



Ibanez GSA60 Gio Electric Guitar Disassembly

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INTRODUCTION

This is a basic disassembly guide for an Ibanez GSA60 Gio series electric guitar. This will show you how to access all of the internal hardware and how to remove all other outside components not connected by wiring. All wiring will be left intact, as soldering is only required for replacing components. Steps for cleaning unsightly rust and corrosion using cheap, common household materials are included after the disassembly. The bulk of the required time is spent soaking rusted components in a solution to soften the rust; the disassembly portion should take no more than 1 hour.

TOOLS:

- Phillips #2 Screwdriver (1)
- 11mm Wrench (1)
- 10mm Wrench (1)
- Flush Cutter (1)
- Slip Joint Pliers (1)
- Ruler (1)
- 3mm Allen Wrench (1)
- Safety Glasses (1)
- Disposable gloves (1)
- Q-Tips (1)
- Scotch Brite Heavy Duty Scouring Pad (1)
- Paper Towels (1)
- Large Bowl (2)
- Salt and Vinegar Solution (1)
- Baking soda and water solution (1)
- Microfiber Cleaning Cloths (1)

Step 1 — Removing the strings



☑ If desired, lay a cloth or towel on the table to avoid scratching the table or the surface of the guitar.

⚠ Put on safety glasses before beginning disassembly. Safety glasses should be worn when doing any project with parts under tension or caustic chemicals.

- To begin removing the strings, turn the first tuning peg clockwise. Keep tension in the string with your other hand. This makes removing the string easier.
- Once the string has been unwound, pull the end of the string out of the hole in the tuning peg.

⚠ The free end of the string can be sharp. You may use pliers to remove the string to prevent pricking your fingertips.

Step 2 — Removing the Strings



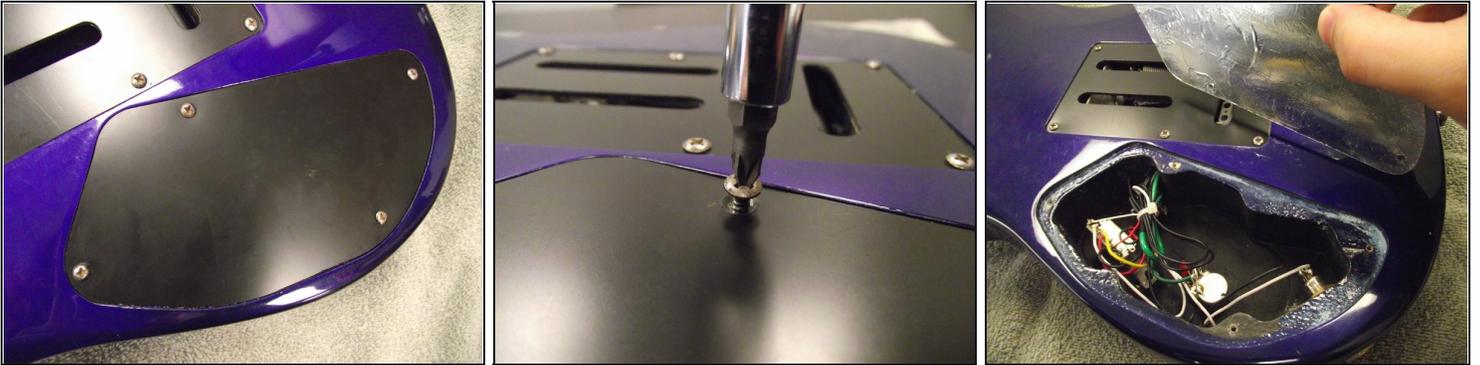
- At the bridge, push each string through the guitar.
 - The end of the string will be pushed out of the back of the guitar.
 - Grab the string and pull it completely through and out of the guitar body. It may be necessary to straighten out the previously wound up ends if they will not come through.
- ⓘ If the strings are in good condition, set them aside to reattach during reassembly.

Step 3 — Removing the neck



- Flip the guitar up-side-down and locate the screws at the top of the body near the neck. Use a Phillips 2 Screwdriver to unscrew the screws. Both a screw and a spacer will be removed. Take note of the difference in screw sizes.
- The screws closer to the neck are 1 7/16"
- The screws farther from the neck are 1 3/4"
- Once all of the screws are removed, gently pull the neck away from the guitar body and set aside.

