Build Your Own Clone A/B True Bypass Looper Kit Instructions



Warranty:

BYOC, LLC 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, LLC guarantees that the instructions for your kit will be free of any majors 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, LLC 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, LLC 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 customers 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, LLC makes no promises or guarantees that you will successfully complete your kit in a satisfactory mannor. Nor does BYOC, LLC promise or guarantee that you will receive any technical support. Purchasing a product from BYOC, LLC does not entitle you to any amount of technical support. BYOC, LLC 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.buildyourownclone.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 discription 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 1.0 There are no known errors.

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Parts Checklist for BYOC A/B True Bypass Looper Kit

Resistors:

3 - 4k7 (yellow/purple/black/brown/brown)

Diodes:

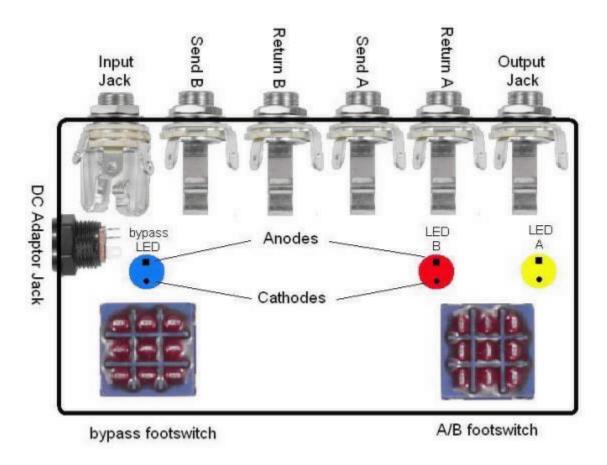
3 - 5mm LEDs (Red, Yellow, and Clear Blue)

Hardware:

- 1 drilled enclosure w/ 4 screws
- 2 3PDT footswitch
- 3 LED bezels
- 1 AC adaptor jack
- 5 1/4"mono jack
- 1 1/4"stereo jack
- 1 battery snap
- 4 bumpers
- 1 cable tie

hook-up wire

Assembly



anode

Step 1: Insert the LEDs into their Bezels. You will need to push very hard. Use a pair of pliers to hold the legs of the LED while pushing. You will feel it snap into place. Do not try to use your fingers. You will only bend the LED leads.

Step 2: Install the LED/Bezel assemblies in the enclosure. These will be a very tight fit, but trust us...you want them to be. Push the bezel into their respective holes through the top of the enclosure with your thumb. You will feel them snap into place. Orient the LED/Bezel assemblies so that the anodes are facing the jack side of the enclosure and the cathodes are facing the footswitch side of the enclosure.



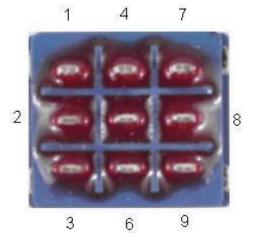
Step 3: Install the Jacks. Notice how all of the mono jacks are rotated slightly. This is to insure that there are no bare metal contacts touching any other bare metal contacts. Use common sense when installing the jacks. If you see contacts from two jacks touching. Rotate one or both slightly so that there is no contact. Once you have all the jacks in place, use a 3/8" wrench or socket to tighten.



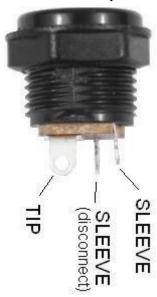




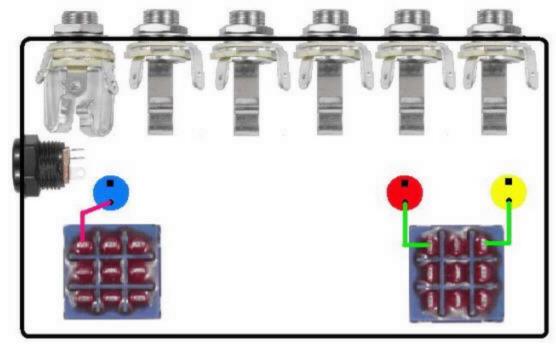
Step 4: Install the footswitches. Notice that the A/B footswitch is rotated a 1/4 turn. Below is the numbering system used to differentiate the solder lugs on a 3PDT footswitch.



