

## N.E.W. – 6 Knob Compressor Build guide

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The N.E.W. 6 Knob Compressor is an OTA-based compressor which provides a wide range of adjustability to the compression characteristics. Be advised that the LM3080N OTA (Operational Transconductance Amplifier) is not currently in production and may be difficult to source.

This pedal is an easy build, but 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, switch, enclosure, and knobs are not listed. The schematic and a drill template for a 125B (1590N1) sized enclosure are also attached.

<b>Part</b>	<b>Value</b>	<b>Device</b>	<b>Package</b>	<b>Description</b>
R1	10M	6MM.3	R0207/3	6mm Resistors
R2	4.7k	6MM.3	R0207/3	6mm Resistors
R3	100k	6MM.3	R0207/3	6mm Resistors
R4	100R	6MM.3	R0207/3	6mm Resistors
R5	10k	6MM.3	R0207/3	6mm Resistors
R6	1k	6MM.3	R0207/3	6mm Resistors
R7	10k	6MM.3	R0207/3	6mm Resistors
R9	10k	6MM.3	R0207/3	6mm Resistors
R10	1k	6MM.3	R0207/3	6mm Resistors
R11	220R	6MM.3	R0207/3	6mm Resistors
R12	1M	6MM.3	R0207/3	6mm Resistors
R13	1k	6MM.3	R0207/3	6mm Resistors
R14	390R	6MM.3	R0207/3	6mm Resistors
R15	150R	6MM.3	R0207/3	6mm Resistors
R16	1k	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	1n4148	DO35.3	DO35-3	DO-35 Package
C1	100n	072X0252	072X025	1000pF - 0.47uF
C2	100p	072X0252	072X025	1000pF - 0.47uF
C3	1u	072X0352	072X035	0.15 - 1.0uF;
C4	1u	072X0352	072X035	0.15 - 1.0uF;
C5	1u	072X0352	072X035	0.15 - 1.0uF;
C6	100u	501	050_020_1	0.22 - 100uF
IC1	TL072P	TL072P	DIL08	OP AMP
IC2	LM3080N	LM3080N	DIL08	OP AMP
IC3	TL072P	TL072P	DIL08	OP AMP
REG1	LM317	LM317STANDING	TO220-STANDING	Regulator
Q1	2N3906-	2N3906-	TO92-	PNP Transistor
RATIO	1MA	POT16MM	16MM	Potentiometers
ATTACK	100kB	POT16MM	16MM	Potentiometers
RELEASE	1MB	POT16MM	16MM	Potentiometers
THRESHOLD	1MB	POT16MM	16MM	Potentiometers
GAIN	100kA	POT16MM	16MM	Potentiometers
VOLUME	100kA	POT16MM	16MM	Potentiometers
V		PAD	SQUARE	PAD
G		PAD	SQUARE	PAD
I		PAD	SQUARE	PAD
L+		PAD	SQUARE	PAD
L-		PAD	SQUARE	PAD
O		PAD	SQUARE	PAD



