

# customer manual

ORIGINAL INSTRUCTIONS


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Safeguards are designed into this application equipment to protect operators and maintenance personnel from most hazards during equipment operation. However, certain safety precautions must be taken by the operator and repair personnel to avoid personal injury, as well as damage to the equipment. For best results, application equipment must be operated in a dry, dust-free environment. Do not operate equipment in a gaseous or hazardous environment.


Carefully observe the following safety precautions before and during operation of the equipment:

- ALWAYS wear appropriate ear protection.
- ALWAYS wear appropriate eye protection.
- ALWAYS wear approved eye protection when operating powered equipment.
- ALWAYS keep guard(s) in place during normal operation.
- NEVER wear loose clothing or jewelry that may catch in moving parts of the application equipment.
- NEVER insert hands into installed application equipment.
- NEVER alter, modify, or misuse the application equipment.

**SAFETY PRECAUTIONS -- IMPORTANT SAFETY INFORMATION**


	<b>DANGER</b>
	<p>Electric shock hazard: This tool is not insulated. When using this unit near energized electrical lines, use proper personal protective equipment. Failure to observe this warning could result in severe injury or death.</p>


	<b>DANGER</b>
	<p>Skin injection hazard: Do not use hands to check for oil leaks. High pressure oil easily punctures skin causing serious injury, gangrene, or death. If injured, seek medical help immediately to remove oil.</p>


	<b>DANGER</b>
	<p>Do not use solvents or flammable liquids to clean the crimping tool. Solvents or flammable liquids could ignite and cause serious injury or property damage.</p>

<b>DANGER</b>
<p>Do not dispose of batteries in a fire. They will vent fumes and may explode. Failure to observe this warning could result in severe injury from harmful fumes or burns from flying debris.</p>

<b>DANGER</b>
<p>Inspect tool and dies before use. Replace any worn or damaged parts. A damaged or improperly assembled tool can break and strike nearby personnel. Failure to observe this warning could result in severe injury or death.</p>

<b>DANGER</b>	<p><i>This unit should only be used by trained competent personnel.</i></p>
	

	<p><i>Read and understand the entire manual before using the equipment.</i></p>
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	<p><i>Always wear approved eye protection when using the equipment.</i></p>
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<b>CAUTION</b>
<ul style="list-style-type: none"> <li>Do not place the tool in a vise. The crimping tool is designed for hand-held operation.</li> <li>Protect the crimping tool from rain and moisture. Water will damage the crimping tool and battery.</li> <li>Use this tool for the manufacturer's intended purpose only.</li> </ul> <p>Failure to observe these precautions may result in injury or property damage.</p>

<b>CAUTION</b>
<p>Do not allow anything to contact the battery terminals.</p> <ul style="list-style-type: none"> <li>Do not immerse the batteries in liquid. Liquid may create a short circuit and damage the battery. If batteries are immersed, contact your service center for proper handling.</li> <li>Do not place the battery into a pocket, tool pouch, or tool box with conductive objects. Conductive objects may create a short circuit and damage the battery.</li> <li>Do not place a battery on moist ground or grass. Moisture may create a short circuit and damage the battery.</li> </ul> <p>Failure to observe these precautions may result in injury or property damage.</p>

<b>CAUTION</b>
<ul style="list-style-type: none"> <li>Do not store the battery at more than 60 °C (140 °F). Damage to the battery can result.</li> <li>Do not use another manufacturer's charger. Other manufacturers' chargers may overcharge and damage the battery.</li> <li>Do not attempt to open the battery. It contains no user-serviceable parts.</li> </ul> <p>Failure to observe these precautions may result in injury or property damage.</p>

<b>CAUTION</b>
<p>Do not perform any service or maintenance other than as described in this manual. Injury or damage to the tool may result. Failure to observe this precaution may result in injury and property damage.</p>

**NOTE:** Keep all decals clean and legible, and replace when necessary.

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## **TOOLING ASSISTANCE CENTER**

**CALL TOLL FREE 1-800-722-1111 (CONTINENTAL UNITED STATES AND PUERTO RICO ONLY)**

The **Tooling Assistance Center** offers a means of providing technical assistance when required.

