



WORLD
PRECISION
INSTRUMENTS

INSTRUCTION MANUAL

501293

Thermal Cautery Unit

Serial No. _____

www.wpiinc.com

102521

I. INTRODUCTION

If you need assistance related to this product, please call Delasco at 800.831.6273 (712.323.3269).

It is important that the instructions supplied with this equipment be read, understood, and followed in order to enhance safety and effectiveness.

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III. PRECAUTIONS

CAUTION: Federal (U.S.A.) law requires the sale of this device to or on the order of a physician or health care professional.

CAUTION: This device is supplied non-sterile.

WARNING: The risk of igniting flammable gases or other materials is inherent in the practice of thermal cautery and cannot be eliminated by device design. Precautions must be taken to avoid contact of flammable materials and substances with thermal cautery electrodes, whether they are in the form of an anesthetic or skin preparation agent, are produced by natural processes within body cavities, or originate in surgical drapes, tracheal tubes or other materials.

CAUTION: Studies have shown that smoke generated during thermal cautery procedures may be harmful to surgical personnel. These studies recommend using a surgical mask and adequate ventilation of the smoke using a smoke evacuator or other means.

CAUTION: The TCU handpiece is designed for intermittent use only. Continuous activation is not recommended and will cause permanent damage to the handpiece.

CAUTION: The cautery electrode shafts, insulation material and the handpiece metal nosecone may become hot with use. Do not allow these areas, during or immediately after use, to make human contact or contact with materials that may be adversely affected by heat.

IV. INDICATIONS FOR USE

The TCU is a non-sterile, reusable, AC-powered thermal cautery device. The TCU is intended to be used for destroying small lesions and to coagulate small bleeders by applying high levels of heat via a cautery electrode.

V. INSPECTION

The TCU Model 150-ST & 150A-ST includes:

- (1) Thermal Cautery Unit - Part No.: 150
- (1) Cautery Handpiece - Part No.: 250
- (6) General Purpose Cautery Electrodes
Part No.: 2 ea of: 210T, 212, 214
- (1) TCU Case - Part No.: 150-C
- (1) Operation Manual - Part No.: 81-0018

Upon receipt of your TCU, carefully unpack the contents and verify that all items ordered are present and undamaged. If damage has occurred during shipment, or an item is missing, contact Delasco directly within ten days of purchase.

To purchase additional TCU supplies, contact your Delasco Distributor, or Delasco at 800.831.6273 (712.323.3269).

VI. DEVICE DESCRIPTION

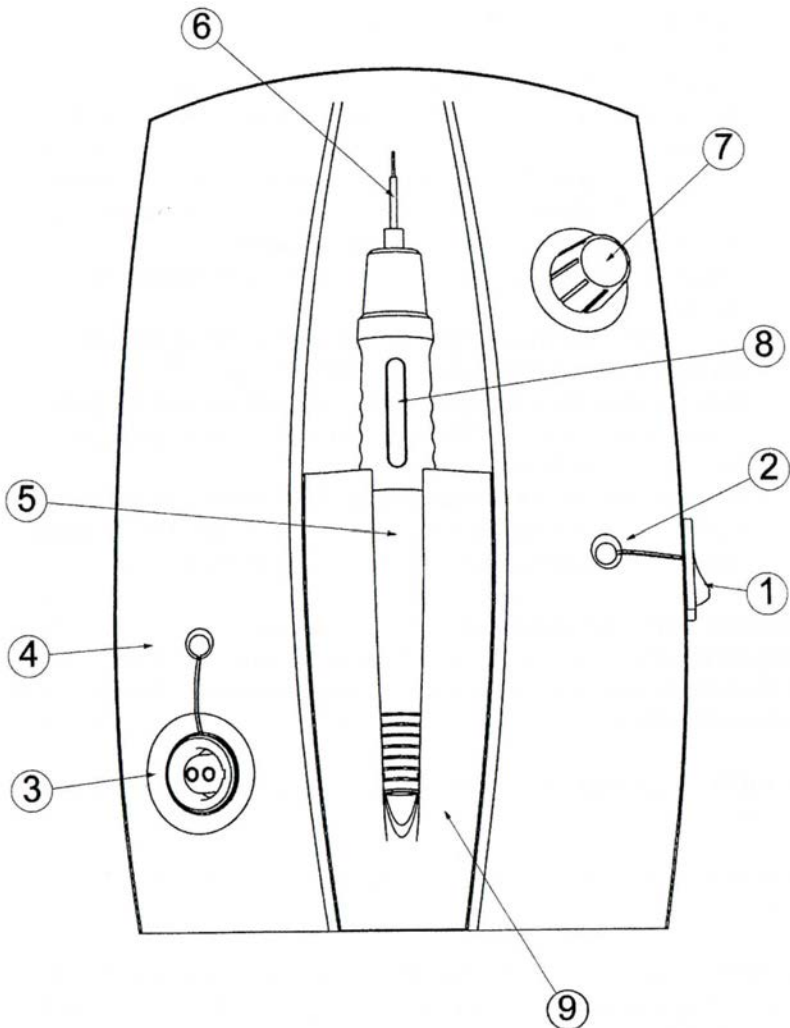
Please refer to Figure 1 for the following device descriptions:

