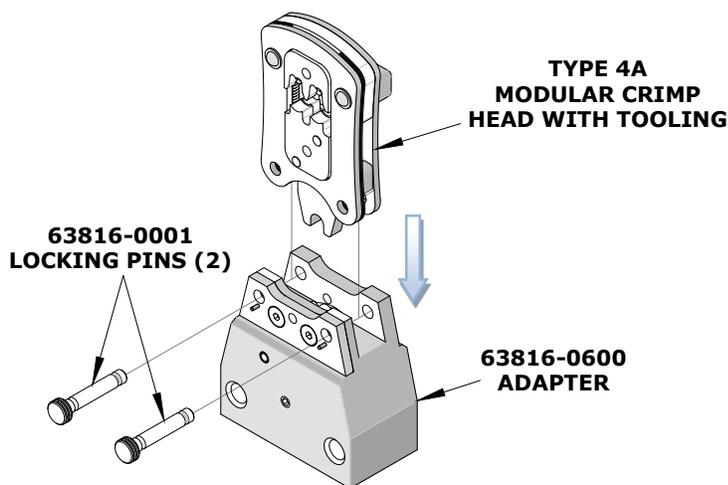


Figure 8.1

Installation of Type 4A Power Crimp Adapter to Battery Powered Crimping Tool

To install the 63816-0600 power crimp adapter onto the battery powered tool, refer to Section 7.2.

Operation

1. Load the terminal as described in the Operation section of the Application Tooling Specification (ATS) sheet for the tool.
2. Cycle the battery powered tool to crimp the terminal to the wire. Hold the trigger until the tool completes the cycle.
3. 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.
4. Visually inspect the crimped terminal for proper crimp location.



WARNING: Never place fingers into the tooling nest.

Maintenance

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

1. This 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.
2. Remove dust, moisture and other contaminants with a clean brush or a soft, lint-free cloth.
3. Do not use any abrasive materials that could damage the tool.
4. Make certain all pins, pivot points and bearing surfaces in the tool head are protected with a thin coat of high-quality machine oil. Do not oil excessively. Using a light oil such as SAE 30 weight automotive oil every 5,000 crimps or monthly will significantly enhance the tool life and ensure a stable calibration. See Figure 8.2 for lubrication points.
5. Store the tool in a clean and dry area when not in use.

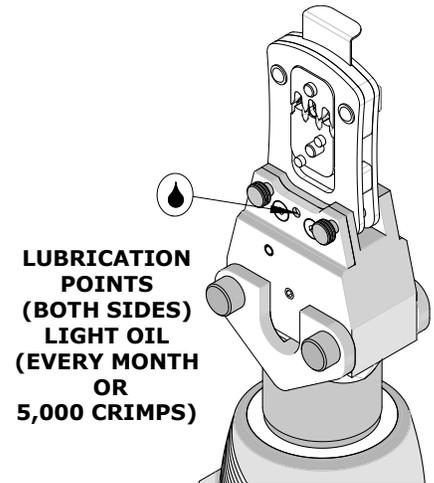


Figure 8.2

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.

Parts List

Item	Order No.	Description	Quantity
1	63816-0600	Power Crimp Adapter	1

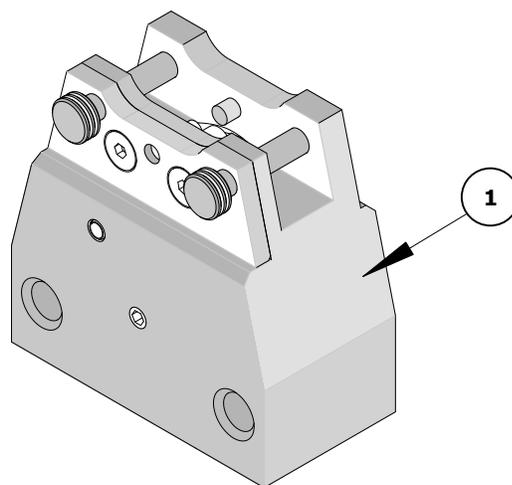
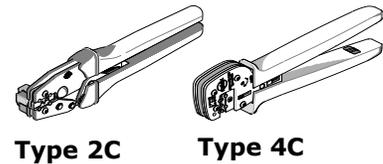


Figure 8.3

63816-0300 Power Crimp Head

molex®

Application Tooling



Type 2C

Type 4C

8.3 63816-0300 Power Crimp Head for Type 2C and 4C Hand Crimp Tools

Scope

The 63816-0300 power crimp head was created for use with the Type 2C and 4C crimp dies and locator kits when used with the battery powered tool (Order No. 63816-0270 or 63816-0280).

Installation of Type 2C or 4C Crimp Tool Kit into the Power Crimp Head

Remove the crimp tool kit from the Type 2C or 4C hand crimp tool. To do this, see the instruction sheet included with the hand crimp tool.

