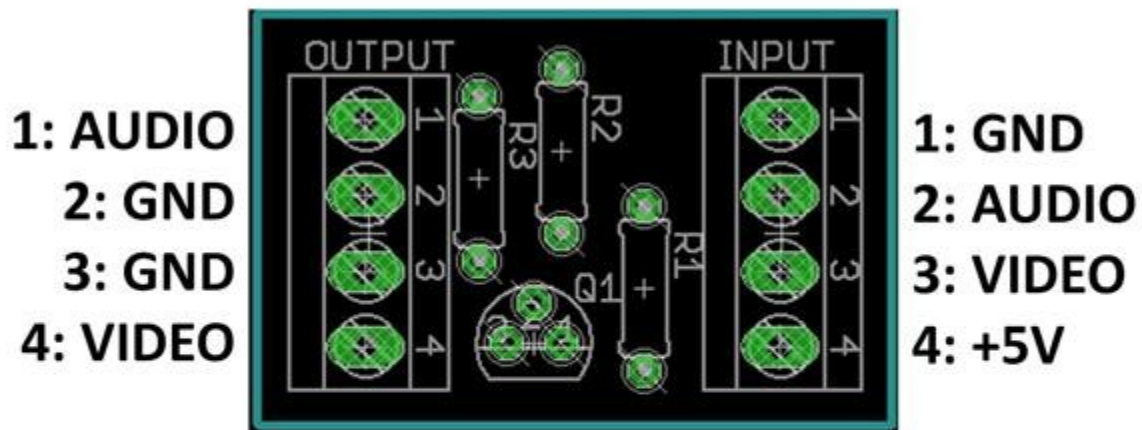


Atari 2600/7800 RF-composite modification

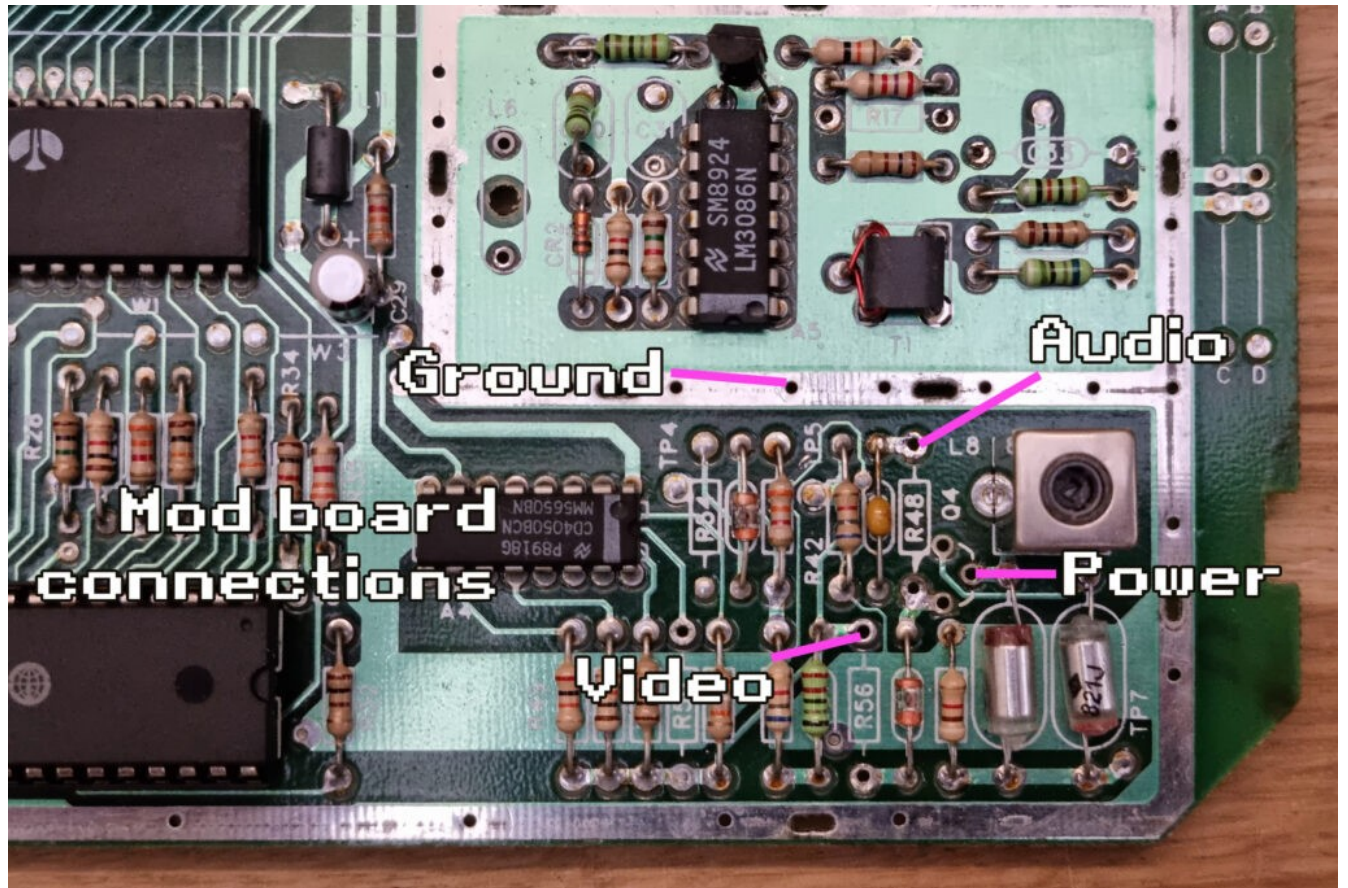
1. Output - This would be a standard av cable setup.



