

Servicing the Hydraulic Reference Main Bearing

Undo the 3 knurled finger nuts and remove the motor top plate. Remove the belt being VERY careful **not to let it get under the platter and into the sticky silicone fluid**. If the belt gets fluid on it you can use lighter fluid and a Kleenex to try and remove it. Otherwise you will need a new belt.



Undo the knurled platter hold-down nut



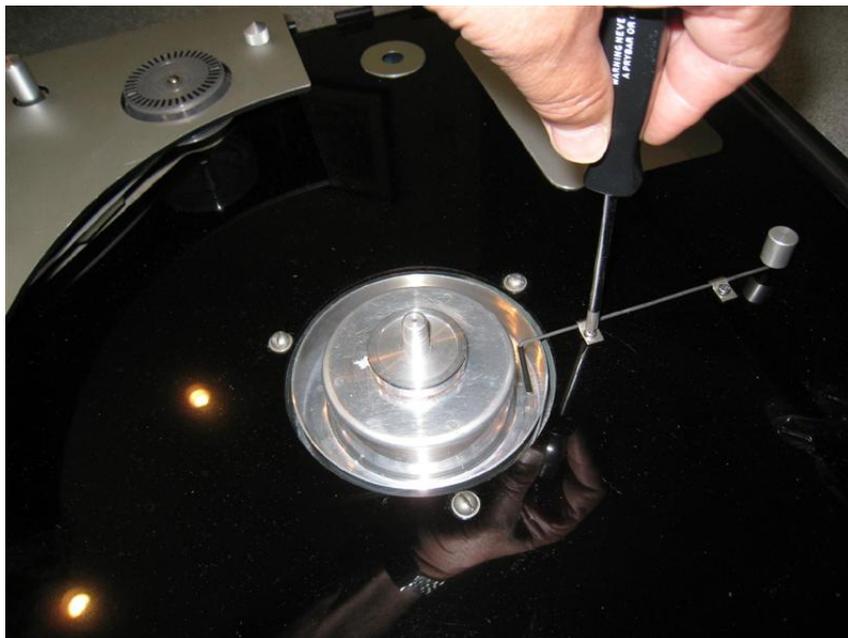
Use your thumb to push down on the centre spindle while lifting the platter. **Make sure the centre spindle stays fully seated in the bearing as you lift the platter off.** This will insure that the red interface washer that couples the fluid well to the bearing shaft is not torn or damaged.



Remove the platter



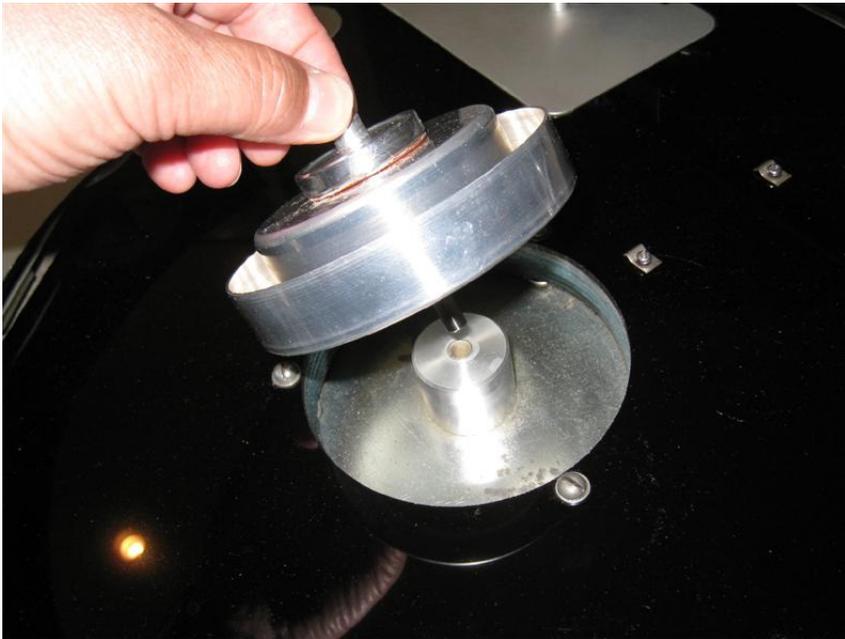
Undo the two Philips head screws that secure the speed control wand to the deck. This photo also shows what a main bearing with an undamaged interface washer looks like. The well will be connected to the spindle and spin together as a unit.



Lift off the speed control wand. Wipe any silicone fluid off the black paddle and set aside.



Remove the main bearing shaft and fluid well assembly. Be careful not spill any silicone fluid or to lose the round thrust ball bearing. It sits in the bottom of the bearing hole but sometimes sticks to the bottom of the bearing shaft.



This is what the thrust ball looks like if it comes out with the bearing shaft. Set the ball aside so you don't lose it.