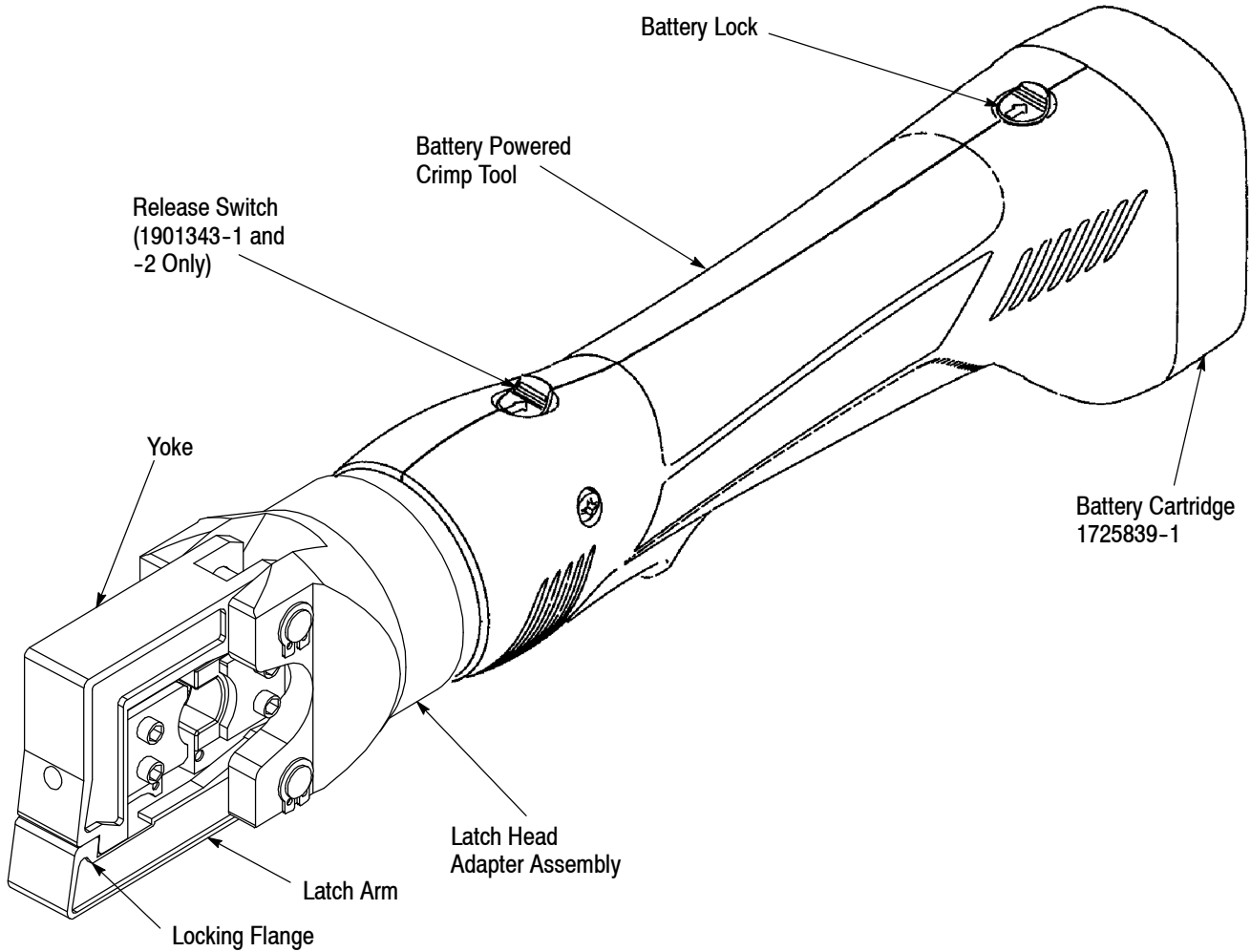
In addition, Field Service Specialists are available to provide assistance in the adjustment or repair of the application equipment when problems arise which your maintenance personnel are unable to correct.

### **INFORMATION REQUIRED WHEN CONTACTING THE TOOLING ASSISTANCE CENTER**

When calling the Tooling Assistance Center regarding service to equipment, it is suggested that a person familiar with the device be present with a copy of the manual (and drawings) to receive instructions. Many difficulties can be avoided in this manner.

