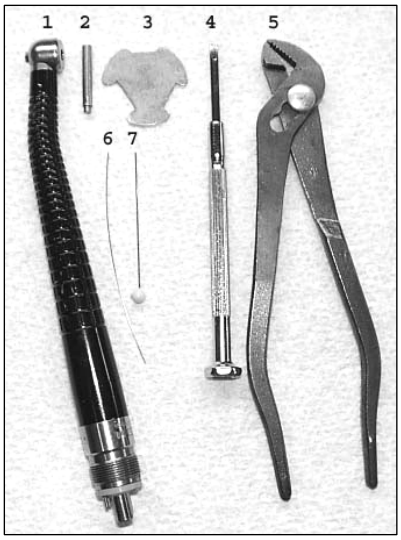
Lares 330E – JC (Jacobs Chuck)
Repair Procedure

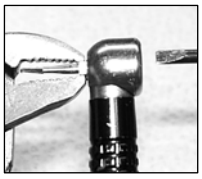


1. Lares 330E –JC Handpiece
2. Lares Disassembly Punch (00024L1)
3. Lares Back Cap Wrench
4. Small Flathead Screwdriver
5. Small Channel Lock Pliers
6. Wire Reamer
7. Push Pin

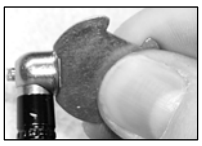
The Lares 330E – JC is one of the lightest high speed handpieces made. It also has one of the smallest heads, making it a favorite for pediatric dentists. Unfortunately, this handpiece often fails prematurely, especially with regards to the front bearing, making it a source of frustration for both doctors and repair techs, alike. This handpiece can be converted to a pushbutton style handpiece by simply following the repair procedure for the Lares 557 Turbo – PB (following this section). The pushbutton back cap does make the head a bit larger, however.

STEP 1 Try to determine the problem before opening the handpiece. Insert a high speed bur (see Step 2 below), checking that it inserts smoothly and tightens securely. Twist the bur manually to feel how smoothly it turns. Attach it to your air hose and run the handpiece (if you can). Check that air pressure is at 38 p.s.i.. Listen for the appropriate pitch at full speed and for a smooth rundown. Check the water spray – it should be a fine mist. Attempt to cut a shell to test the torque. Disassemble the handpiece following the instructions below.

DISASSEMBLY



STEP 2
Most repair techs will not have the original Lares bur tool and therefore, must improvise, as seen in the photo to the left. Grasp the chuck nut with a pair of small channel lock pliers. Then, using a small flathead screwdriver, twist in a counterclockwise direction one or two turns – just enough to loosen the bur and not remove the nut. To insert a bur, simply reverse the process.

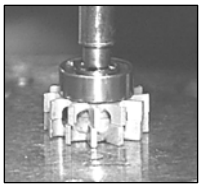


STEP 3
Remove the back cap using the Lares back cap wrench. Unfortunately, these wrenches are only available to dentists who use this handpiece. Luckily, they usually have quite a few of them and will share one with you, if you ask nicely.

STEP 4

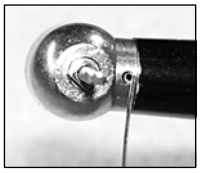
Remove the o-rings from the head and back cap.

Note: Sometimes, a small piece of the old o-ring breaks off and gets stuck in the groove. Lares handpieces are notorious for this but, it can happen with any handpiece. If a new o-ring is inserted over this material, it can cause it to bulge, restricting the turbine rotation. To remove all the micro-debris, run the tip of a curved dental pick around the inside edge of the o-ring groove a couple of times. Clean out the head and lines with a few sharp blasts from the air hose before putting all the parts in the ultrasonic cleaner.



STEP 5

Place the bur end of the turbine assembly, the end with the chuck nut, into hole #2 of the work block. Place the Lares disassembly tool (00024L1) squarely into the spindle and press it through and off the bearings and impeller.

