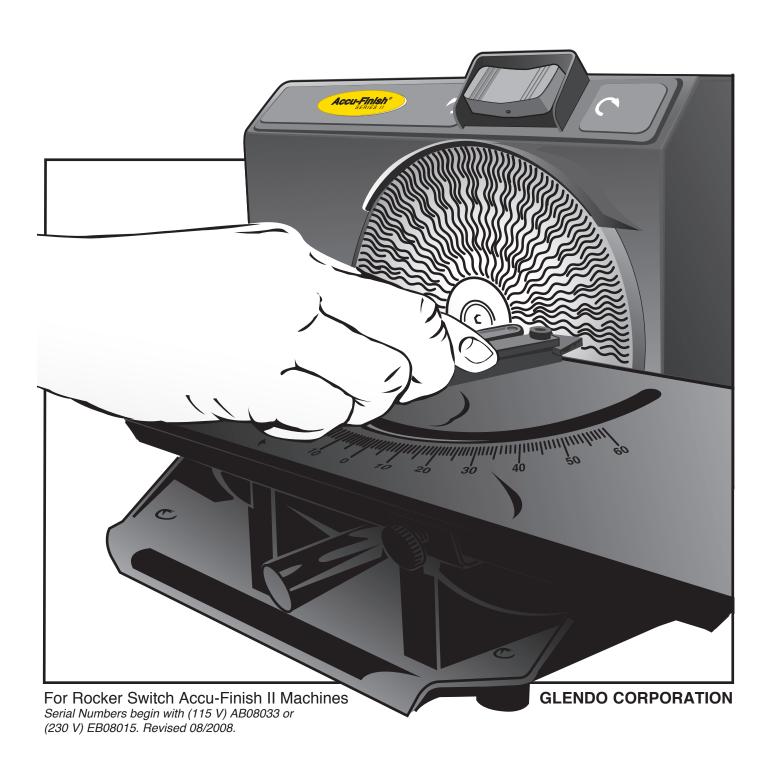
# Accu-Finish SERIES II

### MANUAL & INSTRUCTIONS



## Accu-Finish SERIES II

#### Dear Customer,

We appreciate your business. Your new machine is quality engineered and manufactured. Although it is designed for minimal maintenance, it does require some attention. Please consult this manual for information on operation and maintenance.

Glendo Corporation warrants this product for two (2) full years against defects in material and workmanship. Any such defect will be repaired or replaced by sending it freight prepaid to:

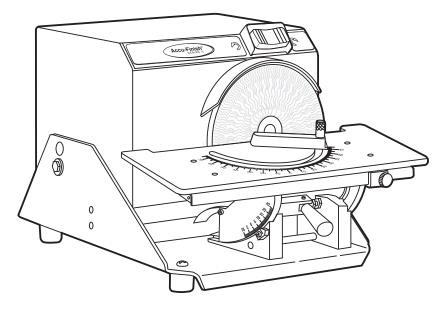
> Glendo Corporation 900 Overlander Road Emporia, KS 66801

After servicing under the warranty, Glendo will pay normal surface freight back to the customer's location. Shipping damage, normal wear and tear, and abuse not covered. Consumables not included. If damage occurs in transit, file a claim with the carrier.

To put this warranty into effect, fill out the warranty card and return it within five (5) days of receipt. Please keep a copy for your records. All inquiries about servicing your machine should be addressed to Glendo Corporation.

**Please Note:** Accessories for this product are constantly being developed. The only way we can inform you of these new items is if you return your warranty card. Your name will remain a confidential part of our company records.





#### Accu-Finish Series II

Accu-Finish is designed to provide accurate angles and superior finishes on virtually all tool materials. As the name implies, Accu-Finish is not for rough shaping where large amounts of tool material must be removed. This is best done on a high speed bench grinder or similar machine. Tool finishing or resharpening dull tools is the strength of Accu-Finish. Since proper tool finishing is by far the most critical job, the Accu-Finish works where the machinist needs the most help.

#### Safety

Wear proper Safety Items such as safety glasses, gloves, respirator, and other personal safety equipment as necessary or required.

DISCONNECT machine's electrical power cord from power outlet before performing any service on your machine which does not require power.

## EYE PROTECTION IS REQUIRED WHEN OPERATING THIS MACHINE

## **RESPIRATOR IS REQUIRED**

Avoid breathing dust to prevent lung disease.

