Joy daily

Joy daily

THE BASICS OF BANJOS

Banjo Maintenance Manual

BUZZES -TROUBLE SHOOTING

Content

Introduction

Congratulations on acquiring a new banjo! The new banjo in your hands will bring you hours of delightful experiences and help you convey Your emotions through music. This manual is your essential guide, offering crucial information on setting up and maintaining your instrument.

If you were to play your banjo without doing anything to maintain or adjust it, you would find that soon it could be losing it's original sound, picking up rattles, and becoming less enjoyable to play. Realize that your banjo is a delicate instrument. Never leave it out in the sun, in a hot car, or out in freezing weather. This can cause damage to the banjo that will shorten the lifetime of musical pleasure you were after when you bought it.

It isn't difficult to maintain your banjo, if you understand what needs to be done. This maintenance manual will provide a thorough outline of what you can do to keep your banjo as nice as it was the day you bought it.

Daily Maintenance

The consistent high quality of your banjo hinges on your daily upkeep efforts. It's advisable to establish a routine each time you put your banjo away. Here are some suggestions:

1.Use a clean cotton rag to wipe off the fingerprints and smudges from the metal parts. Then, run the cloth along the strings and fingerboard. If the metal parts aren't wiped clean, the acid from your skin will react with the metal over time, causing tarnishing or corrosion. Keep a clean cloth inside the case.

2.Remove the capo, if you used one. The continuous pressure of the capo against the back of the neck can eventually damage the finish.

3.Place your banjo carefully in the case to avoid bumping the fifth peg. Multiple bumps might cause the fifth peg to suddenly fall out.

Cleaning

WOOD AND METAL PARTS

- Clean and polish both wood and metal parts every three to six months or more frequently if necessary to maintain its best appearance.

FINGERBOARD CARE

- Grooves on the fingerboard might be caused by playing with long fingernails on the fretting hand. Keep the fingernails on your fretting hand clipped short.more than normal fret wear. Try using a lighter touch.

- Grooves on the frets are normal wear and tear. However, if they appear in less than a year, you might be pressing too hard when fretting the neck, resulting in more than normal fret wear. Try using a lighter touch.

FINISH

- To remove very light scratches in the finish, you can use either "Meguiar's Mirror Glaze Auto Polish" or toothpaste along with a cotton cloth. Apply some to the scratched area and rub gently until the fine grit of the polish smoothes the finish. Note that it takes quite a bit of rubbing to fully polish the banjo. Deep scratches require professional attention.

- To protect the finish, avoid using vinyl or plastics like simulated leather banjo straps that contain solvents which could react with and damage the finish. Also, steer clear of commercial furniture polishes with harsh chemicals or silicone as they can ruin the finish over time. In case you spill water or alcohol on the banjo, wipe it off immediately to prevent cloudy spots.

HEAD

- If you like to keep the head clean, use "Formula 409" or a similar cleaner along with a white cotton cloth.

Temperature & Humidity

The longevity and good condition of your banjo are highly dependent on the environment it's kept in. As the banjo is predominantly made of wood, it is quite susceptible to variations in temperature and humidity levels.

Consequently, it's crucial that you take every measure possible to keep your banjo at room temperature. Sudden temperature changes or exposure to cold can lead to the formation of cracks in the finish, known as "lacquer checks".

If you need to take your banjo out when it's freezing outside, make sure it's kept inside its case. Once you bring it indoors, leave it in the case to allow it to gradually adjust to room temperature.

Subjecting your banjo to extremely cold or hot conditions can result in cracks or warping of the wooden parts. For instance, the heat that builds up inside a closed car on a hot day can soften or blister the lacquer and alter the shape of the wood, causing the neck or resonator to warp.

In humid weather, the moisture content of the wood increases, which makes it expand or swell. A gradual increase in humidity typically doesn't cause permanent harm. However, when high humidity combines with high temperature, it can weaken the glue joints and may even cause them to come apart.

When it comes to the banjo's head, a skin head has a tendency to expand or loosen as humidity rises and tighten when humidity drops. This has a significant impact on the banjo's sound. If you tighten a skin head during a period of high humidity and then a dry spell follows, the head may split as it loses moisture and shrinks. On the other hand, plastic heads, which are commonly used on modern banjos, are mainly affected by heat. Heat softens the plastic, making it stretch or loosen easily. Hence, it's advisable to tighten the head when the weather conditions in your area are average by heat. Heat softens the plastic, making it stretch or loosen easily. Hence, it's advisable to tighten the head when the weather conditions in your area are average.

