

OPERATION AND MAINTENANCE OF THE

Accu-Finish

Series ONE

The Accu-Finish Series ONE is designed for accurate angles and superior finishes on virtually all tool materials. This means carbides, hard metals, ceramics, and other exotic materials are all within the capability of your new machine. As the name implies, Accu-Finish is not for rough shaping where large amounts of tool material must be removed. This is best done in two steps ... first on a high speed bench grinder or similar machine, then finished with Accu-Finish. Resharpenering tools is the strength of Accu-Finish. The Accu-Finish Series ONE is a quality built machine that will provide a long, useful service life in your shop.

*Dear Customer,
We appreciate your business. Your new Accu-Finish Series ONE is quality engineered and manufactured. Although it is designed for minimal maintenance, it does require some attention. Please consult the enclosed information for operation and maintenance instructions.*

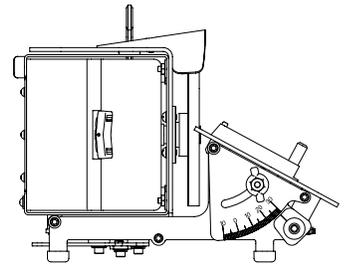
Glendo Corporation warrants this product for two (2) full years against defects in material and workmanship. Any such defect will be repaired or replaced by sending it freight prepaid to Glendo. After servicing under this warranty, Glendo will pay normal UPS surface freight back to the customer's location. 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 inclosed warranty card and return it within five (5) days of purchase. Please keep a copy for your records. All inquires about servicing your machine should be addressed to Glendo Corporation.

IMPORTANT: 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.

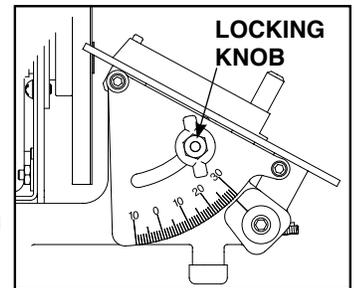
Vertical Wheel Position

The vertical wheel position allows use of the calibrated table and tool guide. Two tools angles can be simultaneously controlled. Tools clearance (or relief) can be adjusted by setting the table elevation.



SETTING TABLE ELEVATION

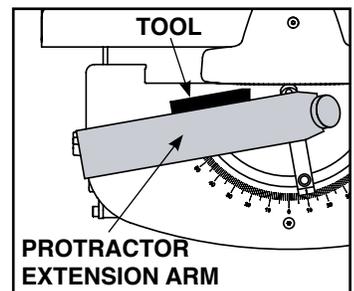
- Loosen the locking knobs at both ends and slide table to the right. (See "Table Oscillation" at right to unlock table)
- Set the "pie-shaped" elevation scale to the desired value (0 is square to the wheel) and tighten the locking knob, then the locking knob at the other end.



HINT: For very small, especially small inserts, the small gap between the table and cutting wheel may be unhandy. This is easily overcome by clamping a flat piece of sheet metal onto the table so it barely clears the cutting wheel.

SETTING TOOL GUIDE ANGLE

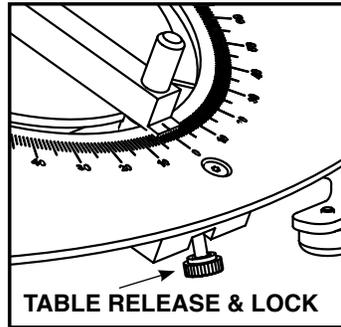
- Loosen the tool guide by turning the knurled knob counterclockwise.
- Set the tool guide at the desired angle and tighten the knurled knob to hold it in place. The tool guide is adjustable from 75° either side of 0°. For angles greater than 75° use the optional Accu-Finish Protractor Extension Arm



- The tool guide is easily removed for jobs that require an unobstructed table. Note that the tool guide can be removed without completely removing the top knurled locking nut.

TABLE OSCILLATION

The Accu-Finish Series ONE table moves parallel to the cutting wheel to allow the operator to utilize the entire wheel surface. The table can be oscillated by the operator while grinding a tool if desired. Modern technology has made Accu-Finish wheels more durable and table oscillation to extend wheel life is less important. If it is convenient to oscillate then do so, otherwise don't worry! A cautionary note concerning the 600 & 1200 grit wheels; generally it is recommended that you refrain from oscillation on these wheels as it is very easy to pinch a tool between the wheel and the tool guide assembly causing the corner of the tool to jam the wheel and possibly groove it. Instead, try to use different areas of the wheel from time to time for even wheel wear.

