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# Operating Manual

**Please Read Before Operating Unit**


## Automatic Wire Twisters WT200 & WT300

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# WT SERIES AUTOMATIC WIRE TWISTERS

## SPECIFICATIONS

### Overview:

The WT200 is supplied with three (3) sizes (⅛", 3⁄16", ¼") of wire entry guides and flexible tubes for wire clamping. The tubing ensures that no metal contacts either stripped conductors or insulation, thereby reducing marking or deformation.

The WT300 is specified for applications where the total diameter of all wires to be twisted is ⅛" (3.2 mm) or less. Therefore, it is supplied only with one (1) wire entry guide and a set of steel clamp jaws (both installed). This method of clamping does not require a flexible tube. This method of twisting enables magnet wire, very fine, or slippery wires to be twisted easily, although some marking or deformation may occur.

### Maximum outside diameter of all wires to be twisted:

WT200: ¼" (6.3 mm) or not exceeding two (2) 16 AWG (1.3 mm) wires

WT300: ⅛" (3.2 mm) or not exceeding two (2) bare (uninsulated) 16 AWG (1.3 mm) wires

Twist length….....up to 20 feet

Twist speed….....variable, 0 - 2,500 RPM

Decibel rating….....70 dB(A)

Power….....115V 60Hz

### Size & Weight (both units):

Unit Dimensions.....10 7/8"W X 10 1/8 "D X 7 5/16"H
(Without foot pedal) (276 X 257 X 186 mm)

Unit Weight.....14 LBS (6.4 kg)

Foot Pedal Dimensions.....6"W X 6"D X 4 5/8"H
(152 X 152 X 117 mm)

Foot Pedal Weight.....5.5 LBS (2.5kg)

*Model WT200 & WT300*

## ORDERING INFORMATION

### Wire Twisters:

***AR0200 (WT200):*** Twisting unit with foot pedal, power cord and three (3) sets of 1 wire entry guide & 1 wire clamping tube. *Tools supplied: 1 allen wrench, 1 open end wrench and 1 nut driver.*

***AR0300 (WT300):*** Twisting unit with foot pedal and power cord. One (1) set of special steel clamp jaws and one (1) wire entry guide are installed into the WT300 twisting head. *Tools supplied: 1 allen wrench, 1 open end wrench and 1 nut driver.*

### Optional and Replacement Parts:

***WT200:***

IR5180….....⅛" (3.2 mm) ID clamping tube (use with TR8176)
TR8176.....⅛" (3.2 mm) ID wire entry guide (use with IR5180)
IR5200….....3⁄16" (4.7 mm) ID clamping tube (use with TR8177)
TR8177….....3⁄16" (4.7 mm) ID wire entry guide (use with IR5200)
IR5190….....¼" (6.3 mm) ID clamping tube (use with TR8178)
TR8178….....¼" (6.3 mm) ID wire entry guide (use with IR5190)

***WT300:***

TR0566….....⅛" (3.2 mm) ID wire entry guide (clamping tube not used)

**IMPORTANT! DO NOT OPERATE MACHINE UNTIL YOU HAVE READ THOROUGHLY, AND UNDERSTAND COMPLETELY, ALL PRECAUTIONS, INSTRUCTIONS AND INFORMATION ON THESE PAGES. THIS MANUAL CONTAINS IMPORTANT SAFETY AND OPERATING INSTRUCTIONS. IT SHOULD BE RETAINED WITH THE MACHINE FOR FUTURE REFERENCE.**

## SAFETY PRECAUTIONS - MECHANICAL

**! DO NOT OPERATE UNIT WITHOUT GUARDS IN PLACE OR WITH DAMAGED GUARDS.**

**! DO NOT DEFEAT ANY OF THE SAFETY FEATURES.**

**! DO NOT PLACE FINGERS OR APPENDAGES NEAR MOVING PARTS OR IN OR NEAR OPENINGS IN GUARDS.**

## SAFETY PRECAUTIONS - ELECTRICAL

**! ALWAYS UNPLUG UNIT FROM POWER SUPPLY PRIOR TO ANY MAINTENANCE.**

**! DO NOT RUN UNIT WITH INCORRECT LINE VOLTAGE.**

**! NEVER RUN MACHINE WITH DAMAGED OR WORN POWER CORD.**

**! NEVER MODIFY THE PLUG PROVIDED. IF IT WILL NOT FIT INTO THE OUTLET, HAVE THE PROPER OUTLET INSTALLED BY A QUALIFIED ELECTRICIAN.**

**GROUNDING INSTRUCTIONS.** Grounding provides a common return path for electric current to reduce the risk of electric shock. This machine is supplied with an electric cord with an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a licensed electrician if in doubt as to whether the machine is properly grounded.