Step 4 — Removing the wiring backplate



- Locate the wiring back plate on the back of the guitar. This back plate is the one without any slots in it.
- Use the Phillips 2 Screwdriver to remove all four of the 1/2" back plate screws. Set aside.
- ⓘ The back plate screws are very small. Use a dish or magnetic screw holder to keep track of them.
- Remove the back plate to reveal the wiring components beneath. Set the plate aside.

Step 5 — Removing bridge/tremolo backplate



- Locate the bridge/tremolo back plate on the center of the back of the body.
- Use the Phillips 2 Screwdriver to remove the six 1/2" back plate screws.
- ⓘ These screws are all exactly the same size as the other back plate screws. For simplicity, they may be stored together.
- Remove the back plate to reveal the bridge/tremolo assembly .

Step 6 — Removing the potentiometer knobs



- Carefully flip the guitar right-side-up.
 - Locate the knobs on the front of the guitar to the right of the pickups. These cover the potentiometers (or pots), which control volume and tone.
 - Using a flat object such as a pair of pliers, a flat head screwdriver, or a coin, carefully pry the knob up off of each pot. The knob may require a lot of force to remove.
- ⚠ Use a cloth underneath the tool to avoid scratching the guitar's finish. Also make sure to brace the back of the knob with your fingers to move it up and not back (which may break it).**
- Remove both knobs and set aside.

Step 7 — Detaching the potentiometers



- Once the knobs have been removed, use the 11mm wrench to remove the short nuts holding the pots in place.
- ⓘ You can hold the top of the pot in place to prevent it from twisting.
- Remove the nut and the washer from the knob and set aside.
- Repeat for the other knob.

Step 8 — Detaching the pickup selector switch



- Locate the pickup selector switch on the right of the pickups.
- Remove the plastic top from the pickup selector switch by gently pulling up on it.
- Use the Phillips 2 Screwdriver to unscrew the two 7/16" pickup selector switch screws.
- Set all removed components aside.

Step 9 — Loosening the electronics



- Flip the guitar up-side-down and locate the electronics cavity.
 - If the wires are zip-tied, use wire cutters to cut the tie. This will free up slack in the wires and make removal of later components easier.
- ⚠ Take care to avoid cutting the wires when cutting the zip tie or when moving the wiring later.**
- Pull the pots out into the wiring cavity. Remove the three washers on each knob and set aside.
 - Pull the selector switch into the wiring cavity.

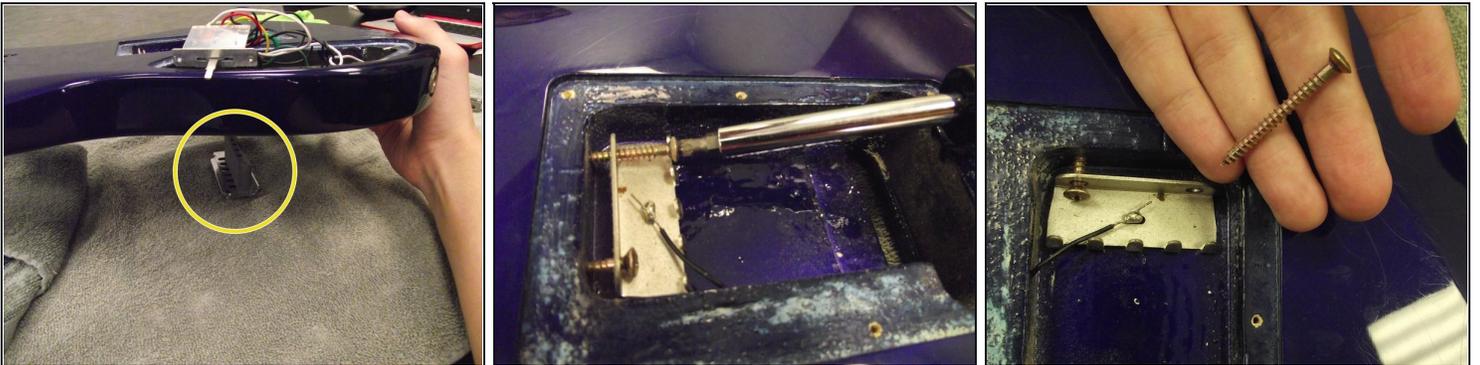
Step 10 — Removing the bridge



- Flip the guitar upside down and locate the bridge/tremolo cavity.
- Using the Phillips 2 Screwdriver, loosen the two 1 5/8" anchoring screws to relieve some of the tension from the springs.
- Pull each spring off of its hook and remove from the bridge block.