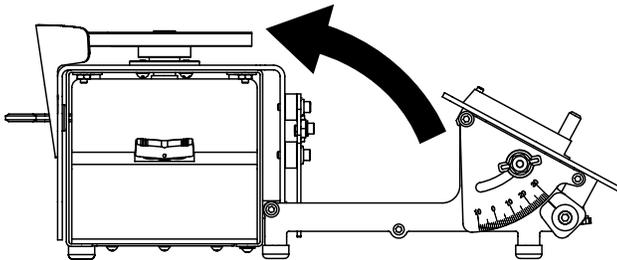


WHEEL FACE RUNOUT

To ensure proper wheel trueness, make sure that the back of the wheel and the spindle face are clean when mounting wheels. Even small dirt particles can produce excessive face runout.

Horizontal Wheel Use

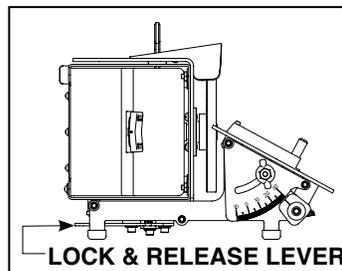
The motor housing pivots away from the cutting wheel to operate horizontally. Located on the bottom of the machine is a lever to release the motor housing so it can pivot away from the table.



This feature has many diverse uses. A couple common machine shop 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.

Cutting with Accu-Finish

Accu-Finish diamond wheels are designed for this slow RPM application. With common sense most tool materials are compatible with our wheels, including ceramic, carbide, borazon, HSS and polycrystalline diamond. We recommend wetting the wheels with a water soluble cutting fluid made for this purpose. The concentrate supplied with your machine is ideal. A continuous coolant stream is unnecessary and overly messy. An occasional mist from a hand spray bottle is sufficient. In some instances, dry finishing will give fair results, but wet finishing will generally perform better than dry.



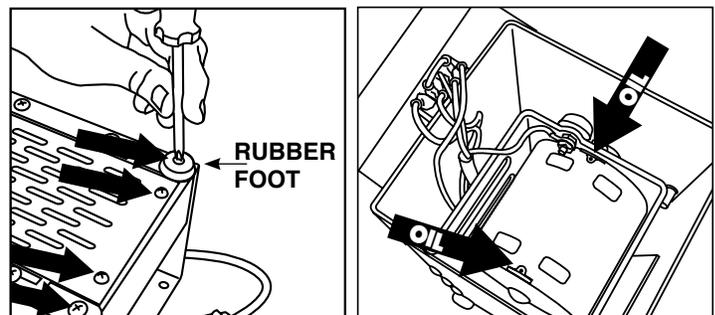
Diamond wheels provide long term economy and performance in abrasive service if used correctly. Although the diamond is the hardest material known, the bond which holds the diamond particles in place can be damaged. Grooving the wheel by gouging the bonding material is the biggest error. The finer the 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.

RECOMMENDED USE PROCEDURES

1. Approach the diamond surface carefully with the tool. Apply cutting pressure smoothly. Be especially attentive when first cutting sharp points.
2. Wet the diamond surface with a water soluble wetting agent sprayed on with a spray bottle. Occasional spraying to keep surface wet is all that is required. A wet wheel will cut better, yield superior tool finishes, and resist loading.
3. Remove and clean wheel when dirty. Usually scrubbing with water, mild scouring powder, and a clean cloth is sufficient. Our diamond wheel cleaning sticks, #001-783, are designed for a thorough cleaning. These soft abrasive sticks are consumed while cleaning the wheel. Proper use will extend wheel life. Do NOT use solvents to clean wheels, especially carburetor cleaner! Keep wheel out of direct sunlight and away from excessive heat.
4. Use the entire face of the wheel for cutting.
5. The 600 grit wheel is recommended for general use. It provides a good finish with an adequate material removal rate. Finer grits are normally for finishing operation after using a coarser wheel or other abrasive.

Maintenance

The Accu-Finish Series ONE is virtually maintenance free. For normal service, yearly lubrication is required. For extremely heavy service, the motor should be oiled every six months with several drops of SAE 20 non-detergent oil. Oil holes for the two motor bearings are accessible by removing the front switch plate. Disconnected unit from electricity before opening power unit. Turn machine upside down and remove the four screws across the front as shown this illustration.



Recommended Oil:
SAE 20 weight non-detergent



Always unplug machine before any service is done.



UNPLUG MACHINE BEFORE OPENING UNIT
Turning the switch off is NOT sufficient.