## SAFETY FIRST - USE BEST PRACTICES

**ALWAYS USE SAFETY GLASSES.** Everyday eyeglasses only have impact resistant lenses; they are NOT safety glasses. Also use face or dust mask if cutting operation is dusty.

**REMOVE ADJUSTING KEYS AND WRENCHES.** Form a habit of checking to see that keys and adjusting wrenches are removed from machine before turning it on.

**KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents. Always leave at least 12” (305 mm) of space around all sides and top of unit.

**DON’T USE IN DANGEROUS ENVIRONMENTS.** Do not use or locate machine in high-humidity environments, or expose to rain. Keep work areas well lighted.

**WEAR PROPER APPAREL.** Do not wear loose clothing, such as gloves, neckties, rings, bracelets, necklaces or any other clothing or jewelry that might get caught in moving parts. This is not an all-inclusive list. Wear protective hair covering to contain long hair. Non-slip footwear is recommended.

**DON’T OVERREACH.** Maintain proper footing and balance at all times.

**DISCONNECT MACHINE FROM POWER SUPPLY.** Unplug the unit before servicing and when changing accessories.

**DO NOT EXCEED THE UNIT’S MAXIMUM MATERIAL SPECIFICATIONS.** Eraser’s warranty will be null and void if machine has been used in any manner that is contrary to these instructions.

**CHECK FOR DAMAGED PARTS**. Before continued use of the machine, the guard and all moving parts should be carefully inspected to ensure that nothing is damaged.

Ensure proper alignment of moving parts. Check for any binding of moving parts, breakage of parts, and any other condition(s) that may affect operation. Any damaged part(s) should be properly repaired or replaced prior to any continued use of the machine.

**ONLY ALLOW TRAINED AND QUALIFIED PERSONNEL TO OPERATE UNIT.** Always keep these instructions within reach of the machine.

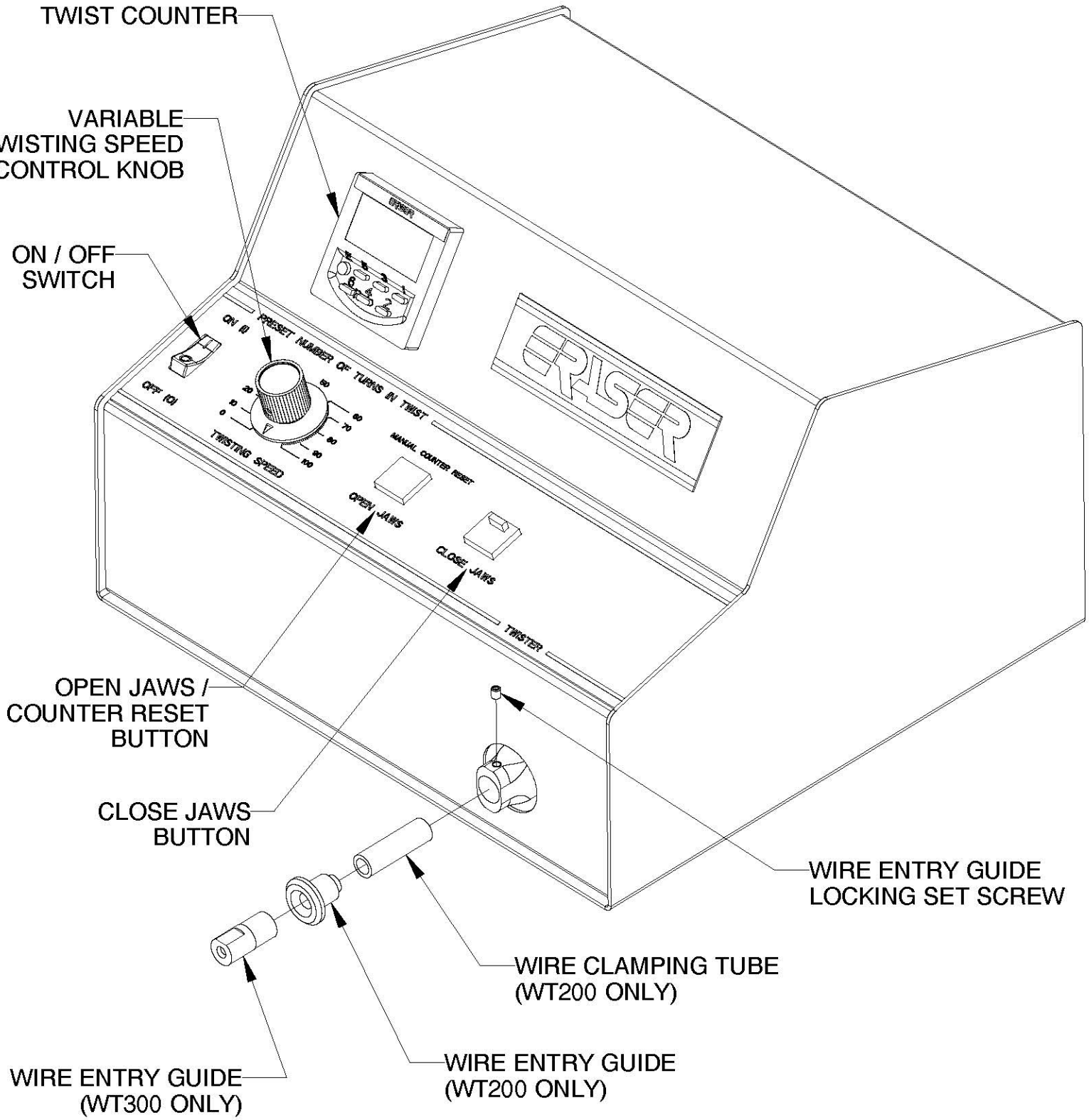
**USE RECOMMENDED ACCESSORIES ONLY.** Consult this operating manual for recommended accessories. Use only parts supplied by The Eraser Company, Inc. Use of improper accessories will void Eraser’s warranty and may increase risk of injury.