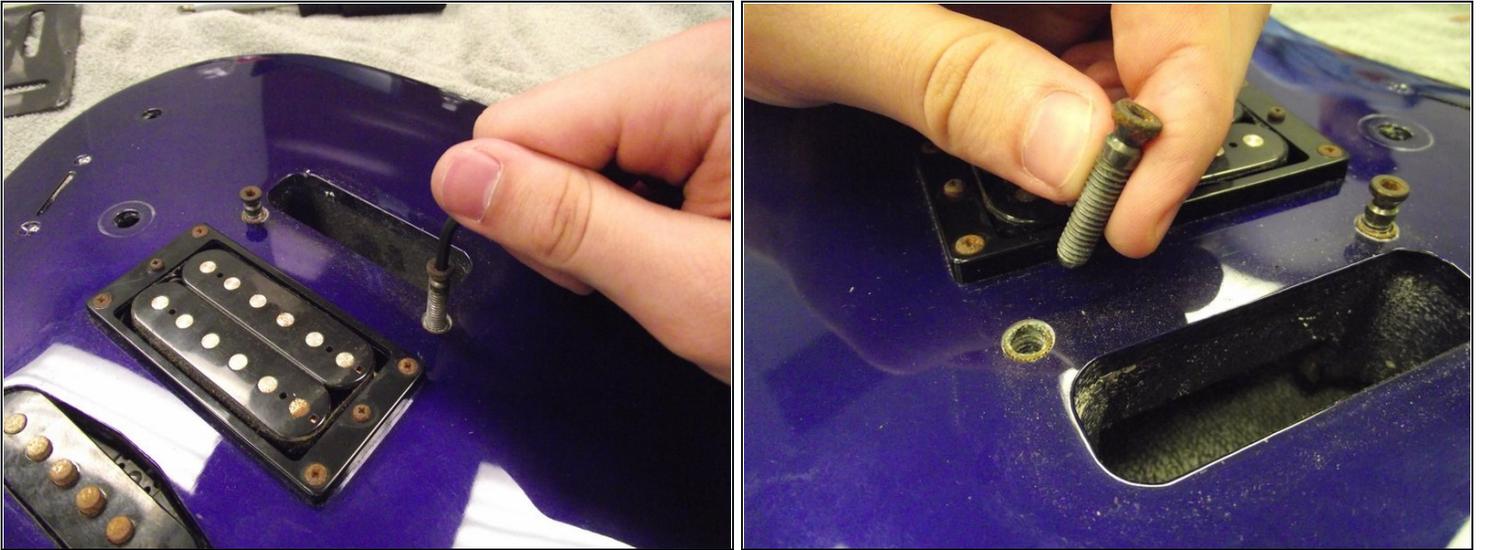
⚠ Take care not to damage the black wire soldered to the hook plate.

Step 11 — Removing the bridge



- With all springs removed, lift the guitar straight up and off of the bridge.
- Remove the two 1 5/8" anchoring screws from the hook plate.

