



# Cordless Tube Cutter

Model TC-2

*USERS MANUAL*



**SAVE THIS MANUAL FOR FUTURE REFERENCE**

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## Specifications

|                                   |                        |
|-----------------------------------|------------------------|
| Charger input:                    | 110-120VAC, 60Hz       |
| Charger output:                   | 18VDC, 2.2A            |
| Charging time:                    | 1 hour approx.         |
| Battery capacity:                 | 2.0 Ah                 |
| Nominal Battery voltage:          | 18V                    |
| No load speed (cutter):           | 0 - 100 RPM            |
| Tube size OD (standard CH):       | 1.375, 1.625, 2.125    |
| Tube size OD(optional CH)         | 1.25, 1.50, 1.75, 2.00 |
| Tube wall thickness:              | up to 0.100"           |
| Tube material:                    | metals and plastics    |
| Weight (w/o battery and cut head) | 4 lbs                  |

## GENERAL SAFETY INSTRUCTIONS

**WARNING!** Read and understand all instructions. Failure to follow all instructions listed below may result in electrical shock, fire and/or serious personal injury.

### WORK AREA

- **Keep your work area clean and well lit.**  
Cluttered work environments and poor lighting invite accidents.
- **Do not operate power tools around explosive materials.**  
Be aware of flammable liquids, gases or dust.  
Power tools can create sparks which may ignite the dust or fumes.
- **Keep bystanders, children and visitors out of the work area.**  
To avoid distractions that could cause injury to you or others all visitors should be kept away from the work area.

### ELECTRICAL SAFETY

- **Never use the power cord to carry the charger. Keep the cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.**  
Damaged cords can cause injury or fires.
- **Batteries must be charged with the specified charger for the battery.**  
Charging the batteries with the incorrect charger may damage the battery and create the risk of injury or fire.
- **Use only approved batteries.**  
Use of unapproved batteries may damage the tool and create the risk of injury or fire.

### PERSONAL SAFETY

- **Do not operate power tools while tired or under the influence of drugs, alcohol or medication.**  
A moment of inattention while operating the tube cutter may result in serious personal injury.
- **Dress attire.**  
Loose clothing, jewelry or long hair can be caught in moving parts.
- **Do not overreach.**  
Proper footing and balance enables better control of the tool.
- **Use safety equipment. Always wear eye protection.**  
Dust mask, non-skid safety shoes, hard hat or hearing protection should be worn for appropriate conditions.
- **Store idle tools out of reach of children or other untrained persons.**  
Tools are dangerous in the hands of untrained users.

## TOOL USE AND CARE

- **Disconnect the battery from the unit before making any adjustment, changing cutting blade, accessories or storing the tool.**  
Such preventive measures reduce the risk of injury and damage to the tool.
- **Maintain tools with care. Keep cutting tools sharp and clean.**  
Properly maintained tools, with sharp cutting edges, are less likely to bind and are easier to control.
- **Check for misalignment or binding of moving parts, breakage of parts and other conditions that may affect the tool's operations. If damaged, have the tool serviced before using.**  
Many accidents are caused by poorly maintained tools.

## SERVICE

- **Tool service must be performed by authorized personnel.**  
Service or repair performed by any unauthorized personnel will result in a void of warranty and could result in a risk of injury.

## SAFETY RULES FOR THE CORDLESS TUBE CUTTER

- Hold tool by insulated gripping surfaces when performing any operation where the cutting tool may contact hidden wiring. Contact with a "live" wire will make the exposed metal parts of the tool "live" and could shock the user.
- Always wear safety goggles or eye protection when using this tool.
- Position yourself to avoid being caught between the tool or handle and other stationary objects. Should the cutting blade jam or bind on the work piece, the reaction could spin the handle of the tool causing the risk of injury.
- Do not grasp the tool or place hands too close to the cutting head.  
The cutting head contains sharp and spinning parts that could cause injury.
- Do not use dull or damaged blades or accessories.  
Dull or damaged blades or accessories increase the risk of injury.
- Use caution when changing the blade or accessories.  
The blade or accessories may become hot after prolonged use.
- Properly close cut head pins. Unlocked cut head pins can cause accidental disengagement of the cut head and injury.
- When changing cutting heads pay attention to pinch point to avoid injury.