## ALL REPAIRS SHOULD BE PERFORMED BY AN ERASER COMPANY REPRESENTATIVE ONLY.

Unauthorized disassembly of machines will void Eraser’s warranty.

**WHEN USING MACHINERY, ALL SAFETY PRECAUTIONS – INCLUDING, BUT NOT LIMITED TO, THOSE LISTED ABOVE - SHOULD BE FOLLOWED TO REDUCE THE RISKS OF FIRE, ELECTRIC SHOCK, AND PERSONAL INJURY, AND DEATH.**

**IMPORTANT: NO LIABILITY WILL BE INCURRED BY THE ERASER CO. FOR INJURY, DEATH, OR PROPERTY DAMAGE CAUSED BY A PRODUCT WHICH HAS BEEN SET UP, OPERATED, AND/OR INSTALLED CONTRARY TO ERASER’S WRITTEN OPERATING MANUAL, OR WHICH HAS BEEN SUBJECTED TO MISUSE, NEGLIGENCE, OR ACCIDENT, OR WHICH HAS BEEN REPAIRED OR ALTERED BY ANYONE OTHER THAN THE ERASER COMPANY, OR WHICH HAS BEEN USED IN A MANNER OR FOR A PURPOSE FOR WHICH THE PRODUCT WAS NOT DESIGNED.**




**WT200 & WT300 CONTROL LOCATIONS AND WIRE CLAMP DETAILS**

( FIG. 1 )

# WT Series Automatic Wire Twisters - OPERATING INSTRUCTIONS

**Set-Up:**

Set the unit on the work bench. Screws may be used to secure the base of the unit to the work surface if desired. *(See template)*. Plug the foot pedal into the foot switch jack on the rear left side of the unit *(Figure 7).*

**WT200: IMPORTANT: THE WT200 WILL NOT OPERATE PROPERLY WITHOUT USING ONE OF THE FLEXIBLE WIRE CLAMPING TUBES** *(Figure 1).*

For the following procedure, refer to Figure 1.
To set up, select the appropriate wire entry guide and corresponding clamping tube that will fit over the wires to be twisted. The clamping tube should be attached to the shoulder of the wire entry guide. The wires should be able to slide into the wire entry guide and tube easily but fit snugly as possible in the tubes. Slide the selected wire entry guide and tube (tube first) into the twisting head located at the right front of the unit. Using the supplied allen wrench, tighten the set screw in the twisting head to secure the wire entry guide in position.

**WT300:** The WT300 is shipped with a ⅛" (3.2mm) wire entry guide already installed in the twisting head. No further set-up is required. *Note: The WT300 uses a different method of clamping that does not require a flexible tube.*

**All Units:** All units operate only from a 120V, 60Hz electrical supply. Plug the unit directly into the power supply and turn it on. The unit's power switch will light to indicate that the unit has power.

Select the desired rotation of twist with the reversing switch, located on the rear of the unit *(Figure 7).* Determine the total number of twists required for your application. This number is calculated by multiplying the number of twists per inch required by the length in inches of the piece being twisted. (For example, 3 twists per inch required times 20" length of wires equals a counter setting of 60.)