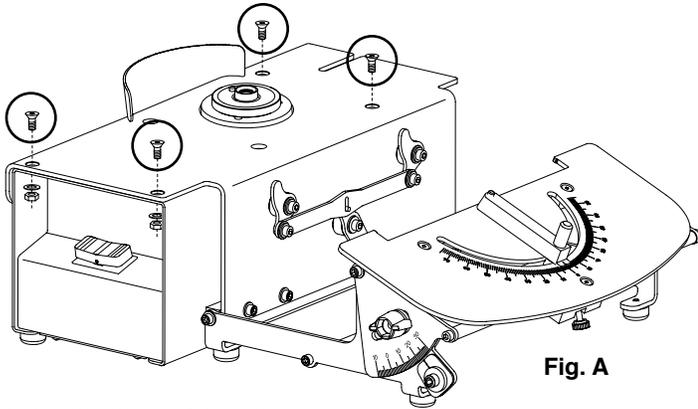


Fig. A

REPLACING THE DRIVE BELTS

These drive belts are made of a special elastic material designed for this service. Regular belt inspections are unnecessary. If you were to notice a drag or loss of power while grinding, it may be a broken belt.

Below are instructions for belt replacement. Tools Required: 1/8" & 3/32" Hex Wrench, 3/8" Open End Wrench, #2 Phillips Screwdriver and Needle Nose Pliers.

1. Separate the Power Unit from the Table Assembly by removing the 4 bolts (Fig. A) with a 1/8" hex wrench and 3/8" open end wrench.

2. Turn the Power Unit upside down and remove the bottom cover, 3 screws (Fig. B).

3. Remove rear cover by removing two screws. One is located inside the rubber foot and the other directly across from it (Fig. C). *Note: Power cord will limit cover movement.*

4. Lay unit on its side (Fig. D) and loosen the set screw for the fan and pulley.

5. Pull the spindle out of the bearing. Use one hand to counter the sideward pull of the rubber belts (Fig. E). **IMPORTANT: Make sure to locate and save the nylon washer that is above the pulley assembly.**

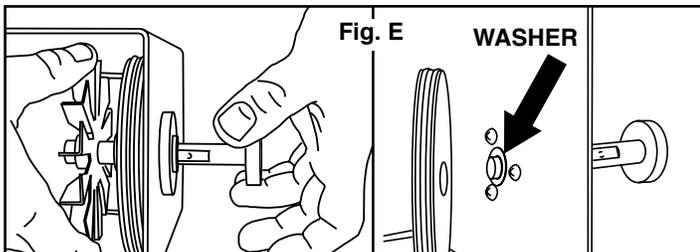


Fig. E

WASHER

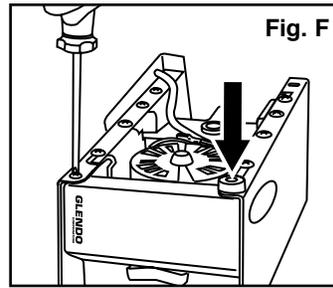


Fig. F

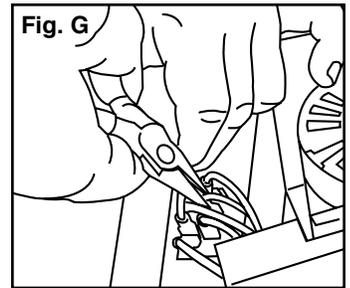


Fig. G

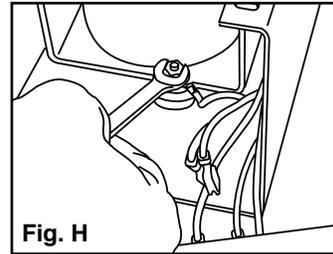


Fig. H

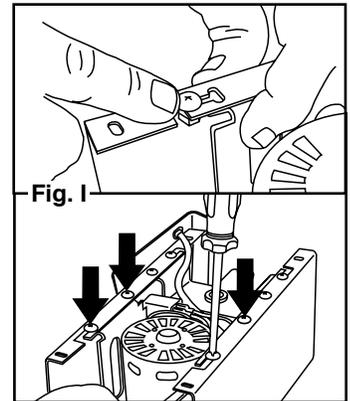


Fig. I

6. Remove the front panel by removing two screws. One located inside the rubber foot and the other directly across from it (Fig. F). Disconnect the two center wires on the switch using a pair of needle nose pliers (Fig. G). Remove the ground, green/yellow stripe, wire from the motor mount (Fig. H).

7. Loosen the front two motor mount screws and slide them out of the assembly using the slots cut in the body (Fig. I). Loosen, but do not remove the rear motor mount screws. Slide the motor mount out the front of the housing, guiding the pulley past the threaded standoffs (Fig. J).

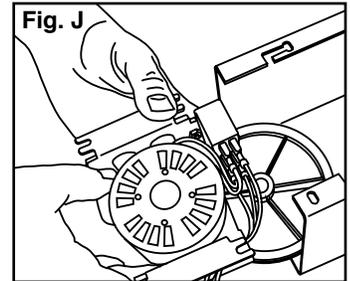


Fig. J

8. Replace belts and slide motor pulley assembly back into the housing, guiding the pulley past the threaded standoffs (Fig. K).