1. On/Off Switch - Turns TCU power "On" and "Off".
2. Power On Light - Illuminates when the unit is turned "On".
3. Handpiece Receptacle - The Cautery Handpiece is connected to this receptacle.
4. Activation Light - Illuminates when the Handpiece Activation Button is pressed.
5. Cautery Handpiece - Used to deliver current to the Cautery Electrode.
6. Cautery Electrode - The tip of the Electrode heats and is used to deliver heat to the patient.

7. Dial Setting Knob - Allows for the adjustment of the unit output. Settings are from 1-10 and are for reference only.

8. Handpiece Activation Button - Activation occurs when the blue Handpiece Activation Button on the Handpiece is pressed.

9. Handpiece Holder - During non-use periods, the Handpiece may be stored in this holder.



VII. OPERATING INSTRUCTIONS

CAUTION: If you are unfamiliar with the practice of thermal cautery, it would be wise to practice at the various settings on a piece of raw meat.

CAUTION: If using the TCU in a horizontal position, leave the handpiece connector in place during non-use periods to prevent fluids from accidentally entering the unit through the connector receptacle.

1. Place the unit in a safe convenient location near a power receptacle. The unit may either be used in a vertical or horizontal position.
2. Align the red dot on the Handpiece Connector with the red dot on the handpiece Receptacle. Insert the Connector until a secure fit is obtained.
3. Align the two pins of the desired Electrode with the two holes at the end of the Handpiece and insert the Electrode. The Electrode must be fully and securely inserted for proper function.
4. Connect the Cautery unit power cord to a properly grounded power receptacle.
5. Turn the Dial Setting Knob counterclockwise to the lowest setting.
6. Turn the unit On/Off Switch to the "On" position.
7. Press the Handpiece Activation Button and slowly rotate the Dial Setting Knob clockwise. When the electrode exhibits a red glow, the Cautery Unit is ready for use.
8. When the procedure has been completed, return the Dial Setting Knob to the lowest setting and switch the unit to the "Off" position. The unit should remain in the "Off" position when not in use.

If the output of the unit is intermittent, make sure that the cautery electrode is making satisfactory contact with the walls of the handpiece receptacle holes. You may want to slightly bend the electrode shafts to increase the contact area if the electrode is loose.

CAUTION: The TCU is intended for use only with Delasco Cautery Electrodes.

CAUTION: Over-heating the Cautery Electrode will shorten the life span of the Electrode.

CAUTION: When unsure of the output level to use during a procedure, begin at a low setting and increase the output gradually to prevent unnecessary damage to the patient.

VIII. UNIT CLEANING

CAUTION: To reduce the risk of an electric shock, do not remove the rear cover of the device. Refer all servicing to qualified personnel.

CAUTION: Disconnect the unit power cord from the power receptacle prior to performing cleaning operations.

Periodic external cleaning of the TCU is required. Clean all external surfaces with a mild soap and water solution using a moist, soft, lint-free cloth. Dry all surfaces with a clean, lint-free cloth.

