

## Banjo Setup Steps

- Set the head tension. Use Steve's quarter method or a Drum Dial Gauge ( I adjust each hook to 90). You can tap tune later if you are not satisfied with the sound.
- Adjust the neck relief. Tune the banjo to pitch and capo at the first fret. Then press the fourth string at the 22<sup>nd</sup> fret. Measure for .015 -020 clearance between the top of 7<sup>th</sup> fret and the bottom of the 4<sup>th</sup> string. If necessary adjust the truss rod. Clockwise makes the clearance smaller. Counterclockwise makes the clearance larger. Go slow. (1/4 of a turn at a time). I use the 4<sup>th</sup> string because most buzzes occur on the 4<sup>th</sup> string.
- Check the nut slot depth. Press each string at the 3<sup>rd</sup> fret and check for .001 clearance between the top of the 2<sup>nd</sup> fret and the bottom of each string. If there is no clearance you may need a new nut if the strings are buzzing. You can also shim the bottom of the nut with card stock or something similar. If there is more than .001 clearance the slots need to be slotted to the correct depth.(Rudy has a great picture of this) I leave it to you to decide what tools to cut the slots with. I use three Stewmac files. (010, 012 and 020) The files can be rocked side to side when filing to make wider slots for different string sizes. This is how I cut the slots. Others do it different and their way may be better than mine. I loosen the strings and move them to the side if the neck I get out my feeler gauges and find the one (or combination) that is the same height as the 2<sup>nd</sup> fret. Lay the feeler gauge flat on the fret board just touching the second fret. To make sure I have the correct size feeler gauge I lay my 6' steel rule on edge and slide it onto and over the 2<sup>nd</sup> fret. If the rule hits the feeler gauges I reduce the size of the gauges. If the rule slide over the feeler gauges I increase the size of the feeler gauges. Once I have the correct height of the frets I put 2 pieces of blue painters masking tape on top of the feeler gauges and trim the tape to the width of the feeler gauge. I then cut the nut slots. Hold the fret size feeler gauge flat on the fretboard touching the nut. File each slot with the correct size file until the file just touches the blue tape. As you file the slot, angle the file on the same plane as the peghead and towards the tuner. Do all four slots. The blue tape helps to prevent you from going too deep in the nut. Restring the strings and tune the banjo to pitch. Recheck the measurement of each string for .001 clearance at the 2<sup>nd</sup> fret when fretting the string at the 3<sup>rd</sup> fret. If any string is off loosen that string and file the slot a little more (careful not to much). Re tune and check again. Go slow and do one string at a time.
- Check Action (String Height) Normal action is about 1/8 at the 12<sup>th</sup> fret from the top of the fret to the middle of the string You can change the action by increasing or decreasing the height of your bridge. A 1/8 difference in the height of the bridge will change the action about 1/16. CAUTION: The following is best left to a qualified luthier or builder. I do not like putting the rim out of round as I believe it effects tone and the integrity of the banjo. If the action cannot be set correctly

with bridge size it may also indicate that the heel of the neck is not cut correctly. The following information is from the Stelling setup procedure. Proceed at your own risk. “ Normal string height, or action, is about 1/8” above the 12<sup>th</sup> fret and 9/64” above the 22<sup>nd</sup> fret as measured from the top of each fret to the center of the strings. Two pennies under the first string at fret 12 should fit snugly without pushing the string upwards. To modify string height entails manipulation of the rim rods which are the two rods traversing the center of the rim. These rods secure the neck to the rim and must always be snug at the neck end prior to any adjustment at the opposite end where the 1/2” nuts are. Two holes in the middle of each rod facilitate turning the rods onto or off of the neck hanger bolts, or enable you to prevent the rods from turning when tightening or loosening the adjusting nuts. To lower the action, loosen the inner nut on the lower rod and tighten the outer nut. To raise the action, loosen the outer nut and tighten the inner nut.”

- I set the tailpiece parallel to the head and 1/4 off the head. Lower then 1/4 is fine, just don't have the tailpiece resting on the head. Lower settings put more tension on the bridge. Most players adjust the tailpiece up or down until they find the sweet spot.