

Operating Manual

Please Read Before Operating Unit



HTS1 Thermal Wire Strippers

Please Call for Service or Spare Parts



HTS1 THERMAL WIRE STRIPPERS



SPECIFICATIONS

Models HTS1F, HTS1C

Wire Size 5/16"OD to 43AWG (7.9mm - 0.056mm)
 Strip Lengths Adjustable up to 1-1/2" (38.1 mm)
 Up to 2" (50.8 mm) with Strip Length Stop removed
 Power Variable low voltage output to handpiece
 Power Requirements 115V 50/60 Hz
 Operation Intermittent use

Size

Handpiece 7-1/8" x 1" x 1"
 (181mm x 25.4mm x 25.4mm)
 Temperature Controller 5" x 5-3/4" x 3-3/4"
 (127mm x 146mm x 95.3mm)

Weight

Handpiece 4 oz. (114 g)
 Temperature Controller 4.75 lbs. (2.16 kg)

ORDERING INFORMATION

AR0121 (HTS1F).....Hand Thermal Stripper
 Foot Pedal Activated
 AR0131 (HTS1C)Hand Thermal Stripper
 Cradle Switch Activated

Included Parts

PR2727 IEC power cord, 115V (1 supplied)
 IR5023 Set of un-notched elements (1 supplied)
 AA0600 Replacement FybRglass® brush (1 supplied)
 TG3790 Allen wrench for strip length stop adjustment
 (1 supplied)
 PR3663 Screwdriver for element removal/installation
 (1 supplied)

Replacement Parts

PR0578 Replacement Fuse, 115V

Optional Parts/Accessories

AA0004 Brass eraser to clean elements
 AR6701 (FE1) Fume Extractor, 115V 50/60Hz
 (For proper stripping element sizing, refer to
 the Element Selection section on page 7)
 IR5035 Set of notched stripping elements for
 12-24 AWG (includes 4 screws and washers)
 IR1399 Set of stripping elements for 22, 24, 26, 28, 30
 AWG (includes 4 screws and washers)
 IR1405 Set of stripping elements for 14, 16, 18,
 20, AWG (includes 4 screws and washers)

HTS Series Overview

The HTS (Hand Thermal Stripper) series are portable, lightweight & variably controlled handheld thermal strippers for stripping solid and stranded conductor wires. The HTS strips a variety of extruded insulation materials. Several configurations of stripping elements are available and elements are easily changeable. The HTS units are designed for intermittent use for maximum element performance and operator comfort.

The 2 models in the HTS series are the HTS1F and the HTS1C. Model HTS1F includes a foot pedal that powers the stripping elements only when the foot pedal is depressed. This model is suited for on-demand operation. Model HTS1C model has a switch in the handpiece cradle that powers the stripping elements as soon as the handpiece is lifted from the cradle. This model is ideal for high volume applications.

A FybRglass® abramer is provided for the purpose of cleaning the stripping elements periodically. See the Maintenance section for more details. Depending on the materials being stripped, fume extraction may be required. See the Ordering Information section for more details.

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SAFETY INSTRUCTIONS

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.

MAINTAIN BLADES WITH CARE. Keep blades sharp and clean for optimal performance. Follow instructions for lubricating and changing blades and all accessories.

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

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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.

SET-UP (both models) (Refer to Figures 1 and 2) Insert the IEC power cord into the back of the temperature control unit. Make sure that the power switch is in the OFF (O) position before plugging the power cord into the appropriate electrical outlet. Place the temperature control unit on a flat and level bench surface. Lay the handpiece in the cradle, located on the side of the temperature control unit.

! CAUTION: Whenever the HTS unit is not in use, the handpiece should be placed in the cradle and the power switch should be turned to the OFF (O) position. Never set the handpiece onto any other surface.

Setting the Strip Length

NOTE: No power/heat is needed to set the strip length. Before turning the unit on, set the strip length stop to the desired point by loosening the strip length adjustment screw with the supplied allen wrench. Slide the strip length stop along the electrodes and retighten the strip length adjustment screw when the desired strip length is achieved. For strip lengths longer than 1.5" (38 mm), remove the strip length stop by removing the strip length adjustment screw from the strip length stop. Then remove the strip length stop from the electrode. The maximum strip length with the stop removed is 2" (51 mm).

