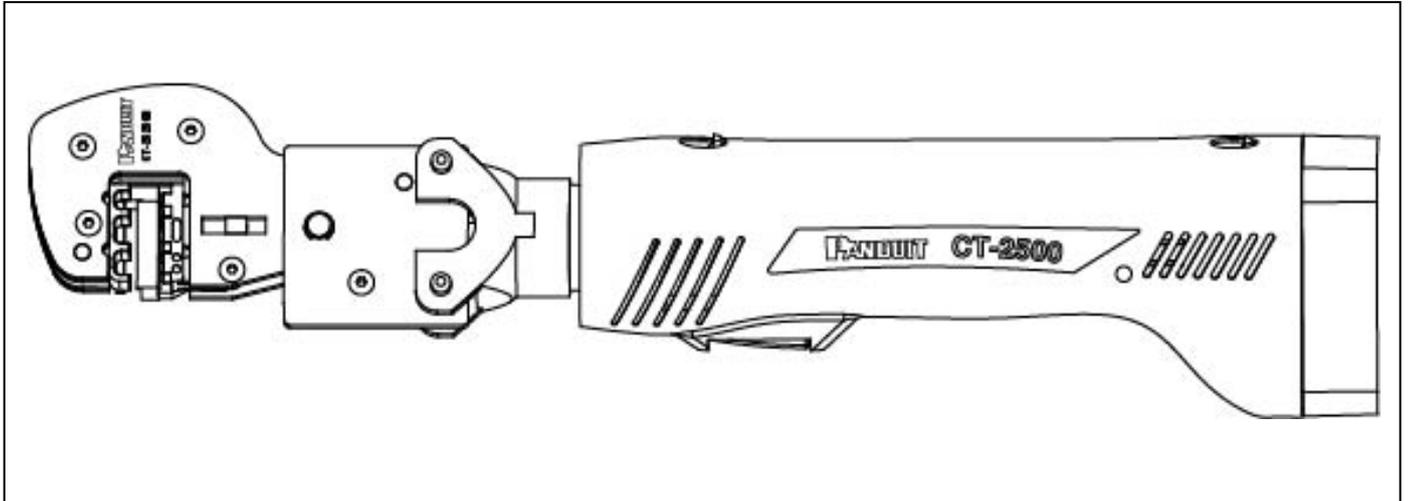


### BATTERY OPERATED CRIMPING TOOL OPERATION MANUAL

© Panduit Corp. 2014



CT-2500 TOOL SHOWN WITH CT-2525CH CRIMPING HEAD

- CT-2500 and CT-2500/E Battery Operated Crimping Tools, to be used with optional Crimp Heads: CT-2525CH, CT-2550CH, CT-2570CH and CT-2500CH (sold separately).

	 <b>WARNING</b>
	<p><b>Read and understand</b> all of the instructions and safety information in this manual prior to operating or servicing this tool. <b><u>Retain this manual for future reference.</u></b></p>

Email:  
techsupport@panduit.com

EU Website:  
www.panduit.com/emea

EU Email:  
emeatoolservicecenter  
@panduit.com

# PANDUIT

www.panduit.com

Technical Support  
1-888-506-5400, Ext. 83255

Panduit Europe • EMEA Service Center  
Almelo, Netherlands  
Tel: +31 546 580 452 • Fax: +31 546 580 441

## TABLE OF CONTENTS

**INTRODUCTION** ..... 2

**TOOL SPECIFICATIONS** ..... 2

**OPTIONAL ACCESSORIES**..... 3

**CT-2500 and CT-2500/E TOOLS** ..... 3

**PRECAUTIONS AND GENERAL GUIDELINES** ..... 3

**IMPORTANT FEATURES OF THE CT-2500 and CT-2500/E BATTERY OPERATED CRIMPING TOOLS**..... 6

**INSTALLATION**

**Crimping Head Installation**..... 7

**TOOL OPERATION**..... 7

**MAINTENANCE** ..... 8

Storage and Transport ..... 8

**USE OF THE BATTERY CARTRIDGE AND CHARGING UNIT**..... 9

Terminations per Battery Charge ..... 10

Battery Charger..... 10

**TROUBLESHOOTING**..... 10

**DISCONTINUATION OF USE / DISPOSAL**..... 10

### Purpose of this Manual

- This manual is intended to familiarize the user with the safe operation and maintenance procedures for this tool.
- Use this tool exclusively for its determined use.
- This instruction manual should be available during the entire life span of the tool.
- **The operator has to ensure the availability of this instruction manual to the end user; and to make sure, that the user has read and understood this instruction manual.**
- Mounting and assembly of connecting material with the help of this tool must only be performed by specially trained personnel.
- Replacement manuals are available upon request.