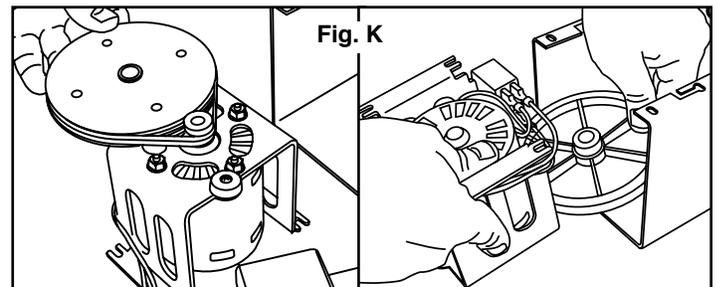


Fig. K

9. Stand the housing on its end and let the motor mount seat all the way onto the rear mounting screws. Snug but do not tighten these screws. Replace the front motor mount screws by sliding them into place through the slots cut in the body. Tighten all 4 screws (Fig. L).

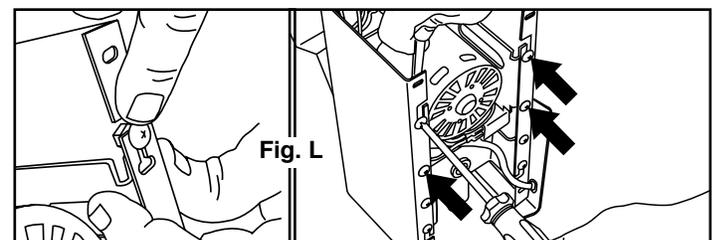
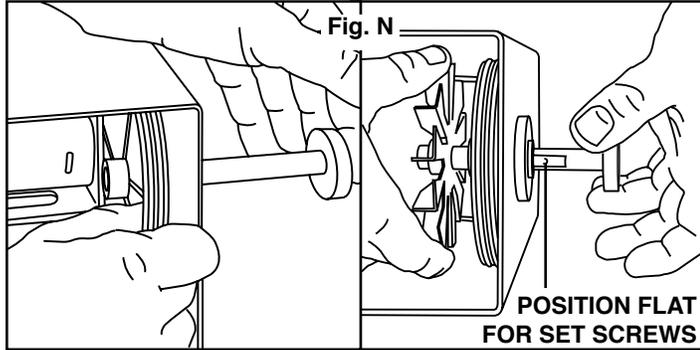
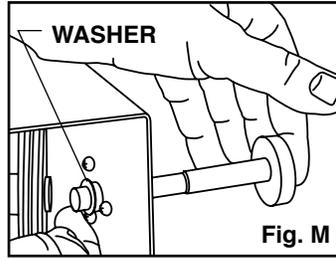
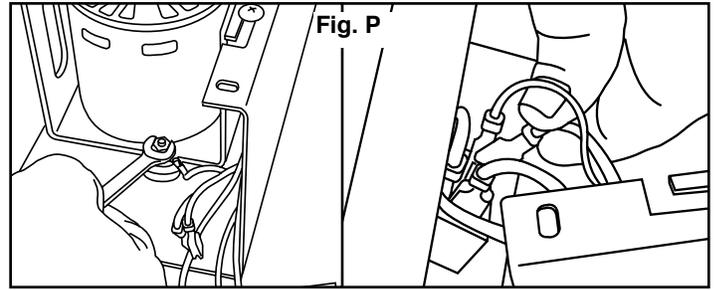
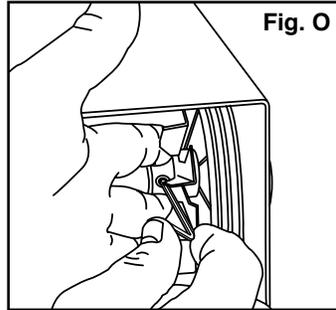


Fig. L

10. Insert the spindle into the bearing far enough that you can place the nylon washer on it from inside the body (Fig. M). Pull the pulley assembly back and slip the spindle into it far enough to allow the fan to be slipped onto the shaft also (Fig. N).

