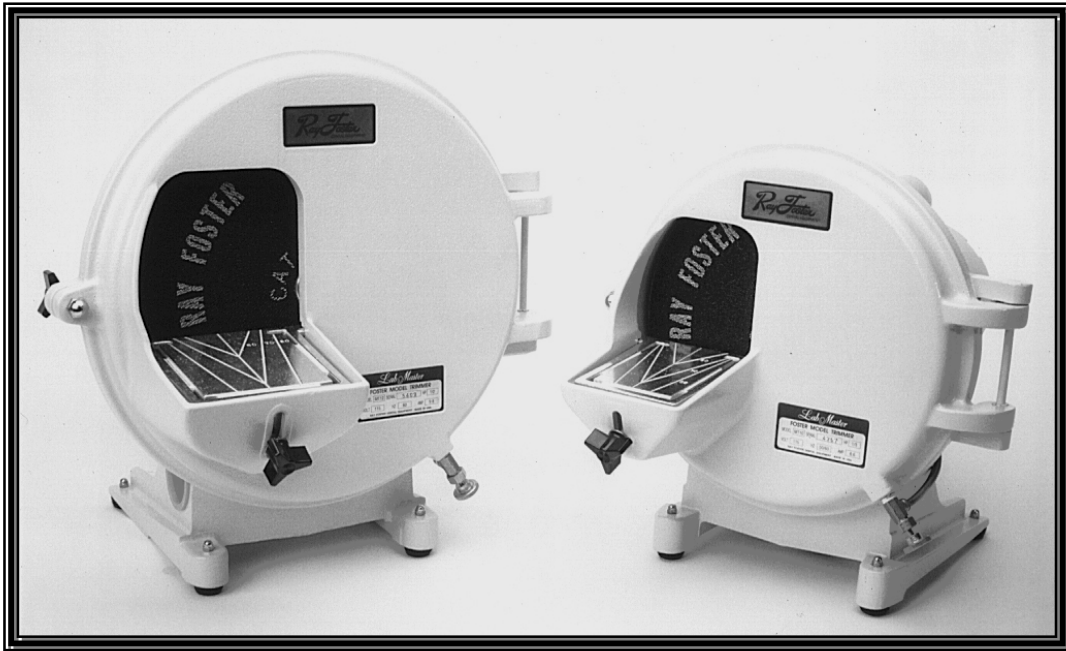


# MODEL TRIMMER

*Ray Foster*

MODEL MT10, MT12, and MT15

## Operating and Maintenance Instructions



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

*Ray Foster*

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

# INTRODUCTION

Thank you for purchasing a quality **Foster** product. Your Foster Model Trimmer is designed to give years of trouble free service with minimal care and maintenance. Before putting your new machine to work, please become familiar with this operator's manual to obtain maximum performance and satisfaction.

## IMPORTANT SAFETY INSTRUCTIONS

**WARNING!** When using electrical tools, basic safety precautions should always be followed to reduce the risk of fire, electrical shock, and personal injury including the following:

- ✓ **Read and Save** this manual for future reference.



- ✓ **Use Proper Grounding.** Your Foster Model Trimmer is equipped with a three-conductor grounded cord and plug. It should be plugged into a three hole grounded receptacle of the same voltage as inscribed on the machine.

- ✓ **Power Cord.** Power supply, plug configuration, and electrical codes vary from country to country. The cord supplied with your Foster Alloy Grinder is approved for use in the country of destination. Use only this power cord or one that is approved for use in your country.

- ✓ **Plug into a Branch Circuit with 16A Circuit Breaker.** To reduce the risk of fire and to protect the units electrical system plug into a branch circuit with a 16 amp circuit breaker.



- ✓ **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.



- ✓ **Wear Additional Eye Protection.** Protect your eyes from model trimming debris and the possibility of a fractured wheel by utilizing approved safety glasses or goggles when operating the Foster Model Trimmer.



- ✓ **Wear Respirator Dust Mask.** To protect against the inhalation of dust and fumes a dust mask should be worn while grinding.

- ✓ **Keep Your Fingers Away From the Grinding Wheel.** Use caution when operating the model trimmer. If the abrasive wheel appears dull, don't compensate by applying more pressure, change the wheel.

