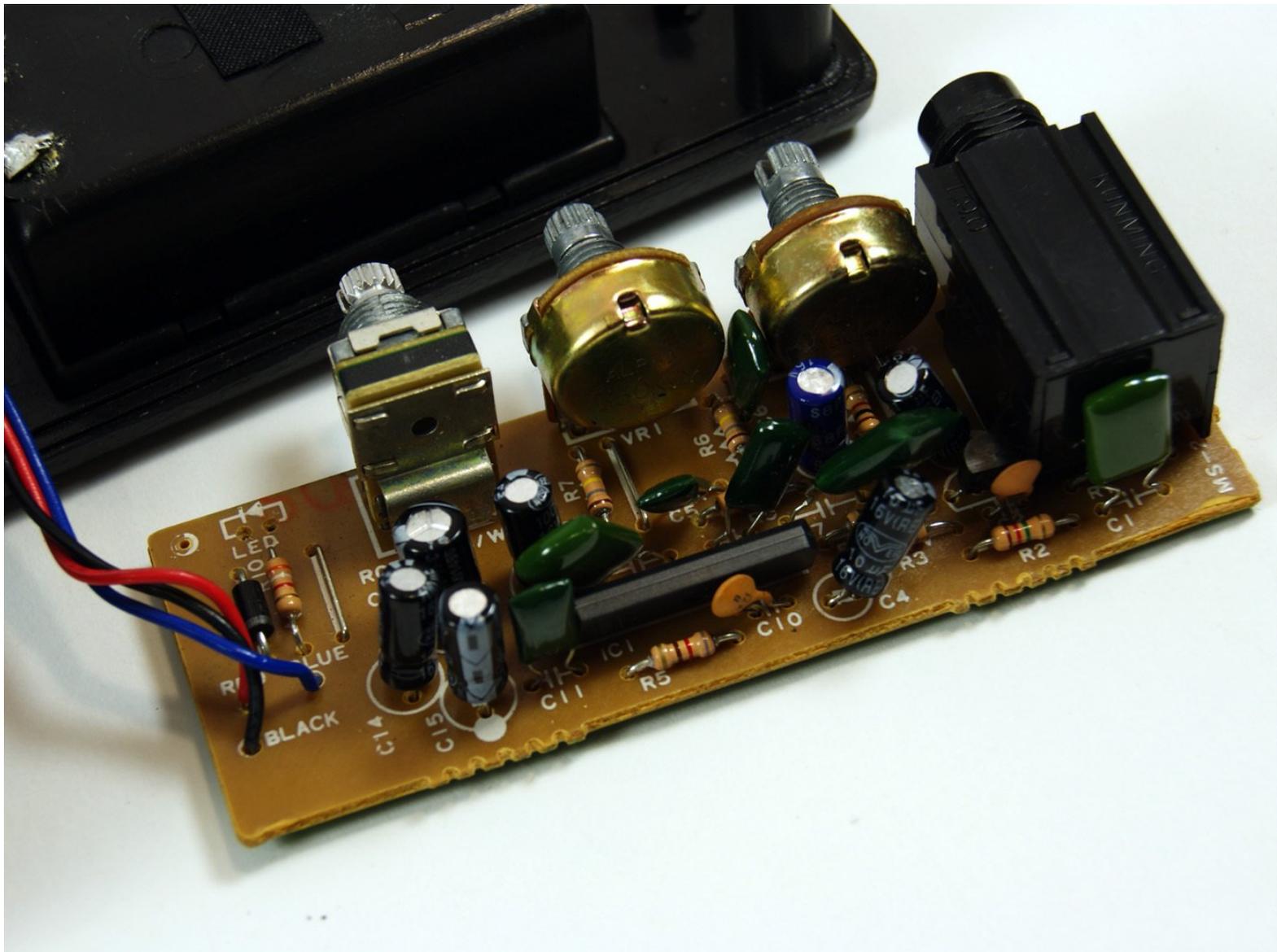




# Marshall MS-2 Electrical Component Replacement

Checking the resistors, capacitors ect. for damaged parts and replacing them.