**Programming:**

Once the total number of twists per cycle has been determined, it is now necessary to program the counter (*Figure 2*). First, depress and hold the buttons marked "E" and "1" simultaneously. The display will change from a single "0" (cycle start/ready mode) to programming mode *(Figure 3)*, which is designated by "F1" in the lower left corner, and "PRG" in the lower right corner of the counter display. Also displayed will be the counter's last programmed number of twists, preceded by zeros. NOTE: the unit resets to cycle start/ready mode after approximately 15 seconds, if no buttons are pressed in programming mode.

In programming mode, the numbers 1 - 6 are numeric place holders. Pressing the "1" button advances the "ones", or single digit (farthest right) number, pressing the "2" button advances the "tens" number, "3" advances the "hundreds" number, and so on. When the desired cycle number (total twists) has been entered, press the "E" button to enter and store the value.

EXAMPLE: To program 105 total twists, the user would press the "1" button five times, and the "3" button once, then press the "E" button to save 105 as the cycle number. In this example, "2" is not pressed because the default is zero.

**Continuous Operation / Counter Reset:** The WT200 & WT300 may be run continuously by entering a value of zero ("0") into the counter. To do this, first enter programming mode, then reset the cycle number to zero by pressing the "6" and "4" buttons simultaneously. Press "E" to enter and store zero. Press the CLOSE JAWS button and depress the foot pedal. Release the foot pedal once the desired number of twists is completed. Press the MANUAL COUNTER RESET/OPEN JAWS button to release the wires and reset the counter to zero.

# WT Series Automatic Wire Twisters - OPERATING INSTRUCTIONS

## Operation:

Set the variable twisting speed control knob to 20 or greater. To twist wires, insert the wires into the wire entry guide approximately 1 ½" (38mm). Press the CLOSE JAWS button *(Figure 4).* Hold the wires at the opposite end and press on the foot pedal to start the twisting action *(Figure 5).* The unit will twist the number of turns pre-set on the counter, then automatically stop and open the clamp jaws, releasing the twisted wires *(Figure 6).*

The foot pedal must remain depressed until the end of the cycle. Releasing the foot pedal will stop the twisting action at any point during the cycle. When the pedal is pressed again, the cycle will resume. This process can continue, until the unit reaches the set number of twists.

The MANUAL COUNTER RESET/OPEN JAW button will open the clamp jaws and automatically reset the counter to 0. Pressing this button does not change the number of twists programmed.

**Clamp Pressure Adjustment:** If wire ends slip out of the clamping jaw before twisting is complete, it may be necessary to increase the clamping pressure. To do this, first disconnect the unit from the power supply. Remove the plated hole plug *(Figure 7)* at the back of the machine revealing the hex nut. Using the supplied wrench, secure the twisting head at the front of the unit. Using the nut driver provided, turn the hex nut ½ turn clockwise. Replace the hole plug and reconnect the unit to the power supply. If wires are still not clamped correctly repeat operation until satisfactory results are obtained. If loud buzzing occurs, decrease clamp pressure. To decrease clamp pressure, turn the hex nut counter-clockwise.

Adjustments may be made to the speed of twist by use of the variable speed control knob. Begin with a slower setting above 20, and increase speed as safety and production requirements permit. To change the direction of twist, use the reversing switch located on the center of the rear panel (*Figure 7*).

**IMPORTANT: THE MOTOR MUST BE COMPLETELY STOPPED BEFORE CHANGING THE TWIST DIRECTION. FAILURE TO DO THIS MAY RESULT IN DAMAGE TO THE UNIT.**

**MAINTENANCE: ALL UNITS**
Keep machine clean at all times. On WT200 only, replace flexible clamping tubes when worn.

**TROUBLESHOOTING:**

**PROBLEM:**
Clamp will not hold wires when twisting.

**SOLUTIONS:**
**1)** Select new clamping tube with smaller hole or replace worn out tube (WT200 only).
**2)** Increase the clamping pressure (*see Clamp Pressure Adjustment section under Operation*).
**3)** If twisting small wires, double over the ends for more gripping surface.

**PROBLEM:**
Machine will not twist when foot pedal is depressed.

**SOLUTIONS:**
**1)** Make sure the unit has power (On/Off switch should be lit).
**2)** Make sure foot switch is plugged into jack.
**3)** Turn variable speed control to a setting greater than 20.
**4)** Make sure reversing switch on rear of unit is not in neutral (center) position.
**5)** Check fuse.

