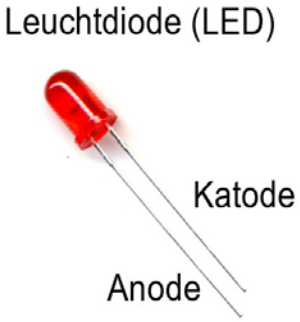
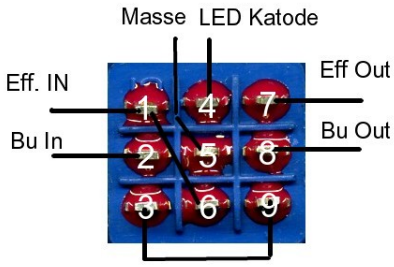
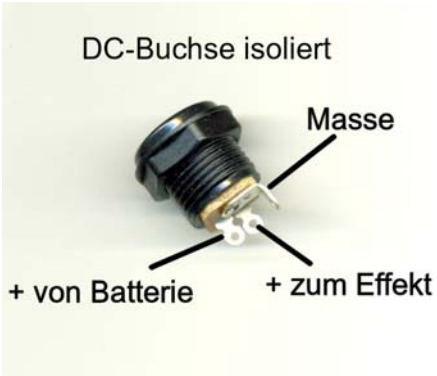
UK-electronic ©2013

