

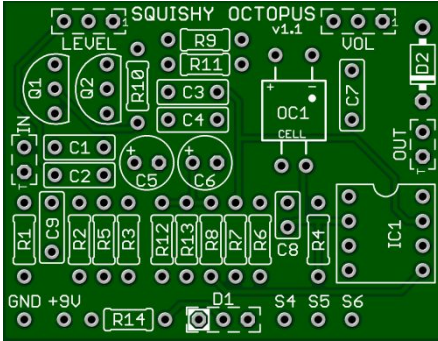
GuitarPCB.com

Squishy Octopus Build Instructions

This is based on the DOD® 280™ style circuit. A classic compressor for Guitar or Bass. Noted for both transparency and Squish.

Note: If you are a user of high output or active pickups this may not be the compressor for you. This project is a vintage design for vintage to normal wound pickups.

New Version 1.1 - circuit board, note the addition of C8 and C9.



Board Dimensions (W x H) 1.82 x 1.4 inches.

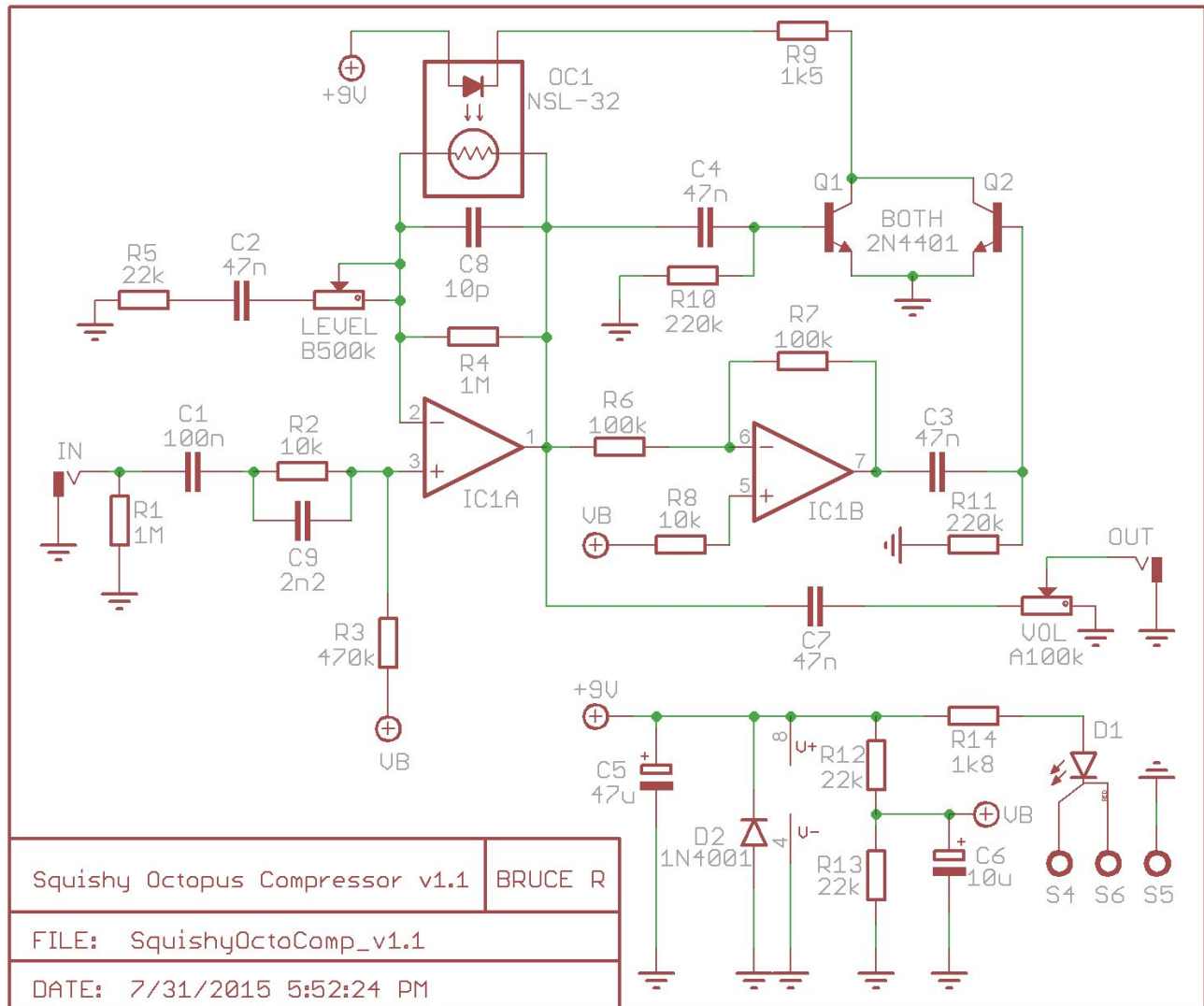
PARTS LIST

Part	Value	Part	Value	Part	Value	Part	Value
R1	1M*	R9	1k5	C3	47n	D1	BiColor LED CA
R2	10k	R10	220k	C4	47n	D2	1N4001
R3	470k	R11	220k	C5	47u	IC1	*TL072
R4	1M	R12	22k	C6	10u	Q1	2N4401
R5	22k	R13	22k	C7	47n	Q2	2N4401
R6	100k	R14	1k8	C8	*10p	VOL	A100k
R7	100k	C1	10n	C9	220n	LEVEL	B500k
R8	10k	C2	47n	OC1	NSL-32		

Build Tips

- R1 is a tie-down resistor. A 1M, 2M, or 2M2 will have the exact same effect. Use what you have.
- When wiring the potentiometers keep wiring short as possible and do not twist the wire together.
- Keep power wires away from audio wires inside your enclosure.
- **Use only the NSL-32** and not any variant. Check Datasheets.
- The Level Control is also known as the Comp control adding compression. Please read entire build document!
- Turning both potentiometers to 10 in a compressor can cause noise. This is normal. [See this Link](#).
- For more headroom you may use a 12v. We still prefer 9v as you do not want to overload other circuits or amp.

