



# Operating Manual

Please Read Before Operating Unit



## DCFx Wire Strippers and Twister

Service and All Spare Parts Available

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## DCFX SPECIFICATIONS

### DCFX STRIPPERS FOR MAGNET & ENAMEL WIRE

MODEL	DCFX1	DCFX3	DCFX5
Handpiece	Drilled	Drilled	Undrilled
Wire Size	<b>34 to 23 AWG</b> 0.16 to 0.57 mmø	<b>25 to 14 AWG</b> 0.45 to 1.63 mmø	<b>16 to 6 AWG</b> 1.29 to 4.12 mmø
Strip Length (w/ Length Stop)	<b>1/8" to 1-1/2"</b> 3.2 to 38.1 mm	<b>1/8" to 1-1/2"</b> 3.2 to 38.1 mm	<b>3/32" to 1-3/8"</b> 2.4 to 34.9 mm
Strip Length (w/o Length Stop)	<b>0.06" to Infinite</b> 1.5 mm to Infinite	-- 25-16 AWG -- <b>0.06" to Infinite</b> 1.5 mm to Infinite	<b>N/A</b> (Length Stop not removable)
		-- 15-14 AWG -- <b>1/8" to 1-1/2"</b> 3.2 to 38.1 mm	

### DCFXT WIRE TWISTER FOR EXTRUDED STRANDED WIRE

MODEL	DCFXT
Handpiece	Undrilled
Wire Size*	<b>Up to 12 AWG</b> Up to 2.05 mmø
Twist Length* #	<b>Up to 2-1/2"</b> Up to 63.5 mm

\* Material Dependent

# No Length Stop supplied/required

### DCFX HANDPIECES AND TRANSFORMERS (ALL MODELS)

MODEL	HANDPIECE	TRANSFORMER
Size	<b>7-3/8" L x 1-5/8" Ø</b> 187 x 41 mmø	<b>6" L x 5-3/4" W x 4-1/2" H</b> 152 L x 146 W x 114 H mm
Weight	<b>1.00 lbs</b> 0.45 kg	<b>5.50 lbs</b> 2.50 kg
Power	<b>Low Voltage DC</b>	<b>115 or 230 V AC @ 50/60 Hz</b> Variable Low Voltage DC (output)
Decibel Rating	<b>72 dB(A)</b>	

# ORDERING INFORMATION

## WIRE STRIPPERS

**AR4010** ..... **DCFY1**  
Wire stripping unit with drilled handpiece

**AR4030** ..... **DCFY3**  
Wire stripping unit with drilled handpiece

**AR4050** ..... **DCFY5**  
Wire stripping unit with non-drilled handpiece

## WIRE TWISTER

**AR4060** ..... **DCFXT**  
Wire twisting unit with non-drilled handpiece

## OPTIONAL PARTS

**IR0915** ..... Footswitch kit  
Allows handpiece to be used as a bench unit

**IR4099** ..... Head removal tool for all models

## REPLACEMENT PARTS

**IR4010** ..... Stripping Head for DCFY1  
**IR4030** ..... Stripping Head for DCFY3  
**IR4050** ..... Stripping Head for DCFY5  
**IR4060** ..... Twisting head for DCFXT

**IR7000** ..... Dual voltage, variable speed  
power control unit with bench holder

**IR4950** ..... Drilled handpiece  
for DCFY1 and DCFY3 units

**IR4870** ..... Non-drilled handpiece  
for DCFY5 and DCFXT units

**CL0024** ..... Blade guard (attaches to nose cone)

**CL0018** ..... Nose cone (screws onto handpiece)

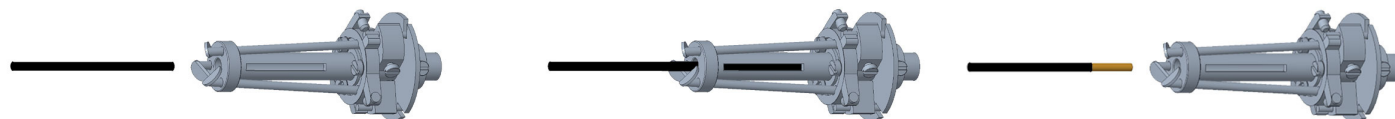
**CL0013** ..... Motor brushes

**PR0578** ..... Fuse

## DCFY SERIES OPERATION

### DCFY1, DCFY3 and DCFY5 Wire Strippers for Round Magnet and Enamel Wires

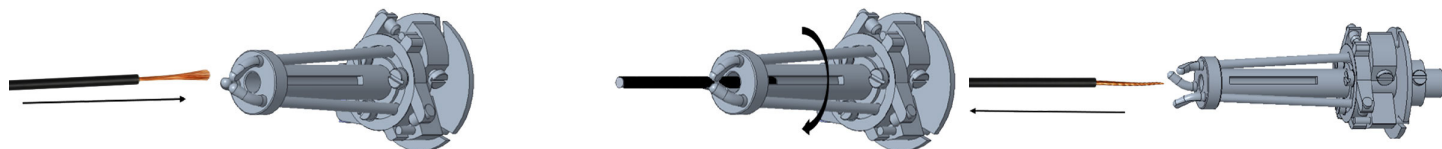
These DCFY wire strippers for round wires utilize centrifugal force to control three precisely counter-balanced tungsten carbide tipped blades to strip the insulation from magnet and enamel wires. The three blades close around the wire to be stripped and will remove most film insulations including varnish, enamel and glass.