PARTS LIST:

R1	2.2k ohm
R2	3.3k ohm
R3	75 ohm
Q1	Transistor 2N3904

2. Input – 2600 pal jr



2. Input – 7800

remove c10,R3,R5
Top of c10 is pokey,
attach to audio line
out from via marked
in white below.



Installation Guide – 6 Switch

by admin

Atari 2600 6 Switch Video Mod Installation Guide

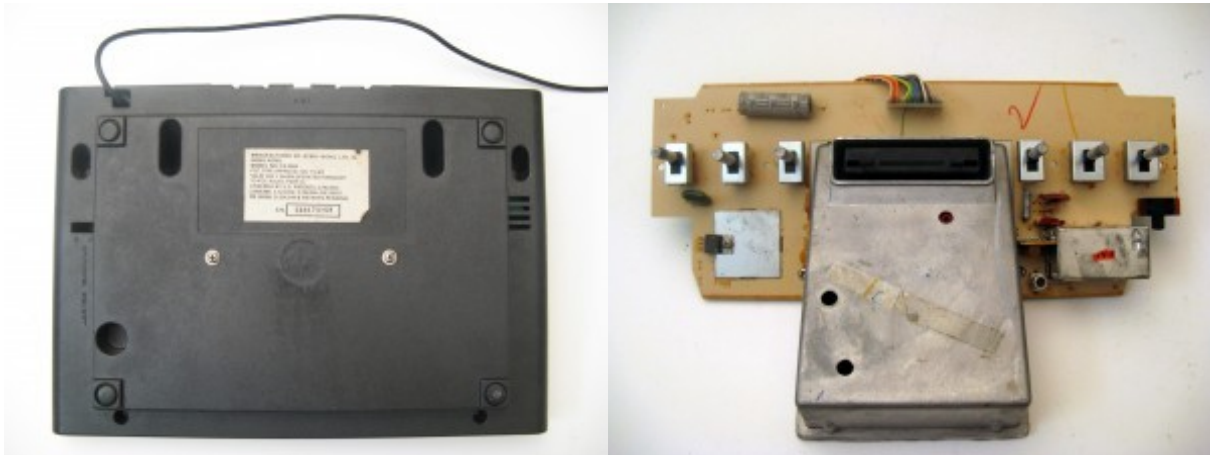


Disclaimer: I am not responsible for any damage done to your Atari. This mod is designed to permanently remove the RF output. The mod will work if performed correctly to a fully functioning Atari. Perform at your own risk.

