

customer manual

ORIGINAL INSTRUCTIONS

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SAFETY PRECAUTIONS — READ THIS FIRST!

IMPORTANT SAFETY INFORMATION



NOTE

Keep all decals clean and legible, and replace them when necessary.



DANGER

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.



DANGER

SKIN INJECTION HAZARD

Do not use hands to check for oil leaks. Highly pressurized oil will puncture the skin causing serious injury, gangrene, or death. If injured, seek medical help immediately to remove the oil.



DANGER

FIRE HAZARD

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.



Failure to heed these warnings could result in severe injury from harmful fumes or burns from flying debris.



DANGER

FIRE HAZARD

Do not dispose of batteries in a fire. They will vent fumes and will explode. Instead, dispose of batteries in an environmentally responsible manner or send the battery back to TE.



DANGER

Inspect the tool and jaws/dies before each 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.



CAUTION

— Do not place the tool in a vise. The crimping tool is designed for hand-held operation.

— Protect the crimping tool from rain and moisture. Water will damage the crimping tool and battery.

Failure to observe these precautions may result in injury or property damage.



CAUTION

— Do not allow anything to contact the battery terminals.

— Do not immerse the batteries in liquid. Liquid may create a short circuit and damage the battery. If the batteries are immersed, contact your service center for proper handling.

— 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.

— Do not place a battery on moist ground or grass. Moisture may create a short circuit and damage the battery.

Failure to observe these precautions may result in injury or property damage.



CAUTION

— Do not store the battery at more than 60°C [140°F]. Damage to the battery can result.

— Do not use another manufacturer's charger.

— Do not attempt to open the battery. It contains no user-serviceable parts.

Failure to observe these precautions may result in injury or property damage.



CAUTION

— 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 these precautions may result in injury or property damage.

SAFETY PRECAUTIONS — AVOID INJURY — READ THIS FIRST!

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 approved eye protection while operating equipment.



Always wear appropriate ear protection while using equipment.



Moving parts can crush and cut. Always keep guard(s) in place during normal operation.



Electrical shock hazard.



Always turn off the main power switch and disconnect the electrical cord from the power source when performing repair or maintenance on the equipment.



Never insert hands into installed equipment. Never wear loose clothing or jewelry that may catch in moving parts of the equipment.



Never alter, modify, or misuse the equipment.

SUPPORT CENTER

CALL TOLL FREE 1-800-522-6752 (CONTINENTAL UNITED STATES AND PUERTO RICO ONLY)

The **Support 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.