! CAUTION: The heated stripping elements on the HTS units can reach temperatures up to 1100°F (594°C). Use extreme care whenever the handpiece is being used. Elements should never come into contact with the skin, unless they are fully cooled to room temperature and the unit has been turned off and disconnected from the power supply.

Model HTS1F OPERATION (Refer to Figures 1 and 2)

Turn the temperature control knob to the '0' dial setting (fully counter-clockwise) and turn the power switch on the temperature control unit to the ON (I) position. Pick up the handpiece and hold it in one hand while holding the wire to be stripped the in the other. Depress the footpedal and insert the wire to be stripped between the stripping elements up to the strip length stop. Close the handpiece until the elements contact the insulation.

Stripping Wire (both models)

Gently squeeze the handpiece and slowly increase heat to the elements by gradually turning the temperature control knob clockwise from '0' until the elements cause the insulation to soften and eventually sever. Continue to gently squeeze the handpiece until the insulation is fully severed/stripped. It may be necessary to rotate the elements around the circumference of the wire (approximately 90°) to ensure a complete separation of the insulation.

NOTE: Always strip wires on the lowest possible heat setting, as this will provide the highest strip quality, the least amount of fumes and optimized element longevity.

Insulation slug removal (model HTS1F)

Once the insulation is fully separated, release the footpedal to remove power from the elements. Open the elements, remove the wire from the handpiece and return it to the cradle. Manually remove the insulation slug from the conductor using a slug removal tool or pliers. **NOTE:** Do not use the handpiece/elements to remove the insulation slug. The HTS is designed to produce a removable (insulation) slug at the end of a wire length- it is not designed to pull the slug off the end of the wire.

! CAUTION: Do not use bare hands/fingers to remove the insulation slug from the conductor. A tool is recommended for removal of the insulation slug. If the slug must be removed by hand, either use gloves with appropriate insulation or give the wire enough time to

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cool to room temperature before removing the slug.

Setting the Strip Depth (both models)

NOTE: No power/heat is needed to set the strip depth. Now the set-up piece (as stripped above) can be used to set the depth of strip. With the conductor exposed, set the element depth by backing off (turning counter-clockwise) the element depth adjustment screw on the handpiece. Close the elements to contact/grip the exposed conductor. Then slowly turn the element depth adjustment screw clockwise until immediately after the conductor is released from the 'grip' of the elements, stopping so that the element opening (while the handpiece is squeezed to its closed position) is just slightly larger than the conductor's diameter- the closer the distance of the elements to the conductor (without touching) the better. Element depth should be set so that the elements will sever the insulation, but not contact the conductor. This will insure consistent and high quality stripping.

Once the correct temperature setting and element depth have been set, they should not need changing unless the wire size and/or insulation material changes.

Model HTS1C OPERATION (Refer to Figures 1 and 2)

Turn the temperature control knob to the '0' dial setting (fully counter-clockwise) and turn the power switch on the temperature control unit to the ON (I) position. Pick up the handpiece and hold it in one hand while holding the wire to be stripped in the other. The stripping elements will automatically heat after the handpiece has been removed from the cradle. Insert the wire to be stripped between the elements up to the strip length stop, and close the handpiece until the elements contact the insulation.

Stripping Wire (both models)

Gently squeeze the handpiece and slowly increase heat to the elements by gradually turning the temperature control knob clockwise from '0' until the elements cause the insulation to soften and eventually sever. Continue to gently squeeze the handpiece until the insulation is fully severed/stripped. It may be necessary to rotate the elements around the circumference of the wire (approximately 90°) to ensure a complete separation of the insulation.

NOTE: Always strip wires on the lowest possible heat setting, as this will provide the highest strip quality, the

least amount of fumes and optimized element longevity

Insulation slug removal (model HTS1C)

Once the insulation is fully separated open the elements, remove the wire from the handpiece and return it to the cradle. Manually remove the insulation slug, using a slug removal tool or pliers. **NOTE:** Do not use the handpiece/elements to remove the insulation slug. The HTS is designed to produce a removable (insulation) slug at the end of a wire length- it is not designed to pull the slug off the end of the wire.

! CAUTION: Do not use bare hands/fingers to remove the insulation slug from the conductor. A tool is recommended for removal of the insulation slug. If the slug must be removed by hand, either use gloves with appropriate insulation, or give the wire enough time to cool to room temperature before removing the slug.