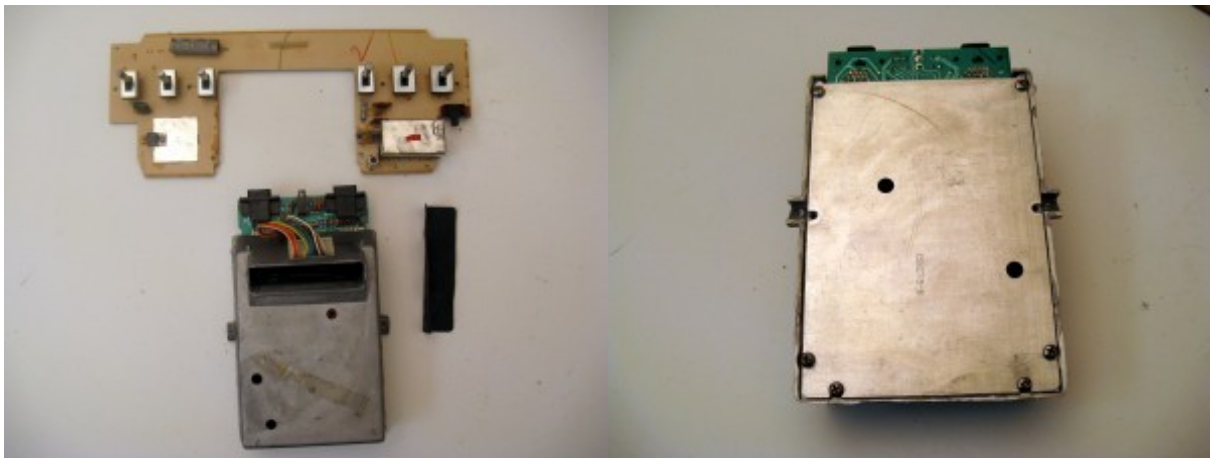
Tools You Will Need

- Philips Screwdriver
 - Soldering Iron and Solder
 - De-soldering Tool (De-soldering Iron, Bubble, Vacuum, Braid)
 - Wire Cutters/Strippers
 - Needle Nose Pliers
 - Drill with 1/4" and 1/8" bits
-
- Turn the Atari over and remove the 8 screws. Set them aside for later. Disconnect the RF cable and throw it away. Then take both the switchboard and main board

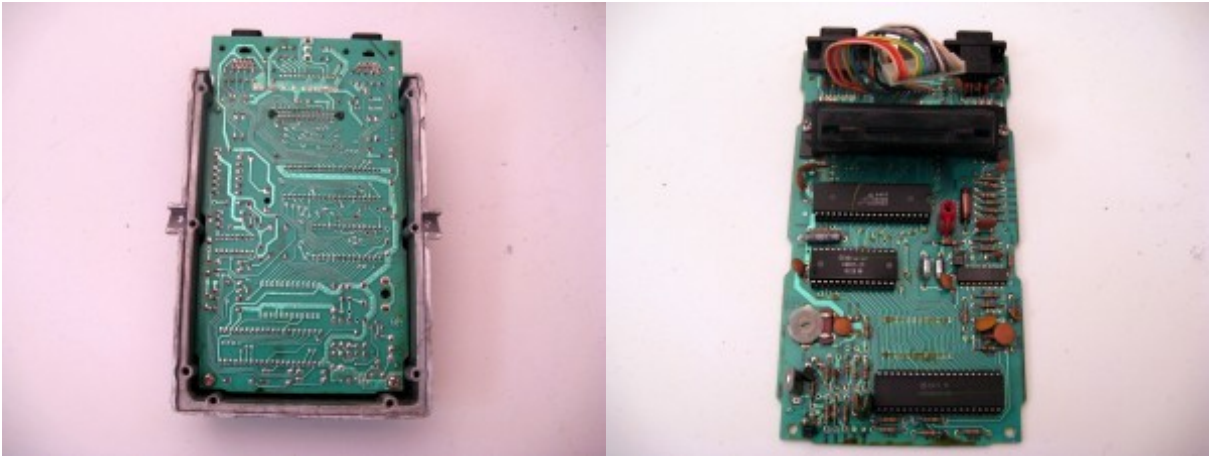
out of the case. Take off the black foam covers on the switches and set them aside for later.



