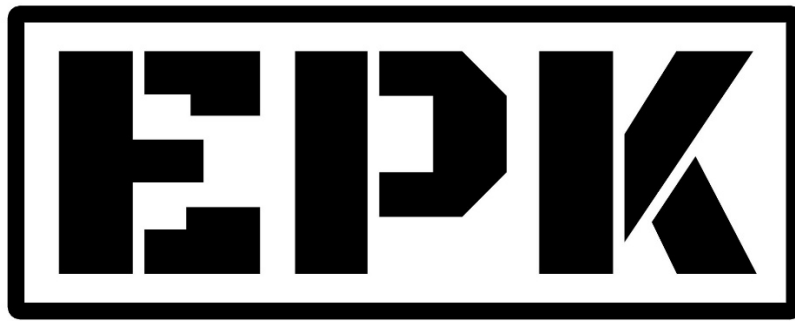
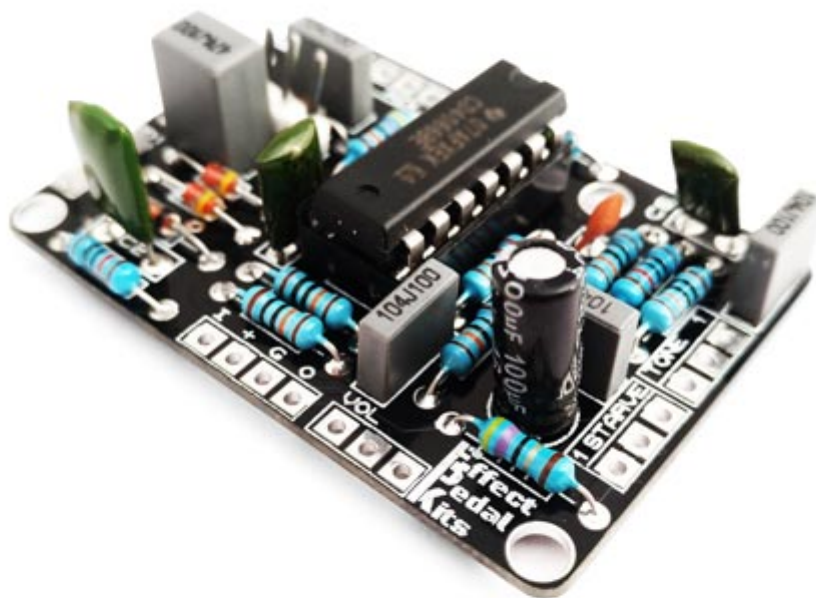




UBE Screamer Deluxe Kit Building Manual



Effect Pedal Kits:

UBE Screamer Deluxe

The **UBE Screamer Deluxe kit** is based on the **TubeScreamer TS808**, but replaces the original opamp used to produce the overdrive with a **CD4069UBE**, an integrated circuit that produces a way **softer and warmer clipping**.

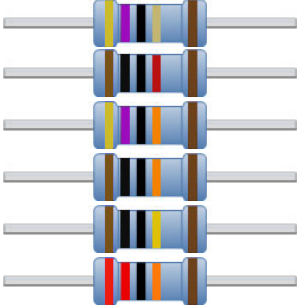
There has always been a discussion about the tone of the TS808, and how the chosen **opamp IC affects the sound** as they all have different characteristics. But they all have one thing in common: an opamp will always clip in a very hard way as they have quite large gains.

Because of that, the **UBE Screamer Deluxe** uses the CD4069UBE: its amp stages create a softer clipping as they have a way **lower gain**. The *Gain* knob ranges from a soft almost clean overdrive to a moderate distortion, and the *Tone* allows you to shape the sound.

