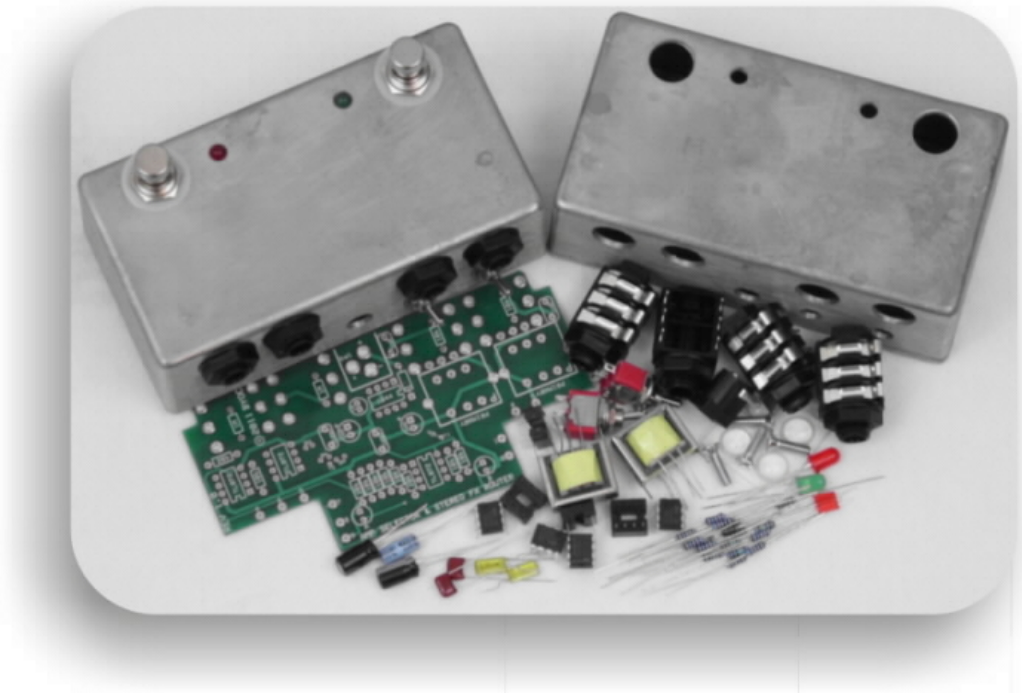
Build Your Own Clone
Amp Selector and Stereo FX Router
Kit Instructions



Warranty:

BYOC, Inc. guarantees that your kit will be complete and that all parts and components will arrive as described, functioning and free of defect. Soldering, clipping, cutting, stripping, or using any of the components in any way voids this guarantee. BYOC, Inc. guarantees that the instructions for your kit will be free of any major errors that would cause you to permanently damage any components in your kit, but does not guarantee that the instructions will be free of typos or minor errors. BYOC, Inc. does not warranty the completed pedal as a whole functioning unit, nor do we warranty any of the individual parts once they have been used. If you have a component that is used, but feel it was defective prior to you using it, we reserve the right to determine whether or not the component was faulty upon arrival. Please direct all warranty issues to: sales@buildyourownclone.com This would include any missing parts issues.

Return:

BYOC, Inc. accepts returns and exchanges on all products for any reason, as long as they are unused. We do not accept partial kit returns. Returns and exchanges are for the full purchase price less the cost of shipping and/or any promotional pricing. Return shipping is the customer's responsibility. This responsibility not only includes the cost of

shipping, but accountability of deliver as well. Please contact sales@buildyourownclone.com to receive a return authorization before mailing.

Tech Support:

BYOC, Inc. makes no promises or guarantees that you will successfully complete your kit in a satisfactory manner. Nor does BYOC, Inc. promise or guarantee that you will receive any technical support. Purchasing a product from BYOC, Inc. does not entitle you to any amount of technical support. BYOC, Inc. does not promise or guarantee that any technical support you may receive will be able to resolve any or all issues you may be experiencing.

That being said, we will do our best to help you as much as we can. Our philosophy at BYOC is that we will help you only as much as you are willing to help yourself. We have a wonderful and friendly DIY discussion forum with an entire section devoted to the technical support and modifications of BYOC kits.
www.byocelectronics.com/board
When posting a tech support thread on the BYOC forum, please post it in the correct lounge, and please title your thread appropriately. If everyone titles their threads "HELP!", then it makes it impossible for the people who are helping you to keep track of your progress. A very brief description of your specific problem will do. It will also make it easier to see if someone else is having or has had the same problem as you. The question you are about to ask may already be answered. Here are a list of things that you should include in the body of your tech support thread:
1. A detailed explanation of what the problem is. (Not just, "It doesn't work, help")
2. Pic of the top side of your PCB.
3. Pic of the underside of your PCB.
4. Pic that clearly shows your footswitch/jack wiring and the wires going to the PCB
5. A pic that clearly shows your wiring going from the PCB to the pots and any other switches(only if your kit has non-PC mounted pots and switches)
6. Is bypass working?
7. Does the LED come on?
8. If you answer yes to 6 and 7, what does the pedal do when it is "on"?
9. Battery or adapter.(if battery, is it good? If adapter, what type?)

Also, please only post pics that are in focus. You're only wasting both parties' time if you post out of focus, low res pics from your cell phone.

Revision Notes:

Rev 1.2 Corrected rev1.1 issues.
Rev 1.1 C5 is backwards. C7 is not labeled. Added C101 & C102
For Rev 1.0 instructions go to http://buildyourownclone.com/ampselectorrev1.pdf

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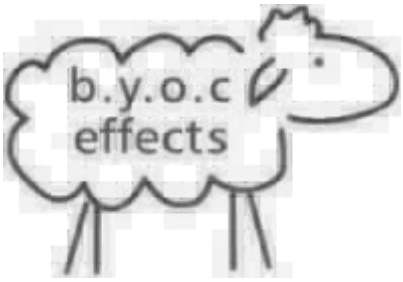


AMP SELECTOR & STEREO FX ROUTER KIT
INSTRUCTION INDEX

ERRATTA: There is an error in the Rev 1.1 PCB layout. This is addressed on page 7, step 1d & 1e. Please read these steps before proceeding.

Parts Checklist for BYOC
Amp Selector & Stereo FX Router Kit

Resistors:
11 - 10k (brown/black/black/red/brown)
1 - 20k (red/black/black/red/brown)
2 - 1M (brown/black/black/yellow/brown)

Capacitors:
2 - 1n0 or .001µ film (102)
4 - 100n or .1µ film (104)
1 - 10µ aluminum electrolytic
2 - 100µf aluminum electrolytic

Diodes:

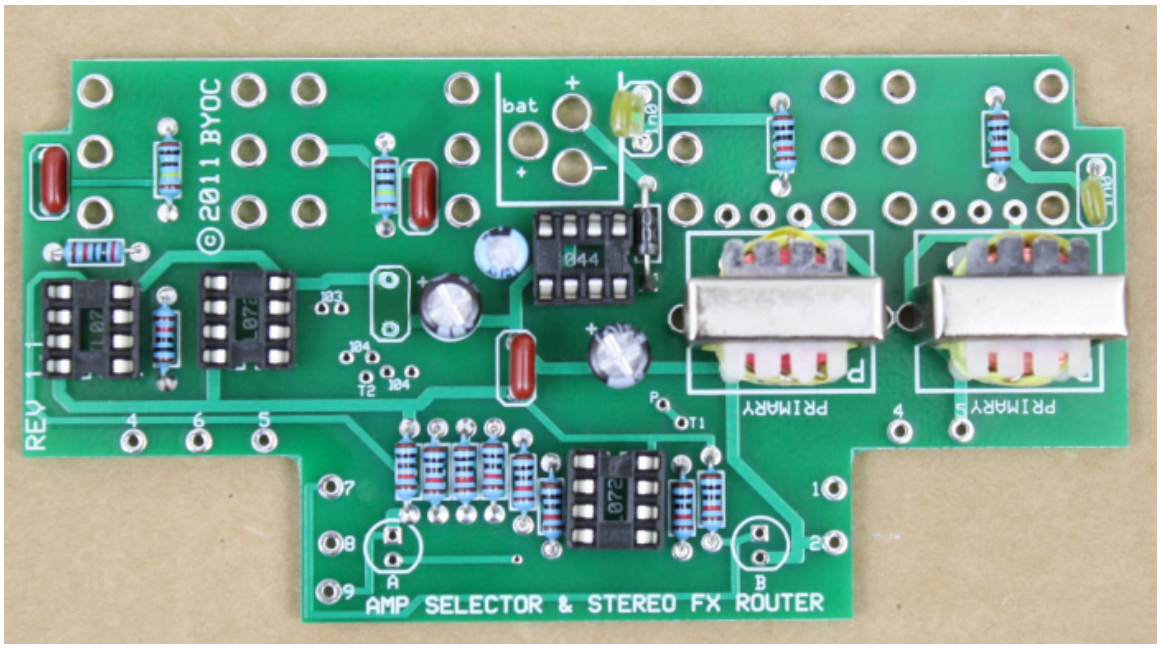
1 - 1N4001 (black plastic with a silver or white stripe)