## Accu-Finish SERIES II

#### **READ ALL DIRECTIONS** before attempting setup or installation of this machine.

#### Installation

- 1. Unpack the machine and parts on a suitable work surface.
- Rotate the motor housing up and back until the wheel spindle is oriented in the vertical position (A).
- 3. For easier table installation, loosen table support by pulling the handle left. Rotate the support up until it is at approximately 0°. Lock handle.

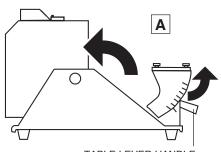
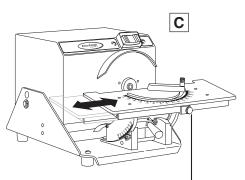


TABLE LEVER HANDLE



#### TABLE LOCK

This knob locks the table in position. Loosen it when you want to oscillate the table. Tighten it to hold the table in place.

- 4. Note there are four (4) ball bearings mounted on the table support structure. These bearings allow the table to roll.
- Place the table face down on your work bench. Find the metal retainer strip located at each end. From only one strip, remove the two screws with a Phillips screwdriver (B). Note the small rubber bumper.
- Turn the table face up and start the table onto the first set of bearings, making sure they locate properly in the machined tracks.
- Slide table across until the second set of bearing\* contacts to the end of the track (B). Confirm proper alignment, then slide table the rest of the way.

- Replace the retainer bar with the two Phillips head screws. Make sure the rubber bumper is oriented properly. It should be directly across from the rubber bumper on the other side and the rubber pointy nub on the outside.
- 9. See C for how to lock table.

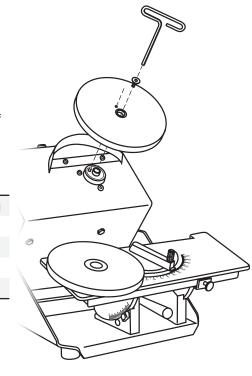
\*A definite resistance will be encountered with engaging the second set of bearings. This is due to the preloaded design in which the bearings actually squeeze the mating track. Align bearings with machined track before using any force. When properly aligned, only a slight nudge is required to urge the table over the second set.

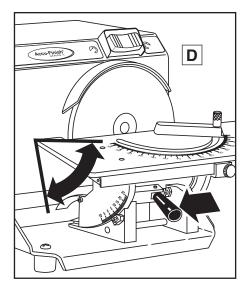
#### Attaching A Wheel

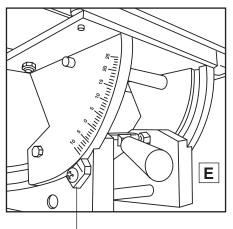
Select the wheel you wish to use (see application chart below). Attach wheel to machine with the flat head machine screw using the 3/16" hex T-wrench. To ensure proper wheel trueness, make sure that the back of the wheel and the spindle face are clean when mounting wheels.

Wheel	Use For
260 Grit	Roughing & Shaping Carbide Roughing General Purpose
360 Grit	Carbide Roughing
600 Grit	General Purpose
1200 Grit	Fine Finish
Ceramic Lap	Mirror Finish

See back page for wheels available to use with Accu-Finish.







LOCATOR BLOCK

#### **Table Position**

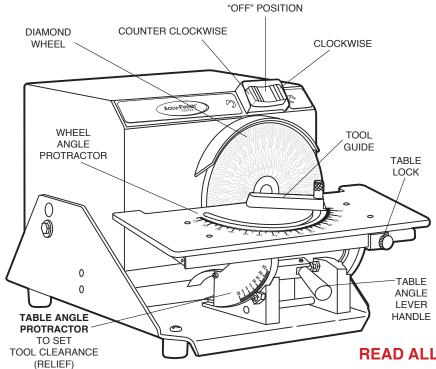
The vertical wheel position allows use of the calibrated table and tool guide. Two tool angles can be simultaneously controlled.

Tool clearance (relief) can be adjusted by setting the table elevation. To set table elevation:

- 1. Slide table to the right.
- 2. Pull the table lever handle left to free the table, allowing you to change the angle.
- Set the elevation scale to desired degree (0° is square to wheel). Tighten locking knob (D).

NOTE: To ensure proper elevation accuracy, the hinged surface between the main motor housing and the side support arms must be kept clean. Make sure that no metal particles or obstructions are stuck to the holding magnet or their mating surfaces.

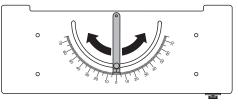
The table is factory calibrated, but you may want to calibrate it yourself sometime in the future. With the table angle unlocked, place a square against the table and wheel, then lock the table. This is a perfect 90° -OR-



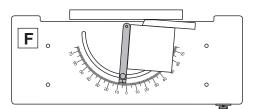
0° on the angle protractor. Loosen the locator block and align mark with the 0° mark on the protractor and tighten the locator block (**E**).

