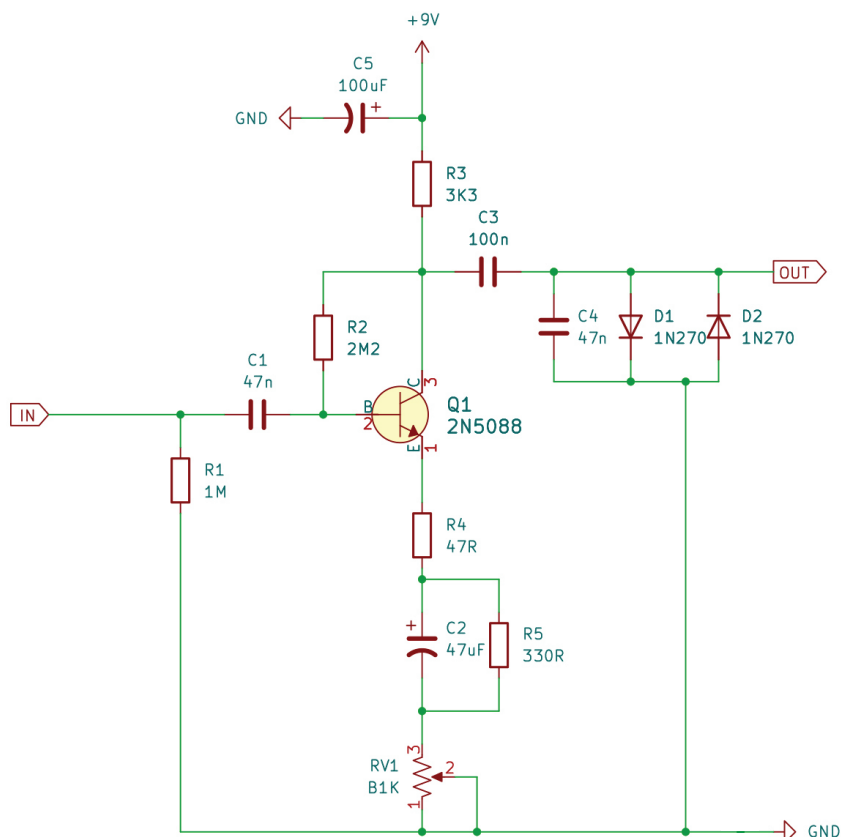


Cat-50 (v1.0) Build Guide

The Cat-50 circuit is based on the Lovepedal Church of Tone 50 overdrive pedal, which aims to recreate late-60's Plexi tube amp tones. It's a low-to-medium overdrive/boost that won't overly color your guitar's tone or add compression, and it works very well for stacking with another overdrive, or in front of a tube amp set for edge of breakup.

The low-parts count and single bias control make this a great one-knob boost pedal for tone purists, allowing you to get a wide variety of tones by using the volume control on your guitar.

Resistors

R1	1M
R2	2M2
R3	3K3
R4	47R
R5	330R
R6	CLR*

Diodes

D1	1N270 **
D2	1N270 **
D3	LED
D4	1N4001

Capacitors

C1	47n	FILM
C2	47uF	ELECTRO
C3	100n	FILM
C4	47n	FILM
C5	100uF	ELECTRO

Potentiometers

BIAS	B1K	16MM
------	-----	------

Transistors

Q1	2N5088
----	--------

* CLR = Current Limiting Resistor for the LED. 1k - 4.7k depending on desired brightness. (lower resistor value = brighter).

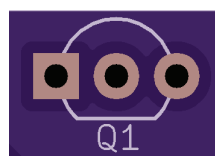


Build Notes:

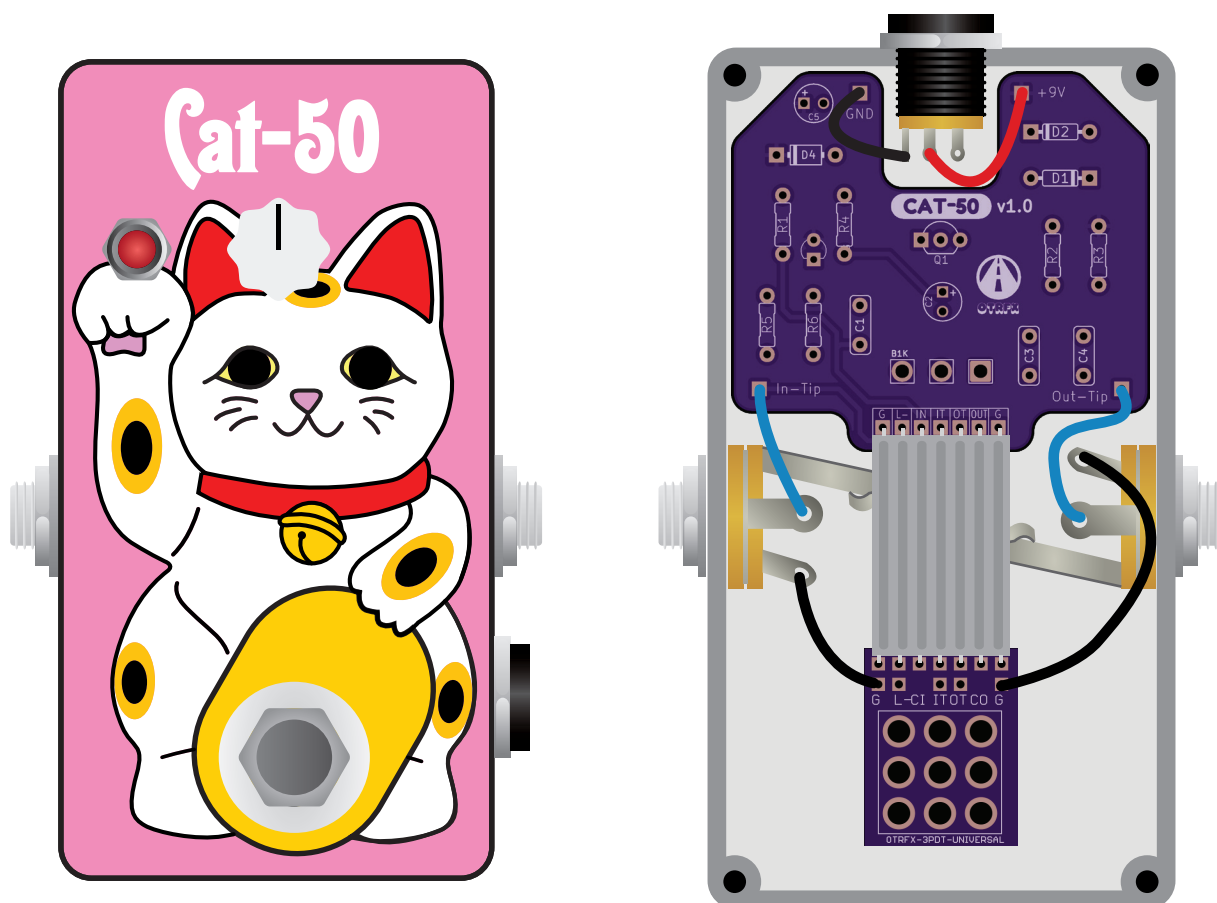
** The clipping diodes (D1 & D2) can be experimented with. Try 1N34A, Bat41, 1N60, 1N914, LEDs, etc. Sockets might be your friends in these spots.

Transistor swaps are another way to experiment. Most any high-gain NPN type can be substituted, just be sure to check the pinouts.

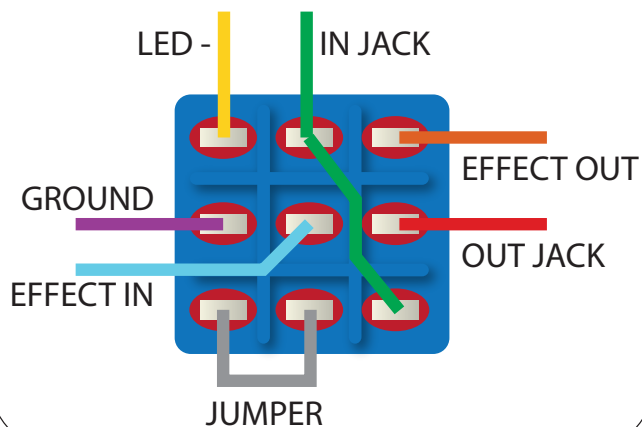
The PCB is notched-out to accomodate a top-mounted DC Jack, or you can install the DC Jack on the side, if you prefer.



Cat-50 (v1.0) Build Guide



True Bypass Wiring



Cat-50 (v1.0) Build Guide

GENERAL INSTRUCTION STEPS:

Important: do the assembly in the following order to avoid unnecessary hardship!

1. Install/solder all resistors & diodes that lay flat on the PCB.
2. Install/solder any sockets (for IC's, diodes, resistors.. anywhere you might want to change a part, value or type).
3. Install/solder any DIP switches (if any).
4. Install/solder all capacitors & transistors.
5. Install/solder ribbon cable connector and/or any other wiring on the PCB which go to the jacks/stomp switch.
6. Install/solder PCB mounted pots & LED
(**Important:** use pot dust caps or some other non-conductive material to keep back of pots from touching the back of the pcb)
7. Attach/solder wiring to the jacks & stomp switch.



TIPS:

- Check to make sure your wiring is complete before firing up the pedal for the first time, especially the 9V & ground wiring.
- Snip your component leads short after soldering. Your solder joints should look like shiny little Hershey's Kisses when finished.
- Socket anything you might want to change, or anything that would be very difficult to remove if faulty (IC's/transistors).

RESOURCES:

Parts Ordering:

Tayda Electronics
Mouser
Love My Switches
Small Bear Electronics

Website:

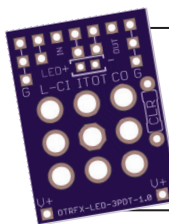
taydaelectronics.com
mouser.com
lovemyswitches.com
smallbear-electronics.mybigcommerce.com

Specialties:

resistors, capacitors, diodes, sockets, LEDs, pots, knobs
resistors, capacitors, IC's
switches, knobs, enclosures, pre-wired LEDs
hardware, knobs, rare and vintage diodes, transistors & IC's



PEDAL BUILDER'S VECTOR PACK
Plan, design, test-fit, & print your DIY pedals with ease!
Visit ontheroadeffects.com



HATE WIRING STOMPSWITCHES?
Stock up on our handy 3PDT wiring boards!
Visit ontheroadeffects.com

Cat-50 (v1.0) Build Guide

Drilling Template

1590B Enclosure

