

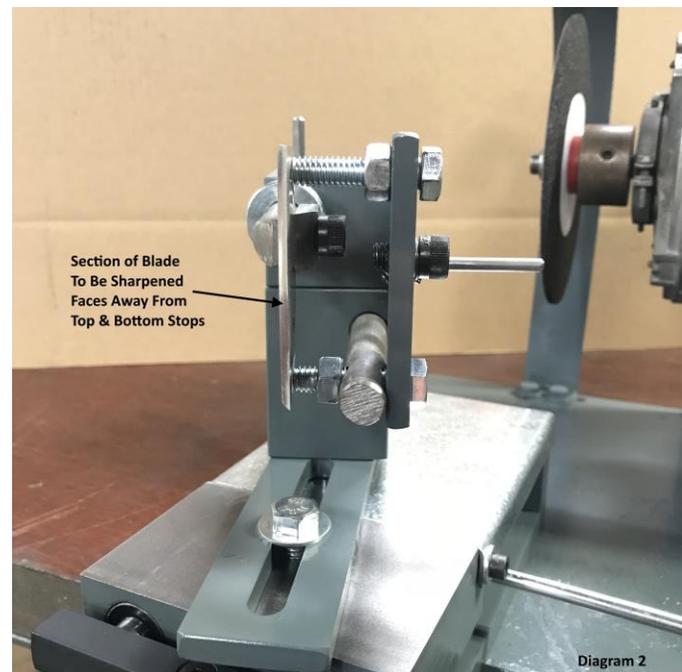
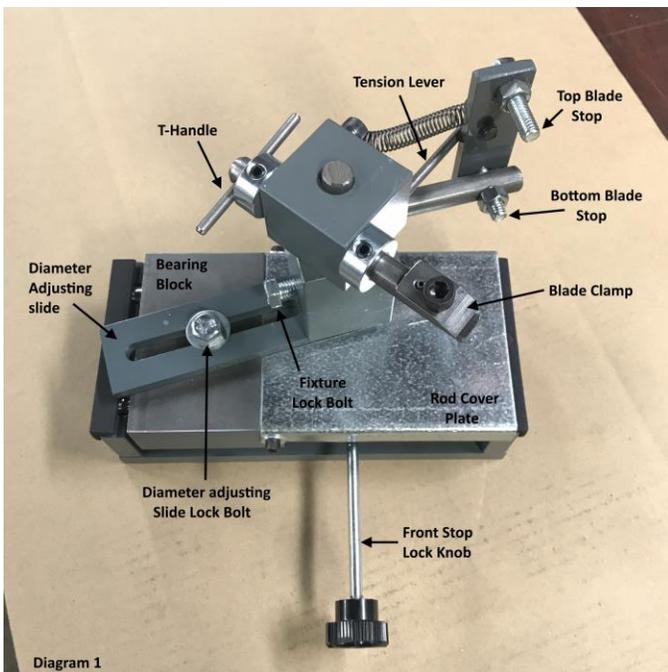
Thorvie™ Instructions

Always wear eye protection and do not wear loose clothing when operating machinery.

FOR AV- 41 ICE AUGER MACHINE

- 1. Please study video and all instructions before proceeding to grind.** For Mora, Jeffy and Eskimo blades use the 6" brown resin bond wheel. Mount with washer and left-hand nut with sandpaper side facing away from the motor. Mount the ice auger fixture over the 1" plug on the saddle assembly as shown in diagram 1.
2. At this point, snug the Fixture Lock Bolt on the bottom part of the fixture lightly (hand tight only). Rotate the blade clamp so the socket head cap screw on the blade clamp is at an up position. Insert the blade as in Diagram 2. You will want to center the ice auger blade between the top and bottom stops.

NOTE: You only grind one side of an ice auger blade. You'll note that one side of the blade will have no markings. The other side of the blade will have a symbol stamped on it. The side with no symbol and nothing stamped on it is the side to grind. It is critical that you grind the proper side.