Written By: MacKinley



 **TOOLS:**

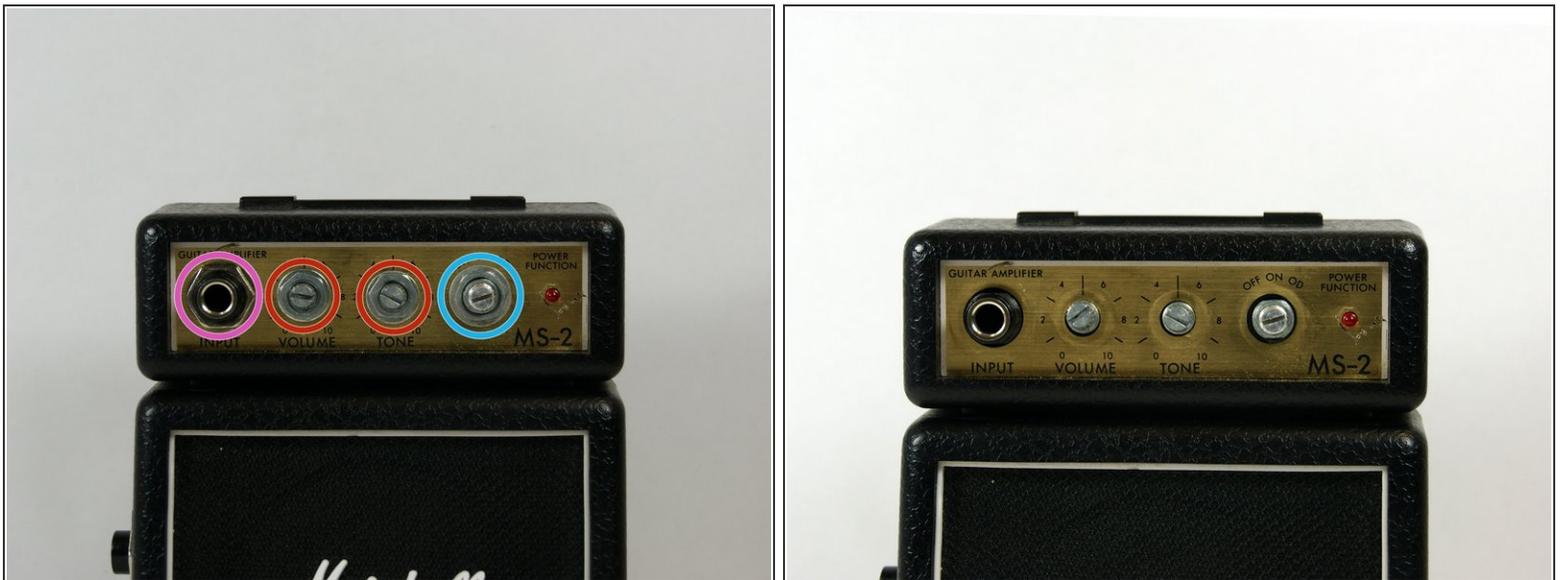
- [9/16" Wrench](#) (1)
- [Phillips #000 Screwdriver](#) (1)
- [Multimeter](#) (1)
- [ESD Safe Tweezers Blunt Nose](#) (1)
- [Lead-Free Solder](#) (1)
- [Soldering Workstation](#) (1)

