

# KaVo 2000N SONIC SCALER REPAIR PROCEDURE



The KaVo 2000N sonic scaler is fairly common and is used to remove calculus buildup from teeth. The most common problems for this handpiece include low or no vibration or a water leak. Both of these problems can be easily solved. As always, try to determine the problem before disassembling the scaler.

Some signs to look for are:

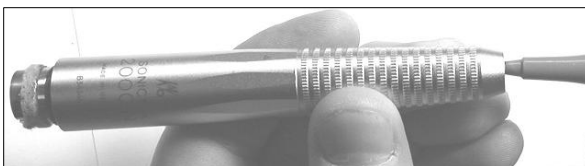
- The unit has low or no vibration:
  - First, make sure the unit is getting proper air pressure. If it is, the internal rotor (20107) is probably cracked. Disassemble and replace.
- There is a water leak:
  - There are several small o-rings inside the unit. You will need to disassemble the unit and replace some of them.
- The unit pops off of the coupler:
  - This is the sign of a broken KaVo C-Spring (10131) or missing retaining balls (10132). Disassemble and replace.

The repair procedures for each of these problems is addressed below



## STEP 1

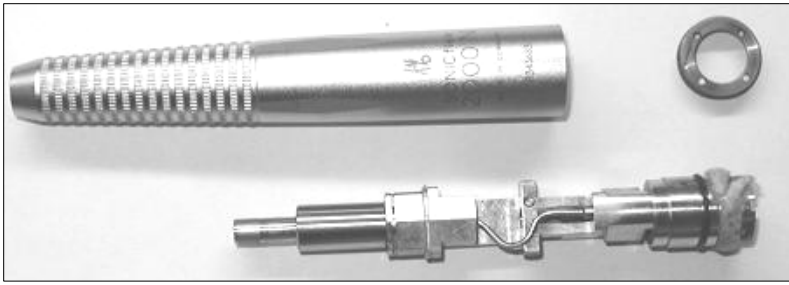
To disassemble the unit, remove the scaler tip and insert 10112LH Tool into the four holes in the base of the scaler. This base ring is regular thread so unscrew it in a counterclockwise direction.



## STEP 2

Once the base ring has been removed you can slide the main spindle assembly out of the housing. The spindle is only held in place by some o-ring snug fits, so you

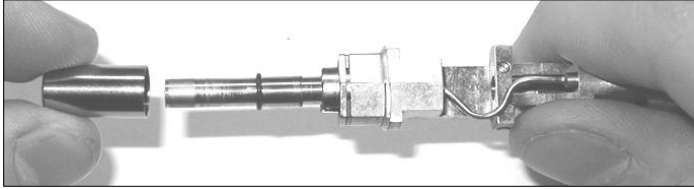
can push it out using a bic pen as pictured. Be sure to use plastic or brass so you don't damage the threads in the end of the spindle.



### STEP 3

The picture at left is what you should now have placed on your work surface. The housing and base ring can be cleaned in the ultrasonic cleaner while you concentrate on

the spindle assembly. Do not put the fabric baffle into your cleaner. Simply spray it with some Once-A-Day lube to remove debris from it.



### STEP 4

This step deals with the problem of low torque/vibration. It is usually caused by a dirty or broken rotor (20107). To expose

the rotor, gently pull the rotor sheath off of the nose of the spindle (as pictured). This will reveal the rotor and o-rings. Do not make the mistake of thinking the rotor looks good and thus not replacing it. Clean the surface where the rotor sits with alcohol and a Q-tip. Always replace the rotor. Remember to make sure the o-rings on either side of the rotor are spaced as to allow it to vibrate up and down. This simple process should remedy the low vibration problem.

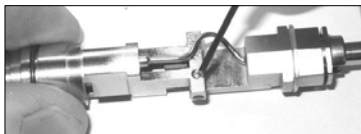
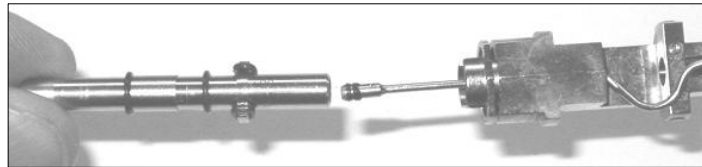
**ONLY DISASSEMBLE FURTHER IF THERE IS A WATER LEAK OR MORE PROBLEMS PRESENT!**



### STEP 5

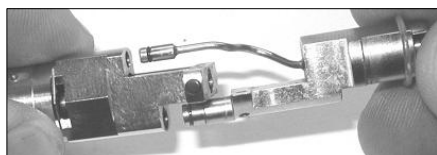
You can begin the further disassembly by removing the retaining clip from the spindle as shown at left. Use a small jewelers screwdriver to perform this step.

Once the clip has been removed, you can pull the upper spindle portion from the rest of the unit (bottom picture). The exposed water line is fragile so be careful when handling it.