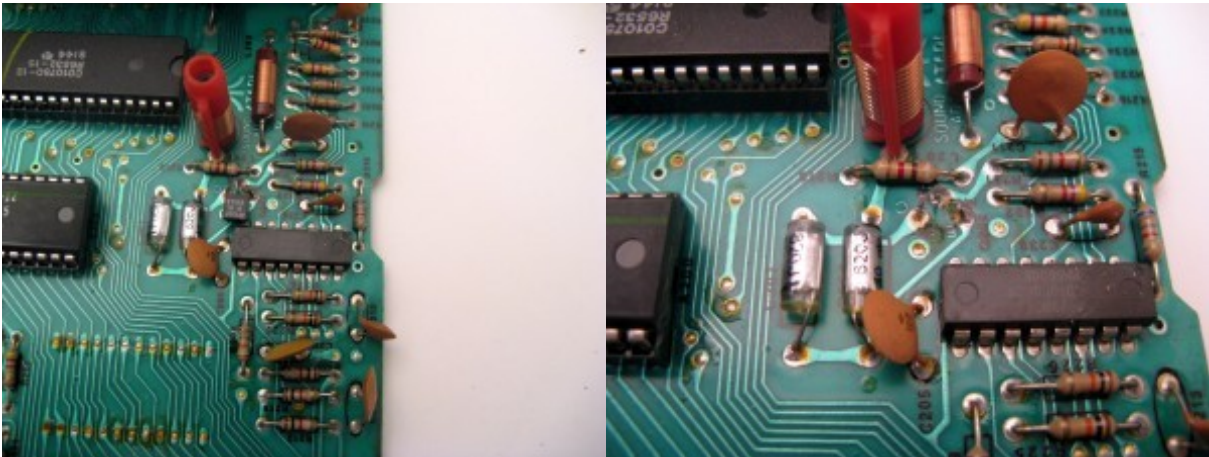
- Unplug the ribbon cable and remove the two screws on either side of the main board case. This will disconnect the main board from the switchboard. Also set aside the dust cover for the joystick and power ports. Now take the metal casing and turn it over. Unscrew the 6 screws there and throw away the bottom part of the metal casing.



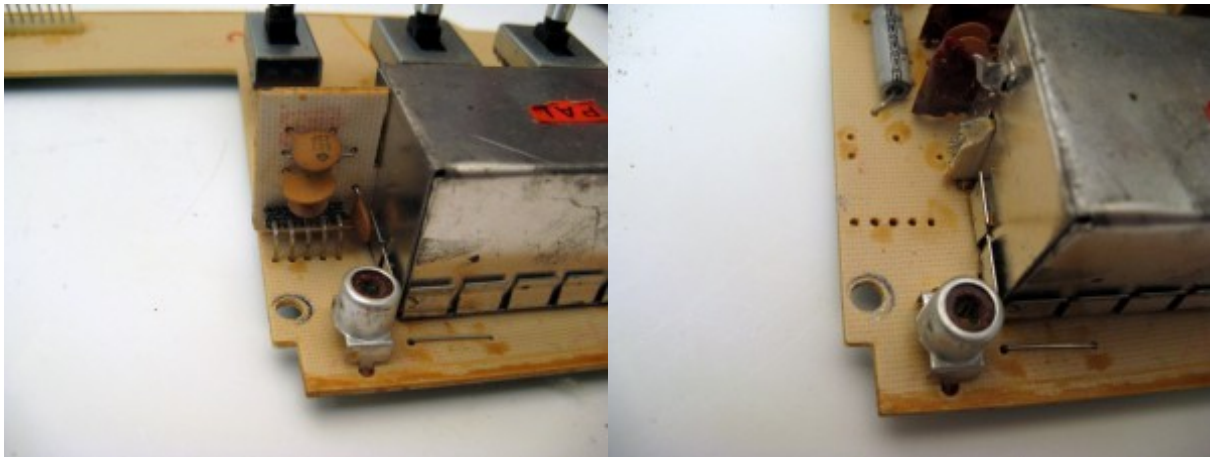
- Now remove the two screws connecting the main board to the top casing. Take the main board out and it is ready to be modified.



