



Operating Manual

Please Read Before Operating Unit



DCF Series Wire Strippers and Twisters

Service and All Spare Parts Available

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Always Moving Forward®



DCF SERIES STRIPPERS FOR MAGNET & ENAMEL WIRE^{p2}

SPECIFICATIONS FOR STRIPPERS

Wire size:

DCF1	35 - 15 AWG (0.14 - 1.45mmø)
DCF2/3	32 - 12 AWG (0.20 - 2.06mmø)
DCF4	29 - 9 AWG (0.28 - 2.90mmø)
DCFR.....	up to max. 3/4" square (19mm)

Strip length:

Without strip length stop	0 to 2-1/2" (64mm)
With strip length stop	3/32" - 1-9/16" (2.38 - 39.69mm)
With motor armature drilled	Infinite [Maximum wire size 13AWG (1.83mmø)]
DCFR.....	Infinite
Decibel Rating	72 dB(A)

Handpiece with Head and Guard:

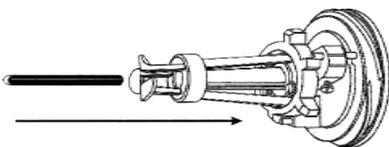
Size.....	7" long x 2-3/16" dia. (178mm x 56mmø)
Weight	17oz. (482g)
Power	Low Voltage DC

Bench Top Power Supply:

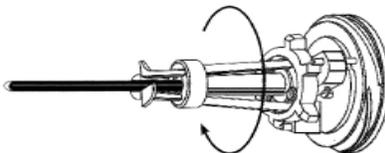
Size.....	6" x 4-1/2" x 4-1/14" (152mm x 114mm x 108mm)
Weight	3.5lbs. 5oz. (1.5Kg)
Power	Output variable low voltage DC, Input via fused I.E.C. connector, multi-voltage 120/220/240V 50/60Hz

OPERATION

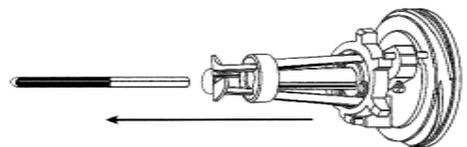
1 Place wire in the stripping head.



2 Start Unit, blades close around wire.



3 Withdraw to strip wire.



DCF1, DCF2/3 and DCF4 Wire Strippers for round magnet and enamel wires

These DCF 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.



SPECIFICATIONS FOR TWISTERS

Wire size:

DCFH... Two wires	20 AWG (0.81mmø) or equivalent
DCFT	Up to 12 AWG (2.06mmø) or equivalent

Twist length:

DCFH.....	Infinite
DCFT	Up to 2-1/2" (64mm) dependent on wire construction

Hook length:

DCFH.....	3/8" x 1/4" (10mm x 6.35mm)
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Ordering Information

WIRE STRIPPERS

AR4501 (DCF1).....	stripper, power unit and bench holder
AR4301 (DCF2/3).....	stripper, power unit and bench holder
AR4401 (DCF4).....	stripper, power unit and bench holder
AR4500 (DCF1).....	complete unit with drilled armature
AR4300 (DCF2/3).....	complete unit with drilled armature
AR4400 (DCF4).....	complete unit with drilled armature
AR4801 (DCFR).....	stripper, power unit and bench holder

WIRE TWISTERS

AR4601 (DCFT).....	twister for end twisting of stranded wire
AR4701 (DCFH).....	twister for making twisted pairs

ACCESSORIES

IR8204.....	Blade setting Fixture for DCF1 Stripping Blades
IR8259.....	Blade setting Fixture for DCF2/3 Stripping Blades
IR8260.....	Blade setting Fixture for DCF4 Stripping Blades

REPLACEMENT PARTS

IR4440.....	Set of Three Blades for DCF1
IR4450.....	Set of Three Blades for DCF2/3
IR4460.....	Set of Three Blades for DCF4
IR4410.....	Head with Blades for DCF1
IR4420.....	Head with Blades for DCF2/3
IR4430.....	Head with Blades for DCF4
IR4470.....	Rasp Head for Flat and Rectangular Wires
IR4480.....	Twisting Hook Head
IR4490.....	Twisting Head for Stranded Wires
IR0915.....	Footswitch Kit to use handpiece as bench unit
IR7000.....	Adjustable speed power unit and bench holder. Multi-voltage 120/220/240V 50/60Hz
IR4870.....	Replacement Hand Piece
IR0984.....	Replacement Hand Piece Drilled
PR0578.....	Fuse
CL0024.....	Blade Guard
CL0013.....	Motor Brushes

DCF SERIES WIRE STRIPPERS AND TWISTERS

OPERATING INSTRUCTIONS

SET-UP:

Regardless of which DCF Model has been purchased, all units will contain a hand piece, variable speed power unit, power cord, Plexiglas blade guard, and a head removal tool. All power controls are shipped at 230V from the factory.