SCHEMATIC

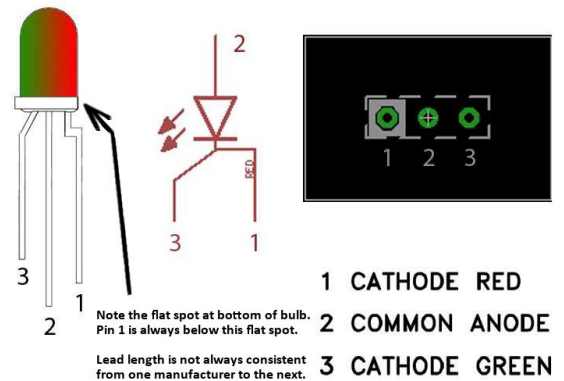


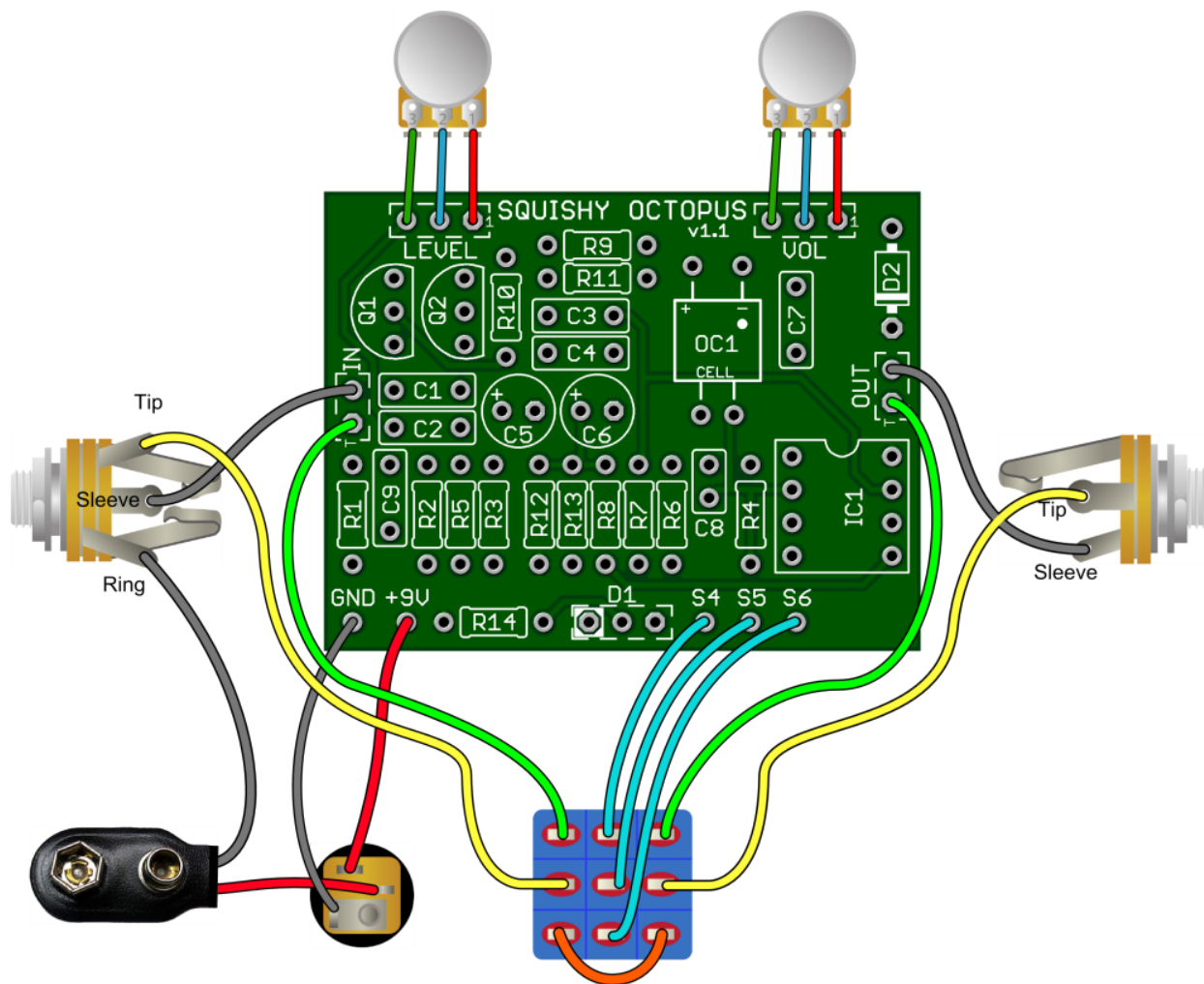
STATUS LED

D1 is a common anode bi-color LED. The diagram at right shows the pin-out, schematic symbol and pad connection for a common anode LED. The pin-out for the bi-color LED is typically (but not always) as follows:

The lead 1 pad on the circuit board is marked with a white box.

When connected correctly, the LED will light red when power is applied and the circuit is in bypass mode. The LED will light green when in effects mode. If you wish to use a standard LED, connect the anode to the middle pad and the cathode to the right pad to show the circuit in effects mode. If you use a 3PDT wiring board that includes an LED, you can omit this LED and R14. *R14 is the LED's Current Limiting Resistor (CLR). If you use a different LED, you may want to change this value to adjust LED brightness.





In the wiring diagram above, you notice that the sleeve of each jack is connected to a ground pad on the board next to the input pad or output pad. It does not matter to which ground pad each jack is connected, as long as the sleeve is connected to ground. The pad marked "T" is the input or output, and the adjacent pad is ground.

Adjusting the Squishy Octopus to suit your rig:

*While new version 1.1 should address any crackling noise with higher output pickups or bass, if you experience a problem refer below.

Here is a basic article by Guru [Craig Anderton](#)

<http://www.harmonycentral.com/articles/whats-the-optimum-guitar-pickup-height>

From this article Craig states:

"The reduced transient response caused by the pickups being further away from the strings is helpful when feeding compressors, as large transients tend to "grab" the gain control mechanism to turn the signal down, which can create a "pop" as the compression kicks in. With the pickups further away, the compressor action is smoother. So the end result is that if you've set your pickups close to the strings, try increasing the distance. You might find this gives you an overall more consistent sound, as well as better sustain."

If that does not help, run it at 12v use a Burr Brown OPA2134 chip. (Be sure Caps are rated at 25v Minimum.) If you have version 1 of the board and experience crackle this will likely help.