Setting the Strip Depth

Refer to the Setting the Strip Depth section.

ELEMENT REMOVAL/INSTALLATION (Refer to Figures 1 and 2)

To remove the stripping elements, use the supplied screwdriver to loosen and remove the (4) element mounting screws & washers (2 screws & 2 washers per element). Using the supplied FybRglass® abraser brush, remove any buildup or debris from the ends of the electrodes so that there will be good conductivity with the new elements. After cleaning all contact areas between the electrodes and elements, loosely install the new washers and screws, leaving enough space so the elements can slide in between the washers and the elements. Install elements and tighten the screws, without over-tightening. Repeat the process so that both the top and bottom elements are affixed. Insure that all four (4) element mounting screws are equally tight.

NOTE: Make sure that the stripping elements are secured squarely (meaning that the elements' contact with each other is continuous along the entire length of the contact/stripping surface) when the handpiece is closed. If the stripping elements are not square in relation to each other, adjustments will be necessary.

To adjust the stripping elements for optimal alignment, loosen all four (4) element mounting screws slightly (enough so that both elements are retained, but still moveable). Squeeze the handpiece to the closed position and align the elements so they are parallel

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and in full contact with each other. Re-tighten screws, without overtightening. Repeat as necessary until elements are parallel and in full contact with each other when engaged.

MAINTENANCE

Maintenance for the HTS series requires periodic cleaning of the stripping elements by using the supplied FybRglass® abraser brush. Be sure to keep the contact points on the stripping elements and the ends of the electrodes as clean as possible and free of oxides. Insure that all four (4) element mounting screws are equally tight. Replace used stripping elements as necessary (see above section).

TROUBLESHOOTING (Refer to Figures 1 and 2)

PROBLEM: Unit does not operate.

SOLUTIONS:

1. Insure that the temperature control unit is plugged into the appropriate power source.
2. Insure that the power switch on the temperature control unit is switched to the ON position.
3. Insure that sufficient power is applied to the stripping elements by slowly turning the temperature knob clockwise from the '0' position (see the Stripping wire section).
4. If unit is still not functioning, switch the power to the OFF position and unplug the temperature control unit from the power source.
5. Check the fuse in the rear of the temperature control unit and replace the fuse if it is blown. If fuse blows a second time, contact the factory.

PROBLEM: Unequal heating of stripping elements.

SOLUTIONS:

1. Turn the temperature control unit to the OFF position and unplug the unit from the power source.
2. Allow appropriate time to ensure that stripping elements are cool.
3. Remove elements and clean oxides from contact points (see the Maintenance and Element Removal/Installation sections).
4. If elements continue to heat unequally after cleaning, a new set may be required (see the Element Removal/Installation section).

PROBLEM: Poor stripping results.

SOLUTIONS:

1. Be sure you are stripping at the lowest possible

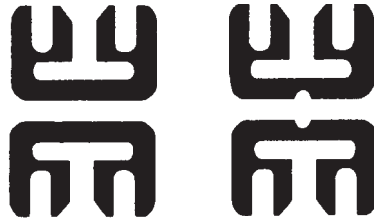
temperature for the insulation type.

2. Adjust temperature and/or element depth until desired results are achieved (refer to the model-specific Operation section, the Stripping Wire and/ or the Setting the Strip Depth sections).
3. If stripping results are still poor after steps 1 & 2, follow steps 1-4 above (under Unequal heating of stripping elements).

Element Selection

IR5023

General purpose heavy duty "flat style" elements un-notched for wire sizes 25AWG to 43AWG (0.46-.056mmø). Width of elements .500 (12.7mm).

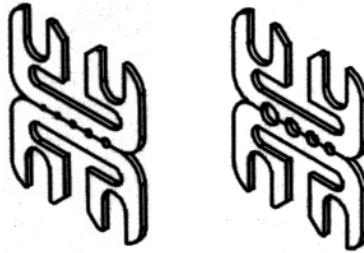


IR5035

General purpose heavy duty "flat style" elements notched for wire sizes 12AWG to 24AWG (2.06-0.51mmø). Width of elements .500 (12.7mm).

