

IMPORTANT SAFETY INFORMATION

SAFETY ALERT SYMBOLS

These symbols are used to call attention to hazards, unsafe practices, or important information that could result in an injury, death, or property damage. The signal word, defined below, indicates the explanation of the word. The message after the signal word provides information for preventing or avoiding the hazard or damage.

DANGER This heading shall be used where an immediate hazard exists and when inadvertent acts could cause injury or death to personnel.



CAUTION This heading shall be used where a potential hazard exists, to caution against unsafe practices or when inadvertent acts could cause damage to equipment.



NOTE This heading shall be used where important information needs to be brought to the attention of the reader.



DANGER  Read and understand all of the instructions and safety information in this manual before operating or servicing this tool. Failure to observe this warning will result in severe injury or death.

DANGER Use proper die, connector, and wire combinations. Mismatched components can result in an incomplete crimp. Failure to complete a crimp could result in severe injury, death, or fire if a connection separates or if it has high electrical resistance.

DANGER  Pinch points: Keep hands away from closing dies. Failure to observe this warning could result in severe injury or death.

DANGER Inspect tool and dies before use. Replace any worn or damaged parts. A damaged or improperly assembled tool could break and strike nearby personnel with sufficient force to cause severe injury or death.

DANGER  Skin injection hazard: High pressure oil easily punctures skin causing serious injury, gangrene, or death. If injured seek medical help immediately to remove oil. Do not use fingers or hands to check for leaks. Depressurize hydraulic system before servicing.

CAUTION  Do not operate crimping tool without dies in place. Damage to the ram or crimping tool head may result. Do not perform any service or maintenance other than as described in this document. Injury or damage to the tool may result.

DANGER  Wear eye protection when using this tool. Failure to wear eye protection could result in serious eye injury from flying debris or hydraulic oil.

NOTE  Follow the operating instructions and safety information supplied with the hydraulic power source.



Figure 1

1. INTRODUCTION

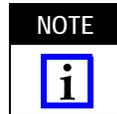
This instruction sheet provides operation and maintenance instructions for the Battery Operated Hydraulic Crimping Tools 1213875-[] and 1976505-[]. See Figure 1.

Battery operated tools 1213875-[] have a 25.4 mm [1 in.] stroke. Battery operated tools 1976505-[] have a 38.1 mm [1.50 in.] stroke. Battery operated tools 1213875-1 and 1976505-1 have a 120 Volt charger. Battery operated tools 1213875-2 and 1976505-2 have a 220 Volt charger.

The crimping head is designed to use dies that crimp the terminals in Figure 2 which also lists the wire sizes onto which the terminals and splices are crimped, as well as the instruction sheet for the crimping dies.

TERMINALS (DOCUMENT)	WIRE SIZE (AWG) FOR:	
	BATTERY TOOL 1213875-[]	BATTERY TOOL 1976505-[]
AMPOWER* Terminals and Splices (408-8703)	6 Through 2/0	6 Through 4/0
SOLISTRAND* Terminals and Splices (408-8691)	8 Through 4/0	8 Through 4/0
TERMINYL* Terminals and Splices (408-8704)	8 Through 4	8 Through 1/0
AMPLI-BOND* Terminals and Splices (408-8705)	---	8 Through 2

Figure 2



Dimensions on this document are in metric units [with U. S. customary units in brackets], unless otherwise specified. Figures and illustrations are for reference only and are not drawn to scale.

2. DESCRIPTION (Figure 1)

Main components of Battery Operated Hydraulic Crimping Tools 1213875-[] and 1976505-[] include a "C"-Head, which houses the stationary die; a piston (ram), which houses the moving die and the die detent mechanism; and a power unit, which houses the hydraulic pump components. A removable battery is also part of the functioning tool.

3. INSTALLATION

3.1. Battery Installation (Figure 3)

Slide the battery into the handle of the power unit until it emits an audible and tactile click. The battery should lock into position.

3.2. Die Installation



To avoid personal injury, do NOT accidentally depress the trigger when installing or removing dies.



Operating the head WITHOUT the crimping dies installed will damage the "C"-Head or ram.

To install the die in the ram:

1. Remove the battery to prevent accidental actuation.
2. Select the proper die set for the product to be crimped.
3. Place the moving die half in the ram and press on its side until the die snaps into place.

To install the die in the "C"-Head:

1. Remove the battery to prevent accidental actuation.
2. Select the proper die set for the product to be crimped.
3. Place the stationary die half in the "C"-Head and press on its side until the die snaps into place.

4. CRIMPING PROCEDURE

The following procedure provides only general information concerning crimping. Refer to the instructions packaged with the dies (see Figure 2) for detailed information, including wire stripping dimensions and instructions for positioning terminals and splices in the dies.