To install the crimp tool kit into the power crimp head, follow the steps below:

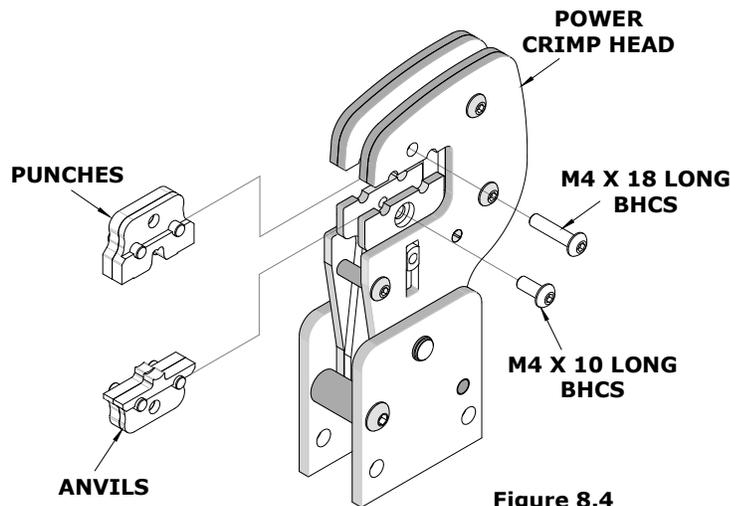


Figure 8.4

1. Insert the anvils into the bottom slots of the nest. The wire size markings face toward the front of the head, opposite from the locator pivot shaft. Install the M4 x 10 long BHCS, and tighten in place.
2. Insert the punches into the top slots of the nest with wire size markings to the front. Install the M4 x 18 long BHCS, and tighten in place. See Figure 8.4.
3. Position the locator with the hole over the brass pivot shaft and snap it into place.



WARNING: Never place fingers into the tooling nest.

Power Crimp Head Installation onto Battery Powered Crimping Tool

To install the 63816-0300 power crimp adapter onto the battery powered tool, refer to Section 7.2.

Operation

1. Load the terminal as described in the Operation section of the Application Tooling Specification (ATS) sheet for the tool.

Battery Crimping Tool

2. Cycle the battery powered tool to crimp the terminal to the wire. Hold the trigger until the tool completes the cycle.
3. 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.
4. Visually inspect the crimped terminal for proper crimp location.

Maintenance

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

1. This 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.
2. Remove dust, moisture and other contaminants with a clean brush or a soft, lint-free cloth.
3. Do not use any abrasive materials that could damage the tool.
4. Make certain all pins, pivot points and bearing surfaces in the tool head are protected with a thin coat of high-quality machine oil. Do not oil excessively. Using a light oil such as SAE 30 weight automotive oil every 5,000 crimps or monthly will significantly enhance the tool life and ensure a stable calibration. See Figure 8.5 for lubrication points.
5. Store the tool in a clean and dry area when not in use.

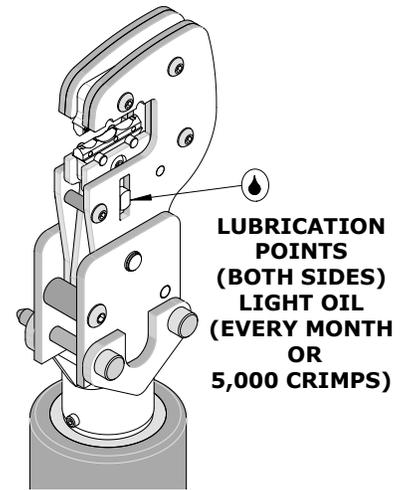


Figure 8.5

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.

Parts List

Item	Order No.	Description	Quantity
1	63816-0300	Power Crimp Head	1
2	63811-4773	Universal Locator Mount	1

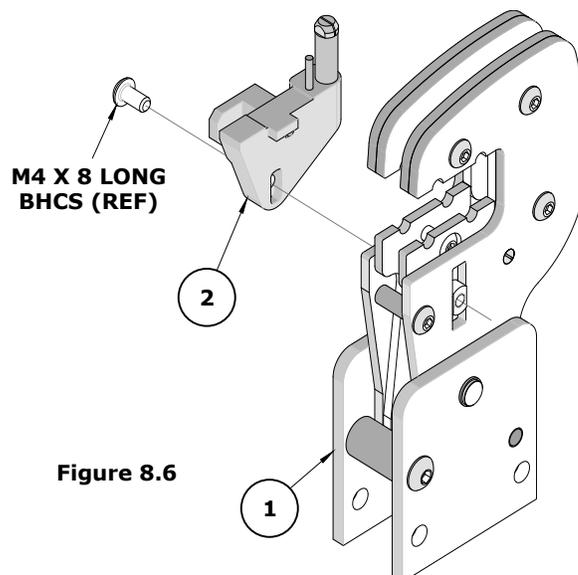
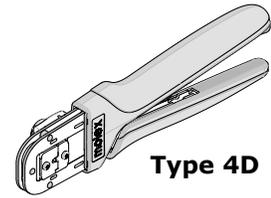


Figure 8.6

**63816-0800
Power Crimp Head**



Application Tooling



8.4 63816-0800 Power Crimp Head for Type 4D Hand Crimp Tools

Scope

The 63816-0800 power crimp head was created for use with Type 4D crimp dies and locator when used with the battery powered tool (Order No. 63816-0270 or 63816-0280).