Assembly manual for Manni the mammoth

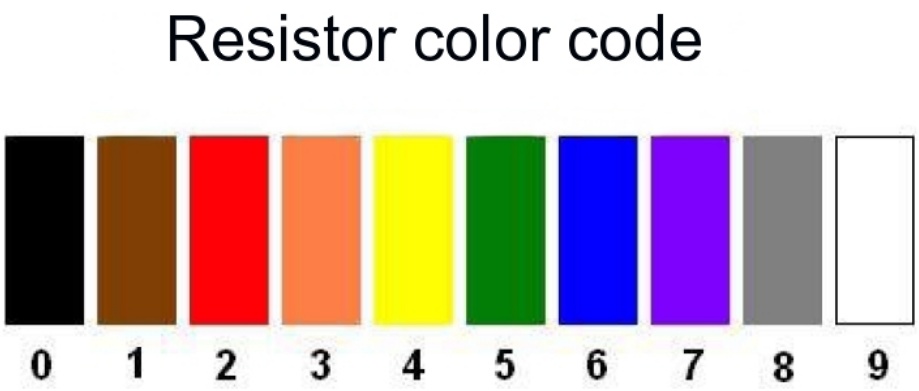
Some connection of important components

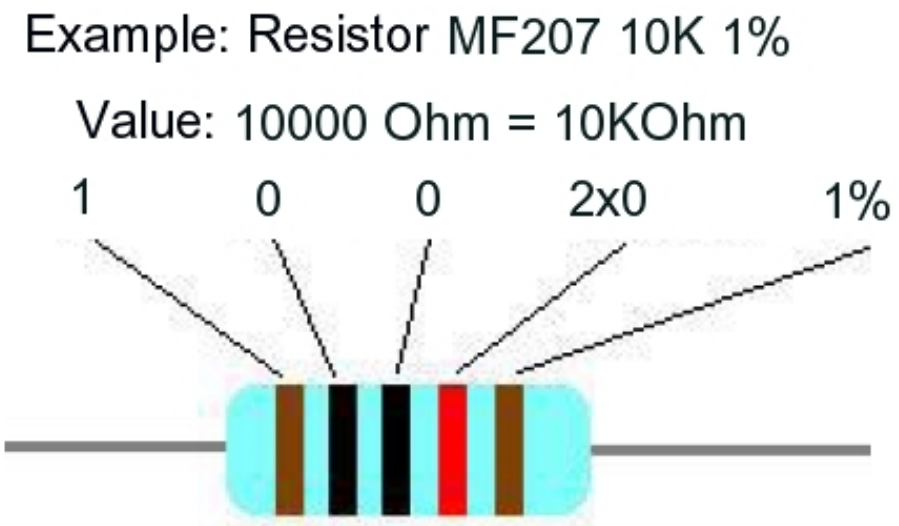




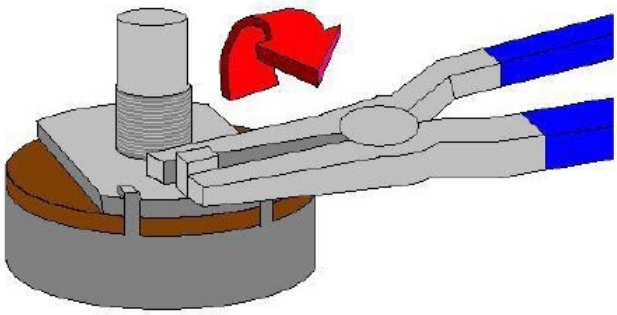


Color table for resistors MF207 FTE52 1% and a example





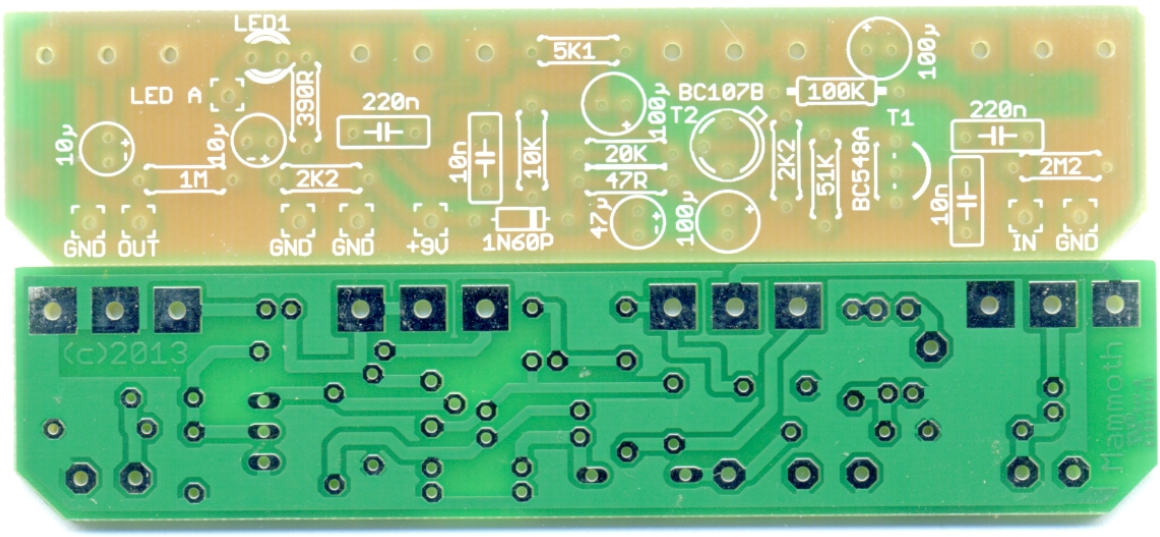
Breaking nose at the potentiometer
Nase am Poti mit einer Flachzange abbrechen