Step 5: Install the DC Adaptor Jack. Be sure to orient the jack so that the tip is facing up as seen in the pics.



WIRING



Step 1: Connect the cathode (- negative lead or shorter lead) of the Blue LED to LUG1 of the bypass footswitch. Connect the cathode of the Red LED to LUG3 of the A/B footswitch and the cathode of the Yellow LED to LUG1 of the A/B footswitch

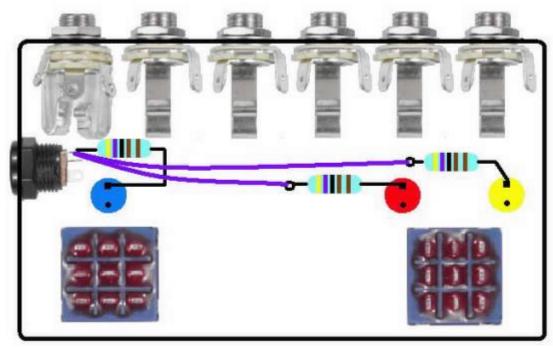




Step 2: Clip the anodes (+ positive lead or longer lead) of the LEDs in half and bend the ends into small loops to make solder terminals.

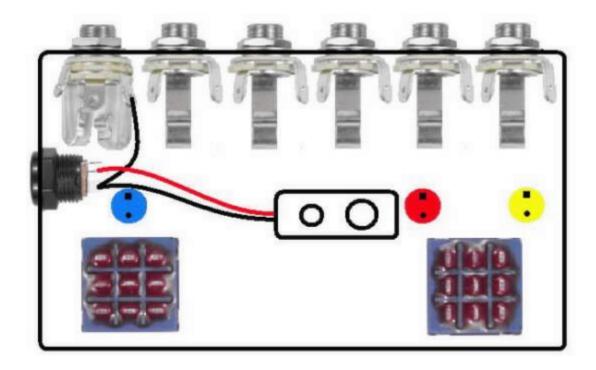
Note: Keep in mind that there will be bare metal left exposed on the LED connections that you will make in Step 3 that could potentially cause an electrical short if not done properly. Once again, just as explain in the assembly portion of the instructions, use common sense. Do not let bare metal touch bare metal. Keep this in mind when bending leads and measuring before clipping components. If you do have an area where bare metal is touching, or an area that you feel will cause problems in the future, you could always use electrical tape or heat shrink to insulate it.

Another note: We strongly recommend reading the instructions in their entirety before you begin building your kit. This way you have a better idea of what you are doing and what the next step will be. Notice that as we are routing the wiring, we are keeping the space between the two footswitches clear for the battery. This will be more obvious in steps 6, 7, and 8.



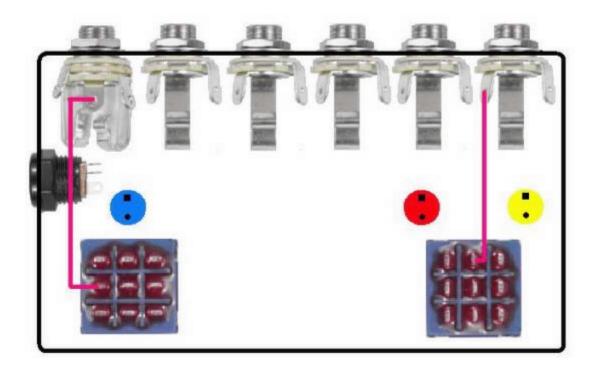
Step 3: Connect the anode (+positive or longer lead) of the blue LED to the sleeve terminal of the DC adaptor jack with one of the 4.7k resistors. Trim excess component lead from the resistor. Connect one end of the remaining two 4.7k resistors to anodes of the yellow and red LEDs. Trim the excess component lead of the resistors that is connected to the LEDs. The clip and bend the other end of both resistors to form a solder terminal the same way you did with the anodes of the LEDs. Now connect those ends of the resistors to the Sleeve of the DC adaptor jack. Since there will be three wires going into the Sleeve of the DC Jack, it's best to insert all 3 wires at once and then solder so that you only need to solder once.





