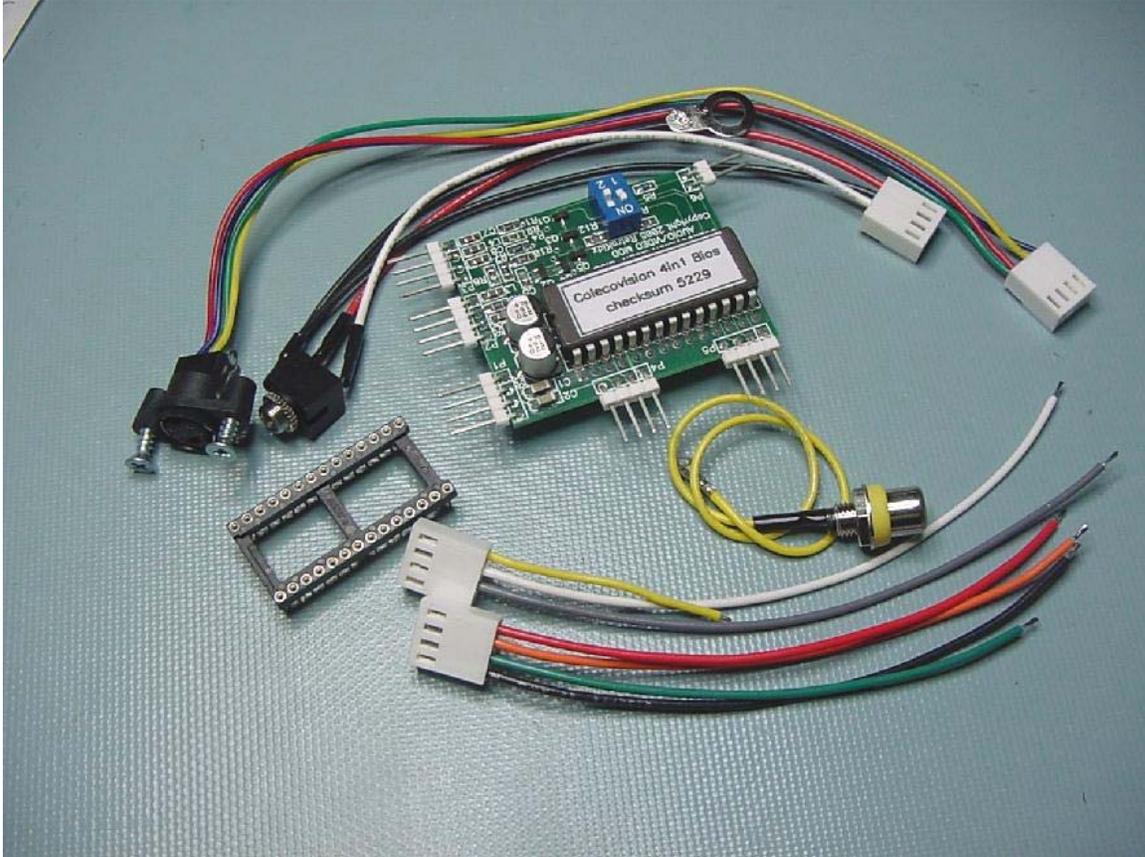


Colecovision Video & Bios Mod Installation Guide



The installation kit contains the following items:

1. Colecovision Video & Bios Mod board
2. Black 3.5mm panel mount jack with 4 attached wires & pins.
3. Black Svideo mini-din panel mount jack with 4 attached wires & pins.
4. 4 wire cable with tinned leads (red, black, orange, green)
5. 3 wire cable with tinned leads (yellow, white, gray)
6. Yellow RCA jack with 1 attached wire & pin.
7. 28 position machine pin socket

****NOTE**** you will need to provide all external cables.

1. **AUDIO** 3.5mm male plug on one end and two RCA plugs on the other.
2. **SVIDEO** male-male Svideo cable to connect to your monitor or TV.
3. **COMPOSITE** If you also want to connect Composite Video you need a male-male RCA extension cable.

The following list of tools are also recommended:

1. Phillips screwdriver
2. Needle nose pliers
3. Sharp angled cutters
4. Scotch tape
5. Small drill
6. 1/8" and 1/4" bits
7. 1/2" hole cutting bit
8. Awl or scribe
9. Xacto knife
10. Metal Tin Snips for RF shield and modulator modification
11. Anti-stat mat with wrist strap (optional)



Phase 1 Case Top Removal

Place Coleco upside down on clean non-scratch surface and remove

the 8 screws with the Phillips screwdriver. Three are located along each side & 2 others in the middle in the front and back edge as shown below.

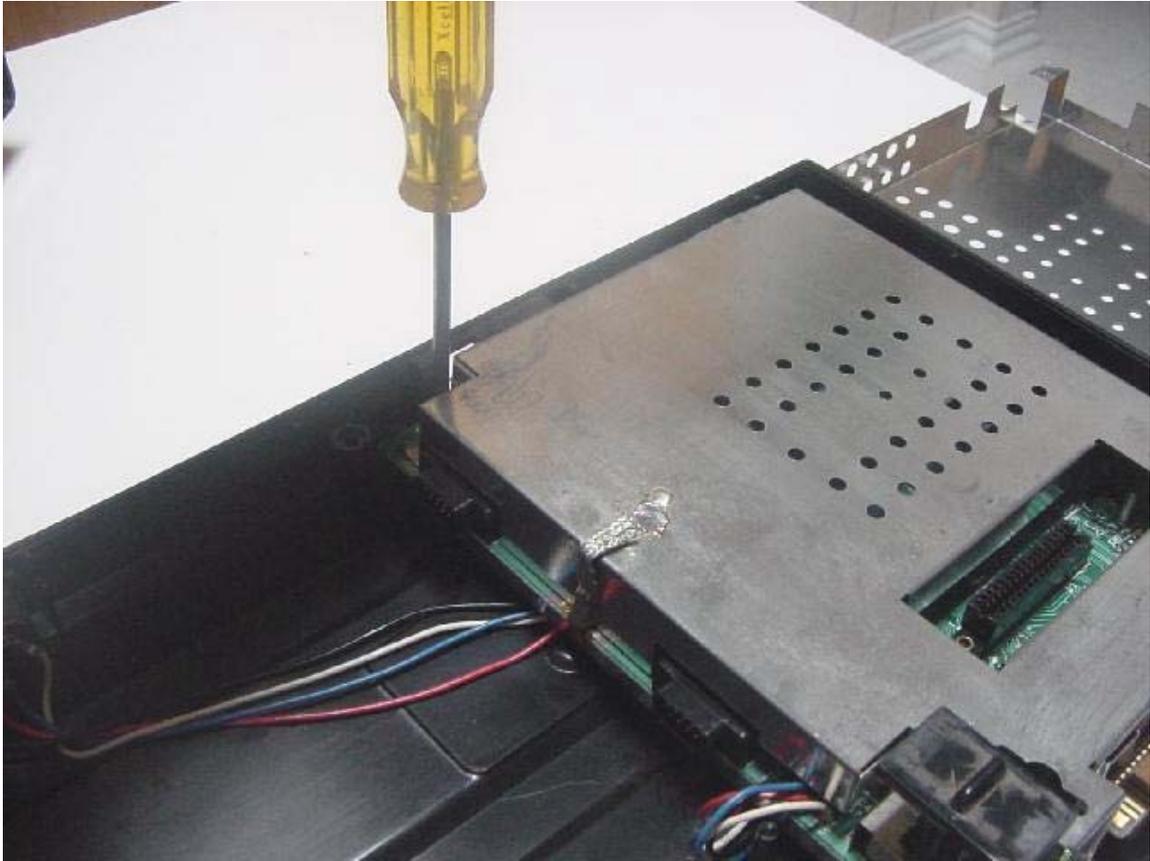


The Colecovision top cover is tricky to remove. After removing the 8 screws you need to pull out on the front edge of the case top where the expansion door is. Continue to work along the front edge until the bottom is free from the top edge as shown below.

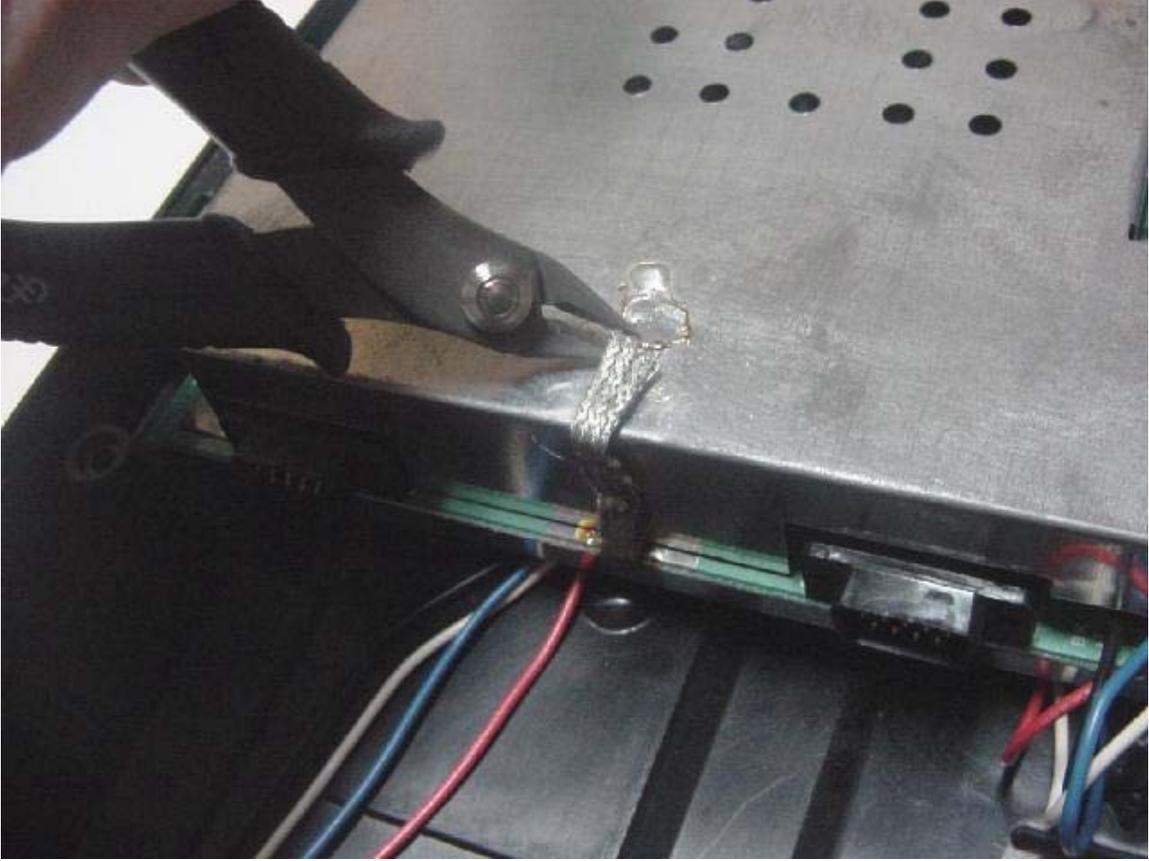


After the case is separated flip the Colecovision over and remove two screws from the RF shield. One is on the front right corner and the other is on the rear left corner as shown in the two pictures below.

