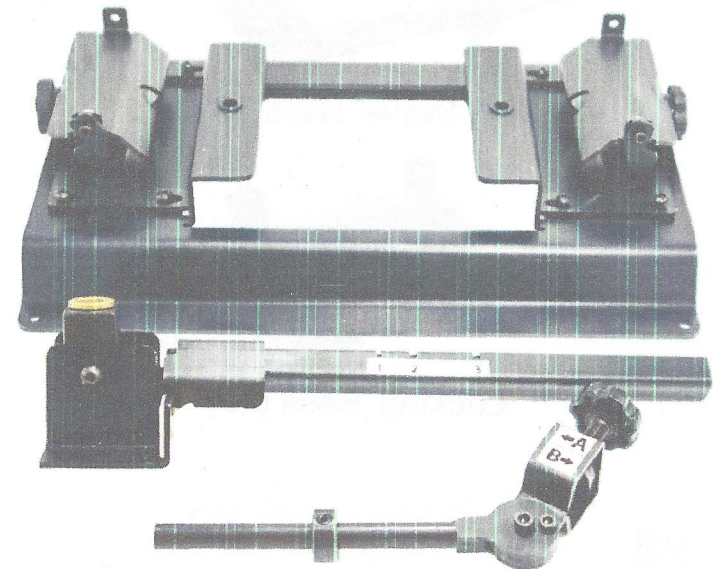
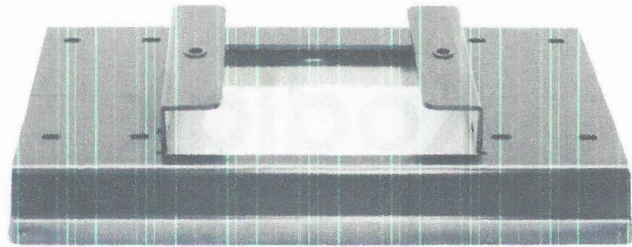


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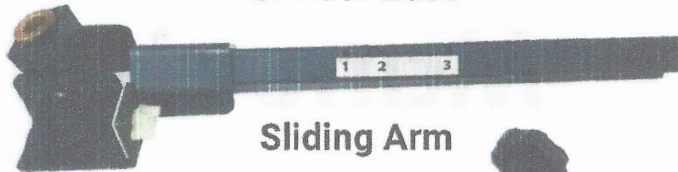
Kodiak Instruction Manual



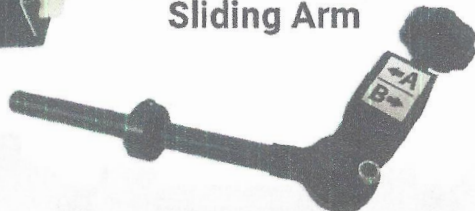
Contents



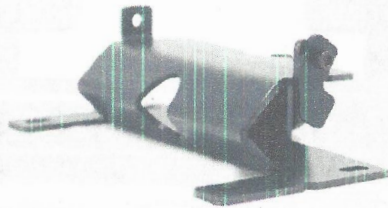
Grinder Base



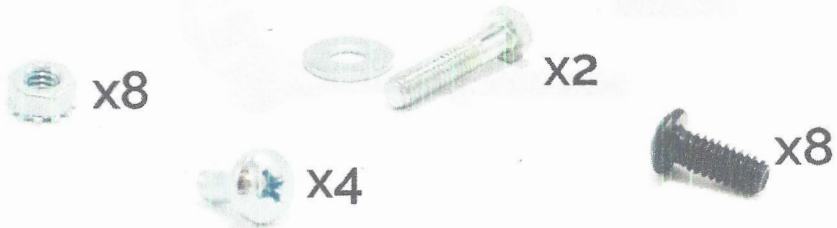
Sliding Arm



Swivel Head



Locking Base (x2)