Temperature & Humidity

Humidity plays a significant role in altering the curve of your banjo neck. When the weather is dry, the neck tends to arch backward, while in high humidity conditions, it bows upward. To counteract this effect, a truss-rod adjustment can be made. Refer to the section regarding Truss-Rod adjustments for detailed guidance. Mother Nature has a mysterious way of influencing the twisting or movement of wood.

Sudden drops in local humidity pose the greatest threat among weather changes to a banjo. The moisture content within the wood decreases rapidly, and different parts of the wood shrink at varying speeds, resulting in cracks and loosened joints. Keep a close eye on weather forecasts and be vigilant against dry periods. It's advisable to have a case humidifier placed inside the case.

As you grow accustomed to adjusting your banjo, you'll discover that spending a few minutes from time to time on necessary adjustments can tremendously enhance the sound quality. Regular use and weather variations will occasionally necessitate a thorough tune-up of your banjo. Hence, it's beneficial to become proficient in making adjustments right from the start.

Protecting Against Temperature and Humidity

The simplest approach to manage humidity is to store your banjo in a hard shell case when it's not in use. Avoid hanging it on the wall, leaning it against a couch, or positioning it beside a source of dry heat. You can regulate the relatively small volume of air within a good-quality case far more easily than that of the entire house.

Adjustments

CAUTION ABOUT DOING YOUR OWN ADJUSTMENTS

Before you begin making adjustments to your banjo, there's an important aspect you need to consider. What would be the consequence if you accidentally break the truss-rod, a hanger-bolt, or any other component? This kind of situation can occur when someone who has just started learning about banjo adjustments decides to fiddle with their instrument.

A reliable repairman typically offers a guarantee for the work they do. If they make any mistakes during the repair process, they will fix them. And in the event that they damage the instrument, they will replace it. However, if you are the one who causes the damage, you'll have to bear the loss on your own.

We suggest that prior to attempting any adjustments, you thoroughly read this manual. Additionally, it's advisable to take your banjo to a reputable repairman. Observe how he works on it and don't hesitate to ask questions. By doing so, you'll become more acquainted with the process of

TIGHTENING THE HEAD

The head of your banjo should be nice and tight in order to sound its best. However, if it’s too tight, the bass notes will be stifled. Tighten the head with the bracket wrench. Tighten each hex nut just a fraction of a turn, going around the rim several times, keeping the tension hoop level, until they are all tight. You may get to a point where the hex nuts squeak when you tighten them, indicating the head is getting very tight, so don’t tighten past this point.

Changing The Strings

It's best to remove and replace one string at a time when changing strings so that you don't need to reposition the bridge. You might also wish to lightly mark the position of the bridge in pencil on the head, in case the bridge falls over or is knocked out of place while changing the strings. After taking one string off, rub a little graphite from a pencil in the slot in the nut, which helps the string glide more smoothly when tuning. Replace that string with a new string and tune it up to pitch, then remove the next string.

The Banjo Neck

A properly adjusted banjo neck features a slight curve on its fingerboard. This curved fingerboard enables the strings to make contact with the frets at a consistent angle throughout the length of the neck. As a result, it's possible to have a lower string action without the strings buzzing, which is something that a flat fingerboard can't achieve as effectively.

The Action Test --- You need to measure the gap between the top of the 22nd fret and the bottom of the strings. A low string action is typically around 1/8 inches of clearance. Anything lower than that is considered too low. However, many professional banjo players prefer to have their string action set at 1/4 inches of clearance.

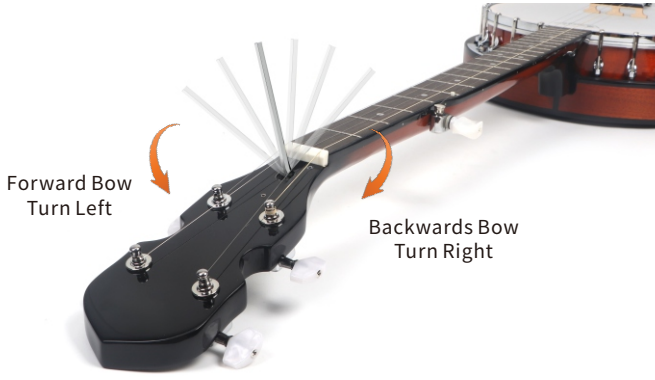
It's important to note that having a low string action isn't always ideal. If you play with a lot of force, the limited space provided by a low action

Adjust Banjo Truss Rod

if you've never done this, we suggest you have a competent luthier perform the adjustment.(Ask if you can watch...you could then consider doing it yourself next time.)The truss rod in the neck of a banjo controls the "relief" or subtle curvature of a banjo neck and helps counteract the pressure of the strings to help prevent warping and twisting. An adjustable truss rod can be used to change the "play ability" of a neck by allowing the neck to curve a little more or by flattening the neck out a bit more. Players with a hard attack generally need a little more "relief" in the neck and players with a lighter touch generally like a slightly flatter neck.