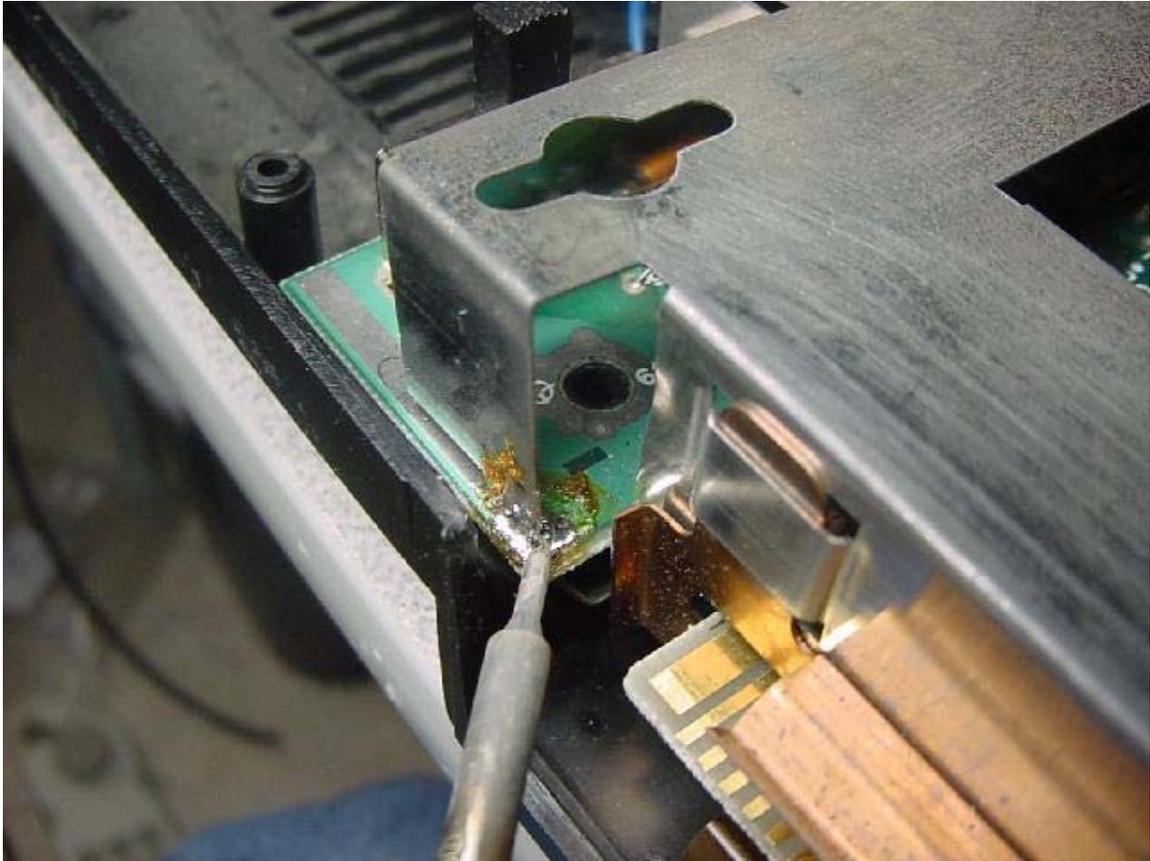




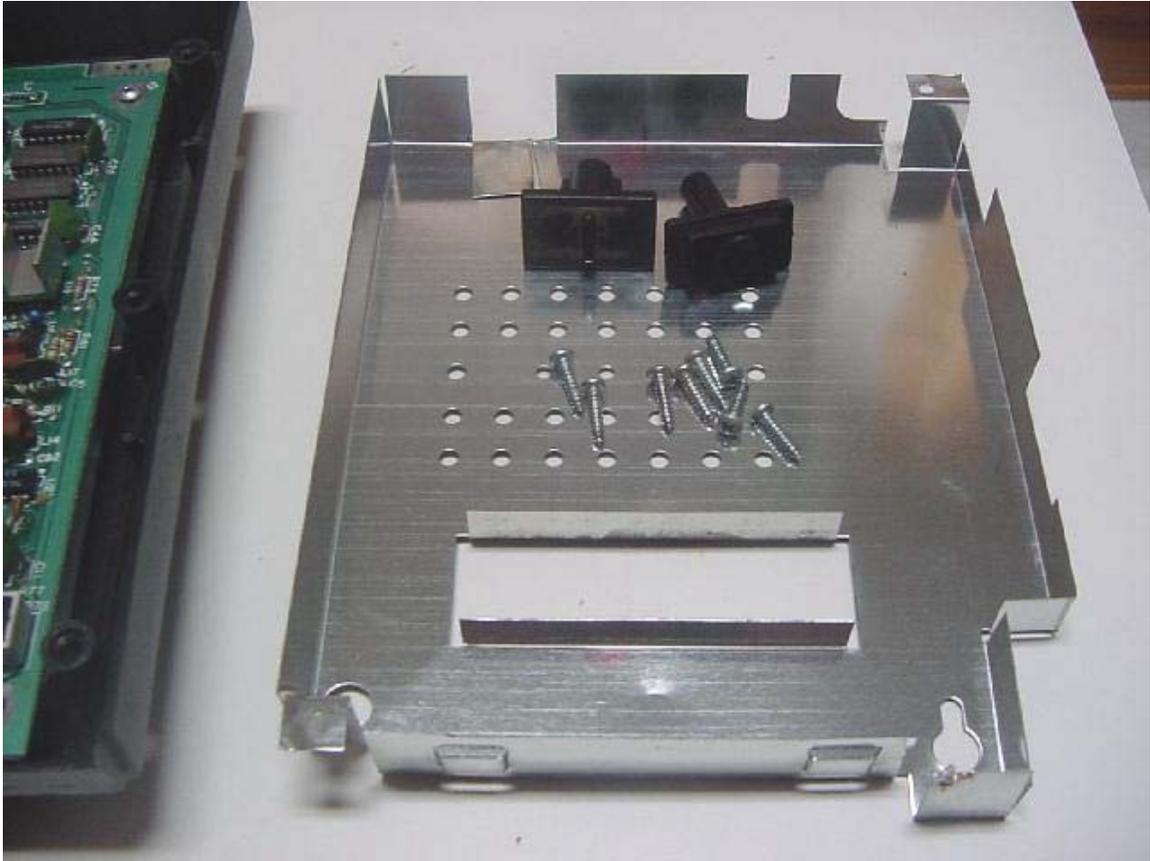
You can either unsolder or cut the grounding strap as shown below.



You will need to also de-solder the shield from the front as shown below.



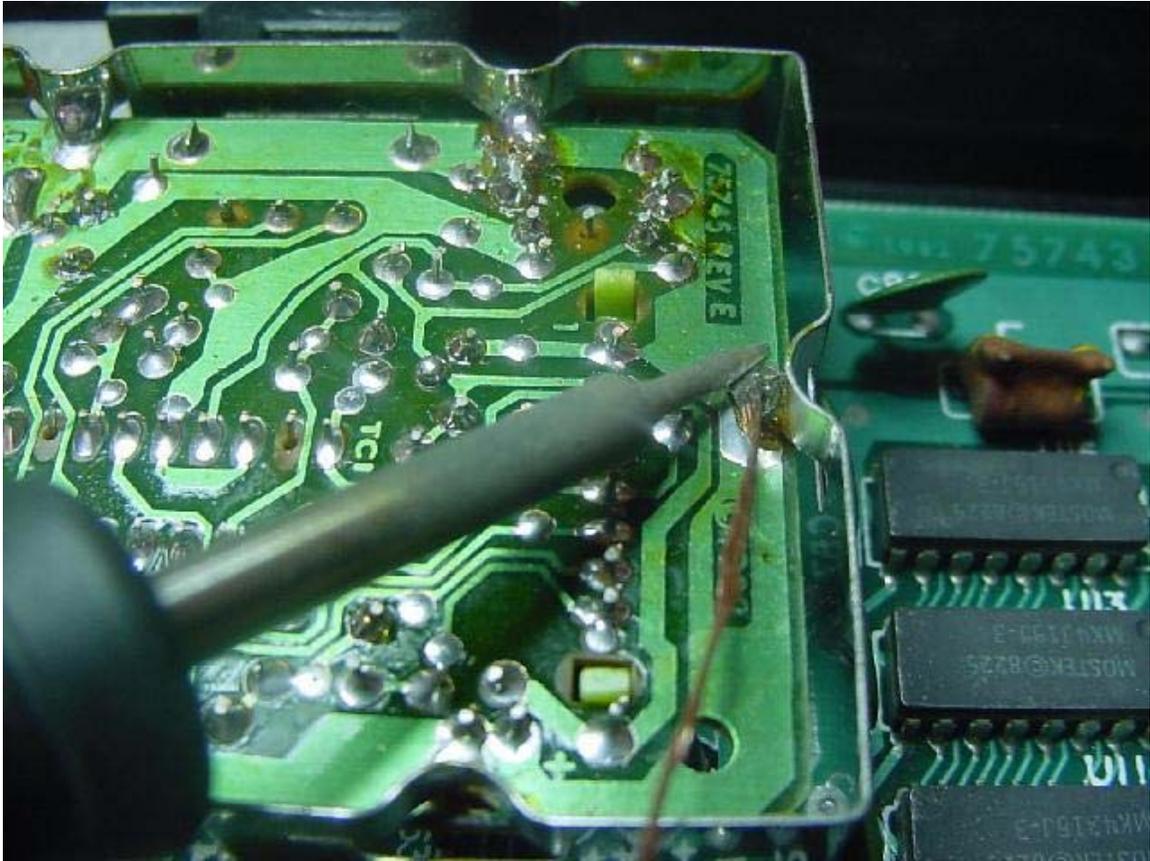
Is it a good idea to place all the screws and switch covers into the shield to avoid losing any parts.



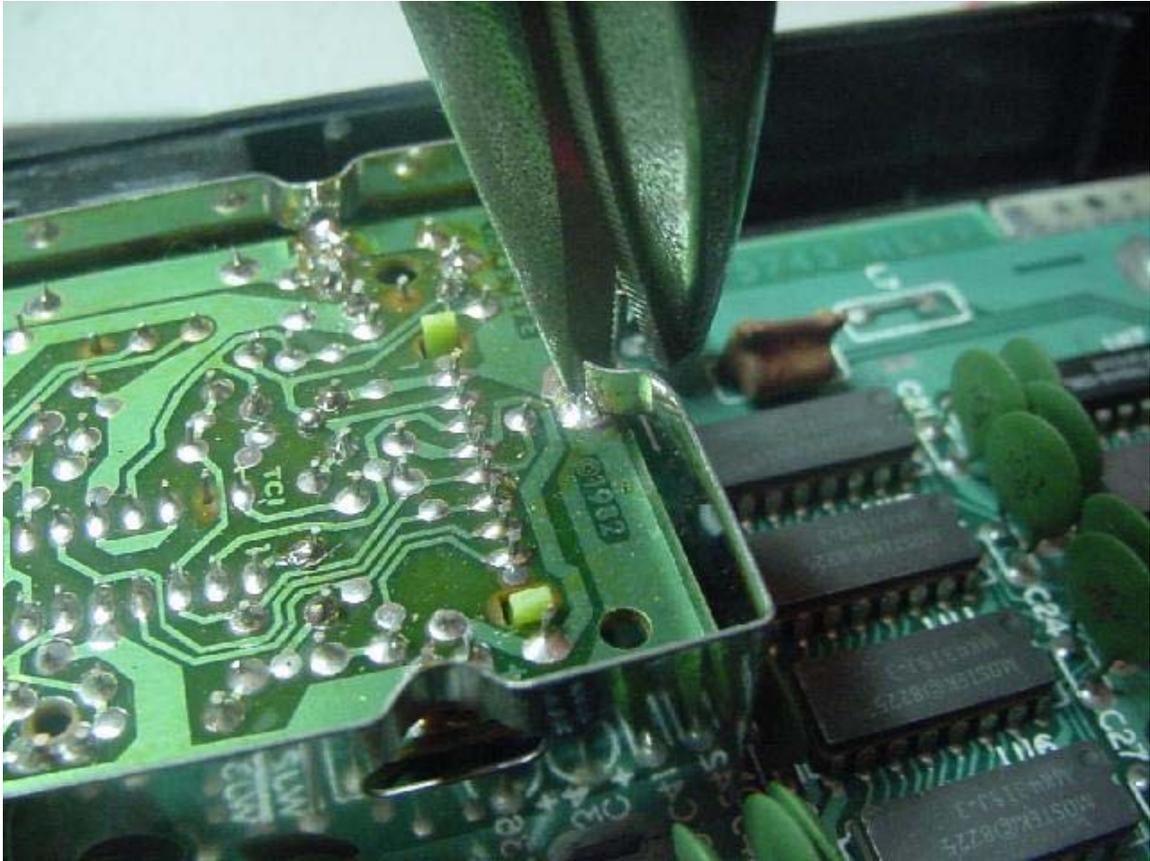
Phase2 RF Modulator Modification

Remove the top cover from the RF modulator

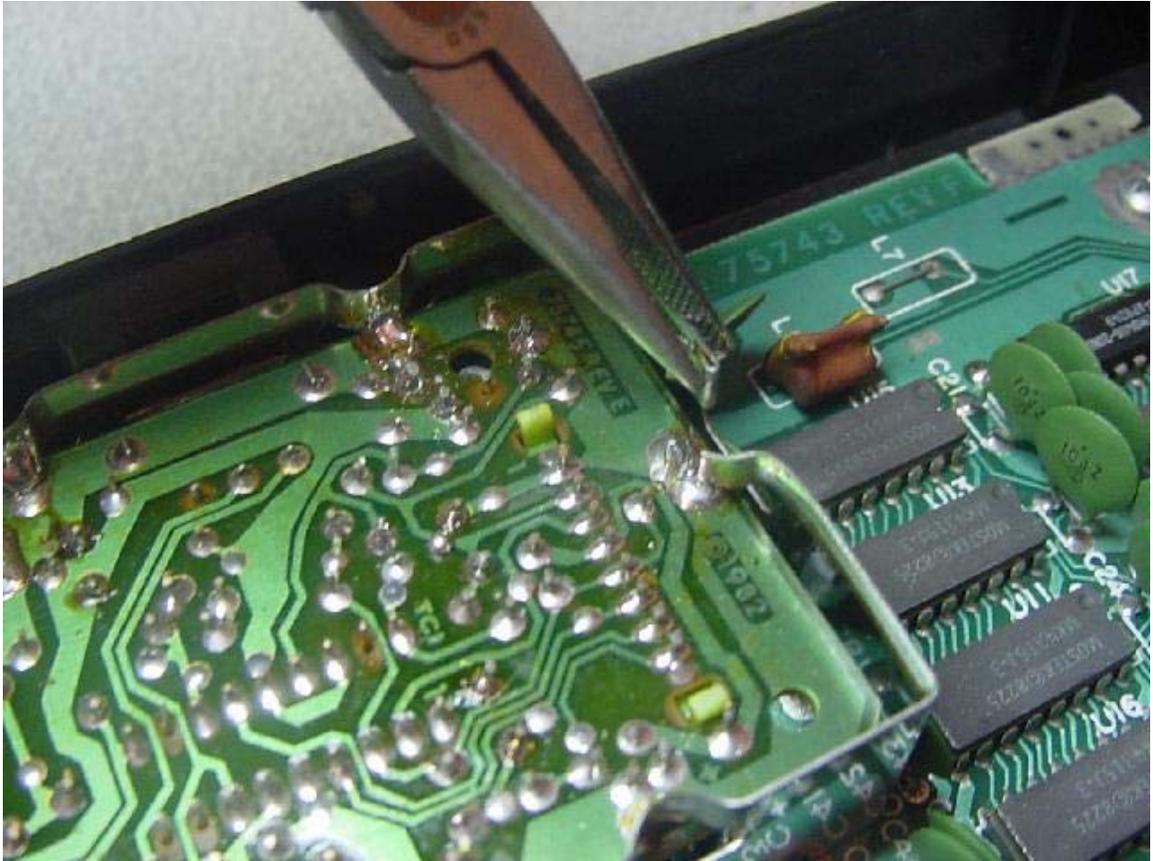
Using solder wick or desoldering tool remove the solder between the PCB and the shield as shown below.