## **INTRODUCTION**

The CT-2500 and CT-2500/E Battery Operated Crimping Tools can crimp #10 AWG thru #22 AWG Panduit terminals, disconnects and splices. The Battery Operated Crimping Tool develops up to 1.7 tons (15kN) of compressive force.

This manual will guide you step-by-step in the set-up, operation, and maintenance of your CT-2500 or CT-2500/E Tool. Proper maintenance is vital to the continued trouble-free operation of the tool. If you have a problem not covered in the manual, call:

**1-(888) 506-5400, Ext. 83255**  
Ask for one of our Tool Service Technicians

The information contained in this literature is based on our experience to date and is believed to be reliable. It is intended as a guide for use by persons having technical skill at their own discretion and risk. We do not guarantee favorable results or assume any liability in connection with its use. Dimensions contained herein are for reference purposes only. For specific dimensional requirements consult the factory. This publication is not to be taken as a license to operate under, or a recommendation to infringe any existing patents. This supersedes and voids all previous literature, etc.

## **Safety**

Safety is essential in the use and maintenance of Panduit tools and equipment. This manual and any markings on the tool provide information for avoiding hazards and unsafe practices related to the use or service of this tool. Observe all of the safety information provided.

## **TOOL SPECIFICATIONS**

CT-2500 or CT-2500/E Battery Operated Crimping Tools	Weight (including battery)	3.3 lbs. (1,5 kg)
	Dimensions:	11-3/4" L x 2-3/8" H x 3-1/8" W – with battery [298 L x 60 H x 80 W] mm
	Crimping Time	2 seconds
	Crimping Force	1.7 tons (15 kN)
	Stroke	.35 (9 mm)
	Sound Level:	75 dB (A) at 39.3" (1 meter)
	Ambient Temperature	-4° F to +104° F (-20°C to +40°C)
CT-2500BC Battery Cartridge	Battery Type:	Nickel Cadmium (Ni-Cd)
	Output:	9.6 V
	Capacity:	1.3 Ah
	Charging time:	Approx. 40 minutes (15 min. with fast charger)
CT-2500CHR Battery Charger	Output:	7.2 V - 14.4 Volt DC
	Input:	120 Volt AC, 50~60Hz
CT-2500CHR/E Battery Charger for EU	Output:	7,2 V – 14,4 Volt DC
	Input:	230 Volt AC, 50~60Hz

**OPTIONAL ACCESSORIES**

CT-2525CH or CD-525	Crimping head or die insert for installing the following Panduit products: #26 – #22 AWG insulated terminals and splices, #22 – #10 AWG fully insulated disconnects, insulated parallel splices; and specific #22 – #14 AWG barrel insulated disconnects.
CT-2550CH or CD-550	Crimping head or die insert for installing the following Panduit products: #22 – #10 AWG insulated terminals and splices; and specific insulated disconnects.
CT-2570CH or CD-570	Crimping head or die insert for installing most of the following Panduit products: #22 – #10 AWG and 0,5 – 6,0 mm <sup>2</sup> non-insulated terminals, disconnects; and specific non-insulated splices.
CT-2500CH	Crimping head (frame only); to be used with crimping die inserts CD-525, CD-550 or CD-570.

Replacement Batteries and Battery Chargers are sold separately.

