EPK

Furry Elephant Kit
Building Manual

Effect Pedal Kits:
Furry Elephant

The Furry Elephant Fuzz is a versatile effect pedal that works great with both bass and guitar. The Furry Elephant is very sensitive and reacts greatly to your playing dynamics, and preserves the bass frequencies to keep the bottom end and that way have a more round and powerful tone. Its internal circuit is all silicon, avoiding the differences and 'mojo' around germanium transistors. The Furry Elephant is an ideal beginner kit as the part count is low and it delivers a great tone.

As the Woolly Mammoth, the Furry Elephant Fuzz has four knobs and may seem a bit frightening at the beginning, but fear not! Once you've learnt the basics, you'll find that the Furry Elephant Fuzz allows you to dial almost any fuzz tone you can imagine, from almost zero to a broken speaker crackle fuzz! The Furry Elephant's Wool knob sets the amount of fur created around the note, and with the EQ you can set the frequency response of the pedal. Besides, Pinch allows you to slightly alter the soundwave from a symmetrical signal (with a softer and creamier sound) to an assymetrical one, much more aggressive. If you are looking for a modern fuzz effect pedal, then get your Furry Elephant Fuzz kit and build your own Woolly Mammoth!

BOM (1/2)

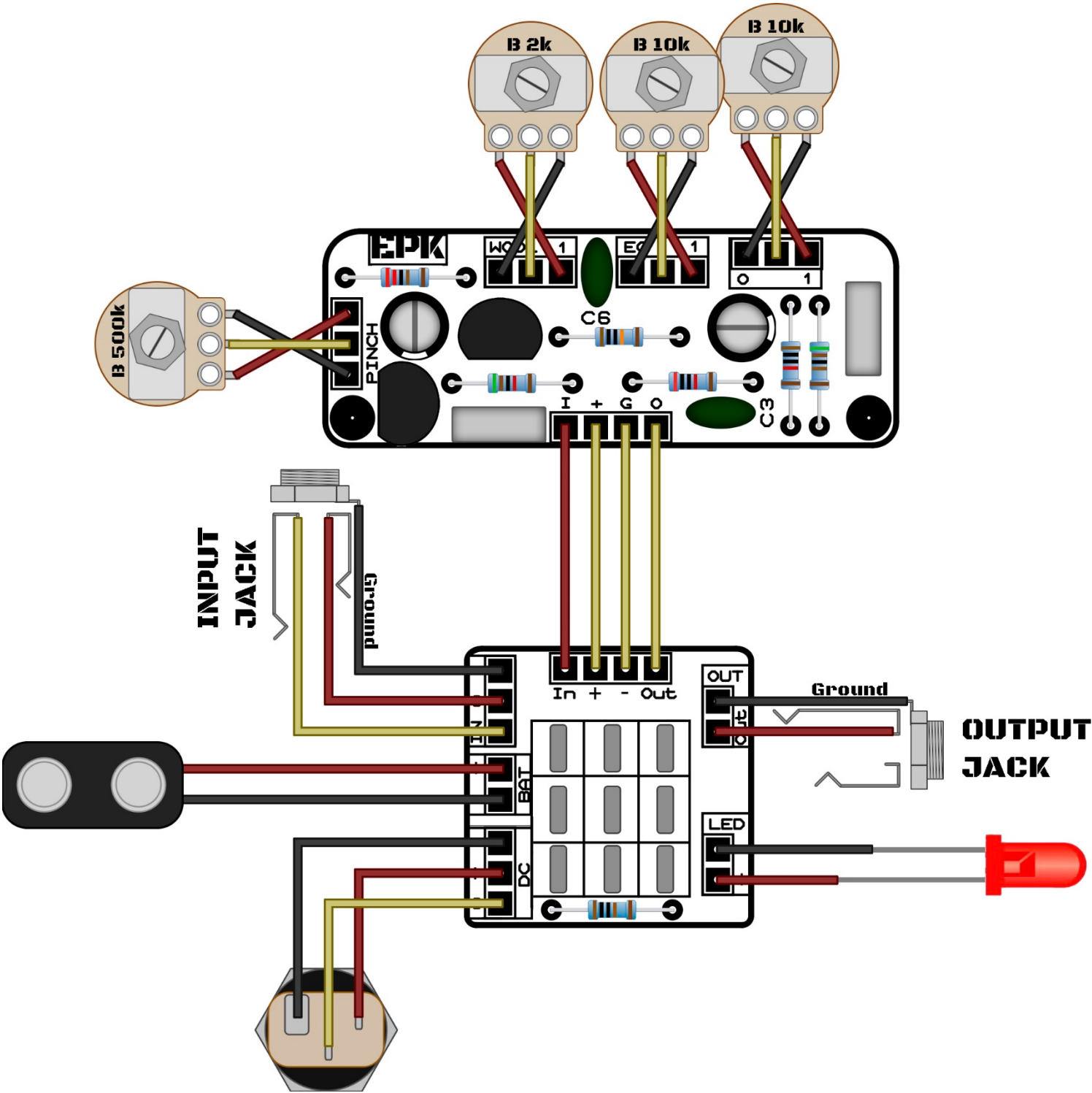| Resistors (6)				Capacitors (6)		
1	R1	51k		2	C1, C5	220n
1	R2	20k		2	C2, C4	100u
1	R3	100k		2	C3, C6	10n
1	R4	2.2k				
1	R5	10k				
1	R6	5.1k				