IR1399

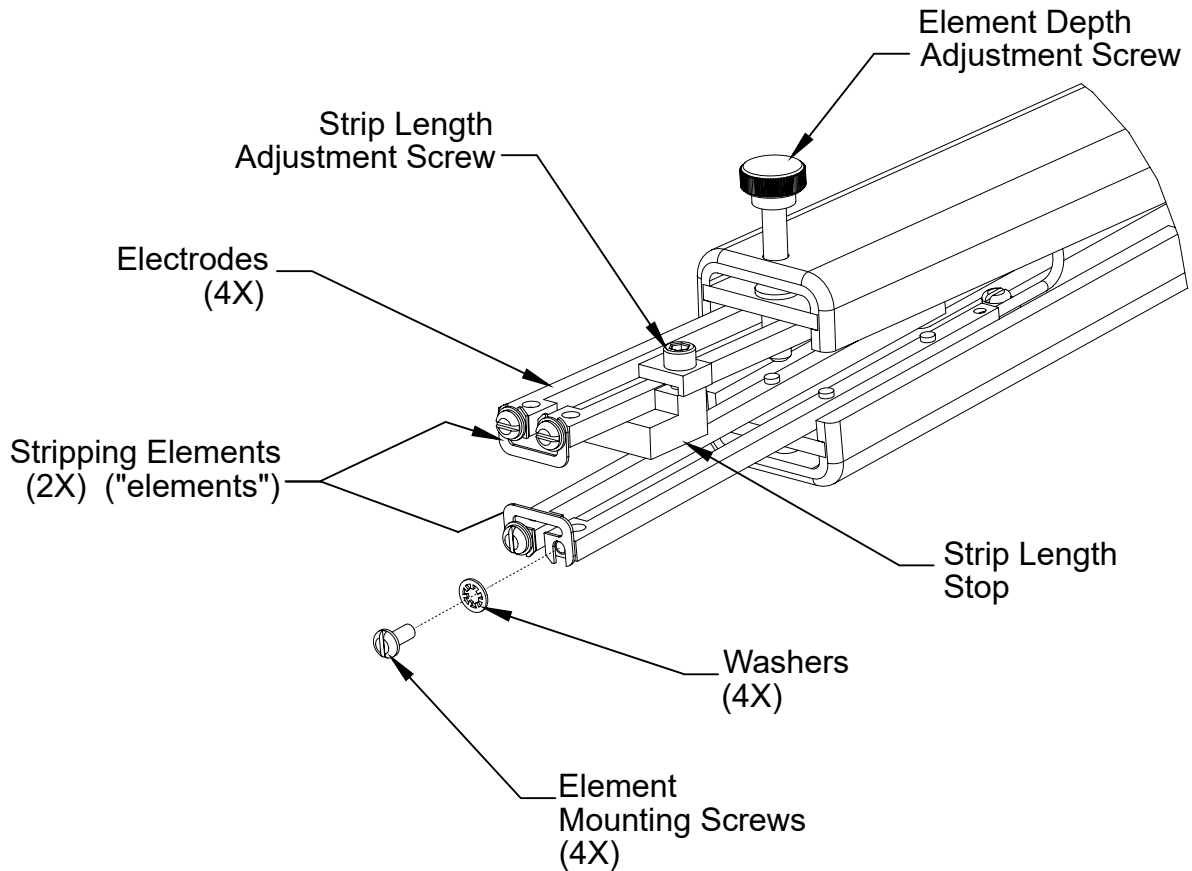
Optional set of two elements with 5 die holes for 22 (0.64mm), 24 (0.51mm), 26 (0.41mm), 28 (0.33mm) and 30 AWG (0.25mm) wires. There is no need to rotate the stripper when using this set of elements.