Installation for Type 4D Crimp Tooling Installation Into Power Crimp Head

First, remove the locator and the crimp tooling from the Type 4D hand crimp tool. To do this, see the instructions below.

Removing the Locator From the Type 4D Hand Crimp Tool

1. Open the hand crimp tool by squeezing the handles together to remove the locator.
2. Squeeze gently on the lower area of the locator assembly as shown in Figure 8.7 with your thumb and index finger. The lower tabs of the locator should disengage from the power crimp head.
3. Lift and pull away from the crimp hand tool. The top locator hooks should slip out of the top slots easily. See Figure 8.7.

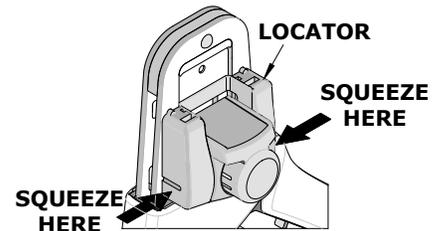
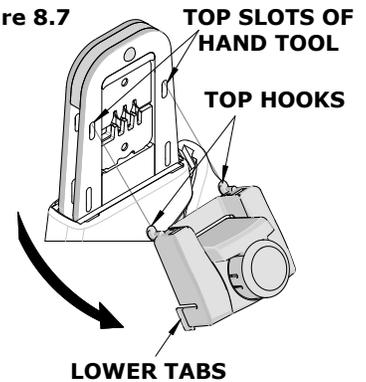


Figure 8.7



Removing the Crimp Dies From the Type 4D Hand Crimp Tool

1. Open the crimp hand tool by squeezing the handles together.
2. Remove the two M3 BHCS.
3. Remove the crimp dies as shown in Figure 8.8.
4. Make sure all of the components removed from the crimp hand tool are reinstalled into the power crimp head in the same manner.

Note: The tool part number markings on the dies go inward so they will not be visible when installed. See Figure 8.10.

Installing the Crimp Dies in the Power Crimp Head

1. Select the desired Type 4D crimping dies.
2. Insert the anvils or dies (E1 and I1) into the bottom slots of the nest. Install the M3 x 14 long BHCS and lightly tighten in place. See Figure 8.9.

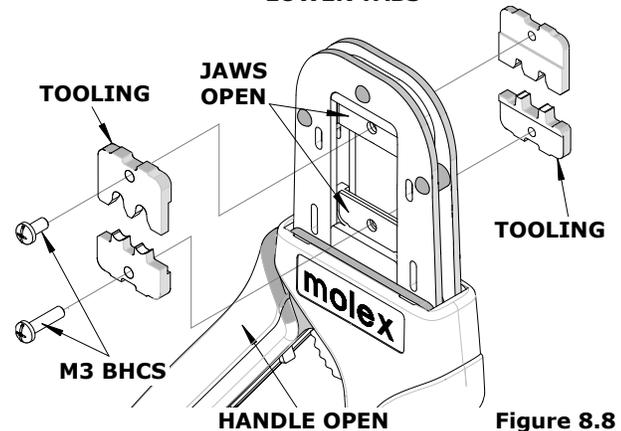
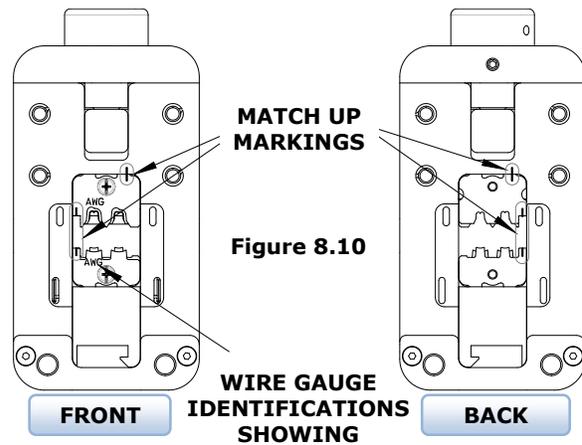
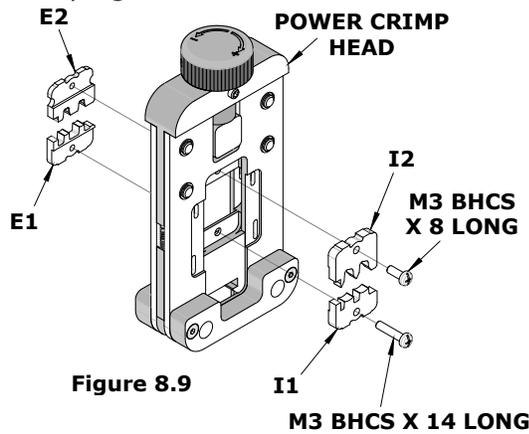


