

# 3PDT-03

## FX TYPE: Bypass

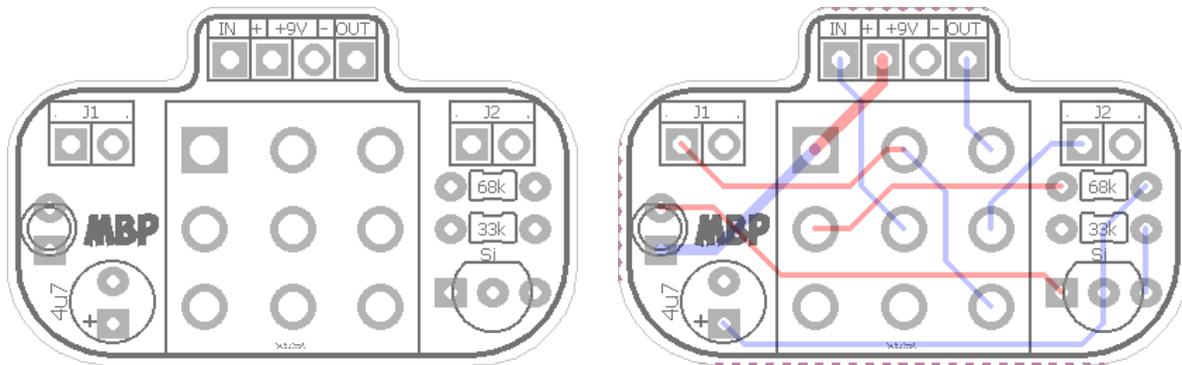
Enclosure Size: 1590B and up

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## Overview

The 3PDT-03 PCB is a fun little dude that let's you add a small fade in and out to your bypass LED. It has the same standard switching as the other bypass boards but adds a few parts to do the fade. It has no purpose other than to be fun and impress yourself.



Name	Value	QTY	Type	Rating
R1	68k	1	Metal / Carbon Film	1/8W
R2	33k	1	Metal / Carbon Film	1/8W
C1	4u7	1	Electrolytic	16v
Q1	2n3904	1	or, similar BJT	
LED	any	1	3 or 5mm	
Switch	3PDT	1	Solder Pin	

**Terms of Use:** You are free to use purchased **3PDT-03** circuit boards for both DIY and small commercial operations. You may not offer **3PDT-03** PCBs for resale or as part of a "kit" in a commercial fashion. Peer to peer re-sale is fine, though.

**Technical assistance** for your build(s) is available via the [madbeanpedals forum](http://madbeanpedals.com/forum). Please go there rather than emailing me for assistance on builds. This is because (1) I'm not always available to respond via email in a timely and continuous manner, and (2) posting technical problems and solutions in the forum creates a record from which other members may benefit.

You must use solder pin 3PDT with this board. It is the only bypass board (currently) that does not have the larger solder lug pads.

The components can be top or bottom mounted on the PCB. If top mounting them, use a small profile electrolytic for the 4u7. You may have to bend the transistor down slightly to clear the lid.

For bottom mounted, you can use a regular 11mm height electrolytic. Just be sure you orient your transistor the correct way if you solder the parts on the bottom (switch) side.

Mods: You can increase the fade time by changing the 4u7 to 10uF. You can increase the brightness of the LED by reducing the 33k to 10k or 4k7. I picked 33k because I originally used a very high brightness LED for the board when I initially designed it.

Resistors:

<http://smallbear-electronics.mybigcommerce.com/resistors-1-8-w-1-metal-film/>

Caps:

<http://smallbear-electronics.mybigcommerce.com/electrolytic-radial-low-profile-16v-1-f-100-f/>