CT-2500BC	Replacement Battery Cartridge
CT-2500CHR	Replacement Battery Charger
CT-2500CHR/E	Replacement Battery Charger for Europe

**CT-2500 and CT-2500/E TOOLS**

The CT-2500 and CT-2500/E Tools include:

- 1 – Battery Operated Crimping Tool (with battery cartridge)
- 1 – Spare Battery Cartridge
- 1 – Battery Charger
- 1 – Tool Case

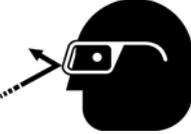
**PRECAUTIONS AND GENERAL GUIDELINES****IMPORTANT SAFETY INFORMATION****SAFETY ALERT SYMBOL**

This symbol is used to call your attention to hazards or unsafe practices which could result in an injury or property damage. The signal word, defined below, indicates the severity of the hazard. The message after the signal word provides information for preventing or avoiding the hazard.

**DANGER**

**Immediate hazards which, if not avoided, WILL result in severe injury or death.**

	<b>WARNING</b>
Hazards which, if not avoided, <b>COULD</b> result in severe injury or death.	
	<b>CAUTION</b>
Hazards or unsafe practices which, if not avoided, <b>MAY</b> result in injury or property damage.	

		<b>WARNING</b>
	<p>Read and understand all of the instructions and safety information in this manual before operating or servicing this tool. The operator has to ensure the availability of this instruction manual to the end user; and to make sure, that the user has read and understood this instruction manual.</p> <p>Failure to observe this warning can result in severe injury or death.</p>	
		<b>WARNING</b>
	<p>Electric Shock Hazard:</p> <p>This tool is not insulated. When using this unit on or near energized electrical lines, use proper personal protective equipment.</p> <p>Failure to observe this warning can result in severe injury or death.</p>	
		<b>WARNING</b>
	<p>Wear eye protection when operating or servicing this tool.</p> <p>Failure to wear eye protection can result in serious eye injury from flying debris.</p>	
		<b>WARNING</b>
	<ul style="list-style-type: none"> <li>• 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.</li> <li>• During the operation of electric motors, sparks can occur which might ignite highly flammable or explosive liquids and materials.</li> <li>• Do not use tool in or near a highly flammable or explosive atmosphere and/or materials.</li> </ul>	
		<b>WARNING</b>
	<p>Keep hands away from the crimping tool head when crimping.</p> <p>Failure to observe this warning can result in severe injury or death.</p>	

**WARNING**

Do not dispose of batteries in a fire. They will vent fumes and may explode.

Failure to observe this warning can result in severe injury from harmful fumes or burns from flying debris.

**WARNING**

Inspect tool before use. A worn or damaged tool may result in breakage striking the operator or nearby personnel.

Failure to observe this warning can result in severe injury, death or property damage.

**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. Crimping tools should not be operated in pouring rain or under water.
- Use this tool for the manufacturer's intended purpose only.

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

**CAUTION**

- Do not store the battery at more than 140°F (60°C). Damage to the battery can result.
- Do not use another manufacturer's charger. Other manufacturers' chargers may overcharge and damage the battery.
- Do not attempt to open the battery. It contains no user-serviceable parts.