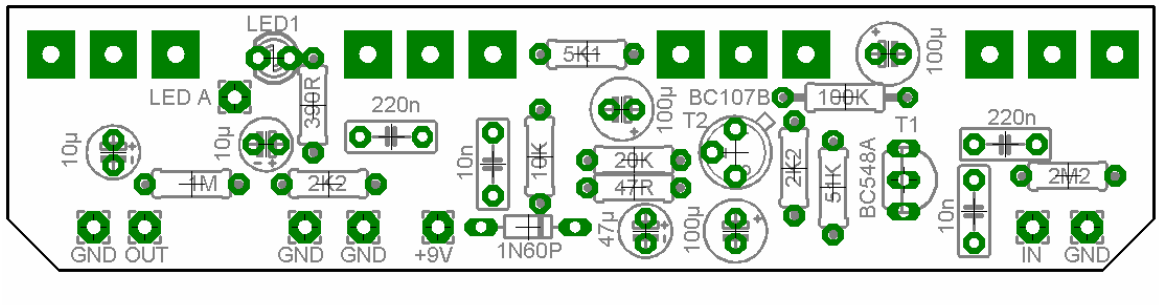
Materialliste

Quantity	Description
	Mechanical
1	PCB „Mammut“
1	Mono jack 6,35mm
1	Stereo jack 6,35mm
1	3PDT Switch
1	Pot 2K5-B (linear)
2	Pot 10K-B (linear)
1	Pot 500K-B (linear)
1	DC-Buchse isolated 5.5/2.1mm
1	Battery connector
1	Some coloured wire
2	Steel washer 10.5 mm
4	Steel washer 7.4 mm
	Dioden/ Transistoren
1	Diode 1N60P (cathode line)
1	NPN Transistor BC548A
1	NPN Transistor BC107B
1	LED red 3mm short leg cathode
	Resistors
1	Resistor 47R (yellow/violet/black/gold/brown)
1	Resistor 390R (oange/white/black/black/brown)
2	Resistor 2K2 (red/red/black/brown/brown)
1	Resistor 5K1 (green/brown/black/brown/brown)
1	Resistor 10K (brown/black/black/red/brown)
1	Resistor 20K (red/black/black/red/brown)
1	Resistor 51K (green/brown/black/red/brown)
1	Resistor 100K (brown/black/black/orange/brown)
1	Resistor 1M (brown/black/black/yellow/brown)
1	Resistor 2M2 (red/red/black/yellow/brown)
	Kondensatoren
2	Capacitor foil 10nF MKT
2	Capacitor foil 220nF MKT
2	Elektrolytic capacitor RASM 10µF/25 oder 35V
1	Elektrolytic capacitor RASM 47µF/16V
3	Elektrolytic capacitor RASM 100µF/16

Picture of the PCB

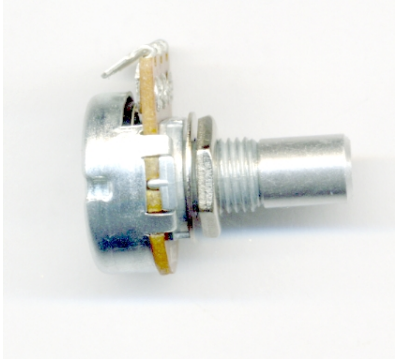


First, the printed circuit board is assembled by means of the placement schedule shown below. For this we should start with the lowest components to be fitted, ie as the first resistors, diodes, capacitors and transistors.



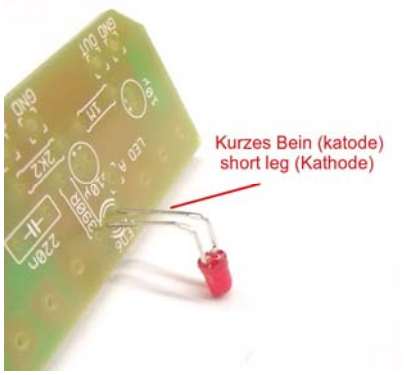
Clean work, especially the execution of the solder points should have top priority to generally exclude from the outset assembly and solder defects.

When the circuit board is finished, it is fitted to the assembly of the mechanical components in the enclosure and the external wiring. Given that enclosure is already prepared with all the holes. The potentiometer should be prepared before installation like this.