**PROBLEM:**
Machine runs continuously.

**SOLUTION:**
**1)** Program number of twists to a number greater than 0. (See Programming section on page 5)

**PROBLEM:**
Machine makes loud buzzing noise

**SOLUTIONS:**
**1)** Decrease clamping pressure (*see Clamp Pressure Adjustment section under Operation*).
**2)** Try smaller I.D. clamping tube (WT200 only)

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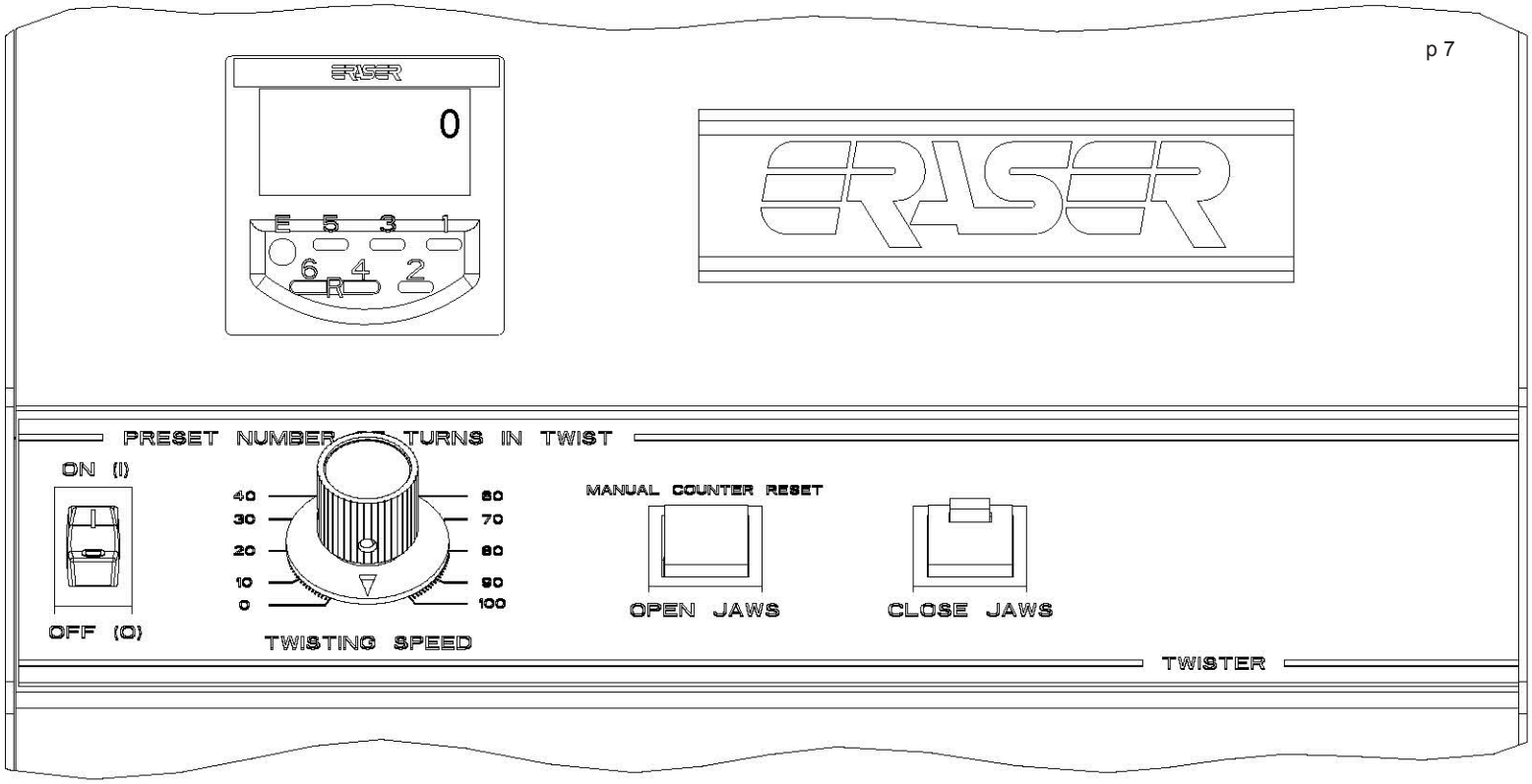
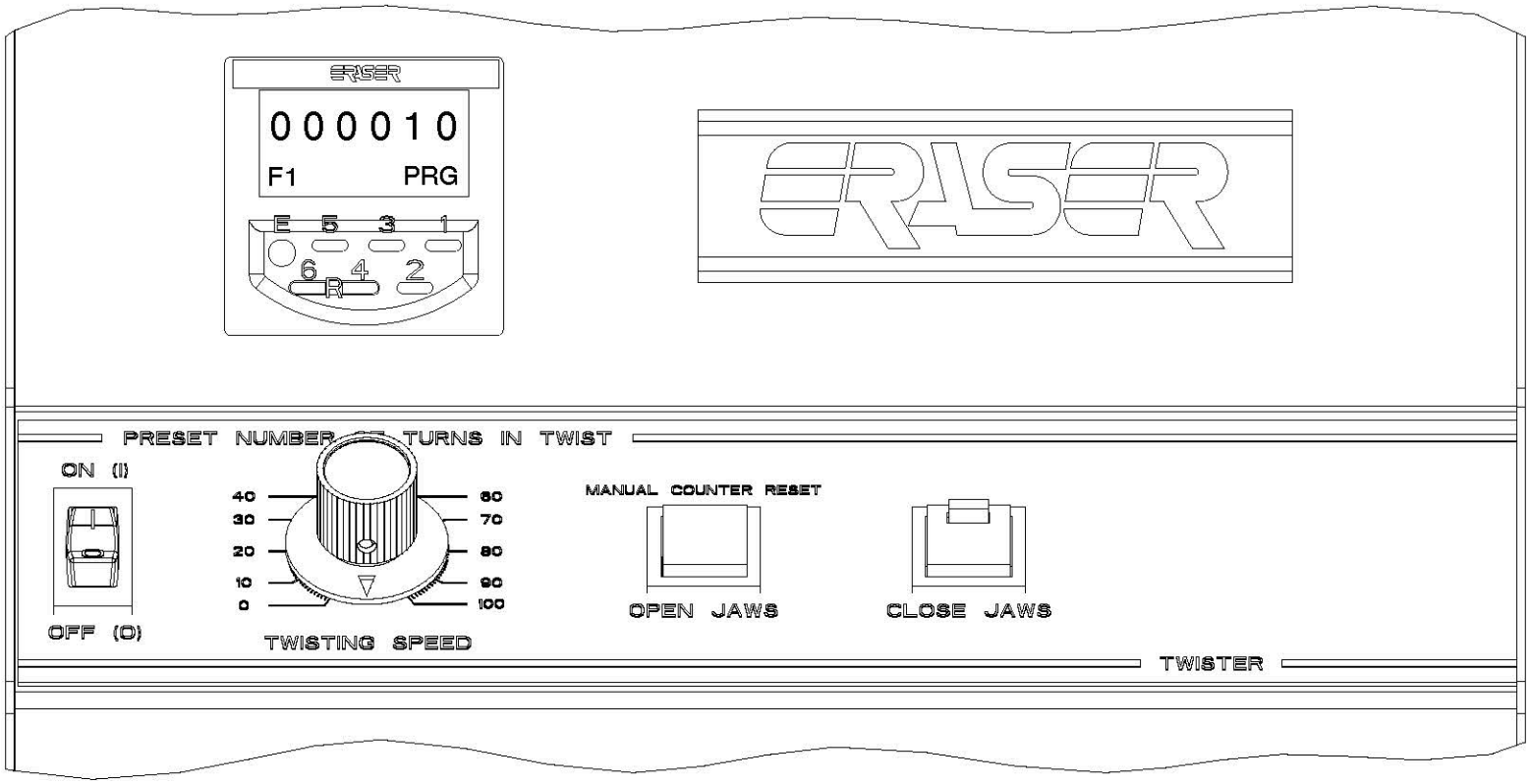