## **SAFETY RULES FOR THE BATTERIES AND CHARGER**

- Only use the charger and batteries supplied in this pack, or use batteries purchased for this unit.
- Protect the charger and battery packs against moisture including rain and high humidity.
- Always check that the power cord is in good condition before using the charger.
- When not using the charger, remove the plug from the power supply. Do not pull the plug out by the cord.
- Do not operate the charger to charge batteries if the ambient temperature is less than 32°F (0°C) or greater than 104°F (40°C).
- Do not short circuit the battery pack. Short circuits can cause the risk of damage to the battery pack and the possibility of fire or explosion.
- Do not connect a cable to the terminals of the battery pack.
- Make sure that no metal objects fall onto the charging socket.
- Damaged battery packs or battery packs that no longer hold a charge should be properly disposed of in approved disposal locations. Battery packs should not be disposed of with household trash.
- Never throw battery packs into a fire or into water.

## **UNPACKING**

It is unlikely that your TESLA Power Tool is faulty or that a part is missing, but if you find anything wrong, do not operate the tool until the parts have been replaced or the fault has been rectified. Failure to do so could result in serious personal injury.

## **BATTERY CHARGING**

**Important!** The battery will be fully charged **first time after 1-3 hours**, remove it from the charger after this time. Do not leave a battery charging for longer than 24 hours.

1. Plug in the charger. The green LED indicator will show power to the unit.
2. Align and slide the battery onto the charger until the battery pack latches or “clicks” into position. The red LED indicator will show that charging is taking place.
3. The battery charging time is approximately **one hour**. The red LED goes out when the charging cycle is complete.
4. To remove the battery pack from the charger firmly press the battery release tabs at either side of the battery pack, and slide the battery forward out of the charger.

## **TO OBTAIN THE BEST LIFE FOR THE BATTERY**

Never allow the tube cutter to come to a complete stand still before recharging. The battery should be charged whenever the battery is noticeably running low or the tube cutter no longer performs a task it previously performed.

Avoid conducting short charges. Make sure that the battery is fully charged every time by allowing the charger to complete its full charging cycle.

Avoid allowing loose items like screws or nails etc to be stored with battery packs as these or similar items can short circuit the battery packs and cause a fire or explosion. Always unplug the charger when not in use and store in a dry secure place. Avoid charging or storing your battery in temperatures below 32°F and above 104°F.

## **FITTING AND REMOVING THE BATTERY PACK**

To remove the battery pack from the tube cutter, firmly press the battery release tabs at either side of the battery pack, and slide the battery backward out of the tool. To install the battery pack, align rails on the tool with the tabs on the battery pack and slide the battery pack on to the tool. Ensure the battery pack is sitting straight on the foot and correctly entering the runners. The battery should slide fully on to the tool foot until the battery pack “clicks” into position.

## **BATTERY INDICATOR (8)**

To activate the battery indicator feature, first pull the power switch then press the battery indicator button (7), this will display the level of charge remaining in the battery. There are 3 levels of charge: low, medium and high. When the battery indicator (8) is showing only 1 LED (low) the battery should be removed and put on the charger.

## **LED WORK LIGHT (9)**

The drill has 3 external LED lights to illuminate the work area and improve vision when working in areas with insufficient light. To turn the LED lights on and off, depress the LED light button (10).

## KNOW YOUR TOOL



|                                  |                            |
|----------------------------------|----------------------------|
| 1. Cutting Head                  | 7. Battery Level Indicator |
| 2. Cutting Head Lock Pin         | 8. LED Work Light          |
| 3. Power Switch (Variable Speed) | 9. LED Work Light Button   |
| 4. Accessory Receiving Shaft     | 10. Battery Release Tab    |
| 5. Forward / Reverse Switch      | 11. Rechargeable Battery   |
| 6. Battery Test Button           |                            |