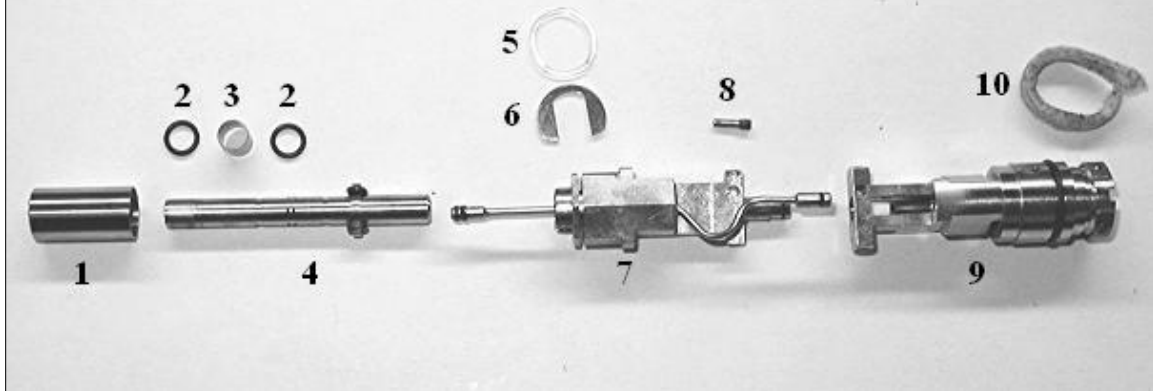
### STEP 6

To disassemble the bottom piece of the internal assembly, remove the small set screw as shown in the two pictures.



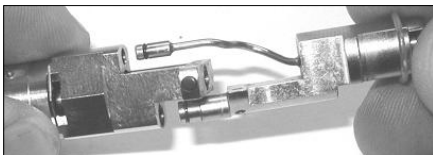
Once this screw has been removed, you can very carefully pull the two pieces apart. Remember to call the corporate office if you have any questions about this.

## KaVo 2000N Sonic Scaler Exploded View



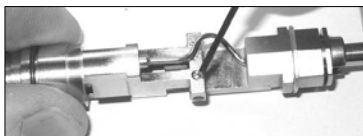
Picture Number	Part Number	Description
1	N/A	<b>Rotor Sheath</b>
2	10152	<b>Rotor O-Rings</b> (All 8 internal o-rings are included in the 10152 kit)
3	20107	<b>Rotor</b>
4	10236	<b>Upper Spindle Assembly</b>
5	10152	<b>Retaining Clear O-Ring</b> (All 8 internal o-rings are included in the 10152 kit)
6	N/A	<b>Assembly Retaining Clip</b>
7	N/A	<b>Main Internal Assembly</b>
8	N/A	<b>Retaining Screw</b>
9	N/A	<b>Air Manifold</b>
10	10154	<b>Fabric Baffle</b>

Please note that the 10152 O-Ring kit includes all 8 scaler o-rings. It is ideal to reuse the existing o-rings as the KaVo factory o-ring kit runs around \$100.

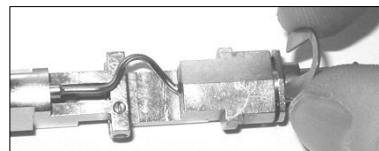
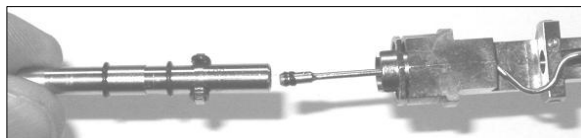


### STEP 7

If you only needed to replace the water line o-rings (10117A), begin the reassembly process. First, insert the Main Internal Assembly lines back into the Air Manifold (base piece). Once you have properly



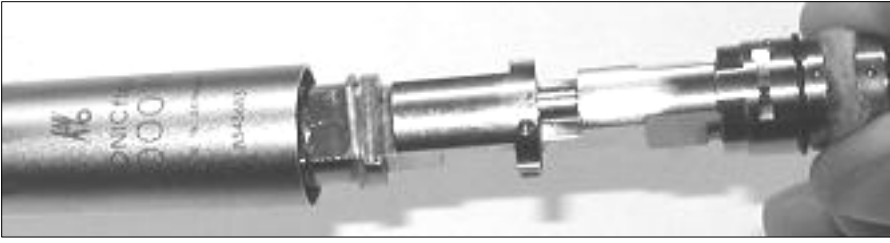
meshed the two pieces, reinsert the retaining screw and tighten.



### STEP 8

Now you will need to insert the top

spindle assembly into the main internal assembly (above left). With the spindle inserted, place the assembly-retaining clip into its slot. Next, slide the rotor sheath over the rotor.



**STEP 9**  
Slide the clear o-ring into position on the main internal assembly. Also place the fabric

baffle on the end of the air manifold. Now slide the unit into the main housing. This should be fairly smooth but you will need to make sure the end of the spindle is lined up with the port at the top of the housing for full insertion.



**STEP 10**  
Thread the base ring into the back of the housing. Turn it clockwise with your 10112LH Tool until it is secure. Finally, screw the tip back on to the unit and test.