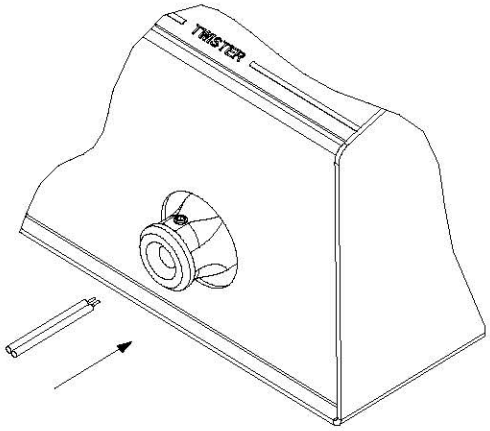

**COUNTER CYCLE START / READY MODE DISPLAY**
ONLY THE "ON/OFF" SWITCH HAS BEEN SWITCHED TO "ON"

( FIG. 2 )



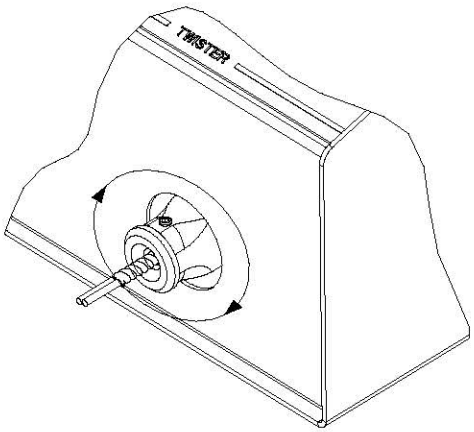

**COUNTER PROGRAMMING MODE DISPLAY**
"E" & "1" ON COUNTER HAVE BEEN SIMULTANEOUSLY PRESSED

( FIG. 3 )