Step 1	Step 2	Step 3
Straighten wire as much as possible. Insert wire into the stripping head	Insert wire to the desired depth and activate unit to engage the blades	Slowly remove the wire to reveal a clean, even strip of coating material

### DCFXT Wire Twister

These DCFXT wire twister utilizes a centrifugal force to control three precisely counter-balanced finger-style blades to twist and comb stranded wires. The three fingers close around the wire to be twisted.



Step 1	Step 2	Step 3
Insert stripped wire into the head	Insert wire(s) into the desired depth and activate to engage the fingers	Slowly remove the wire(s) to reveal twisted/combed material

# DCFX WIRE STRIPPERS AND TWISTER

## OPERATING INSTRUCTIONS

### SET-UP: ALL DCFX MODELS

Every model within the DCFX series is shipped with a corded handpiece (complete with a stripping or twisting head, nosecone, and clear guard installed), variable speed power control unit ('transformer') and a power cord.

The DCFX units are dual voltage capable (115V & 230V). All transformers are set to run on 230V at the factory. If using a 110/120V power supply, set the switch located on the back of the transformer to 115V. If a 220/240V power supply is utilized, the switch will already be set to 230V.

### **MODELS DCFX1, DCFX3, AND DCFX5**

To set the unit up for use, first determine if the strip length stop is to be used. The strip length stop is assembled into the head assembly of the handpiece in all 3 stripping models. To access it, unscrew the black nose cone (counter clockwise) from the handpiece and remove it, exposing the head assembly. The strip length stop is located in the center shaft of the head. To adjust the stop, loosen the screw holding it into the slot, slide the stop to the desired position, and retighten. For greater adjustability, two adjusting holes are provided. Remove the adjusting screw from the front hole and reinsert in the rear hole for shorter strip lengths. Once the stop has been adjusted, reinstall the nose cone.

The stripping head and blades are factory set and do not require adjustment.

**NOTE:** The strip length stop is not removable from the DCFX5 model. Contact technical sales if removal is needed.

### **MODELS DCFX1 AND DCFX3**

If longer strip lengths are desired, the strip length stop may be removed from the head assembly. To do this, the head must be removed from the handpiece assembly.

### **HEAD REMOVAL**

To remove the head assembly from the handpiece, first ensure that the handpiece is unplugged from the transformer, then remove the black nose cone from the handpiece by unscrewing it counterclockwise. This will expose the head assembly. Using the head

removal tool (not supplied, see Ordering Information on page 3), place the handpiece onto the tool, ensuring the tool's flat head bit is aligned with the armature screw at the bottom of the handpiece. Once the handpiece has been properly placed onto the head removal tool, secure the handpiece to the head removal tool using the Velcro strap. Turn the head clockwise (as viewed from the top of the head) until the head assembly is completely unscrewed from the handpiece.

**NOTE:** All DCFX heads have left-handed threads.

**NOTE:** For best results, apply pressure downwards on the handpiece while removing the head assembly.

With the head removed, the strip length stop can now be removed from the head. To do this, remove the screw securing the stop into the center shaft of the head. A gentle tap will cause the stop to fall out of the bottom of the head.

### **HEAD INSTALLATION**

To install the head assembly onto the handpiece, the head should be threaded onto the armature screw approximately 75% by hand. Plug the handpiece back into the transformer and cycle the handpiece with the transformer's speed control set at 70. Once an audible click sound is heard, the head is properly seated onto the handpiece assembly. Be careful not to strip the armature screw, as it is not hardened. Reinstall the black nose cone.

Install the clear blade guard by pushing it onto the nose cone, over the exposed blades. The unit is now ready for use.

**! NOTE:** Ensure that the voltage switch is set correctly (see SET-UP section above) before turning the unit on.

Plug into the appropriate electrical supply, and turn the power unit on.

# DCFX WIRE STRIPPERS AND TWISTER

## OPERATION

**! Refer to Safety Precautions (p. 6) BEFORE operating equipment**

- **Safety glasses must be worn when operating this equipment.**
- **Keep the power unit away from the work piece in order to avoid possible electrical shock.**
- **DO NOT hold the run button on the handpiece while powering on the transformer.**

## **MODELS DCFX1, DCFX3, AND DCFX5**

Refer to the diagrams on page 3.