## BASIC OPERATION

- 1. Make sure cutting head (1) is aligned and ready for cutting use.**  
Running the tube cutter in reverse aligns the cutting head.
- 2. Place the tube cutter in the forward operation direction.**  
Push “forward-reverse” shuttle switch (5) in forward direction
- 3. Place tube cutter over the tube to be cut.**  
Align cutting blade with tube cutting mark by looking through cut head opening. The spring loaded cutting blade will move inward allowing tube to snap in place. Be sure that tube is resting on support rollers.
- 4. Hold tube firmly to prevent its rotation (if it isn't already fixed in place).**  
Rotation of the tube during cutting operation will not cause damage on cutting blade but it will extend cutting time. For blade to cut through tube it must be held stationary.
- 5. Activate tool rotation power switch (3) with middle finger to start cutting mechanism.**  
Depressing power switch lightly will cause cutting head to start rotation around tube. Do not push or pull tool on the tube. Hold tool lightly in place; the cutting mechanism will grab tube itself. The cutting head will rotate around tube with speed proportional to amount of switch pressure.
- 6. Further press power switch (3) to complete tube cutting.**  
Once the cutting head completes one rotation around tube, press further power switch to speed up cut head rotation. The tube cutter cutting blade will lock and self feed into tube. After a couple rotations, depending on the material hardness, tube will be cut.
- 7. Release power switch, prepare tool for the next cut.**  
After the tube has been cut, release power and the cutting head will stop rotation. Push “forward-reverse” switch (5) into reverse position, activate power switch (3) to rotate cutting head in reverse until it stops in aligned position and the tube can then be removed from the tube cutter.

### **WARNING:**

Running the tube cutter in the reverse direction for a prolonged period of time could cause damage to the tube cutter.

## CHANGING CUT HEAD TO CUT DIFFERENT TUBE SIZE

- 1. Activate tool rotation power switch (3) to align cut head opening with one idle gear.**  
Be sure the “forward-reverse” switch (5) is in forward (cutting) position. Slowly rotate cut head forward and stop when you see that one idle gear is not engaged with cut head gear (see next picture).





**2. Unlock cut head lock pins (2).**

Slightly press in and rotate for 90 degree each pin. Pin should pop out under spring load, otherwise pull it out till it hit end stop.

**3. Remove cut head (1) from the drive.**

Pull forward cutting head with one hand, hold on tool with other. Place cutting head in appropriate slot of the BMC.



**4. Install different size cut head (1).**

Choose new cut head, manually rotate cut head gear to align its opening with one of idle gears. Insert cut head into tool opening; align holes with lock pins, be sure that gears are in meshing. Push-in lock pins (2) and rotate it 90 degree to lock it in position.

**5. Activate tool rotation power switch (3) to test cut head rotation.**

Slowly rotate cut head forward, make sure that gears are in good mesh and that there is no binding.

**8. Release power switch, prepare cut head for cutting.**

Release power switch and the cutting head will stop rotation. Push “forward-reverse” switch (5) into reverse position, activate power switch (3) to rotate cutting head in reverse until it stops in aligned position. The new cut head now is ready to accept the new tube to be cut

## REPLACING THE CUTTING BLADE

**WARNING:** Keep fingers clear of moving parts when changing the cutting blade.

1. Slowly activate power switch (3) in the forward direction until you can see the cutting blade and blade pin hole.
2. Remove the battery (11).
3. Place the tube cutter on its battery connection surface.
4. Remove blade pin setscrew cover.
5. Align blade pin with pin hole by moving blade with finger.
6. Push out blade pin by inserting setscrew wrench (included) in smaller ID hole.
7. Replace cutting blade with appropriate blade size.



**CAUTION:** Using unapproved or wrong blade size can result in poor performance and cut head damage.

8. Insert blade pin trough larger ID hole. If needed align blade hole with pin using setscrew wrench.
9. Close pin hole with setscrew, do not over tight.
10. Replace the battery.
11. Slowly activate power switch (3) with the tube cutter in the forward direction. Be sure that blade is moving freely.