Step 4: Connect the battery snap to the DC adaptor jack. The black wire connects to the tip. The red wire connects to the disconnect terminal of the sleeve. Connect the ring of the input jack to the tip of the DC adaptor jack. Since there will be two wires going into the tip of the DC adaptor jack, it's best to insert both wires and then solder at the same time.

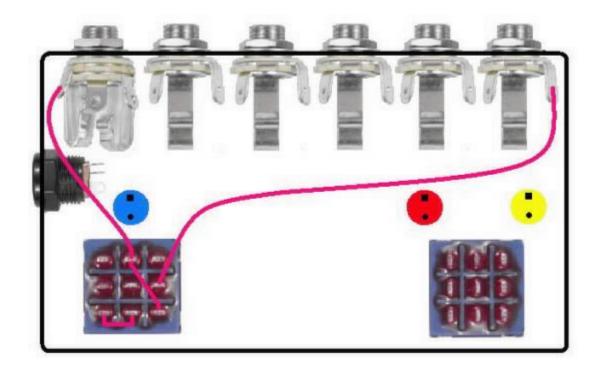




Step 5: Connect the Sleeve of the Input Jack to LUG 2 of the bypass footswitch. Connect the Sleeve of the Output Jack to LUG 2 of the A/B footswitch.

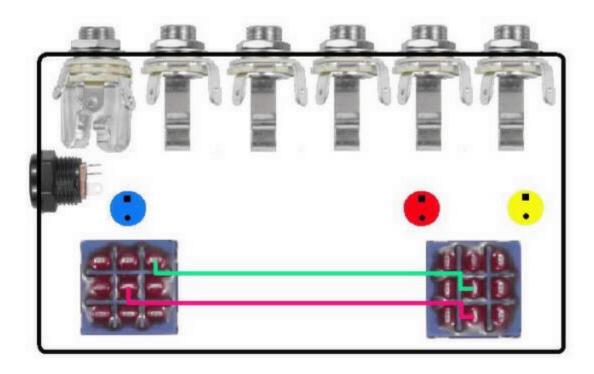
NOTE: Wiring step 5 this way will leave on of the A/B status lights constantly lit, even when the looper is in bypass. This way you know whether you are in loop A or loop B before you engage the looper. If you prefer that the A/B status light be off when the looper is in bypass, see page 22 for an alternate wiring diagram.





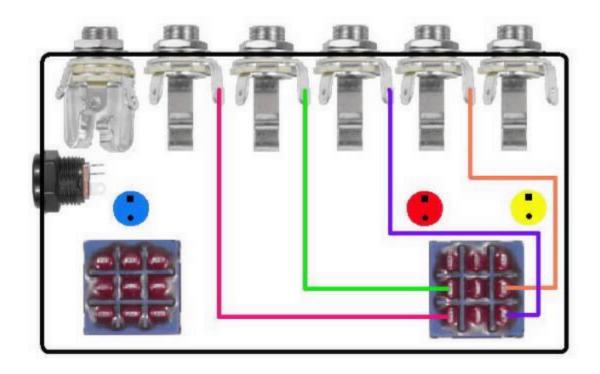
Step 6: Connect the tip of the input jack to LUG4 of the bypass footswitch. Connect the tip of the output jack to LUG8 of the bypass footswitch. Jumper LUGS 3 & 6 of the bypass footswitch and LUGS 4 & 9 of the bypass footswitch. Since 2 connections will be made at LUG4, it's best to insert both wires and then solder at the same time.





Step 7: Connect LUG7 of the bypass footswitch to LUG5 of the A/B footswitch. Connect LUG5 of the bypass footswitch to LUG8 of the A/B footswitch.





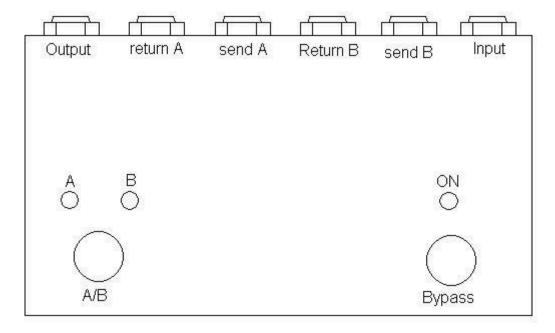
Step 8: Connect the tip of the Send B jack to LUG9 of the A/B footswitch. Connect the tip of the Return B jack to LUG6 of the A/B footswitch. Connect the tip of the Send A jack to LUG7 of the A/B footswitch. Connect the tip of the Return A jack to LUG4 of the A/B footswitch.