Step 12 — Removing the bridge height adjustment bolts

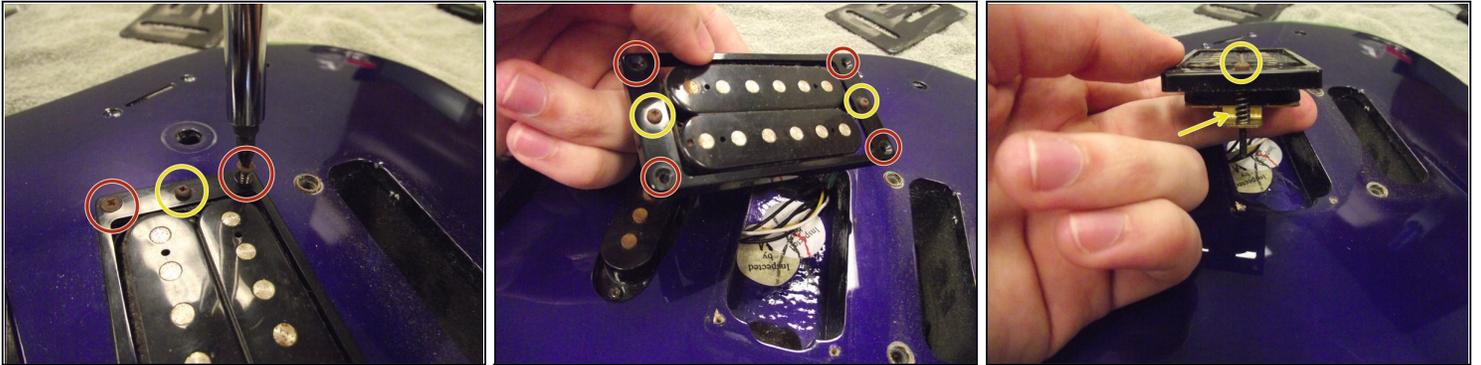


- Flip the guitar right-side-up.

⚠ Use caution when flipping the guitar over so that no wires or connections break and the guitar is not resting on any internal components.

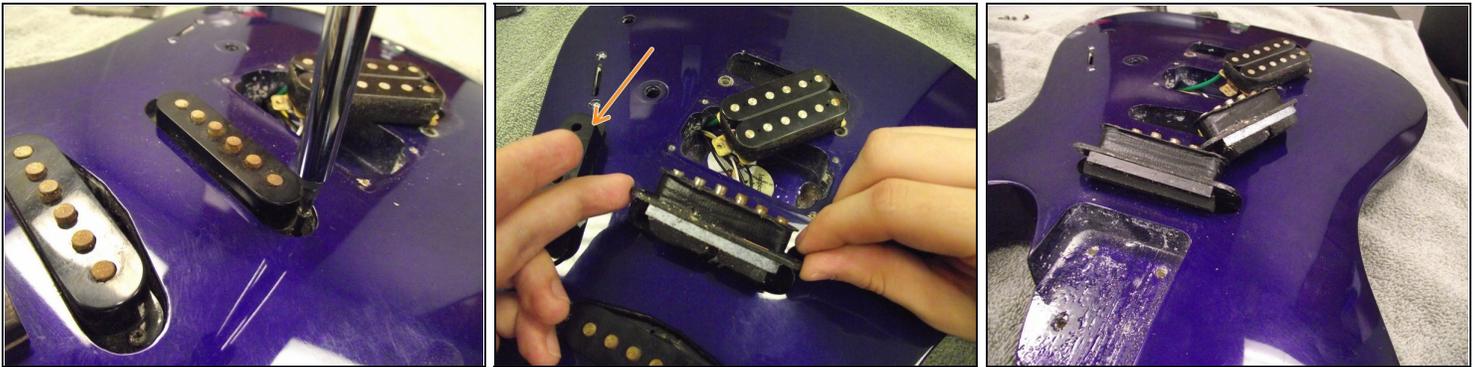
- Locate the bridge height adjustment bolts below the humbucking pickup (humbucker).
- Use the 3mm allen wrench to remove the two 1 7/16" bolts.

Step 13 — Removing the humbucker pickup



- Locate the humbucker pickup on the front of the guitar.
- Using the Phillips 2 Screwdriver, remove the four 9/16" frame screws from the plastic humbucker frame.
- Gently pull the pickup out of the guitar body.
- Remove the two 1 1/16" height adjustment screws and springs. The frame will separate from the pickup as the screws are loosened.

Step 14 — Removing the single coil pickups



- Using the Phillips 2 Screwdriver, remove the two 1 1/4" screws from each side of the single coil pickup.
- Remove the plastic cover from the pickup by lightly pulling straight up.
- Gently pull the pickup out of the cavity. Take care to slowly work the wiring through the holes, taking advantage of the available slack.
- Repeat for the other single coil pickup.

Step 15 — Disassembling the Bridge



- Use the Phillips 2 Screwdriver to remove the six 11/16" intonation screws. The springs and bridge saddles will come off with the screw.
- Remove the three 3/8" bridge plate screws using the Phillips 2 Screwdriver.

Step 16 — Removing the strap buttons



- Using the Phillips 2 Screwdriver, remove the 1 1/16" strap button screws and felt washers from both ends of the body.

Step 17 — Disassembling the guitar head



- Using the Phillips 2 Screwdriver, unscrew the 9/16" screws from each of the two spring trees and remove the trees and spacers.