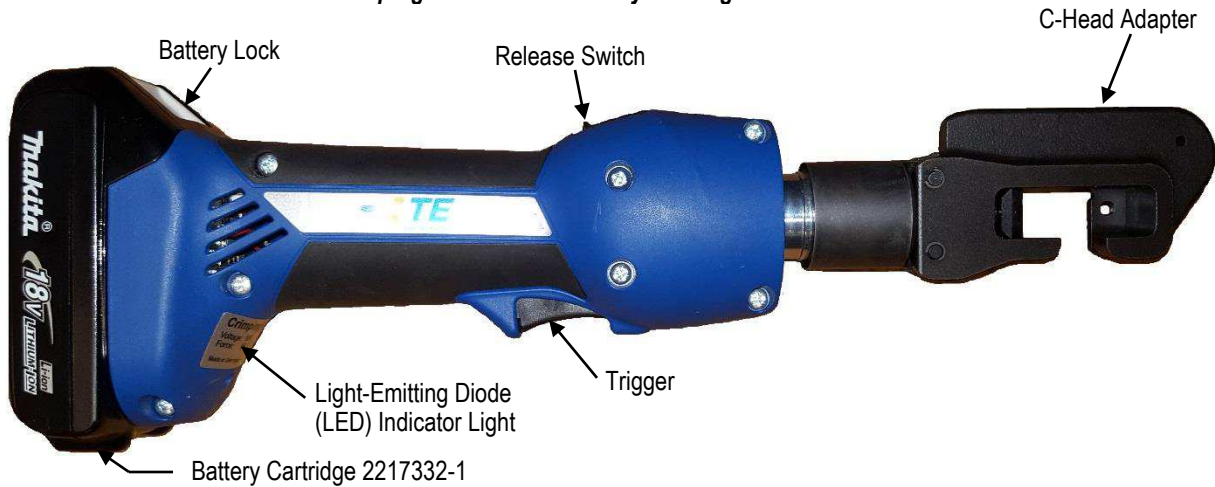
INFORMATION REQUIRED WHEN CONTACTING THE SUPPORT CENTER

When calling the Support 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 Support 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

Crimping Tool Kit with Battery Cartridge Installed



Length	387.4 mm [15.25 in.]
Width	72.9 mm [2.87 in.]
Depth	114 mm [4.5 in.]
Mass/Weight (with Battery)	1.75 kg [3.85 lbs]
Sound Level	70 dBA at 1 meter
Vibration	< 2.5 m/s ²
Hydraulic Oil	Shell Tellus T15 or RIVOLTA S.B.H. 11
Maximum Crimping Force	15.6 kN [1.75 tons]
Average Crimping Time	2-4 seconds
Average Crimps Per Charge	85-170 (Approx.)
Charging Voltage	18V
Charging Time	15 Min.-1.3 Ah/22 Min.-3.0 Ah

Figure 1

1. INTRODUCTION

Lithium-ion battery-powered crimping tool kit 2844990-[] consists of a battery crimping tool with a C-Head Adapter installed, as well as two rechargeable battery cartridges used to power the tool. See Figure 1.

Each kit has a battery charger. The battery charger part number, its voltage, and the kit region of use are listed in Figure 2. The battery-powered crimping tool may have a release switch to retract the ram.

Crimping Tool Kit	Region Of Use	Battery Charger	Battery Charger Voltage	Ram Retract Switch
2844990-1	North America	2217331-1	110V	Yes
2844990-2	Europe	2217331-2	220V	

Figure 2

Each kit is designed to adapt the crimping head from any C-Head listed in Figure 3 for use with the battery powered crimping tool. For crimping head information (including wire preparation, crimping, maintenance and inspection, and replacement procedure) refer to the appropriate instruction sheet for the associated hand tool.

C-Head Die Sets For Use with Battery Powered Crimping Tool	Instruction Sheet	C-Head Die Sets For Use with Battery Powered Crimping Tool	Instruction Sheet	C-Head Die Sets For Use with Battery Powered Crimping Tool	Instruction Sheet
46251-2	408-2095	69342	408-2095	90145-1	408-7175
47806-2	408-2095	69344	408-2095	576711	408-10039
47807-1	408-2095	69731	408-2095	576716	408-10039
47808-5	408-1632 , 408-2095	69732	408-2095	576720	408-10039
47808-6	408-1632 , 408-2095	69733	408-2095		
47811	408-9641	69734	408-2095		

Figure 3

Shell, Tellus, and RIVOLTA are trademarks of their respective owners.

When reading this manual, pay close attention to DANGER, CAUTION, and NOTE statements.



DANGER

Denotes an imminent hazard that may result in moderate or severe injury.



CAUTION

Denotes a condition that may result in product or equipment damage.



NOTE

Highlights special or important information.



NOTE

Dimensions in this customer manual are in metric units [with customary units in brackets]. Figures and illustrations are for reference only and are not drawn to scale.

2. RECEIVING AND INSPECTION

Each kit is thoroughly inspected during and after assembly. Prior to packaging and shipping a final series of tests and inspections is made to ensure proper function of the tool. The following inspection should be performed as a safeguard against potential problems generated in transit.

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

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

3. USER INTERFACE INFORMATION (PRE-OPERATION TESTING)

3.1. LED Indicators

A. White LED Work Light

The LED automatically turns on when the trigger is pulled. The indicator remains lit for ten seconds after the trigger is released.