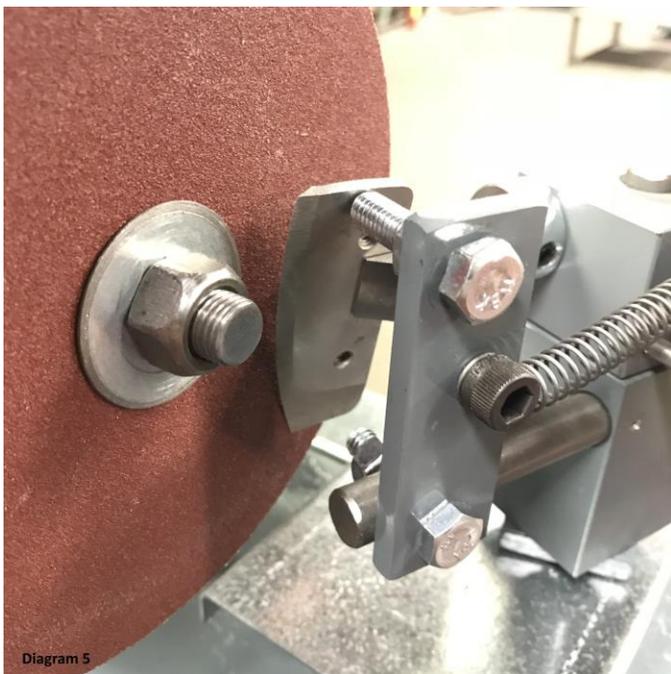
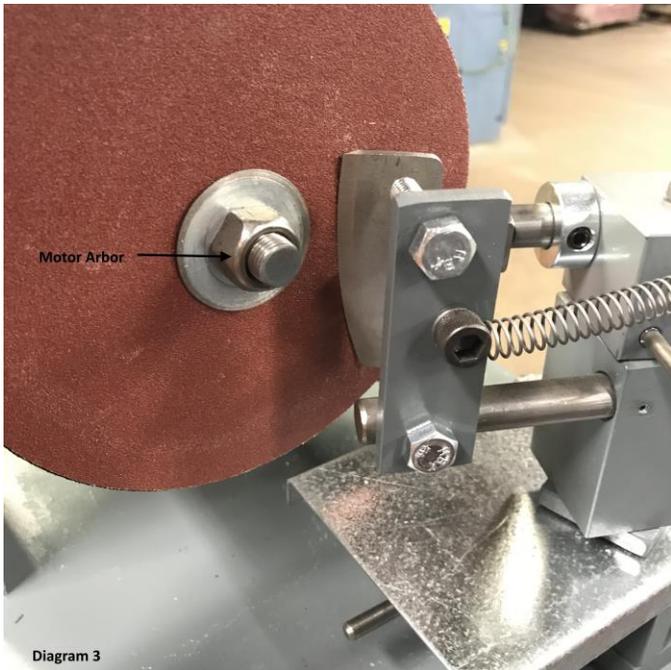
3. Rotate the auger blade clockwise so it's straight up and down and the grind is facing the grinding wheel. With your thumb on the back side of the bottom part of the fixture and your forefinger on the tension lever, bring the spring tension lever back towards you so the blade is against the bottom and top blade stops. Slide the fixture and the saddle assembly forward and swing the diameter adjusting slide so the grind angle of the blade is lined up with the side of the grinding wheel as shown Diagram 3 and tighten the diameter adjusting slide lock bolt.
4. Now Set and lock the front stop Lock Knob so the ice auger blade is away from the washer that holds on the grinding wheel, about 1/2", as shown in Diagram 3.

Note: Make sure when you slide the saddle assembly back towards you, the ice auger blade clears the grinding wheel to inspect the grind.

5. Rotate the T-handle clockwise. The blade will now be pushing the bottom part of the fixture away from the wheel by itself. Rotate the T-handle until there is no gap between the wheel and the top edge of the blade as shown in Diagram 4 and tighten the fixture lock bolt.

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6. The blade will now automatically touch the top and bottom blade stops in the correct grinding position with the saddle assembly up against the front stop as shown in diagrams 4 and 5.
7. Pull the spring tension lever back towards you so the blade is resting against the top and bottom blade stops as shown in diagram 6.

Note: You will sharpen the ice auger blade in this diagram order: Start in the position with diagram 6, proceed to diagram 7, then diagram 8, then diagram 9 and finish with diagram 6.

Note: Do some dry passes to get the feel of rotating the blade through the grinding wheel and coming back to the start position.

