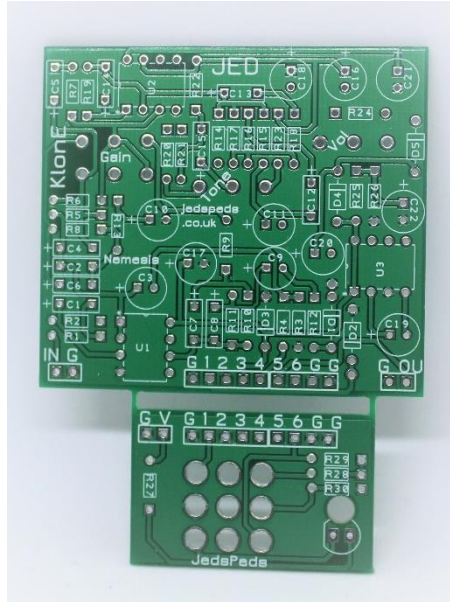


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Klone 2019 PCB Kit



Please read the guide in full before starting your build. If it is blatantly obvious you haven't read it and contact us for help then don't be surprised if we tell you to read the guide again... harsh I know.

Parts List

R1.	10k	R21.	100k	C10.	1uf	Diodes
R2.	1M	R22.	100k	C11.	1uf	D1. D2 GE / Schotty
R3.	100k	R23.	4k7	C12.	2n2	D3. 1n4742 / zener
R4.	560r	R24.	560r	C13.	27n	D4. D5 1N4001
R5.	5k1	R25.	27k	C14.	820p	
R6.	1K5	R26.	27k	C15.	3n9	IC's
R7.	1k	R27.	3k9	C16.	4u7	IC1. IC2 TL072
R8.	10k	R28.	68k	C17.	47u	IC3. 7660
R9.	2k	R28.	68k	C18.	1u	
R10.	15k	R30.	100k	C19.	1u	
R11.	422k			C20.	1u	
R12.	1k	C1.	100N	C21.	1u	
R13.	1k5	C2.	100N	C22.	47u	
R14.	15k	C3.	4U7			
R15.	47k	C4.	68N	Gain	100kb dual	
R16.	22k	C5.	390N	Tone	10kb	
R17.	27k	C6.	68N	Vol	10kb	
R18.	12k	C7.	82N			
R19.	392k	C8.	390PF			
R20.	1k8	C9.	1UF			