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

**CAUTION**

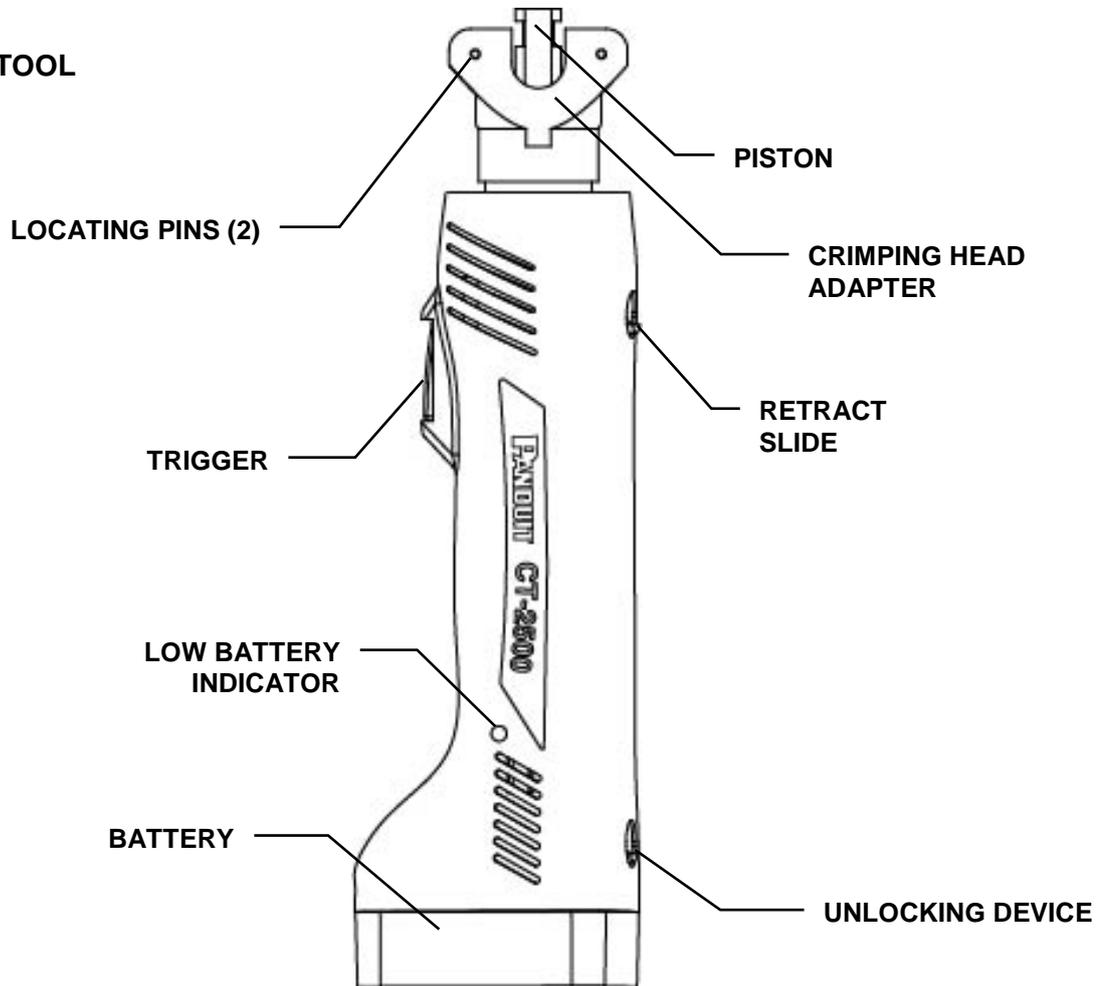
Do not perform any service or maintenance other than as described in this manual. Injury or damage to the tool may result.

Failure to observe this precaution can result in injury and property damage.

**IMPORTANT FEATURES OF THE CT-2500 and CT-2500/E BATTERY OPERATED CRIMPING TOOLS**

- The hydraulic unit incorporates an automatic retraction which returns the piston into its starting position when the maximum force is reached.
- The unit is equipped with a special brake which stops the forward motion of the piston/dies when the trigger is released.
- 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 tool body.
- The tool is very lightweight and provides good handling through an ergonomic design.

**Figure 1  
CT-2500 TOOL**



Description	Function
Piston	Advances dies during crimping cycle
Crimping Head Adapter	Adapter for interchangeable crimping heads. Crimping head secured by locating pins.
Retract Slide	Bar to open the crimping dies in case of an error or emergency
Unlocking Device	Switch for unlocking the battery
Battery	Rechargeable Ni-Cd battery, 9.6 V
Low Battery Indicator	LED flashes to indicate low battery
Trigger	Actuator to start the crimping cycle
Locating Pins	Pins to secure crimping head to crimping head adapter

## **INSTALLATION**

### **CRIMPING HEAD REMOVAL / INSTALLATION**

1. Rotate crimping head adapter fully -- clockwise (see Figure 2).
2. Press retract slide to lower piston completely.
3. Pull out the pins for mounting a different crimping head on the adapter, or to change the crimping dies.
4. Before installing different crimping head, slide the crimping dies to the full open position. Lock the head with the locating pins (see Figure 3), paying attention that the pins are locked securely before starting.