When calling the Tooling Assistance Center, be ready with the following information:

1. Customer name
2. Customer address
3. Person to contact (name, title, telephone number, and extension)
4. Person calling
5. Equipment number (and serial number if applicable)
6. Product part number (and serial number if applicable)
7. Urgency of request
8. Nature of problem
9. Description of inoperative component(s)
10. Additional information/comments that may be helpful



<b>CRIMPING TOOL (with Battery Installed)</b>	
Length	356 mm [14 In.]
Width	60 mm [2 3/8 In.]
Depth	80 mm [3 1/8 In.]
Mass/Weight (w/Battery)	1.6 kg [3.5 lb.]
Sound Level	75 dBA at 1 Meter
Vibration	< 2.5 m/s <sup>2</sup>
Hydraulic Oil	Shell Tellus® T 15
<b>CRIMPING CAPACITIES</b>	
Maximum Crimping Force	35 kN [4 Tons]
Average Crimping Time	4 Seconds
Average Crimps Per Charge	Approximately 85
<b>BATTERY</b>	
Charging Voltage	9.6 V
Charging Time	40 Min

Figure 1

## 1. INTRODUCTION

Latch Head Battery Powered Crimp Tool Kit 1901343-[ ] consists of the Latch Head Battery Powered Crimp Tool (with the Latch Head Assembly installed), as well as two rechargeable battery cartridges (1725839-1) to power the tool. See Figure 1. Kits 1901343-1 and -3 include a 110V battery charger (1725840-1); Kits 1901343-2 and -4 include a 220V battery charger (1725840-2). Kits 1901343-1 and -2 have a release switch to retract the ram. Kits 1901343-3 and -4 do not have a release switch. The Latch Head Battery Powered Crimp Tool is designed to accept interchangeable die assemblies for crimping various types of connectors.

## 2. RECEIVING/INSPECTION

Latch Head Battery Powered Crimp Tool Kit 1901343-[ ] is thoroughly inspected during and after assembly. Prior to packaging and shipping a final series of tests and inspections is made to ensure proper functioning of the tool. The following inspection should be performed as a safeguard against potential problems generated in transit.

1. In a well-lighted area, carefully uncrate the tool and inspect each component as it is removed from the crate.
2. Thoroughly inspect each component for evidence of damage that may have occurred in transit. If any of the components are damaged, file a claim against the carrier and notify TE Connectivity immediately.
3. Keep this manual and all drawings and product samples with the tool for the benefit of operation and maintenance personnel.

The crimp tool should be inspected at regularly scheduled intervals, depending on care, degree of operator skill, the type and size of product being crimped, and environmental conditions. At a minimum, the tool should be inspected after every 40 hours of use.

## 3. INSTALLATION/REMOVAL OF DIE ASSEMBLIES

**CAUTION** Do not operate the tool without the Latch Head Installed. Damage to the ram or seals can result.



**CAUTION** Do not operate the tool without the die assemblies. Damage to the crimp head can result.



Latch Head Battery Powered Crimp Tool 1901343-[ ] comes with the crimp head already installed on the battery-powered hand tool. The only installation required is the installation of the die assemblies.

**DANGER** To avoid personal injury, be sure to exercise extreme caution when handling the crimp tool. Avoid accidentally depressing the trigger control when installing or removing crimp dies.



### 3.1. Installation of Die Assemblies (Figure 2A)

**CAUTION** These instructions are specific to the use of TE Die Assemblies. Be sure to use ONLY TE Die Assemblies.



1. With the battery installed, extend the ram until the ram setscrew is visible.
2. Remove the battery from the tool.
3. Loosen the setscrew in the ram.
4. Insert the shank of the moving die into the ram, and tighten the setscrew.
5. Pivot the latch arm away from the yoke to open up the crimp head.
6. Loosen the setscrew in the yoke.
7. Insert the shank of the stationary die into the yoke, and tighten the setscrew.

**CAUTION** To avoid damage to the dies, be sure that the moving and stationary dies are properly oriented.



8. Replace the battery and activate the power unit to allow the ram to return to the “down” position.
9. Pivot the yoke toward the latch arm until the locking flange secures the latch arm to the yoke.