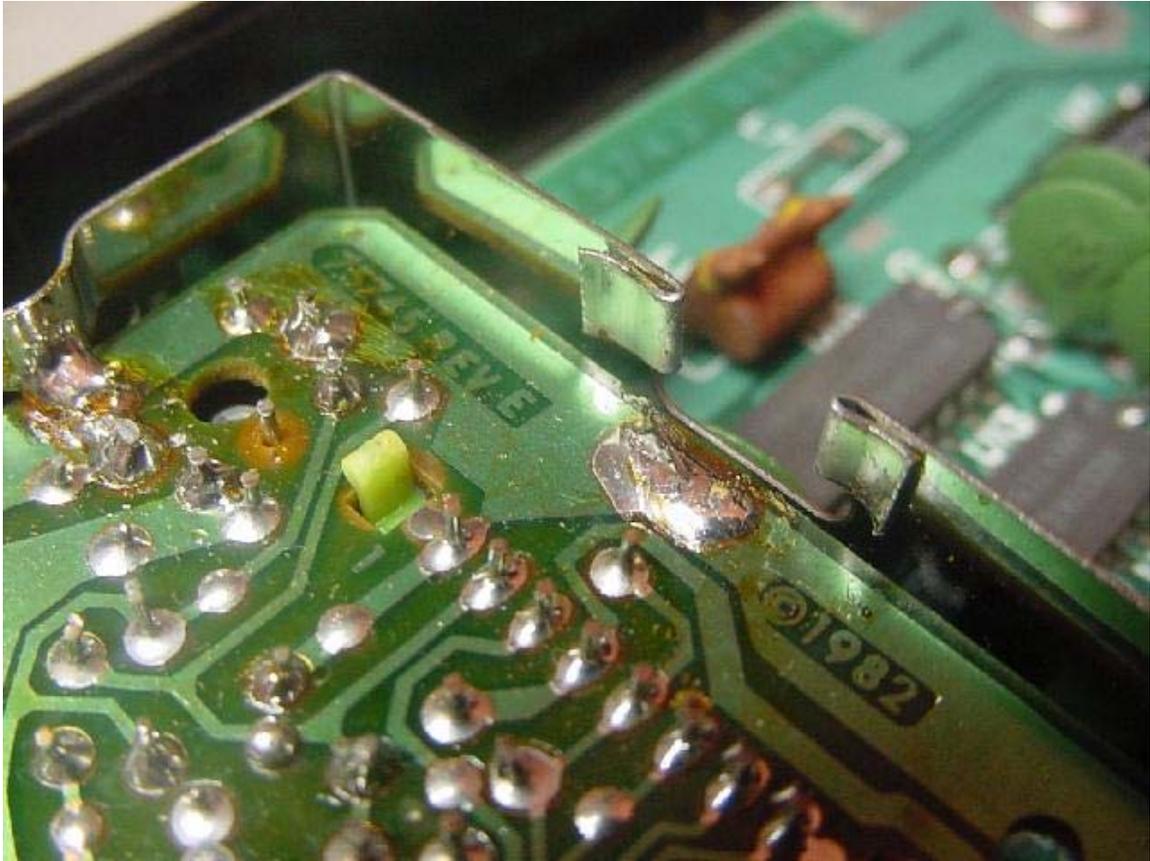


Using the sharp angled cutters or tin snips cut the curved portion of the shield in the middle as shown below.

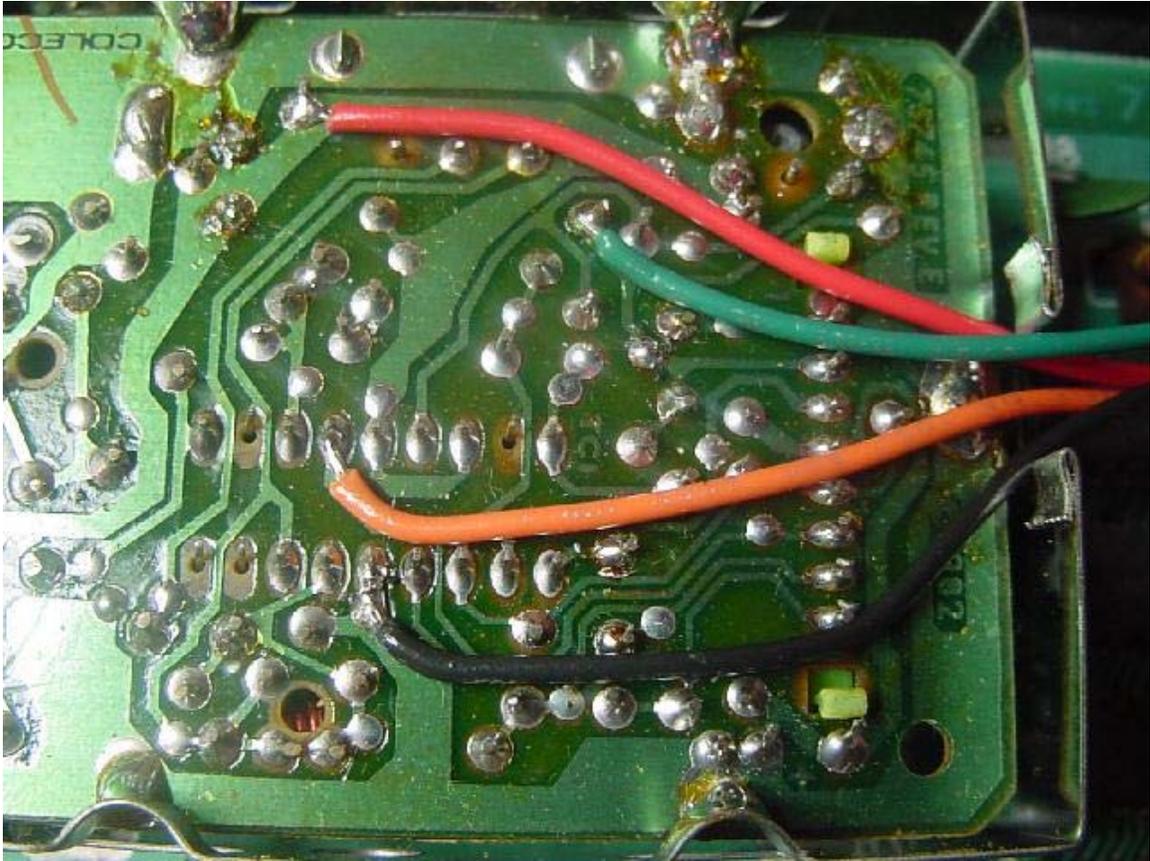


Using needle nose pliers bend each of the tabs back as shown in the next two pictures. This keeps the sharp edges of the shield from damaging the wires which we will install to pass through this opening.

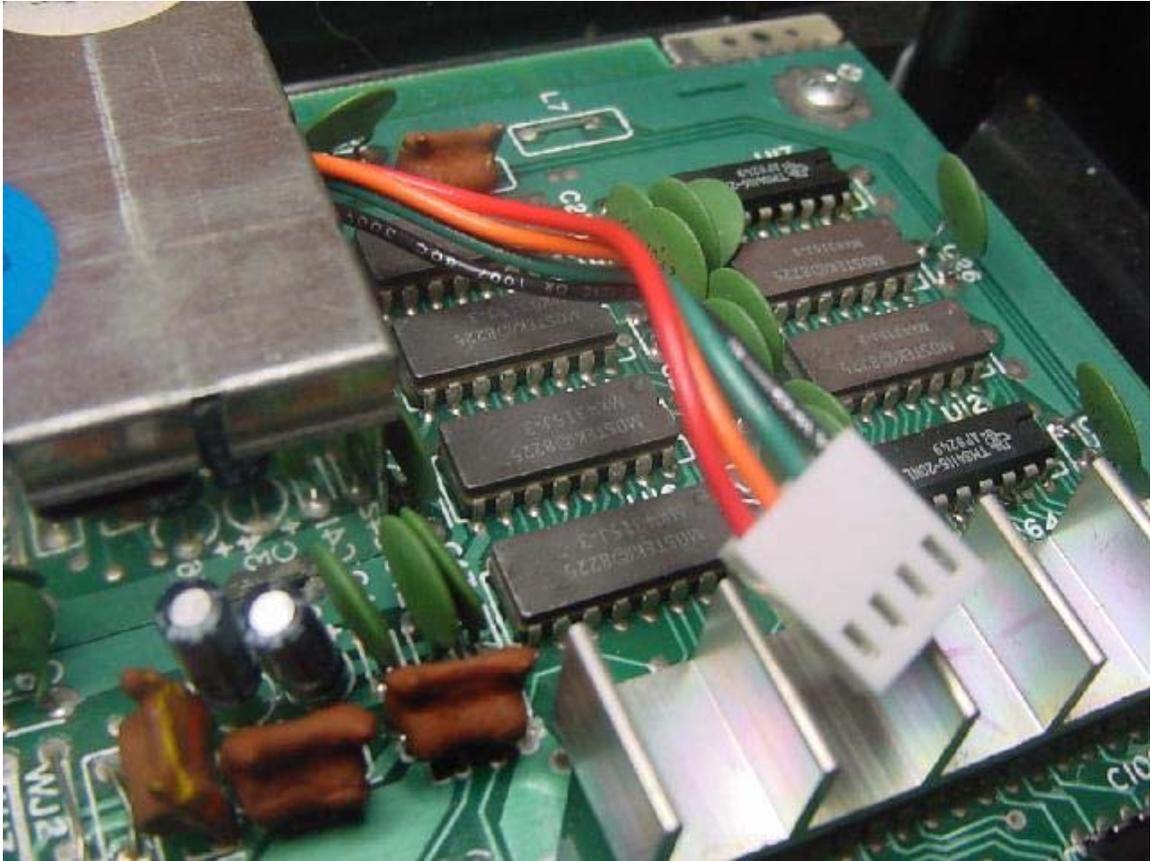




Solder 4 wire cable onto the PCB locations as shown below.

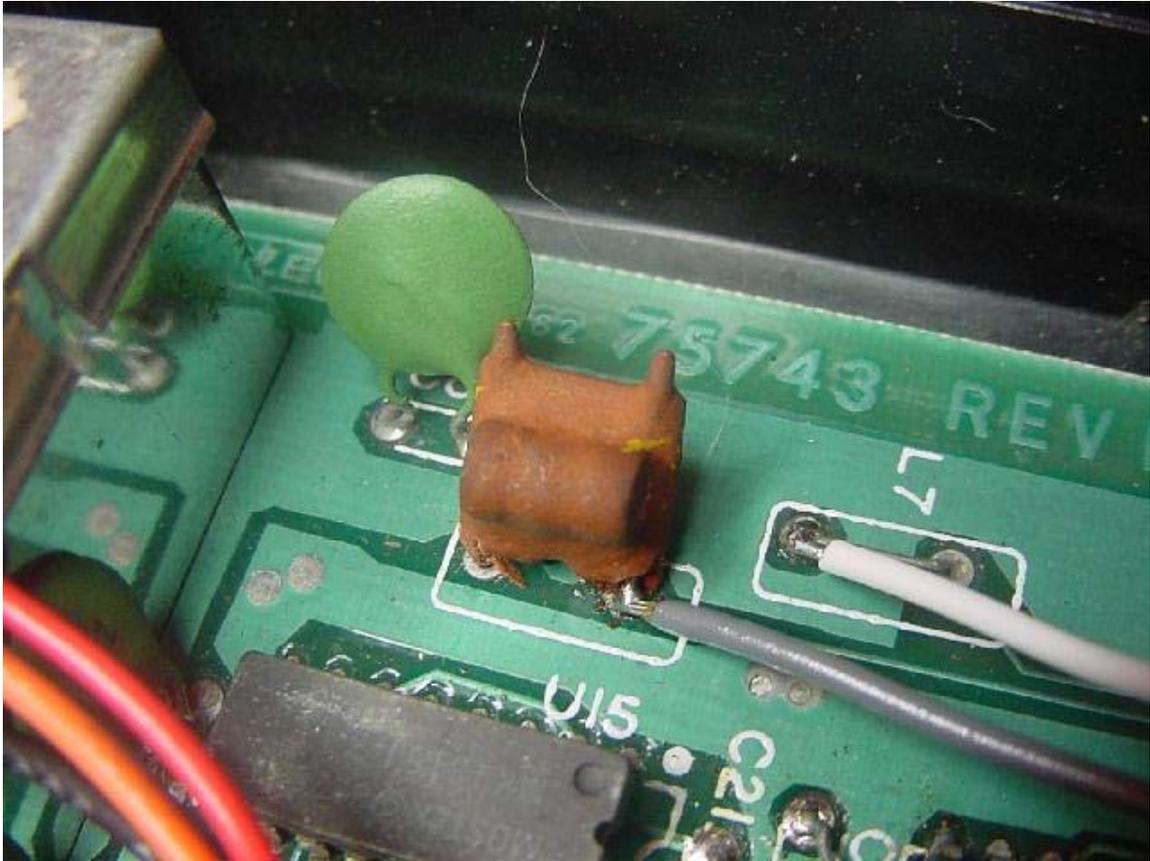


Place cover back on to modulator as shown below.