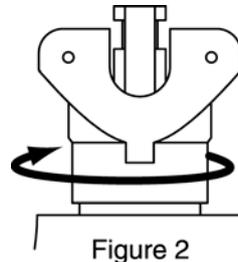


Figure 2

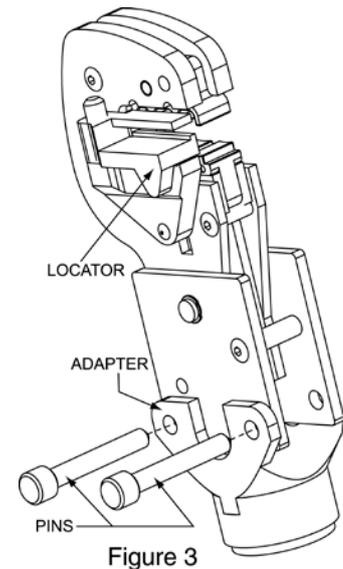


Figure 3



#### **ATTENTION:**

The product to be crimped must be the type specified for the crimping head and die combination. See specific crimping head information on Page 3.

## **TOOL OPERATION**

### **Crimping using the CT-2525CH, CT-2550CH and CT-2500CH (equipped with Locator):**

1. The Locator shall be used to assist in positioning the product to be crimped (see Figure 3 above).
2. Position the product in the proper die position by matching the product color and the die position color code (see Figure 4).
3. Press the trigger until the crimping head jaws just touch the terminal, holding the product securely.
4. Insert the wire.
5. Pull and hold the trigger until the tool has completed the operating cycle of crimping. The jaws will open automatically.
6. Remove the finished crimped product and wire combination.

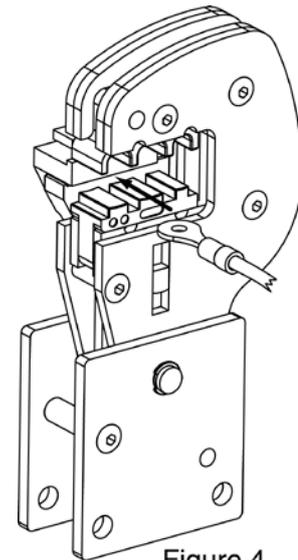


Figure 4

### **Crimping using the CT-2570CH:**

1. Position the product in the proper die position by matching the size (wire gage).
2. Press the trigger until the crimping head jaws just touch the terminal, holding the product securely.
3. Insert the wire.
4. Pull and hold the trigger until the tool has completed the operating cycle of crimping. The jaws will open automatically.
5. Remove the finished crimped product and wire combination.



**ATTENTION:**

The crimping process can be interrupted at any time by releasing the trigger.

After having terminated the crimping process and prior to changing the heads, remove battery to avoid unintended starts.

**NOTE:**

- By sliding the retract slide in the direction of the battery, the dies can be retracted in case of an error or emergency.
- The terminal can first be pre-clamped. This allows the operator to adjust the position of the terminal during the crimping cycle. To use this feature, push the trigger until the die contacts the terminal and then release the trigger. The terminal can now be re-positioned or even the wire can still be inserted into the terminal.
- The crimping cycle is terminated when the dies are completely closed and the maximum crimping force is reached, which is indicated by the auto retraction of the piston.

**MAINTENANCE**

**Daily Maintenance**

Before Use:

1. Inspect dies for wear or damage such as cracks, gouges, or chips.
2. Inspect the tool for damage or leaks. If damage is detected, contact *PANDUIT* Tool Division.

	<p><b>WARNING</b></p> <p>Skin Injection Hazard:</p> <ul style="list-style-type: none"> <li>• Do not use hands to check for leaks.</li> <li>• High pressure oil easily punctures skin causing serious injury, gangrene, or death. If injured, seek medical help immediately to remove oil.</li> </ul>
--	--

After Use:

1. Wipe all tool surfaces clean with a damp cloth and mild detergent.

	<p><b>WARNING</b></p> <ul style="list-style-type: none"> <li>• 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.</li> </ul>
--	--

2. Place the tool in the carrying case. Store in a cool, dry place.
3. Charge the battery.

**Monthly Maintenance**

1. Thoroughly clean all surfaces.
2. Oil the locating pins.

**Annually or After 10,000 Crimps**

Return tool to Panduit Tool Division

**STORAGE AND TRANSPORT**

Always store the tool in its clean, dry carrying case when not in use, and during transport. The battery cartridge and the battery charging unit should be protected against humidity and dust.