Step 9: Test your bypass looper. If everything works the way it's supposed to, use the cable tie to bundle your wiring. If it's not working correctly, trouble shoot your build and getting working properly before you tie the wiring.

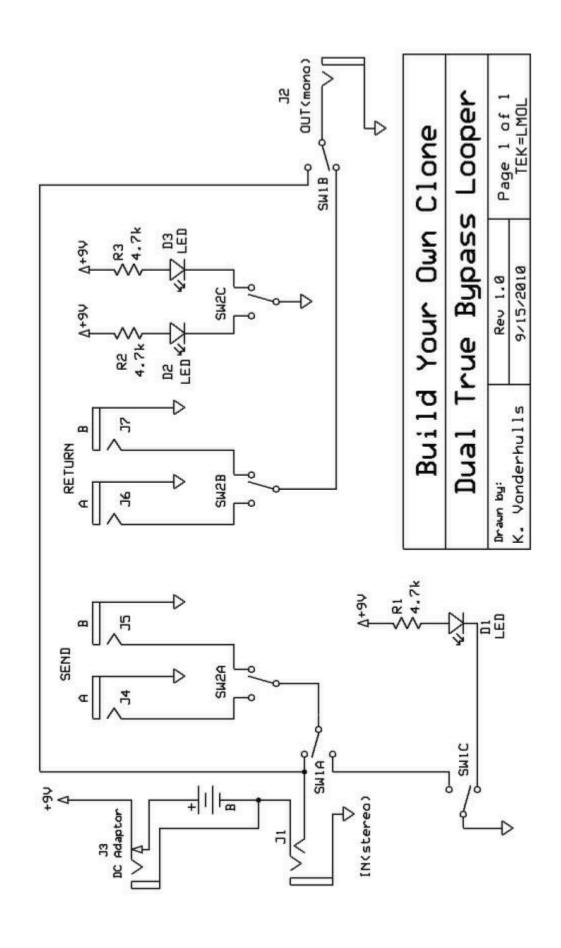
Operating Overview



The way a true bypass looper works, and the way an A/B box works are pretty simple. A true bypass looper has an input/output and a send/return. When engaged, it sends your input signal to an effect or chain of effects or some sort of signal processing. This processed signal then comes back to the looper via the return jack and is then sent along to the next effect or amplifier via the output jack. When the looper is not engaged, your signal bypasses the fx loop and goes straight from the input jack to the output jack.

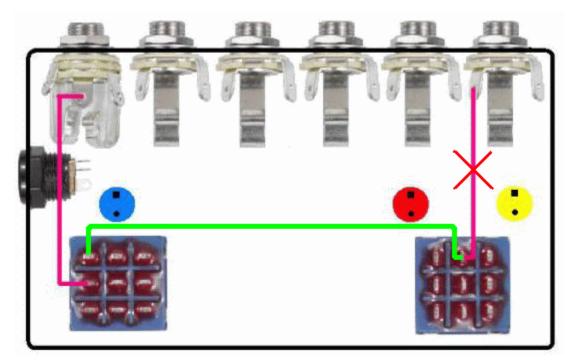
An A/B box has in input and an output A and an output B. It basically takes your input signal and then gives you two output channels to choose from.

The BYOC A/B True Bypass Looper combines both features of an A/B box and a True Bypass Looper. It gives you the abilities of a bypass looper, but with two looping channels to choose from. The bypass footswitch either engages one of the send/return loops or bypasses your signal straight from the input jack to the output jack. The A/B footswitch selects between channel A or channel B.



Please visit http://buildyourownclone.com/board for any technical support

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Alternate wiring for Step 5: If you'd prefer that your A/B status lights be off when the pedal is in bypass, wire this way. Connect lug 2 of the A/B footswitch to lug 1 of the bypass footswitch. Do not connect lug 2 of the A/B footswitch to the sleeve of the out jack.

Keep in mind that the cathode of the bypass status LED will already be connected to lug 1 of the bypass footswitch, so these connections will be sharing lug 1 of the bypass footswitch.

Courtesy of Duhvoodooman