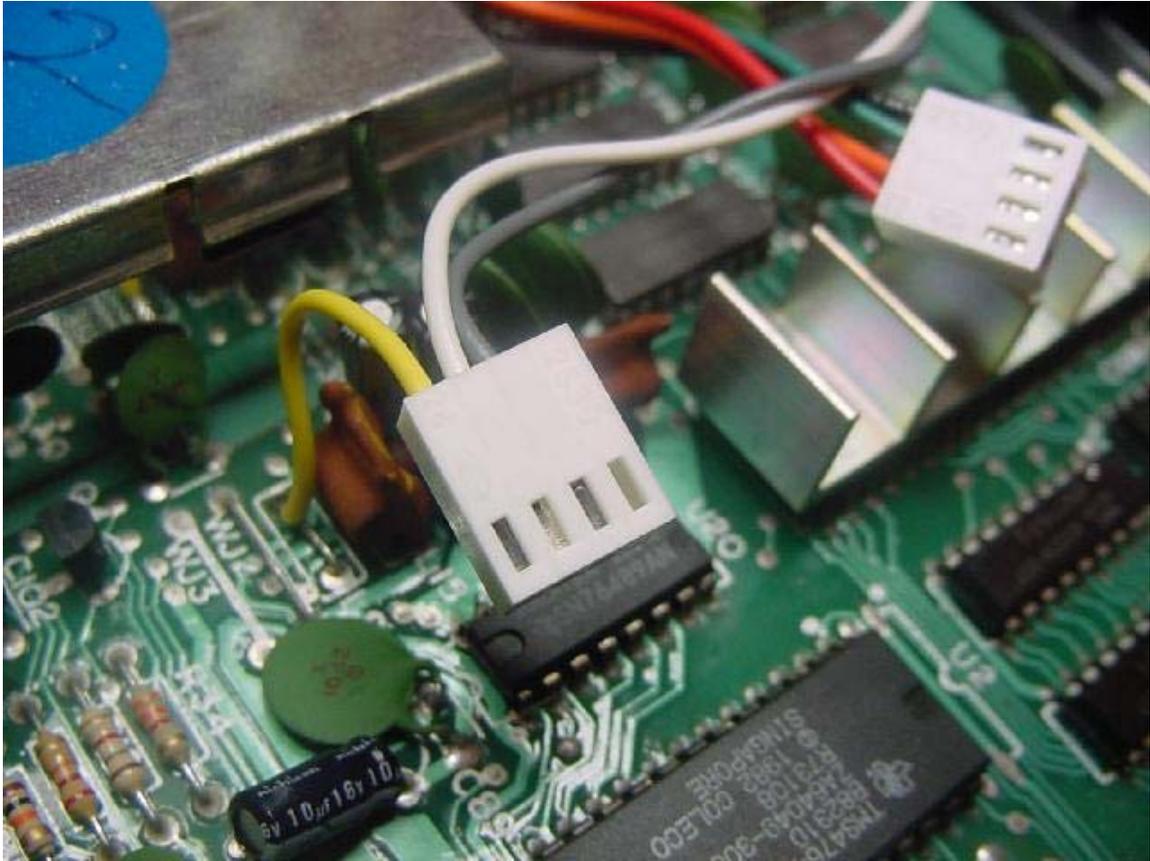


Phase3 Motherboard Modification & Wiring

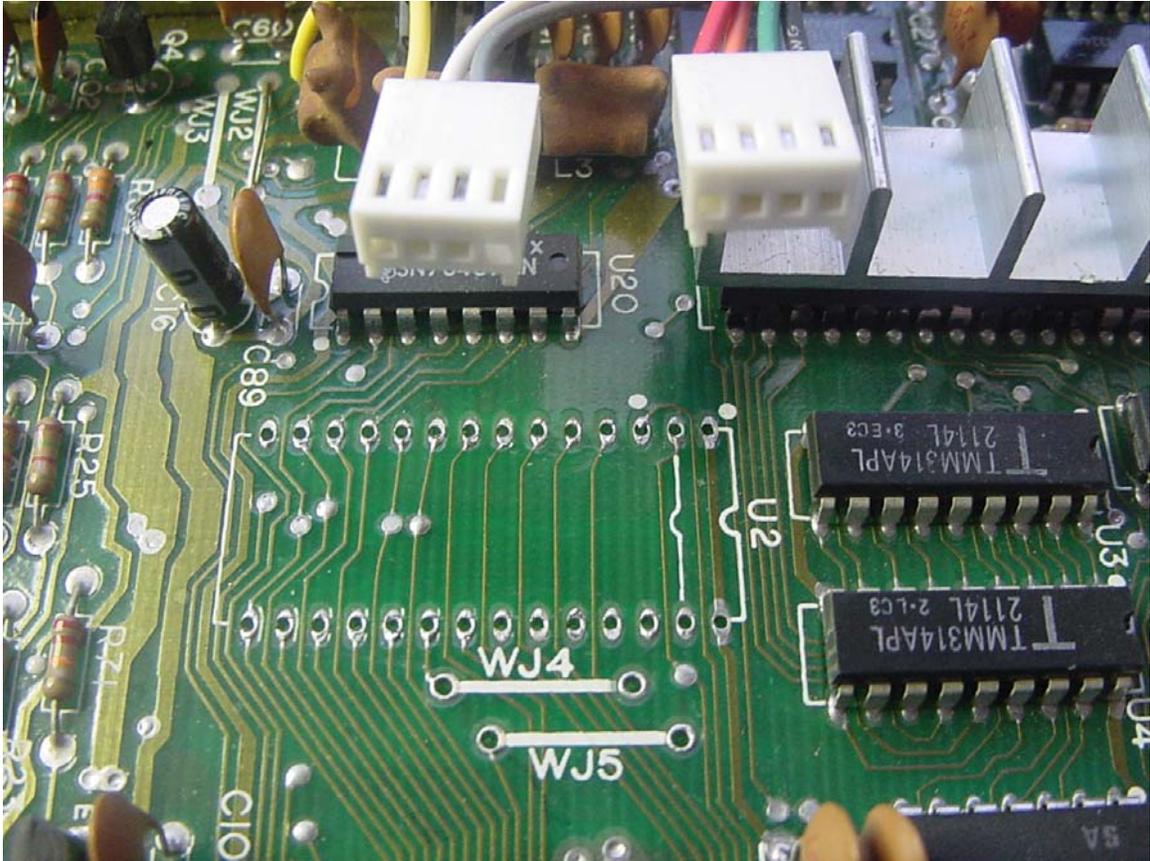
Solder 2 of the 3 wire cable colors white & gray onto the motherboard PCB locations as shown below.



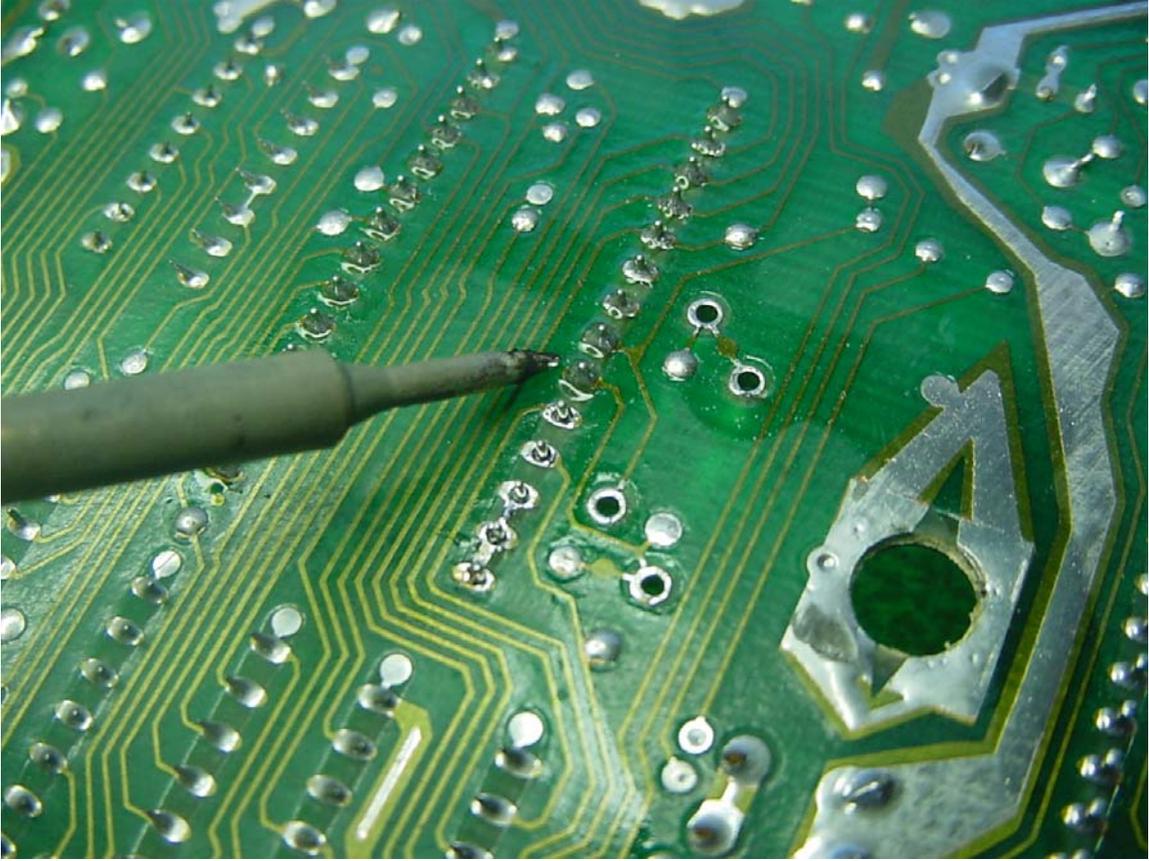
The yellow wire is soldered on the PCB location as shown below.



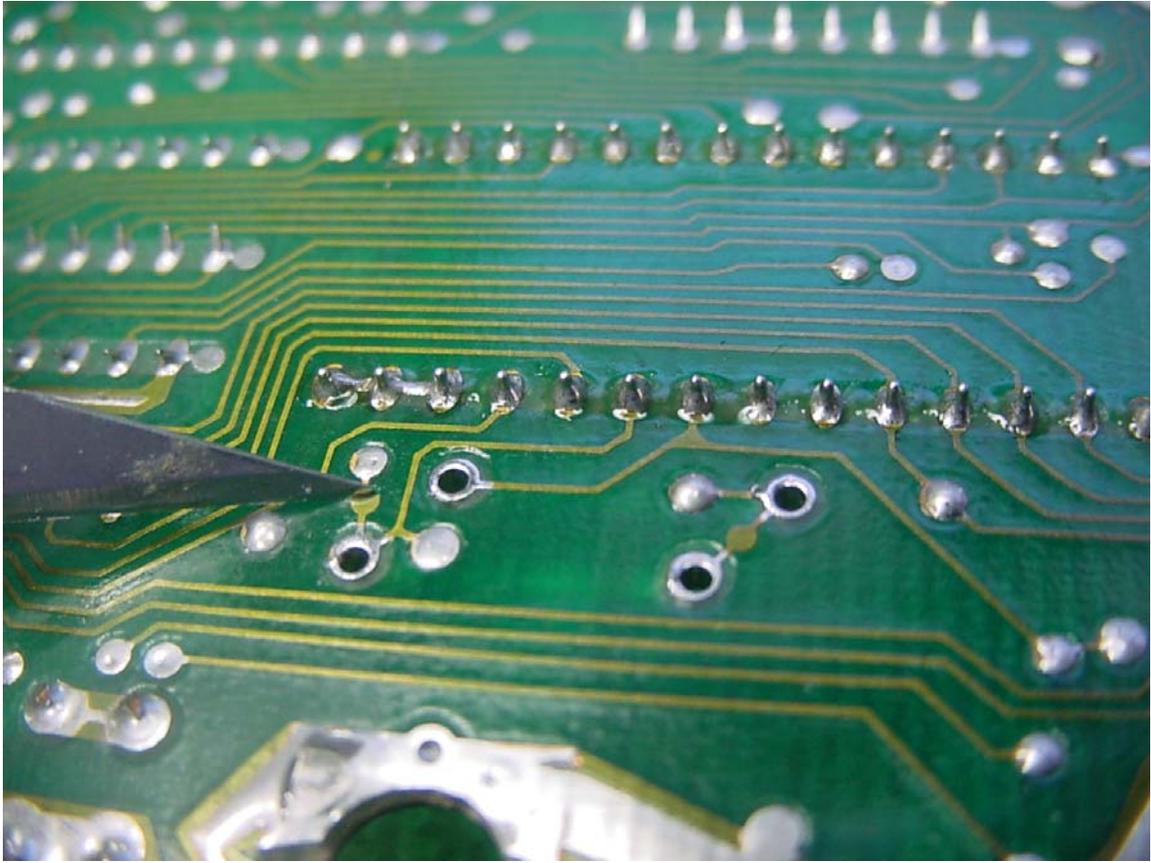
Using solder wick or desoldering tool remove the BIOS chip U2 as shown below.

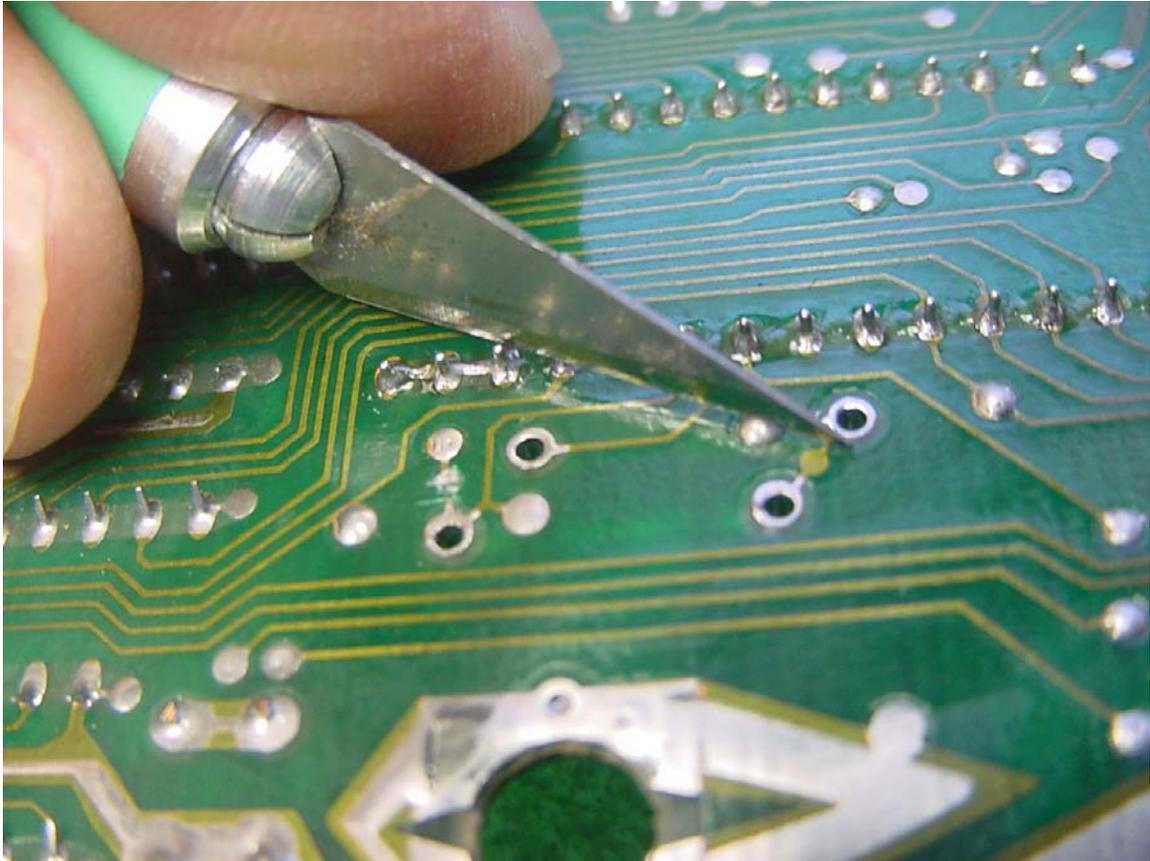


Solder in the 28pin machine socket provided into location U2 as shown below.