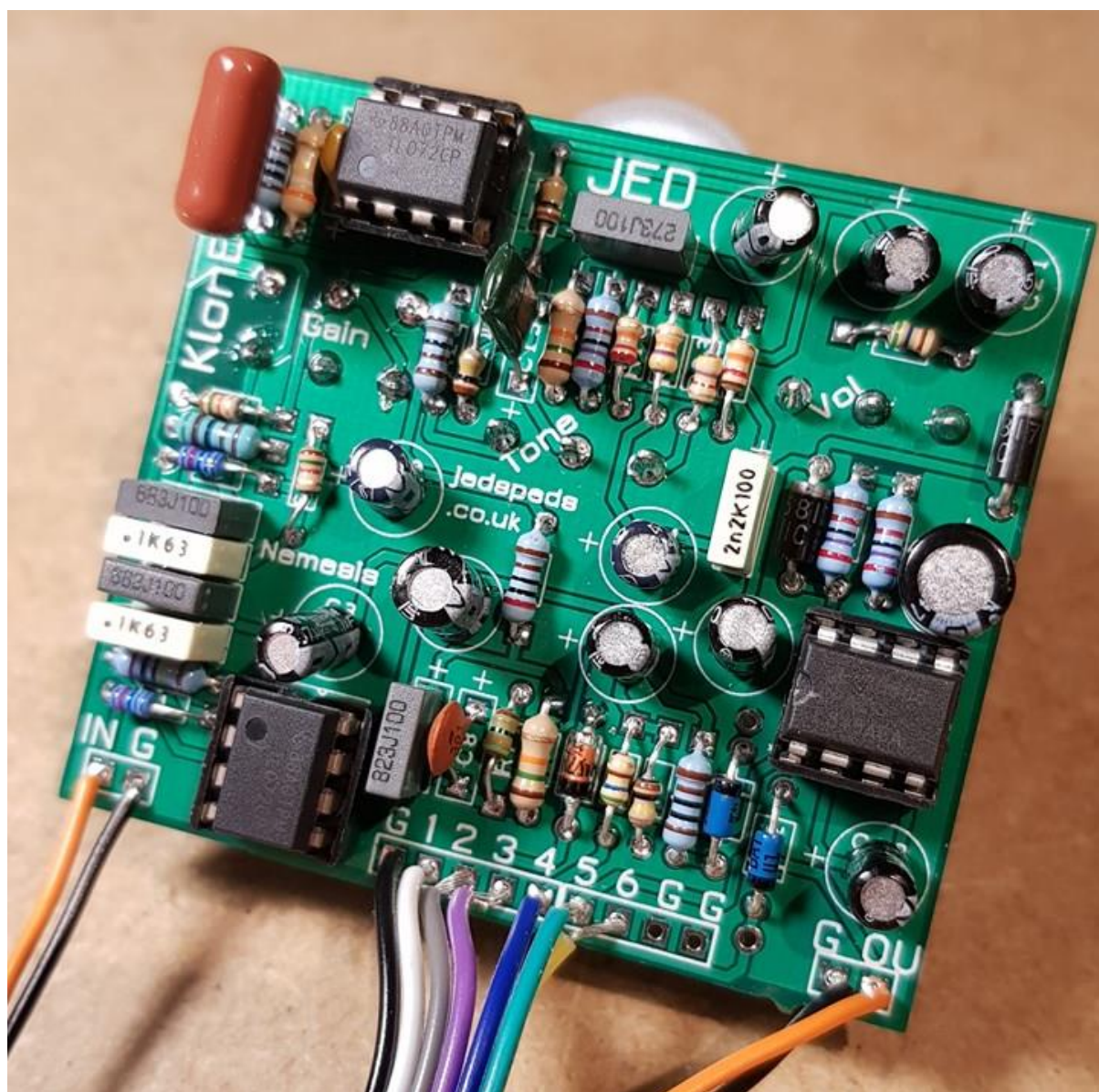
Kit Specific Build Notes

- There are a couple of peculiar resistor values in the original. These will be subbed in the kit. The value sent will not be that far off the original traced value so use your common sense with them.
- The diode's and IC's are heat sensitive. Use a heat sink or take your time! You don't want to kill them.
- The true identity of D1+2 is a little unknown. Experiment if you like and find your own tone!
- Foot switch wiring is not necessary with this board. Its board mounted using the detachable foot switch pcb.
- Take a look at your pcb, hopefully it is obvious that the foot switch board can be snapped off. Theres no need to neaten the edges unless you want too. Before you start, snap the two and keep the 3PDT board safe.
- You will notice there is a hole next to the LED. Personally, I'm not a huge fan of board mounted LED's so I do this to poke the legs of the diode through and then solder them with short wires. Its up to you if you follow that or go for board mounted.
- The PCB pads connect as follows:

3PDT	MAIN	Other
G	G	-----
1	1	-----
2	2	-----
3	3	-----
4	4	-----
5	5	-----
6	6	-----
-----	IN	In Jack tip
-----	OUT	Out jack tip
G + V	-----	Power socket

- The PCB is designed to accept right angles pots. They mount as per this pic. You need to insulate the base of the dual gang pot, as you can see I did it with electrical tape. Snap the tag off the pot, and its advisable to solder them in place using the drilled enclosure as a guide – but front the outside.





General Build Instruction

The first thing you must do is identify your parts from the pack. As a rule, I build from small to big – therefore step one will be to identify the resistors and any diodes inside your kit.

Each kit has a parts list at the top of the guide. So as an example, if R1 is listed as a 1M resistor then you dig out a 1M from the pack and place it on the PCB in the R1 spot. It's your call if you put one in and solder or put a few in or even put them all in and solder. I'll let you decide.

The front of the PCB is the side with the white writing on (the silkscreen)

You then need to follow the same process for all the other parts included. Working in height order mount the rest of the parts to the PCB ensuring that you solder them in place well as you go.

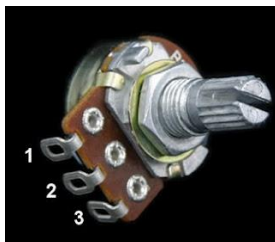
Some parts are quite heat sensitive so you must be careful when soldering them. Diodes, chips and transistors mainly. They can easily burn out by overheating.

I would then add the offboard wires, starting with nice long ones leaving them to be trimmed to length later. Finally, I add the pots either mounting them to the board or wiring them into place.