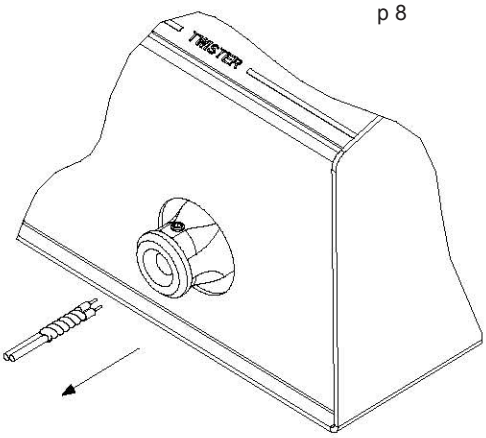

**INSERT WIRES & PRESS CLOSE JAWS BUTTON**

( FIG. 4 )



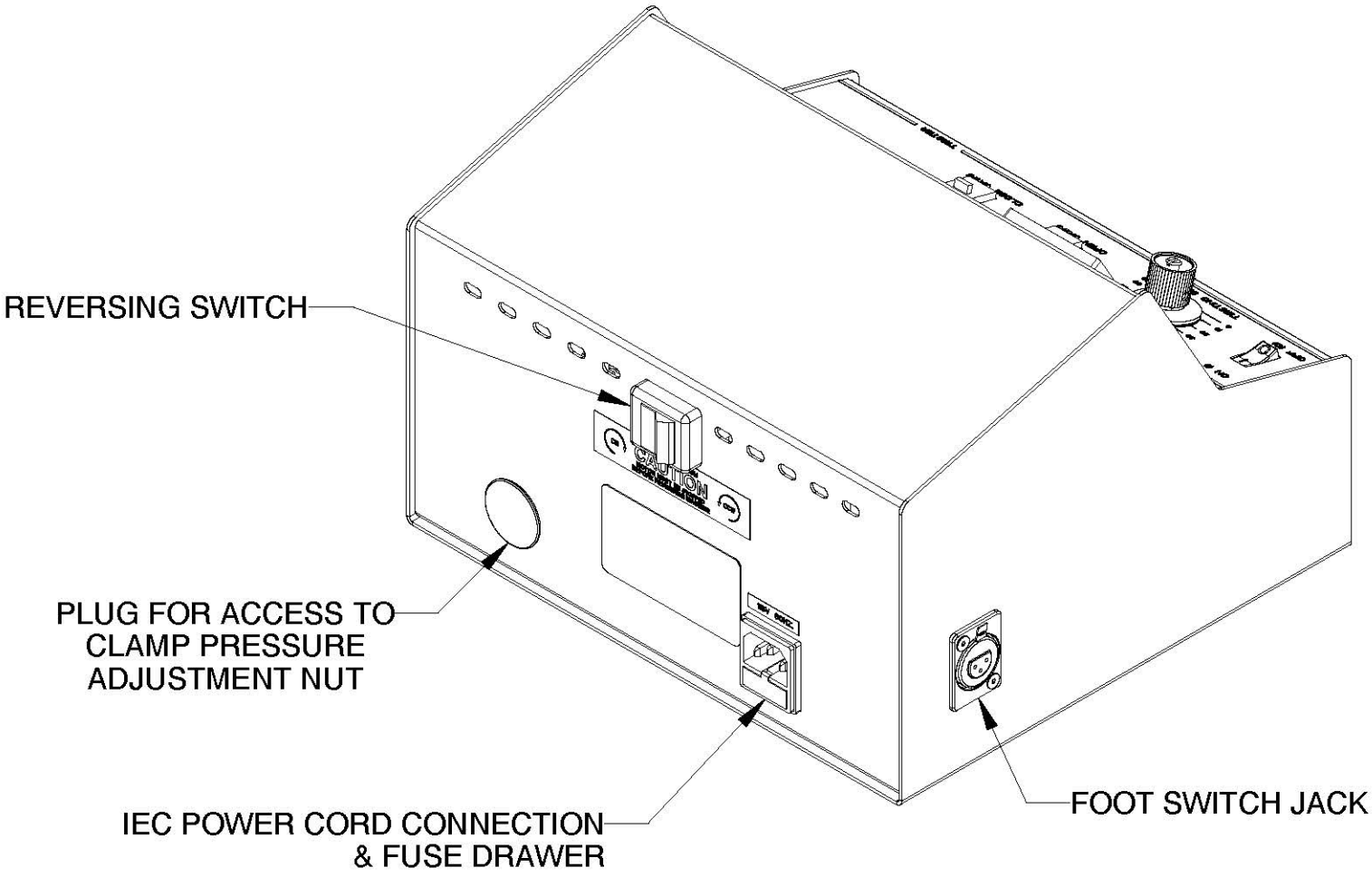

**WITH JAWS CLOSED, DEPRESS FOOT PEDAL TO ACTIVATE HEAD ROTATION**

( FIG. 5 )