8. Turn on the motor. You'll be grinding so the top of the blade is against the top stop. First, rotate the blade counter clockwise so the bottom part of the blade touches the wheel. With your forefinger, put light forward pressure on the spring tension lever. You'll be grinding all the way until you hit the bottom stop.

9. When the blade touches the bottom stop, immediately bring the spring tension lever toward you. This will bring the blade away from the wheel. Proceed to grind in that same manner from bottom to top, as described in the above paragraph until a complete burr is created along the cutting edge.

Note: If it took 3 sharpening passes to create a burr on the first auger blade, make sure you take 3 sharpening passes for the second auger blade in that set. This will keep the blade set balanced for the best cutting.

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Note: When sharpening the second blade in a set, do not change your setup positions. Remove the first auger blade and put in the second auger blade. Check to make sure the start and stop points of contact are correct as in diagrams 4 and 5 and sharpen. If points of contact are not aligning correctly, change the blade up or down in the clamp, do not change your tool fixture set up.



Diagram 6

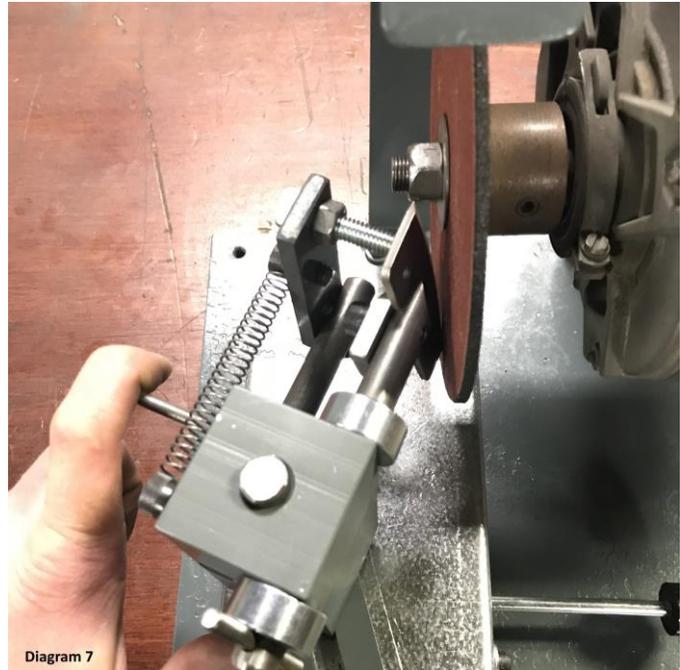


Diagram 7

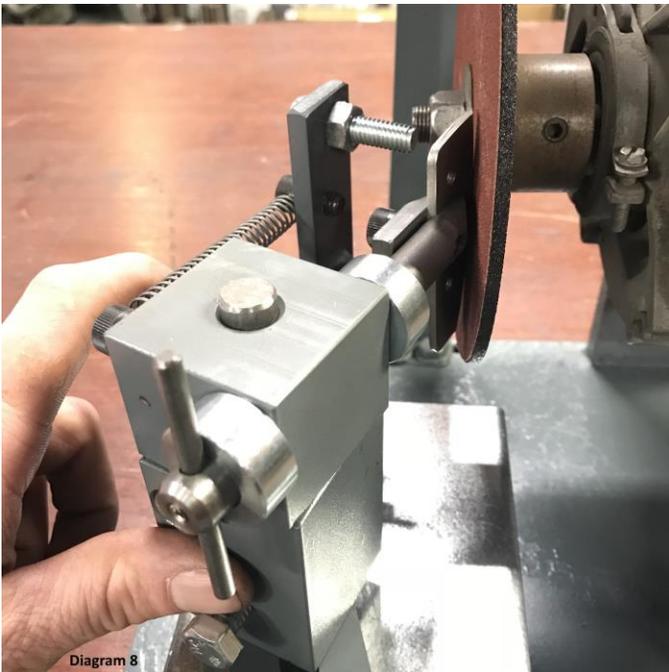


Diagram 8



Diagram 9

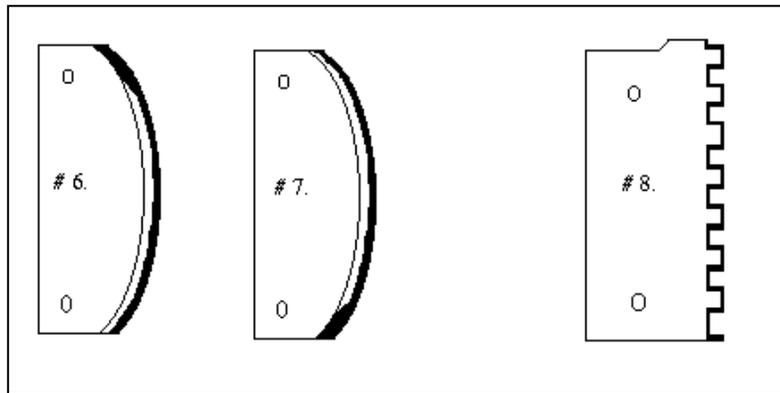
Note: There is no need to remove the burr on an ice auger blade. The ice will remove the burr perfectly as it cuts into the ice because the blade rotates into the ice. If you do wish to remove the burr, very lightly use a wet stone to remove.

