

*Edge
Pro*

Sharpening Systems

PROFESSIONAL MODEL INSTRUCTIONAL MANUAL



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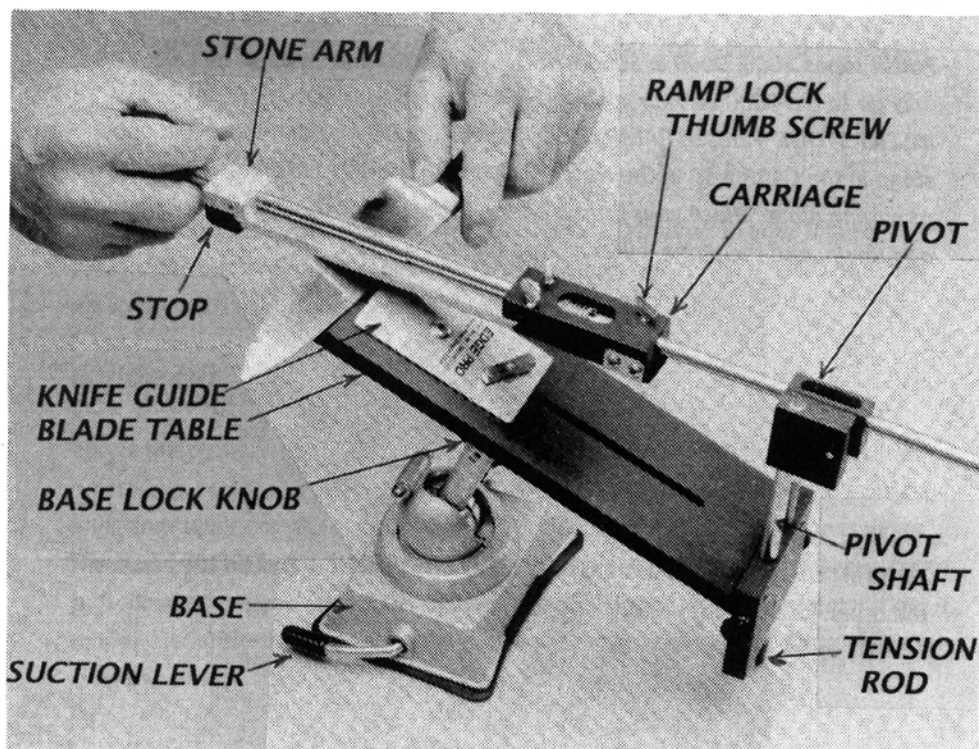
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Set up instructions

1. **BASE:** Set the **BASE** on a clean, smooth counter, with the **SUCTION LEVER** on your right and the **LOCK KNOB** on your left. Push the **BASE** down against the counter and rotate the **SUCTION LEVER** to attach. Usually this works great dry, but if it doesn't want to stick, use a thin film of water.
2. **MACHINE:** Insert the **TENSION ROD** into the bottom of the $\frac{1}{4}$ " hole at the back of the machine. Tighten the **TENSION ROD LOCK**. Insert the $\frac{5}{8}$ " **STEM** of the machine into the **BASE**. Tighten the **BASE LOCK KNOB**. We will set the working angle of the machine later.
3. **PIVOT:** Insert the **PIVOT** into the **BACK**. The **PIVOT** is set when the bottom of the colored mark is lined up with the top of the **BACK**.



Select a stone

120 Grit- For extreme metal removal. Primarily use for thinning a knife. Always use at a lower angle than you are sharpening. You do not want to get a burr, it breaks up too much metal on the edge of the knife.

220 Grit- This is the stone you start with on most knives. If you want the edge to be more aggressive you can just use this stone, start to finish.

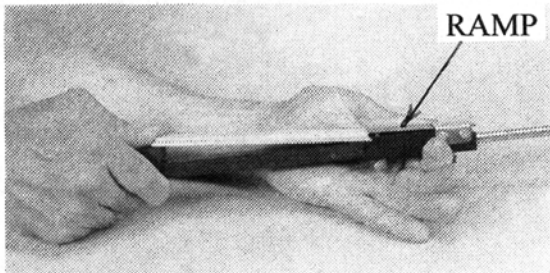
400 Grit- The next step toward finish. Used to start knives in good shape and on the re-sharpen. Starting stone for most hair shears.