- ✓ **Always Keep the Door Securely Closed .** Be certain that the door is closed and secured with the door secure knob before turning the machine on. NEVER turn the motor on with the door open.

- ✓ **Wear Proper Clothing.** Do not wear loose clothing or jewelry, which may get caught in rotating parts. Tie back long hair.
- ✓ **Maintain the Unit.** Inspect periodically for damaged or worn parts. Follow the instructions for maintenance. Don't use if the power cord, motor, switch, or other parts are in poor condition. Don't use if the unit has been dropped or damaged. Have a qualified service person inspect and replace parts when necessary.
- ✓ **For Laboratory Use Only.** The Foster Model Trimmer is intended for use by trained professional laboratory personnel only.

## INSTALLATION

Place the model trimmer in a suitable counter top location next to a sink and near a water source.

Water is supplied to your Foster model trimmer through a flexible polyethylene hose, which is fitted with a 1/4" male pipefitting. If the available water source is other than a 1/4" female pipe fitting, an adapter must be obtained to complete the installation. A local plumbing supply will usually have the required adapter.

NOTE: It is recommended that you do NOT use copper tubing to connect the model trimmer to the water supply. The problem with copper tubing is that it is not flexible. This nullifies the feature of the hinged door because the hose must flex when opening the door.

Water is discharge from the model trimmer through a 24" x 1" ID flexible hose. Be sure that the hose slopes downward to the drain allowing gravity to drain the model trimmer.

Longer lengths of both water supply and drain hose are available from Ray Foster Dental Equipment if needed.

## PREVENTIVE MAINTENANCE

### FLUSH THE MODEL TRIMMER DAILY

Your Foster model trimmer is a workhorse in the dental laboratory. It requires daily flushing and cleaning to prevent gypsum buildup and clogging. At the end of each use allow the motor to remain on and open the water adjustment to maximum for about 20 seconds. Turn the water off and allow the motor to run for an additional 10 seconds. Wipe the exterior of the model trimmer off at the end of each workday.

## **ELECTRIC MOTOR**

The motor installed on Foster model trimmers is equipped with permanently lubricated, sealed ball bearings. No lubrication or maintenance is required.

## **DOOR SECURE**

When closing and securing the door, do NOT tighten the door secure knob. It is only necessary for the door to "touch" the base casting for a leak free fit. Over tightening may cause leakage.

## **USE PLENTY OF WATER**

The use of an adequate amount of water while trimming will keep the wheel clean and cutting. An inadequate volume of water will result in a clogged unusable wheel.

## **CHECK THE WATER SPRAY TUBE**

It's a good idea to occasionally check the water spray tube to be sure all holes are open. A straighten paper clip is useful in opening plugged holes.

## **WATER VALVE**

The brass water valve located on the door of the model trimmer is intended to be used as a flow control only, and not intended to be used as a water shut-off valve.

## **MODEL AND SERIAL NUMBER**

When ordering parts or requesting service always give the machine model number and serial number which are inscribed on the identification plate located on the front of the Lab Master Model Trimmer.

# **EXCESSIVE VIBRATION**

**Excess vibration from your model trimmer is a result of one or both of the following:**

1. An imbalance in the aluminum back plate as a result of accumulation of plaster and stone on the back.
2. An out-of-balance abrasive wheel due to stone build-up and/or wear, or an improperly balanced or non-balanced wheel. NOTE: Abrasive wheels purchase from us are precision balanced for smooth running. This is done by removing a portion of the heavy edge. As a result of the balancing process the wheel may be out-of-round, but is in balance.