Figure 8.8

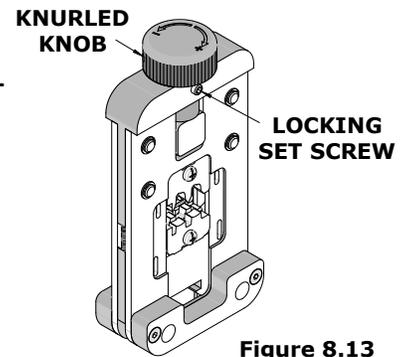
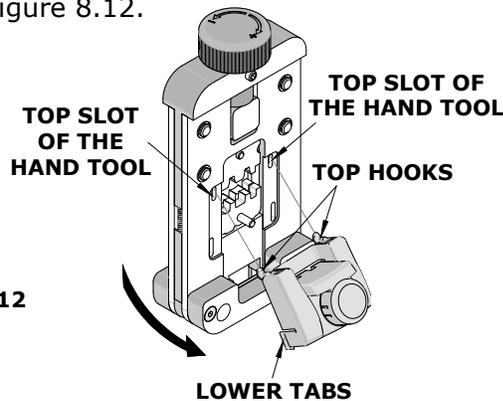
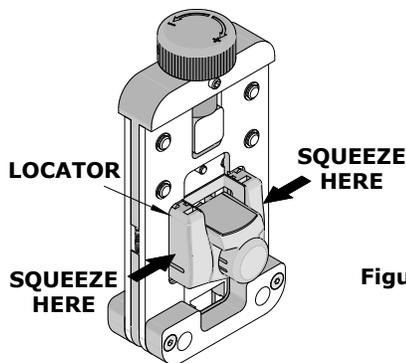
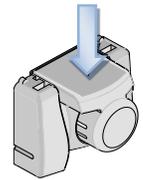
Battery Crimping Tool



Installing the Locator in the Power Crimp Head

1. Install the locator assembly.
2. Press the red insert down as far as it will go. See Figure 8.11.
3. The locator goes on the opposite side from the dies with the wire gauge markings.
4. While holding onto the lower part of the locator with your thumb and index finger, insert the locator top hooks into the power crimp head top slots.
5. Rotate the locator down and press the lower tabs into the two bottom slots of the head. To secure the locator in place, the lower tabs must snap into place on the head frame. See Figure 8.12.

MAKE SURE CENTER OF LOCATOR IS IN THE DOWN POSITION



Note: Make sure the longer screw only goes into the lower dies.

6. Completely close the crimp dies until they are touching, and then securely tighten the M3 BHCS.

Power Crimp Head Installation Onto Battery Powered Crimping Tool

To install the 63813-0800 power crimp head onto the battery powered tool, refer to Section 7.2.

Adjustments

The crimp height on the 63816-0800 power crimp head can be adjusted if necessary. To do this, first measure the conductor crimp height of a crimped terminal and compare to the crimp specification listed in the product specification for that terminal. If an adjustment is required, follow the procedure below:

1. Loosen the locking set screw located just below the knurled knob at the top of the power crimp head. See Figure 8.13.
2. If the crimp height is too loose, rotate the knob counterclockwise a small amount. Crimp another terminal and recheck the crimp height.
3. If the crimp height is too tight, turn the knob clockwise and follow the same procedure.

Battery Crimping Tool

4. Do this until the proper crimp height is achieved.
5. When the proper crimp height is achieved, lock the set screw.

Operation

1. To load a terminal and position the wire in the terminal in the power crimp head, follow the loading procedure as explained in the Application Tooling Specification (ATS) sheet for the tool.
2. Crimp the terminal by squeezing the trigger on the side of the battery actuator until the tool cycles and returns and the jaws open.
3. Remove the terminal from the locator, and inspect the crimp for proper quality.



WARNING: Never place fingers into the tooling nest.

Maintenance

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

- This 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.
- Remove dust, moisture and other contaminants with a clean brush or a soft, lint-free cloth.
- Do not use any abrasive materials that could damage the tool.
- Using a light oil such as SAE 30 weight automotive oil every 5,000 crimps or monthly will significantly enhance the tool life and ensure a stable calibration. Make certain all sliding surfaces in the tool head are protected with a thin coat of high-quality machine oil. See Figure 8.14 for lubrication points. Do not oil excessively, and wipe excess oil from the tool frame when complete.
- Store the tool in a clean and dry area when not in use.

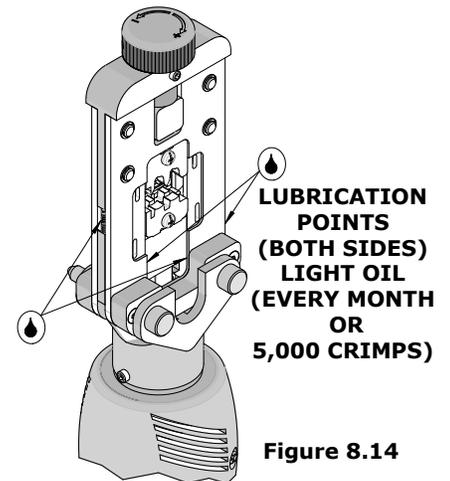


Figure 8.14

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.