600 Grit-For finishing most kitchen knives. The next step toward polish.

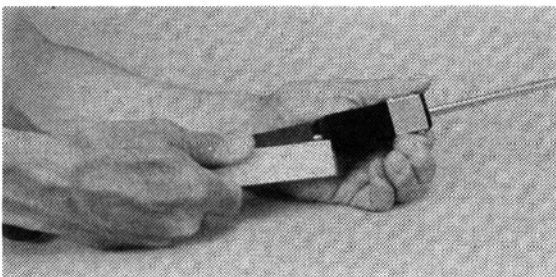
1000 Grit-Last step toward polish. For finishing any edge you are not going to polish.

Polish tapes 2000, 3000 & 6000 Grit- Use the 2000 and 3000 on all knives. We only go to the 6000 on Hair styling shears and straight razors

INSERT STONE—loosen RAMP LOCK THUMB SCREW and place one end of the stone in the CARRIAGE in the Notch that matches the bevel on the stone mounting plate. Place your thumb on the other end of the stone. Push forward and down, and the stone will snap into place.



TO REMOVE a stone, hold the CARRIAGE in one hand and pull on the STOP with the other. Slide the stone out side



Set the ramp

Loosen the RAMP LOCK THUMB SCREW. Turn the RAMP ADJUSTMENT SCREWS until the RAMP is level with the STONE. Push the RAMP tight against the stone. Tighten the RAMP LOCK.

Set the working angle

Insert the STONE ARM into the PIVOT, set the STONE ARM on the end of the BLADE TABLE. Loosen the BASE LOCK KNOB and the TENSION ROD LOCK. Pivot the entire machine until the STONE ARM will be running at a comfortable angle in relation to your height and the table height. Tighten the BASE LOCK KNOB. Re-adjust as needed.

NOTE: *When you are not using the STONE ARM, you can leave it in the PIVOT and rest it off to the side of the machine.*

Set the tension rod

Place your right thumb on top of the TENSION ROD and wrap your fingers around the bottom of the machine. Push down on the TENSION ROD and pull up lightly with your fingers. Tighten the TENSION ROD LOCK.

Guide clip

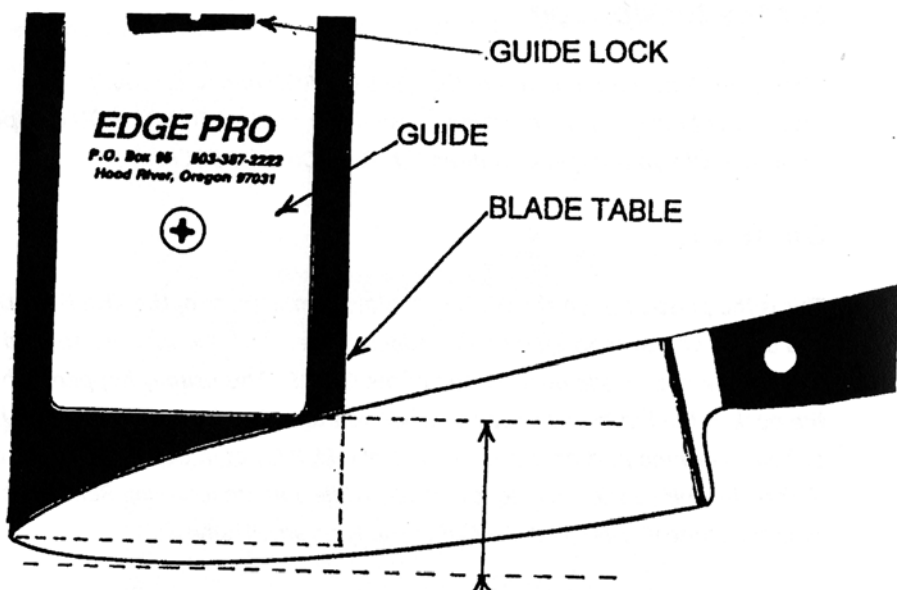
This is the plastic clip on the GUIDE. It slides on the front of the KNIFE GUIDE and allows you to sharpen a double edged blade. It also works well to hold any knife that wants to slip over the top of the GUIDE. This usually happens when the back of the blade is rounded or when you rest the blade on the second bevel or hollow ground portion of the blade. If the CLIP is not in the way, leave it on, it makes the knife easier to hold, especially while you are learning. Remove it any time the stone wants to hit the CLIP, usually on small knives.