IC's:
3 - TL072
1 - MAX1044
4 - DIP8 IC sockets

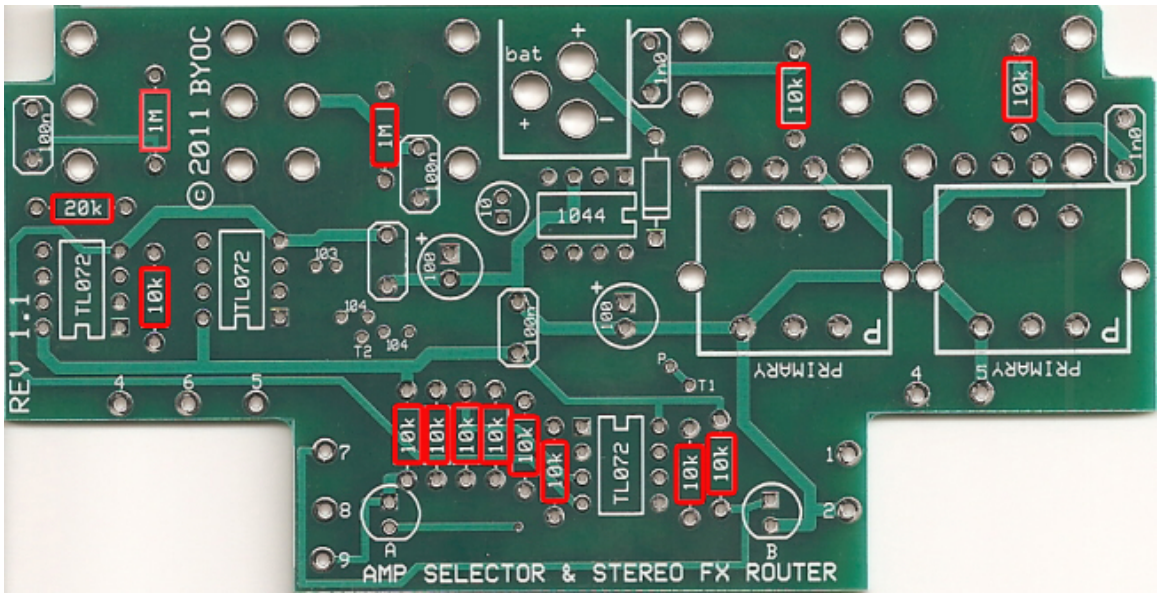
Hardware:
1 - drilled enclosure w/ 4 screws
1 - byoc classic Amp selector PCB
2 - 3PDT footswitches
2 - SPDT Toggle switches
1 - PC mount DC adapter jack
4 - ¼”PC mount stereo jack
1 - red LED
1 - green LED
4 - bumpers
hook-up wire

Transformers:
2 – TM018-R

Assembly

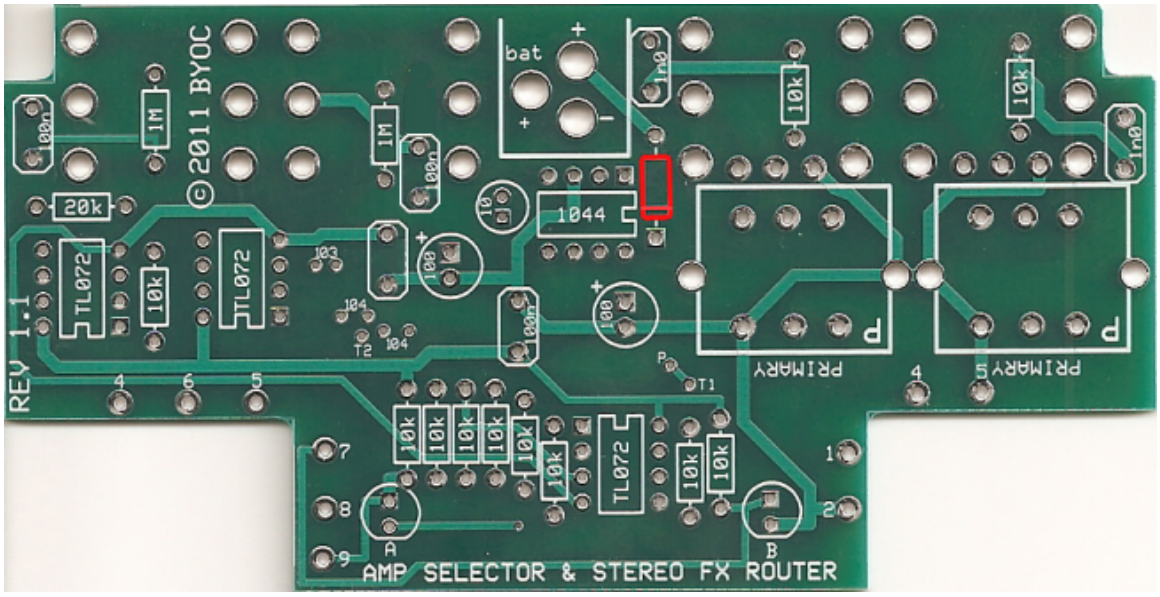


Step 1: Populate the circuit board

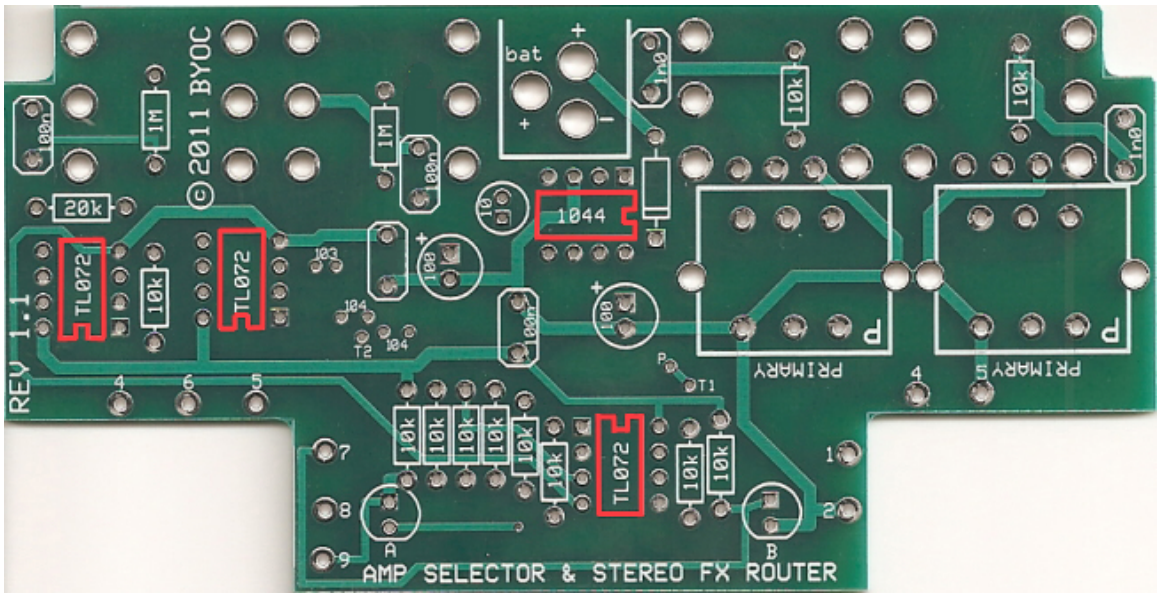


Step 1a: Add the Resistors. Resistors are not polarized and can be inserted into the

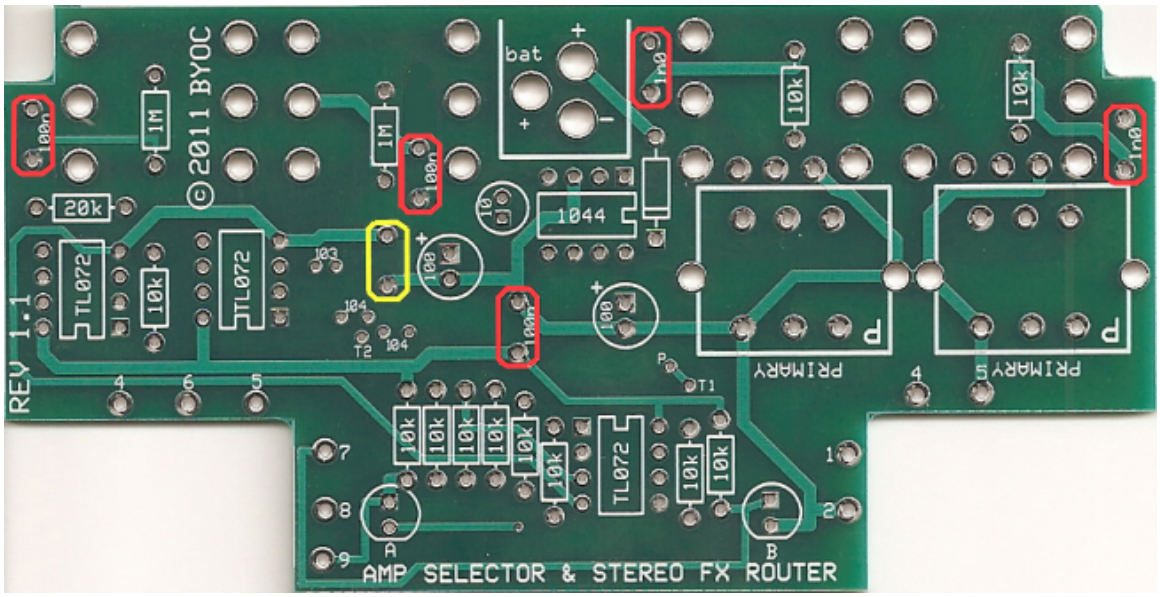
circuit board in either direction.