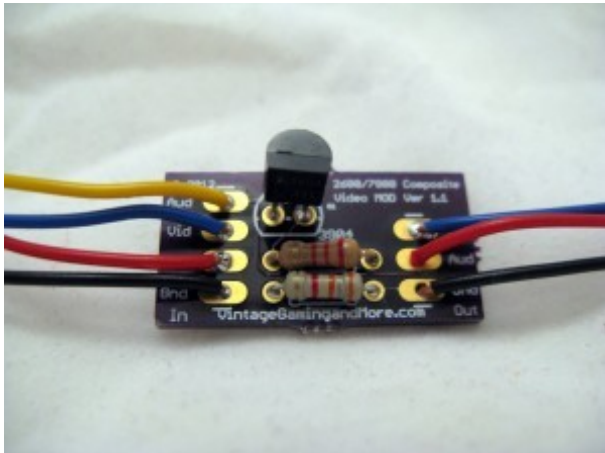
- In the middle of the board on the right hand side is a transistor (Q202). you need to remove the transistor by cutting all 3 leads with the wire cutters. When done it should look like this.



- Now take the switchboard. You need to cut the 5 pins going into the RF modulator circuit board (silver box with circuit board attached to side. I usually break off the small circuit board attached to the RF modulator and throw it out, but if you want you can bend the pins up out of the way and leave the small circuit board attached. Remove the 5 pins using your de-soldering tool so that the holes are open as in the picture below.

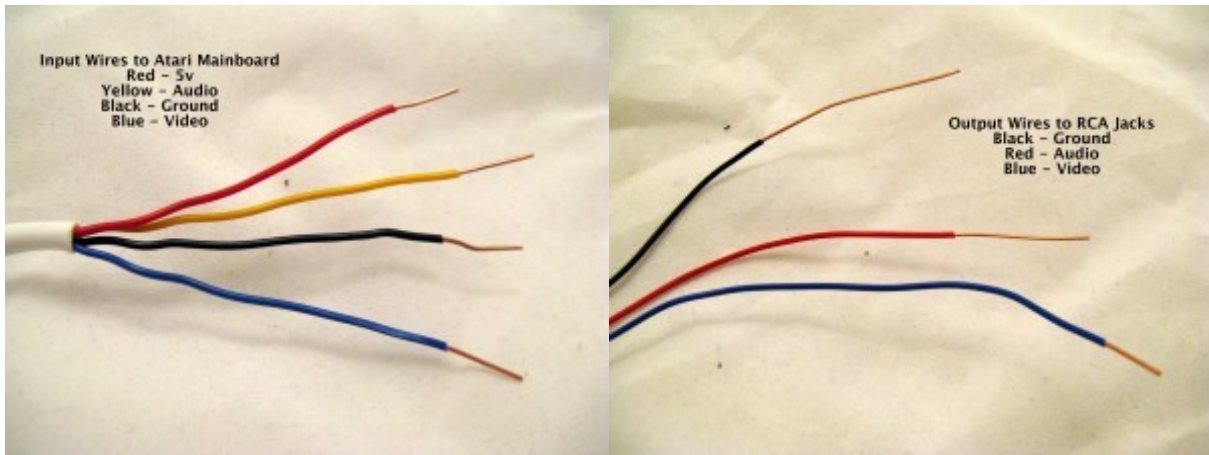


- Now it's time to assemble the circuit board. Just follow the picture below and solder in the transistor, 2.2k Resistor (Red-Red-Red), and 3.3k Resistor (Orange-Orange-Red). The components are labeled on the circuit board so it should be pretty easy to see where they go.