The tool guide is adjustable to 75° either side of 0°. Loosen the knurled locking screw in the tool guide. Set angle to desired degree on scale and tighten locking screw.

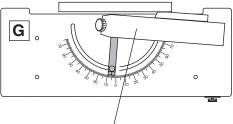
#### **Tool Guide**



For angles greater than 75°, obtain a piece of flat material about 2" - 3"square by 1/8" - 1/2" thick. Place this square block against the tool guide (**F**). Working from the 90° offset lets you set all angles.

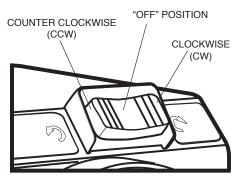


Accu-Finish offers a Protractor Extension Arm (#001-822) that clamps to the tool guide. This makes it easier to hold the tools while sharpening (**G**).



Accu-Finish Protractor Extension Arm Order #001-822

**READ ALL DIRECTIONS** before attempting setup or installation of this machine.



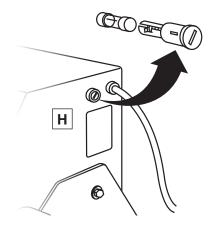
#### **Power Controls**

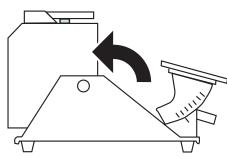
To operate this machine, use the Rocker Switch (shown above). The center position designates that the machine is "OFF". Press the left side of the switch to operate in Counter Clockwise (CCW) mode. Use CCW mode when you are working on the left side of the wheel. Press the right side of the switch to operate in Clockwise (CW) mode. Use CW mode when you are working on the right side of the wheel.

There is an optional Power Foot Switch (#002-205) available that will allow you to start the machine with the touch of your toe. The foot switch is handy especially when you want both hands free. The foot switch is ideal for horizontal lapping.

#### **Changing The Fuse**

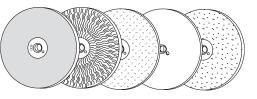
FIRST: UNPLUG THE MACHINE. The fuse is located near where the power cord connects to the machine (H). Using a screw driver, gently turn the spring-loaded fuse retainer until it is loose and pops out. Replace the fuse in the retainer with the correct fuse. Press it back into the fuse housing. Gently turn the retainer with the screw driver until it locks.





#### **Horizontal Wheel Use**

As you learned when you installed the table, the motor housing pivots so the wheel is in a horizontal position. This feature has many diverse uses. Two of the more common uses include refinishing the tops (or faces) of inserts and honing flat surfaces on tool blanks. It is also useful in removing build-up from the top edges of cutting tools.



Accu-Finish diamond wheels are designed for this slow RPM application. Most materials are compatible with Accu-Finish wheels, including ceramic, carbide, borazon, HSS, and polycrystaline diamond.

We recommend wetting the wheels with wheel wetting agent. The concentrate supplied with you machine is ideal (#001-659, 3 Pack / #001-660, 12 Pack). Occasionally mist the wheel with the agent from a hand spray bottle. A dry finishing will give fair results, but wet finishing will perform better than dry.

Diamond wheels provide long term economy and performance in abrasive service if used correctly. Diamond is the hardest material known, although the bond which holds the diamond particles in place can be damaged. Grooving the wheel by gouging the bonding material is the biggest error. The finer the grit, the easier it is to damage the wheel. The user should not be afraid of using moderate pressure while cutting as the wheels are designed for this.

#### Grinding on Diamond Wheels

Follow this recommended procedure.

Approach the surface carefully with the tool. Apply cutting pressure smoothly. Be especially attentive when first cutting sharp points. Wet the diamond surface with the water soluble cutting fluid supplied with your Accu-Finish. Only occasional spraying to keep the surface wet is required. Oscillate the table whenever practical during cutting. This promotes faster cutting, helps keep the wheel clean, and increases wheel life. Clean the diamond wheels when required (see below).

#### Clean or Dress a Wheel?

Terminology is often confusing on the difference between cleaning and dressing a diamond wheel. Cleaning means removing dirt. Dressing is done with an abrasive stick. Dressing is performed on a rotating wheel and actually removes a small amount of wheel material, mostly the bonding agent. Proper dressing will extend wheel life, not shorten it. Cleaning should be done much more regularly than dressing.

