



MODEL ROUTER

Model MR20

Operating and Maintenance Instructions



**Sales, Service, and Technical Assistance
Call Toll Free 800 / 654-4519**



**Ray Foster Dental Equipment
5421 Commercial Drive
Huntington Beach, CA 92649
714 / 897-7795, Fax 714 / 898-6013**

The *Ray Foster Model Router* was designed to quickly and efficiency trim the palate area of gypsum and diestone models. A dust collector is required for the proper operation of this unit.

IMPORTANT SAFETY INSTRUCTIONS

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

- ✓ **Read** this manual before using your model router. Save it for reference later.
- ✓ **Always** use the safety shield supplied with this unit.
- ✓ **Wear additional eye protection.** Safety glasses or a face shield should be worn whenever operating any power tool to prevent serious eye or face injuries. **Do not** wear loose clothing or jewelry, and **tie back long hair.**
- ✓ **Use proper grounding procedures.** 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 performing any maintenance or repairs turn the unit off and unplug the power cord to prevent electrical shock or unintentional starting.
- ✓ **Do not exceed maximum RPM.** Use ONLY sanding sleeves, cutting tools, and burs that are rated above 3,000 RPM. Insufficiently rated tools may break apart, bend or become loose causing serious personal injury.
- ✓ **Never use** or continue to use any cutting or sanding tool which appears to be damaged, loose, vibrating, or out of balance.
- ✓ **Never** use excessive pressure when trimming. This makes to operator's hands more susceptible to accidentally slipping and coming in contact with the cutting tool and causing injury. Let the speed of the tool do the work by applying gentle controlled pressure.

OPERATING INSTRUCTIONS

The *Ray Foster Model Router* must be connected to a dust collector for proper operation. There is a 1-1/2" diameter port located on the back of the table top for direct connection to a 1-1/2 I.D. hose. There is a power "out" receptacle on the rear of the unit that provides automatic "on-off" of a dust collector. An X168 Plug Adaptor is required to adapt the IEC plug on the Model Router to a standard NEMA plug. The *Ray Foster Cyclone Dust Collector* is perfect for operation with the Model Router.

INSTALLING AND CHANGING BURS

Always unplug the machine before changing burs. In addition, the unit is equipped with a safety switch that disengages power when the table top is removed. You may use any cutting tool, burr, sanding drum that has a 1/4" shank and is **rated above 3,000 RPM**. The router is equipped with an easy to change collet system.

1. To access the collet, remove the stainless steel table top by removing the two flat head Phillips screws that secure the top to the body.
2. Insert the bur shank as far as possible through the collet draw nut and into the collet.
3. Insert the long end of the 1/8" Allen wrench into the cross hole in the motor shaft to prevent the shaft from turning. Use the 1/2" open end wrench to tighten the collet nut, turning *clockwise* to tighten. Be sure that the bur shank is secure in the collet.
4. Remove the Allen wrench from the motor shaft and replace the table top.

ALWAYS check to make sure the bur is secure into the motor shaft before turning the machine on.

SANDING SLEEVES

Your Model Router comes equipped with medium coarse coated abrasive sanding sleeve and a quick change sanding sleeve drum. It is not necessary to remove the table top to change the sleeves. To remove the worn sanding sleeve, simply loosen (turn clockwise) the tightening nut on the top of the drum using the 1/2" wrench supplied. To hold the shaft from turning, insert the 1/8" Allen wrench into the top end of the shaft.

You may also extend the life of the sanding sleeves by periodically cleaning them with the "Nu-Life" abrasive cleaning bar supplied with the unit. Hold the side of the bar against the left side of the sanding sleeve while it is turning.

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.

REPLACEMENT PARTS

<u>Item</u>	<u>Description</u>
A451	Sanding Sleeve Drum Mandrel 1" x 3/4"
A460	Sanding Sleeves Pkg/10 60 Grit
A506	Collet
A507	Collet Draw Nut
A509	Safety Shield
X166	Fuse
X168	Power Outlet Adaptor (for direct power connection to dust collector)

Warranty

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

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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