Build Lizard Kisses Overdrive

Soldering Workshop by Pedal Markt

April 13, 2025

1 BOM – Bill of Materials

BOM is a document that lists the parts you'd need to build a project. Each row corresponds to a component with a certain value, for example a 'ceramic capacitor with value 1nF.' There could be one or more actual physical part per each row, their designators are listed in the *Reference* column.

You could experiment with some of the parts that have a drastic effect on the sound of the pedal. For those parts the BOM suggests using sockets. Possible components that could go into those sockets are listed later in the section.

Table 1: BOM

	Ref	Value	Qnty	Description
Main board, floor side				
	GND	Wire	2	$\approx 10cm$, strip and pre-tin both ends
	IN	Wire	1	$\approx 10cm$, strip and pre-tin both ends
	OUT	Wire	1	$\approx 10cm$, strip and pre-tin both ends
	D2	1N4148	1	Diode
	R7	4.7k	1	Resistor
	R1	1k	1	Resistor for the LED
	R12	1k	1	Resistor
	R13	20k	1	Resistor
	R6, R10	2.2k	2	Resistor
	R2, R5, R8	1M	3	Resistor
	R3, R4, R9, R11, R14, R15, R16	10k	7	Resistor
	C6, C7	2-pin socket	2	For capacitor
	Diode Pairs	4-pin socket	4	For clipping diodes
	Q1	TP0606	1	P-channel MOSFET
	Q5	2N3906	1	PNP transistor
	Q2, Q3, Q4, Q6	2N3904	4	NPN transistor
	C5, C8	47p	2	Ceramic capacitor
	C3	47n	1	Film capacitor
	C9	100n	1	Film capacitor
	–	Power Socket	1	2-pin JST on the bottom-left of the board
	C4, C10, C11	1u	3	Film capacitor
	C1	100u	1	Electrolytic capacitor
	C2	47u	1	Electrolytic capacitor
Outboard				
	–	DC Jack	1	Mount and wire up the DC jack
	–	Audio Jack	2	Wire up audio jacks
Main board, player side				
	–	Ribbon cable	1	On the bottom-center of the board
	VOL, GAIN	A100k	2	Potentiometers
	BRIGHT	On-On	1	Switch
	CLIP	On-Off-On	1	Switch
	–	LED	1	
Switch board, player side				
	–	Footswitch	1	Switch

1.1 Note on values

Different kits and schematics designate values differently. For example, these usually mean the same value:
$2.2\,\mathrm{k\Omega} = 2.2k = 2k2 = 2.2 \times 10^3 Ohm = 2200 Ohm$
$4.7\,\mu\mathrm{F} = 4.7u = 4u7 = 4.7 \times 10^{-6} Farad = 0.0000047 Farad$

Table 2: Component values

Value	Multiplier	Unit
Resistance		
100 Ω, 100R, 100	1	Ohm
1 kΩ, 1k	10^3	Ohm
1 MΩ, 1M	10^6	Ohm
Capacitance		
1 pF, 1p	10^{-12}	Farad
1 nF, 1n	10^{-9}	Farad
1 µF, 1u	10^{-6}	Farad