If the ball is not on the end of the bearing shaft verify that it is in the bottom of the bearing hole using a flashlight.



Reassembly

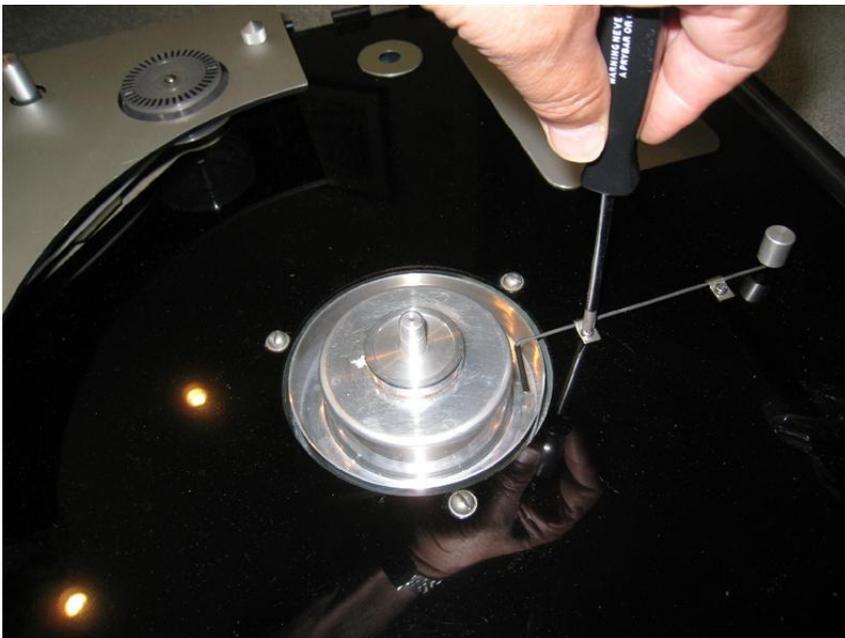
Add a few drops of turntable bearing oil to the bearing. Insert the thrust ball if it was removed.



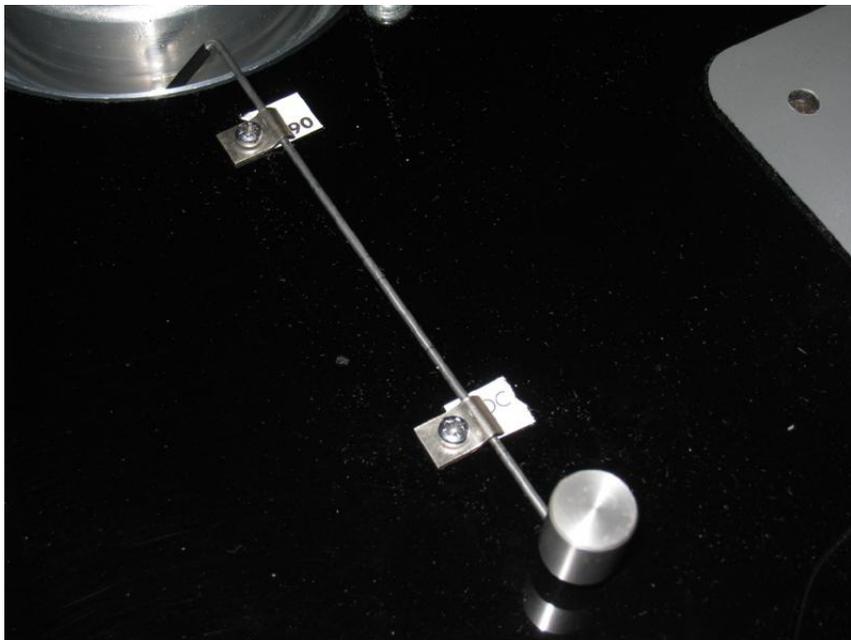
Replace the bearing assembly. Spin it by hand to make sure it spins freely. Also verify that the fluid well does not exhibit excessive vertical or horizontal run out. This would indicate that the fluid well is bent. It can be carefully bent into correct position if necessary, but be careful not to break the glue joint. It does not have to be perfect but is better if it is.



Re-install the speed control wand. Do not over tighten the screws or you will strip the wood. You should feel some snugness when you push the silver control knob back and forth so it will stay where it is put. Otherwise the fluid will move the speed control, changing the set speed.



If necessary you can add paper shims to tighten up the wand. Paper from a credit card works well for this.



Add silicone fluid if your well is empty. This is what a properly set up bearing should look like:



Reinstall the platter without the belt and give it the slightest push with one finger to get it rotating. It should spin friction free for a few revolutions. If it does not, you are most likely missing the thrust ball. Reinstall the belt and motor top plate. This is how the belt should look.