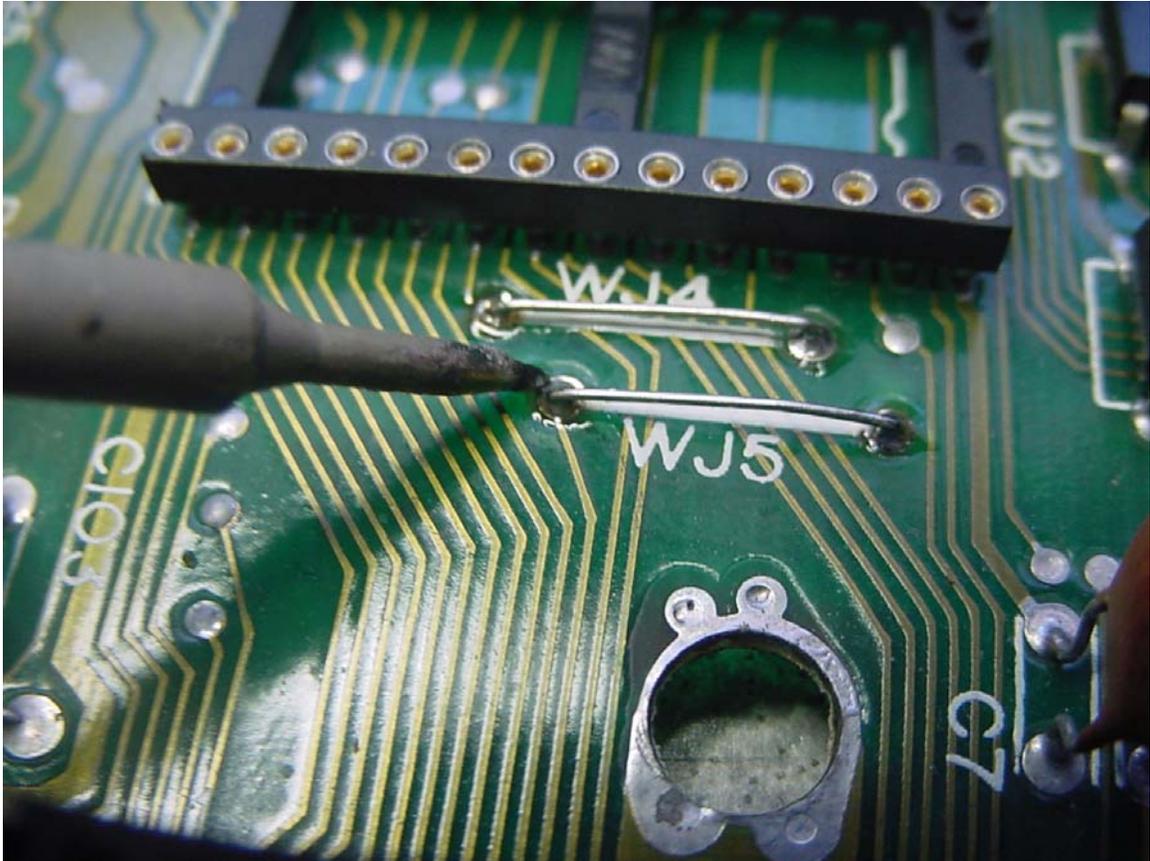


Cut & remove the two circular pads with an Xacto knife as shown below.

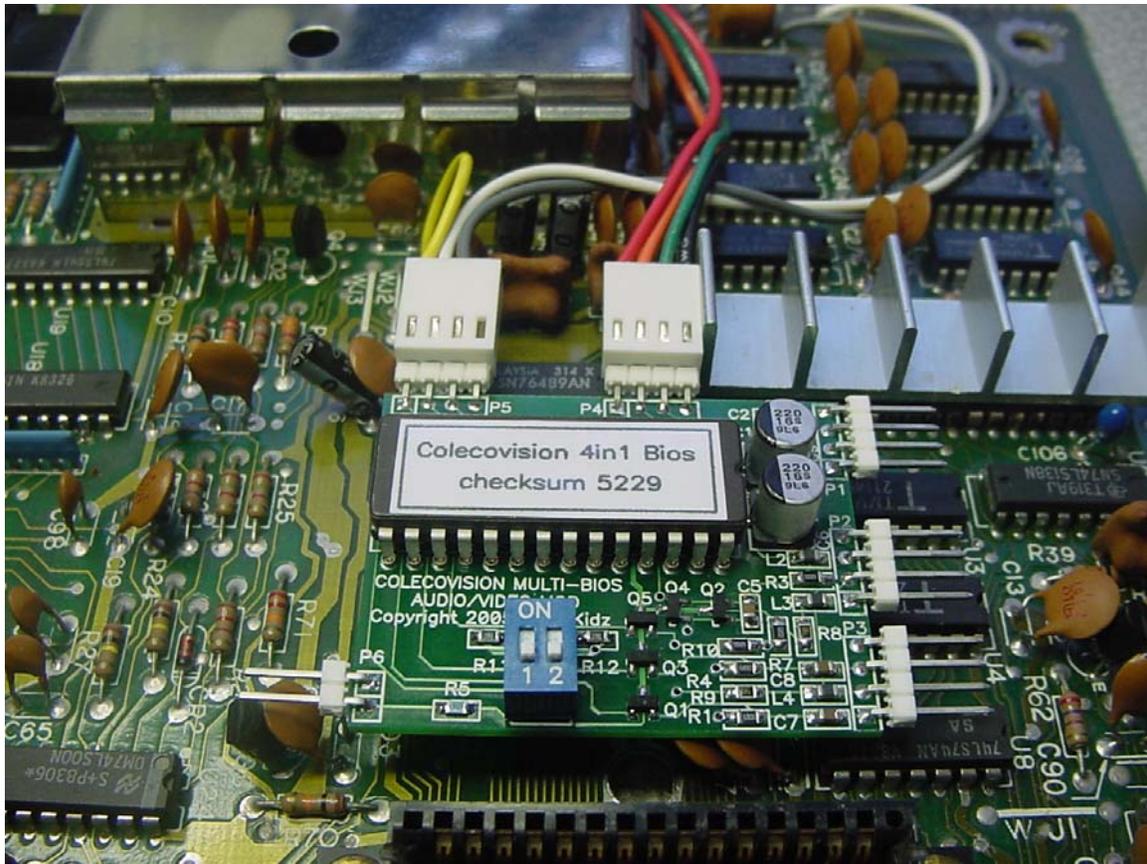




Install and solder the jumpers WJ4 & WJ5 as shown below.



Plug in cables P4 & P5 as shown , then install Mod board into 28pin socket.



The two pin connector P6 is provided if you want an optional POWER led. You can purchase the optional cable or build one. No external resistor is necessary, it is provided for you on the Mod board.

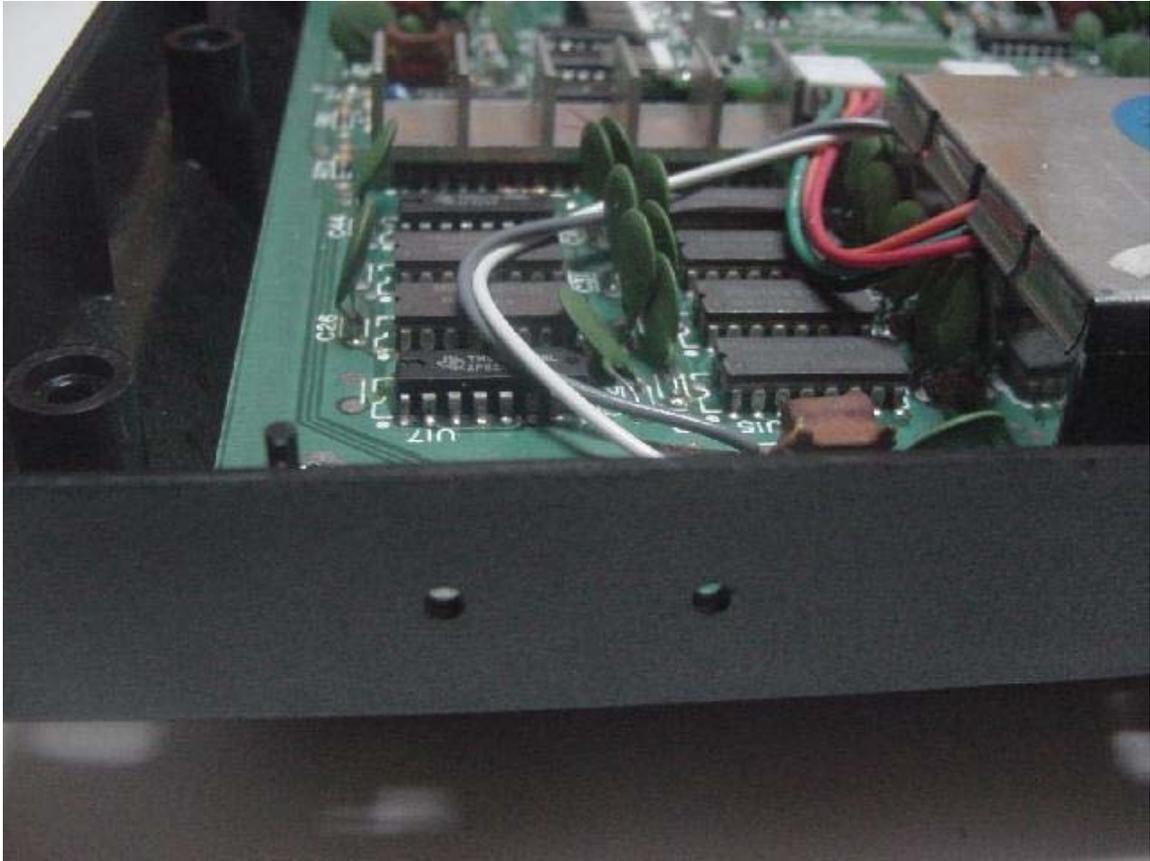
Phase4 Case Machining

There are obviously many different positions to mount the output jacks. This is the recommended way to do it.

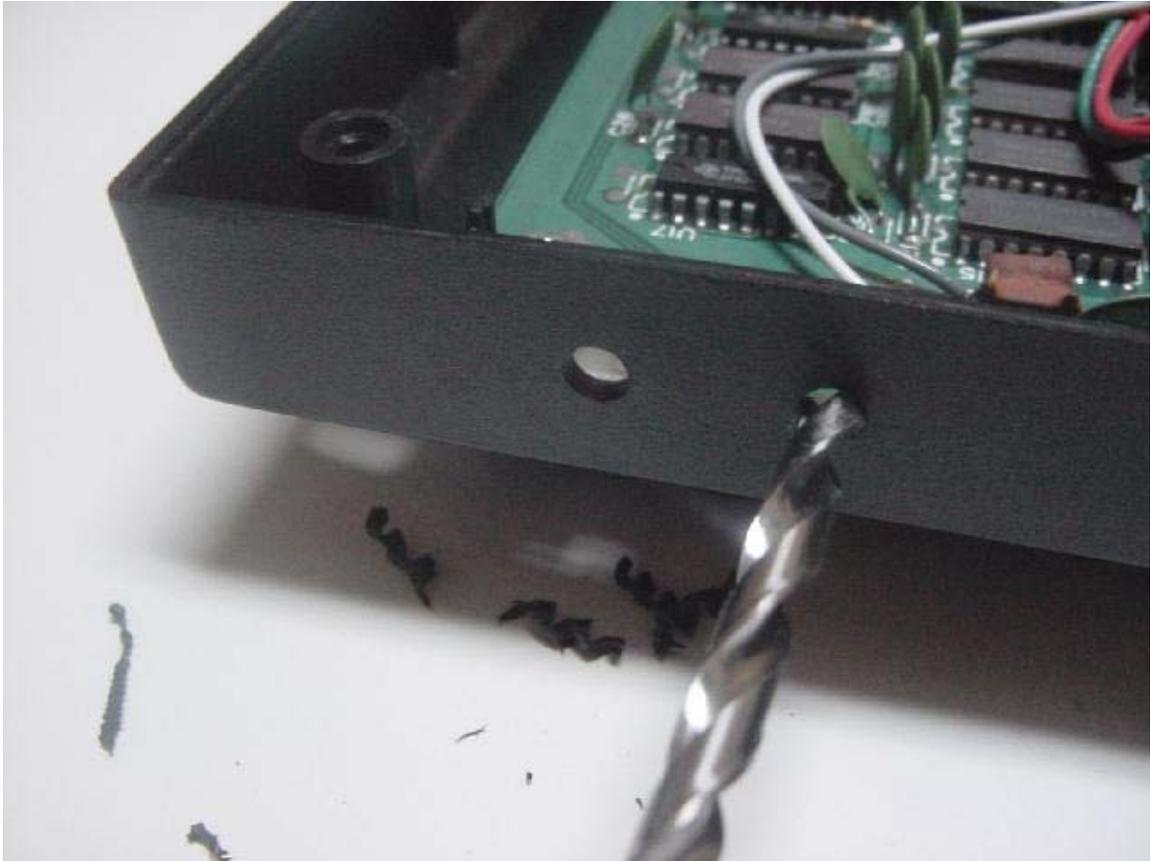
******NOTE*** IT IS STRONGLY RECOMMEND TO REMOVE THE MOTHERBOARD BEFORE DRILLING, IF YOU DRILL TOO FAR IN THE BIT WILL HIT THE MOTHERBOARD AND DESTROY COMPONENTS.***

THE PICTURES SHOW THE MOTHERBOARD IN TO GIVE THE INSTALLER A POINT OF REFERENCE.