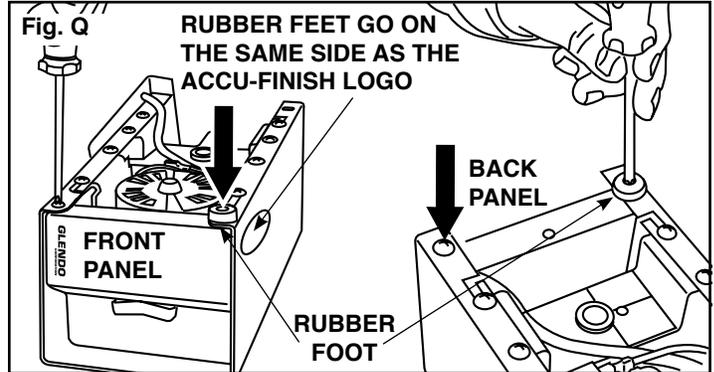


11. Slide the spindle all the way into the body. Slide the pulley up and trap the nylon washer between it and the bushing. With gentle pressure remove any end play and tighten the set screw of the pulley onto the flat, milled on the spindle. Slide the fan up to the pulley and tighten it onto the spindle also (Fig. O).

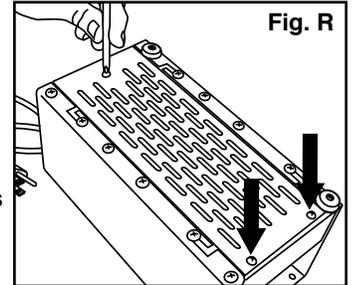


12. Attach the ground wire to the motor mount and the two wires to the switch center posts (Fig. P). It will not matter if you turn these wires around.

13. Attach the end panels (Fig. Q), *NOTE: Place both rubber feet on*



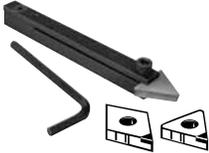
the same side with the yellow oval Accu-Finish logo. Attach bottom panel (Fig. R).



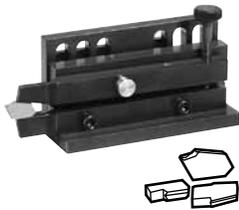
14. Return Motor Housing back into the Table Assembly and replace the four bolts, washers & nuts you removed in Fig. A.

FIXTURES

INSERT SHARPENING



Insert Holder
An ideal way to hold inserts while sharpening the sides, nose and edges.
#001-580 • 1/8" - 3/16"
#001-581 • 3/16" - 1/4"



Cut-Off / Grooving Insert Sharpening Fixture
Jaw opening and grip angle are fully adjustable. Works on most tapered wedge type inserts and many clamp type inserts.
#011-378

FLUTED TOOL SHARPENING



Collet Block Fixtures
Use any 5C collet to sharpen 2, 3, 4 or 6 flute tools.

#001-881 **Square**
#001-885 **Hex**



Alignment Fixture for Collet Blocks
To ensure the best tool geometry.
#001-927



Tool Stop Guide
Limits tool tip material removal and insures exact equal edges.
#001-884

GUN DRILL SHARPENING



Gun Drill Sharpening Fixture
Duplicate the same drill point time after time! For gun drills up to 1.0" (25mm) diameter.
#001-965

ACCESSORIES



Protractor Extension Arm
Lets you set more tool angles!
#001-822



Wheel Storage Rack
Protect and organize your wheels!
#001-694



Lamp Kit (115V)
Slips into slot on top of the Series ONE!
#022-915

WHEELS

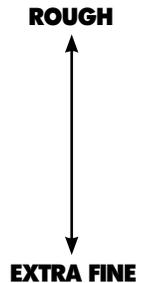
5" WHEELS FOR SERIES ONE

#001-130 260 Grit Diamond Wheel
#001-131 600 Grit Diamond Wheel
#001-132 1200 Grit Diamond Wheel

6" WHEELS FOR SERIES ONE

#011-198 100 Grit Diamond
#001-233 260 Grit Diamond
#001-387 180 Grit Diamond "Alligator"
#001-234 360 Grit Diamond "Alligator"
#001-661 360 Grit Diamond Flat
#011-080 500 Grit Diamond
#001-235 600 Grit Diamond
#001-809 600 Grit Borazon
#011-212 800 Grit Diamond
#001-236 1200 Grit Diamond
#011-254 1200 Grit Borazon
#001-671 Ceramic Lap (Requires Diamond Spray)

#011-113 320 Grit Reverse Angle
#011-087 600 Grit Reverse Angle
#011-088 1200 Grit Reverse Angle
#001-920 360 Grit Face / Edge
#001-921 600 Grit Face / Edge
#001-922 1200 Grit Face / Edge



BLANK WHEELS

Make your own abrasive/strop wheel. Simply adhere the desired grit of sandpaper or leather to these blank wheels. Wheels are machined to a perfectly flat surface.