Set the Knife Guide

Position the blade so that the narrowest part of the blade is resting on the **BLADE TABLE** and the edge of the knife is parallel to the front of the **KNIFE GUIDE**. The edge of the blade should be even with or a little past the end of the **BLADE TABLE**. You want as much of the blade as possible on the **BLADE TABLE** but you do not want the stone to hit the **BLADE TABLE**. Position the **GUIDE** against the back of the blade and tighten the **GUIDE LOCK**. You should never have to move the Knife Guide during the sharpening of any knife.

HINT: Start with your larger knives—they are easier to hold.

SPORT KNIVES, 3-6" long: These blades are very stiff, so you can sharpen the entire blade without moving the knife. See page 11 for complete instruction.



HINT: Keep the edge parallel to the front of the guide as you draw the blade across the **BLADE TABLE**.

Guidelines for sharpening angles

We recommend that you sharpen almost everything at 21 degrees. The exceptions are thick blades at 23 and 25 degrees, Japanese knives at 17 degrees and thin sporting and pocket knives at 19 degrees. When you are sharpening a chef's knife at 21 degrees you are putting about 19 on the knife. This is perfect.

Serrated Knives are usually between

13 Degrees- Black, and all the way down.

For thinning when you are sharpening at 19.

15 Degrees -Red, for thinning when you are sharpening at 21 degrees.

17 Degrees-Black, Japanese chef's knives.

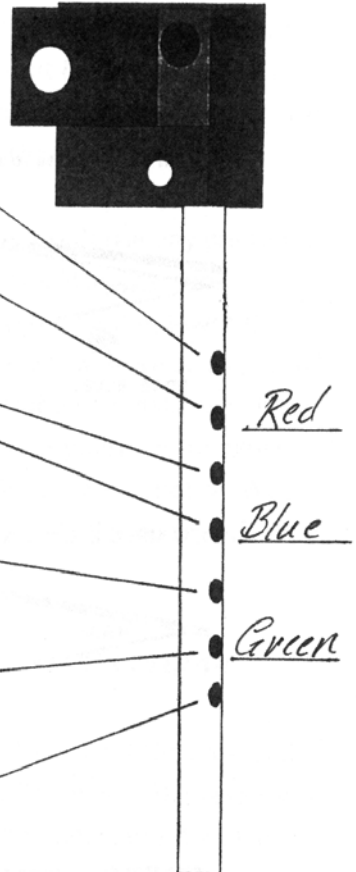
19 Degrees- Blue, thin sporting and pocket knives.

Some thin kitchen knives and paring knives.

21 Degrees-Black, this is the perfect angle for almost everything else.

23 Degrees-Green, any knife too thick to get an edge at 21.

25 Degrees Black, any knife too thick to get an edge at 23.

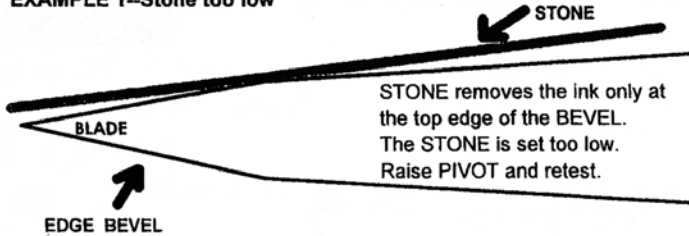


Note: When you are resting on the FACE of the blade you are sharpening at a lower angle than you are reading on the PIVOT. This applies to almost all kitchen and pocket knives and many others.