B. Red LED Indicator

The tool is equipped with a special circuit board incorporating several important features. These features inform the user of the current status of the tool. The red LED signals in the cases given in Figure 4.

WHAT HAPPENS	WHAT IT MEANS
Red LED flashes for two seconds	The battery has been inserted in the tool
Red LED is lit constantly for 20 seconds at the end of the cycle	Battery charge is below 17 volts at the beginning of the cycle
Tool will not start. Red LED remains lit for 20 seconds after trigger is released	Battery charge is below 16 volts at the beginning of the cycle
Tool will stop. Red LED remains lit for 20 seconds after the trigger is released	Battery voltage drops below 13 volts during the cycle
Tool will stop. The LED will flash for 20 seconds after the trigger is released	Motor current exceeds 20A during the cycle
	Circuit has become hot

Figure 4

3.2. Pressure Sensor

The tool is equipped with a pressure sensor that alerts the user of an incomplete crimp:

- If the tool is manually retracted before completion of a crimp, the red LED will flash for two seconds and an audible alarm will sound for two seconds.
- If the tool is unable to reach the required crimp force, the red LED will flash for two seconds and an audible alarm will sound until after the trigger is released.



NOTE

The tool has an on-board memory of previous crimp cycles and the cycle count. This information can be accessed and downloaded onto a computer using USB adapter module 2217896-1.

4. DIE INSTALLATION AND REMOVAL



CAUTION

Do not operate the tool without the C-Head Adapter installed - damage to the ram or seals can result.



CAUTION

Do not operate the tool without a die set installed. Damage to the adapter can result.

C-Head Adapter Battery Powered Crimp Tool Kit 2844990-[] comes with the C-Head already installed on the Battery-powered hand tool. The only installation required is the installation of the dies.



DANGER

To avoid personal injury, be sure to exercise extreme caution when handling the crimp tool. Remove the battery before installing or removing the dies.

4.1. Die Set Installation (Figure 5)

If dies to be installed in the tool require insulation adjustment, refer to the instruction sheet packaged with the dies for adjustment, then proceed as follows:

Each set of dies consists of a moving die and a stationary die. Most moving dies have square corners and the stationary dies have chamfered corners. Exceptions to this feature will be shown on instruction sheets covering the use of the particular dies.

1. Remove the battery from the tool.
2. Position the stationary die in the stationary die holder. Turn the die retaining screw sufficiently to hold the die in place. Do not tighten the screw.
3. Position the moving die in the moving die holder. Turn the die retaining screw sufficiently to hold the die in place. Do not tighten the screw.

Typical Dies

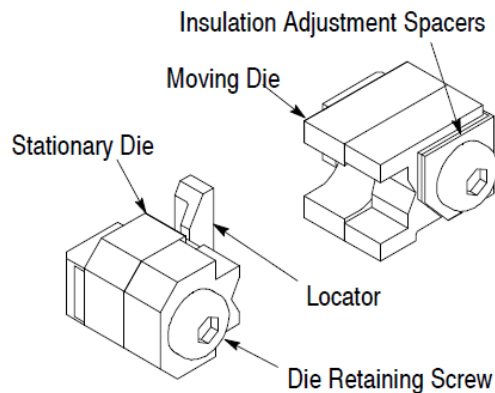


Figure 5

4. Replace the battery and check the alignment by pulsing the trigger to (slowly) close the dies, making sure the anvil and indenter are properly aligned.
5. With the dies closed, tighten the die retaining screws.

4.2. Die Set Removal

To remove or change the dies, simply loosen the die retaining screws and remove the dies.

5. OPERATION

5.1. Battery Installation and Removal

**NOTE**

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 crimping 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 crimping 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, recycle the battery cartridge. Contact local authority for details of battery recycling locations.

5.2. 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 in the crimping head.

**DANGER**

To avoid personal injury, keep fingers clear of the crimping area.