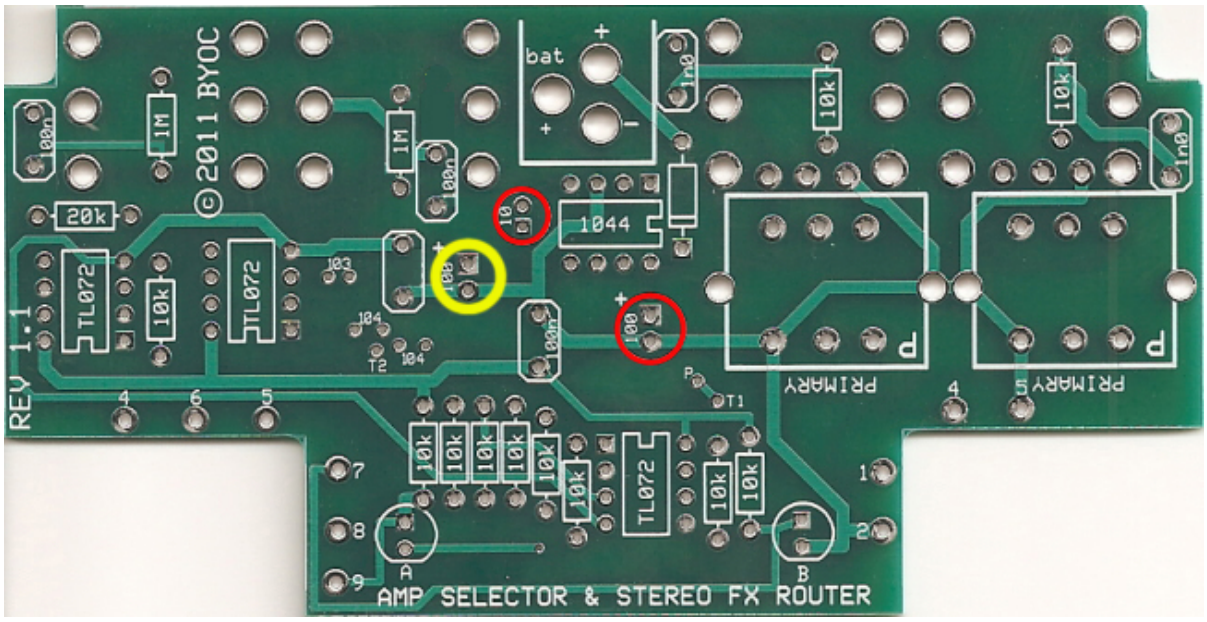
Step 1b: Add the diode. The diode will have a white or gray strip on one end. Match this strip up with the picture on the circuit board.



Step 1c: Add the IC sockets. DO NOT ADD THE ACTUAL IC's YET!!!! Only add the sockets. The sockets get solder to the circuit board. The IC's go in the sockets and do not get soldered. Make sure to match the side of the socket with the "U-Shaped" notch to the picture on the circuit board.

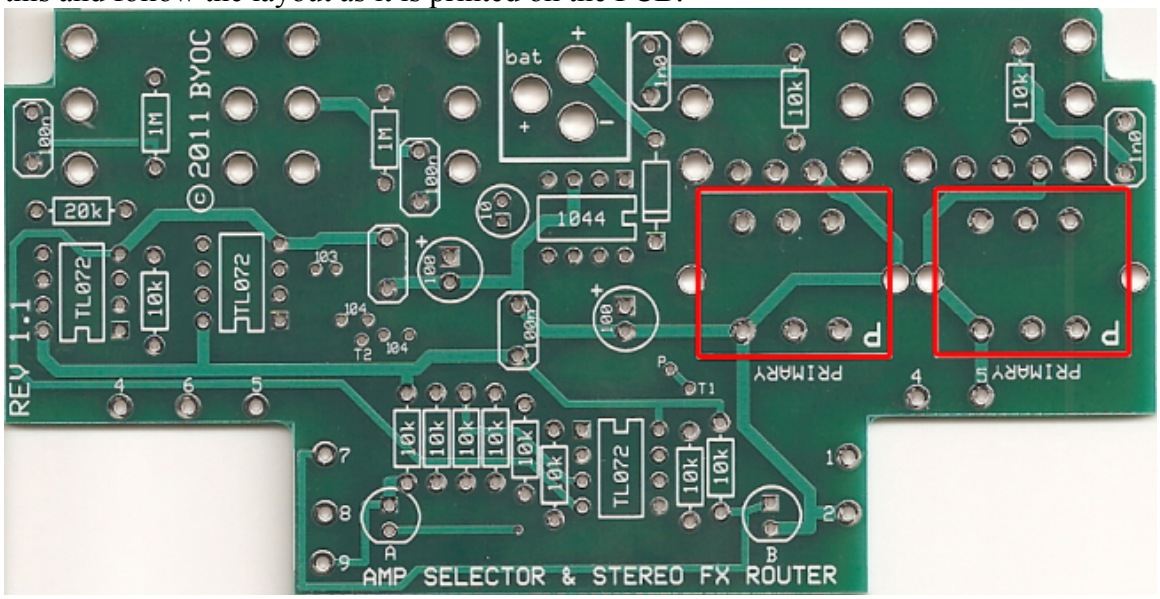


Step 1d: Add the film capacitors. These are not polarized and can go into the pcb in either direction. The space highlighted in yellow if for a 100n capacitor. You need to add this capacitor.

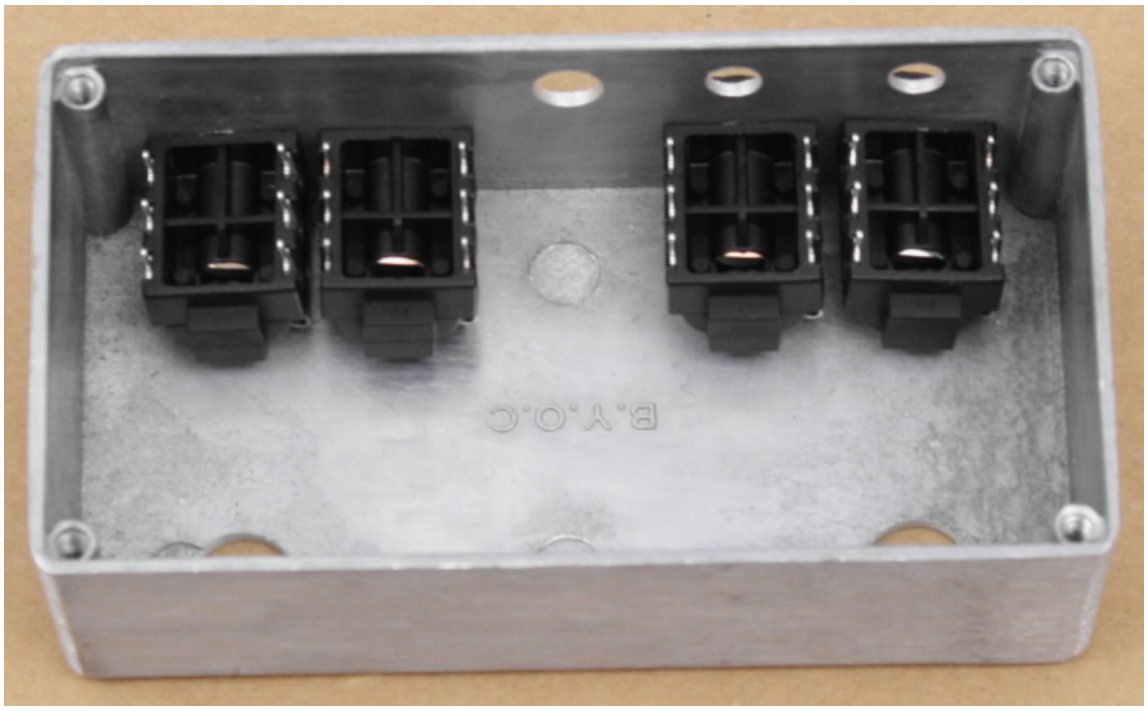


Step 1e: Add the electrolytic capacitors. These are polarized. The positive lead will be the longer lead and will go into the square solder pad. The negative lead will be the shorter lead and will go into the round solder pad. The negative side of will usually also have a stripe running down the side of the capacitor body. The 100uF cap highlighted in yellow is backwards on the Rev1.1 PCB. If you have a Rev1.1 PCB, you need to insert the long lead into the round hole. If you have a Rev1.2 or higher PCB, you should ignore