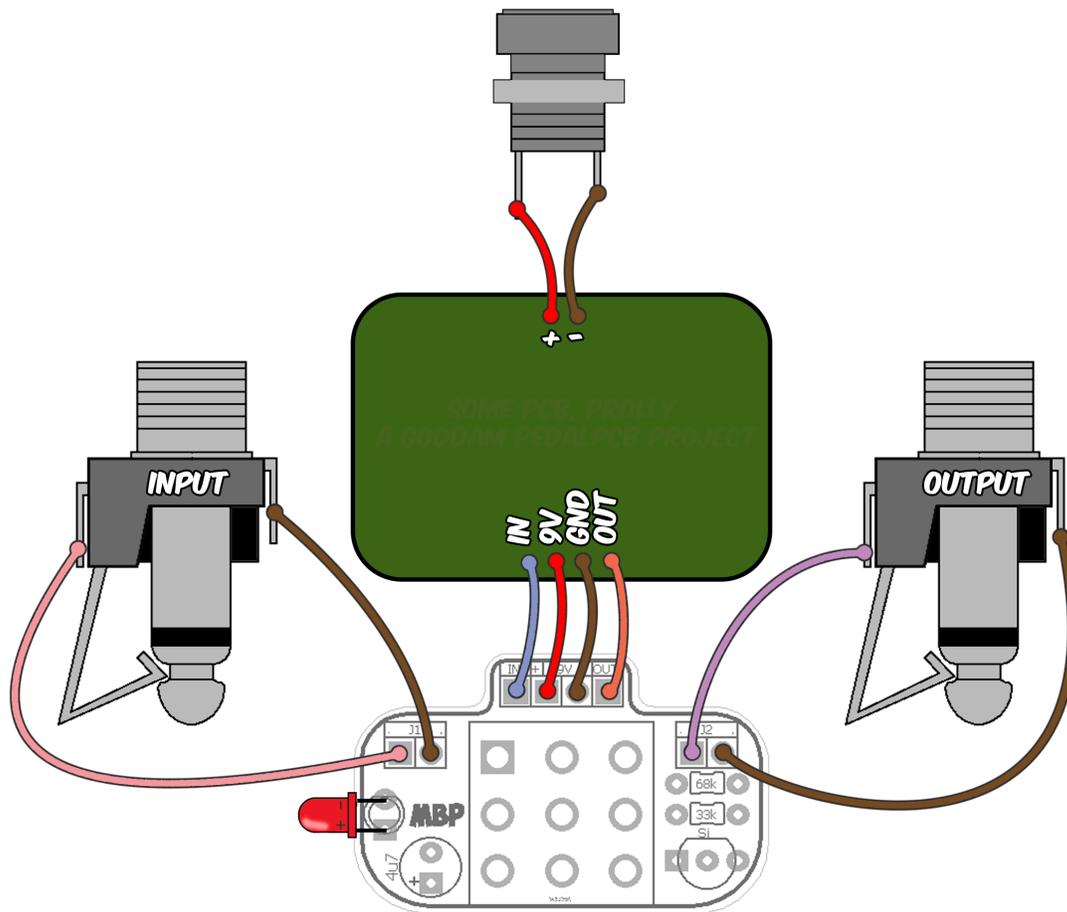
2n3904:

<http://smallbear-electronics.mybigcommerce.com/transistor-2n3904/>

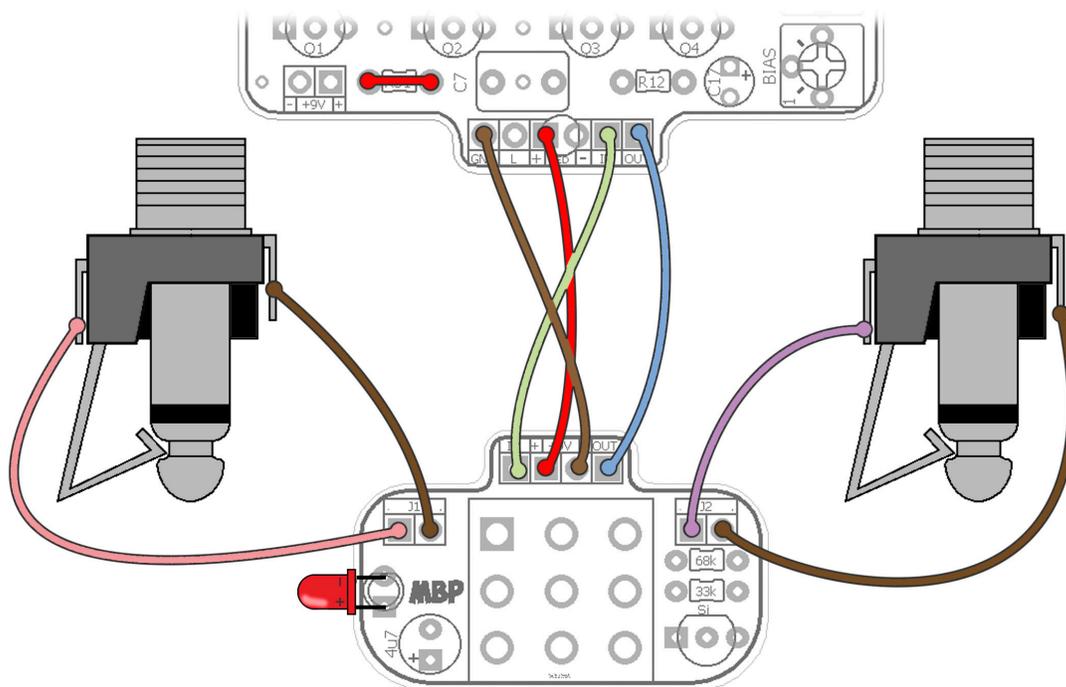
3PDT:

<http://smallbear-electronics.mybigcommerce.com/cic-blue-3pdt-pc-mount/>

<https://lovemyswitches.com/3pdt-latched-foot-switch-pcb/>



This diagram shows a generic wiring that will work for many different PCBs out there. Some designers do their I/O configuration just like this, in fact. Not madbeanpedals though, because madbeanpedals does everything its own way until it finally does it the right way!