x8

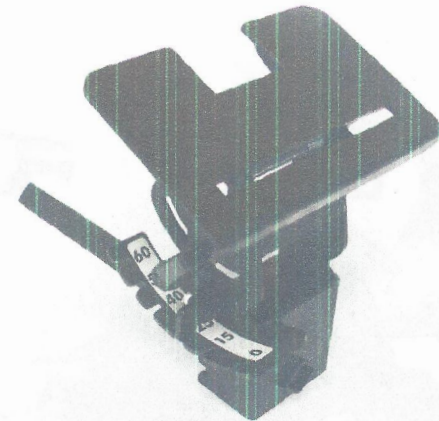
x2

x4

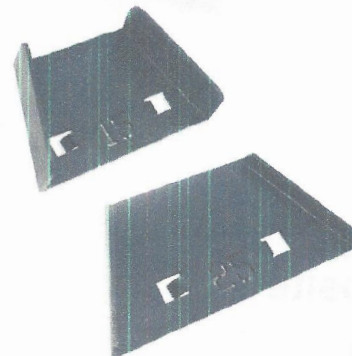
x8

Optional Accessories

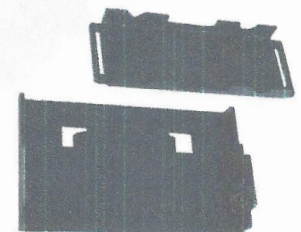
Tool Rest System



Horizontal & Vertical Skew Guides



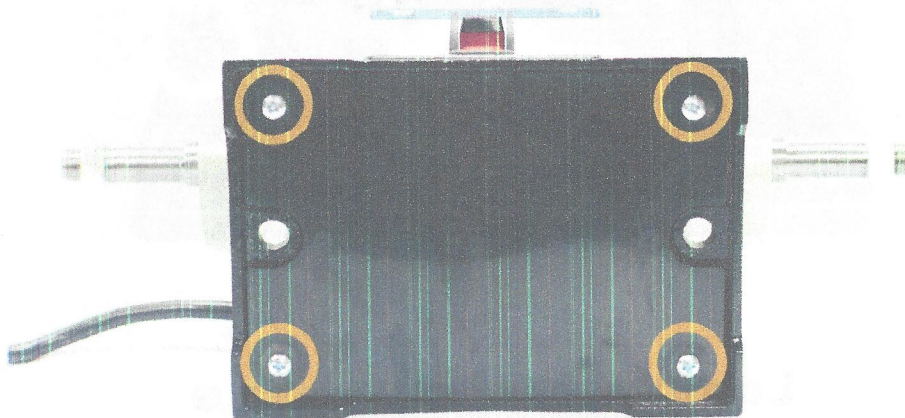
Sliding Jig Set Multi-tool



Mounting with Base

Step 2

Remove all the rubber grinder feet and replace them with the provided shorter screws.



FAQ

What do the numbers on the Tool Rest Platform mean?

These are the degrees of angle from the vertical tangent of the wheel to the surface of the Tool Rest platform. When the platform is horizontal, it is 90 degrees to the surface of the table and the reading is 0 degrees. Moving the outer edge of the platform down to 15 degrees means that you are 15 degrees from horizontal (or 75 degrees or 105 degrees from 90 degrees.) This reference is done to indicate that when sharpening a bowl gouge, you will get a nose angle of 15 degrees from the center of the flute down the bevel. (This is the inverse of 75 degrees)

What are the A,B and 1,2,3 settings?

The A and B settings on the Swivel Head are used to set the wing length. A is a shorter wing and B is a longer wing length. The 1, 2 and 3 settings correspond to the most common nose angles of 1=30 degrees, 2=40 degrees and 3=60 degrees. For example, a 60 bottom of the bowl gouge is setting A-3, short wing at 60 degrees.

Specific Grinds

What setting is a 40/40 grind?