LED INDICATIONS




 LED lighting for 1 second
 LED flashing
 LED lighting

				
Starting ON the tool	 GREEN	 GREEN	 GREEN	
	Press the button ON/OFF tool. The 3 LED lighting GREEN for 1 second. The front DEL lighting. The tool is ready for work.			
Stopping OFF of the tool	 RED	 RED	 RED	-
	Press the button ON/OFF tool. The 3 LED lighting RED for 1 second. The tool switches OFF. The tool switches OFF automatically without use during 10min.			
Battery charge level	-	-	 GREEN	-
	After powering ON the tool, if the LED battery is lighting GREEN, the battery is full charged.			
-	-	-	 ORANGE	-
	After powering ON the tool, if the LED battery is lighting ORANGE, the battery is half charged.			
-	-	-	 RED	-
	After powering ON the tool, if the LED battery is lighting RED, the battery is discharged. The battery must be recharged. Replace the battery by a full charged battery.			
Battery protection CUT-OFF	-	-	 RED	
	If the battery is not powerful enough for one cycle, the tool is automatically locked. The LED battery flashing RED. The front DEL flashing. DO NOT RELEASE. Remove the empty battery and replace it by a full one. FINISH CRIMPING WITH CHARGED BATTERY. Recharge the empty battery.			
Good crimping	-	 GREEN	-	-
	At the end of the cycle, the LED flashing GREEN during 5 seconds: good crimping. The tool does not restart during flashing.			
Bad crimping	-	 RED	-	
	At the end of the cycle, the LED flashing RED during 5 seconds: bad crimping. The front DEL flashing. The user released the trigger before the end of the crimping or good crimping parameters not reached. The tool is locked. Press the button ON/OFF tool for another crimping.			
Temperature protection	 YELLOW	 ORANGE	-	
	 If the temperature is out of range of use, the cycle and maintenance LED flashing YELLOW and ORANGE. The tool can't be used. The front DEL flashing.			
Tool security	 RED	-	-	-
	For user security, the tool is blocked automatically in case of problem. The LED maintenance flashing RED during 10 seconds. Press the button ON/OFF tool. If the indication reappears, return the tool to TE for service.			
Maintenance indication	 ORANGE	-	-	-
	The LED maintenance lighting ORANGE all the time after ON to indicate the future maintenance. The user has 1000 cycles before the final block of the tool. Return the tool to TE for service.			
Maintenance indication	 ORANGE	-	-	-
	The LED maintenance flashing ORANGE all the time after ON. The tool is automatically locked after each crimping. Press the button ON/OFF tool. The user has 500 cycles before the final block of the tool. Return the tool to TE for service.			
Return for maintenance	 RED	-	-	
	The LED maintenance flashing RED. The tool is definitively locked. Return the tool to TE for service.			
Tool connected to USB	 BLUE	-	-	-
	When the tool is connected to the USB port, the LED maintenance lighting BLUE during the connection.			

Figure 3

1. Insert terminal or splice in the stationary die according to the instructions packaged with the dies.
2. Activate the power unit by depressing the trigger to advance the dies and hold the terminal or splice in place.
3. Insert stripped wire into the terminal or splice.
4. Activate the power unit to complete the crimp.

NOTE

To ensure that the tool has reached full hydraulic pressure, the cycle LED at the rear of the tool will flash green for 5 seconds. See Figure 3.

If the red cycle LED is flashing red for 5 seconds, the tool has not yet reached full pressure and the crimping cycle should be considered incomplete. See Figure 3.

5. INSPECTION/MAINTENANCE

DANGER

Make sure hydraulic pressure is released and the battery is detached before following inspection and maintenance procedures, unless otherwise specified in the procedure.

Each crimping tool is assembled and inspected before shipment. It is recommended that the crimping tool be inspected immediately upon its arrival, and at regularly scheduled intervals, to ensure that the crimping head has not been damaged during handling. Frequency of inspection depends upon the following:

- Type and size of products crimped;
- Degree of operator skill; and
- Environmental conditions

If the wrench LED at the end of the tool is fully orange, the tool has 1000 crimp cycles remaining before it must be serviced. If the wrench LED is flashing orange, there are 500 crimp cycles remaining. If the wrench LED is flashing red, the tool is locked and must be returned for service. See Figure 3.

Additionally, inspect and service the head (as described in Figure 4) every month or 1,000 cycles, whichever comes first. Refer to Figure 1.

5.1. Cleaning

Remove accumulations of dirt and grease on the crimping tool, especially in areas where dies are installed and terminals are crimped. Clean the entire tool frequently with a clean, lint-free cloth.

5.2. Visual Inspection

In addition to the inspections listed in Figure 4, inspect the head for nicks, scratches, and cracks. Inspect for cracks especially at the corners of the "C"-Head and around the top of the cylinder.

Inspect the metal surfaces for nicks, cracks, scratches, and excessive wear, especially where sliding contact occurs.

6. RETURN/REPAIR

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 (038-035)
TYCO ELECTRONICS CORPORATION
PO BOX 3608
HARRISBURG PA 17105-3608

Crimping heads may also be returned for evaluation and repair. For tool repair service, contact a TE Representative at 1-800-526-5136.

7. REVISION SUMMARY

- Changed 1976505-1 to 1976505-[]
- Added new Figure 3
- Deleted Figure 4 and renumbered
- Deleted and added text to NOTE in Paragraph 4.4
- Changed text in Section 5

ITEM TO BE INSPECTED	INSPECTION/PROBLEM	POSSIBLE SOLUTION
"C"-Head	Inspect for cracks, gouges, nicks, or galling on the "C"-Head or where the "C"-Head contacts dies.	Return tool for repair (see Section 6, RETURN/REPAIR).
	Check to see if the upper die retaining pin does not hold the stationary die in place.	Return tool for repair (see Section 6, RETURN/REPAIR).
Cylinder	Inspect for evidence of cracks, gouges, nicks, or galling.	If there are cracks, return the tool for repair (see Section 6, RETURN/REPAIR).
		For traces of gouges, nicks, or galling: Remove any sharp edges using a fine emery cloth.
Ram	Inspect the ram in the Power "ON" (ram advanced) position for evidence of galling, cracks, or oil leaks between the ram and the cylinder.	If there are cracks or leaks, return the tool for repair (see Section 6, RETURN/REPAIR).
	Check to see if the moving die retaining ball does not hold the moving die in place.	Return tool for repair (see Section 6, RETURN/REPAIR).
	Inspect the ram in the Power "OFF" (ram retracted) position to ensure that the ram returns freely to its original position.	Return tool for repair (see Section 6, RETURN/REPAIRS).

Figure 4