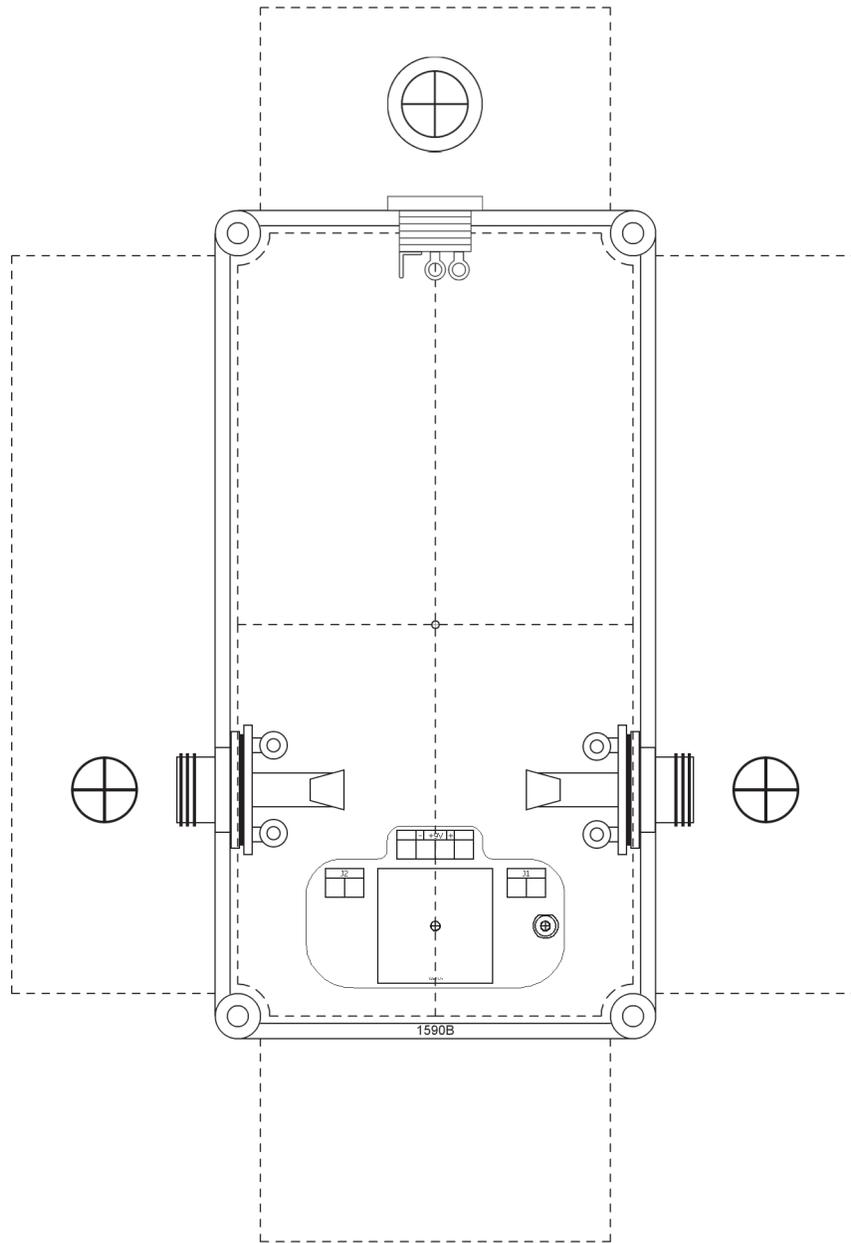


This diagram shows a typical madbeanpedals project and one way the 3PDT-03 board could be wired. Since almost all mbp projects include a bypass LED on it, we need to..err, bypass that!

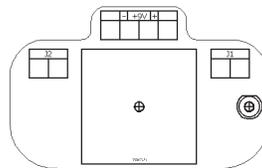
In this example, the Aquababy, R31 is the CLR for the on-board LED. Instead of installing R31, it is jumpered (short red wire). This means the long red wire passes 9v to the 3PDT-03 board to power the circuitry on it.

Alternatively, you could just run the 9v connection on the 3PDT-03 board directly to the DC jack. The one difference is that the power off the jack is not filtered whereas off the Aquababy PCB it is properly decoupled.

**Note:** Drill Guides are approximate and may require tweaking depending on the types of jacks, switches and pots you use.



This template shows a typical layout for a 1590B using the 3PDT-03.



This shows the exact footprint of the 3PDT-03 PCB. The LED is 14.6mm from the center of the 3PDT.