## Step 1 — Marshall MS-2 Micro Amp Circuit Board Disassembly



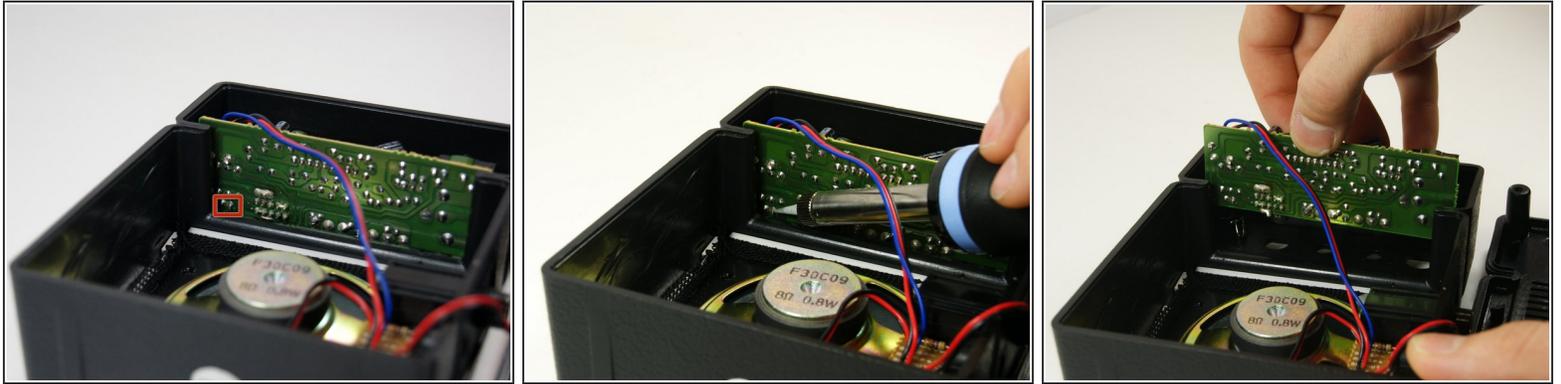
- Remove the volume, tone and power knobs by pulling them straight away from the front of the device. If they do not come off easily use the wedge tool to pry them up.

## Step 2



- Use a 10mm socket to remove the nuts from the volume and tone potentiometers.
- Use a 11mm socket on the power switch nuts.
- Use a 9/16" socket to remove the nut from the input jack.
- ⓘ Take care when you remove the nuts to not lose the washers.

## Step 3



- Now you must remove the LED from the circuit board.
- To do this you will need to use a soldering iron to detach to two pins of the LED from the board. They are the two pins in the lowest leftmost corner of the board.

**⚠ Be careful to not touch any of the wires with the soldering iron. It might be helpful to remove those with the iron first to get them out of the way.**

**[i If you haven't soldered before check out this guide.](#)**

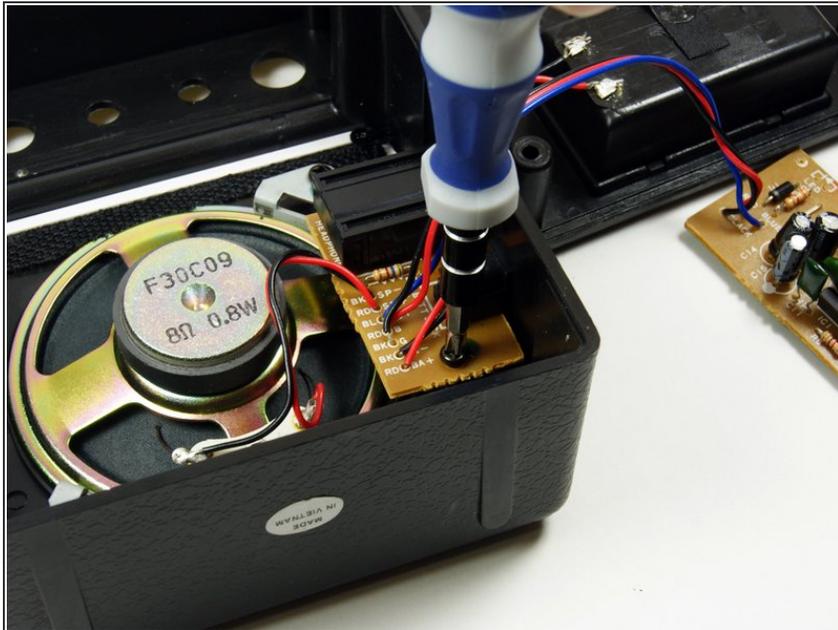
- Once detached, pull the board straight up to remove.