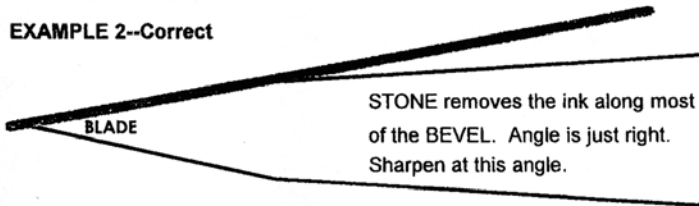
Setting to the angle on the blade

1. Set the PIVOT at 17 degrees. You always want to start lower than the bevel on the knife. This is the lowest angle we use for any edge bevel.
2. Put some ink on the edge bevel with a magic marker.
3. Do not wet the STONE. Stroke the STONE very lightly across the edge of the blade. Now you can see where the stone is cutting in relation to the bevel of the knife. Adjust up until the stone removes all the marker.

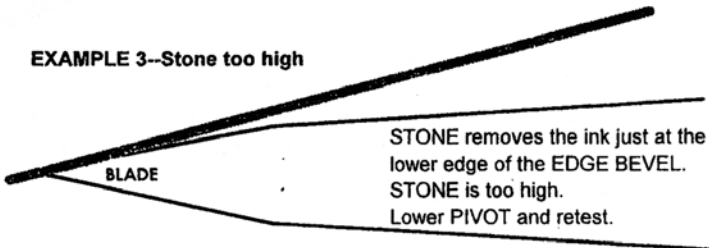
EXAMPLE 1--Stone too low



EXAMPLE 2--Correct



EXAMPLE 3--Stone too high



Operating instructions

OVERVIEW of how the machine works: With one hand you move the **STONE ARM** forward and aft. With the other hand, you draw the knife blade under the moving stone, keeping the portion of the edge that you are sharpening parallel to the front of the **KNIFE GUIDE** for flexible blades. This takes some practice. At first you will hold the knife tighter than necessary. But as you get comfortable, try to relax your hands. You only need a small amount of pressure on the back of the knife blade to keep it locked into the **KNIFE GUIDE**, and little pressure on the stone to get it to cut.

1. **Put** a small amount of dish soap in the water and saturate the **STONE**. Do not soak the stones. Let them dry out before putting them away.
2. **Begin at the heel of the blade** and work your way toward the tip, keep the edge parallel to the front of the **KNIFE GUIDE** for flexible blades. For stiff blades center them on the **BLADE TABLE**.
3. **Starting Position: Place the STONE** on the edge of the knife. Pull the knob toward you until the edge is on the **RAMP**, and slide the arm over to the **HEEL** of the knife.
4. **Push Stroke: Push** the **STONE ARM forward** and in a diagonal motion. Make about a 2" wide cut. Go all the way to the **STOP**. Use just enough pressure to get the stone to cut, and no more.
5. **Pull Stroke: Pull** the **STONE ARM back** to the starting position with no pressure on the **STONE**. Go all the way to the **RAMP**.
6. **Set Your Pressure:** Each time you start, run the **STONE** a few strokes with no pressure. Gradually add pressure until you feel the stone start to cut. This is the perfect pressure. Go slow, this is what keeps the stones cutting and clean. The stones cut faster going slow.

HINT: Don't go in circles. Use straight diagonal strokes. If you go in circles you concentrate all the sharpening in one area of the edge.

HINT: Keep the knob loose in your hand so the stone is free to follow the shape of the blade.

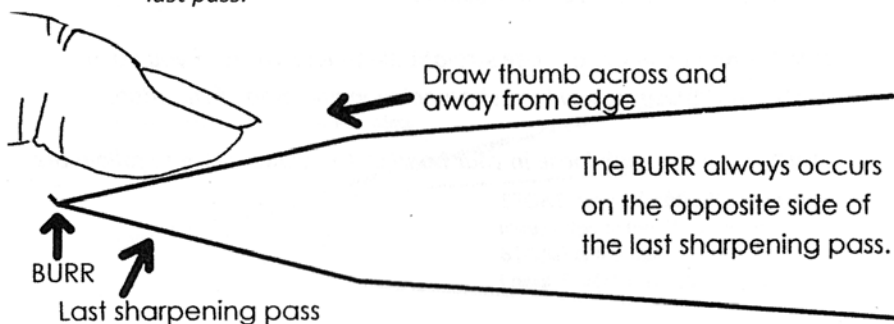
7. **How to move the knife:** Make 3 or 4 strokes of the STONE ARM from the STARTING POSITION. Stop and move the knife 1", make 3 or 4, strokes, move the knife 1". Continue until you reach the TIP. If you have trouble controlling the ARM at the tip, lift the STONE ARM off the blade on the pull stroke. Make sure the TIP is directly over the corner of the BLADE TABLE for support as you sharpen.

