

AMERITOOl, INC.
UNIVERSAL HD MACHINE INSTRUCTIONS

BEFORE PLUGGING IN THE UNIVERSAL HD MACHINE, PLEASE READ ALL INSTRUCTIONS THOROUGHLY. THE MACHINE IS AN ELECTRIC POWER TOOL AND CAN CAUSE PERSONAL INJURY OR SUFFER DAMAGE IF IT IS IMPROPERLY USED.

CAUTION

1. **NEVER** operate the Universal HD machine without goggles or other protective eye equipment. Be sure that anyone who is observing or is nearby has adequate eye protection as well.
2. Take care that no water or oil is allowed to run down the shaft and into the motor, as this will cause the motor to instantly burn out. The machine is designed in such a way that this does not occur with normal use.
3. Do not allow the water level to build up in the machine basin. Be sure that the drainage hole is open so that the used water flows properly into the run-off cup. Should the hole be plugged and the water level is allowed to rise unchecked, water could possibly leak down the motor shaft, causing motor burnout.
4. Always unplug the Universal HD while maintaining, cleaning or when not in use.
5. Do not use the discs dry. Working with dry discs can damage the discs as well as create dust that is harmful to breathe.
6. Read the copy of "Safety Rules For Power Tools" enclosed with your machine.

OPERATING INSTRUCTIONS

1. Carefully unpack machine and set it on a table. Check to see that no damage has occurred in shipment. Check all packing materials to be sure that small parts are not discarded.
 2. Notice setscrew on the drive flange. The setscrew is positioned against the **flat** side of the motor shaft. It is preset at the factory. If adjustment becomes necessary, **make sure the setscrew is properly positioned**. If the setscrew is positioned against the rounded side of the shaft, it will make a squeaking noise and create friction, causing the motor shaft to feel hot. The black water shield has 4 large screws; these are used to raise or lower the water shield.
 3. Install water system: Place the black plastic cup with water tube on the water cup holder. Occasionally during shipping, the water cup bracket is bent forward. Gently bend it back so that the water cup holder is parallel to the machine. Position drain cup. Fill top cup with CLEAN water. (Never re-use water.)
- Set the Metal Diamond Disc on the arbor and secure with flat washer(s) and ¼ X 20 threaded black knob. Put on your safety goggles, turn on power switch.

RUNNING THE MOTOR AT FULL SPEED MAY CAUSE EXCESSIVE VIBRATION. SPEED CONTROL SHOULD BE SET AT ½ TO ¾ RPM

4. Adjust the valve on the water tube until water drips steadily onto the spinning disc. Now you are ready to shape your rough material.

NOTE: USING DISCS WEIGHING MORE THAN 21oz ON THE 8" UNIVERSAL OR 12 oz ON THE 6' UNIVERSAL WILL VOID THE WARRANTY

DISCS: USE AND CARE

STEP 1: METAL DIAMOND DISC (ROUGH SHAPING)

1. Metal Diamond Disc is used for stock removal and shaping of materials covering a wide hardness range. A slight vibration is normal. Never use discs dry; use only clean water as lubricant. Do not use wipers or sponges as they can become contaminated with cutting debris and larger diamond particles. Contamination from coarse material will cause hard to remove scratches in the material you are working on.
2. Grind edge of material to fit mounting or template. Also remove bulk of material to create desired shape of gemstone. Remove as many flat spots as possible if you are making a domed cabochon.
3. If a sharp edge is present on your material, gently introduce sharp edge to diamond disc. This prevents unnecessary wear and/or damage to your diamond disc; it will also prevent possible chipping of your material.
4. When finished with disc, rinse and spin dry completely. Store in a clean, dry plastic bag.

Among the accessories included with your kit, you will find three colored Diamond Sanding Discs, a White Polish Pad, and four backing plates. To prepare these items for use, they must first be assembled. Remove protective backing from Diamond Sanding Disc. Apply the exposed pressure sensitive adhesive to the clean, smooth surface of a backing plate, making sure Disc evenly contacts backing plate surface. Clip a center hole with a sharp knife, following the 1/2" center hole in backing plate.

STEP 2: 325 MESH BROWN DIAMOND SANDING DISC

1. This disc is used following the Metal Disc to further refine the desired shape. It also removes scratches and flat spots left from the metal rough grinding operations. It is important to remove all scratches from previous operations, as they are difficult or impossible to remove later on.
2. When finished with the 325 Mesh Diamond Sanding Disc, rinse thoroughly with clean water, spin dry and store in a clean, dry plastic bag. Rinse black water shield before proceeding to the next step.

STEP 3: 600 MESH RED DIAMOND SANDING DISC

1. This step is used after the 325 Mesh (brown) Sanding Disc. The 600 Mesh Red Diamond Sanding Disc is used to further refine the work piece before proceeding to the Blue 1200 Mesh Diamond Sanding Disc. It is not as aggressive as the brown disc, and it is excellent for removing the scratches and flat spots remaining after using the brown disc. As with the other Sanding Discs, use with water drip.
2. As with the 325 Mesh Sanding Disc, rinse and spin dry completely after use; store in a clean, dry plastic bag.