The DCF is a dual voltage unit. If using the unit on a 120V 60Hz power unit, set the switch to 120V. If using it on a 220/230/240V 50Hz power unit, set it to 230V. If using 220/230/240V 50Hz, it will also be necessary to cut the plug off the end of the power cord and wire on an appropriate plug. The color coding is brown = live, blue=neutral, and green =ground.

To set the unit up for use, first determine if the strip length stop is to be used. The stop may only be utilized on the DCF1, DCF2/3, DCF4, and DCFT Models. The strip length stop is assembled into the head assembly of the hand piece. To access it, unscrew the black nose cone from the hand piece 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.

If longer strip lengths are desired, the strip length stop may be completely removed from the head assembly. To do this, first remove the black nose cone from the hand piece by untwisting it. This will expose the head assembly. Locate the armature screw at the bottom of the hand piece. Insert a screwdriver on the screw, and hold it in place. Insert head removal tool into hole at top of head and turn the tool clockwise (as viewed from the top of the head) until the head assembly is completely unscrewed from the hand piece.

NOTE: Be careful to hold the armature screw securely in place while unscrewing the head assembly, and be careful not to strip the screw as it is not hardened.

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. Reinstall the head onto the hand piece by reversing the removal procedure. Be sure to tighten the head assembly securely onto the hand piece. Reinstall the black nose cone.

Install the Plexiglas blade guard by pushing it onto the head, over the exposed blades, and seat it on the nose cone. Plug the hand piece cord into the jack on the right side of the variable speed transformer. Plug the power cord connector into the back of the power unit. Note the switch on the rear of the power unit.

The unit is now ready for use. Plug into the appropriate electrical supply, and turn the power unit on.

OPERATION:

! CAUTION:

- **Safety glasses should 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 hand unit while turning the power supply on.**

MODELS DCF1, 2/3, AND 4:

All of these units are used to strip round film insulated wires of various gauges. First, set the variable speed power unit to its lowest setting. Then hold the hand piece 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 hand piece 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

DCF SERIES WIRE STRIPPERS AND TWISTERS

results are achieved. When changing from one wire size to another, the only adjustment necessary is to the speed of the power unit.

The stripping heads and blades are factory set and do not need adjusting under normal circumstances, unless changing blades. See later for instructions to change blades and adjust heads.

MODEL DCFR:

The Model DCFR is used for stripping film insulation from square and rectangular wires. To operate, set the variable speed power unit to its lowest setting. While holding the hand piece in one hand, and the wire to be stripped in the other, press the switch on the hand piece to start the unit. The fluted carbide rasp will rotate. Move the rasp laterally along the wire surface to be stripped, stripping one side of the wire at a time. If a more aggressive stripping action is required, increase the speed of the stripper by use of the knob on the variable speed power unit. The carbide rasp cannot be re-sharpened and must be replaced when dull.

MODEL DCFT:

The Model DCFT is used to twist together the stripped strands of stranded wires. To operate, set the variable speed power unit to its lowest setting. While holding the hand piece of the unit in one hand, insert the stripped strands of the wire to be twisted, into the center of the three twisting fingers. While holding the wire firmly, press the switch on the hand piece 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. Should the fingers ever need to be replaced, the unit should be returned to the factory for servicing.

MODEL DCFH:

The Model DCFH is used for making twisted pairs from a loop of wire within the specified gauge range. To operate, first set the variable speed transformer to the lowest setting. Take a length of wire and fold it in half to form a loop. Place the loop in the hook of the DCFH. While holding the wire firmly, press the

switch on the hand piece to start the unit. The hook will rotate, thus twisting the wire. Stop the unit after the wire has been completely twisted to the desired tightness and remove the loop from the hook. The wire may now be cut at the loop, thus creating a twisted pair.

Use the variable speed power unit to adjust the speed at which the hook turns as appropriate for the application.

The twisting hook should have a long life. However, if it should break, a replacement hook head can be purchased.

OPTIONS:

INTERCHANGEABLE HEADS:

All of the various DCF heads are interchangeable on any of the hand pieces. The hook head, rasp head, twisting head, and three styles of stripping heads with blades may be purchased separately. In this manner, one basic tool has a multiple of stripping and twisting uses, eliminating the need to purchase many different tools to perform these functions.

To replace or interchange any of the heads requires the same procedure. First, remove the Plexiglas blade guard and unscrew the black plastic nose cone from the hand piece, exposing the head. Insert a flat blade screwdriver into the slotted screw at the bottom of the hand piece. While holding the screw firmly in place, turn the head **CLOCKWISE** as viewed from the top of the head (this is a left hand thread). Continue turning until the head is completely unscrewed from the hand piece. To install a new or different head, reverse the procedure. Be careful not to strip the armature screw, as it is not hardened.