All of these units are used to strip round film insulated wires of various gauges. First, set the transformer to its lowest speed setting. Then hold the handpiece in one hand and insert the wire to be stripped into the center of the three blades with the other hand. Insert the wire until it butts up against the strip length stop (if it is being used) or until the desired strip length has been inserted into the head.

Holding the wire firmly, press the switch on the handpiece to start the unit. The blades will rotate and close onto the wire by centrifugal force. Withdraw the wire with a steady motion, allowing the blades to perform the stripping operation until the stripped wire has been completely withdrawn.

If the strip achieved is not clean enough, then increase the speed of the stripper by use of the knob on the variable speed power unit until the desired results are achieved. When changing from one wire size to another, the only adjustment necessary is to the speed of the transformer.

## **MODEL DCFXT**

Refer to the diagrams on page 3.

The Model DCFXT is used to twist together the stripped strands of extruded stranded wires. To operate, set the transformer to its lowest speed setting. While holding the handpiece of the unit in one hand, insert the strands of the stripped wire to be twisted, into the center of the three twisting fingers. While holding the wire firmly, press the switch on the handpiece to start the unit. The twisting fingers will rotate and close onto the strands, twisting them together. Slowly

withdraw the wire. If the strands are not twisted tightly enough, increase the speed of the stripper by use of the knob on the variable speed power unit until the desired results are achieved.

The twisting head and fingers are factory set and do not require adjustment.

**NOTE:** There is no strip length stop supplied or needed with the DCFXT.

## OPTIONS

### **INTERCHANGEABLE HEADS**

All of the various DCFX heads are interchangeable on any of the handpieces. The twisting head and three styles of stripping heads with blades may be purchased separately. Therefore, one basic tool has a variety of stripping and twisting uses, eliminating the need to purchase many different tools to perform these functions.

Reference Specifications (p. 2) for handpiece configurations supplied with each model.

To replace or interchange any of the heads refer to the head removal and head installation procedures in the SET-UP section.

## MAINTENANCE

### **ALL UNITS**

Replace motor brushes on all units when worn. Replace the fuse in the power unit if blown. Remove the power cord from the rear of the power unit. Using a small screwdriver, pry open the fuse compartment portion of the IEC connector and slide it out of the connector. The blown fuse can then be removed and a new one installed. Reinstall the fuse holder into the connector, ensuring that the tab is located toward the power cord receptacle.

Should the new fuse blow, the unit should be returned to the factory for servicing.

### **STRIPPING MODELS DCFX1, DCFX3, DCFX5**

On all stripping models, keep the stripping head clean and free of debris. Periodically, remove the clear blade guard and black nose cone and use an air blast or vacuum to clean insulation debris out of the stripping head and motor. On the DCFX1, DCFX3, and DCFX5, replace the stripping head

# SAFETY PRECAUTIONS

**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 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.**

# DCFX WIRE STRIPPERS AND TWISTER

when blades are worn.

See Ordering Information on page 3 for replacement parts.

## **TROUBLESHOOTING:** (For Stripping Units)

See ordering information on page 3 for replacement parts.

**PROBLEM:** Unit will not strip wires.

### **SOLUTIONS:**

- 1) Ensure wire gauge being stripped is within unit's specifications.
- 2) Adjust speed to higher setting.
- 3) Check for dull or damaged blades and replace head if necessary with stripping head.
- 4) Check that all 3 blades meet at the same location when closed.
- 5) Check for debris in stripping head and motor.
- 6) Check to ensure operator is not removing wire too quickly.

**PROBLEM:** Unit cuts wire.

### **SOLUTIONS:**

- 1) Adjust speed of the power unit to lower setting.
- 2) Ensure wire gauge being stripped is within unit's specifications.
- 3) Check operator technique to ensure that wire is being withdrawn quickly enough.
- 4) Check that all 3 blades meet at the same location when closed.
- 5) Check that wire is free of kinks and bends.

**PROBLEM:** Blades grab wire.

### **SOLUTIONS:**

- 1) Adjust speed of the power unit to a lower setting.
- 2) Check for debris in stripping head and motor.
- 3) Replace head.
- 4) Check operator technique to insure smooth, even withdrawal of conductor.

**PROBLEM:** Too much conductor being removed.

### **SOLUTIONS:**

- 1) Adjust speed of the power unit to lower setting.
- 2) Check operator technique to ensure wire is being withdrawn quickly enough.

- 3) Check that all 3 blades meet at the same location when closed. (For all models)

**PROBLEM:** Motor does not run.

### **SOLUTIONS:**

- 1) Check that all connections are made properly. (Handpiece is plugged into transformer, and transformer is plugged into proper power supply.)
- 2) Check fuse in power unit and replace if blown.
- 3) Check motor brushes.
- 4) Check motor switch.

**PROBLEM:** Motor runs slowly.

### **SOLUTIONS:**

- 1) Check that voltage setting on power unit is properly set.
- 2) Check for debris in head, and clean.
- 3) Check motor for free rotation. Replace worn bearings.

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