STEP 4: 1200 BLUE DIAMOND SANDING DISC

1. This disc is used after the shaping of the work piece is completed. It removes scratches left by the 600 Mesh (red) Sanding Disc and imparts a sheen to the material. This disc is also called a "Pre-Polish Pad."
2. When finished with this disc, clean, dry and store as with the other Sanding Discs.

STEP 5: WHITE POLISH PAD WITH SYRINGE OF 14,000 DIAMOND COMPOUND

1. The White Polish Pad should be charged with the 14,000 Mesh Diamond Compound and is used for the final polish. This pad is used with a very slight drip of water.
2. Take the syringe of 14,000 Mesh Diamond Compound, remove cap and squeeze a small amount onto several areas of the White Polish Pad. Turn machine on so that it spins slowly; use fingers to distribute Diamond compound over work area of Polish Pad. Turn machine up to working speed; apply work piece. Too much compound will cause the stone to slide and it will not polish.
3. When finished, store White Polish Pad in a clean, dry plastic bag. It does not require charging each time it is used.

CLEANING AND MAINTENANCE

The Universal HD is designed to give years of reliable service with a minimum of maintenance. After use, the Universal HD is easily disassembled for cleaning. Remove and rinse the black water shield. Wipe machine basin with damp towel. **Pour about a cup of clean, warm water into the drain to remove debris from the drain.** Rinse and dry drain cup. *Do not pour waste water down a sink.* Allow the machine to dry completely. Store your machine in a safe place, out of the reach of children.

AMERITOOOL INC.
520 E Franklin Road
Meridian, Idaho 83642
Phone (208) 609-6636 Toll Free (877) 793-6636
www.ameritoolonline.com

WARRANTY

SEE WARRANY CARD INCLUDED, PLEASE COMPLETE AND RETURN

CALIFORNIA PROP. 65 WARNING

This product can expose you to substances known to the State of California to cause cancer, birth defects or other reproductive harm.

ELECTRICAL SAFETY - SAFETY RULES FOR POWER TOOLS

KEEP WORK AREA CLEAN - Cluttered areas and benches invite accidents

STORE IDLE TOOLS - When not in use, always store tools in a high, dry, or locked up place OUT OF THE REACH OF CHILDREN

AVOID DANGEROUS ENVIRONMENT - Never expose power tools to rain. Never use power tools in damp or wet location. Keep work area well lit.

KEEP CHILDREN AWAY - All visitors should stay at a safe distance from the work area.

DON'T "FORCE" A TOOL - Tools perform much better at the rate for which they were designed

WEAR PROPER APPAREL - Never wear loose clothing or jewelry that can easily get caught in moving parts. Rubber gloves and rubber footwear are recommended when working outdoors.

USE THE RIGHT TOOL - Don't force a small tool or attachment to do the job of a heavy-duty tool.

ALWAYS USE SAFETY GLASSES - Use a face mask or a dust mask in the operation is dusty.

DON'T ABUSE THE CORD - Never carry a tool by the cord or yank the cord to disconnect it from a receptacle. Keep cords away from heat, oil and sharp edges.

DON'T OVER REACH - Keep proper footing and balance at all times.

MAINTAIN TOOLS WITH CARE - Keep them sharp and clean for best and safest performance.

DISCONNECT TOOLS - Always disconnect tools before servicing, when not in use and when changing accessories such a blades, bits, cutters, etc.

REMOVE ADJUSTING KEYS AND WRENCHES - Check for keys and adjusting wrenches that are still in place before starting the tool.

AVOID ACCIDENTAL STARTING - Never carry a plugged-in tool with your finger on the switch

ALWAYS be sure the switch is off before plugging in

WHEN USING A TOOL OUTDOORS - Only use extension cords suitable and marked for outdoor use.

NEVER USE THIS POWER TOOL IN EXPLOSIVE ENVIRONMENT

EXTENSION CORDS

With grounded tools, use only 3 wire extension cords that have 3-prong grounding type plugs and 3 pole receptacles that accept the tools plug. Replace ore repair damaged or worn cord **IMMEDIATELY** Only U.L. listed extension cords should be used with this product. If not locally available, write to:

Portable Appliance and Tool Group
2nd and Vine Streets
Boonville, Missouri

Improper use of extension cords may cause inefficient operation of the tool and can cause overheating. Be sure your extension cord is rated to allow sufficient current flow to the motor. For the proper gauge for your tool, see chart.

NAMEPLATE	CORD LENGTH IN FEET			
	25	50	100	150
AMPS				
0-3	18	18	18	18
3-6	18	18	16	16
6-8	18	16	16	12
8-10	18	16	14	12
10-12	16	14	14	12