**To determine and correct an imbalance follow this procedure:**

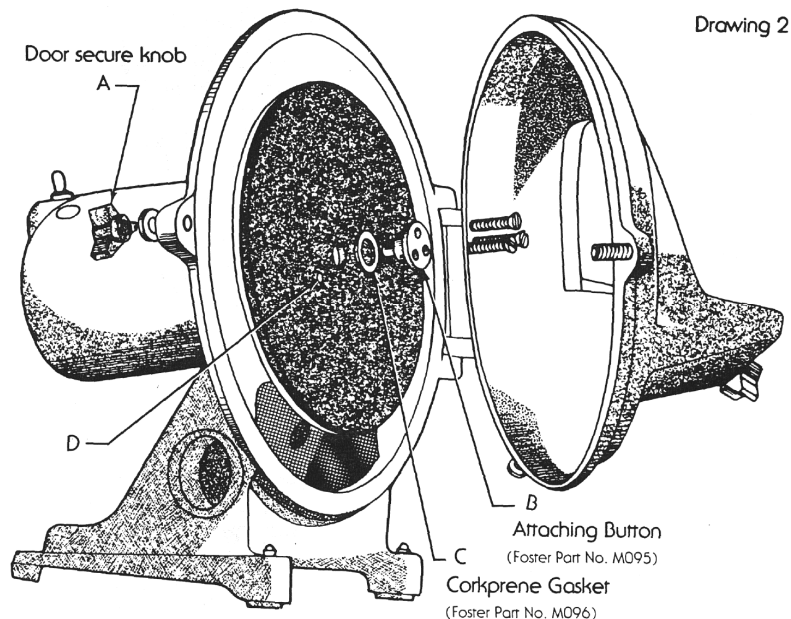
1. Remove the abrasive wheel from the model trimmer, close and secure the door, and turn the model trimmer on with the wheel removed. If the vibration has ceased, the problem lies with the grinding wheel, and a replacement is needed. NOTE: Sometimes the center mounting devise of the wheel (P/N M095 - Lock Button) is worn and does not center the wheel properly. A wheel that is mounted off center will also cause vibration. To check the Lock Button, remove it together with the wheel, and check it's fit in the center hole of the

wheel. It should slip into the center hole with no play. If it is not a snug fit, it should be replaced.

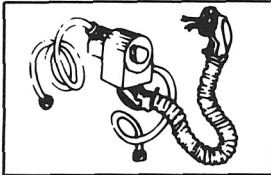
2. If the vibration is still present with the wheel removed, the problem lies with the aluminum back plate (P/N M222 for MT10, P/N M221 for MT12 and MT15). The backing plate must be removed and cleaned of all plaster, or replaced. To remove the aluminum back plate a Back Plate Removal Tool (item M816) is needed. Please refer to the "Accessories" section of this manual.

## INSTALLATION OF REPLACEMENT WHEELS

1. Unplug the model trimmer from the electrical power source, remove the door secure knob (A), and swing the door open wide.
2. Loosen the three screws and remove P/N M095 Lock Button (B). The old wheel may now be removed from the trimmer. Remove the P/N M096 Cork Gasket (C) from the backside of the attach button, and replace it with the new gasket included with all Foster replacement wheels. If only reversing the existing wheel or using a wheel from a source other than Ray Foster, make sure that the existing cork gasket is in good condition, if not, a new one is needed. This is essential in preventing slippage of the abrasive wheel.
3. Install the new replacement wheel flush with the aluminum back plate, aligning the center of the wheel with the arbor hole of the back plate, and aligning the drive pin hole (D) of the wheel with the drive pin of the back plate.
4. Replace the lock button with the three screws. Tighten the three screw evenly, in rotation, and firmly enough to pinch the cork gasket. Close the door of the model trimmer, and secure it with the Door Secure Knob (A). Your Foster model trimmer is now ready to operate. **CAUTION: NEVER OPERATE OR TURN ON THE MODEL TRIMMER WITH THE DOOR OPEN.**

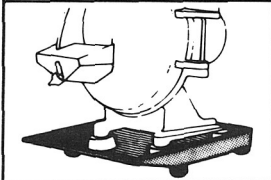


# ACCESSORIES FOR FOSTER MODEL TRIMMERS



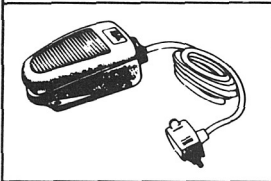
## **Automatic Solenoid Water Valve – Cat. No. M008**

Turns the water on and off automatically and simultaneously with the motor. A great convenience item. Comes complete with illustrated instructions for easy installation.



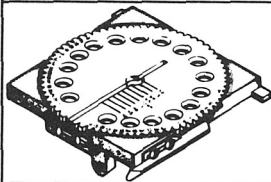
## **Sediment Tray – Cat. No. M006**

Helps keep the counter free of splash and drippings. Handy tray in front for models. Made of sturdy cast aluminum and powder coated to match your Foster model trimmer.