Drill two pilot holes with a small 1/8" bit, placing the holes approx 1" apart as shown in the picture below.



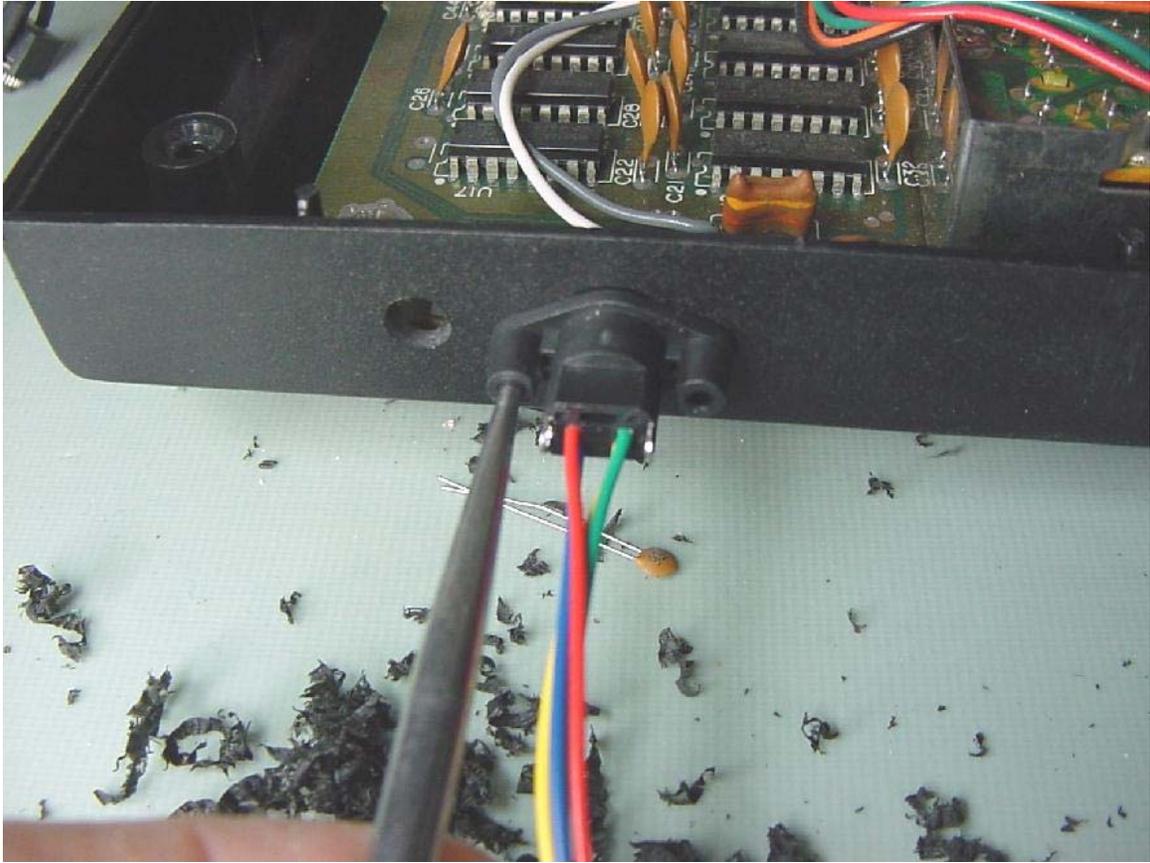
Then using a ¼ “ bit enlarge the two pilot holes as shown below.



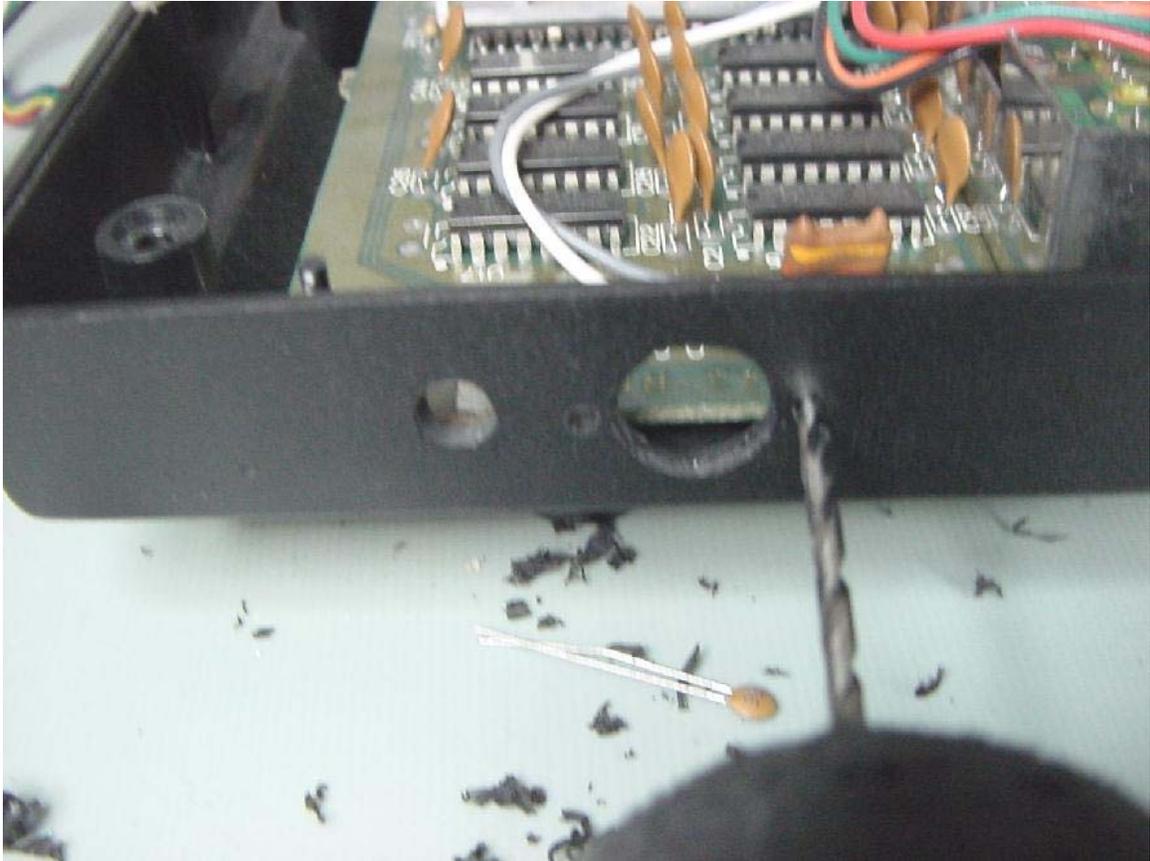
Next use the 1/2" hole cutter bit to enlarge the right hole. As always be very careful when drilling because of the age of the plastic it might be brittle.



Set the mini-din jack into the hole, but from the OUTSIDE of the case.
Hold the jack so that you can mark the two hole positions with an Awl or scribe.



Drill the two marks you made with the 1/8" drill bit. Your cover should look similar to the one below.



Use the Xacto knife to create a countersink for the two mini-din mounting screws. Don't try to make a countersink hole with a larger drill bit, because if you drill too deep then the hole is now too big and the screw will not tighten properly.

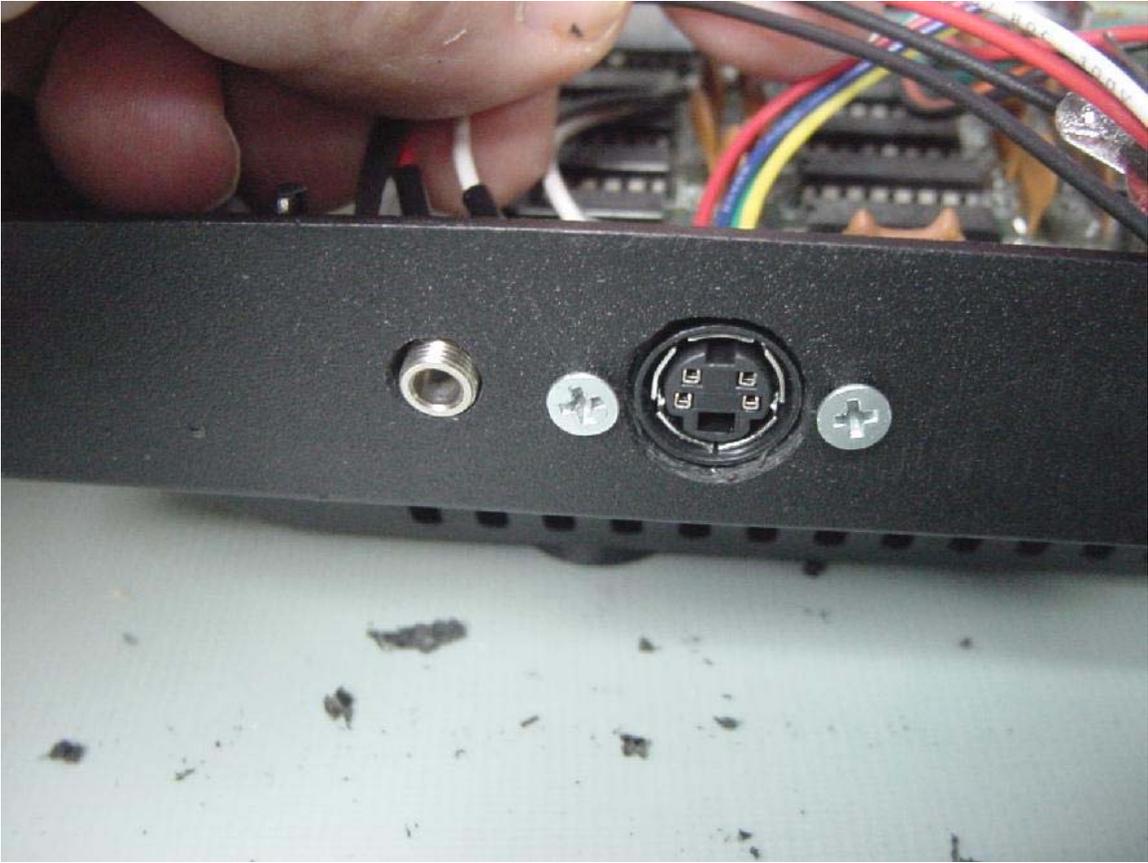


Install mini-din jack into the hole and tighten with 2 screws provided as shown below.

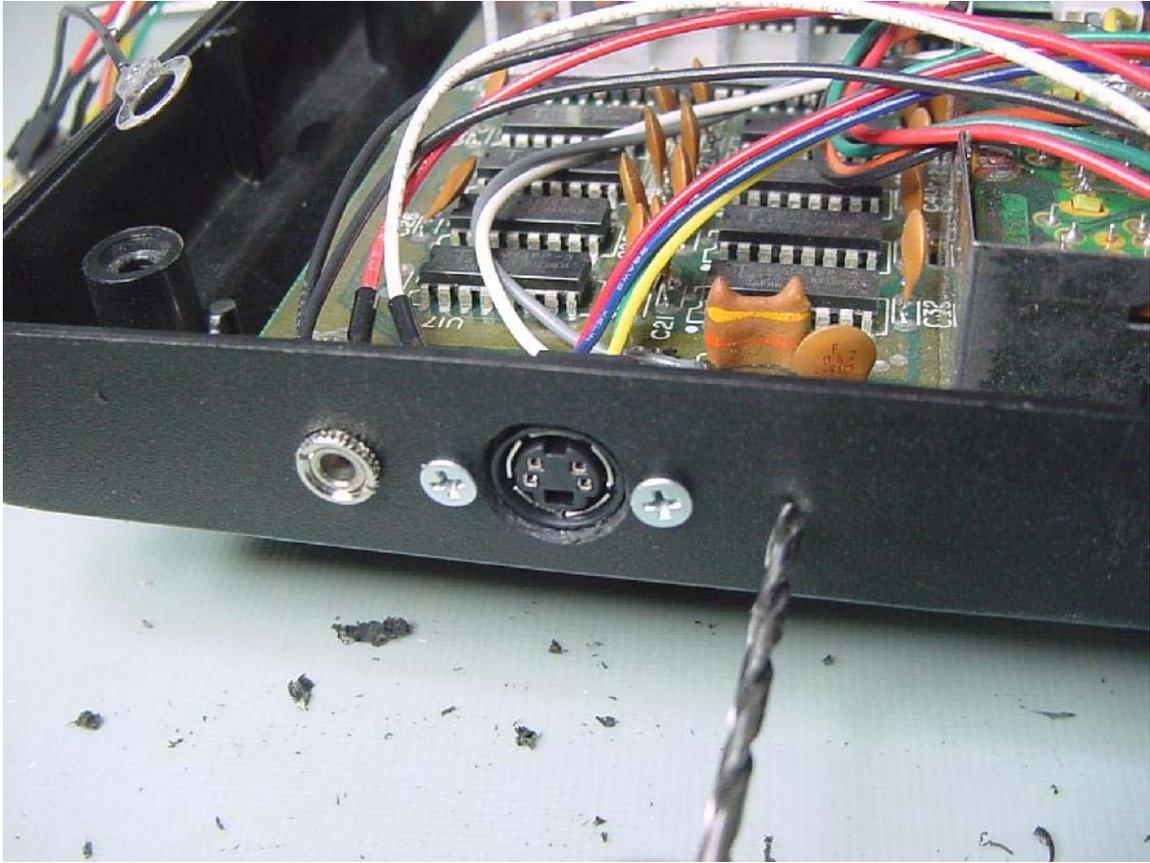


Remove the nut from the black audio jack and insert into the left hole of the case
If it is too small then use the Xacto knife to enlarge the hole and then re-check to see if the hole is large enough.