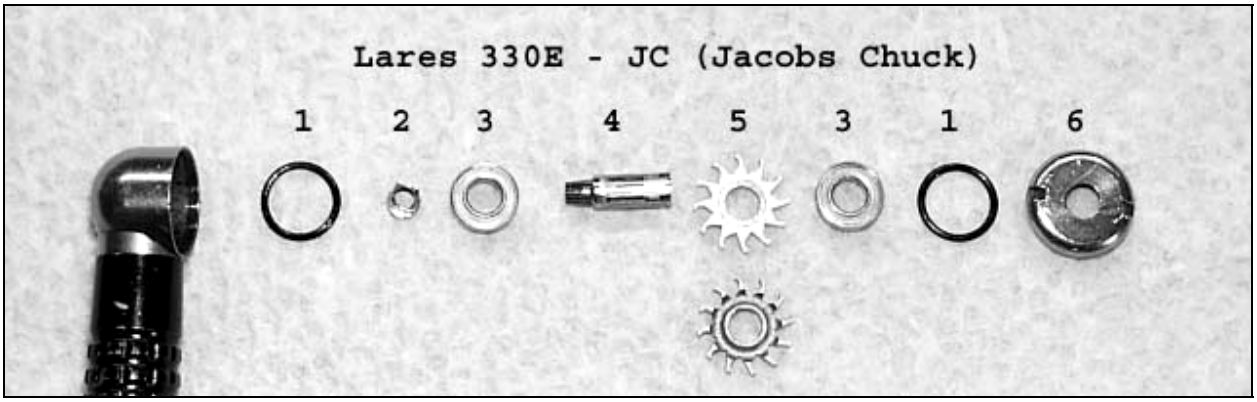


STEP 6

Set the old bearings and o-rings aside. Clear any debris or water deposits from the water line, using a wire reamer (left). Place all the parts into the ultrasonic cleaner until they are clean. Get new parts from inventory. Always remember to thoroughly dry everything after it has been cleaned in the ultrasonic cleaner.

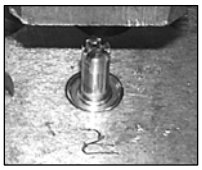
The following picture is the exploded view of the Lares 330E - JC.

Note: The chuck nut has been removed for this photo. Because the threads on the spindle/ chuck are so fine and can be easily damaged, it is good practice not to remove this nut.

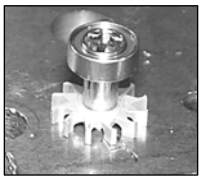


Picture Number	Part Number	Description
1	50110	O-Ring
2	50109	Chuck Nut
3	50106B	Straight Radial Bearing
4	N/A	Spindle/ Chuck
5	50113	Impeller (2 pieces)
6	50112	Manual Back Cap

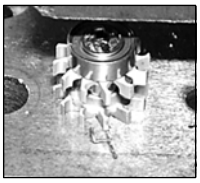
REASSEMBLY



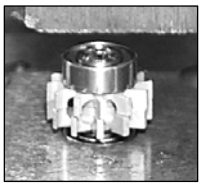
STEP 7
Place the rear bearing (50106B) into hole #2 of the work block, with the shielded side facing upwards, towards the ram of the press. Press the spindle/ chuck (with the chuck nut in place) through the bearing.



STEP 8
Place the rear half of the impeller over hole #4 of the work block, with the teeth facing down, closest to the work block. Position the partially assembled turbine squarely over the impeller and using the ram of the press, push it into the impeller until the bearing and impeller are snug together.
Note: New style Lares have a One-Piece impeller and a front loading spring.



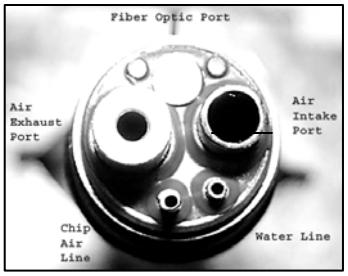
STEP 9
Position the front half of the impeller over hole #4 of the work block, with the teeth facing upwards, closest to the ram of the press. Position the partially assembled turbine squarely over the impeller and using the ram of the press, push it into the impeller, until the teeth on both impellers make contact. Note: it is not necessary to align the impeller teeth with each other. It will still work fine if they are offset.



STEP 10
Place the front bearing into hole #2 of the work block, this time, with the shielded side facing down, into the work block, away from the ram of the press. Position the partially assembled turbine squarely over the impeller and using the ram of the press, push it into the impeller until the bearing and impeller are snug together. The turbine is now fully assembled.

STEP 11
Reinsert new o-rings (50110) into the head and back cap. Slip the back cap onto the rear bearing on the turbine assembly. Next, insert the turbine into the head of the handpiece, as seen in the photo to the left. Carefully thread the back cap into the head, twisting in a clockwise direction. Use the Lares back cap wrench to tighten the back cap snuggly.

STEP 12 Test the handpiece by rotating the bur between your thumb and forefinger. The rotation should be smooth and easy, without drag.



TIP: *At first it may not feel as smooth as it should. Squirt a one second blast of The Dentist's Choice "Once a Day" lubrication into the air intake port. Put the handpiece on "air". Hold it at 38 p.s.i. for about 30 seconds. It should start to wind up to full speed. It will whine when it is at full power.*

When testing the handpiece, flip the water on to make sure the water lines are clear. Always test for torque or cutting power. Use a seashell for testing the handpiece. A piece of plastic does <u>not</u> work, it melts. When testing for torque, a Lares 330E will stop at about 6oz to 8oz of pressure. If it is not running properly it will stop the instant you touch something hard. If it cuts well and sounds good, it is done!