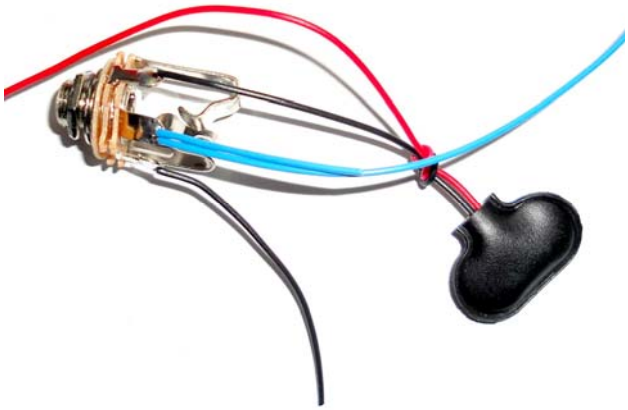


This is best done by horizontally, the solder lugs on a smooth surface and the pot then simply angling. The angle should be such that the circuit board is clamped therein. Once that is done, the pots are fitted with pulleys. The whole should then look like this afterwards, with the circuit board used.

After the pots are mounted, the DC jack, the switche and jacks comes in the enclosure. To the DC jack should be used before all wires are soldered to the board (red battery, red to the board, 1x blue (ground to the board), since one of the relatively poor to the board using solder to the jack comes.
The LED is bent before the use of the board and plugged into the assembled board, but not soldered. This happens only when the board is connected to the potentiometer.

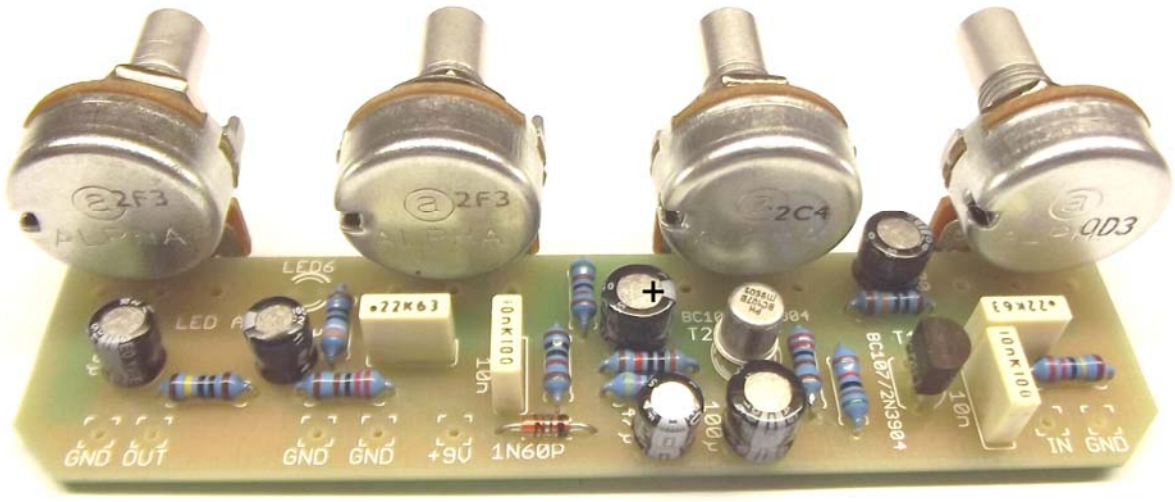


The input jack should be wired before that. (2 wires to ground (sleeve), ring → black wire from the battery clip and tip of a wire, which then goes to the switch.