This version takes the standard UBE Screamer Kit and adds some **new potentiometers and jumpers** to make it an even more versatile pedal:

- *Starve* controls the **amount of current** that goes into the CD4069UBE IC
- *CD1 & CD2* jumpers allow you to switch between **silicon and germanium clipping diodes**
- *Mix* lets you choose how much of the original sound you want mixed with the overdriven one for a softer tone

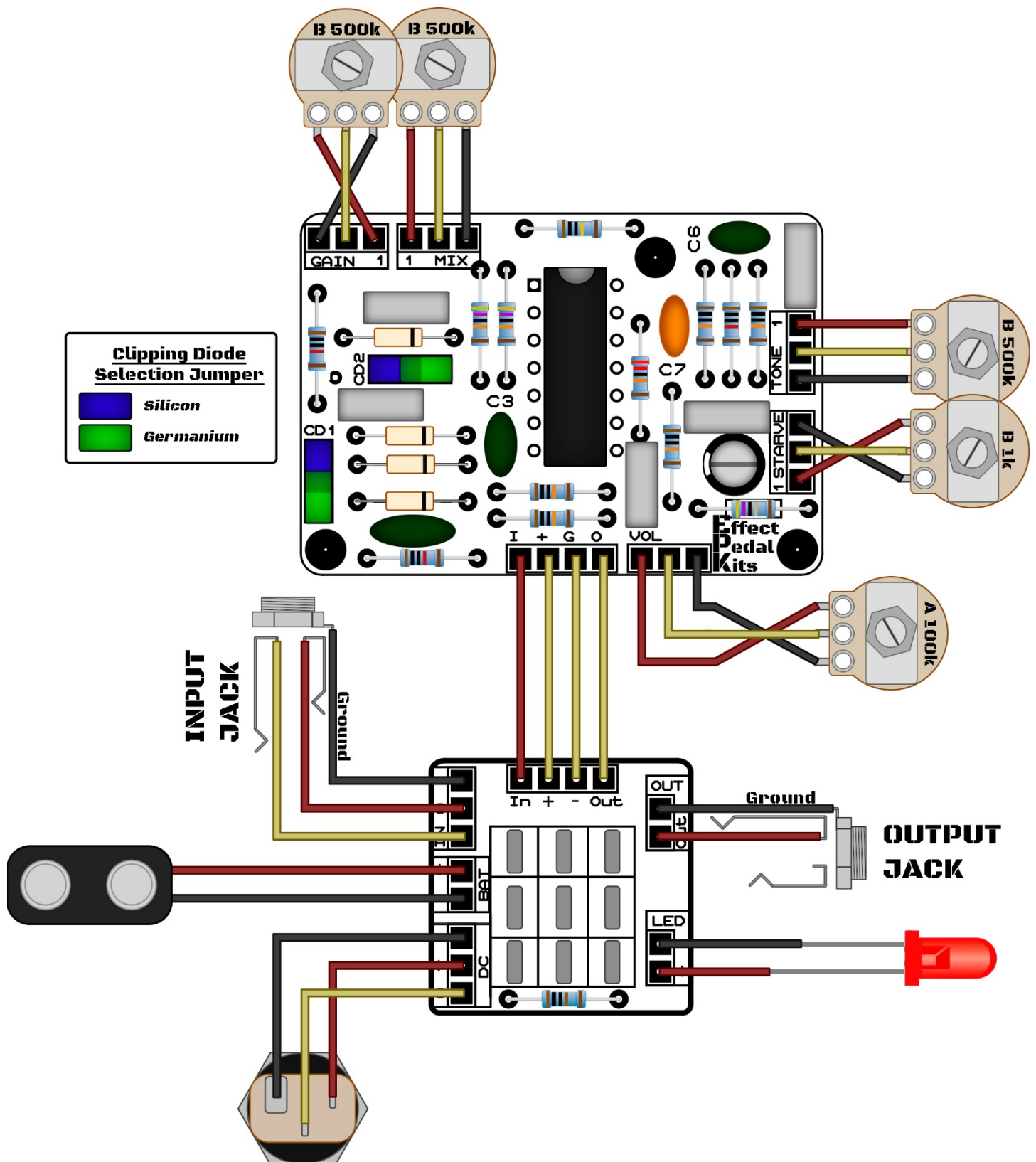
BOM (1/2)