Parts List

Item	Order No.	Description	Quantity
1	63816-0800	Power Crimp Head (for style 4D crimp tools)	1
2	63816-0801	Return Spring	2

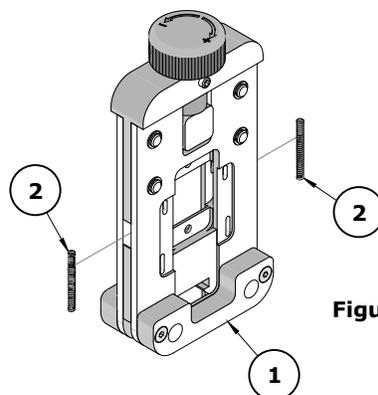
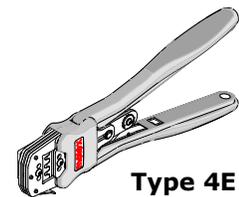


Figure 8.15

63816-1600 Power Crimp Head

molex®

Application Tooling



Type 4E

8.5 63816-1600 Power Crimp Head for Type 4E Hand Crimp Tools

Scope

The 63816-1600 power crimp head was created for use with Type 4E crimp dies and locator when used with the battery powered tool (Order No. 63816-0270 or 63816-0280).

Installing the Type 4E Crimp Tooling Into the Power Crimp Head

First, remove the locator and the crimp tooling from the Type 4E hand crimp tool. To do this, follow the instructions below.

Removing the Locator From the Type 4E Hand Crimp Tool

1. Remove the M4 lock nut from the locator.
2. Loosen and remove the pegs on the locator assembly from the mating holes on the back side of the power crimp head. See Figure 8.16.

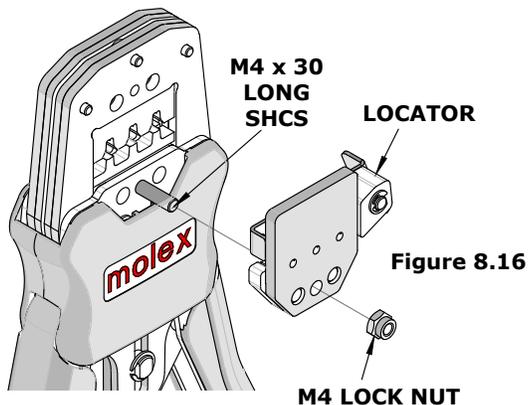


Figure 8.16

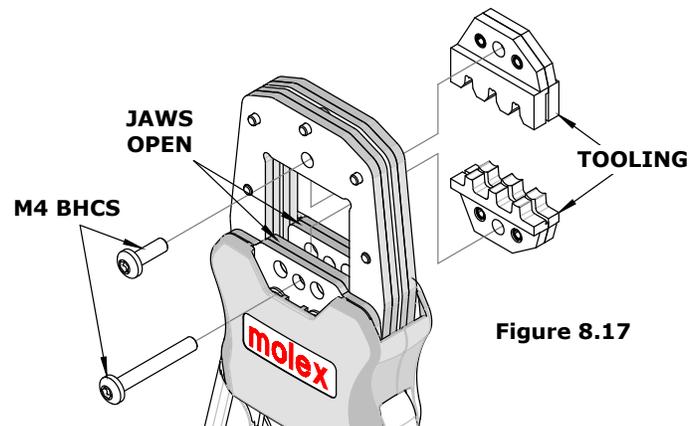


Figure 8.17

Removing the Crimp Dies From the Type 4E Hand Crimp Tool

1. Open the hand crimp tool.
2. Remove the two M4 BHCS.
3. Remove the crimp dies as shown in Figure 8.17.
4. Make sure all of the components removed from the hand crimp tool are reinstalled into the power crimp head in the same manner.

Installing the Crimp Dies in the Power Crimp Head

1. Select the desired Type 4E crimping dies.
2. Insert the anvils or dies into the bottom slots of the nest. Install the M4 x 30 long BHCS and lightly tighten in place. See Figure 8.18.
3. Make sure the small markings on the individual dies match up, and the wire gauge identification (AWG)

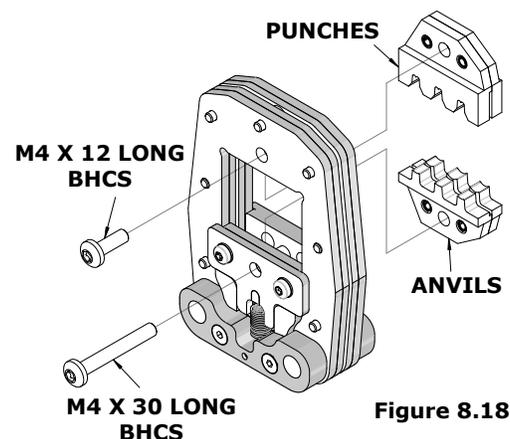


Figure 8.18

Battery Crimping Tool

marks should be aligned and facing out on the side of the crimp head with the two button head screws on the ram.

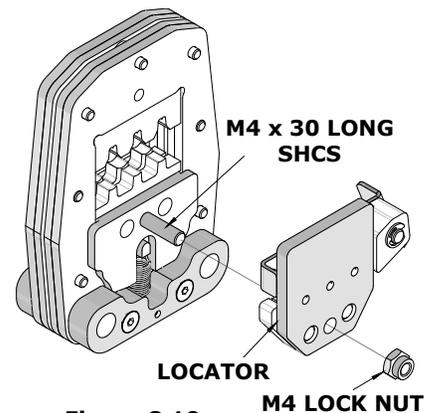
4. Install the M4 x 30 long BHCS, and lightly tighten in place.