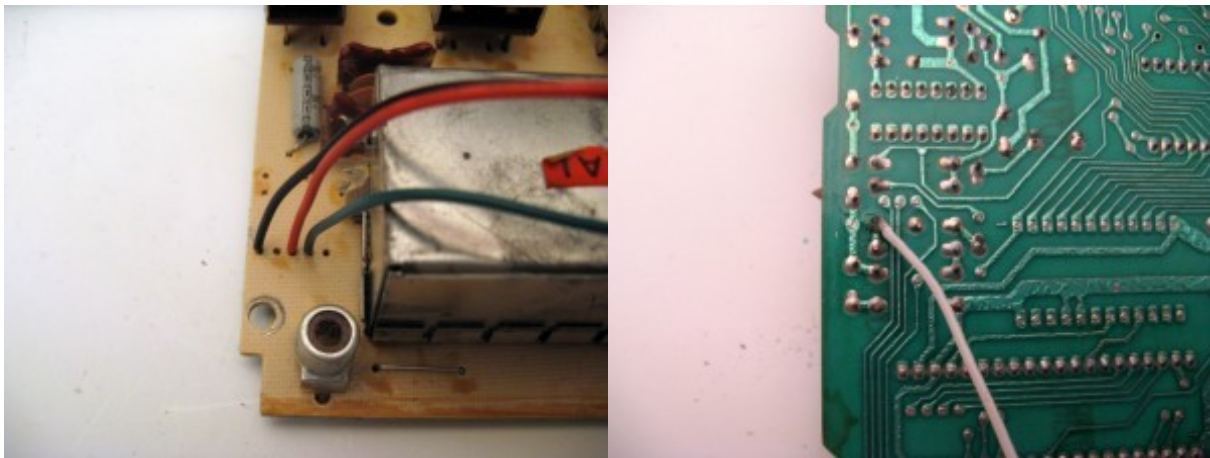


- You should have two pieces of 4 conductor wire. First, strip off the white sheathing. You can save about an inch of it to help group the wires together if you like. Next, throw out one of the yellow wires. Now you should have two groups of wires. A group of 3 output wires (Red, Black, and Blue), and a group of 4 input wires (Red, Black, Blue, and Yellow). With the new wire I use, Blue replaces Green and Yellow replaces White in the pictures. The group of 4 wires are the input wires that go to the main board. Strip about 1/2" off of both ends of the input wires and attach them to the mod kit. Black is the GND, Red is +5v, Blue is Video, and Yellow is Audio.
- The group of 3 wires are out wires that attach to the RCA jacks. The output wires should be stripped to different lengths as in the picture. About 1/2" for Blue, 1"

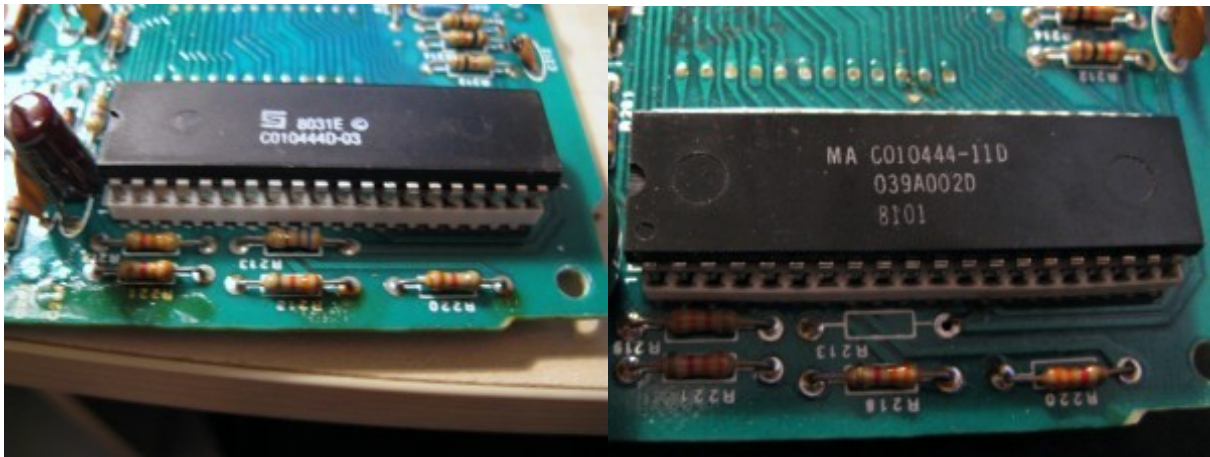
for Red, and 2" for Black. On the output side of the mod kit, Black is for GND, Red for Audio, and Blue for Video.