To operate the C-Head Adapter Battery Powered Crimp Tool PN 2844990-[]:

1. Insert the terminal into the dies.
2. Depress the trigger to advance the moving jaw in order to hold the terminal in place. DO NOT deform the terminal body.
3. Place a pre-stripped wire into the barrel of the terminal.
4. Depress and hold the trigger to complete the crimp.

The crimp tool returns automatically to the first position of its cycle when the crimp is complete.

**NOTE**

If it is necessary to retract the ram before a crimping cycle is completed, push the release switch. This will result in the complete retraction of the ram.

**CAUTION**

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

6. PREVENTIVE MAINTENANCE

6.1. Daily Maintenance

Perform the following maintenance on a daily basis.

1. Inspect the crimping head jaws 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 from the crimping head, particularly in areas where the crimping head is installed and the product is crimped. Wipe the entire tool frequently with a clean, lint-free cloth.

6.2. Yearly Maintenance

Once per year or every 10,000 cycles (whichever comes first), the adapter should be returned to TE for inspection.

6.3. Lubrication

1. Lubricate all pins, pivot points, and bearing surfaces with a high-quality grease. TE recommends using Molykote paste, which is a commercially available lubricant.
2. Lubricate the tool according to the following schedule:
 - Adapter used in daily production should be lubricated daily
 - Adapter used occasionally in daily production should be lubricated weekly
 - Adapter used weekly should be lubricated monthly

7. TROUBLESHOOTING

Before beginning a troubleshooting procedure, verify that the battery is operational.

1. Ensure the battery is charged. Re-check the battery after several minutes to ensure the battery is holding its charge.
2. Use a non-flammable contact cleaner or pencil eraser to clean the electrical contacts on the battery and crimping tool.
3. Re-install the battery, and check the crimping tool again.

Refer to Figure 6 for problems, probable causes, and remedy.

Problem	Probable Cause	Remedy
Tool is inoperative	Dirt contaminants, etc., in ram area of tool	Return tool to TE for evaluation
	Crimping tool battery contacts damaged	Reform the contacts
	Tool components are worn or damaged	Return tool to TE for evaluation
Jaws stop during operation	Oil level is low	Return tool to TE for evaluation
	Air in the hydraulic system	Pull trigger and hold retract button simultaneously. Hold for approximately ten seconds
Tool loses oil	Damaged internal seal	Return tool to TE for evaluation

Figure 6

8. REPLACEMENT AND REPAIR



DANGER

To avoid personal injury, **always** remove the battery cartridge from the tool **before** performing any maintenance on the crimping tool.

Replacement parts are identified in Figure 7. The recommended spares should be stocked for immediate replacement. Order replacement parts (or return parts) through your TE Representative, or call 1-800-522-6752, or send a facsimile of your purchase order to 717-986-7605. Or write to:

CUSTOMER SERVICE (038-035)
 TE CONNECTIVITY CORPORATION
 PO BOX 3608
 HARRISBURG, PA 17105-3608

Call 1-800-522-6752 for customer repair service. For replacement parts for the crimping head, refer to the instruction sheet packaged with the specific crimping head.

Part Number	Description
2217332-1	Battery
2217331-1	120V Charger, North America
2217331-2	220V Charger, Europe

Figure 7

9. DECOMMISSIONING

In compliance with the regulations in force in the country where the tool is used, the user must make sure that waste produced during operation is correctly disposed. Disposal of lubricants and parts removed must be carried out in compliance with the standards in force in the country where the tool is used.

10. RESTRICTION ON HAZARDOUS SUBSTANCES (RoHS) INFORMATION

Information on the presence and location of any substances subject to RoHS can be found at

<http://www.te.com/usa-en/utilities/product-compliance.html>

1. Click “Check Product Compliance and Get Statements of Compliance (SoC)”
2. Enter part number and click “Search”

11. REVISION SUMMARY

- Added 9 dies to Figure 3: 46251-2, 47806-2, 47807-1, 69342, 69344, 69731, 69732, 69733, and 69734.