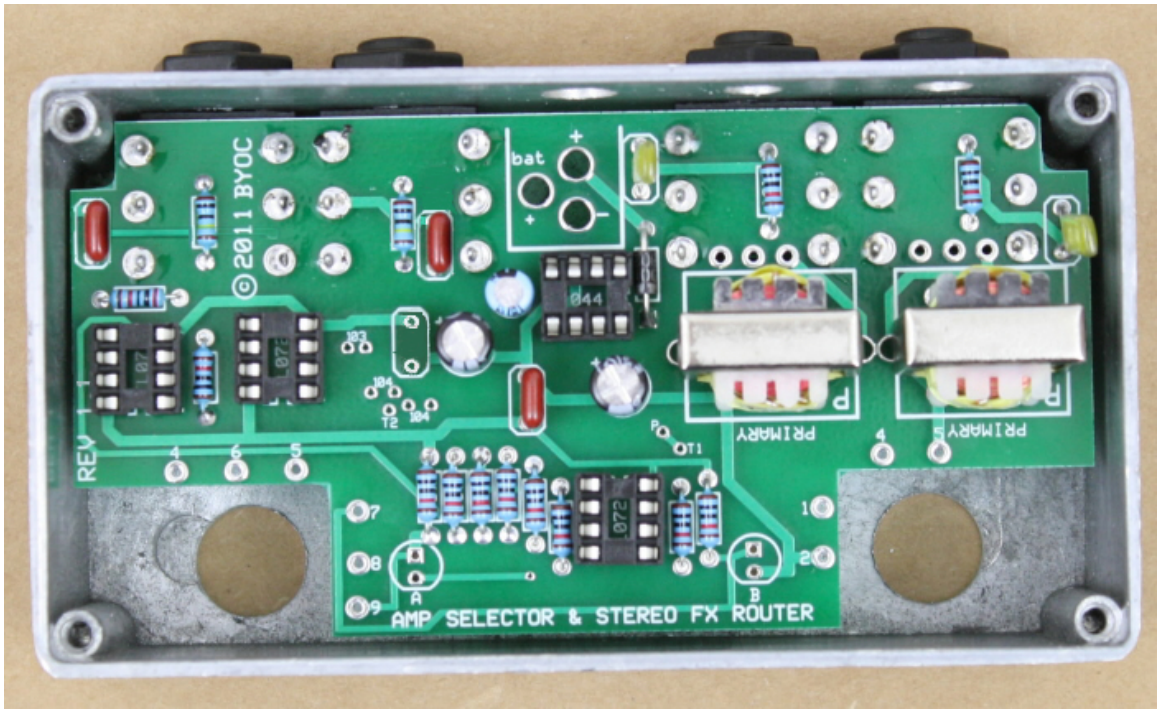
this and follow the layout as it is printed on the PCB.



Step 1f: Add the transformers. The primary side of the transformer will be marked with a "P". Orient the transformer so that the side with the P matches up with the side of the pcb marked with a P. Note that there are two tabs on each transformer. You should not solder these tabs to the pcb. Simply bend the tabs so that they hold the body of the transformer firmly to the pcb. The tabs are not part of the circuit, so soldering them is just a waste of solder and it will make it more difficult if you need to remove the transformer. However, if you do solder the tabs, it will not harm anything.



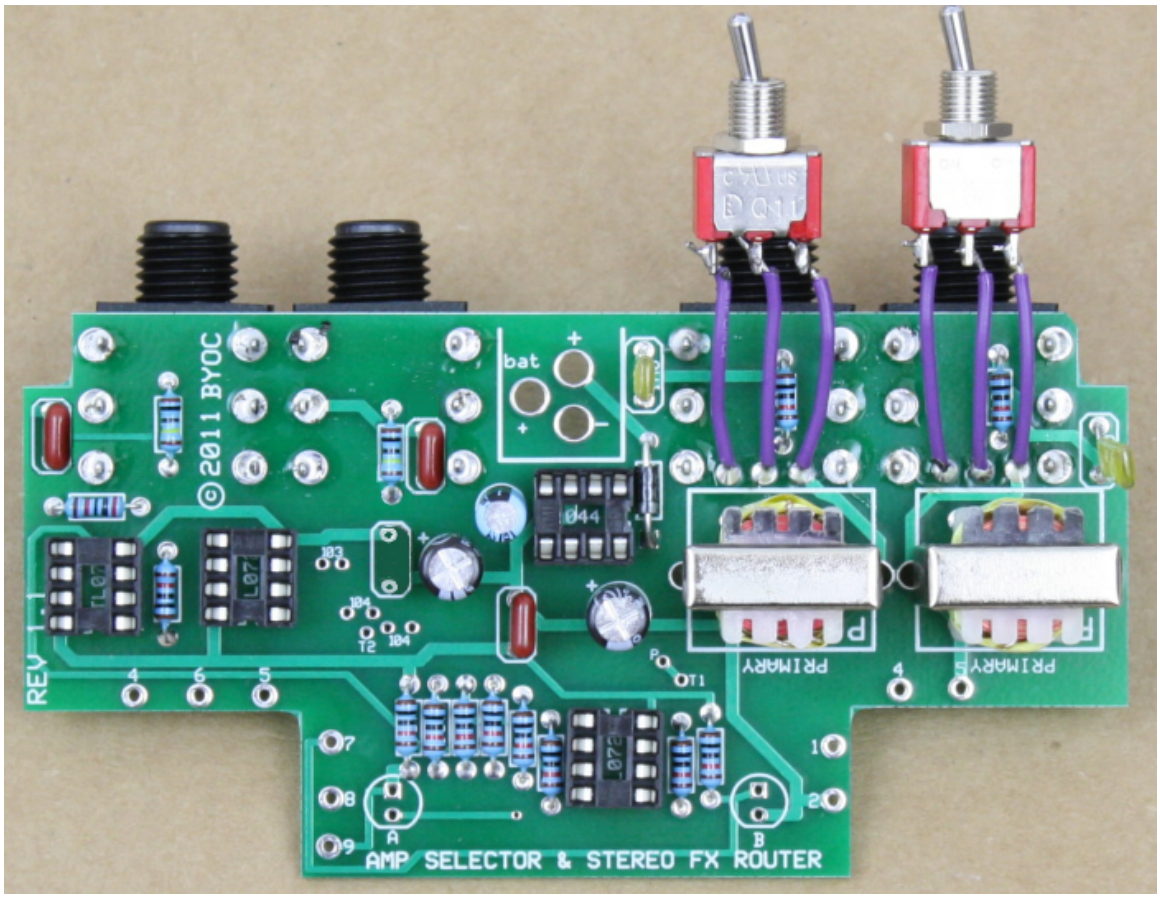
Step 2: Very loosely install the 1/4” jacks in the enclosure with the solder pins facing up. You do not want to tighten the nuts very much because you want to be able to adjust the fit of the PCB before you solder it to the jacks.



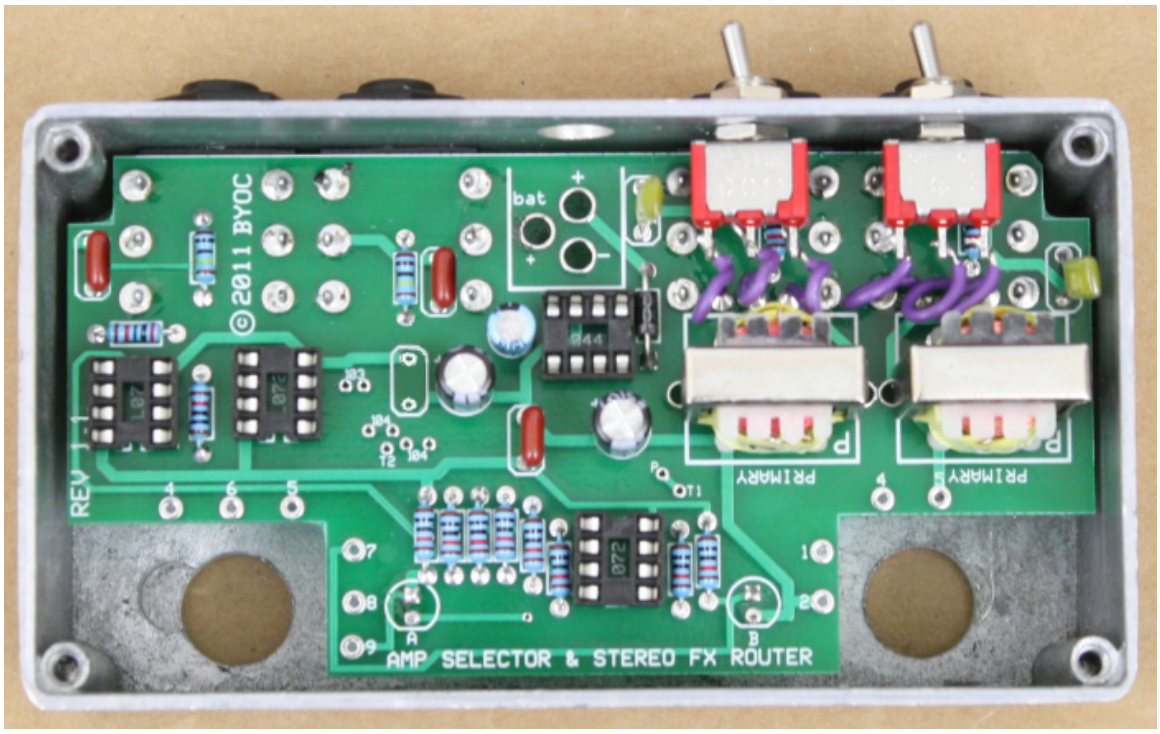
Step 3: DO NOT SOLDER ANYTHING YET!!!! Install the populated PCB so that it fits onto the jacks. There will be a small amount of play between the jacks and their enclosure holes, and the jacks and the PCB holes. Adjust the PCB and jacks so that the

PCB is well centered inside the enclosure. You also want to make sure that the “+” eyelet for the DC adapter jack is in line with the center of the DC adapter jack hole. It would be a good idea to put the DC adapter jack into the PCB without soldering it just to test the fit.