Step 18 — Disassembling the guitar head



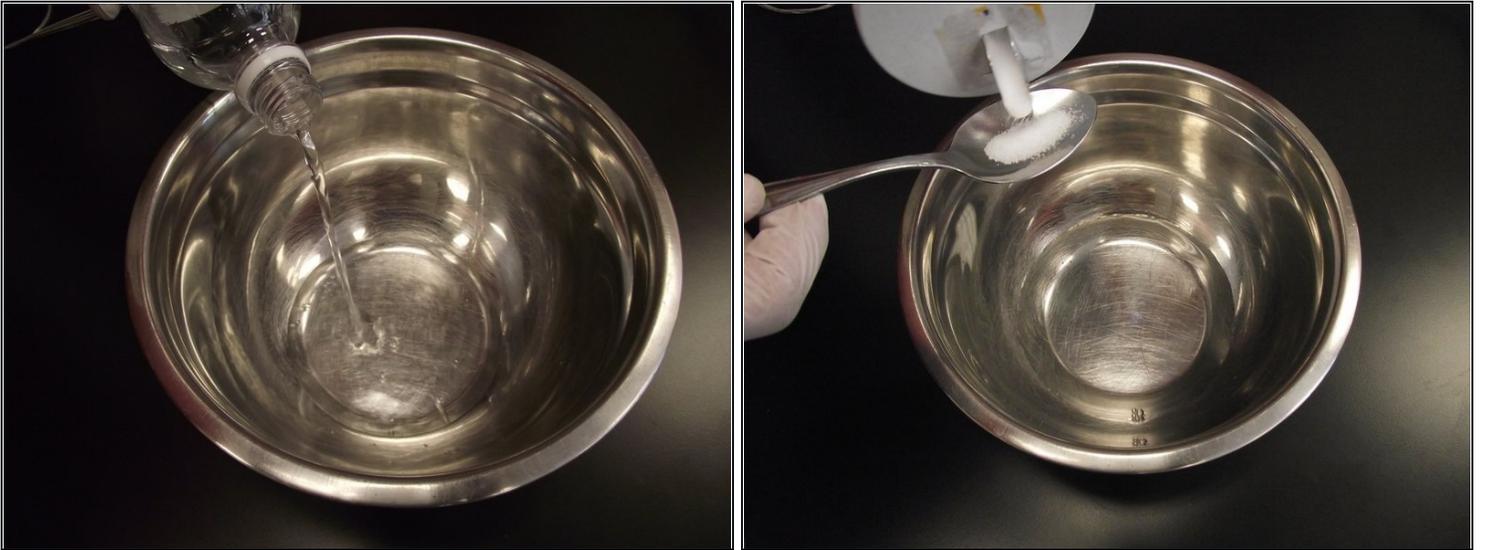
- Using the 10mm wrench, remove the hollow hex bolts and washers from the tuning pegs.
- Pull the tuning pegs out of the neck. For later reassembly, note how the two prongs on each peg match up with the holes in the bottom of the head.

Step 19 — Organizing the disassembled parts



- At this point, the guitar is fully disassembled.
- ① All components can currently be accessed easily. All wiring and soldering has been left intact.

Step 20 — Preparation of cleaning ingredients



- Add 2 cups of distilled white vinegar (any vinegar will work) to a bowl.
- Add 2 tbsp of salt to the vinegar and mix.
- ⓘ The salt lowers the pH of the vinegar, making it more acidic to dissolve rust more quickly.
- ⚠ **Gloves are recommended to keep the vinegar solution off of your hands. Vinegar can ruin your guitar's finish, and the extra acidity may irritate sensitive skin.**

Step 21 — Soaking components



- Place small, heavily rusted components, such as screws, into the solution. Let them soak in the solution for 2 1/2 hours.
- Dip cotton swabs in the solution and apply to larger or lightly rusted components. Let them sit for 2 1/2 hours.

Step 22 — Cleaning the rest of the guitar



- Use a [microfiber cloth](#) to clean dust off of plastic or wood components.
- Use dry cotton swabs to clean narrow crevices on small components.
- Use a slightly damp paper towel to pick up any wood shavings inside the guitar body.

⚠ Wring out the paper towel well before using, and do not use near any electrical components to avoid damaging them.