CAUTION:

Care must be exercised to ensure that the electrical connections and control knob do not come in contact with water.

IX. STORAGE

Store the TCU in a cool, dry place.

X. STERILIZATION OF ACCESSORIES

The Cautery Handpiece and Reusable Cautery Electrodes may be autoclaved according to the instructions below.

Separate the electrode from the Handpiece prior to autoclaving and use aseptic procedures when handling and sterilizing both items.

1. Wipe and remove all debris present on the Handpiece/Electrode.
2. Place the Handpiece/Electrode in an autoclavable pouch or wrapped cloth.
3. Steam sterilize for a period of 20 minutes at 250°F (121°C) or consult an appropriate nationally recognized standard for sterilizing medical instrumentation. Do not flash autoclave or exceed 250°F.
4. Allow the Handpiece/Electrode to cool for 30 minutes prior to use.
5. Inspect the Handpiece/Electrode after sterilization for damage. If the Handpiece/Electrode has deteriorated or cracked, or severe discoloration or damage has occurred, discard and replace.

CAUTION: Do not use liquid sterilizing solutions with TCU or accessories, as the potential for material damage exists.

XI. WARRANTY AND REPAIR

The warranty period for the TCU unit and handpiece is one year from the date of purchase and covers parts and labor. Electrodes carry a 90-day warranty.

Items for return require a Return Authorization (RA) and should be sent with all original packaging and instructions included. Please use proper packaging to prevent damage during shipment. We recommend that you insure the return with your chosen carrier for loss or damage. Include a copy of the original invoice with the return and state the reason for the return. Freight charges to return merchandise to Delasco are non-refundable except in the case of shipping error on the part of Delasco

Please contact Delasco at 800.831.6273 (712.323.3269) to obtain a Return Authorization Number.

XII. SPECIFICATIONS

Line Voltage	Model 150 - 90-130 volts 50/60Hz Model 150A - 210-240 volts 50/60Hz
Line Current	1.0 Amps
Line Frequency	50/60Hz
Output Wave Shape	Clipped Sinusoidal
Output Power	0-30 Watts+/-6 Watts (0.2 Ohm Load)
Fundamental Output Frequency	50/60Hz
Maximum Output Power	36 Watts (0.2 Ohm Load)
Output Regulation	+/-20% at 30 Watts (0.2 Ohm Load) for a +/- 10% Line Voltage
Duty Cycle	100% (See Handpiece Restrictions)
Display Reading	1-10 (Reference Points Only)
Over Current Protection	Protection Device (Set at 14 Amps)
Fuse	1.0 Amps, 250V
Dimensions	5.0" (12.7 cm)D x 5.0" (12.7 cm)W x 8.0" (20.3 cm)H
Weight	4 lbs. (1.8 kg)

XIII. SYMBOL EXPLANATION

The symbols that appear on the TCU, along with their explanations, appear in Figure 2.

Definition of symbols appearing on unit:



Caution: Read Operation Manual and directions for use prior to using equipment.



On (power: connection to the mains)



Off (power: disconnection from the mains)



Cautery Handpiece Connection Receptacle

Figure 2

XIV. VOLTAGE/CURRENT VS. DIAL SETTING

Figure 3 contains the voltage and current output of the TCU over the range of dial settings available.

Voltages/Current vs Dial Setting (Load: 0.167 ohm)