## Step 4 — Partner Circuit Board



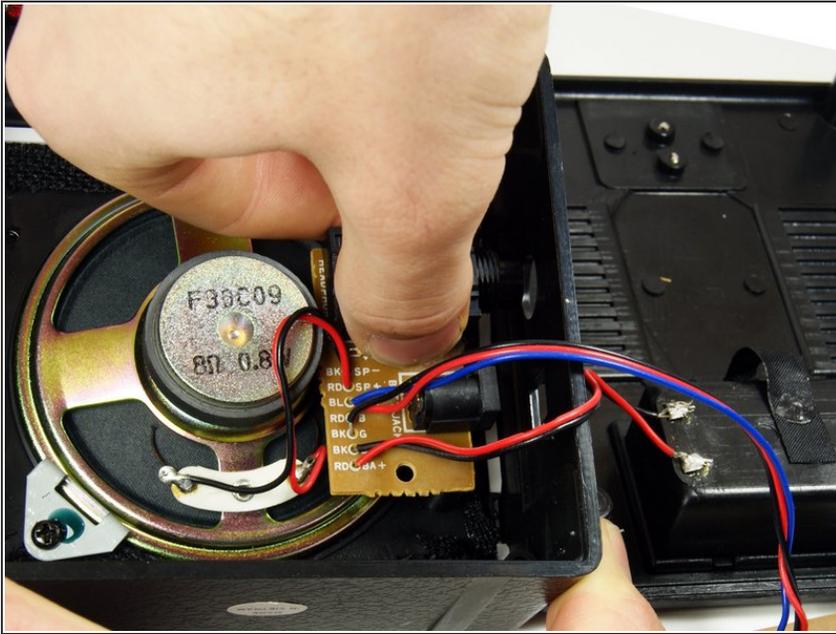
- Use a 9/16" socket to remove the nut around the headphone jack. Be careful to not lose the washer.

## Step 5



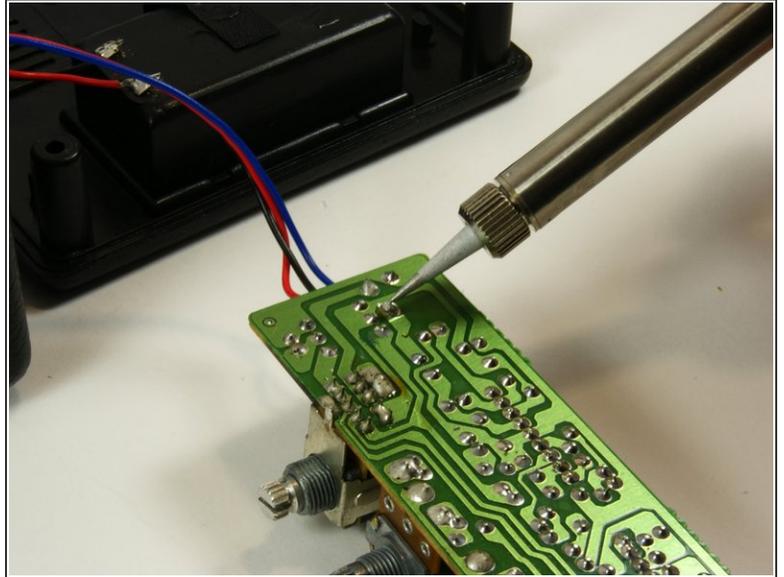
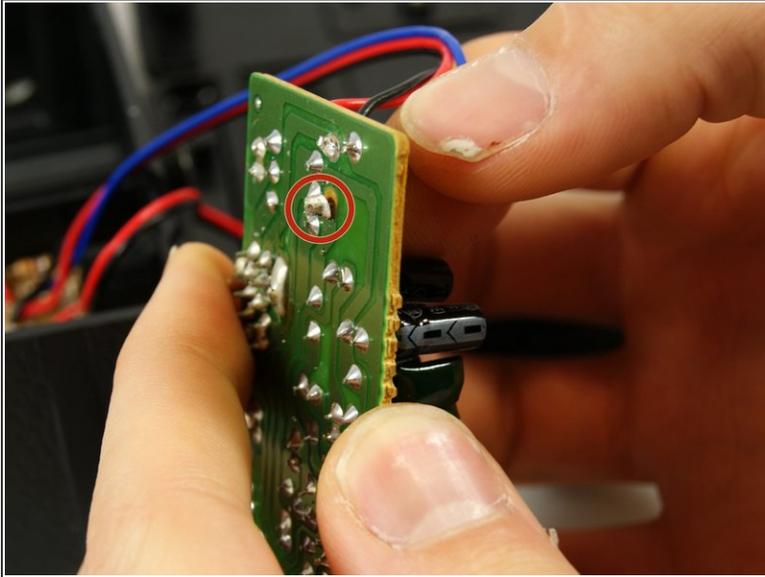
- Remove the 7/16" phillips head screw.