**CAUTION** Always make sure the yoke and latch arm are secured by the locking flange before cycling the tool to crimp the product.



### 3.2. Removal of Die Assemblies (Figure 2B)

**DANGER** To avoid personal injury, do not accidentally depress the trigger while removing the dies.



1. Pivot the latch arm away from the yoke to open the head.
2. Extend the ram until the ram setscrew is visible.
3. Remove the battery from the tool.
4. Loosen the setscrew in the yoke, and remove the stationary die.
5. Loosen the setscrew in the ram, and remove the moving die.

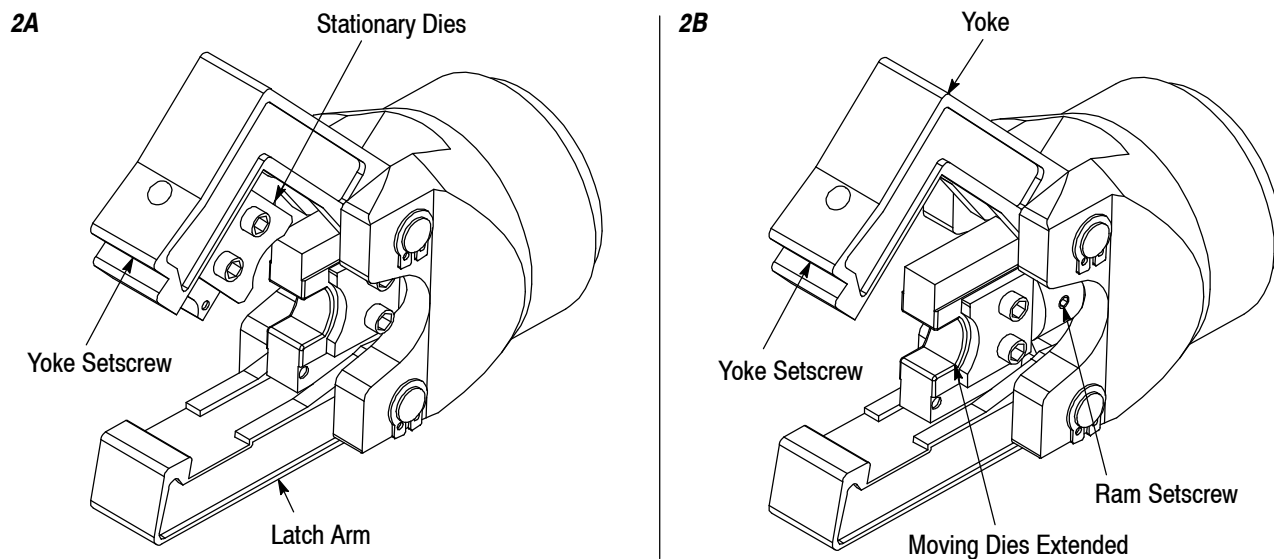


Figure 2

## 4. OPERATION

### 4.1. Battery Installation and Removal (Refer to Figure 1)


**NOTE** The Batteries Directive 2006/66/EC introduces new requirements from September 2008 on removability of batteries from waste equipment in EU Member States. To comply with this Directive, this device is designed to allow the rechargeable battery pack to be easily removed by the end-user when it needs to be replaced.



To install the battery, slide the battery into the bottom of the crimp tool until it can go no further. There will be an audible “click” of the battery lock to indicate that the battery has been properly installed.

To remove the battery, disengage the battery lock by applying pressure on the lock toward the bottom of the tool and slide the battery away from the tool.

**DANGER** *Always dispose of the old battery pack in an environmentally-responsible way, in accordance with local waste regulations. Where possible, please recycle the battery cartridge. Contact your local authority for details of battery recycling locations in your area.*




## 4.2. Crimping

The following procedure provides only general information concerning crimping. Refer to the instructions packaged with the dies for detailed information, including wire stripping dimensions and instructions for positioning terminals and splices in the die assemblies.