Note: Make sure the longer screw only goes into the lower dies.

5. Install the punches or dies (E2 and I2) into the top slot of the crimp head frame.
6. Install the M4 x 12 long BHCS, and lightly tighten in place.
7. Completely close the crimp dies until they are touching, and then secure both M4 BHCS (TORX drive).

Installing the Locator in the Power Crimp Head

1. Insert the pegs on the locator assembly into the mating holes on the back side of the power crimp head.
2. Install and tighten the M4 lock nut. See Figure 8.19.
3. Completely close the crimp dies until they are touching, and then securely tighten the M4 BHCS.



Operation

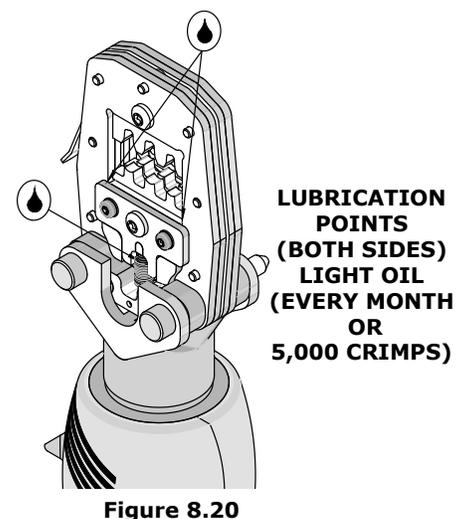
1. To load a terminal in the power crimp head and position the wire in the terminal, follow the loading procedure as explained in the hand crimp tool or benchtop crimp machine Application Tooling Specification (ATS) sheet.
2. Crimp the terminal by actuating the crimp tool until it cycles and returns and the jaws open.
3. Remove the terminal from the locator, and inspect the crimp for proper quality.

CAUTION: Never place fingers into the tooling nest area.

Maintenance

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

- This 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.
- Remove dust, moisture and other contaminants with a clean brush or a soft, lint-free cloth.
- Do not use any abrasive materials that could damage the tool.
- Using a light oil such as SAE 30 weight automotive oil every 5,000 crimps or monthly will significantly enhance the tool life and ensure a stable calibration. Make certain all sliding surfaces in the tool head are protected with a thin coat of high-quality machine oil. See Figure 8.20 for lubrication points. Do not oil excessively, and wipe excess oil from the tool frame when complete.
- Store the tool in a clean and dry area when not in use.



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.

Parts List

Item	Order No.	Description	Quantity
1	63816-1600	Power Crimp Head (for style 4E crimp tools)	1
2	63816-1601	Return Spring	2

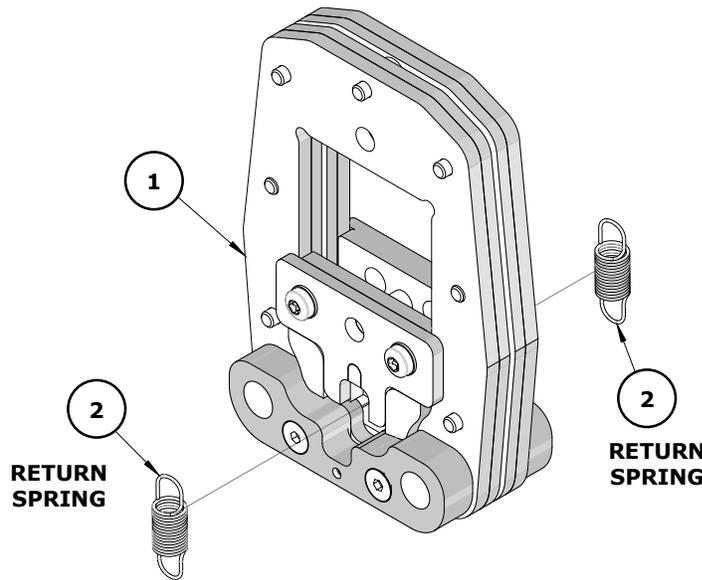
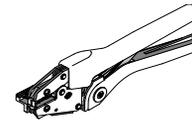


Figure 8.21

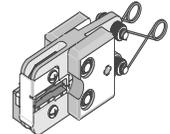
**63816-0900
Power Crimp Head**



Application Tooling



Type RHT



Type AT

**8.6 63816-0900 Power Crimp Head Adapter for Type AT Air Crimp Heads
(With 64005-0000 Head for Type RHT Hand Crimp Tools)**

Scope

The 63816-0900 power adapter was created to adapt the 64005 and 64007 series Type AT crimp heads for use in the 63816-0270 and 63816-0280 battery powered tools.

The addition, customers who have Type RHT hand crimp tools along with a Type AT crimp head can load the RHT dies and locator into the AT crimp head and then into the battery powered tool.