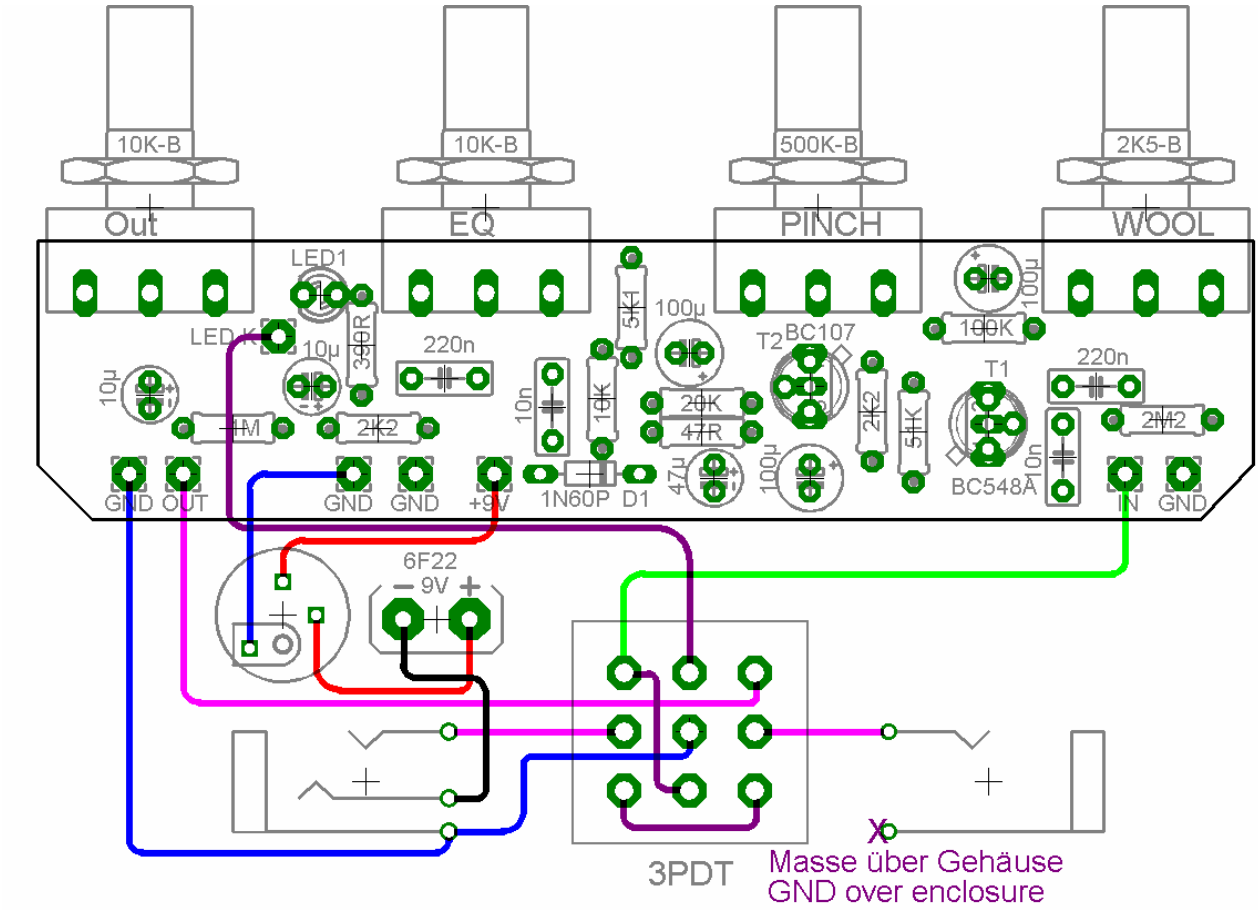
The wires from the battery clip you can cut the black and can then also take for Tip.
The connection switch → output jack makes it with a piece of wire.

If you take the board out, it would look like this.



The board is then added just a tight and solder the pins of the potentiometer to the solder pads.
The LED you can then plug into the provided hole and then solder on the board.

