

AMERITOOl UNIVERSAL 12.0 HD MACHINE INSTRUCTIONS

BEFORE PLUGGING IN THE UNIVERSAL 12.0 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 12.0 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, because this will cause the motor to instantly burn out or cause premature failure. 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 freely into the drain bucket. Should the hole become clogged with debris causing the water level to rise unchecked, water could possibly leak down the motor shaft, causing motor burnout.
4. Always unplug the Universal 12.0 HD while performing maintenance, 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 up on a table. Check to see that no damage has occurred in shipment. Check all packing materials to be sure that brush, hose, pump, and accessories are not accidentally discarded.
2. Install water system: Push the green 1/4" tubing into the push-to-connect fitting on manifold. Place the black pump on the table, press the 1/4" green tube into the push-to-connect fitting on pump. Once all is connected place the pump into a five-gallon bucket filled with water. Place the drain hose into a second discard bucket. Always pump fresh water up and keep the refuse separate.
3. Install the brush into the slot for easy removal and cleaning.

Place your starting disc on the steel turntable with centering pin to align the disc properly. Make sure magnet has seated down well and has no water or air between disc magnet and the plate.

Put on your safety goggles, turn on power switch speed controller.

**RUNNING THE MOTOR AT FULL SPEED MAY CAUSE EXCESSIVE VIBRATION.
SPEED CONTROL SHOULD BE SET AT 50% TO 75% OF FULL RPM
Adjust the valve on the water manifold until water drips steadily onto the spinning disc. Now you are ready to shape your rough material.**

DISCS: USE AND CARE

STEP 1: METAL DIAMOND DISCS (ROUGH SHAPING AND GRINDING)

1. Metal diamond discs are used for material removal and shaping, covering a wide hardness range. Be sure to start with an abrasive mesh that will remove material quickly without causing chipping.
2. A slight vibration is normal due to the nickel plating process. The coarser mesh grits are more likely to cause vibration. If vibration is excessive, stop the machine and index the disc. This means to lift off the disc and give a quarter turn before laying it back down. This will usually remove some vibration.
3. Never use discs dry; use only clean water as lubricant.
4. Grind material to create desired shape.
5. Turn machine off and allow to completely stop before changing to your next disc.
6. The second step should remove deeper scratches and prepare the piece for the next disc. This step can be another metal bond diamond disc or resin bonded sanding disc.
7. When finished with a disc, clean and dry before putting away. Store in a clean, dry place or rack.

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Resin Bonded Diamond Abrasive Pads

Pro sanding discs are available in a variety of grits for varying material hardnesses or to grind different surface finishes. The harder the material is the more steps that will be needed to complete properly.

STEP 2: # 100, #220, #325, #600, #1,200 GRITS AND ABOVE

1. The resin discs are to be used after the metal bonded discs to further refine the desired shape and to remove metal bond or resin bond scratches. It is important to remove all scratches from previous operations, as they are difficult or impossible to remove later, so starting with the correct mesh will save time and money.
2. When finished with any diamond sanding disc, rinse it thoroughly with clean water, spin it dry and then store it in a clean, dry place or rack.
3. When choosing next sanding pad remember to double the mesh number of the current step to get your next step. This is a good rule of thumb for polishing. (ie, 100 mesh, next step, 220 mesh, then 325 mesh).
A great way to visualize scratches is to use a black marker. Cover the dried surface completely then grind on next step until all scratches are removed. If you still have ink on your piece continue grinding until it is gone.
4. Each succeeding pad should remove scratches from the prior step.

STEP 3: WHITE POLISH PAD

1. The white polish pad needs to be charged with the proper polishing agent for material to be polished. This can be cerium oxide, tin oxide, Covington gold polish #1 or #2 or diamond compound. Mix the powder with water and make a light cream to add to your pad. A new pad will use more polish powder until pad becomes sufficiently charged. Do not use too much water because this will just wash away your polish.
2. Turn the machine on so that it spins slowly; distribute the compound over the work area of polish pad. Turn on the water to a slow drip to keep pad moist. Turn the machine up to a working speed. Usually, a polishing speed is slower than a grinding speed. Apply the work piece.
3. When finished, store white polish pad in a clean, dry place or rack.
Footnote: You can use a marker here as well. As the ink is removed from the surface the shine will get better. Remember ink can leak into cracks or imperfections in surface. It is just a good learning tool.

CLEANING AND MAINTENANCE

The Universal 12.0 HD is designed to give years of reliable service with a minimum of maintenance. After use, the Universal 12.0 HD is easily cleaned. Remove and rinse the black water brush. Wipe or rinse the machine's basin. **Pour about a cup of clean water into the drain to remove debris.** *Do not pour wastewater down a sink or drain.* Dry the steel plate and lightly spray with WD-40. If rust appears on plate, scrub with a Scotch Brand Green Scrub Pad with water, dry then apply WD-40. Allow the machine to dry completely. Store your machine in a safe place, out of the reach of children.

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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.