1.Remove the truss rod cap with Phillips head screwdriver
2.If you have a capo, attach a capo across the fret before you adjust it
3.Hold your finger down at 22nd fret
4.Slip a credit card between the fret and the string at the 7th fret to check the clearance. It should slip through easily without too much clearance or any rubbing
5.If you have too much clearance, you may need to tighten the truss rod nut.

(Clawhammer players may want a little extra clearance to make it easier for the right hand.) If you don't have enough clearance, you need to loosen the nut. Too much relief makes the strings further away from the neck in the middle portion of your fingerboard, you'll notice, as time goes on, it may be harder to chord beyond the 3rd,4th fret all the way up to about the 10th,11th fret. This can be adjusted by flattening out the fingerboard with a little adjustment on the truss rod. You can adjust it using the Allen wrench .Forward Bow Turn Left Backwards Bow Turn Right.


Forward Bow
Turn Left
Backwards Bow
Turn Right

Bridge

Bridge placement is critical in getting the best possible sound from your banjo. There is a specific place on the head where the bridge should sit for correct harmonic adjustment.

Your banjo was set up at the factory to take a specific bridge and the neck alignment is based on this bridge height. Do not try to adjust the action by lowering the height of the bridge.

The size and design of the bridge will affect the sound of your banjo. Lowering the bridge creates less pressure on the head and a sound loss results, the banjo becomes less responsive and even muddy sounding.

Thinning the bridges reduces the weight and mass of the bridge to create a thinner, crisper or less bass sound. Thinning the bridge too much can weaken the bridge.

When curing buzzes in an old bridge or putting on a new bridge, take a V-file and V-groove the bridge slots with an angle downward toward the tailpiece so that the string makes contact right at the face of the bridge

It is important to set the bridge exactly. If the bridge is as little as 1/32" out of place a large amount of sound quality is lost.

Tailpiece Adjustment

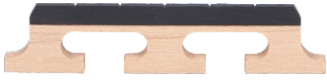
There is an adjustment screw on the back of the tailpiece, which is parallel to the neck of the banjo. This screw can adjust the angle between the tailpiece and the head of the banjo.Tightening the screw will make the tailpiece tilt towards the head, while loosening it will make the tailpiece move away from the head.

Make sure that the tailpiece is firmly fixed to the tension hoop to avoid noise. These adjustment methods can help banjo players adjust the tone of the instrument according to their preferences.

HOW TO SET THE BRIDGE

Step 1

Loosen the strings a bit, to ensure enough space under the strings for setting the bridge. Tighten the head if it is loose and make sure the sound of each side of the head is the same so that the head tension is the same.



Step 2

The bridge string notches have been precisely cut for strings with various thicknesses. Examine the bridge to find the largest slot, which corresponds to the wound (4th) string. Once you have the bridge oriented properly, lift the strings up and slide the bridge, on its side, underneath the strings. Stand the bridge upright, parallel to the frets.

Quick Bridge Setup for Beginners

Step 3

First, measure the position of the bridge with the transparent ruler included in the package. Then, place the bridge horizontally under the strings and make sure it is perpendicular to the drumhead.

Quick Bridge Setup for Beginners

Step 4

Check your bridge position as follows, and make small adjustments as needed: Using your electronic tuner, first be sure the 1st string is in tune. Fret the string at the 12th fret and see if your tuner says it's still in tune (it will be an octave higher.) lf the note is sharp (too high) when the string is fretted at the 12th fret, move the bridge back toward the tailpiece a small amount. If the note is flat (too low) when the string is fretted at the 12th fret, move the bridge away from the tailpiece a small amount. Repeat with the 4th (wound) string. When you're satisfied that the bridge is properly in position, you may wish to mark the position with a small pencil mark on the head (drum) of the banjo.

Tuning

Tuning Pegs

When you are handling your banjo or putting it into the case, make sure to avoid bumping the fifth peg. Multiple bumps can cause the fifth peg to loosen and then unexpectedly fall out. In case this happens, simply insert it back firmly. Should it fall out once more, you can use "Tight Bond" glue to stick it back in place.

Tuning Tips

Tuning a banjo is a skill that every banjo player will need to learn. Using an electronic tuner will make the job much easier. It’s best to tune UP to a note rather than DOWN to the note. Your banjo will need to be tuned every time you play it, and often several more times during a session of use. This is just part of playing a banjo. After putting on new strings, they will stretch somewhat. To help new strings stay in tune after putting them on, tug each one away from the fingerboard a bit and retune.

