

N.E.W. – Bass Overdrive Build guide

The N.E.W. Bass Overdrive is a high-gain bass dirt box inspired by the Boss ODB-3, but with the addition of a switchable frequency mid-control, fixed EQ bypass, clipping selector, and clean blend.

This guide is intended for people who have some experience building pedals. Component sourcing, component identification, assembly techniques, wiring stomp switches, etc. is not covered. The GCI Brutalist Jr. assembly guide has helpful information for less experienced builders. That guide can be found here: <http://www.kurtballou.com/brutalistjr/>

Don't forget to connect the ground pad of the PCB to the ground lug of the input, output, and DC power jacks!

Due to the scope of this project, technical support is not available. However, consider joining the GCI DIY PCB Builders group on Facebook to get advice from and share your work with other builders. We require that all group members agree to the rules before being accepted into the group. <https://www.facebook.com/groups/2454786551255317/>

Component values for the PCB as well as some alternate values are listed below. This is a BOM for the PCB only. Resistors and diodes are 6.3mm leg spacing, film and ceramic capacitors are 5.08mm leg spacing, and electrolytic capacitors are 2.54mm leg spacing. I/O jacks, DC jack, switches, enclosure, and knobs are not listed. The schematic and a drill template for a 125BB (1590BBM) sized enclosure are also attached.

Part	Value	Device	Package	Description
R1	10M	6MM.3	R0207/3	6mm Resistors
R2	10k	6MM.3	R0207/3	6mm Resistors
R3	1M	6MM.3	R0207/3	6mm Resistors
R4	2.2k	6MM.3	R0207/3	6mm Resistors
R5	4.7k	6MM.3	R0207/3	6mm Resistors
R6	4.7k	6MM.3	R0207/3	6mm Resistors
R7	2.2k	6MM.3	R0207/3	6mm Resistors
R8	2.2k	6MM.3	R0207/3	6mm Resistors
R9	2.2k	6MM.3	R0207/3	6mm Resistors
R10	4.7k	6MM.3	R0207/3	6mm Resistors
R11	4.7k	6MM.3	R0207/3	6mm Resistors
R12	33k	6MM.3	R0207/3	6mm Resistors
R13	1.5k	6MM.3	R0207/3	6mm Resistors
R14	820R	6MM.3	R0207/3	6mm Resistors
R15	3.3k	6MM.3	R0207/3	6mm Resistors
R16	68k	6MM.3	R0207/3	6mm Resistors
R17	47k	6MM.3	R0207/3	6mm Resistors
R18	4.7k	6MM.3	R0207/3	6mm Resistors
R19	4.7k	6MM.3	R0207/3	6mm Resistors
R20	1M	6MM.3	R0207/3	6mm Resistors
R24	100k	6MM.3	R0207/3	6mm Resistors
R26	100k	6MM.3	R0207/3	6mm Resistors
R28	470R	6MM.3	R0207/3	6mm Resistors
R30	3.3k	6MM.3	R0207/3	6mm Resistors
R31	10k	6MM.3	R0207/3	6mm Resistors
R32	2.2k	6MM.3	R0207/3	6mm Resistors
R33	10k	6MM.3	R0207/3	6mm Resistors
R34	100R	6MM.3	R0207/3	6mm Resistors
R37	10k	6MM.3	R0207/3	6mm Resistors
R38	10k	6MM.3	R0207/3	6mm Resistors
R39	10k	6MM.3	R0207/3	6mm Resistors
D1	1n4148	DO35.3	DO35-3	DO-35 Package
D2	1n4148	DO35.3	DO35-3	DO-35 Package
D3	LED3MM	LED3MM	LED3MM	LED3MM
D4	LED3MM	LED3MM	LED3MM	LED3MM
C1	22n	072X0252	072X025	1000pF - 0.47uF
C2	1n	072X0252	072X025	1000pF - 0.47uF
C3	10u	501	050_020_1	0.22 - 100uF
C4	1n	072X0252	072X025	1000pF - 0.47uF
C5	100n	072X0252	072X025	1000pF - 0.47uF
C6	1n	072X0252	072X025	1000pF - 0.47uF
C7	1u	072X0252	072X025	1000pF - 0.47uF
C8	10p	072X0252	072X025	1000pF - 0.47uF
C9	2.2u	072X0252	072X025	1000pF - 0.47uF

C10	220n	072X0252	072X025	1000pF - 0.47uF
C11	33n	072X0252	072X025	1000pF - 0.47uF
C12	100n	072X0252	072X025	1000pF - 0.47uF
C13	33n	072X0252	072X025	1000pF - 0.47uF
C14	10n	072X0252	072X025	1000pF - 0.47uF
C15	47n	072X0252	072X025	1000pF - 0.47uF
C16	6.8n	072X0252	072X025	1000pF - 0.47uF
C17	4.7n	072X0252	072X025	1000pF - 0.47uF
C18	15n	072X0252	072X025	1000pF - 0.47uF
C19	15n	072X0252	072X025	1000pF - 0.47uF
C20	68n	072X0252	072X025	1000pF - 0.47uF
C21	150n	072X0252	072X025	1000pF - 0.47uF
C22	22n	072X0252	072X025	1000pF - 0.47uF
C23	100p	072X0252	072X025	1000pF - 0.47uF
C24	1u	072X0352	072X035	0.15 - 1.0uF;
C25	100u	501	050_020_1	0.22 - 100uF
C26	100u	501	050_020_1	0.22 - 100uF
OD_GAIN	250kA	POT16MM	16MM	Potentiometers
CLEAN_GAIN	250kA	POT16MM	16MM	Potentiometers
FILTER	100kA	POT16MM	16MM	Potentiometers
BLD	1MB	POT16MM	16MM	Potentiometers
HIGH	50kB	POT16MM	16MM	Potentiometers
LOW	50kB	POT16MM	16MM	Potentiometers
MID	50kB	POT16MM	16MM	Potentiometers
VOL	100kA	POT16MM	16MM	Potentiometers
MIDS	TOGGLE SWITCH	DPDTTAWAY1MD	DPDT	TOGGLE SWITCH
CLIP	TOGGLE SWITCH	SPDTPIN_MOUNT	SPDT	TOGGLE SWITCH
BYP	TOGGLE SWITCH	SPDTPIN_MOUNT	SPDT	TOGGLE SWITCH
IC1	TL072P	TL072P	DIL08	OP AMP
IC2	TL072P	TL072P	DIL08	OP AMP
IC3	TL072P	TL072P	DIL08	OP AMP
Q1	2N5457	2N5457	TO92-	N-CHANNEL JFET
Q2	2N5457	2N5457	TO92-	N-CHANNEL JFET
Q3	2N3906	2N3906	TO92-	PNP Transistor
Q4	2N5457	2N5457	TO92-	N-CHANNEL JFET
Q5	2N5457	2N5457	TO92-	N-CHANNEL JFET
Q6	2N3906	2N3906	TO92-	PNP Transistor
V	9V input	PAD	SQUARE	PAD
G	ground	PAD	SQUARE	PAD
I	in	PAD	SQUARE	PAD
L+	LED +	PAD	SQUARE	PAD
L-	LED -	PAD	SQUARE	PAD
O	out	PAD	SQUARE	PAD