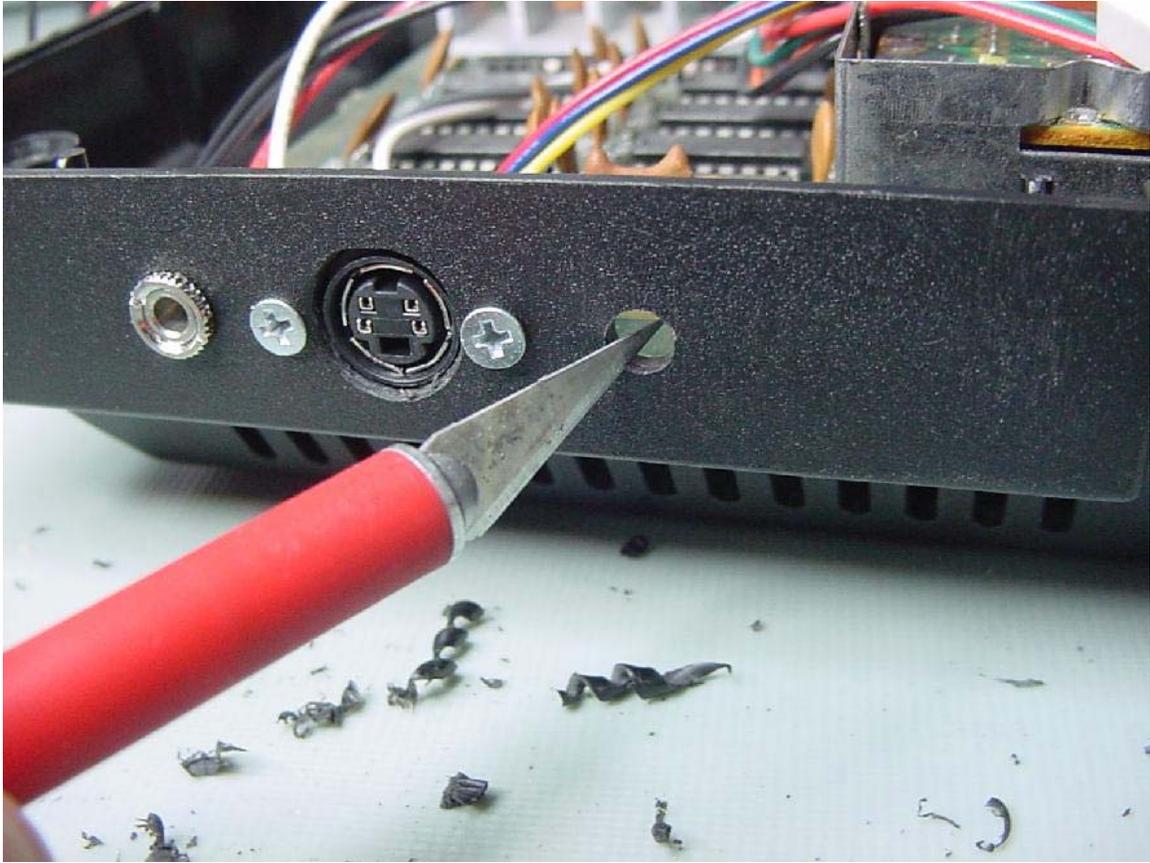
This may take several tries of measuring with the jack and then enlarging the hole until the threads of the jack insert into the hole. The reason for all this is that it is better to drill the holes a little too small than too big. Also this allows for a snug fit of the jack so that it is less prone to come loose later on through everyday use.



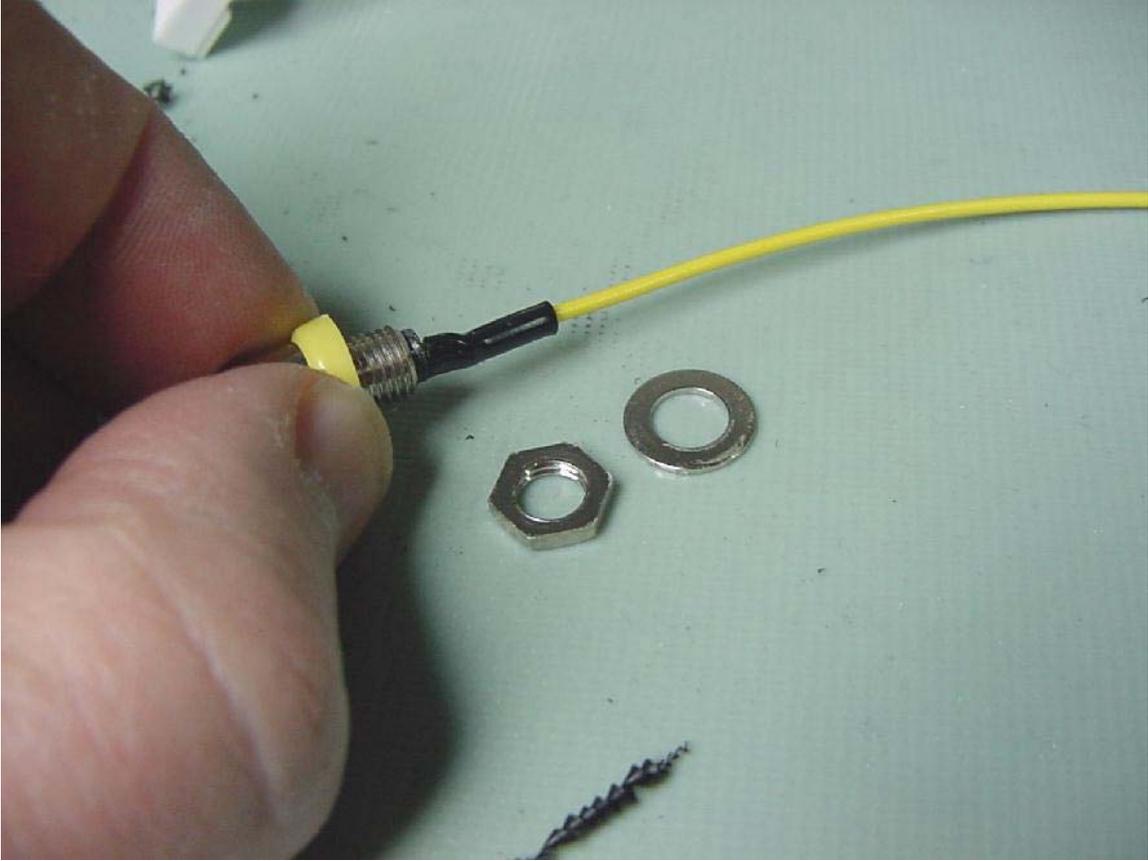
Drill a 1/8" hole for the Composite video jack as shown below.



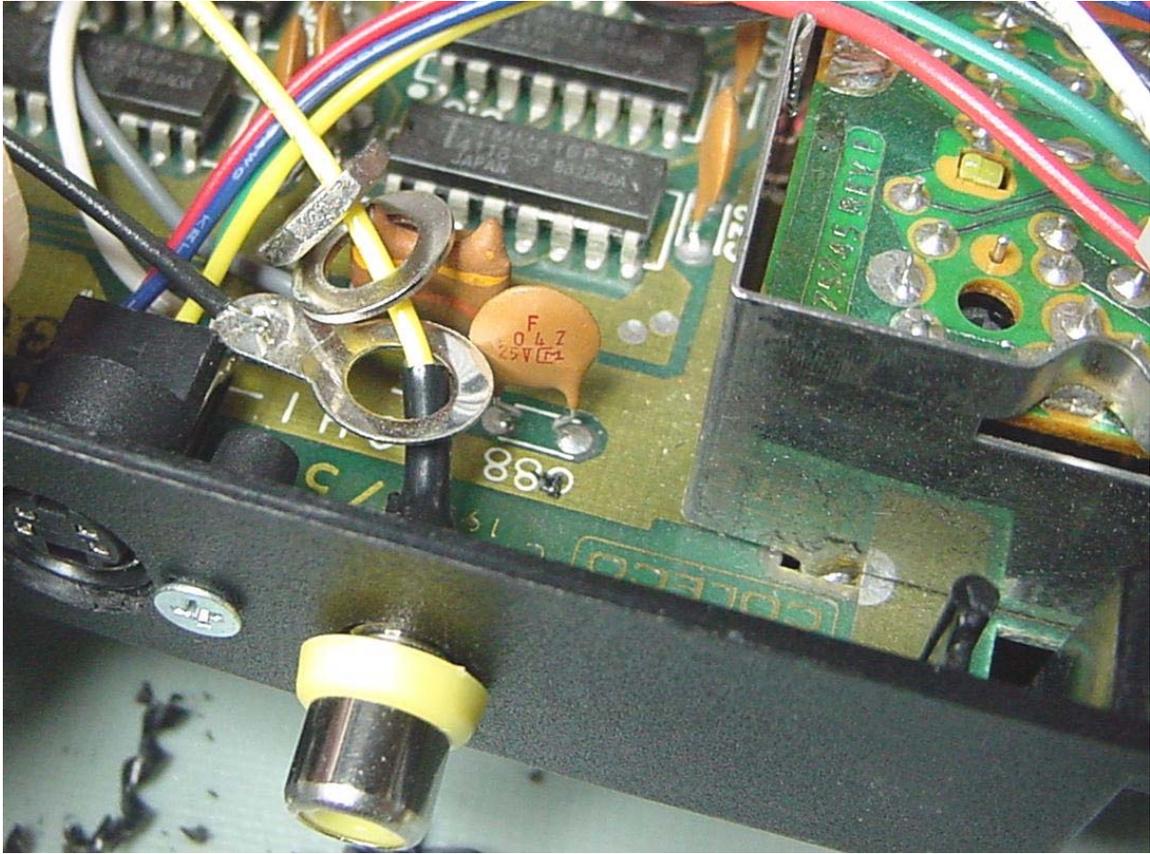
Enlarge with the 1/4" bit and use an X-acto knife to enlarge hole as necessary like you
Dod above with the audio jack.



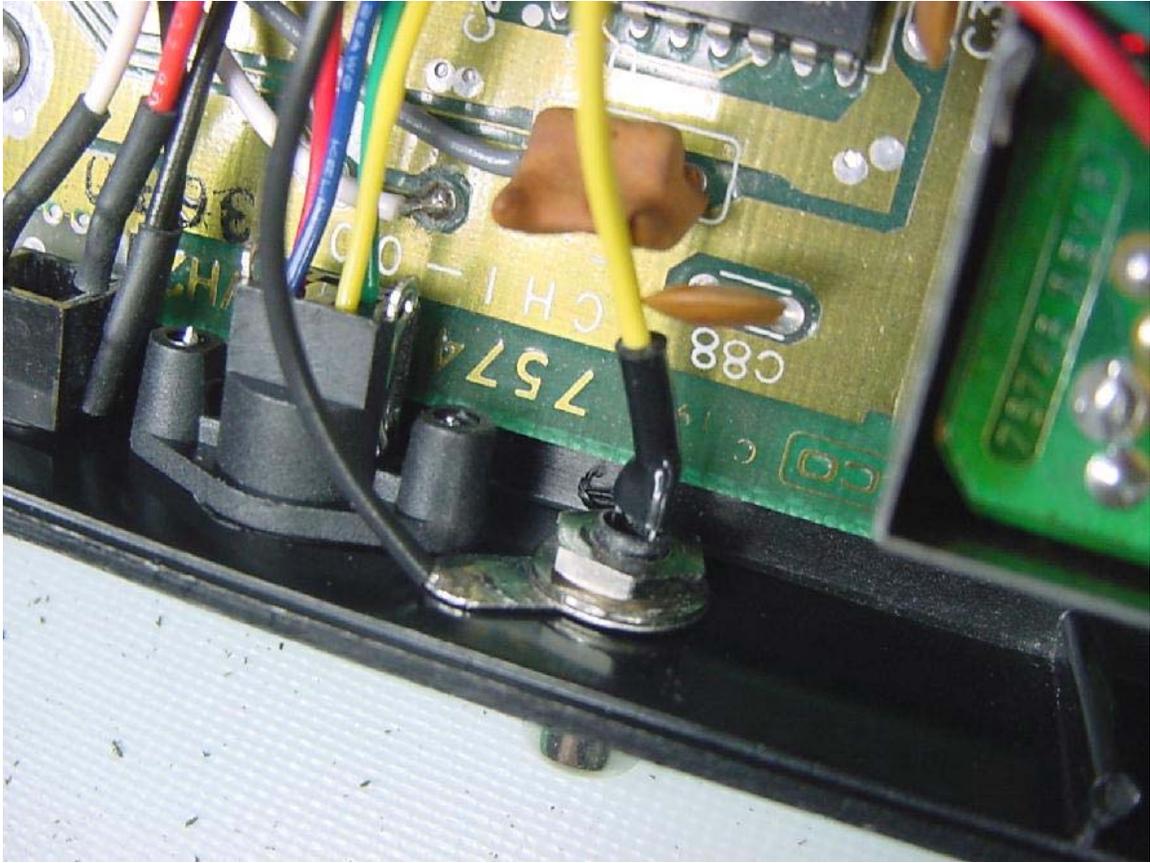
Remove nut and metal washer from the jack.