Wiring diagram

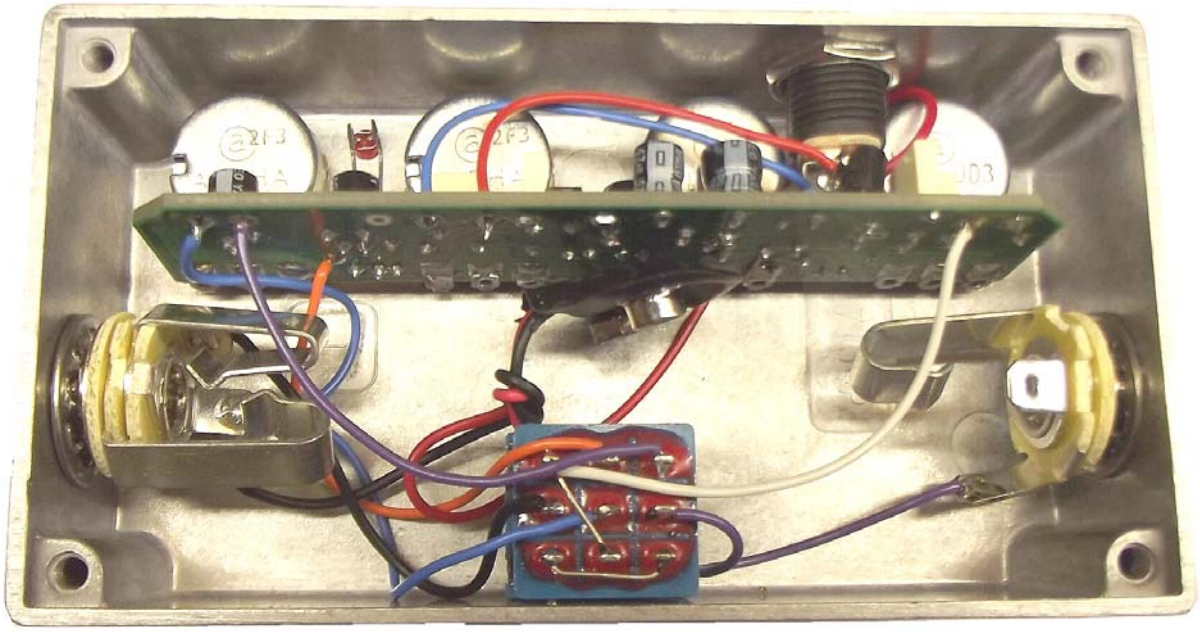


Notes to the mechanical structure:

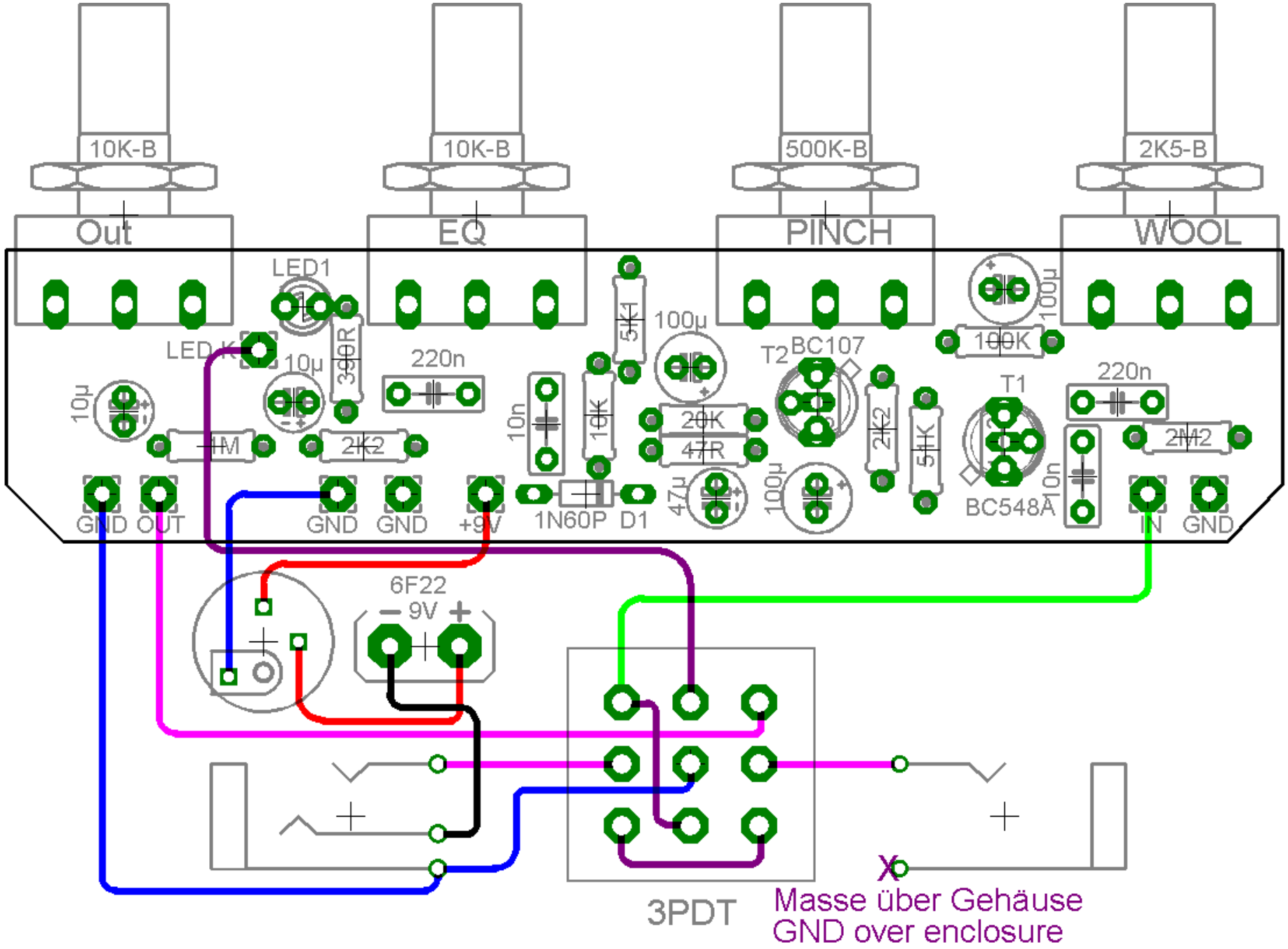
The small tabs at the potentiometers are easily broken off with pliers (see illustration on page 2). The 10.5mm steel washers are inferior to the jacks for that. 7.4 mm for potentiometer As Knobs which you should use with a maximum diameter of 20mm.

For self-drill:
Potentiometer: 7.5mm
Jacks: 9.3mm
3PDT switch: 12mm
DC jack: 12mm
LED: 3mm