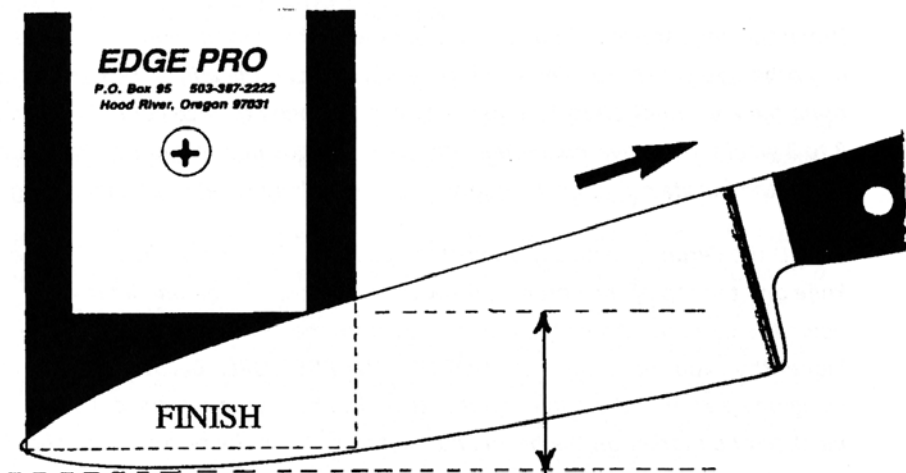
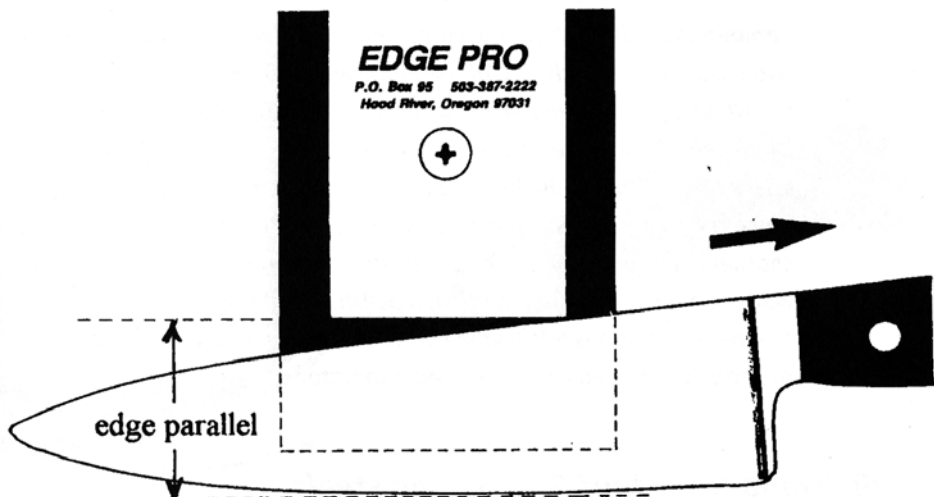
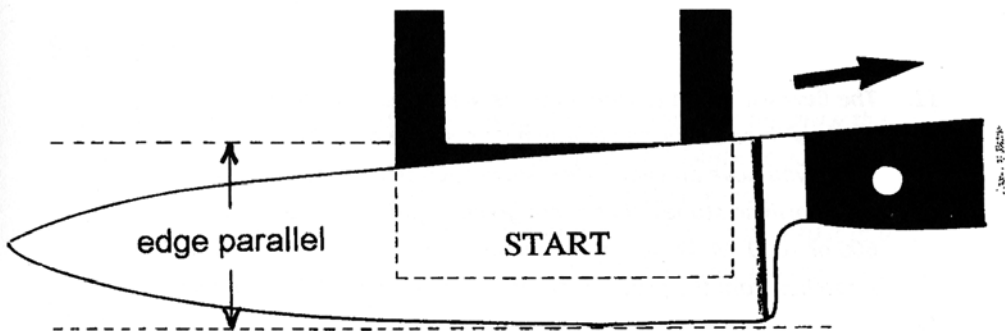
HINT 1: Keep the STONE ARM operating over the BLADE TABLE. Do not let it wander down the blade.