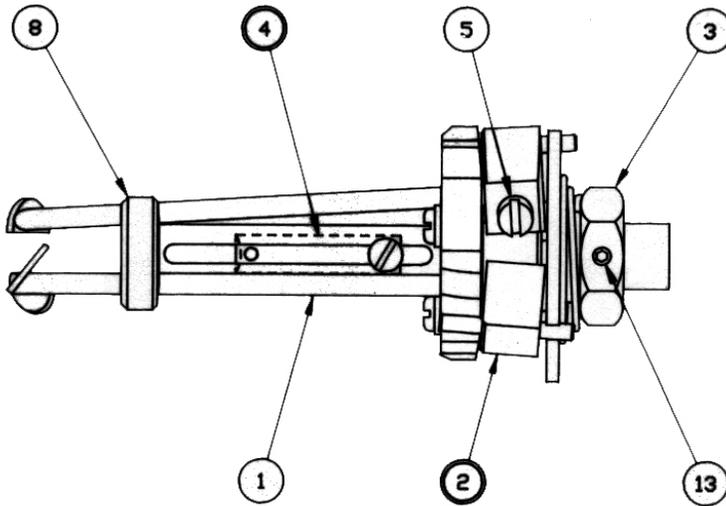
BLADE SETTING FIXTURE:

An optional blade setting fixture is available for the Models DCF1, DCF2/3, and DCF4 to aid in readjusting the stripping head when replacing worn blades. Operating Instructions for using the blade setting fixture are included with each fixture.

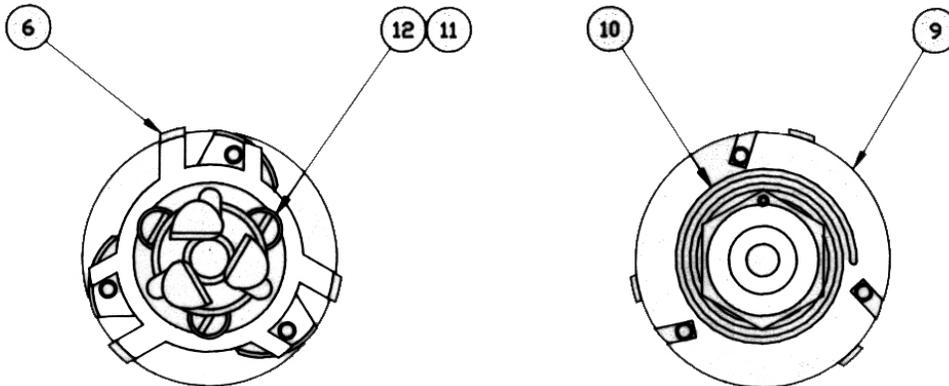
DCF SERIES WIRE STRIPPERS AND TWISTERS

DRAWING #1

DCF Head Assembly Parts Diagram (For Models DCF1, 2/3, 4, and DCFT)



1. Blades or twisting fingers
2. Blade weight assy. w/ pin
3. Retainer
4. Length Stop for heads with drilled slot
5. Screw
6. Weight Stop
8. Shaft
9. Control Disc
10. Spring
11. Washer
12. Screw
13. Screw



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 DCF1, DCF2/3, DCF4, AND DCFR:

On all stripping models, keep the stripping head clean and free of debris. Periodically, remove the blade guard and nose cone and use an air blast or vacuum to clean insulation debris out of the stripping head and motor. On the DCFR, replace the rasp head when worn. On the DCF1, DCF2/3, and DCF4, replace the blades when worn. When replacing blades, the optional blade setting fixture may be purchased to help simplify blade replacement (see "Accessories"). Blades may be replaced without the fixture, using the following procedure: *Remove the Plexiglas blade guard and black nose cone from the hand piece, exposing the head assembly. It is recommended that all three blades be replaced whenever replacement is needed. Blades should be changed one at a time to preserve proper head adjustment. DO NOT remove all three blades from the head at once!*

DCF SERIES WIRE STRIPPERS AND TWISTERS

Refer to the head assembly drawing. Starting with one blade, loosen the blade weight screw (5) using a screwdriver. While holding the weight in position, twist and pull the blade up and out of the head assembly. The blade may stick in the weight if a burr has been raised by the blade weight screw. Install the new blade, but leave the blade weight screw loose. Rotate the control disc (9) until the remaining two blades meet. While holding the blades in this position, align the new blade so the cutting edge meets at the point where the two remaining blades are touching. A slight up and down motion may be required to properly align the blade. While holding the blade in this position, tighten the blade weight screw, locking the blade in position. Repeat the procedure on the other two blades until all three blades have been replaced.

TROUBLESHOOTING: (For Stripping Units)

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 if necessary.
- 4) Check that 3 stripping blades meet at the same location when closed.
- 5) Check for debris in stripping head and motor.
- 6) Check to insure 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 stripping 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 lower setting.
- 2) Check for debris in stripping head and motor.
- 3) Check for dull or damaged blades and replace if necessary.
- 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 blade adjustment. (For All Units)

PROBLEM: Motor does not run.

SOLUTIONS:

- 1) Check that connections are made properly, hand piece plugged into power unit and power unit 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.

IMPORTANT: NO LIABILITY WILL BE INCURRED BY THE ERASER COMPANY 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 ERASER, OR WHICH HAS BEEN USED IN A MANNER OR FOR A PURPOSE FOR WHICH THE PRODUCT WAS NOT DESIGNED.

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