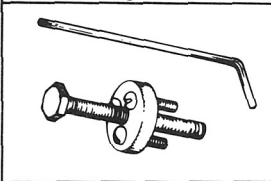
## **Foot Switch – Cat. No. M802**

Maintained operation: Push-on / push-off, rated at 10 amps.



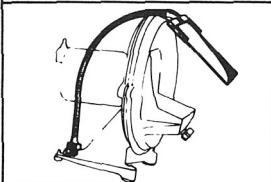
## **Orthodontic Work Table Complete – Cat. No. O100**

Convert your 12" Foster Model Trimmer to an Orthodontic Model Trimmer capable of trimming accurate and attractive study models.



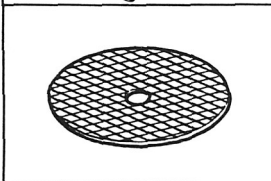
## **Back Plate Removal Tool – Cat. No. M816**

If the Aluminum Back Plate (P/N M221 / M222) must be removed for imbalance corrections, repairs, etc., a Back Plate Removal Tool is essential. Simple illustrated instructions included.



## **Splash Shield – Cat. No. M005**

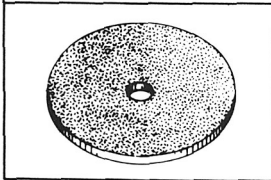
Protect your face and clothing from splatter with an easily installed, fully adjustable splash shield.



## **Diamond Abrasive Wheel**

**Cat. No. D912** – 12" Diameter, Coarse

**Cat. No. D910** – 10" Diameter, Coarse



## **Coated Abrasive Adhesive Discs**

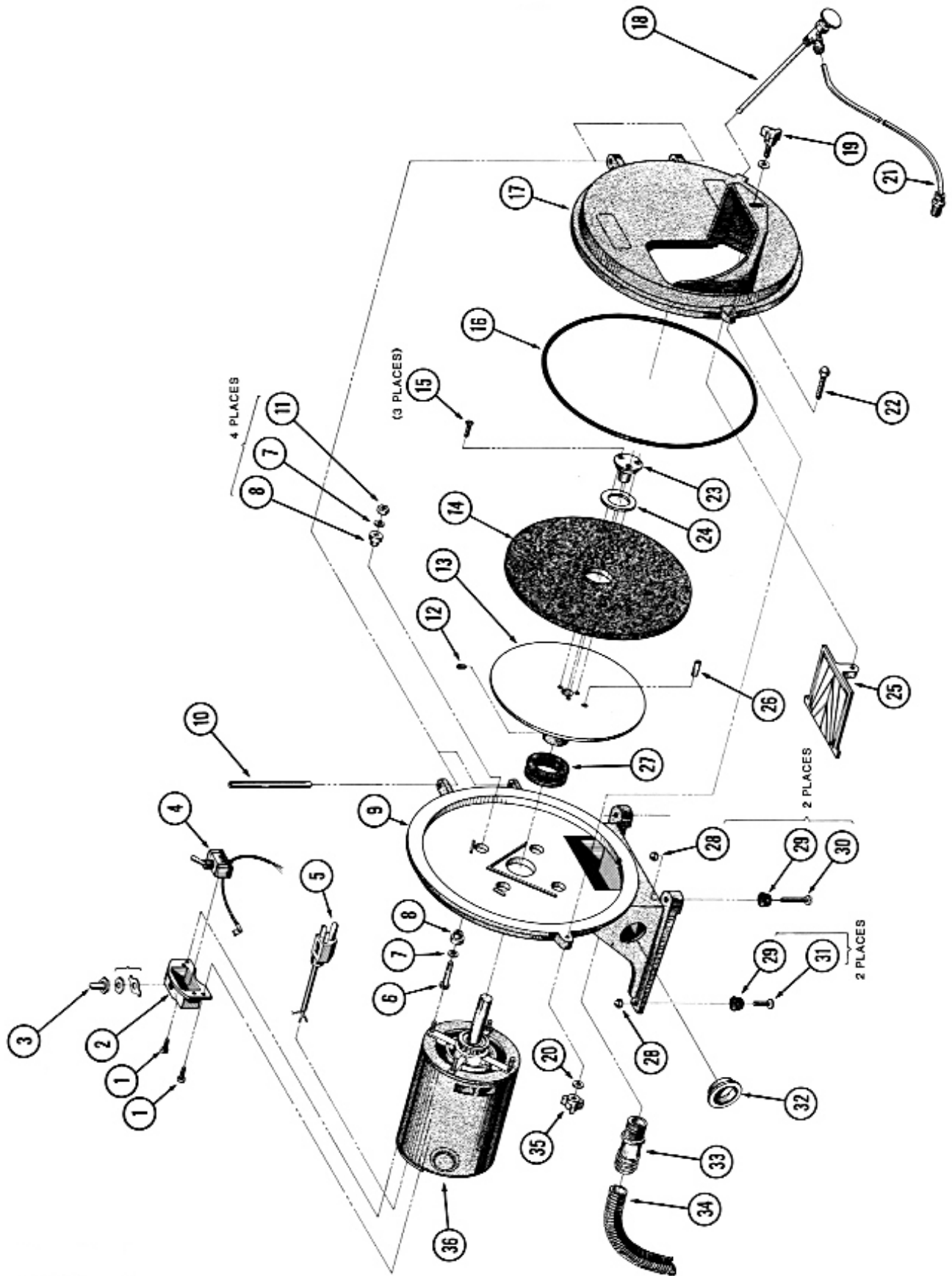
**Cat. No. A025** – 12" Diameter, Coarse #50 Grit, 4 Pcs