Installation

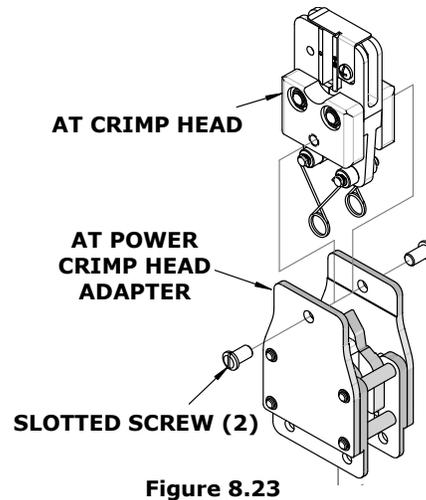
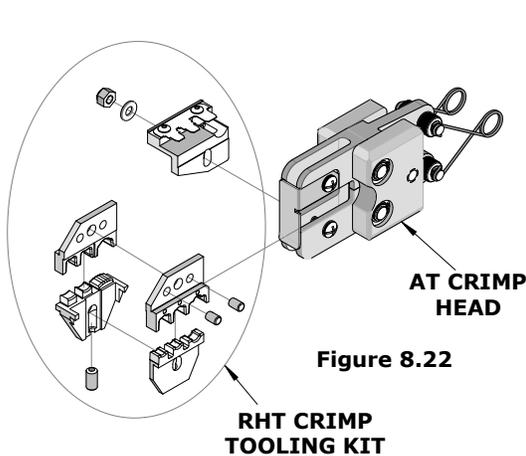
Type AT Air Crimp Head Installation Into AT Power Crimp Head Adapter

Install the AT air crimp head onto the AT power adapter as shown in Figure 8.23.

Type RHT Crimp Tooling Kit Installation Into AT Crimp Head and AT Power Crimp Head Adapter (One AT Crimp Head Required)

Remove the crimp tooling kit from the Type RHT hand crimp tool. To do this, see the Application Tooling Specification (ATS) sheet included with the hand crimp tool.

1. Install the RHT crimp tooling kit with locator into the AT crimp head. See Figure 8.22.
2. Then, install the crimp head onto the AT power crimp head adapter. This is a typical Type RHT crimp tooling kit arrangement in the AT crimp head. See Figure 8.23.



Note: For specific tooling, see the ATS that is included with the RHT hand crimp tool.



WARNING: Never place fingers into the tooling nest.

AT Power Crimp Head Adapter Installation Into the Battery Powered Crimping Tool

To install the 63816-0900 power crimp head adapter onto the 63816-0270 and 63816-0280 battery powered tools, refer to Section 7.2.

Operation

1. To load a terminal and position the wire in the terminal in the power crimp head, follow the loading procedure as explained in the AT crimp head (or RHT hand crimp tool) instruction sheet.
2. Crimp the terminal by squeezing the trigger on the side of the battery actuator until the tool cycles and returns and the jaws open.
3. Remove the terminal from the locator, and inspect the crimp for proper quality.

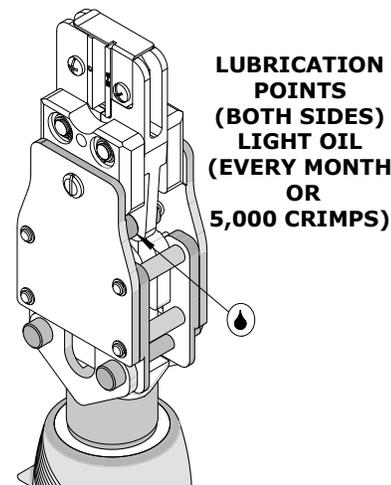


Figure 8.24

Maintenance

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

- This 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.
- Remove dust, moisture and other contaminants with a clean brush or a soft, lint-free cloth.
- Do not use any abrasive materials that could damage the tool.
- Using a light oil such as SAE 30 weight automotive oil every 5,000 crimps or monthly will significantly enhance the tool life and ensure a stable calibration. Make certain all sliding surfaces in the tool head are protected with a thin coat of high-quality machine oil. See Figure 8.24 for lubrication points. Do not oil excessively, and wipe excess oil from the tool frame when complete.
- Store the tool in a clean and dry area when not in use.

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.

Parts List

Item	Order No.	Description	Quantity
1	63816-0900	Power Crimp Adapter	1
2	19279-0161	Slotted Screw	2

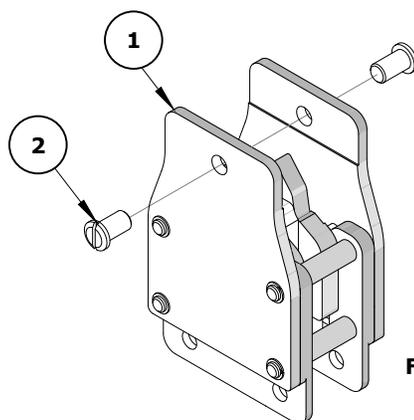


Figure 8.25

9 Maintenance

9.1 Maintenance Plan



DANGER

- Due to the risk of hand or finger injury, never try to reach into the battery crimping tool before having assured that the battery has been removed.
 - Remove the battery from the battery crimping tool before mounting or exchanging the adapter, tool head or die set.
-