#011-252 Blank Wheel - 5"
#001-769 Blank Wheel - 6"

WHEEL ESSENTIALS

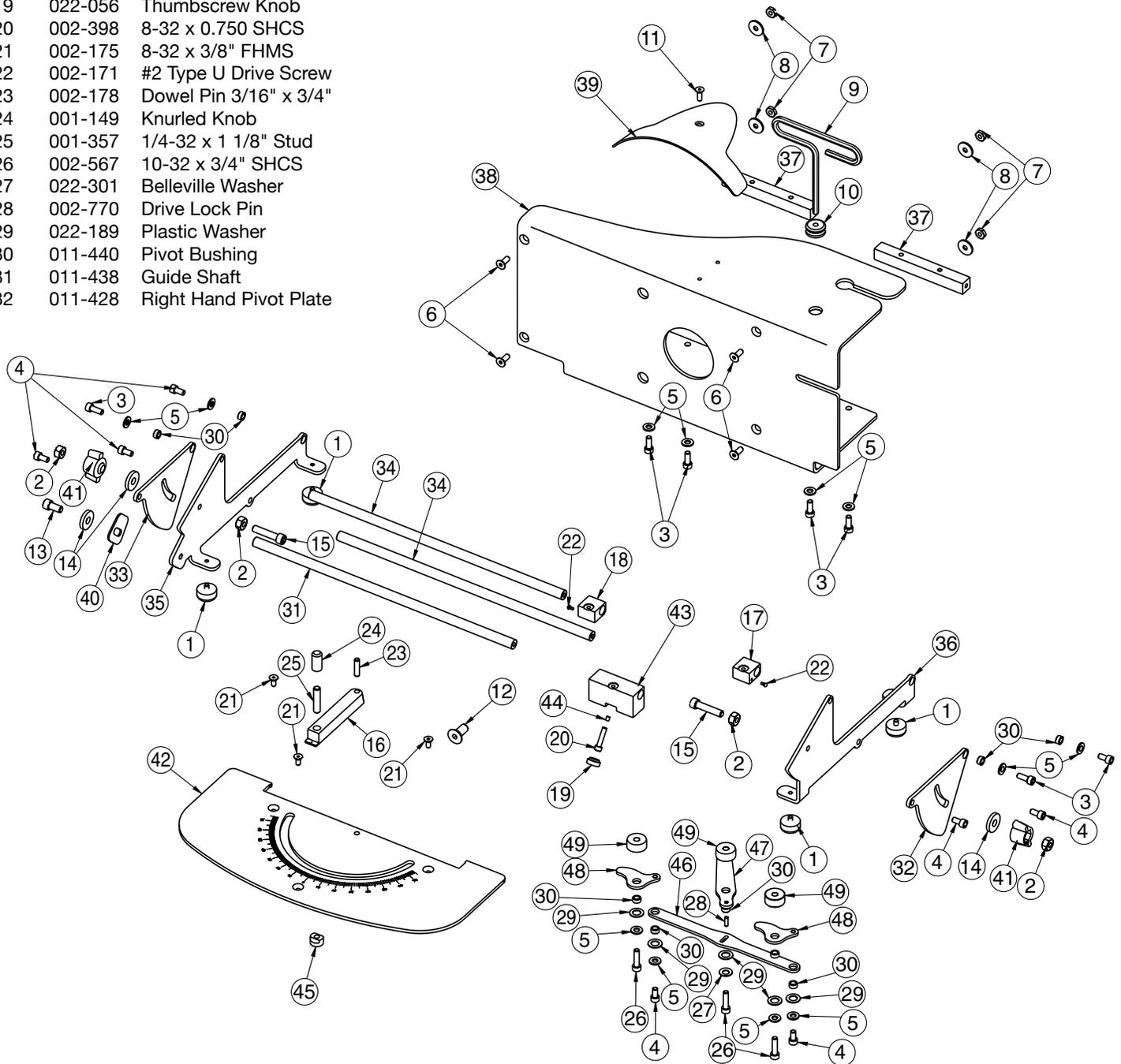
Diamond Spray
#002-752 Diamond Spray, 1/4 Micron
#002-753 Diamond Spray, 1/2 Micron
#002-754 Diamond Spray, 1 Micron
#002-755 Diamond Spray, 3 Micron

Wheel Wetting Agent Concentrate

#001-659 Pkg of 3 - makes 1 gal. per pkg
#001-660 Pkg of 12
#001-783 Wheel Cleaning Sticks
#001-694 Wheel Storage Rack

