

CYCLONE DUST COLLECTOR *Ray Foster*
Model CDC2

Operating and Maintenance Instructions



**Sales, Service, and Technical Assistance
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Ray Foster

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The *Ray Foster Cyclone Dust Collector* was engineered for optimum suction at a low noise level, easy and economical filter changes, and minimal maintenance.

It is designed for various grinding tasks in the dental laboratory, and is intended to be used in conjunction with bench lathes, high speed alloy grinders, micro motors, hand pieces, and other grinding tools.

IMPORTANT SAFETY INSTRUCTIONS

To reduce the risk of fire, electrical shock, injury to persons or damage when using your Cyclone Dust Collector, follow basic safety precautions including the following:

- ✓ **Read** this manual before using your dust collector.
- ✓ **Ground the dust collector.** This unit is equipped with an approved three conductor cord and plug. It must be plugged into a three hole grounded receptacle.
- ✓ **Disconnect** the power cord before servicing or cleaning unit.
- ✓ **Use with dry materials only.** Do not use dust collector with any wet or moist material, such as gypsum models that have not thoroughly dried. Moisture will cause rapid wear of the motor, and the possibility of electrical short or electrical shock.
- ✓ **Do not** operate unit without primary and secondary filters in place.
- ✓ **Do not** operate unit with a damaged or punctured filter bag.
- ✓ **Do not** block the discharge vents. The dust collector discharges filtered air through vents on the right side of the unit. Allow at least four inches of clearance on this side for air discharge.

INSTALLATION

1. Choose a suitable location for the unit. It is compact and portable and fits easily under a counter or bench. If you choose to place it inside a cabinet, be sure to provide adequate ventilation for the exhaust. The unit discharges air out the right side, DO NOT BLOCK this discharge in any way.
2. One 6 foot long by 2.5 inch diameter vacuum hose is supplied. Longer lengths are available if required. Also available is a 1.5 inch diameter vacuum hose for applications that require the smaller diameter hose. Insert one end of the hose into the open port on top of the dust collector, and the other end connects to the work station or dust collection devise.
3. Plug the unit into any standard GROUNDED electrical outlet. DO NOT circumvent the electrical grounding by removing the third prong. The dust collector is turned on (international symbol "I") and off (international symbol "O") by a rocker switch located on the front panel. The unit can also be controlled by an optional foot switch (P/N X131) or remote control box (P/N X145).

MAINTENANCE

1. **Disposable Paper Filter Bag** (item X150, pkg/10)

The primary filter is a disposable paper filter bag. The unit comes equipped with one paper filter installed, and four (4) replacement filters. To install a new filter:

- A. Unlatch and remove the lid of the dust collector.
- B. Remove the old paper filter. The filter is held in place with an elastic band sewn onto the top of the bag.
- C. Insert the bottom of the new dust bag into the cloth bag, and expand the elastic band around and over the top of the cloth bag. Loosely open the paper bag to conform to the inside of the cloth bag.
- D. Replace both filter bags into the filter compartment of the dust collector. Replace and latch the lid.

IMPORTANT: *The disposable bag should be changed when there is a noticeable reduction in suction power. **Never** empty and reuse the paper bag.*

2. **Cloth Dust Bag** (item X112).

The cloth dust bag is a semi-permanent filter, and requires removal and shaking periodically to prevent its pores from becoming clogged resulting in reduced suction.

CAUTION: Never operate the dust collector with any filter missing or damaged, as this could cause rapid wear and damage to the motor.

3. **Motor Brushes** (Item X175 for *Ametek Gen2000* motor, Set of 2).

The average life of the motor brushes is 500 hrs. The motor brushes are easily replaceable and accessible by removing the bottom of the unit. It is not necessary to remove the motor from the dust collector.

Changing the brushes is routine maintenance and can be accomplished by following these steps:

- A. Unplug the power cord from the dust collector, and remove the lid and filters.

- B. Turn the dust collector upside down or on its side and remove the bottom plate. Double check to make sure that the unit is UNPLUGGED FROM THE POWER SOURCE. The motor is now visible and easily accessible. It is not necessary to remove the motor.
 - C. The black plastic fan cover must first be removed from the motor. It is snapped onto the motor and secured at four points on the motor bracket. The retention points are on each side of each brush. With your fingers spread the plastic cover where the brass brush housing protrudes out from the motor and lift the cover off.
 - D. The motor brush assemblies are now accessible. Loosen the two Phillips head screws that secure each brush assembly approximately two to three turns. It is not necessary to remove the screws. Lift the brush assemblies slightly and pull them out. Insert the new brushes, making sure the tab on the brass housing mates with the slot on the bracket. Tighten the four Phillips head screws.
 - E. Snap on the plastic fan cover and replace the bottom plate.
4. **Fuse** (item X166) The fuse is located on the back panel in the connector that the power cord is plugged into. The bottom part of this connector incorporates the fuse block. To access the fuse disconnect the power cord and pull the “drawer” (fuse block) straight out. You can use a small screwdriver or similar placed behind the tab on the top-middle of the “drawer” to pull it out. The exposed fuse in the back is the active fuse. The fuse in the square tunnel is a spare fuse.