BOM (2/2)

Diodes, Transistors and ICs			Generic Parts and Potentiometers		
2	Q1, Q2	2N3904	1	Battery clip	
			1	DC Jack	
			1	RLED	1k LED resistor
			1	LED Bezel	
			1	3PDT	
			2	IN, OUT	6.35mm Jacks
			2	10k Linear (B) Potentiometer	Eq, O
			1	500k Linear (B) Potentiometer	Pinch
			1	2k Linear (B) Potentiometer	Wool

Component Placement

B 2k

B 10k

B 10k

B 500k

EPK

PINCH

C6

C3

I + G O

INPUT JACK

Ground

In + - Out

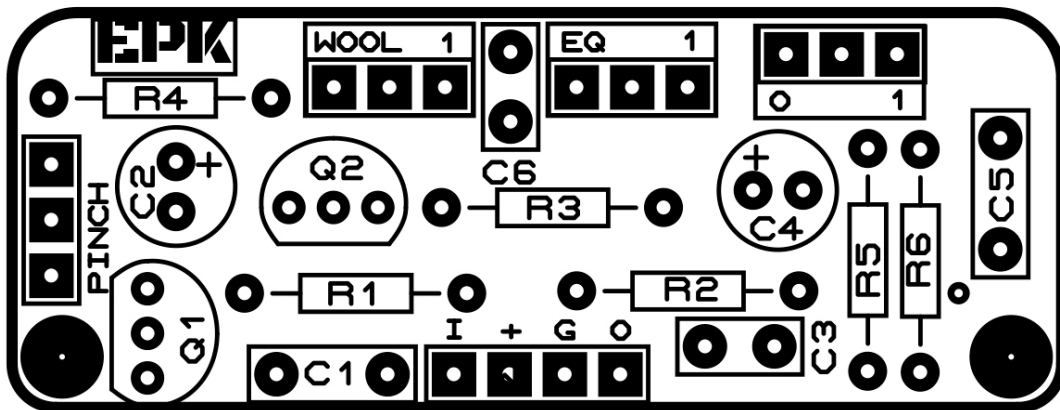OUT

Ground

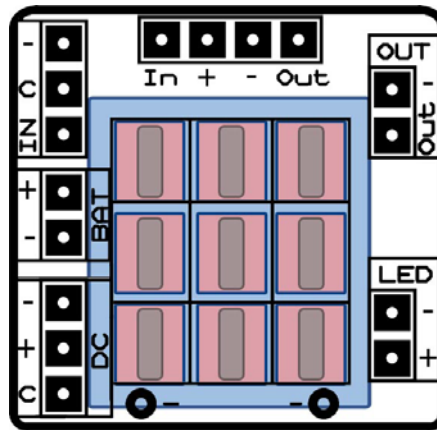OUTPUT JACK

BAT

DC

LED

Board Layouts
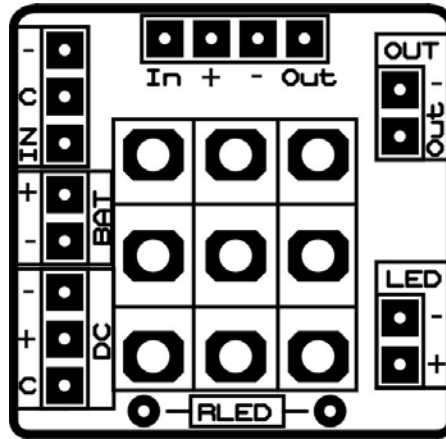
3PDT PCB

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 posible** 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:
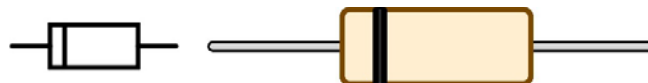
- **ICs** (they have a small dot or indication that must fit the indication in the board
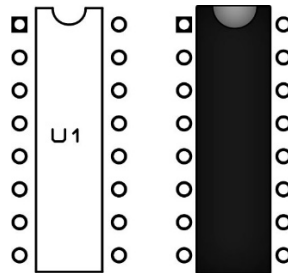
- **Electrolytic capacitors** (longer pin is connected to the "+" hole):

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

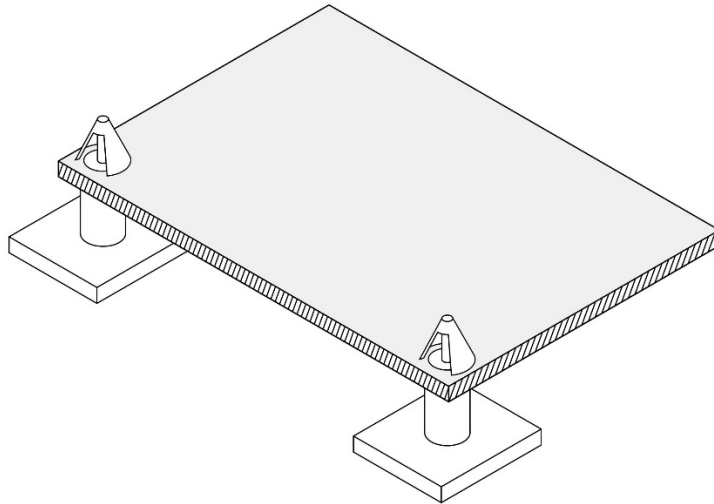- **Leds** (longer pin is connected to the "+" hole)

- **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