

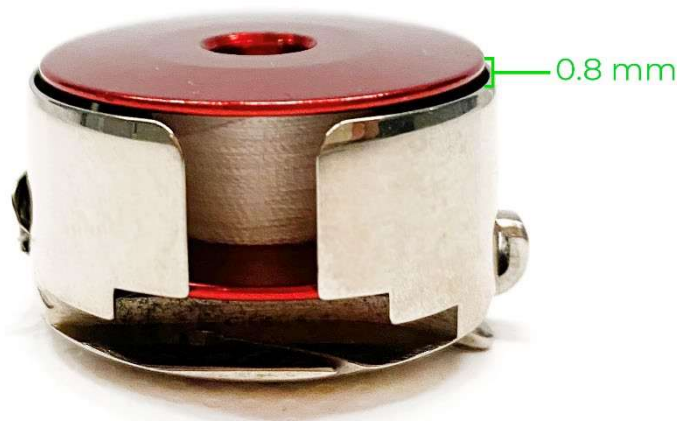
## **ADJUSTING AND UNDERSTANDING THE BOBBIN CASE**

### **BACKLASH SPRING**

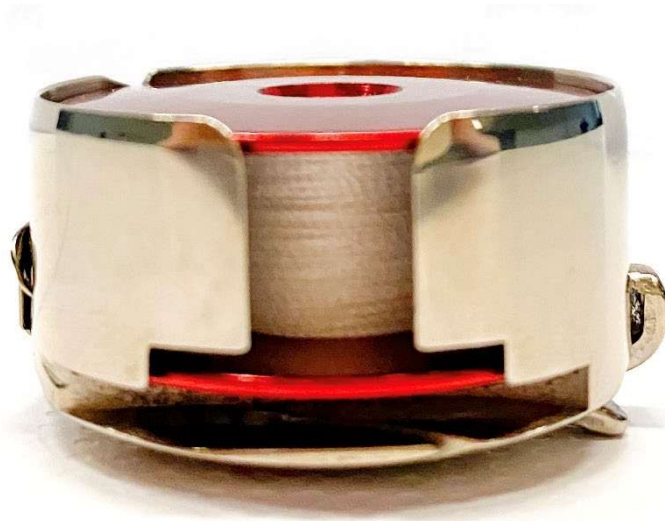
Because the speed of the INNOVA reaches upwards of 3000 SPI and the inherent starting and stopping of the quilt, there is a rapid speed build up and slow down as the quilting process unfolds. When you rapidly make a loop, the bobbin spins fast and then will stop at a certain point. This jerking action is like starting and stopping a car so rapidly that you get thrown into the windshield and then back into the seat. Without some control, the bobbin will unravel a large amount of thread causing a jam or thread break.

### **HOW DO YOU CHECK AND ADJUST?**

Install a brand new FULL RED bobbin shell. Hold the bobbin case level with the open side up as shown. The bobbin should be 0.8mm (approx. 1/16") above the case. If you push it down, it should bounce back up.



The gap between the red bobbin and the bobbin case  
should be 0.8 mm



**TOO LOW**

### **POSSIBLE ISSUES CAUSED BY MISADJUSTED BOBBIN:**

Sometimes you will see top thread pulled to the bottom in a clump, while other times the top thread will be pulled to the bottom in just a group of top thread stitches. This is caused by the top thread getting pulled down because it can't pull the bobbin thread up.

You will sometimes see the top thread break and snap up back to the tension. This occurs because the top thread can't pull the bobbin thread up and stretches like a rubber band before it breaks.

### **ADJUSTING THE BACKLASH SPRING:**

Remove the spring by taking it out with a small slotted screwdriver. The backlash spring will only go in properly one way, so note how you take it out.

You will need to bend the spring in two places so that the spring will be even against the bobbin as shown. Re-insert the spring and re-check your adjustment. Try to make the elevation of the red bobbin even all the way around the bobbin case. You may need to repeat these steps in order to install the backlash spring correctly.