TABLE ASSEMBLY PARTS LIST

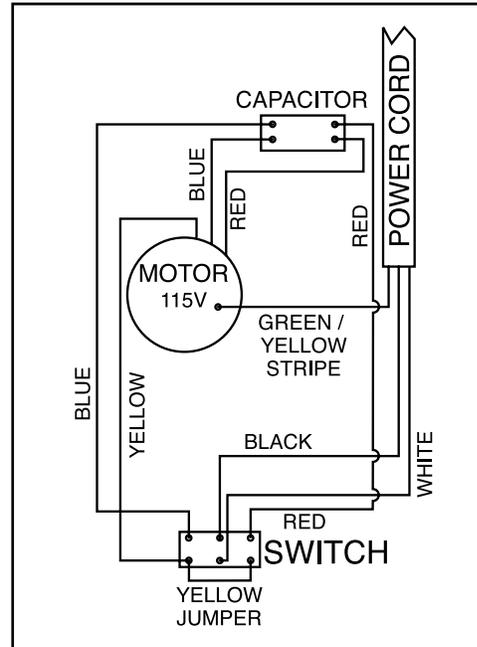
1	011-210	Rubber Foot Assembly	33	011-429	Left Hand Pivot Plate (w/ markings)
2	002-284	1/4-20 Hex Nut	34	011-439	Guide Shaft
3	002-067	10-32 x 1/2" SHCS	35	011-436	Left Hand Frame Part
4	002-217	10-32 x 3/8" SHCS	36	011-435	Right Hand Frame Part
5	022-264	Washer 0.219 x 0.438 x 0.049	37	011-442	Pivot Block
6	002-492	10-32 x 1/2" FHSCS	38	011-437	Mounting Bracket
7	002-109	10-32 Hex Nut	39	011-431	Wheel Guard
8	002-247	Washer 0.191 x 0.628 x 16 ga.	40	011-430	Adjustable Zero Tab
9	002-310	3/16" "T" Handle	41	022-906	Mico Plastics Part 29WN014B
10	022-244	3/16" ID Rubber Grommet	42	011-427	Stainless Steel Table
11	002-993	8-32 x 7/8" FHMS	43	011-441	Front Slide Block
12	002-293	5/16-18 FHSCHS x 0.625"	44	011-443	Nylon Friction Pill
13	002-107	1/4-20 x 1/2" SHCS	45	011-444	T-Nut
14	002-307	Washer 0.275 x 0.75 x 0.125	46	011-433	Tie Bar
15	002-900	1/4-20 x 1 1/8" SHCS	47	011-434	Lock Linkage Lever
16	001-240	Tool Guide	48	011-432	Locking Tab
17	001-144	Right Hand Slide Block	49	011-445	Spacer
18	001-160	Left Hand Slide Block			
19	022-056	Thumbscrew Knob			
20	002-398	8-32 x 0.750 SHCS			
21	002-175	8-32 x 3/8" FHMS			
22	002-171	#2 Type U Drive Screw			
23	002-178	Dowel Pin 3/16" x 3/4"			
24	001-149	Knurled Knob			
25	001-357	1/4-32 x 1 1/8" Stud			
26	002-567	10-32 x 3/4" SHCS			
27	022-301	Belleville Washer			
28	002-770	Drive Lock Pin			
29	022-189	Plastic Washer			
30	011-440	Pivot Bushing			
31	011-438	Guide Shaft			
32	011-428	Right Hand Pivot Plate			