Useful links

[Resistor calculator](#)

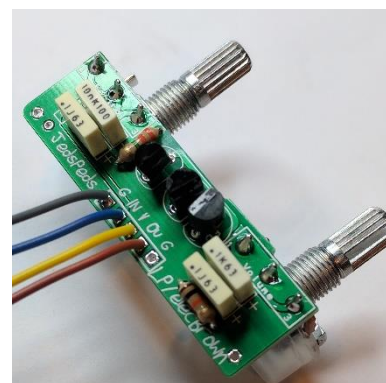
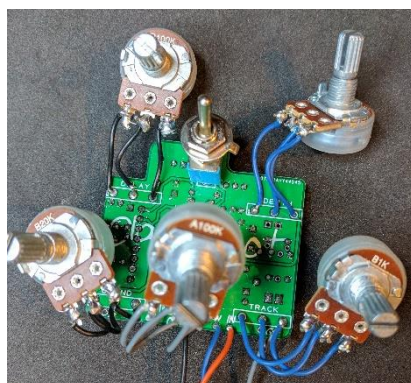
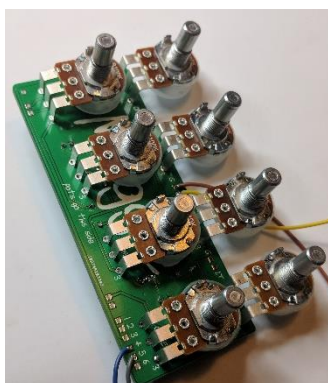
Pots



Pin Numbers for the pots. Snap the little metal tag off before trying to put it through the holes in the box.

Some of our PCBs are now designed to use right angled mount pcb potentiometers. They mount from the rear as indicated by the pcb. We will provide right angled pots as stocked, this means that you may receive a “normal” pot on occasion and you will have to wire it. It's not that inconvenient now is it.

The other options for pots are that they are wired into place or the PCB hangs from them.

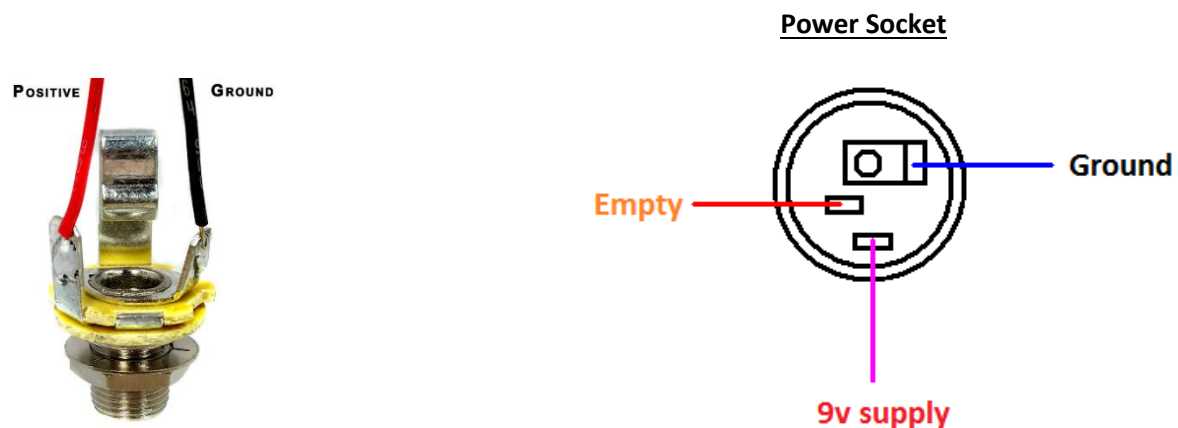


Hooking up the Jacks

Our kits come with mono jacks. They have two connections, a positive or the tip connection. And a negative, or sleeve connection.

The tip connections will connect to the 3PDT as shown later in the guide unless there are instructions otherwise.

The sleeve connections are ground points, all grounds throughout a build must connect. The Jack socket will then connect to the enclosure and ground the case.



The Footswitch.

Have a look at the footswitch. It has 9 pins. The orientation of the switch is crucial. If you do it wrong your switch will not work, you might ruin it and you will certainly have to un do it.



Please make sure you get the switch the correct way!

The PCB board will face out of your enclosure like this. Beyond that, it is just a case of hooking up the wiring pads to one another.

Please test the circuit before you put it in the case. You will only need to de solder the power socket to do that.

If its working, brilliant well done 😊 if not, its time to trouble shoot.

PCB Design Notes



1. All PCBs are designed by ourselves, and tested before sale.
2. Box caps are shown with a + polarity mark on the silk screen, this is irrelevant as the box caps are non-polarised so can go either way.
3. Spare ground points may be provided on the PCB layout, use them if you wish but there is no requirement to.