Operation of Latch Head Battery Powered Crimp Tool 1901343-[ ] consists of:

**DANGER** *Avoid personal injury. When operating tool or power unit, exercise caution while holding terminals or wire near the crimping area.*




1. Strip the wire to the dimensions provided for the terminals in TE Instruction Sheets 408-10050 (SOLISTRAND\* Terminals and Splices); or 408-10051 (TERMINYL\*, AMPOWER\*, PLASTI-GRIP\* Terminals and Splices). Do not nick or cut the wire strands.
2. Select the proper color-coded terminal for the wire size. The wire size stamped on the terminal tongue and on the crimping die must match the wire size selected.
3. Insert stripped wire fully into the terminal wire barrel.

**CAUTION** *Do NOT turn or twist the wire or terminal during insertion.*




4. Pivot the latch arm away from the yoke to open the head.
5. Place the terminal in the stationary die.
6. Holding the terminal in place, pivot the yoke and latch arm toward each other until the locking flange secures the latch arm to the yoke.

**CAUTION** *Always make sure the yoke and latch arm are secured by the locking flange before cycling the tool to crimp the product.*




7. Holding the wire in place, activate the tool to complete the crimp.
8. When the crimp is completed, pivot the latch arm away from the yoke to open the head and remove the terminal.


**NOTE** *If the terminal sticks in the die after crimping, apply a rocking action to the terminal to remove it from the die. Wipe light oil on the dies to prevent sticking, or use spray dry lubricant.*



**NOTE** *If it is necessary to retract the ram before a crimping cycle is completed, push the release switch. Pushing the release switch will result in the complete retraction of the ram. Only kits 1901343-1 and -2 have a release switch.*



**CAUTION** *This tool is not designed for continuous operation. After 100 cycles, allow the crimp tool to cool for 15 minutes.*



9. Inspect the crimp according to the crimping procedures for the terminals provided in TE Instruction Sheets 408-10050 (SOLISTRAND Terminals and Splices); or 408-10051 (TERMINYL, AMPOWER, PLASTI-GRIP Terminals and Splices).

**5. PREVENTIVE MAINTENANCE**

**5.1. Daily Maintenance**

Perform the following maintenance on a daily basis:

1. Inspect the dies for wear or damage such as cracks, gouges, or chips.
2. Inspect the tool for damage or leaks. If damage is detected, return the tool to TE for repair.
3. Clean the tool, removing accumulations of dirt and grease on the head, particularly in areas where dies are installed and terminals are crimped. Wipe the entire tool frequently with a clean, lint-free cloth.

**5.2. Yearly Maintenance**

Once a year, or every 10,000 cycles (whichever comes first), the Latch Head Battery Powered Crimp Tool should be returned to TE for inspection.

**6. SPARE PARTS**

- Battery: 1725839-1
- Charger: 1725840-1 (120 V, US), 1725840-2 (220 V, EU), 1725840-3 (220 V, UK)

**7. TROUBLESHOOTING** (Figure 3)

Prior to beginning troubleshooting procedures, be sure the battery is operational.

1. Be sure that the battery is charged. Recheck the battery after several minutes to ensure that the battery is holding its' charge.
2. Use a nonflammable contact cleaner or pencil eraser to clean the the electrical contacts on the battery and crimp tool.
3. Reinstall the battery and check the crimp tool again.

PROBLEM	PROBABLE CAUSE	REMEDY
Tool is inoperative.	Dirt, contaminants, etc, in ram area of tool.	Clean the tool.
	Crimp tool battery contacts damaged.	Reform the contacts.
	Tool components are worn or damaged.	Return tool to TE.
Dies stop during operation.	Oil level is low.	Return tool to TE.
	Air in the hydraulic system.	Pull the trigger and hold the retract button simultaneously. Hold for approximately 10 seconds.
Crimp tool loses oil.	Damaged internal seal.	Return tool to TE.

Figure 3

**8. RETURN**

Order replacement parts through your TE Representative, or call 1.800.526.5142; or send a facsimile of your purchase order to 1.717.986.7605; or write to:

CUSTOMER SERVICE (38-35)  
 TYCO ELECTRONICS CORPORATION  
 P.O. BOX 3608  
 HARRISBURG, PA 17105-3608

**9. REVISION SUMMARY**

- Updated document to corporate requirements
- Added text to Section 4, OPERATION