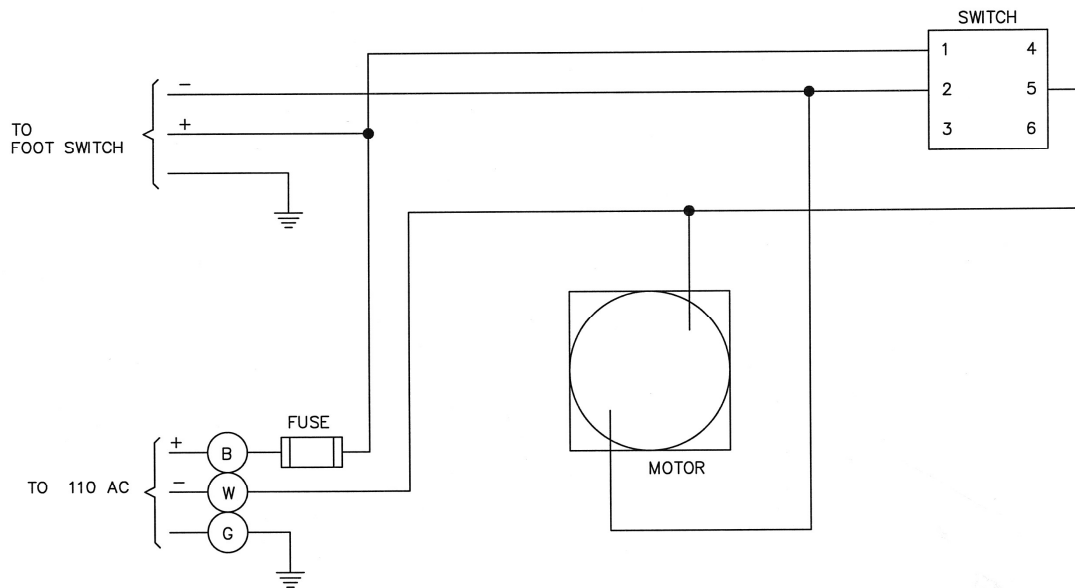
Replacement fuses are available from Radio Shack. Their item number is 270-1068.

ELECTRIC WIRING DIAGRAM

Your Foster Cyclone Dust Collector has been wired in accordance with prevailing engineering and safety codes as of the date of manufacture. The wiring diagram appearing below is a typical wiring diagram.

Should it become necessary to make repairs or replace any of the parts in the electrical system, it is recommended that this diagram be consulted and observed in reconnection of electrical components, and that color coding of existing wires be preserved.

Use only Foster approved replacement parts, or their equivalent; do not circumvent established electrical safeguards. **Disconnect** unit from electrical outlet **before** attempting any repairs.



Vacuum - Schematic

REPLACEMENT PARTS AND HOSES

<u>Item</u>	<u>Description</u>
X150	Disposable Paper Dust Bags, Pkg 10
X112	Cloth Dust Bag
X125	2 1/2" ID X 6 Ft Hose with Hose Ends
X158	1 1/2" ID X 6 Ft Hose with Hose Ends
X151	Hose End Adapter for 3" ID Hose
X175	Motor Brushes for <i>Ametek Gen2000</i> motor
X155	Replacement Motor for Model CDC2
X166	Fuse

ACCESSORIES FOR DUST COLLECTOR

<u>Item</u>	<u>Description</u>
X131	Foot Switch
X145	Variable Speed/On/Off Remote Control
X148	Air Scoop (Fish Mouth)
X152	Mobil Cart
X210LS.....	Splash Hood W/Flange, Light, Shield
X168.....	Power Outlet Adapter for Alloy Grinder

Warranty

Ray Foster Dental Equipment warrants Foster Cyclone Dust Collectors to be free of defects in material and workmanship for a period of one year from the date of purchase by the original user.

We do **not** guaranty that the motor brushes and filter bags will last one year, as these are items that wear and must be replaced when needed.

To obtain warranty service, the dust collector or defective part, together with proof of date of purchase, must be delivered freight prepaid to the factory in Huntington Beach, California. At its option, Ray Foster Dental Equipment Company will replace or repair the defect free of charge, providing the dust collector has not been subjected to abuse, neglect, damage, or used in a capacity other than which was intended.

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