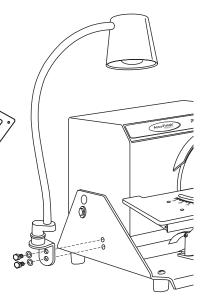
#### Clean a Diamond Wheel

Remove wheel from machine and take wheel to a sink. Wet the wheel with water and liberally sprinkle with scouring powder (e.g. Bon Ami, Ajax, Comet). *IMPORTANT: DO NOT USE SOLVENTS.* With a scrub brush or rag, work the powder into the diamond area thoroughly, then rinse with clean water and wipe dry.

#### Dress a Diamond Wheel

Place the Accu-Finish machine in the horizontal position. Place a cloth or large rag over the table assembly to protect from dust. Wet wheel with water soluble wetting agent and turn machine ON. Apply Wheel Cleaning Stick (#001-783) to the wheel and slowly transverse the stick across the face of the wheel, maintaining a moderate, uniform pressure. Remove stick and turn machine OFF. Clean abrasive debris off wheel and machine. Remove cloth from table assembly and return machine to vertical position.

### ACCESSORIES



#### **Drive Belt Replacement**

Disconnect machine from electrical power. Remove rear panel from machine by removing four (4) Phillips screws. Roll the old belt(s) off, first from the small pulley and then from the large pulley. Place new belt(s) over the large pulley first, align with small pulley and roll them on. Replace rear panel.

#### Lift Kit

Included with your Accu-Finish Series II is a lift kit. This is for those who wish to raise the wheel center higher above the table. Because some fixtures on the market are taller than Accu-Finish fixtures. the lift kit will allow the use of those fixtures.

#### TO INSTALL LIFT KIT

Remove the side bolts (one located each side) that hold the motor housing. Separate the motor housing from the base. On each side, switch the bolt bushings and the plastic plugs. (I).

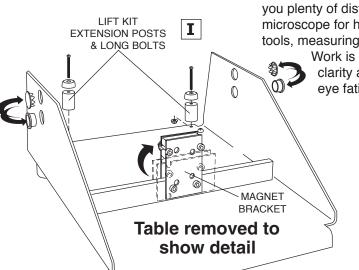
From the center base, remove the bolts that hold the latch magnet. Turn the magnet brackets 90°. Move the magnet to the top and replace the bolts (I). Remove the two rubber stops located at the back. Push the bolt out of the center of each and replace with the long bolt that comes with the lift kit. Insert the long bolt through the plastic extensions and replace on base. Reattach the motor housing unit to the side arms.

Heavy-Duty Lamp Kit Order #001-756 - 115 Volt Order #001-951 - 230 Volt

Extra heavy-duty, UL listed lamp has 24" flexible neck that is sealed against oil and grit. This lamp stays where you put it. Quick-mount bracket for easy installation.

Rated to a bright 100 watts to give plenty of work light. Insulated shade stays cool.

For more information about Accu-Finish products visit www.accu-finish.com or call 1-800-835-3519

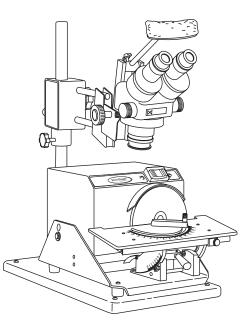


#### **Power Foot Switch** Order #002-205

Turn the machine ON and OFF with both hands free. Especially useful for horizontal



lapping. Comes prewired for standard 3-wire, 115 Volt grounded outlet. UL listed to 1/2 HP.



Inspection The better you can see, the better the results!