**Cat. No. A028** – 10" Diameter, Coarse #50 Grit, 6 Pcs

**Cat. No. A031** -- 12" Diameter X 3/16" Plastic Mounting Wheel

**Cat. No. A032** -- 10" Diameter X 3/16" Plastic Mounting Wheel

# PARTS DIAGRAM



# PARTS LIST

When ordering replacement parts always include machine model number and serial number as well as individual part number.

REF. NUMBER	PART NUMBER	DESCRIPTION
1	M009	Screw, Switch Box Attach
2	M020	Switch Mounting Box
3	M024	Rubber Switch Cover
4	M081	Motor Switch
5	M138	Electric Power Cord
6	M201	Motor Mount Bolt (4 required)
7	M202	Washer (8 required)
8	M203	Rubber Motor Mount Bushing (8 required)
9	M210	Base Casting for 10" M.T. (sold as set only with Door)
	M212	Base Casting for 12" M.T. (sold as set only with Door)
10	M211	Hinge Pin
11	M204	Nut, Motor Mount Retaining
12	M216	Set Screw, Back Plate Retaining
13	M221	Aluminum Back-Plate for 12" M.T.
	M222	Aluminum Back-Plate for 10" M.T.
14	E022	Abrasive Wheel, 12" Medium Coarse
	E21A	Abrasive Wheel, 10" Medium Coarse
15	M097	Screw, Wheel Mounting
16	M104KIT	Door Gasket, Silicone Rubber
17	M240	Door for 12" M.T. (sold as set only with Base Casting)
	M241	Door for 10" M.T. (sold as set only with Base Casting)
18	M018	Water Spray Tube & Valve Assembly
	M019	Water Spray Tube & Valve Assembly
19	M244	Plastic Knob, Tray Secure
20	M245	Washer, Nylon
21	M117	Water Supply Hose, 3 Feet
22	M108	Door Lock Bolt
23	M095	Lock Button with Screws & Gasket
24	M096	Lock Button Gasket
25	M247	Standard Work Tray for 10" M.T.
	M248	Standard Work Tray for 12" M.T.
26	M249	Drive Pin
27	M255	Rubber Water Seal
28	M257	Cap Nut (4 required)
29	M258	Rubber Feet (4 required)
30	M259	Screw, Front Feet Mounting (2 required)
31	M260	Screw, Rear Feet Mounting (2 required)
32	M136	Clean Out Plug
33	M263	Adapter, Drain Hose
34	M130	Drain Hose, 2 Feet
35	M109	Plastic Knob, Door Secure
36	M100	Motor 1/3 HP for 10" M.T.
	M120	Motor 1/2 HP for 12" M.T.
	M816	Back Plate Removal Tool



## Warranty

**Ray Foster Dental Equipment** warrants Foster Model Trimmers 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 Model Trimmer 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 Model Trimmer has not been subjected to abuse, neglect, damage, or used in a capacity other than which was intended.

***Ray Foster***

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