Tuning

Step 1

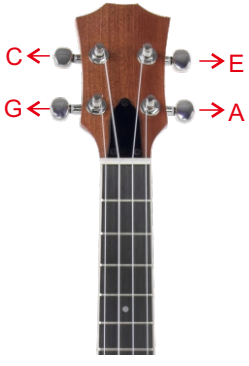
Tuning the strings from thickest to finest, stop tighten the peg when it is close to the note you want it to be. Fine Tuning them should be after the first adjustment so that the strings reach the desire notes without breaking the strings.

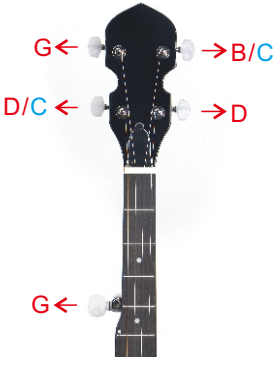
Step 2

Tighten each string several times after the first tuning, pull it up from the fingerboard with your finger. This will help to stabilize tension on the tailpiece, bridge, nut and tuning peg and thus eliminate problems with tuning.

Step 3

Repeat step 2 several times, as the strings need to be stretch and settle into their notes.Kindly notice that any Temperature changes from extreme hot to cold, or how it stored and how much it is played would affect the original set-up of the banjo. Thus it is good to check it regularly twice a year. Remember to tune down half pitch after practice to avoid excessive tension to the neck.





Improving Banjo Sound

A great sounding banjo is not an accident, it has been set up and tuned in, just right.

The banjo, more than any other stringed instrument, must be correctly adjusted to bring out its best tone. Each adjustment is important to the overall sound of the banjo.

Miraculous results are obtainable when an unkept banjo is readjusted. If your banjo doesn't have the magic it once had, you'll find this checklist helpful in restoring its original life.

1. New strings
2. Hardware tight, no rattles
3. Neck tight to the rim
4. Head tight
5. Tuning peg screws tight
6. Bridge in place
7. Tailpiece set
8. Neck curve correct, truss rod
9. Action set, coordinator rods
10. Tuned to pitch

Troubleshooting Buzzes

1. First check the strings to see if you need to replace them. If you aren't sure, put on a new set.

2. Check the action, using the Action Test (in the Banjo Neck Section). If the clearance is less than 1/8", it is too low.

3. Fret the neck at the first fret. If it still buzzes, check the bridge. A bridge buzz sounds like an annoying twang.

4. If you hear a buzzing sound from the neck when the strings are unfretted (not pressed down on any fret), but the buzzing stops when you fret the first fret, then the issue is likely with the nut.The nut slots are precisely made at the factory using special tools and specific procedures. Usually, you'll only encounter problems with the nut if someone has messed around with your banjo in an improper way.

If the nut slot is too wide, here's a temporary fix you can try. First, loosen the string. Then, place a piece of paper across the string slot. After that, put the string back over the slot and tighten it. This will make the string pull the paper down into the slot. Now, tear off all the extra paper, leaving just the part that fills the slot to take up the excess space for the time being. You can keep using it like this until you get a new nut.

Also, the bottom of the string should be about 1/16" above the fingerboard where it meets the nut. If it's lower than this measurement, it means the nut slot has been cut too deep. In such a case, it's advisable to have a skilled repairman replace the nut for you.

5.If you've gone through all the steps mentioned above and there's still buzzing, then the problem probably lies with the frets.

Troubleshooting Buzzes

Changes in humidity can cause the wooden fingerboard to expand and contract. This can lead to the frets becoming loose and rising up a bit, which in turn makes the strings buzz when you play on the higher frets.

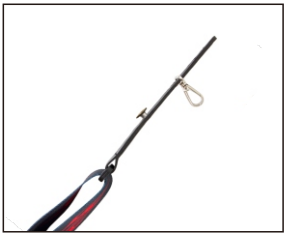
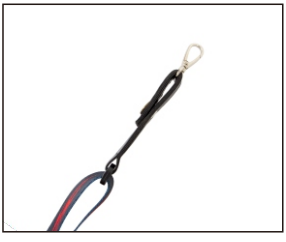
Moreover, over time and with regular use, the frets will gradually wear down. When you press a string on a worn fret, buzzing can happen if the next fret closer to the head (down the fingerboard)

Removing the Banjo Resonator(Full-size Banjo)

There are four screws that hold the resonator on the full-size Banjo. Simply remove these with a screwdriver and you can take off the resonator to access the neck bolt or to play your banjo as an open-back.Then, if you intend to play the banjo as an open-back, use the bracket wrench to remove the brackets that hold the four flange pieces. Remove the flanges and replace the brackets.

Attaching the Strap





Banjo Diagram