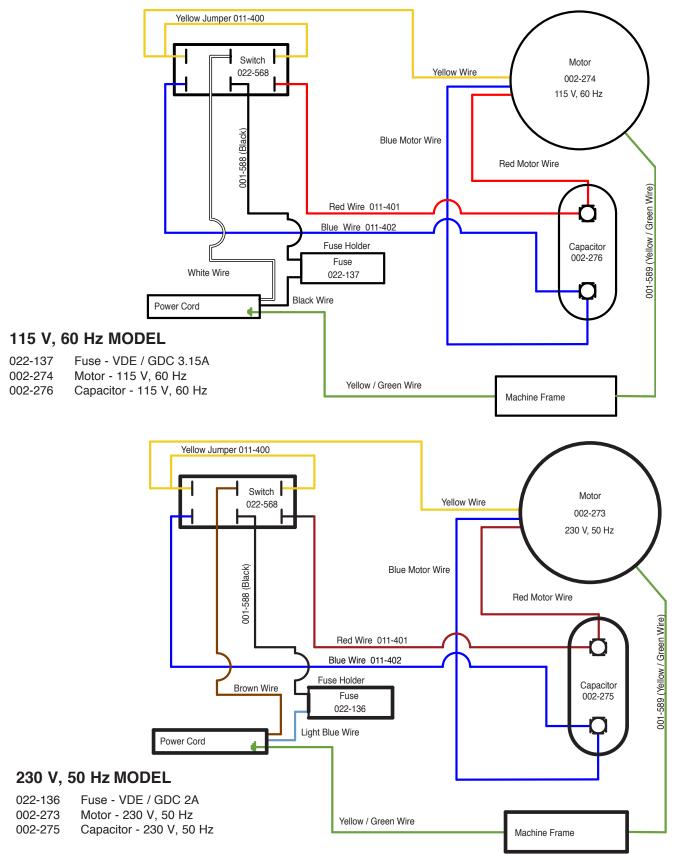
This Accu-Finish microscope system is unique because you can inspect and work under it. This difference is critical. The large focal length gives vou plenty of distance under the microscope for hand tools, power tools, measuring and gauging tools.

Work is done with absolute clarity and precision without eye fatigue.

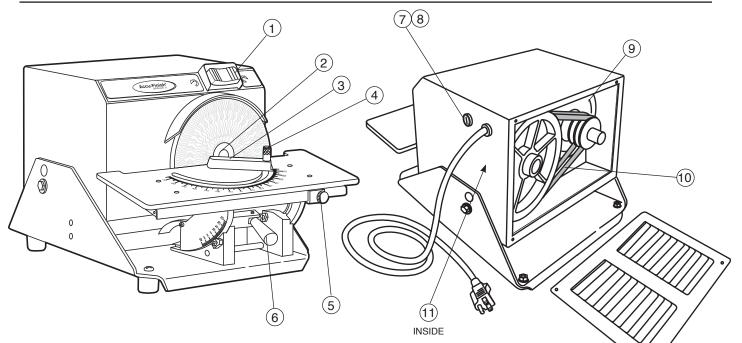
## WIRING DIAGRAM



**WARNING:** ALWAYS DISCONNECT MACHINE FROM POWER BEFORE SERVICING. **SHOCK HAZARD:** ANY CAPACITOR CAN HOLD A CHARGE. DISCHARGE CAPACITOR BEFORE HANDLING.



## PARTS LIST

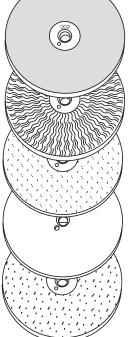


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	Order #	Description		Order #	Description
1	022-568	Rocker Switch	7	022-135	Fuse Holder
2	002-293	5/16" -18 UNC X 1/2" FHSMS	8	022-137	Fuse - VDE / GDC 3.15A - 115 V, 60 H;
3	001-592	Tool Guide Assembly		022-136	Fuse - VDE / GDC 2A - 230 V, 50 Hz
4	001-644	Tool Guide Lock Stud	9	002-274	Motor - 115 V, 60 Hz
5	001-539	Knob Assembly		002-273	Motor - 230 V, 50 Hz
6	002-252	Table Lock Handle	10	002-263	Belt (1)
			11	002-276	Capacitor - 115 V, 60 Hz
				002-275	Capacitor - 230 V, 50 Hz

#### **Diamond Wheels Available for Accu-Finish Series II** *Call for pricing or visit our website*

Description 100 Grit 180 Grit 260 Grit 360 Grit 360 Grit 500 Grit 600 Grit	Order # 011-198 001-387 001-233 001-234 001-661 011-080 001-235 001-809						
800 Grit 1200 Grit	Fine Extra Fine	011-212					
1200 Grit	BORAZON - Ex	011-254					
Automotive and Special Tool Wheels							
600 Grit 1200 Grit 320 Grit Re 600 Grit Re	Face / Edge Face / Edge Face / Edge everse Angle everse Angle everse Angle	Rouging General Extra Fine Rouging General Extra fine	001-920 001-921 001-922 011-113 011-087 011-088				
Ceramic Lap Ultra-polishing		"Mirror" Finish	001-671				

Requires charging with diamond spray.





900 Overlander Road Emporia, KS 66801

Toll Free: 1-800-835-3519 Phone: 620-343-1084 Fax: 620-343-9640 E-mail: glendo@glendo.com

#### www.accu-finish.com

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