IR1405

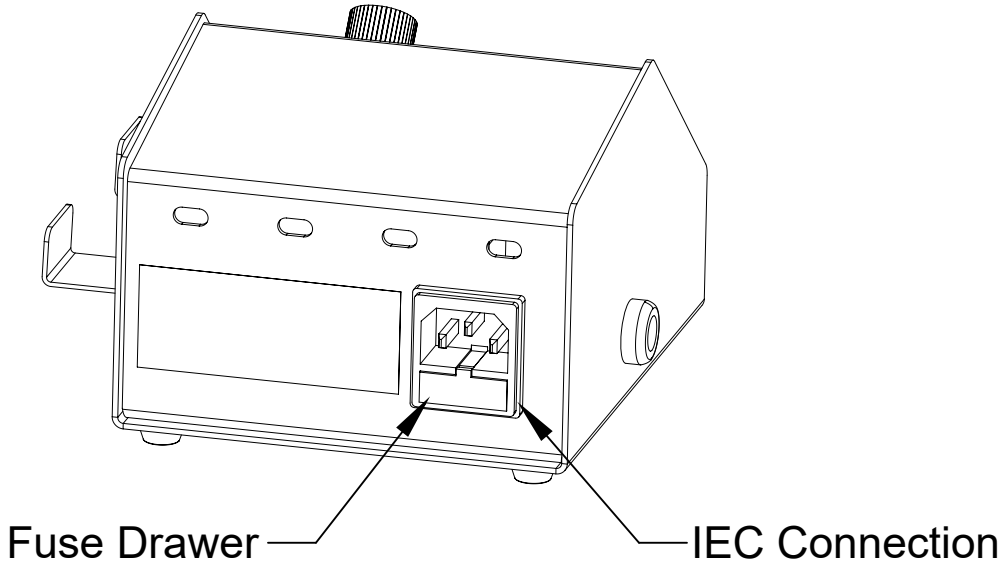
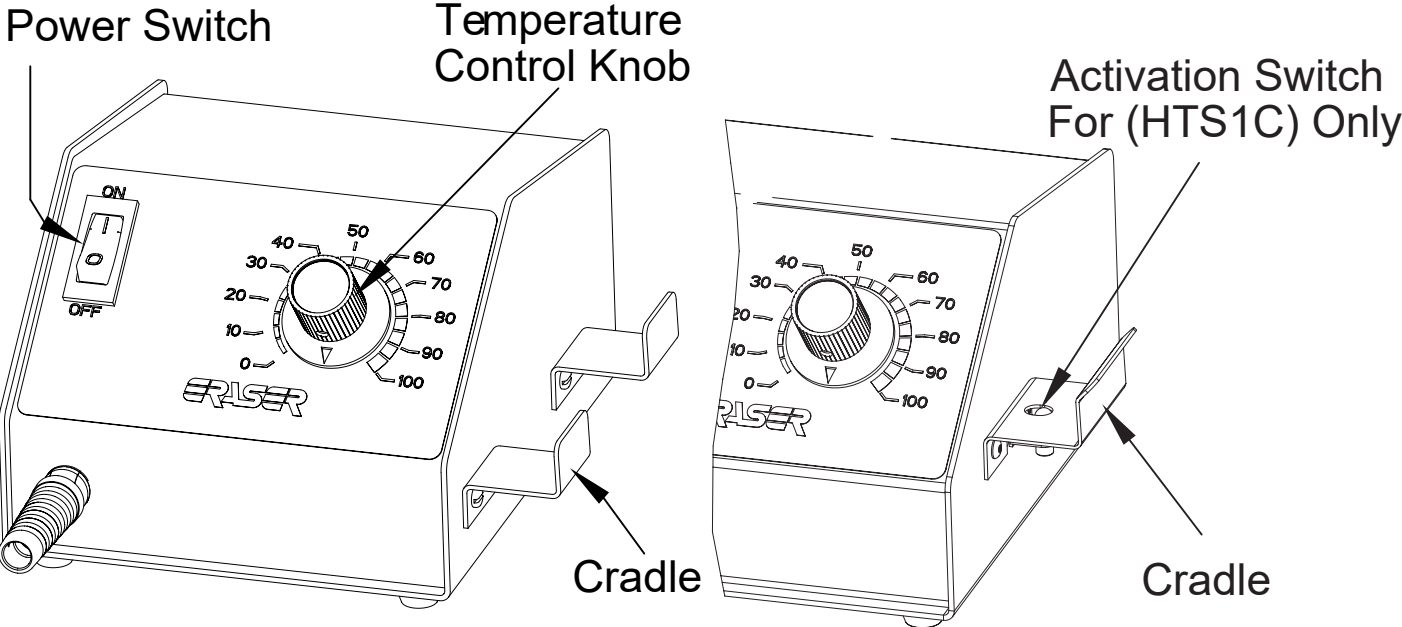
Optional set of two elements with 4 die holes for 14 (1.63mm), 16 (1.30mm), 18 (1.02mm) and 20 AWG (0.81mm) wires. There is no need to rotate the stripper when using this set of elements.

Figure 1



HANDPIECE

Figure 2



TEMPERATURE CONTROL UNIT

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