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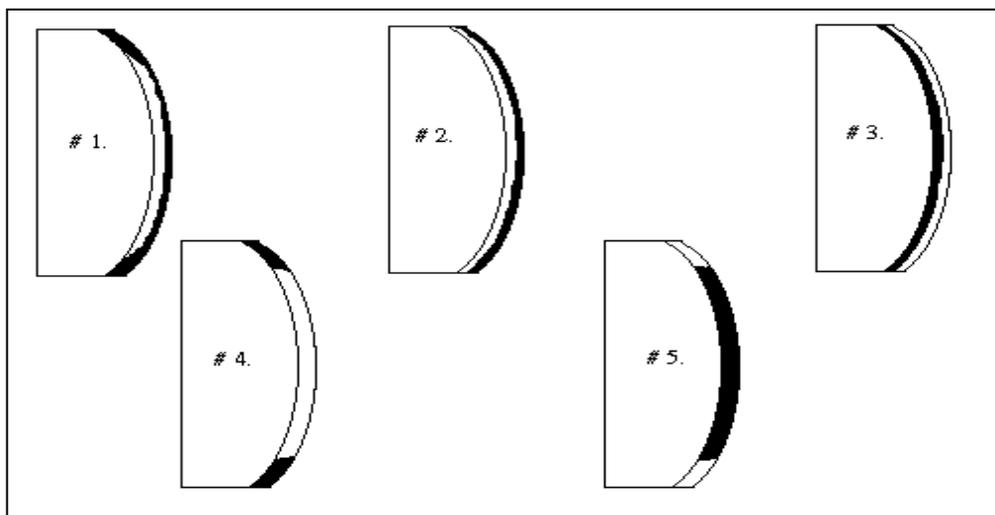
Blades # 6 and # 7 You may find when grinding some of the ice auger blades, that after setting up, the grind comes out as in either one of the two diagrams. As long as you are grinding the full length of the cutting edge (the dark shaded area as shown in the diagrams) there is absolutely no need to waste time continuing to grind until you have cleaned up all the surface. These blades will cut just as well, if not better than when they were new. The front edge of the blade is what does the cutting. This is due to angle variation from one company to another.

Blade # 8 You can sharpen straight blades, such as Jiffy, Eskimo, etc. All you do is clamp the blade to the fixture the same as the Mora blades, then line the blade flat against the wheel, next make sure that the saddle assembly is locked to the base and the thumb screw is tightened. Once it's lined up, you can hold the blade straight with the T-handle and hold the blade back with the spring tension lever. Turn the motor on and move the Thorvie™ fixture back and forth 1/4" to 1/2" as you are sharpening. This prevents the blade from staying on one spot on the wheel.



NOTE: If the grind on the blade shows up as below **diagrams # 1 and # 2**, it's perfectly OK to leave the blades and do not continue grinding on them if you are grinding that shaded area of the blade. The blade cuts on the front edge only. In fact, there are some people who prefer to sharpen just the front edge of the blade.

