

PHILIP KUBICKI

RATCHET SPRING REPLACEMENT INSTRUCTIONS

1. With the strings removed and the bass turned face down - remove tuner from body by removing the 4 large bolts from the rear of the coverplate. Slide the tuner off the body.
2. Rotate tuning knobs clockwise all the way to the down position.
3. Remove the coverplate by removing the 2 Allen head screws from just in front of the tuning knobs. Then, remove the 2 Allen screws from the outside edges on the rear of the coverplate. Just leave the other 2 screws alone.
4. Slide the coverplate off the tuner casting slowly, being sure to notice exactly how the interior parts are positioned. Important for re-assembly. Set the coverplate aside leaving the knobs in position for re-assembly.
5. Place the bridge section in front of you with the bridge section to your left. Using a tool, push the axle shaft slightly out of the tuner, then pull the shaft all the way out. The wheel / spring / fork assemblies can then be removed, but keep them in the exact order they came out. You can write in pencil on each part where they fit so not to get them mixed up.
6. Pick up one of the wheel / spring / fork assemblies. Notice how it works. Press the spring down slightly and the wheel will slide off of the fork.
7. Notice that the spring has some spring tension holding it onto the mounting pins. Using needlenose pliers, push the small coil off the end of its mounting pin, then remove the other coil from its pin.
8. The new spring must be installed without spreading the spring open too much. Place the short leg coil on its pin and try to get it to go on slightly while pulling the other coil onto its pin. This must be done without spreading the spring open. Very important!
9. Replace the wheel by just pressing down the spring head to allow the wheel to go all the way onto the fork. Test the spring tension by rotating the wheel. The tension can be adjusted by removing the wheel and bending the long leg only in the appropriate direction. Very slight pressure can dramatically change the tension. Be very careful, take your time. Allen screws should snug, do not over tighten them. The forks go onto the brass blocks between the pins with the pins facing outward.
10. Re assemble and re install the tuner onto the body being sure the ground wire is exposed to the bottom of the bridge. The mounting bolts should not be over tightened.