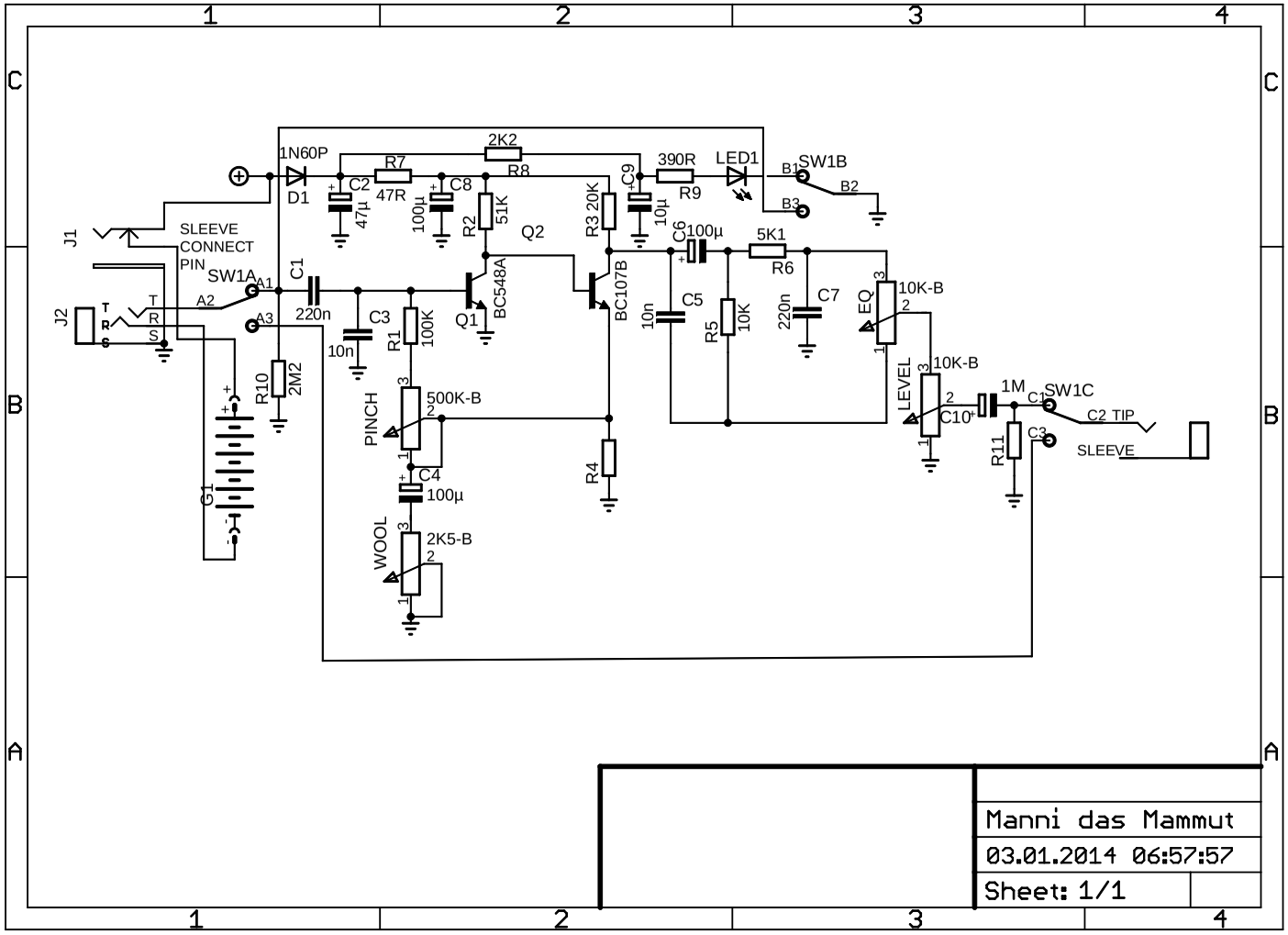
If clean up and properly wired, the effects device should work immediately. For any questions we are always available.



Who works with a battery that should insert a piece of cardboard for insulation, so no short circuit is generated on the board by the metal casing of the battery between the battery and circuit board.


10K-B
10K-B
500K-B
2K5-B
Out
EQ
PINCH
WOOL
LED1
LED K
10µ
390R
220n
5K1
100µ
100K
T2 BC107
T1
BC548A
220n
2M2
10µ
1M
2K2
10n
10K
20K
47R
47µ
100µ
2K2
5K1
10n
GND
OUT
GND
GND
+9V
1N60P
D1
IN
GND
6F22
9V
3PDT
Masse über Gehäuse
GND over enclosure


9V DC
Wool
Pinch
EQ
Level
OUT
Manni das Mammut
IN
Made in Germany


1
2
3
4
A
B
C
1N60P
D1
R7
47R
2K2
R8
C2
47µ
C8
100µ
R2
51K
Q2
R3 20K
C9
10µ
390R
R9
LED1
SW1B
B1
B2
B3
C6
100µ
5K1
R6
J1
SLEEVE
CONNECT
PIN
SW1A
A1
A2
A3
C1
220n
J2
T
R
S
C3
10n
R1
100K
Q1
BC548A
BC107B
C5
10n
R5
10K
C7
220n
EQ
10K-B
LEVEL
10K-B
C10
1M
C11
SW1C
C2 TIP
SLEEVE
C3
R11
R10
2M2
PINCH
500K-B
C4
100µ
WOOL
2K5-B
R4
G1
Manni das Mammut
03.01.2014 06:57:57
Sheet: 1/1