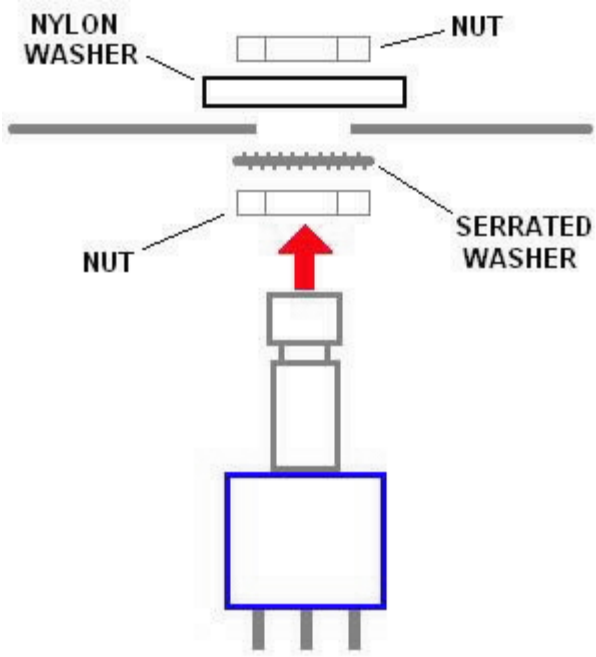
Once you've adjusted the fit of the PCB and jacks, tighten the jack nuts with just your fingers and solder the jacks to the PCB.



Step 4: Remove the PCB/Jack assembly from the enclosure. Add the toggle switches. Use approximately 2” of wire for each of the 6 connections.

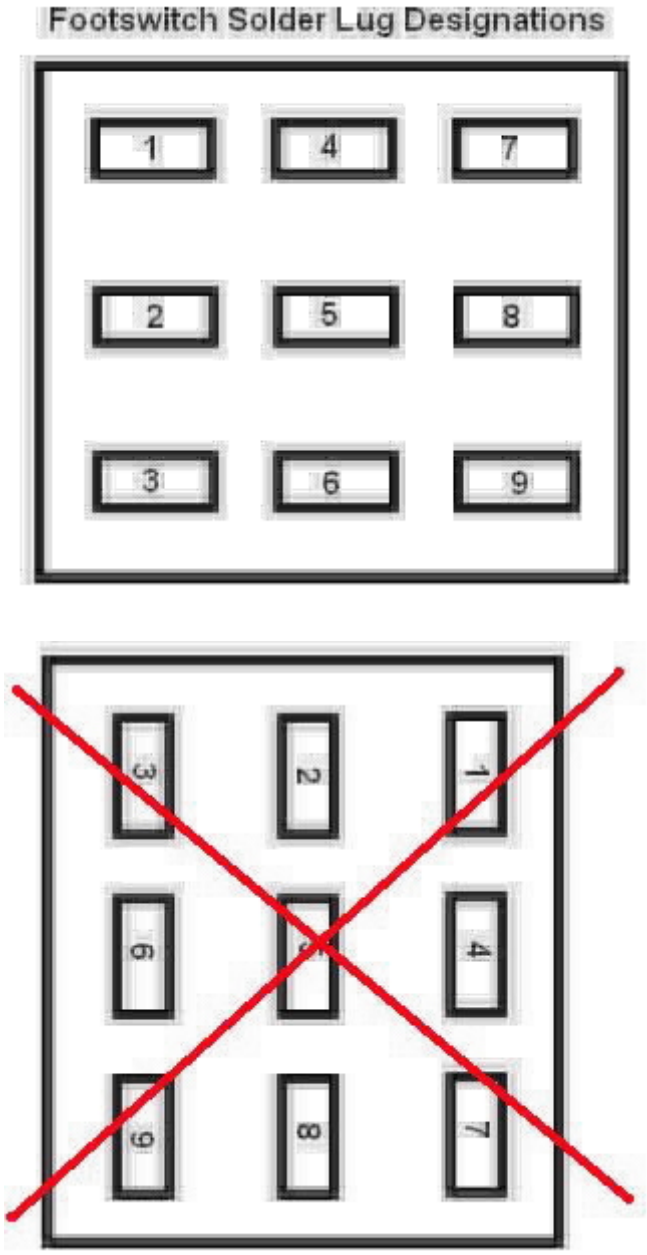


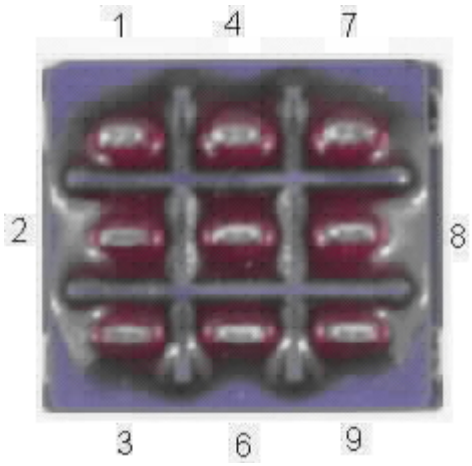
Step 5: Put the PCB/Jack assembly back into the PCB. Tighten the jack nuts with just your fingers. You do not need to make them very tight yet. You do not need to put the toggle switches into their respective holes at this point because you will be removing the assembly again, but you can if you'd like.

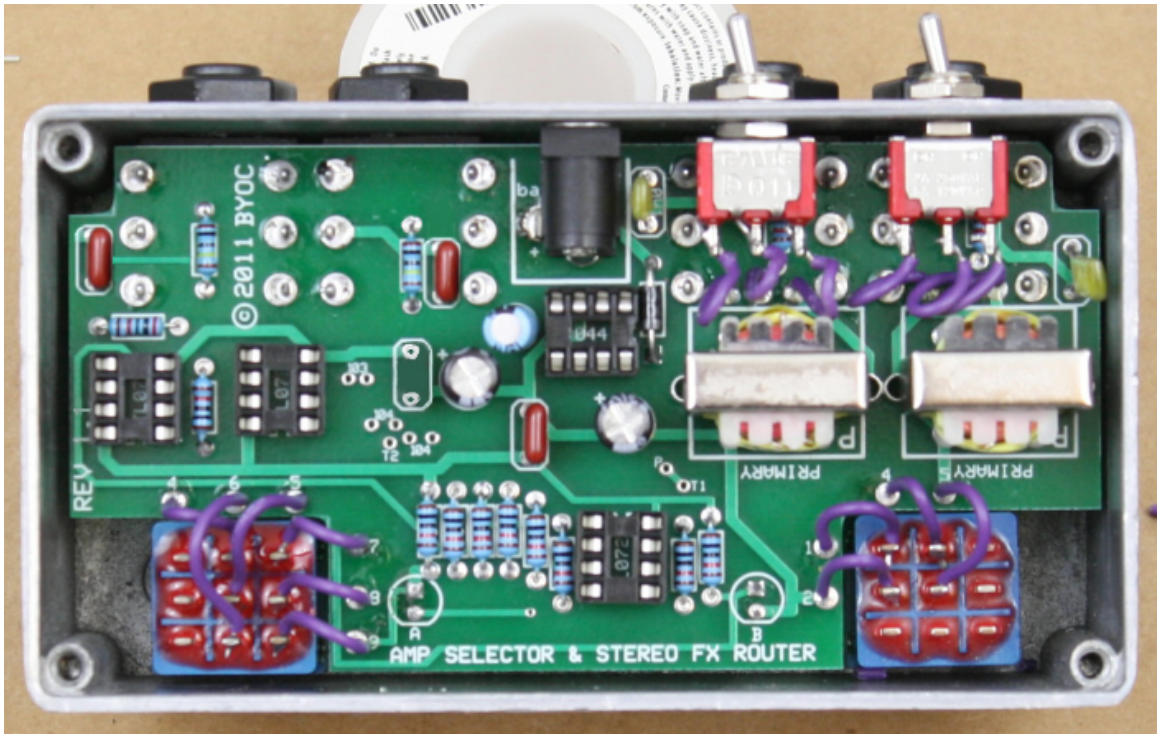


Step 5a: Install the footswitches. Orient the footswitches so that the flat sides of the solder lugs are like the diagram below. NOTE: There are no actual number markings on the footswitches. There are two correct ways you can orient the footswitches. They are both 180 degrees of each other. Either way is fine. It does not matter as long as the flat sides of the solder lugs are running horizontal, not vertical.

Step 5b: Connect the footswitches to the PCB. Connect each solder lug of each footswitch to its respective numbered solder pad on the PCB.