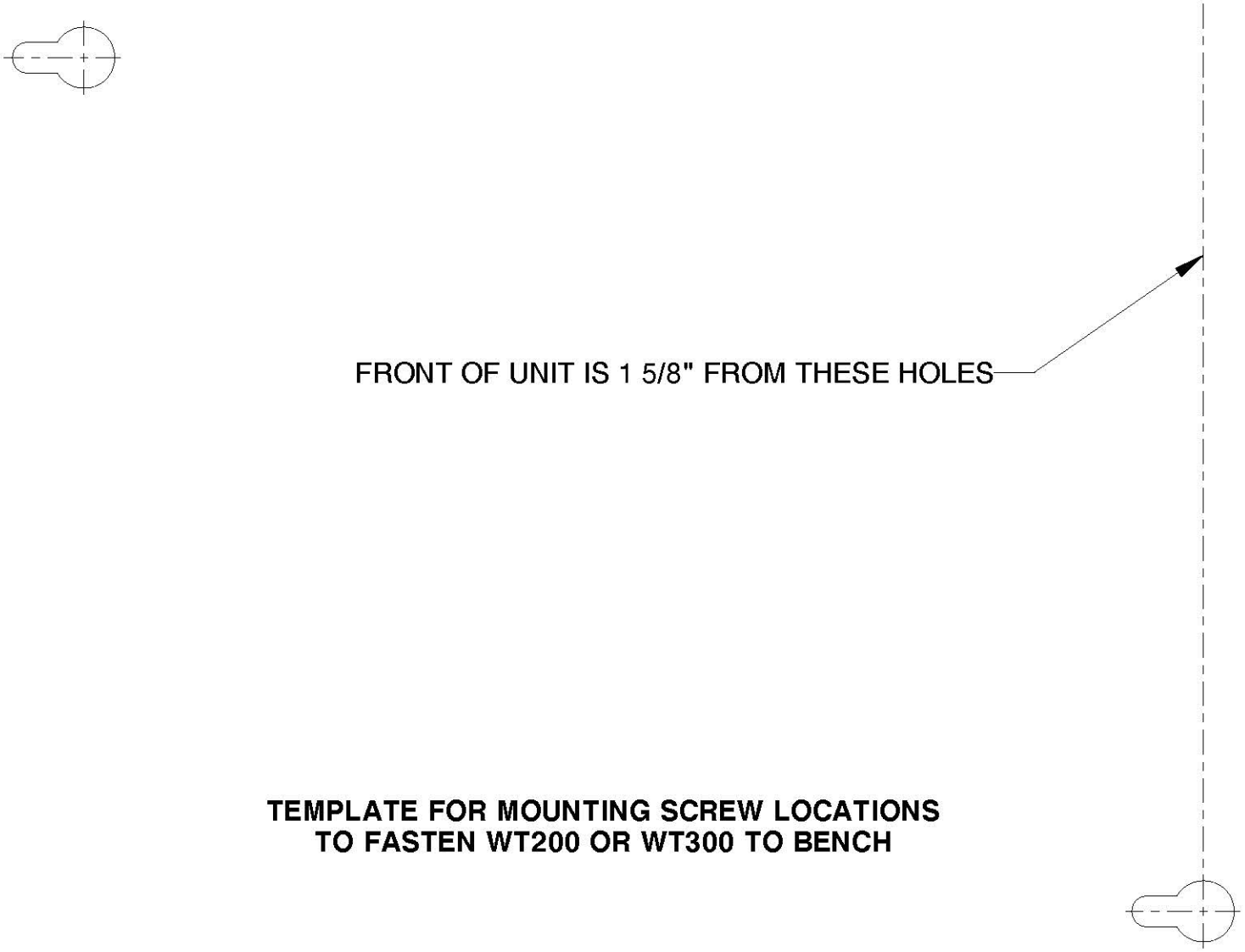

**WIRES RELEASE AUTOMATICALLY WHEN CYCLE IS COMPLETE**

( FIG. 6 )




**WT200/300 REAR VIEW**

( FIG. 7 )




**TEMPLATE FOR MOUNTING SCREW LOCATIONS**
**TO FASTEN WT200 OR WT300 TO BENCH**



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