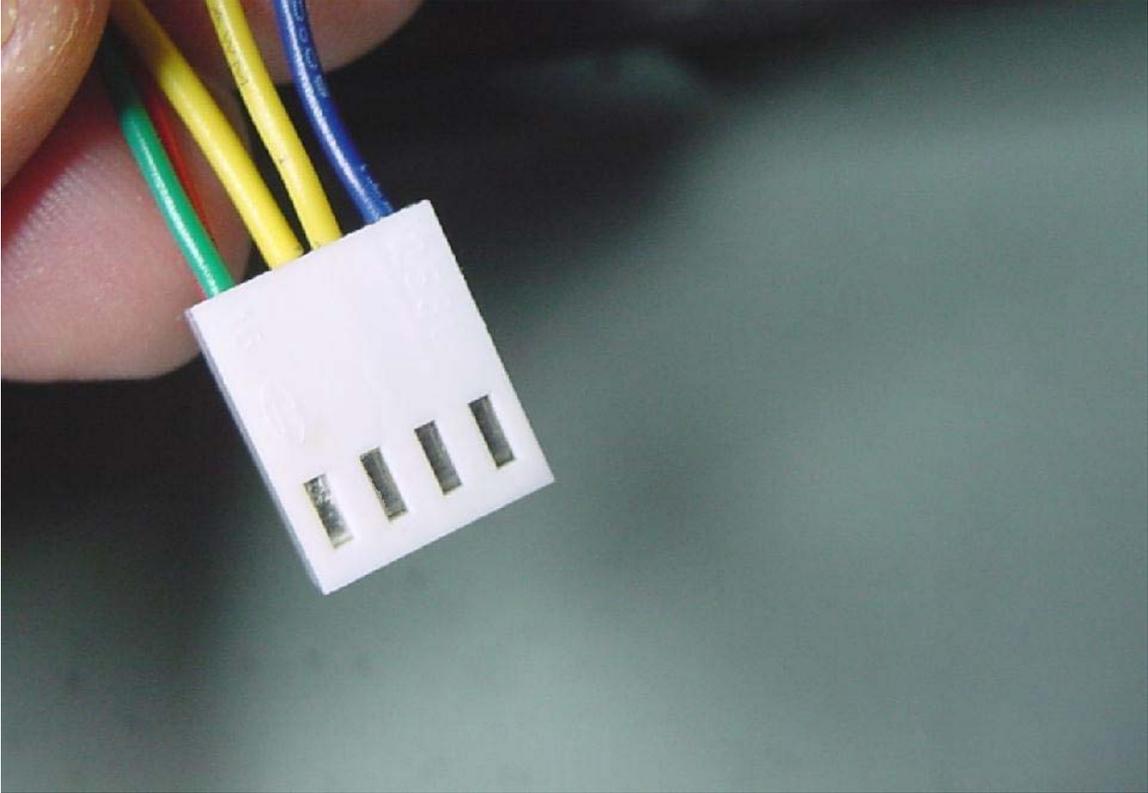
Insert yellow wire into the hole first then followed by the washer and nut as shown below.



Tighten with pliers and inspect, it should look like the picture below.



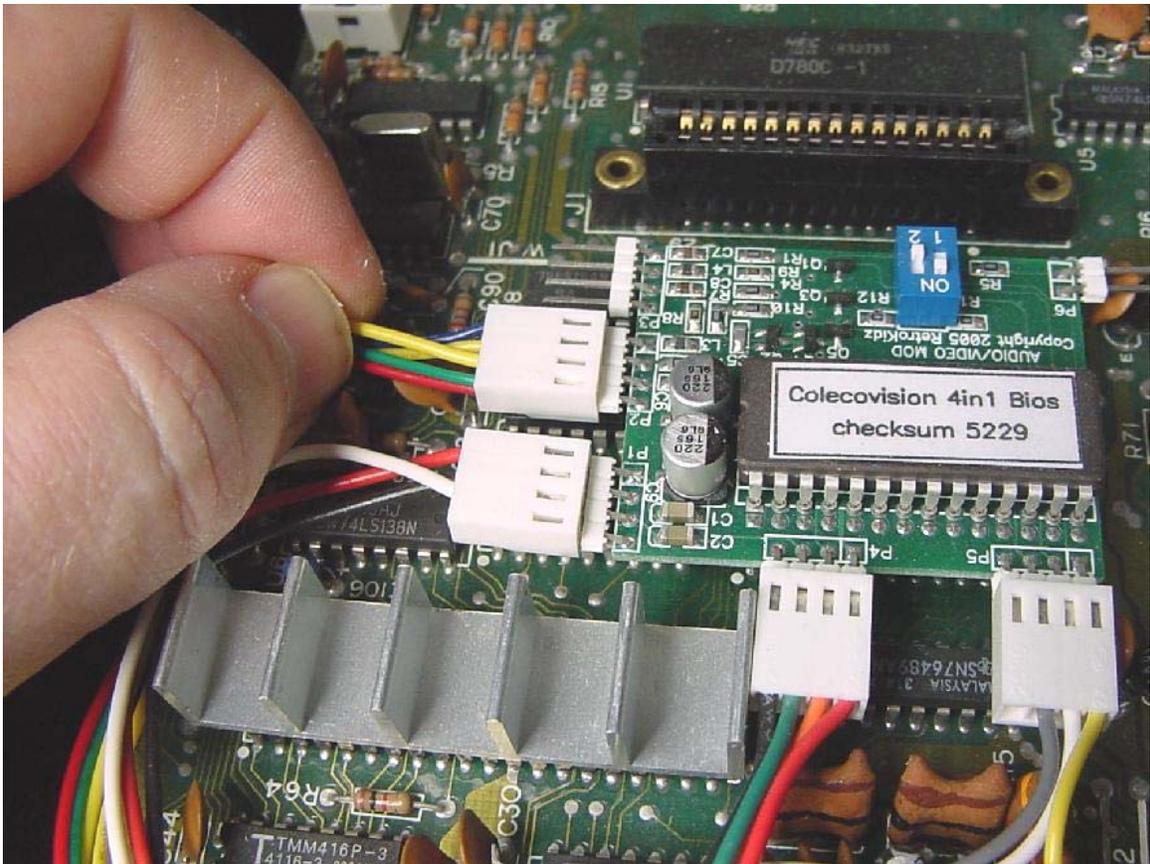
Insert pin of yellow wire from RCA jack beside the existing yellow wire on the 4 pin connector shell like it shows below



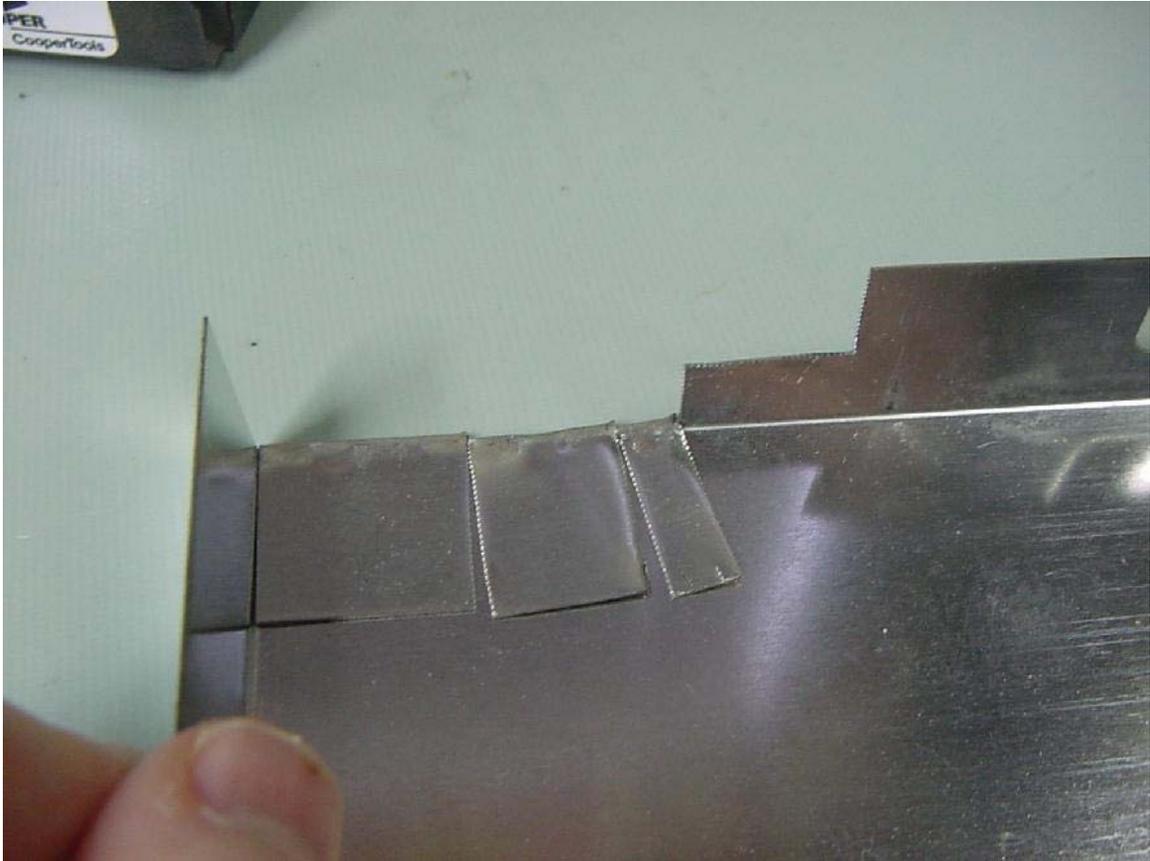
RE-INSTALL MOTHERBOARD NOW

Plug both cables into the mod board position P1 & P2 as shown below.

(P3 is for component video and is not described in this document).



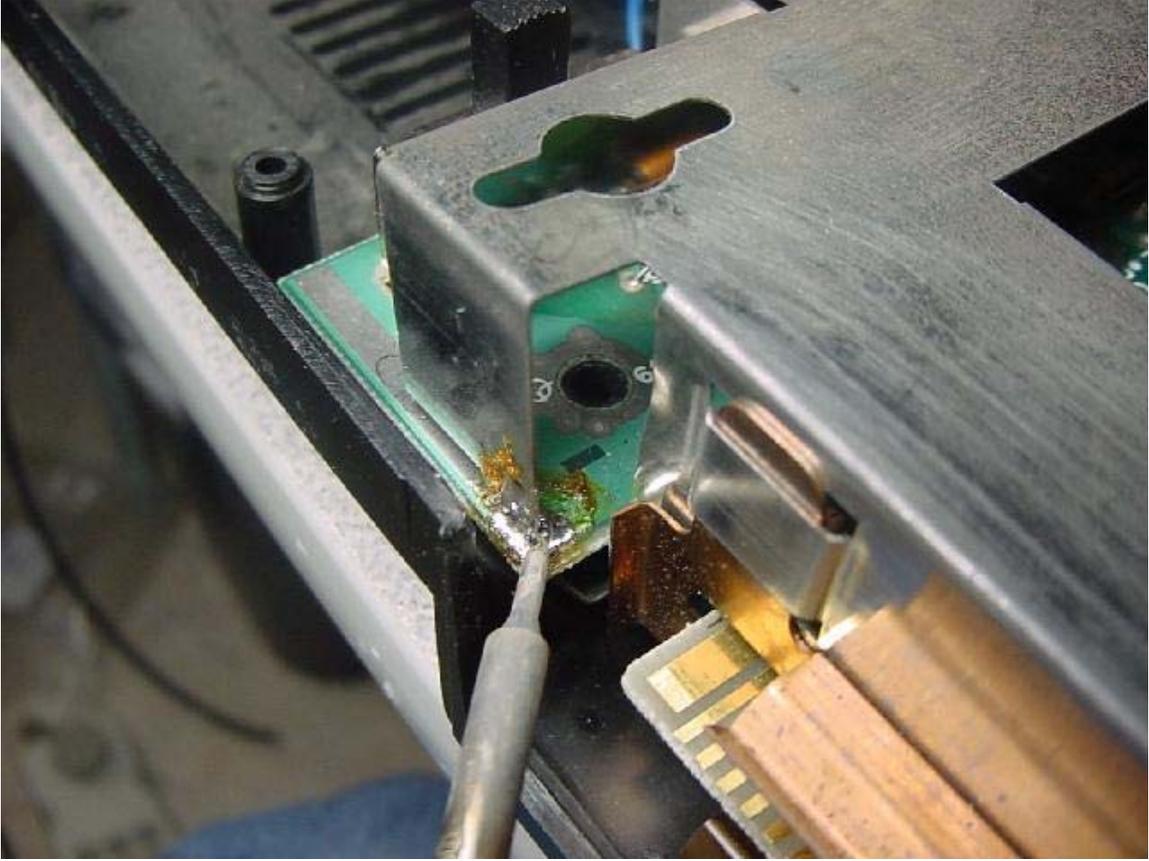
If you want to re-install the RF shield, then take the tin snips and cut and bend clearance for the audio, Svideo & Composite output jacks as shown in the picture below.



At this point it would be wise to test your system before placing the top back on the system.

It is assumed that you have the external cables and also know how to connect them up to your Monitor, TV Stereo, etc.

If you are re-installing the RF shield then you can solder back the grounding strap and the front left of the shield as shown below.



Secure the RF shield back onto the motherboard with the two screws.



Looking at the back of the shield the two jacks should have clearance as shown below.



Place the covers back on the power and reset switches, then place the top cover back on. Re-install the 8 screws and lightly tighten.



YOU'RE DONE!!!

NOW YOU CAN ENJOY ALL YOUR VINTAGE COLECO GAMES WITH CRISP
CLEAN VIDEO!!!!!!