The 40/40 grind, coined by Stuart Batty, is achieved by setting the Slide Arm to 2 and the Swivel Head to A. This will approximate a true 40/40 grind, but extra care needs to be taken since pausing at the nose or on a wing can change the grind. To achieve a true 40/40 grind, the gouge needs to be placed flute down on the Tool Rest platform set at 40 degrees. Pushing the tool into the wheel will leave a flat outline of the flute. Return the gouge to the Swivel Head and grind the tool at setting A-2. Watch carefully to follow the outline of the flute. When the flat outline is gone, you have achieved a true 40/40 grind.

How do I make an Ellsworth grind?

The grind made popular by David Ellsworth is one with a 60 degree nose and a long wing for shear scraping. The setting would be a B-3. The B will give a long wing and the 3 will give a 60 degree grind on the nose.

What if I want a grind that is not 30, 40 or 60 degrees?

The positive stops on the Slide Arm are set because they are the most popular settings. However, the Slide Arm can be locked in at any setting, even if there is no positive stop for that setting.

Mounting with Base Step 1

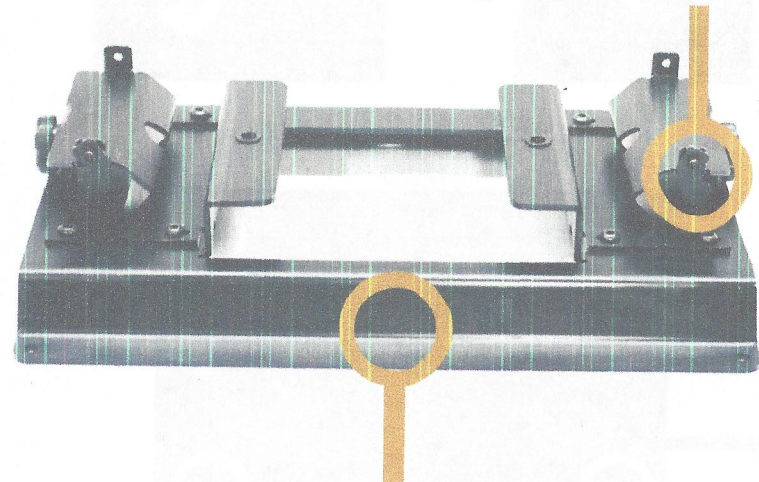
Instructions pictured with 1/2 HP grinder base

Using the included black screws and k-nuts, attach locking bases to grinder base with the swinging lock in front, and the lamp attachment hole in the back.

Do not tighten yet.



Swinging lock in front



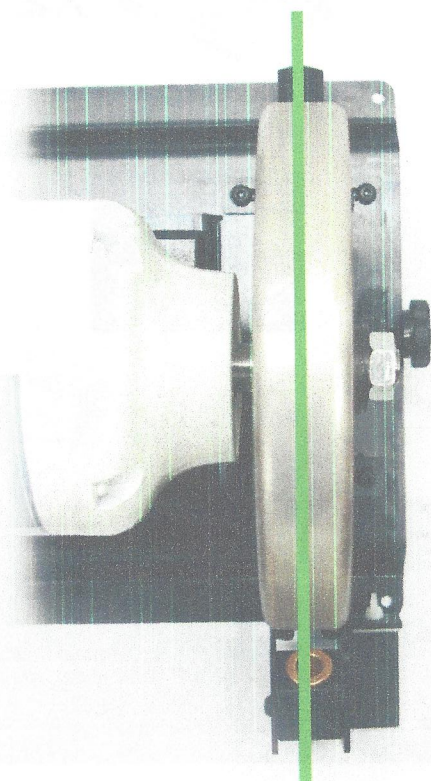
**Lamp attachment hole
NOT in front**

Mounting with Base

Step 4

With both CBN wheels on the grinder, align the locking bases by inserting the sliding arm so that it protrudes out of the front and back as shown. Looking from the top of the CBN wheel, move the locking base until the sliding arm is centered on the wheel.

Tighten the locking base down.



Using your Kodiak

Using your Kodiak sharpening system could not be easier. Please refer to the laminated chart included with your purchase. You will notice that next to each grind listed there is a letter and a number.