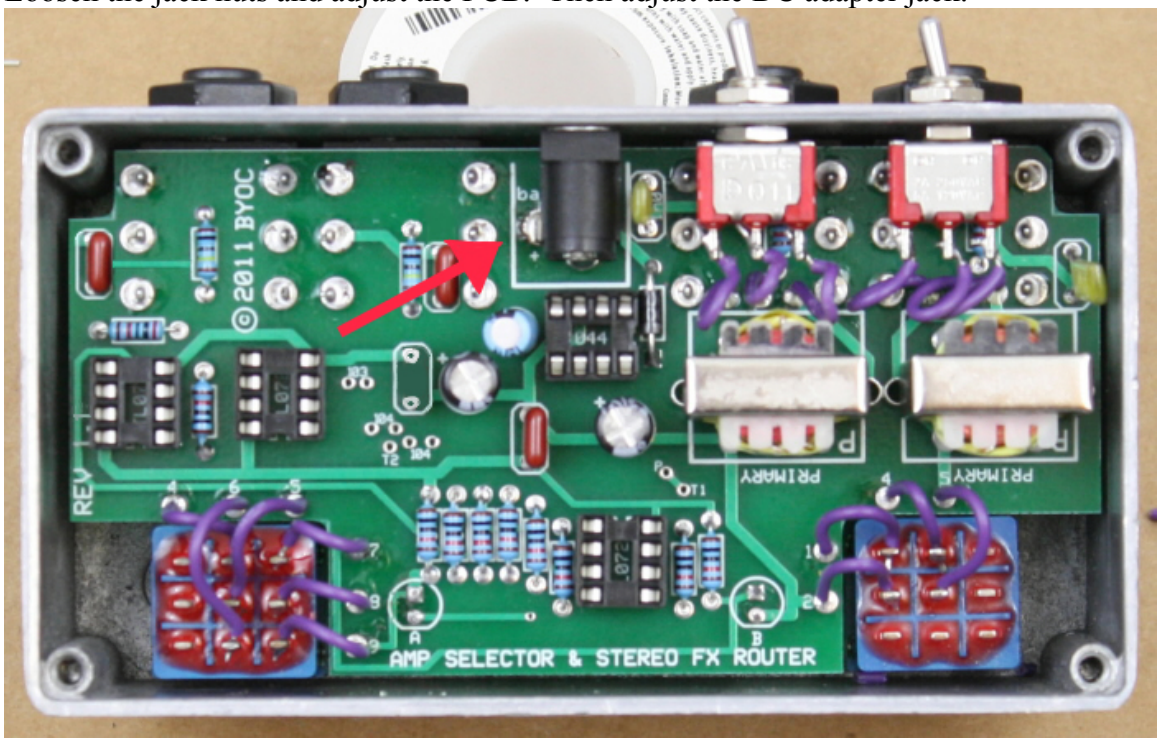




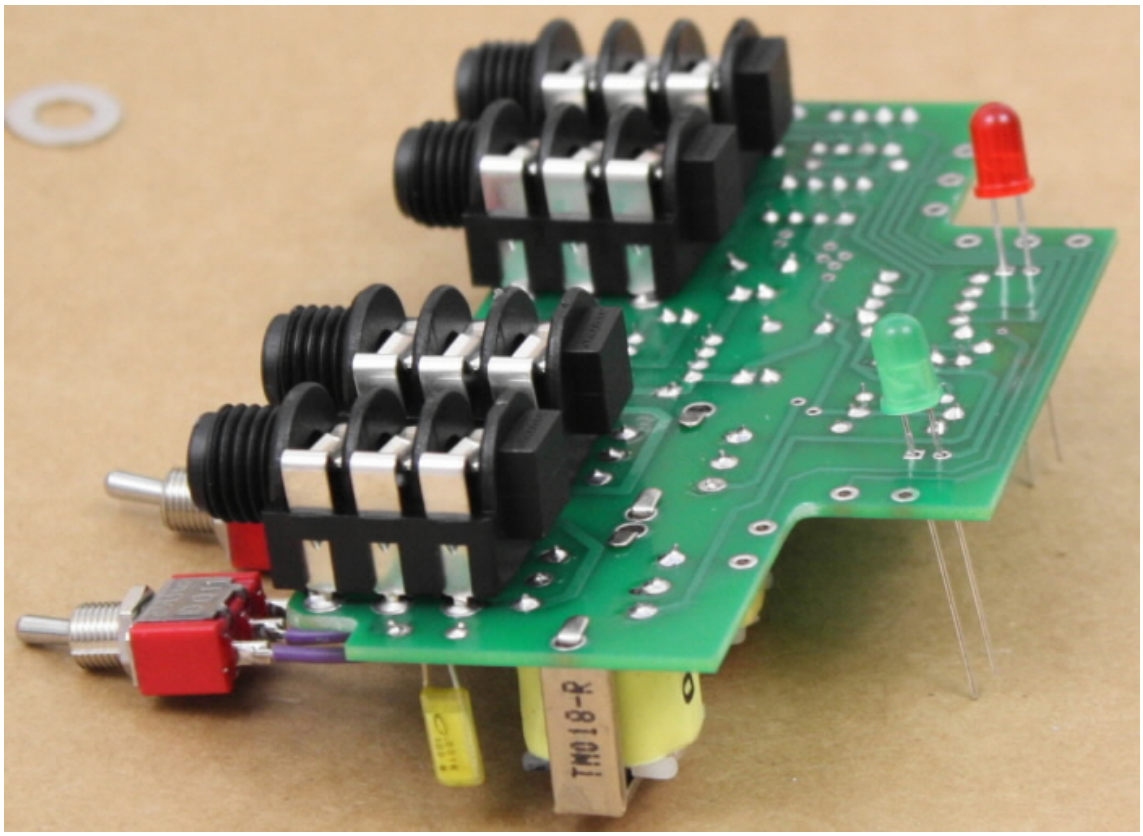


Step 6a: Install the DC adapter jack into the PCB, but DO NOT SOLDER YET!!!!

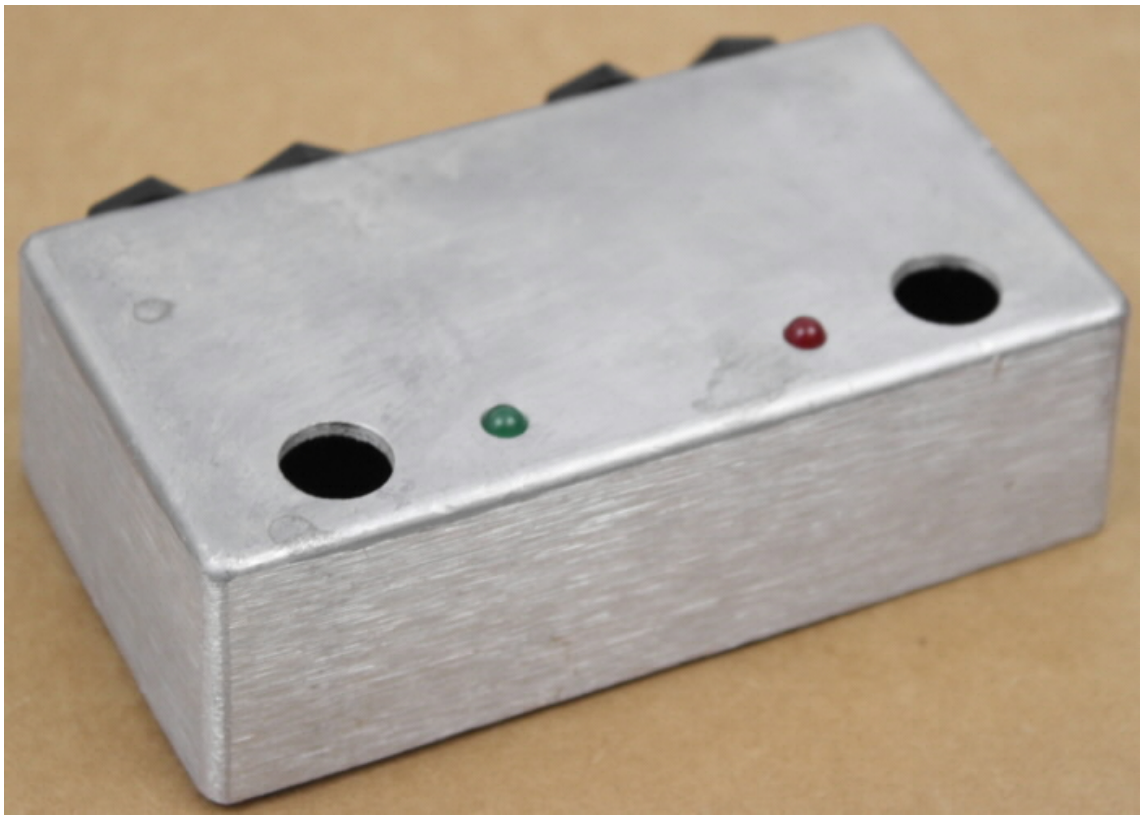
Step 6b: Before you solder the DC adapter jack, check again to make sure that it is properly lined up with the DC adapter jack hole in the enclosure. If it is not, there is a small amount of play between the DC adapter jack and it's space on the PCB for you to adjust the fit. If there's not enough “wiggle room” to properly adjust the DC adapter jack, you likely did not return the PCB/jack assembly back to its original place in step 5. Loosen the jack nuts and adjust the PCB. Then adjust the DC adapter jack.