1. The bottom half of the fixture should be closer to the wheel. Do this by loosening the 5/16" lock bolt that locks down the blade adjuster, and swing it towards the wheel slightly.
2. Do the same as # 1 by moving the front of the blade adjuster closer to the wheel.
3. You would swing the front of the blade adjuster away from the wheel slightly.
4. Bottom of fixture is too far away from the wheel. Loosen the bolt on side of fixture and realign the blade to the wheel.
5. Bottom of the fixture is too close to the wheel. Loosen the 5/16" bolt and move the bottom part of fixture slightly away from wheel.

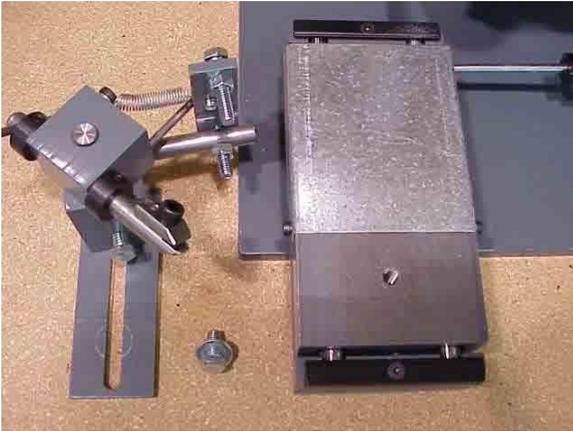


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ICE AUGER BLADE FIXTURE For Lazer Blades

1. Remove the standard fixture along with the adjustable slide. Lock the saddle tight to the back as shown. Mount the 7" wheel that is supplied with the Lazer fixture onto the motor arbor using large washer and LH nut. Align the fixture so the pivot bolt is to the right side as shown in the picture and fasten to the top of the saddle using the 3/8" bolt.



Remove Standard Fixture



Align Pivot Bolt to the right.

2. Clamp Lazer Blade in fixture clamp as shown by blade size and align with wheel face for correct grind angle.



Small Blade - 6"

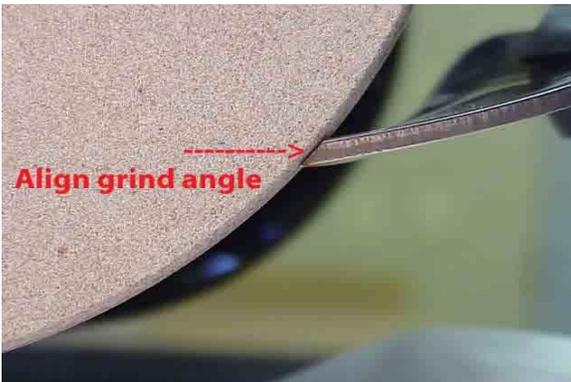


Medium Blade - 8"



Large Blade - 10"

3. Adjust the blade in the clamp so toe and heel angles both line up by rotating the blade, then tighten clamp bolt.



Align blade grind angle on toe of blade



Align blade grind angle on heel of blade

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4. Use a marker to color the grind of the blade. Do the scratch test by moving the blade across the face of the grinding wheel a few times, without turning on the grinder. Now look at the colored and see if the scratch lines cover the grind evenly. If needed adjust the blade for an even grind.

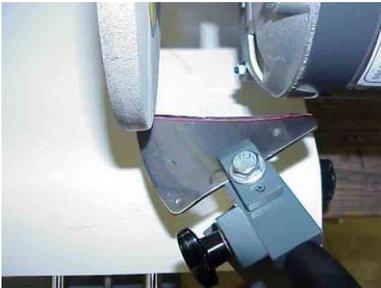


Color the grind of the blade



Scratch test lines should cover the grind from one end of the blade to the other.

5. Turn on the grinder and take a light grind moving the blade across the face of the wheel from toe to heel. It is very important to keep the blade square with the face of the wheel and to move smooth and steady. Now look at the grind to see if you got good coverage on the cutting edge of the grind. If not re-adjust the blade and take another light grind.



Take a light grind moving the blade across the face of the wheel from toe to heel, move smooth and steady.

Note: On the Lazer 224 and some others you will notice they are scored across the grind every ½” or so. You can sharpen these score lines by dressing your 6” x 1/8” brown wheel to a slight point and regrind the same score lines by holding the blade in hand at the same angle and lightly touch the wheel. Removing the burr is not really necessary but can be done as explained above.