HINT 2: Make slow, smooth, long, even strokes. The stones remove more metal going slowly and are easier to control.

HINT 3: With practice you won't need to stop sharpening to move the blade. Instead, just inch it along as you sharpen.

8. **Switch** the knife and STONE ARM to opposite hands and repeat the process on the opposite side of the blade.
9. **Clean the STONE** and wipe the knife blade off every one or two passes. Put just enough water on the STONE to cover the surface. This will lift the metal and grit away from the surface. Then wipe the STONE off with a damp micro fiber towel.
10. **Bring the edge to a BURR.** Continue making equal passes down each side of the blade. When the two sharpening cuts come together at the edge, the metal breaks down and forms a BURR, which can be felt by drawing your thumb across and away from the edge on the opposite side of the last pass.





As the blade moves across the BLADE TABLE, you want it to remain **parallel** to the end of the BLADE TABLE.

11. **The Burr** will begin to form in some areas and not others. Concentrate in areas with no BURR and lightly pass over the areas that have a BURR. When you have an even BURR down each side of the edge, move on to your finishing stones. If I am not going to polish the edge I finish with the 600 or 1000. Make about two passes with each stone to remove the scratches from the previous stone. Only use the 120 for thinning.
- 12.

Remove the BURR. Wipe the stone and knife clean of stone grit. Make two passes down each side of the blade with NO PRESSURE on the STONE and just the weight of the STONE ARM. DO NOT HIT THE STOP OR RAMP. Only make one light stroke through each area of the blade. Check to see that the BURR is gone. If you use too much pressure or make too many strokes, the burr will not come off. If you are sharpening a Japanese cooking knife or a sporting or pocket knife you want to move on to 2000 and 3000 polish. Regular kitchen knives need the micro serrations left by the 600 or 1000 stones. Use the knife until the edge will not easily go through a tomato.

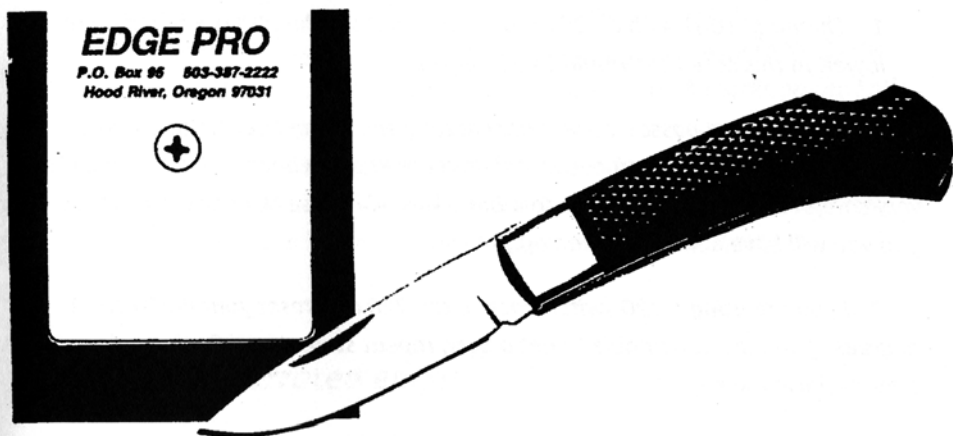
Finishing the edge/ Sharpening steels

When the edge starts to fade, bring it back with the ceramic hone. Do not use any other type of sharpening steel. They will damage the edge. The Ceramic will bring the edge back 10 to 15 times between sharpening. Each edge should last 2 to 3 weeks in the average home kitchen or one day in a restaurant. You want to get the full life out of each edge so you can go longer between sharpening.