Step 23 — Cleaning magnetic pickup poles



- Place a paper towel underneath each pickup to catch rust and keep it from falling into the guitar body.
- Using an abrasive pad, carefully rub off the heavy surface buildup of rust.

⚠ Do not use a magnetic scrubber (steel wool), as the residue will be nearly impossible to completely remove from the poles.

- ① You do not need to completely remove all rust from the pickups. The discolored look is a desirable feature, and many guitarists actually pay extra to have their pickups slightly "aged". Additionally, light rust has no effect on the performance of the pickups.
- Clean off rust particles from around the poles with a cotton swab.

Step 24 — Cleaning electronics and the neck



- Use the abrasive scrubber to gently polish rust off of electrical components.
- Scrub gunk due to sweat and dead skin from the frets with a cotton swab. The edge of a guitar pick can also be used to loosen tough spots.

Step 25 — Preparing the baking soda solution



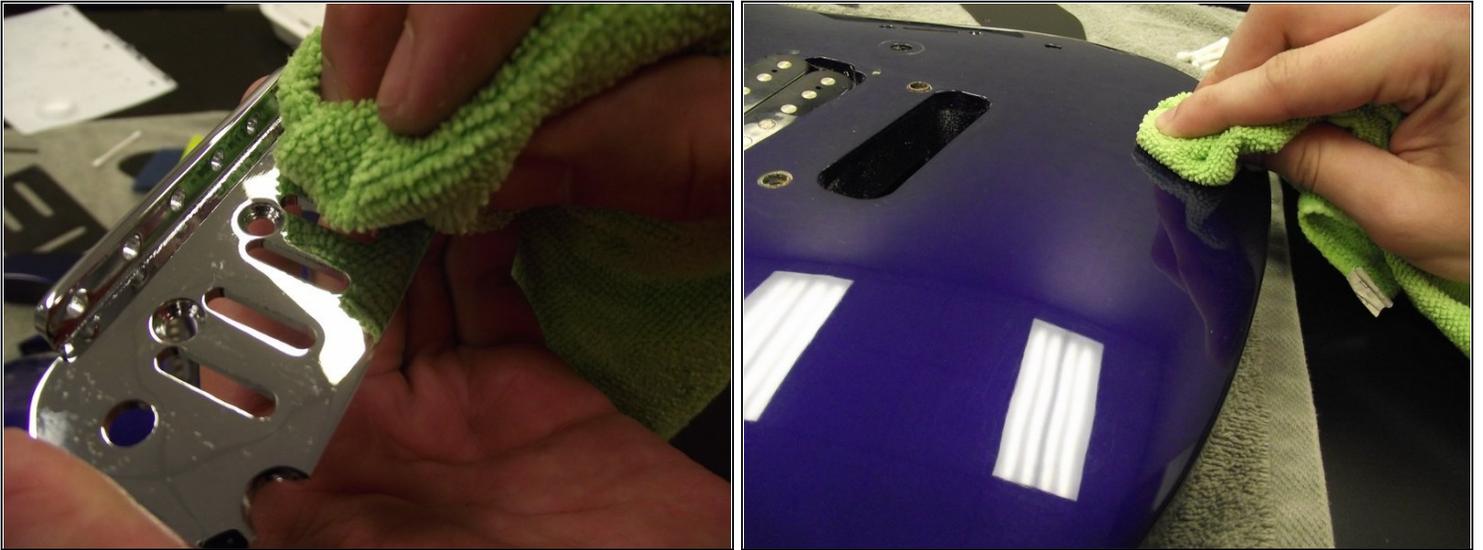
- ① This solution will be used to neutralize the vinegar to remove the odor and prevent damage to the guitar's finish.
- After 2 1/2 hours, the components are ready to be transferred from the vinegar solution.
- Fill a second bowl with 2 cups of water, add 2 tbsp of baking soda, and mix.
- Transfer the components to the baking soda solution.

Step 26 — Polishing off rust



- Use a cotton swab to apply the baking soda solution to the components previously treated with the vinegar solution.
- ① Soaking in the baking soda solution is not necessary, the reaction happens almost instantly.
- Use the abrasive scrubber to polish off the softened rust.

Step 27 — Drying and polishing



- Thoroughly dry all components.
- Polish the guitar body and components with a microfiber cloth.

To reassemble your device, follow these instructions in reverse order. Make sure that you use the correct screws for each step.