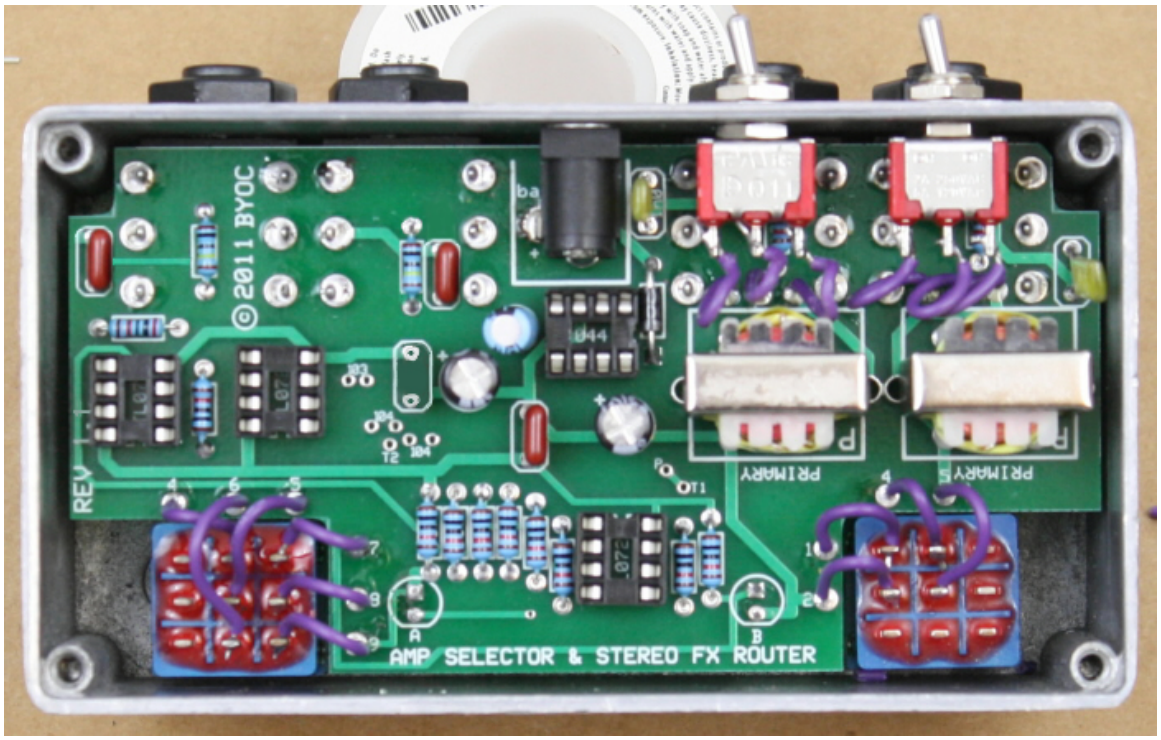
Step 6c: Make sure the DC adapter jack stays in place and solder just the “+battery” solder pad on the top side of the PCB. Remove the PCB assembly from the enclosure again and solder the other two terminals of the DC adapter jack to the PCB on the bottom side of the PCB.



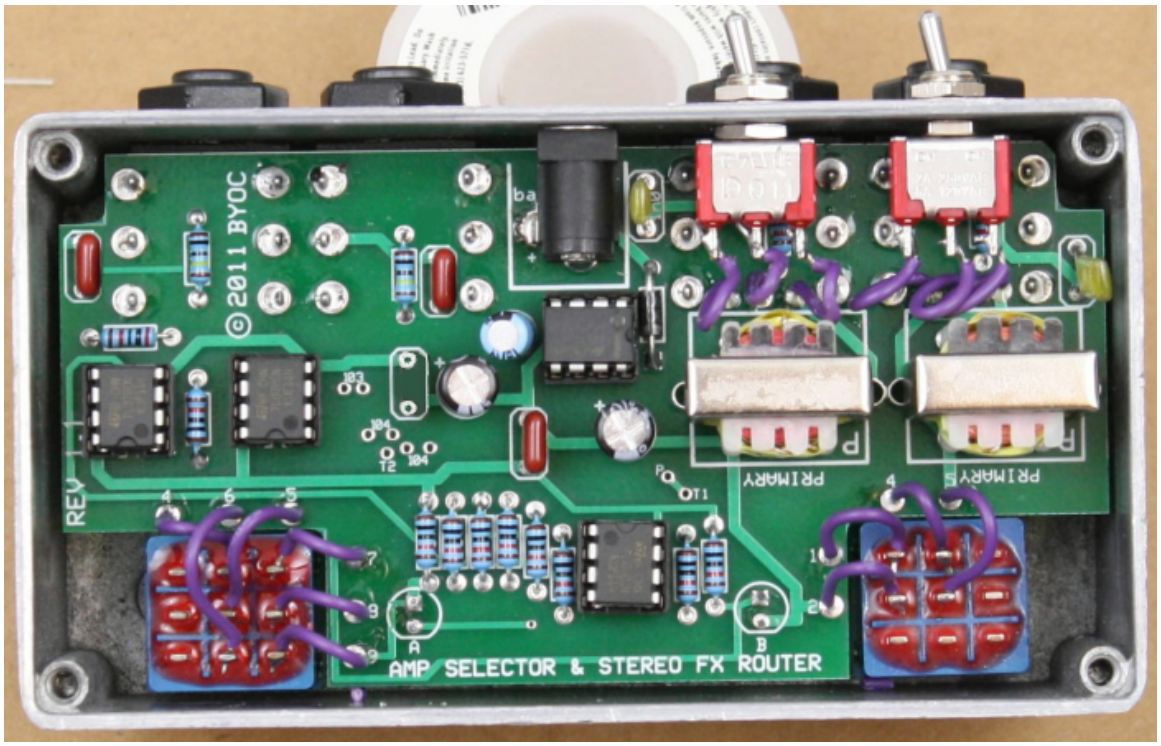
Step 7a: Install the LEDs into the PCB assembly, but do not solder them yet. Be sure to insert them into the bottom side of the PCB. The longer lead of the LED goes into the square solder pad. The shorter lead goes into the round pad. It doesn't matter which color LED goes on which side. This is a matter of preference.



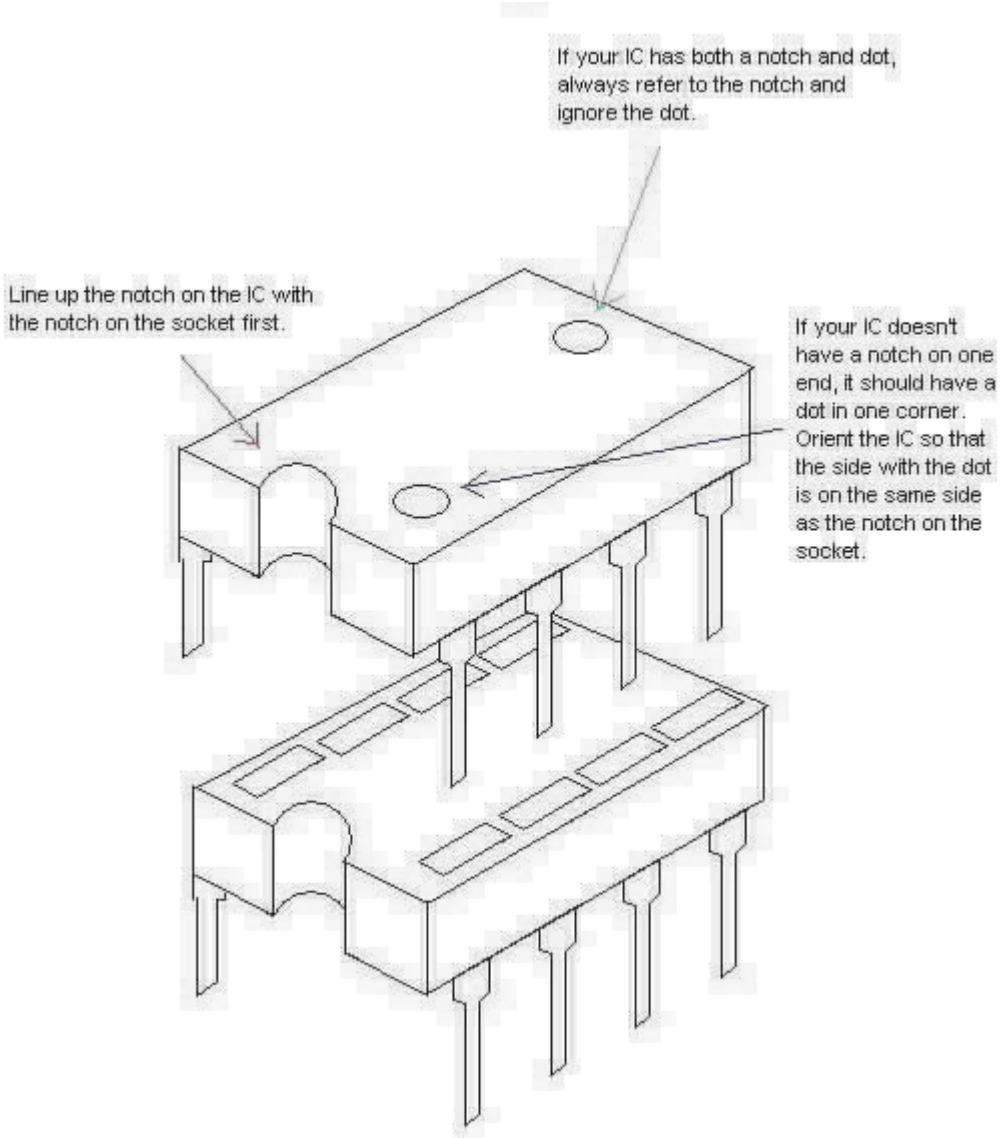
Step 7b: Install the PCB assembly back into the enclosure. Make sure the DC adapter jack is lined up, and tighten the jack nuts with your fingers (yes, this will be the last time you have to install the PCB assembly). Using the excess LED leads as handles, adjust the LEDs so that they fit into their holes as shown in the picture above.