Resistors (13)				Capacitors (10)		
1	R1	47		1	C1	100u (electrolytic)
3	R2, R7, R10	10k		1	C2	10n
2	R3, R4	470k		1	C3	2.2n
5	R5, R6, R9, R11, R12	100k		1	C4	470n
1	R8	1M		4	C5, C8, C9, C10	100n
1	R13	220k		1	C6	1.5n
				1	C7	150p (ceramic)

BOM (2/2)

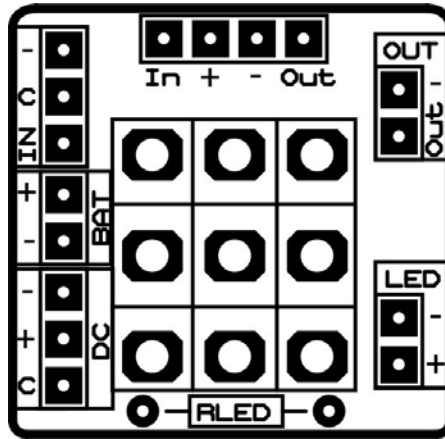
Diodes, Transistors and ICs			Generic Parts and Potentiometers		
1	U1	4069	1	Battery clip	
2	D1, D3	1N914	1	DC Jack	
2	D2, D4	1N34	1	RLED	1k LED resistor
2	CD1, CD2	Jumper	1	LED Bezel	
			1	3PDT	
			2	IN, OUT	6.35mm Jacks
			3	500k Linear (B) Potentiometer	Gain, Tone, Mix
			1	100k Linear (B) Potentiometer	Vol
			1	1k Linear (B) Potentiometer	Starve