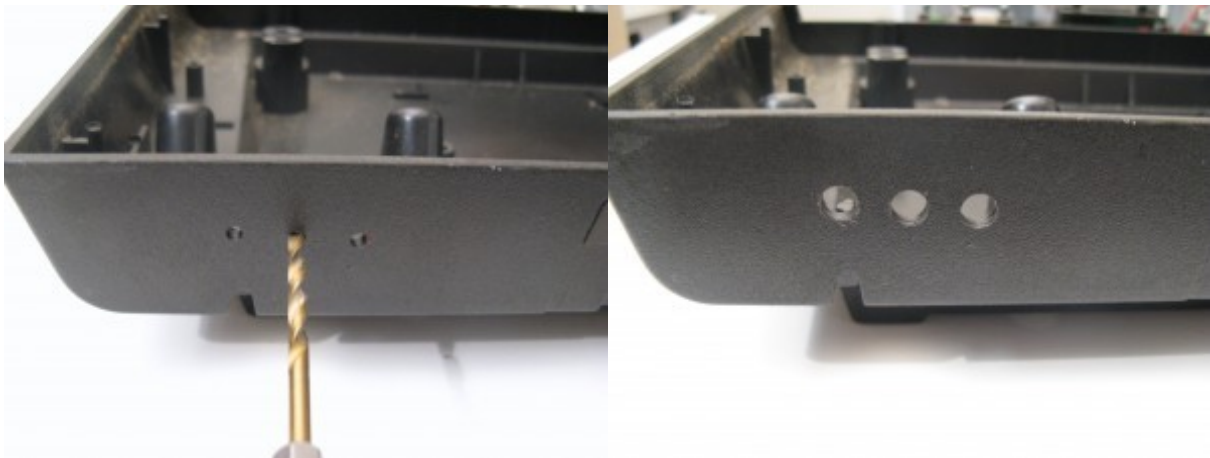
- Attach the Black, Red, and Blue input wires to the switchboard like in the picture and solder them in from underneath. Make sure the Black wire goes into pin 1 where the RF modulator pins were. The Red goes into pin 3, and the Blue into pin 4. Take the main board and turn it over. The Yellow wire needs to be attached from underneath because of the metal casing. Attach it to the hole indicated on the left side of the board as in the picture. There is no component in this hole but you might need to remove the solder first with your de-soldering tool. This is an open hole connected to C210 if you look at the board from the top.



- Now you need to remove a resistor (R213) along the bottom of the main board. You can just cut it off at both ends. Now the main board and switchboard are done.



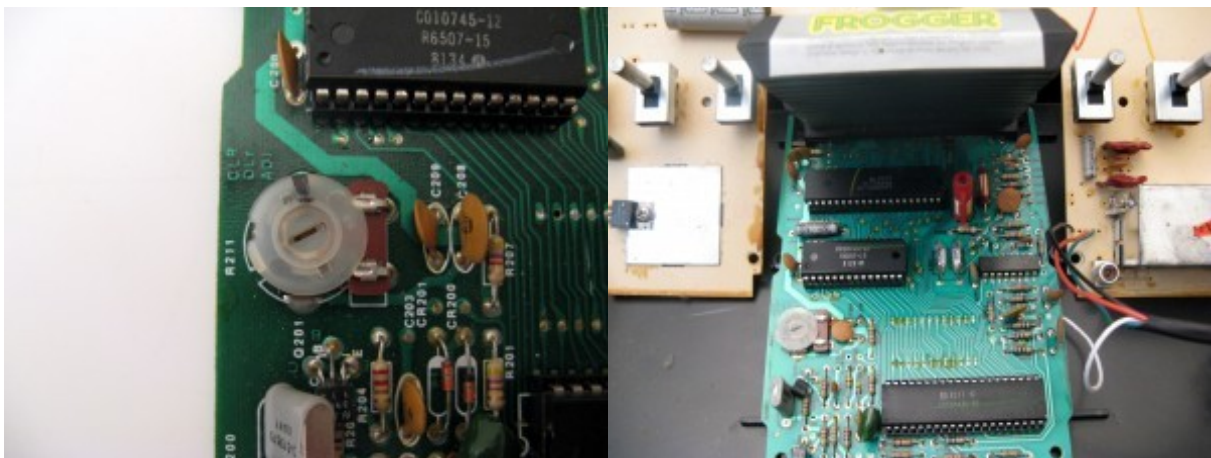
- Take the bottom half of the case and put a piece of masking tape where you want the RCA jacks to go. Use a ruler and marker and make 3 dots on the tape 1/2" apart. Then drill 1/8" pilot holes on the dots, and use the 1/4" drill bits on the holes to make them ready for the RCA jacks. The tape and marker are just extra precautions, you could also just drill the holes if you want.



