



How to Disassemble a Small Guitar Amplifier

General disassembly instructions for small, modern, solid-slate, guitar and bass practice amplifiers

Written By: Santaji



INTRODUCTION

This guide takes you through the process of disassembling a small guitar practice amp to access the internals for repair. An Ibanez IBZ10BV2 10-watt bass practice amplifier is used to illustrate the process, but the general procedure applies to most other similar, low-priced solid state practice amplifiers.



TOOLS:

- [Phillips #0 Screwdriver](#) (1)
 - [Flathead Screwdriver](#) (1)
-

Step 1 — Back panel removal



- Removing the back panel will allow you to access the speaker and main amplifier chassis

 Make sure that the amplifier is unplugged before starting disassembly

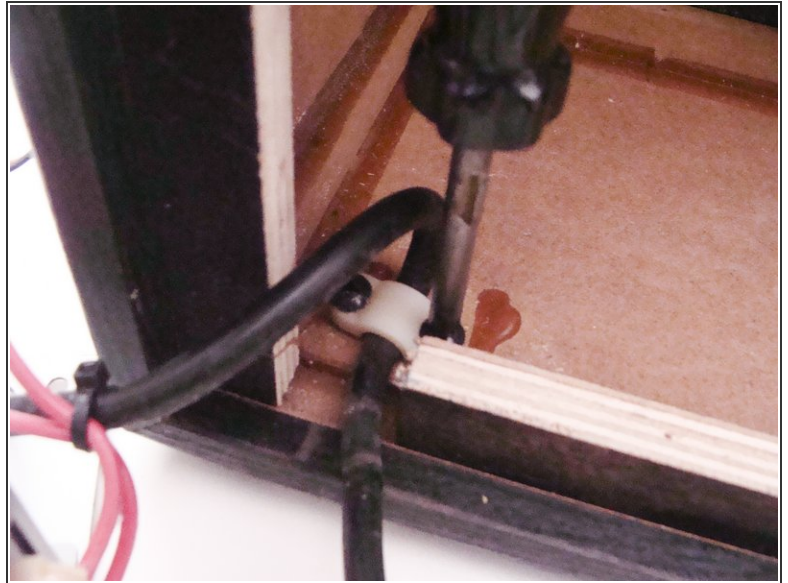
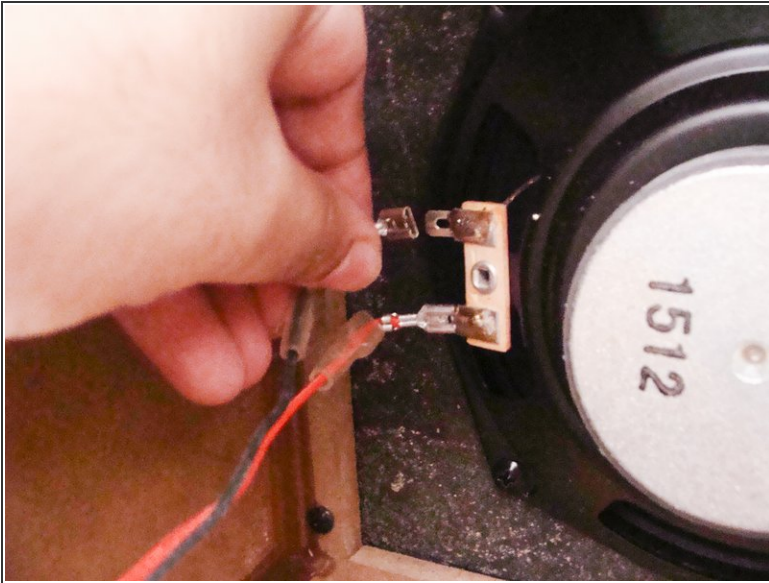
- Identify and remove the screws holding on the back panel. On my particular Ibanez, 6 Philips head screws are used
- Usually, guitar amplifiers will have a back panel that covers only around half of the amplifier cabinet, while bass amplifiers will have a back panel that seals the cabinet completely

Step 2 — Chassis removal




- The metal chassis houses the amplifier electronics themselves. You will need to remove it from the cabinet in order to access the power supply and main amplifier circuit board
- Identify and remove the screws holding the chassis to the cabinet
- Some mild adhesive may have been used as well. Once you are sure that all screws have been removed, gently push or pry the chassis away from the cabinet

Step 3 — Disconnecting electronics



- Disconnect the speaker as shown, and remove the power lead clamp from the cabinet
- The chassis should now be free from the cabinet