## **USE OF THE BATTERY CARTRIDGE (CT-2500BC) AND CHARGING UNIT (CT-2500CHR AND CT-2500CHR/E)**

The charging unit is run with a nominal voltage of 120 V (CT-2500CHR), or (230 V for CT-2500CHR/E) and a frequency of 50-60 Hz. New batteries must be charged prior to use. To remove the battery, actuate the battery lock and pull it out of the tool. To charge the battery, connect the power plug of the charging unit with the power supply and slide the battery into the charging unit. The charging time is 40 minutes. The charging level of the battery cartridge can be checked by the right LED (multi-color) of the charging unit.

<b>Indicator Color</b>	<b>Left LED (Red)</b>	<b>Right LED (Multi-color)</b>
Red	Charging unit ready to operate	Battery defective
Red Flashing	Charging unit out of order. New or unused batteries whose nominal capacity is not sufficient.	Battery too hot or too cold. Remove battery. Safety components possibly defective.
Green	–	Charging cycle starts
Green Flashing	–	Battery fully charged. Charging unit switches automatically into a maintaining mode. Battery can stay in charger for indefinite time w/o being damaged.
Yellow	–	Battery at least 90% charged. Charging cycle can be terminated.
	–	If the right LED does not light up, the circuit of the battery is disconnected or the battery is incorrectly polarized.

- If the nominal capacity of the battery is not achieved, e.g. at first charge, the battery is not necessarily faulty. Full capacity can be achieved after (3) charging/discharging cycles.
- When the speed of the tool decreases noticeably, the battery must be recharged.



### **ATTENTION:**

**Do Not recharge a partially discharged battery as a precaution.**

- Charge the battery at room temperature between 50°F and 104°F (10°C and 40°C).
- If charging a battery which has recently been used, or which has been exposed to sun for a long period of time (T>149°F / T>65°C), the right LED may flash red. In this case, remove battery out of charger. The charging procedure can be re-started after the battery has cooled down.
- Charging batteries at low temperatures – under 41°F (5°C) is not recommended. Increase battery temperature before starting the charging cycle.
- Do Not expose the charging unit to rain or snow.
- Do Not charge a battery in the vicinity of explosive materials and gases.
- No other batteries (e.g. dry batteries or car batteries, etc.) are to be used in the tool or in the charging unit.
- Do Not use the cord to transport the charging unit, or to pull the plug out of a wall socket with force.
- Do Not insert foreign objects into the ducts of the charging unit. Pull the plug of the charging unit after charging. Do Not disassemble the charging unit or battery.



**ATTENTION:**

**Do Not** place the battery in your pocket or in your toolbox if there are any conductive materials in it such as coins, keys, tools or other metallic parts.

**TERMINATIONS PER BATTERY CHARGE**

The estimated number of terminations before the battery will need to be recharged is dependent on variables such as the terminal size and type being terminated, ambient temperature, and time lapsed between termination cycles as well as other variables.

**BATTERY CHARGER**

Read the instructions supplied with the battery charger.

**TROUBLESHOOTING**

Before You Begin:

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

Problem	Probable Cause	Probable Remedy
Tool is inoperative.	Dirt, contaminants, etc., in ram area of tool.	Clean tool.
	Crimping tool battery contacts damaged.	Reform contacts.
	Tool components worn or damaged.	Return tool to Panduit Tool Division.
Dies stop during operation.	Oil level is low.	Return tool to Panduit Tool Division.
	Air in hydraulic system.	Pull trigger and hold retract button simultaneously. Hold for approximately 10 seconds.
Tool loses oil.	Damaged internal seal.	Return tool to Panduit Tool Division.

**DISCONTINUATION OF USE / DISPOSAL**

- The battery cartridge must be specially disposed of according environmental Battery Guidelines.
- For the disposal of the remaining parts, please reference environmental guidelines.
- Because of possible environmental damage, we recommend disposal of the tool by professional companies.



**ATTENTION:** *Do not dispose of the unit in your residential or commercial waste, as it would be hazardous to the environment.*