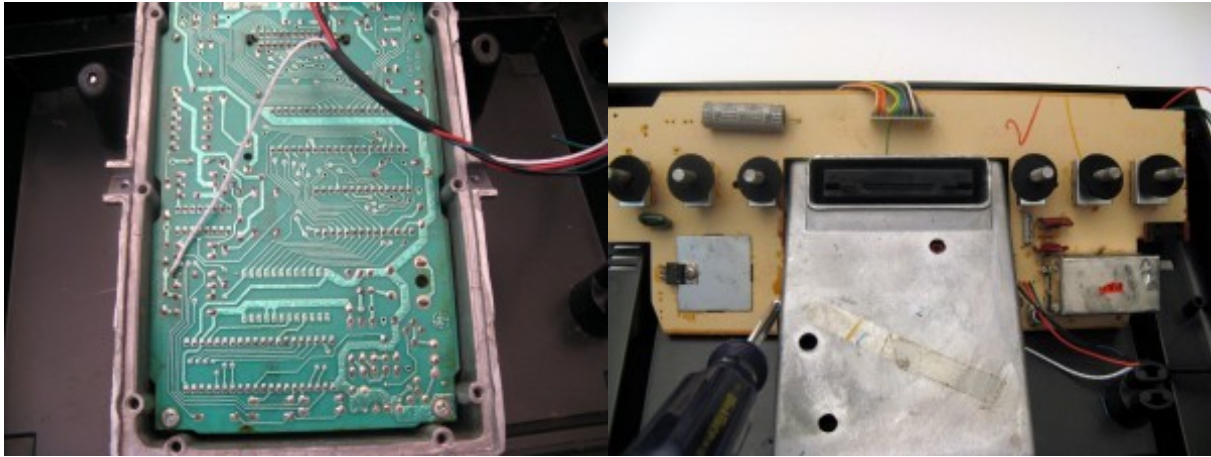
- Attach the RCA jacks by mounting them into the case with the ground ring and nut on the inside. Make sure they are tight. Have the ground ring holes be at or near the top and bend them down to make soldering easier. Take the Black output wire with the longest amount of bare wire and solder it to all three ground rings like in the picture below. Take the Red wire and solder it to the Red and White jacks. Take the Blue wire and solder it to the yellow jack.



- Now you are ready to put everything back together. First you need to adjust the color potentiometer on the bottom left of the main board. It is the big plastic circle and is the only pot on the board. Attach the power, ribbon, and RCA cables and use a game you are familiar with to adjust it so the colors are just right. A game like Frogger or Pitfall with a variety of bright colors is ideal.



- Now unplug everything, and put the top metal casing over the main board and secure it with the two screws. Then screw in the switch board to the main board and put them both in the case. Be sure to put the dust cover back on the plugs and joystick ports and the foam covers on all the switches. Then peel the bottom off of the double sided tape and stick it to the bottom case on the right hand side.



- Now put the top cover back on, and put back the 8 screws back in. Start with the two in the middle. After that you are done and ready to enjoy your Atari with composite video! Please leave a comment below and let me know how you made out!