STAND the Ceramic vertically against the counter. Starting at the heel of the knife and the top of the Ceramic, draw the knife toward you and let it slide down the Ceramic. Angle the blade away from the Ceramic at a few degrees higher than you sharpened. DO NOT USE ANY PRESSURE. Because you are not using any pressure, the angle is not critical. To check your results, put some black felt tip marker on the bevel and run the knife on the ceramic. You should see a shiny bead of metal right at the edge. This is a micro-bevel.

Short blades

Sharpen the main part of the **BLADE** as usual. As you reach the tip, draw the knife out and pivot the **TIP** out over the end of the **BLADE TABLE** so you can sharpen. Be very careful not to cut the **BLADE TABLE** with the stone. **GO SLOWLY**. The **BLADE TABLE** will get cut up over time, but you can keep it to a minimum if you are careful. Try to pivot the **BLADE** in the same manner on each pass for a more consistent **EDGE BEVEL**.



Sport knives and all stiff blades

*Blades 3" to 6": Center the knife on the **BLADE TABLE** and sharpen the entire blade without moving the knife. For longer knives, just slide far enough to bring the front of the knife close to the side of the **BLADE TABLE** and sharpen around the curve off to the side of the **BLADE TABLE**. If you are resting on the **FLAT** of the blade the **PIVOT** reads correct. The **FLAT** is the same surface that the handle is attached, often this surface is not wide enough for a good rest. If you want a specific angle on the edge, lets say 21 degrees, there is usually enough **FLAT** near the handle to get a bevel started. Start a bevel at 21 resting on the **FLAT**. Then lower the knife on to the **FACE** and put marker on the bevel you just cut. Reset the **PIVOT** to your new angle. Now the **PIVOT** will be set around 23 or 24 degrees but you'll actually be sharpening at 21 degrees on the knife.*

Thinning the Blade (Sharpening very dull knives)

If you are sharpening a very dull knife and you are having trouble getting a burr, you either need to go to a higher angle or you need to create a second bevel at a lower angle. This also improves the shape of the blade so the knife will cut easier. Usually if the edge bevel is over 1/16" wide it is time to thin the knife.

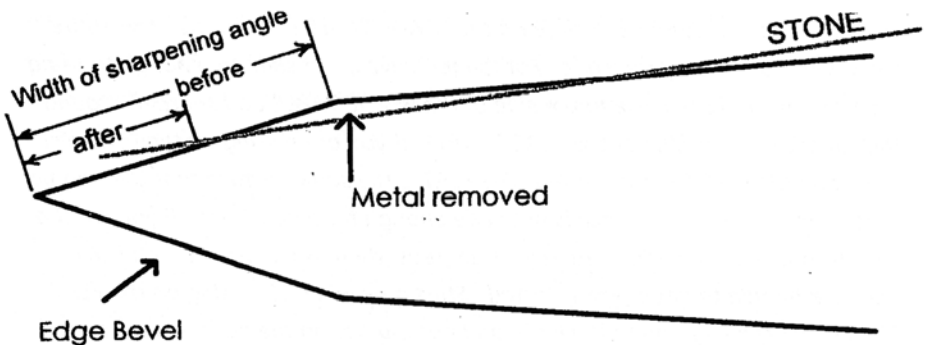
Example: You are working on a chef's knife at 21 degrees with your 220. You can't get a burr. Go to a higher angle or thin the knife.

1. Thinning--start with a 120 or 220 stone and set the PIVOT 4 to 6 degrees lower. In this case that would be 15 degrees.

2. Make several passes. As you are creating the second bevel the primary bevel is getting smaller. Remove metal until the Primary bevel is 1/64" wide. (Be very careful not to go all the way to a burr. This will cause the edge to collapse and you will have a mess to clean up.)

3. If you are using a 120 switch back to the 220 and reset your PIVOT to 21 degrees. If you are still unable to get a burr, repeat steps 1 and 2. If you do get a burr - finish the edge.

4. Last step, go back down to 15 degrees and with your finer stones put a nice finish on the second bevel.



Sharpening without scratching the blade

(For polished or engraved knives)

1. Cover both sides of the blade with blue painter's tape, available at any hardware store. Trim off the excess tape with a knife. Then trim the tape off the **EDGE BEVEL** so it won't gum up the **STONE**.
2. Sharpen as usual, but do not run the **STONE** all the way to the **STOP**. Sometimes the end of the **STONE** will make scratch marks on the knife.
3. Finish the edge and remove the tape.
4. To protect the side of the blade to a lesser degree, tape over the end of the **BLADE TABLE** so the knife is resting on the tape. This works very well if you don't have to move the knife during sharpening.