Component Placement

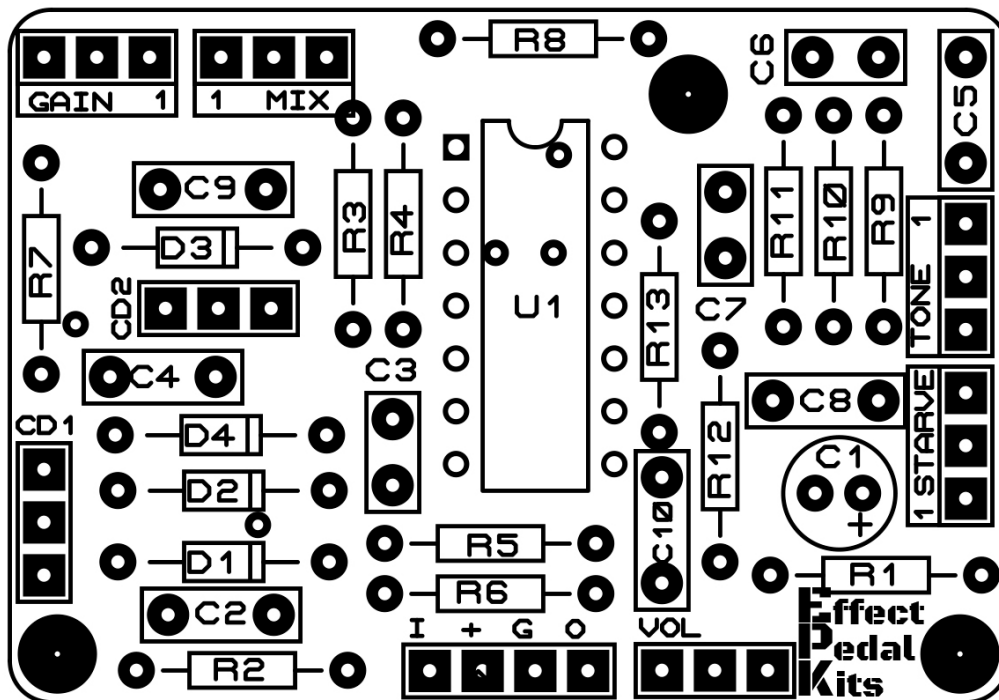


Board Layouts

3PDT PCB

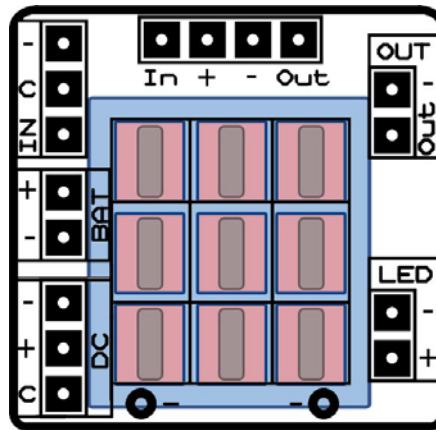


Effect PCB



Building Tips

- 1- Pay attention to the **orientation of the 3PDT**! In the following picture you can see how the 3PDT pins should be positioned (inserting the pins in the holes can be a bit tight to avoid movement while soldering):



- 2- For a proper soldering you just have to apply the **right amount of solder wire**. A right solder joint should have a concave shape around the joint and look like this:

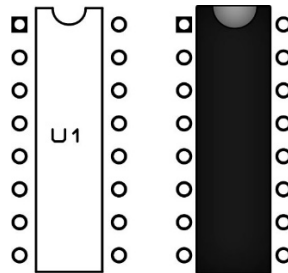


- 3- Don't apply too much heat! When soldering, the time you hold the solder iron against the joint should be **as short as possible** to avoid damaging any part (a few seconds should be enough). If you can't get a solder joint right, **let it cool** a bit before trying again.
- 4- If having troubles with the building, checking the schematic in the last page will help you find **where the audio signal stops**. When you find the spot, check out that **everything around that joint is ok** (components placed at their right place, solder joints...).

Building Tips

5- Pay attention to the **parts that have a polarity** and make sure they are connected as in the component placement picture:

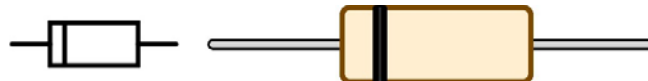
- **ICs** (they have a small dot or indication that must fit the indication in the board)



- **Electrolytic capacitors** (longer pin is connected to the “+” hole):



- **Diodes** (check for the mark and make it fit with the one in the PCB):



- **Leds** (longer pin is connected to the “+” hole)

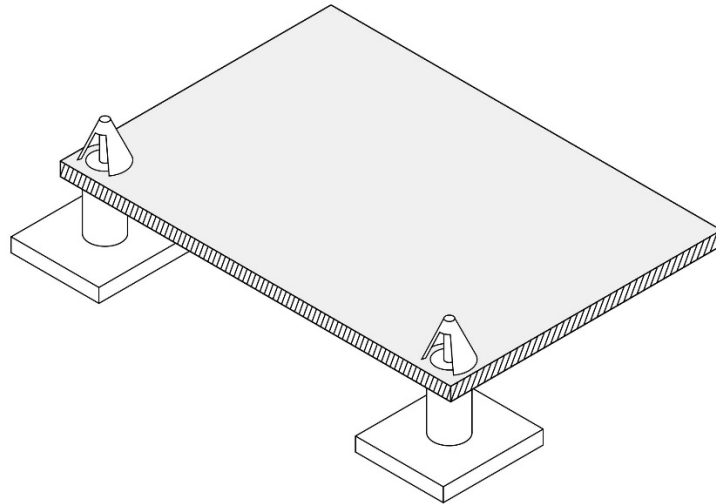


- **Transistors** (inserted to fit the drawing in the PCB)



Building Tips

- 6- With the kit we include plastic PCB supports with an adhesive bottom. You can use them to anchor the PCB to your enclosure for a better stability. Just insert the PCB support tip into the 3.5mm holes and remove the adhesive protective film.



To avoid any issue always check the latest building manual. Use the pictures only as a reference! Colors/shapes of wires, PCB or parts can change slightly, this doesn't affect their functionality in any way.

Always double check part polarity, resistor and capacitor values, potentiometer placement, IC orientation... before soldering.

Schematic