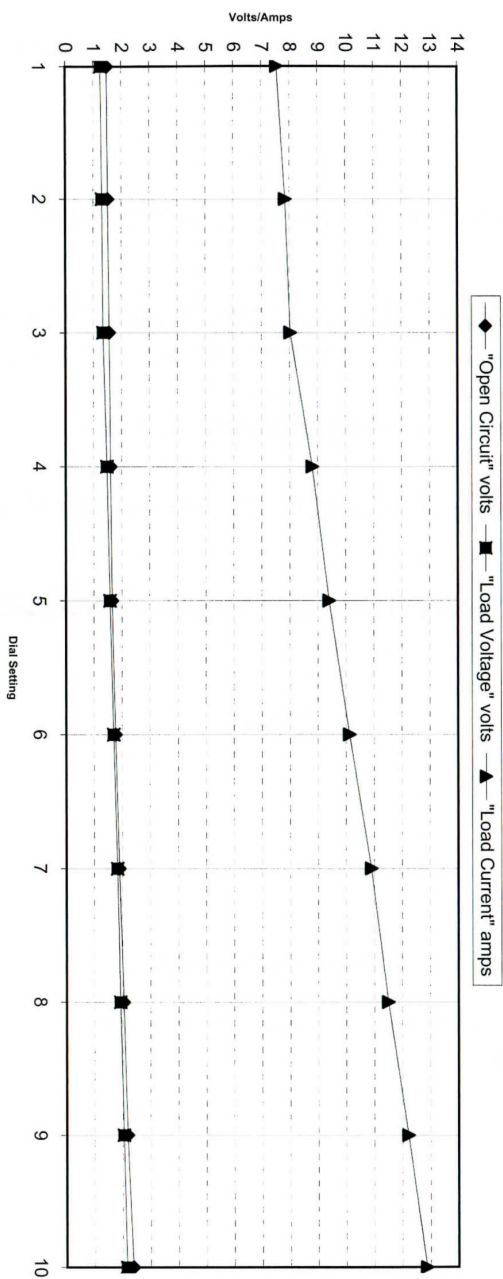


Figure 3

WARRANTY

WPI (World Precision Instruments) warrants to the original purchaser that this equipment, including its components and parts, shall be free from defects in material and workmanship for a period of one year* from the date of receipt. WPI's obligation under this warranty shall be limited to repair or replacement, at WPI's option, of the equipment or defective components or parts upon receipt thereof f.o.b. WPI, Sarasota, Florida U.S.A. Return of a repaired instrument shall be f.o.b. Sarasota.

The above warranty is contingent upon normal usage and does not cover products which have been modified without WPI's approval or which have been subjected to unusual physical or electrical stress or on which the original identification marks have been removed or altered. The above warranty will not apply if adjustment, repair or parts replacement is required because of accident, neglect, misuse, failure of electric power, air conditioning, humidity control, or causes other than normal and ordinary usage.

To the extent that any of its equipment is furnished by a manufacturer other than WPI, the foregoing warranty shall be applicable only to the extent of the warranty furnished by such other manufacturer. This warranty will not apply to appearance terms, such as knobs, handles, dials or the like.

WPI makes no warranty of any kind, express or implied or statutory, including without limitation any warranties of merchantability and/or fitness for a particular purpose. WPI shall not be liable for any damages, whether direct, indirect, special or consequential arising from a failure of this product to operate in the manner desired by the user. WPI shall not be liable for any damage to data or property that may be caused directly or indirectly by use of this product.

Claims and Returns

Inspect all shipments upon receipt. Missing cartons or obvious damage to cartons should be noted on the delivery receipt before signing. Concealed loss or damage should be reported at once to the carrier and an inspection requested. All claims for shortage or damage must be made within ten (10) days after receipt of shipment. Claims for lost shipments must be made within thirty (30) days of receipt of invoice or other notification of shipment. Please save damaged or pilfered cartons until claim is settled. In some instances, photographic documentation may be required. Some items are time-sensitive; WPI assumes no extended warranty or any liability for use beyond the date specified on the container

Do not return any goods to us without obtaining prior approval and instructions from our Returns Department. Goods returned (unauthorized) by collect freight may be refused. Goods accepted for restocking will be exchanged or credited to your WPI account. Goods returned which were ordered by customers in error are subject to a 25% restocking charge. Equipment which was built as a special order cannot be returned.

Repairs

Contact our Customer Service Department for assistance in the repair of apparatus. Do not return goods until instructions have been received. Returned items must be securely packed to prevent further damage in transit. The Customer is responsible for paying shipping expenses, including adequate insurance on all items returned for repairs. Identification of the item(s) by model number, name, as well as complete description of the difficulties experienced should be written on the repair purchase order and on a tag attached to the item.

** Electrodes, batteries and other consumable parts are warranted for 30 days only from the date on which the customer receives these items.*

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