Step 7c: Flip the entire unit over and solder the LEDs. Clip the excess leads off at the circuit board.

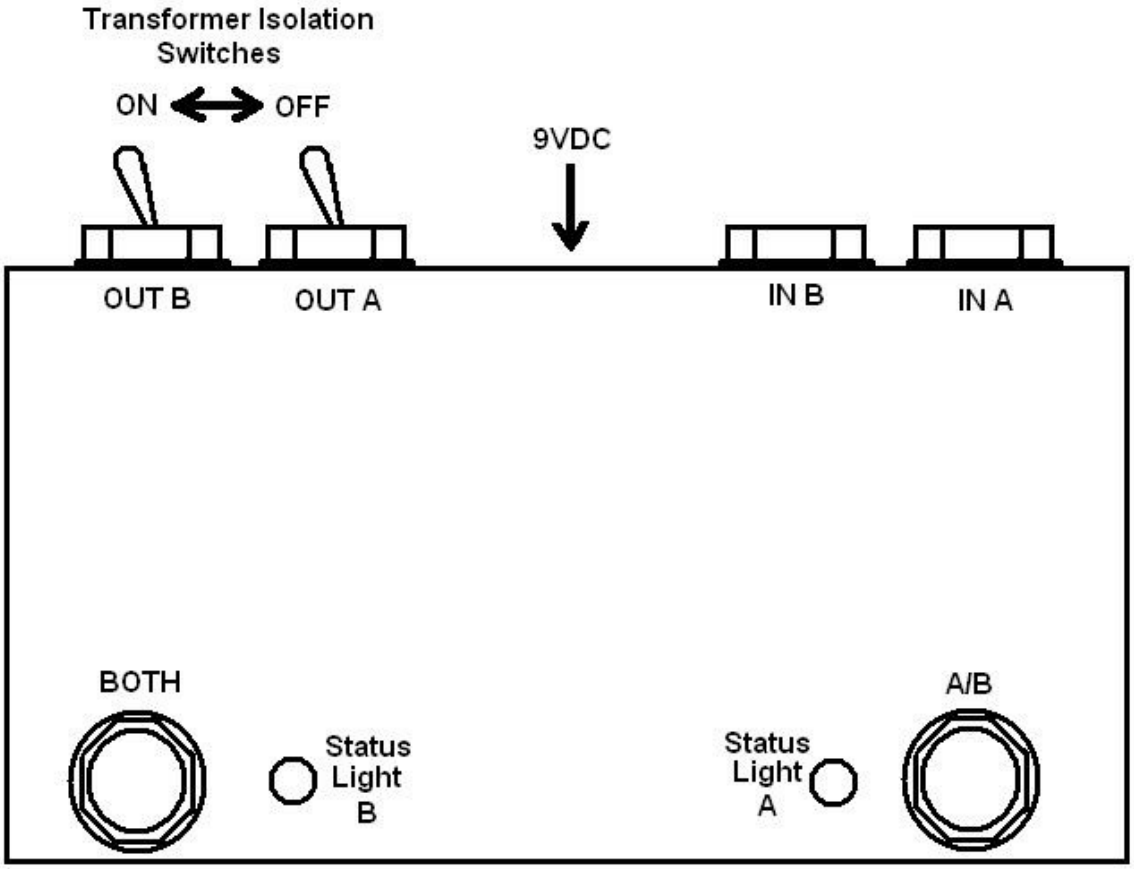


Step 8: Install the IC's into their sockets. Be absolutely certain to orient the IC's correctly. Read the next page for IC orienting instructions.

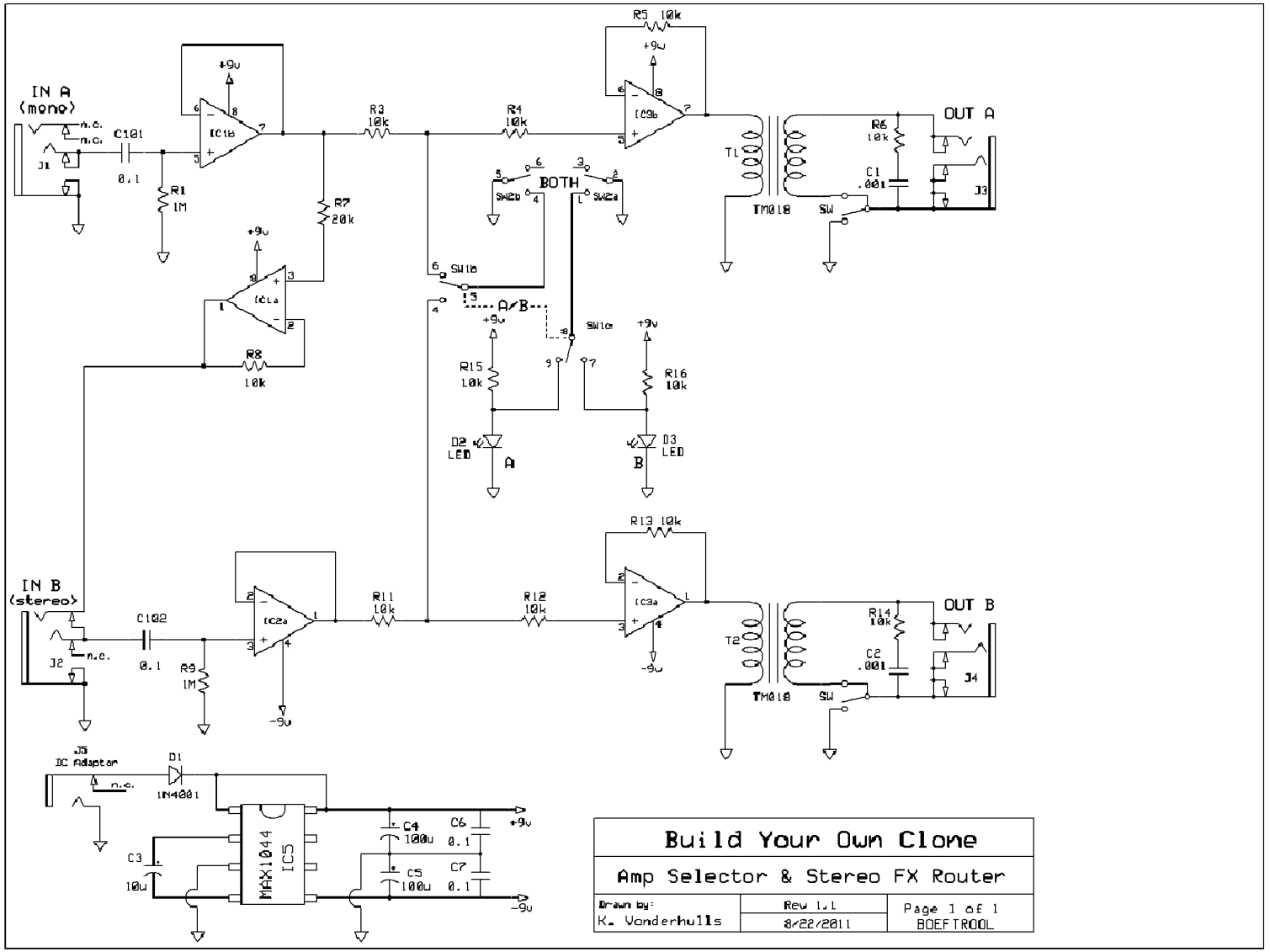


That's it! You're done!

Operating Overview



Power Supply: Standard Guitar FX power supply (9VDC 2.1mm or 2.1mm negative tip)
Current Draw: 12mA
A/B footswitch: Selects between OUT A and OUT B
BOTH footswitch: Turns both OUT A and OUT B on at the same time.
IN A (with no plug in IN B): Sends signal to both OUT A and OUT B.
IN A (with plug in IN B): Sends signal *ONLY* to OUT A.
IN B: Sends signal *ONLY* to OUT B.
Transformer Isolation Switch A: Turns the isolation transformer for OUT A on and off. Toggle left is "ON". Toggle right is "OFF".
Transformer Isolation Switch B: Turns the isolation transformer for OUT B on and off. Toggle left is "ON". Toggle right is "OFF".



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Amp Selector & Stereo FX Router

Drawn by:	Rev 1.1	Page 1 of 1
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