## Step 6



- Grab the headphone jack from inside the case and pull it toward the speaker until you can fully remove it from the device.

## Step 7 — Electrical Component



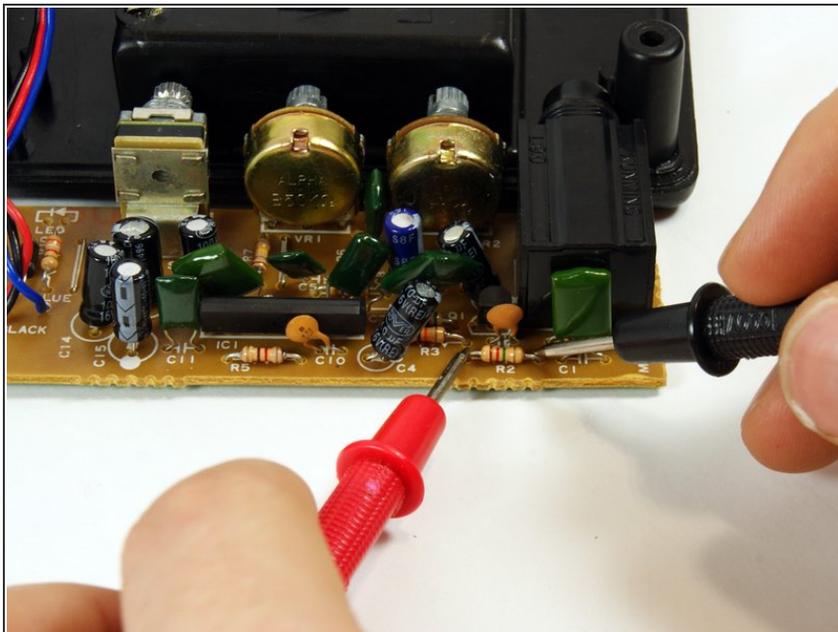
- First do a visual check. Looked for cracked solder or damaged components.
  - The image on this page shows a wire whose solder has completely detached from the board.
  - To fix cracked or detached solder, use the soldering iron to heat the solder already there until it flows and becomes completely attached to the board.
  - To replace damaged components use the iron to remove and replace them.
-  [If you haven't soldered before check out this guide.](#)

## Step 8



- To check for breaks in the wires, set the multimeter to the mode where you can check for a closed circuit.
- Put one pin on each end of the wire.
- If the meter doesn't say that there is a closed circuit replace the wire.

## Step 9



- Use a multimeter to test the potential difference across the components. You will have to reinstall the battery and turn the device on to do this.
- Put one of the pins on each side of the component. Read the value on the meter.
- Each resistor has a predefined value that can be found using [this page](#). Compare the results to the expected values.
- The capacitors have their properly functioning values printed on them.
- If any values vary replace the component.

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