Let's say you want to do an Irish Grind on a gouge. The chart says B2. Insert the sliding arm into the clamp and put the little lever on the front of the clamp into the number 2 notch. Lock the lever.

Place the tool through the swivel locking head where the lock down knob is located. Put the locking head holder up against the front of the "saddle" located on the right side of the slide arm. This will establish the correct protrusion of the tool through the holder which is 2 ¼ inches.

Next, insert the post of the locking swivel holder into the bronze bushing of the sliding arm. The "A" and "B" setting correlates to the minor up or down movement of the tool in the swivel head. An "A" setting means the back part of the tool will be moved downward in the jig and the "B" setting means the back of the tool would be lifted to move the front of the tool that makes contact with the wheel lower on the wheel.

FAQ

What if the gouge is not hitting the wheel above the centerline?

Check to make sure that you have the proper set back on the gouge by using the Slide Arm gauge. Also check to see that the Swivel Head is seated in the Slide Arm hole properly. The stop collar should be seated on the brass ring of the brass bushing, which is facing up.

Can I change the stop collar?

Changing the stop collar will affect all the pre-set positions of the Kodiak system. The Swivel Head stop collar is set at $2\frac{15}{16}$ " from the bottom of the Swivel Head shaft.

Why is my gouge grind uneven?

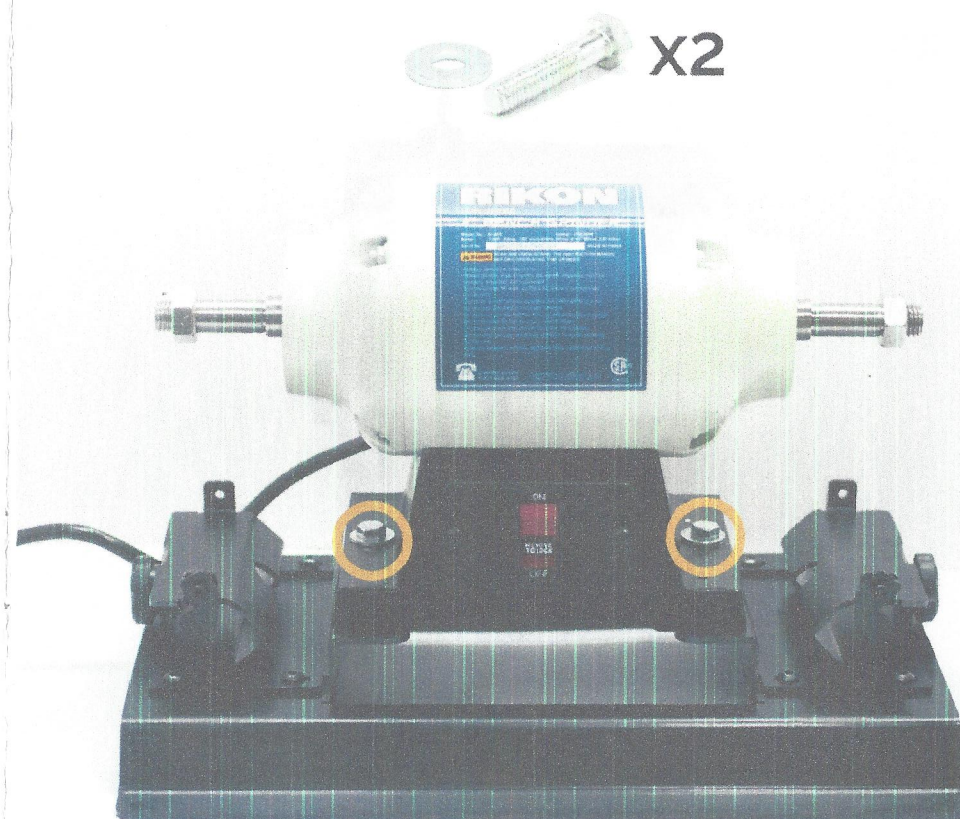
There are two possible causes. One is that the operator may be pausing on one side of the other. CBN wheels cut very efficiently and staying in one place too long can affect the grind. Another possibility is that the Slide Arm lock down is not centered on the wheel. Visually inspect the position of the lock down by placing the Slide Arm all the way through the lock down and looking at it from above the CBN wheel. It should be perfectly centered on the wheel in both the front and the back. If it is not, the four screws that hold the lock down can be loosened for adjustment and then re-tightened.