CAUTION

- Observe the exchange and maintenance intervals strictly.
 - Do not operate the battery crimping tool before having read and understood all operating instructions.
 - Every tool operator must have read and understood this operating instruction. The safety instructions, warnings and precautions contained in the individual chapters must be strictly observed by all users and operators when working on or with the battery crimping tool.
 - The battery crimping tool may only be set up and operated in perfect technical conditions, observing all the safety regulations and considering any possible dangers.
 - Before commissioning the tool, it is always important to check if a Molex-approved adapter, tool head or die set is installed and is functioning correctly.
 - When working with the battery crimping tool, do not wear loose clothing, jewelry or long, loose hair that can get caught in the mechanism.
 - Work with caution.
 - In cases of a tool malfunction, production must be stopped, and the malfunction must be fixed before continuing work with the battery crimping tool.
 - Only one person is allowed to work on or with the battery crimping tool.
-

Regular maintenance and cleaning of the parts that can be reached without opening the battery crimping tool will prolong the life of the tool. Do not use rough materials to clean the tool such as steel wool. The battery crimping tool or tool parts should not be cleaned with compressed air. The crimping tool as well as the tool parts must not be cleaned with hard objects like scrapers, steel wool and so forth. Vacuum heavily soiled and worn parts.

9.1.1 Daily

- Visually inspect the battery crimping tool for damage or leaks.
- Die sets and tool heads should be cleaned in the profile area and checked for any damage before every use. Lightly lubricate the profiles.

9.1.2 After 10,000 Cycles or Every Two Years

Repair, maintenance and settings should be done by the Molex service department to guarantee the security and reliability of the tool. Therefore, please send the tool to the following address:

Molex Application Tooling
3 Sammons Court
Bolingbrook, IL 60440

Telephone: (402) 458-TOOL (8665)

Battery Crimping Tool

Please have the following information ready when you contact service:

- Tool type
- Tool serial number



CAUTION

- Do not damage the tool seal (Figure 4.1, item 12). The guarantee expires if the seal is damaged.

10 Problem Handling/Service Light



DANGER

- Due to the risk of hand or finger injury, never try to reach into the battery crimping tool before having assured that the battery has been removed.
- Remove the battery from the battery crimping tool before mounting or exchanging the adapter, tool head or die set.



CAUTION

- Do not operate the battery crimping tool before having read and understood all operating instructions.
- Every tool operator must have read and understood this operating instruction. The safety instructions, warnings and precautions contained in the individual chapters must be strictly observed by all users and operators when working on or with the battery crimping tool.
- The battery crimping tool may only be set up and operated in perfect technical conditions, observing all the safety regulations and considering any possible dangers.
- Before commissioning the tool, it is always important to check if a Molex-approved adapter, tool head or die set is installed and functioning correctly.
- When working with the battery crimping tool, do not wear loose clothing, jewelry or long, loose hair that can get caught in the mechanism.
- Work with caution.
- In cases of a tool malfunction, production must be stopped, and the malfunction must be fixed before continuing work with the battery crimping tool.
- Only one person is allowed to work on or with the battery crimping tool.



INFORMATION

- If the dies become jammed, press the slider to manually retract the jaws.

Service Light	Reason	Remedial Action
Lights up for 20 seconds after the crimping process	Battery almost empty	Recharge the battery
Flashes 2 times after inserting the battery	Self-test	N/A
Flashes for 20 seconds in a frequency of 2 Hz after the crimping process	N/A	Return tool to our service address for inspection and repair
Flashes for 20 seconds at a frequency of 5 Hz	Tool too hot	Wait for 15 minutes until the tool has been cooled down
Lights up for 20 seconds and subsequently flashes for 20 seconds at a frequency of 2 Hz	Battery is discharged or defective	Return tool to the service address for inspection

11 Removal from Service, Demounting and Disassembly

DANGER

- Due to the risk of hand or finger injury, never try to reach into the battery crimping tool before having assured that the battery has been removed.
- Remove the battery from the battery crimping tool before mounting or exchanging the adapter, tool head or die set.

CAUTION



- When working with the battery crimping tool, do not wear loose clothing, jewelery or long, loose hair that can get caught in the mechanism.
- During transport and demounting of the tool, wear suitable safety shoes.
- Work with caution.
- Only one person is allowed to work on or with the battery crimping tool at a time.

12 Storage

Store and transport the battery crimping tool in the carrying case to protect it against damage.

13 Disposal

For the disposal of the battery crimping tool, return the tool to Molex.

14 Manufacturing

This product is made for Molex by WEZAG GmbH.

15 Parts List

Item	Order No.	Description	Quantity
1	63816-0270	Battery Powered Tool (110V)	1
2	63816-0001	Modular Crimp Head Locking Pins	2
3	63816-0272	10.8V Lithium Battery	2
4	63816-0275	Battery Charger (110V)	1

Item	Order No.	Description	Quantity
1	63816-0280	Battery Powered Tool (220V)	1
2	63816-0001	Modular Crimp Head Locking Pins	2
3	63816-0272	10.8V Lithium Battery	2
4	63816-0285	Battery Charger (220V)	1



Figure 14.1

Application Tooling Support

Phone: (402) 458-TOOL (8665)

E-Mail: applicationtooling@molex.com

Website: www.molex.com/applicationtooling

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