## MAINTENANCE

- Store the tools, instruction manual and accessories in the original packaging. This way you will always have all the information and parts ready at hand.
- Clean and lubricate the tool after every battery charge.
  1. Remove the battery.
  2. Remove any metal shavings and dirt out of the cutter head. This can be done with compressed air or a small brush. Do not blow shavings into tool gear case. Always wear safety glasses when performing this task.
  3. Lubricate cutter head with couple drops of light oil or spray lubricant.
  4. Replace the battery.
  5. Spin tool for couple rotations to spread lubricant onto other gears.
  6. Wipe off any residual lubricant left on the housing.
  7. Repeat this procedure with any new cut head.

## TROUBLESHOOTING

| PROBLEM  | SOLUTION   |
|--|--|
| Tool does not cut when power switch is depressed                   | Make sure the battery is installed properly and the forward-reverse switch is in forward position.   |
| The LED light does not come on when turning on light switch        | Make sure the battery is installed properly or battery may need charging   |
| Cutting head does not retract to aligned position when reversed    | Make sure no small pieces of tubing are stuck in the cutting head. First, try first to move tool forward and reverse. If this does not unlock head, remove battery before dislodging tube.   |
| Cutting head cannot be removed from the tool drive                 | This could happen if the cutting head opening is not aligned with one idle gear. Rotate cut head slowly forward and stop when one idle gear is aligned with cut head gear opening (not engaged).   |
| Cut head lock pins cannot be retracted to install the new cut head | After heavy cut is possible that pins get excessive side load and tends to be stock. Rotate cut head w/o tube forward/reverse couple time and position cut head for change. Push-in pins and rotate to unlock, pull it out, if needed tap on pin from other side using appropriate size pin remover. |

## REPLACEMENT PARTS – ACCESSORIES

| Part #          | Description                          |
|-----------------|--------------------------------------|
| PT20000000-110V | Complete TC-2 Drive                  |
| PT20000000-220V | Complete TC-2 Drive                  |
| PT20050010      | Cut Head 1.250" OD                   |
| PT20050010-SS   | Cut Head 1.250" OD (Stainless Steel) |
| PT20050020      | Cut Head 1.375" OD                   |
| PT20050040      | Cut Head 1.625" OD                   |
| PT20050070      | Cut Head 2.125" OD                   |
| PT10880100      | Charger                              |
| PT10880200      | Battery                              |
| PT20050102      | Replacement Blade TC-2 (Cooper)      |
| PT20050102-ST   | Replacement Blade TC-2 (Steel, SS))  |
| PT20050103      | Replacement Blade Pin                |
|                 |                                      |

**NOTE: ALL OD SIZES ARE ACTUAL OUTSIDE DIAMETER OF THE TUBE**  
**Above sizes are stock items, any other cut head size is available as special order.**

## **CUSTOMER SERVICE, CONTACT AND REPAIR INFORMATION**

To assure product safety and reliability, service and repairs must be performed by TESLA Power Tools Company or its authorized services only. If you are having trouble with this tool please call us at: (630)-561-4008 or email to: [service@teslatools.com](mailto:service@teslatools.com)

We will put all efforts to discuss and solve any problems you may have with this tool. If we can not solve your problem over the phone, you can return tool, prepaid and in its complete packaging, to TESLA Power Tools for service or repair.

## **LIMITED ONE YEAR WARRANTY**

Every TESLA Power Tools Company tube cutter is thoroughly inspected and tested before shipment. It is warranted to be free of defects from workmanship and materials for the period of one year from the date of original purchase. Should any problems develop using this tool during this one year period, return the complete tool in original packaging, freight prepaid to TESLA Power Tools Inc., 125 8<sup>th</sup> Ct., Racine, WI 53403. If inspection shows that the problem is caused by defective workmanship or material, TESLA Power Tools Inc., will repair (or replace at our discretion) tool without charge.

This warranty does not apply where:

- Unauthorized personnel have made or attempted to make repairs
- Repair is required because of normal wear and tear
- The tool has been abused, misused or improperly maintained
- Alterations have been made to the tool

IN NO EVENT SHALL TESLA POWER TOOLS BE LIABLE FOR ANY DIRECT, INDIRECT OR CONSEQUENTIAL DAMAGES FROM THE SALE OR USE OF THIS PRODUCT. THIS DISCLAIMER APPLIES BOTH DURING AND AFTER THE TERM OF THIS WARRANTY.

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