Do I need the plywood bottom?

The plywood bottom on the Grinder Base is used to protect the base during shipping. You may leave it in place or remove it to more easily mount the Kodiak to a bench.

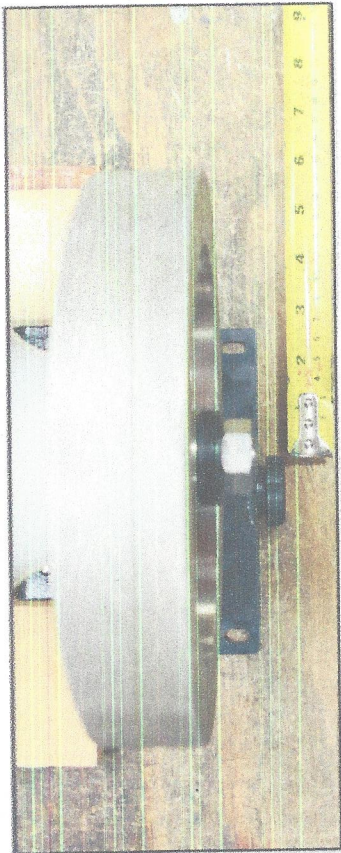
Mounting with Base Step 3

Mount the grinder to the base using the provided bolts and washers. Before tightening, align the grinder as straight and centered as possible, then tighten the two mounting bolts.



Mounting without Base Step 2

Now position the Locking Base using a square and tape measure so that the front edge of the Locking Base is 2 ½ inches forward of the center of the shaft. The little locking lever on the Locking Base should be facing front.



Mounting without Base Step 3

Make sure the opening of the Locking Base that holds the sliding arm is centered in the middle of the wheel.

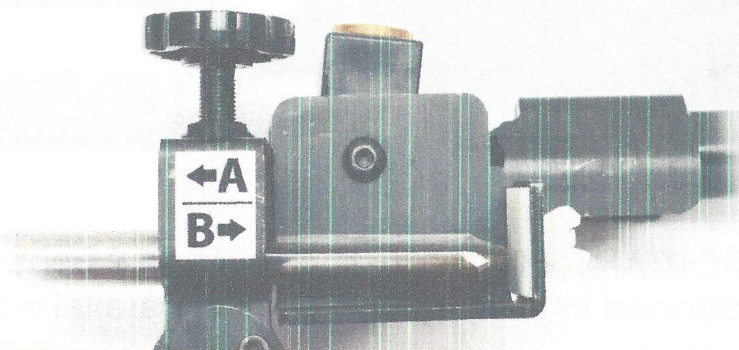


IMPORTANT! Make sure the Locking Base is positioned in such a way that it is parallel with the wheel.

Using your Kodiak

On the laminated card included with your system, you will notice that next to each grind listed on the chart, there is a letter and a number. These correspond to the settings of the swivel head and sliding arm of your system. A copy of the chart has been provided below.

A 2	Basic Bowl Gouge
A 3	Bottom of Bowl Gouge
A 1	Spindle Fingernail
B 2	Bowl Long (Irish)



Tool should extend 2 1/4" from Swivel Head. Use the saddle on the Sliding Arm as shown to measure.

Mounting without Base Step 1

Make sure your grinder shaft is 6 1/2 inches from the center of the shaft to the surface where Locking Base(s) will be mounted. It may be necessary to put a board or plywood under the base of the grinder to achieve this. Don't use too large a board as it may interfere with the mounting of the Locking Base.