Sharpening serrated edges

You can only sharpen knives with serrations cut on one side. Knives with serrations on both sides are considered throw away knives. Only sharpen on the side opposite of the serrations (the flat side.) Put some magic marker on the flat side. Set the angle so the stone is making a cut all the way through the serration. If you can't get low enough, slide a piece of cardboard under the **KNIFE GUIDE** and let it stick out $\frac{1}{4}$ ". Set the back of the blade on the cardboard and this will lower the angle further. Use a 400 stone. Make a few passes, then turn the edge up into a good light. Look at the points on the serrations. If the knife is dull, there will be shiny spots on the points. Sharpen until the shiny spots just begin to disappear and stop before the points begin to a burr. Finish with a 600 or 1000. If you polish the edge just use a pull stroke. To finish, turn the knife over, and lightly run a Ceramic stick through each serration to remove the burr.

Leveling the stones

As soon as you can see, that a STONE is no longer flat, it needs to be leveled. We use 60 Grit Silicon Carbide (SC) on a piece of glass with water. Put about a teaspoon of SC on the glass and add some water. You want a loose slurry. Level a 120 or 220 first to break the SC down before you level your finer stones. Run the stone in circles and turn it end for end to even out the pressure. As soon as the stone is level it will all be one color. We have SC and leveling kits. If you don't have SC, you can level a stone dry, on a concrete driveway or sidewalk with sand.

Removing a Stone

Grab the stone plate in a vise or with pliers. Heat the plate with a propane torch, heat gun, or the stove for about 20 seconds. With a putty knife slide the stone off of the plate. If the glue is smooth you do not have to remove it. You can remove the glue with GooGone. Then clean the plate with acetone.

Bonding a stone to a plate

If a stone comes off of its plate, or you buy your stones un-mounted, you can attach them with 3M77 or any contact cement, available at all hardware stores. You can also use permanent glue, but then you can't reuse the plate. Coat the stone and the plate with glue. Let set until tacky. Make sure the plate and stone are lined up when they touch. The glue grabs hard instantly.

Safety features

1. The **BLADE STOP**—prevents your hand from contact with the knife edge.
2. The **PIVOT STOP**—if you should jump over the **BLADE STOP**, the **STONE ARM** will only go $\frac{3}{4}$ " before the **STONE HOLDER** stops against the **PIVOT**.

Polish Tape Instructions

1. Remove the backing from new tape. Holding it by the sides, lower it onto the blank. If you get air bubbles under the tape installing a new one, you can pull it up several times and it will adhere to the blank just fine. Press the tape in place use your finger and a clean paper towel. You don't want to use just your finger, you will get oil on the tape.
2. If you have a Pro Model, set the RAMP a little high. You do not need to use the RAMP when polishing, but if you slip on to the RAMP and it is not high enough, the knife will cut the tape off the blank when the edge comes back over the tape.
3. Wipe the knife clean of all stone grit.
4. Use a pull stroke on the first few passes. Don't use any pressure. Then after a few passes, you can use just a little pressure.
5. Polishing. If the knife is not as sharp as you want it, lower the PIVOT just enough to see it move. Make a few more passes. You can also check the Tape with a felt tip marker to make sure it is cutting all the way to the edge and not just polishing the bevel.
6. Clean the Tapes. Put a little dish soap in the water bottle. Wet the Tape and wipe with a clean paper towel after each knife. You can use the soapy water on all the stones.

Directions for 1200 Grit Travel Ceramic

7. Remove the Ceramic from the plastic tube. Insert the bare end into the taped end, and **push and twist** firmly until the ceramic is securely in place. Using the tube for a handle, stand the ceramic against the counter. Follow the instructions in the manual.
8. Clean the Ceramic often by scrubbing it with a damp soft cloth and cleanser (Ajax or Comet).
9. CAUTION: Ceramic will break if you drop it.