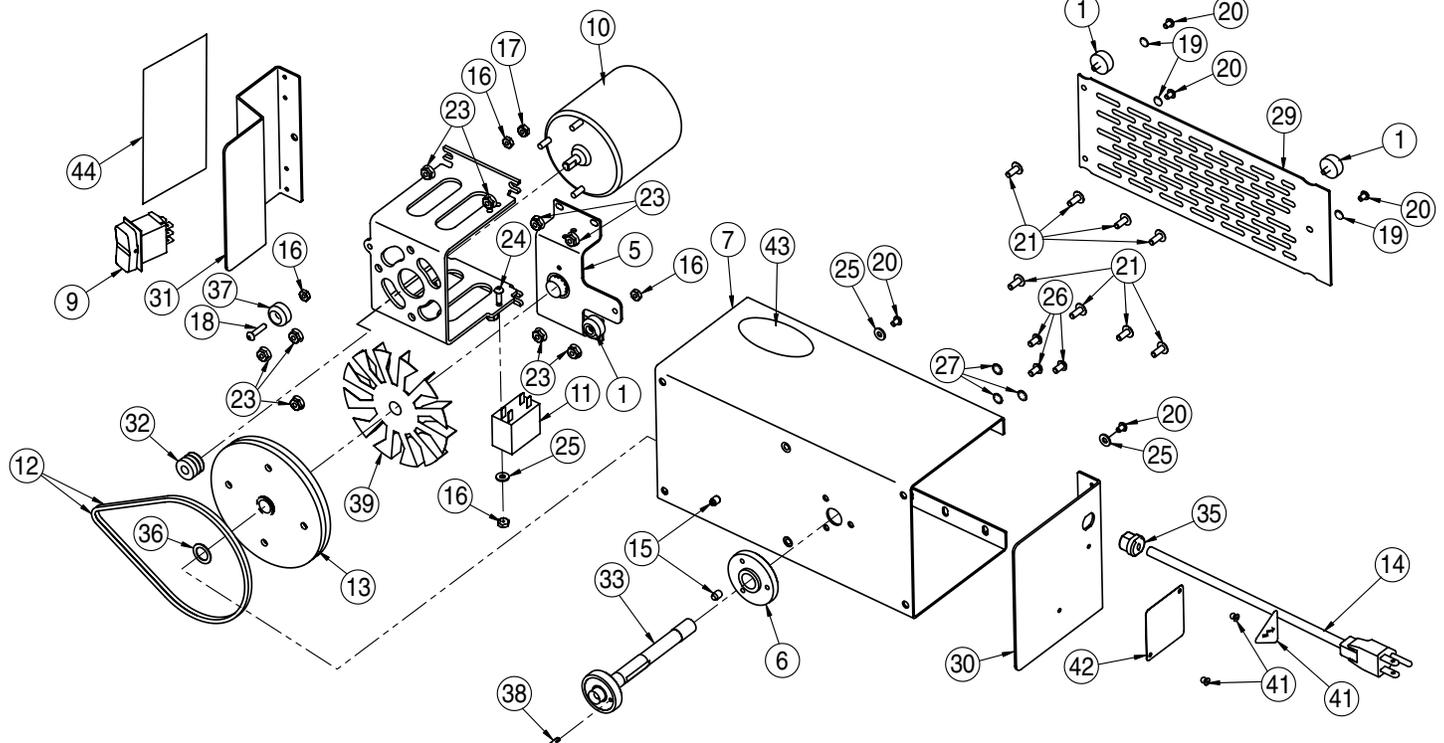
POWER UNIT PARTS LIST

- 1 011-209 Rubber Foot Assembly
- 2 011-400 Yellow Common Jumper Assembly
- 3 011-401 Red Capacitor Lead Assembly
- 4 011-402 Blue Capacitor Lead Assembly
- 5 001-976 Bearing Bridge Assembly
- 6 001-975 Spindle Bearing Assembly
- 7 001-977 Power Unit Body
- 8 002-113 Quick Disconnect Terminal
- 9 022-568 2 Position Switch
- 10 022-530 115 Volt AC Motor
- 11 022-567 Capacitor for Motor
- 12 002-140 Drive Belt
- 13 001-641 Double Pulley Assembly
- 14 001-533 115 V Power Cord Assembly
- 15 022-576 Plastic 1/4-20 Set Screw
- 16 002-064 8-32 Hex Nut
- 17 002-104 8-32 Hex Keeper Nut
- 18 002-289 8-32 x 3/4" RHMS
- 19 002-063 #8 Lock Washer
- 20 002-568 8-32 x 1/4" RHMS
- 21 022-572 10-32 x 1/2" Truss Head MS
- 22 002-108 8-32 x 3/16" SSS
- 23 002-204 10-32 Hex Whiz Lock-nut
- 24 002-062 8-32 x 1/2" RHMS
- 25 002-110 #8 Pltd. Washer
- 26 002-065 10-32 x 3/8" RHMS
- 27 002-069 #10 Pltd. Washer
- 28 011-393 Motor Mount Bridge
- 29 011-396 Vented Bottom Panel
- 30 011-395 Cord End Panel
- 31 011-394 Switch End Panel
- 32 001-115 Motor Pulley 1/8"
- 33 011-399 Spindle

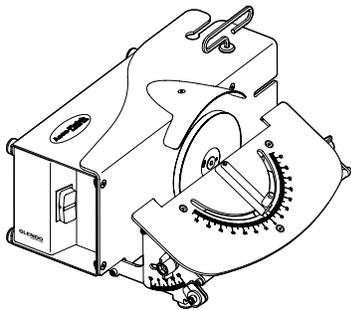
- 34 002-137 Wire Tie
- 35 002-300 Cord Retainer
- 36 002-279 Nylon Washer
- 37 002-036 Rubber Mounting Foot
- 38 002-770 Drive-Lock Pin
- 39 022-571 4.5" Cooling Fan
- 40 011-270 Electrical Warning Label
- 41 011-270 Pop Rivet
- 42 011-288 Electrical Label
- 43 011-447 Accu-Finish SERIES ONE Label
- 44 011-446 Accu-Finish I.D. Decal



WIRING DIAGRAM
115V 60HZ



Accu-Finish®
Series ONE



GLENDO
CORPORATION

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Emporia, KS 66801

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LIT-240