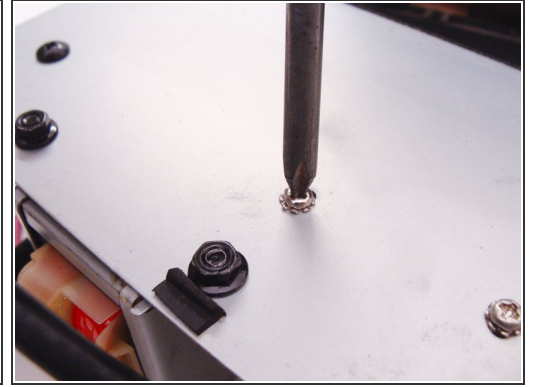
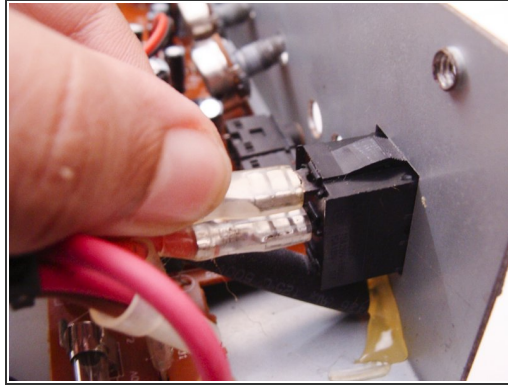
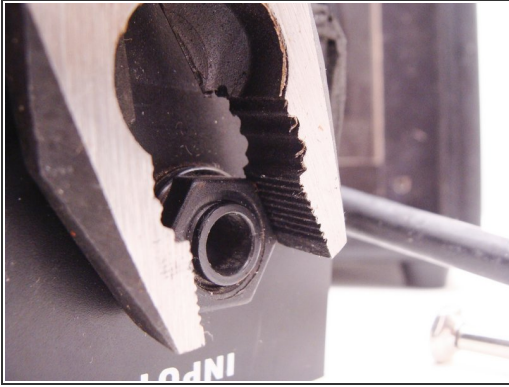
 Be careful to avoid contact with the main board, as the power supply filter capacitors may still be holding a significant charge

Step 4 — Removing volume and tone control knobs



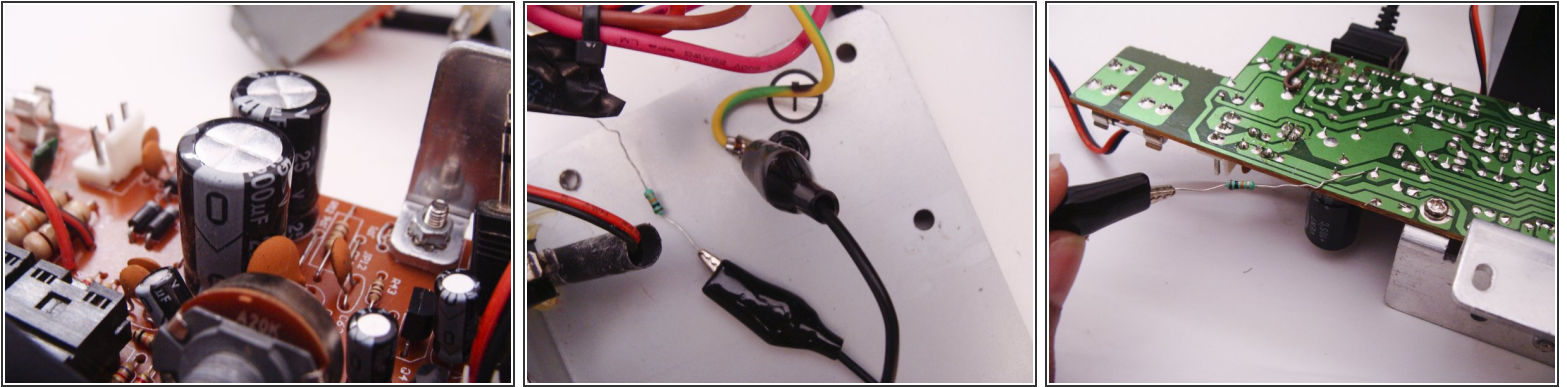
- To remove the amplifier board from the chassis, you will first need to remove the volume and tone control knobs
- Use a flat blade screwdriver to gently pry the knobs off the potentiometer shafts
- After removing the knobs, use a socket wrench with the appropriately sized hex bit to remove the potentiometer nuts
- Make sure to keep the accompanying washers along with the nuts for reassembly


Step 5 — Main board removal



- Remove the nut and washer holding the 6.25mm guitar input jack to the chassis
- Disconnect any wires going from the board to other parts of the chassis, such as to the power switch or power transformer
- Identify and remove any other screws that might prevent removal of the board. On my Ibanez, two screws held the power amplifier IC heat-sink to the chassis. Removal of the screws and their accompanying lock washers allowed the board to be lifted off with the heat-sink

Step 6 — Discharging capacitors



 Electrolytic capacitors can hold a dangerous charge for months or even years after a device has been powered off, thus, it is always a good safety practice to discharge the capacitors before working on an audio amplifier

- Connect one end of an alligator lead to the chassis ground, and the other lead to an 10K ohm resistor
- Identify the power supply capacitors and touch the 10K ohm resistor's open lead to each of it's leads for a few seconds
- If you are paranoid, you may check with a voltmeter to ensure that the capacitors are safely discharged
- It should now be safe to work on your amplifier's circuit board

To reassemble your device, follow these instructions in reverse order.