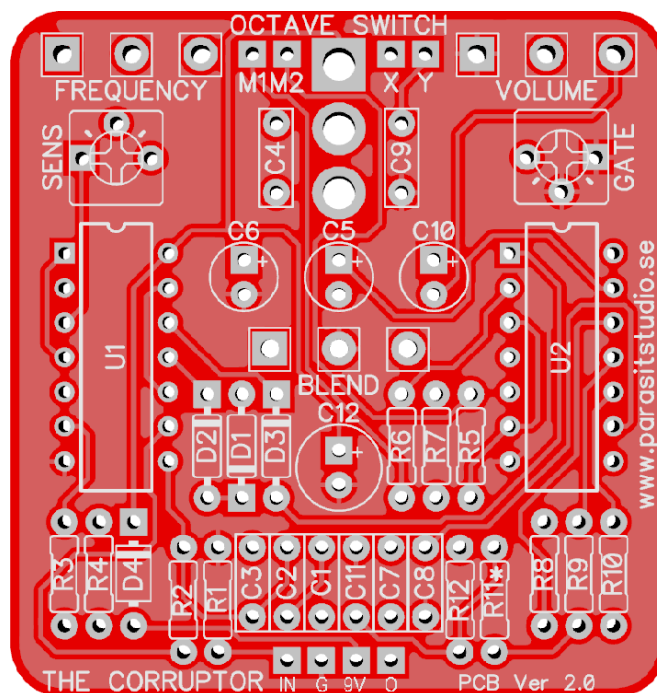


# THE CORRUPTOR

**Build Document last updated february 2017**  
for PCB version 2.0

The Corruptor is a brutal sounding and glitchy CMOS-based octave up fuzz and ring modulator. It turns your guitar signal into a square wave and modulates it against an internal oscillator. The ring modulated sound can be blended with the square wave fuzz that can be either straight fuzz or one octave up for extra insanity.

This circuit works best with high output pickups. It is a gated circuit by nature of the CMOS logic. If you are using single coils and need more sustain, try a boost or compressor in front. Happy playing!



*The Corruptor 2.0 PCB*

## **Changelog version 2.0**

- PCB redesigned for a better look.
- Optimized circuit:
  - One extra gainstage added for better sustain.
  - Schmitt trigger threshold trimmer added.
- Blend pot added between ringmod and square wave fuzz.
- Octave switch added for an octave up effect of the fuzz side.
- Modboard connections added for an optional daughterboard connection, to modulate the ring mod carrier frequency.
- PCB designed for two different builds: full build or minimalist build.

## **General builds tips**

- Solder the low profile components first, from short to tall. Recommended order: resistors, diodes, IC socket, film-caps, electrolytics, pots.
- CMOS chips are very sensitive to static charges and can be easily damaged. It's a good idea to wear an anti-static wristband or at least avoid wearing a wool jumper and petting your cat/dog while building...
- Always use sockets for IC chips and transistors to avoid heating them directly. It also makes it much easier to swap them out if needed.
- Pay special attention to the orientation of the diodes and electrolytics.
- This PCB is designed for board mounted angled pots, but if you want to use regular solderlug-pots, the square holes represents pin 1 of the pot.

## The Corruptor Bill of Materials (BOM)

Capacitors		Resistors		IC's	
C1	100nF	R1	1M	IC1	CD4069UBE
C2	2.2nF	R2	1M	IC2	CD4070BE
C3	100nF	R3	1M	<b>Potentiometers</b>	
C4	2.2nF	R4	1M		
C5	2.2uF	R5	10K	FREQUENCY	B50K
C6	1uF	R6	10K	VOLUME	B100K
C7	47nF	R7	10K	BLEND	B50K
C8	100nF	R8	220K	Sens (trimmer)	500K
C9	10nF	R9	100K	Gate (trimmer)	100K
C10	2.2uF	R10	100K	<b>Switch</b>	
C11	1nF	R11*	47K		
C12	100uF	R12	47K	Octave	SPDT on/on
<b>Diodes</b>		CLR**	4.7K-22K		
D1	1N4148				
D2	1N4148				
D3	1N4148				
D4	1N4001				
1x LED					

- The "sens" trimmer sets the input sensitivity, from very noisy when just touching the strings to more gated and controlled. Adjust to taste and to suit your guitar output.
- The "gate" trimmer sets the releasetime for the oscillator gate.
- \* = Don't include this resistor if you are building the minimalist build. More info on the next page.
- \*\* = Current Limiting Resistor for the bypass LED. It has to be wired offboard together with your LED. Use the appropriate value for your LED type. I recommend using a 4.7K resistor for a diffused LED or a 15K resistor for a clear superbright LED.
- **Not included in the BOM but good to have: enclosure, input and output jacks, DC jack, LED bezel, 3PDT switch, knobs.**

### Wiring

For more info on how to wire up the stomp switch, jacks ect, please visit the Parasit Studio website and download the PDF called "offboard wiring". You can find it here:

<http://www.parasitstudio.se/build-docs.html>

## Build Options

The Corruptor 2.0 can be built in two different versions depending on if you want to full featured version or a more minimalistic build.

### Full build

Includes the blend pot and the octave switch for both ring-mod sounds and octave fuzz.

- Include everything! :)
- Ignore the Y and X pads.

### Minimalist build

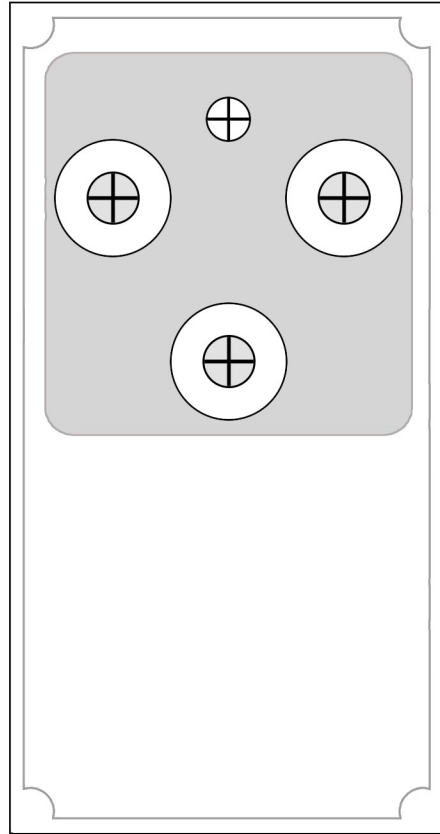
100% ringmod sounds, just like the Corruptor 1.0  
Omits the blend pot and the octave switch.

- Don't include the blend pot and the octave switch
- Put a link between the Y and the X pad.
- **Omit R11 (just leave it out – don't put a link there)**

### Possible mod

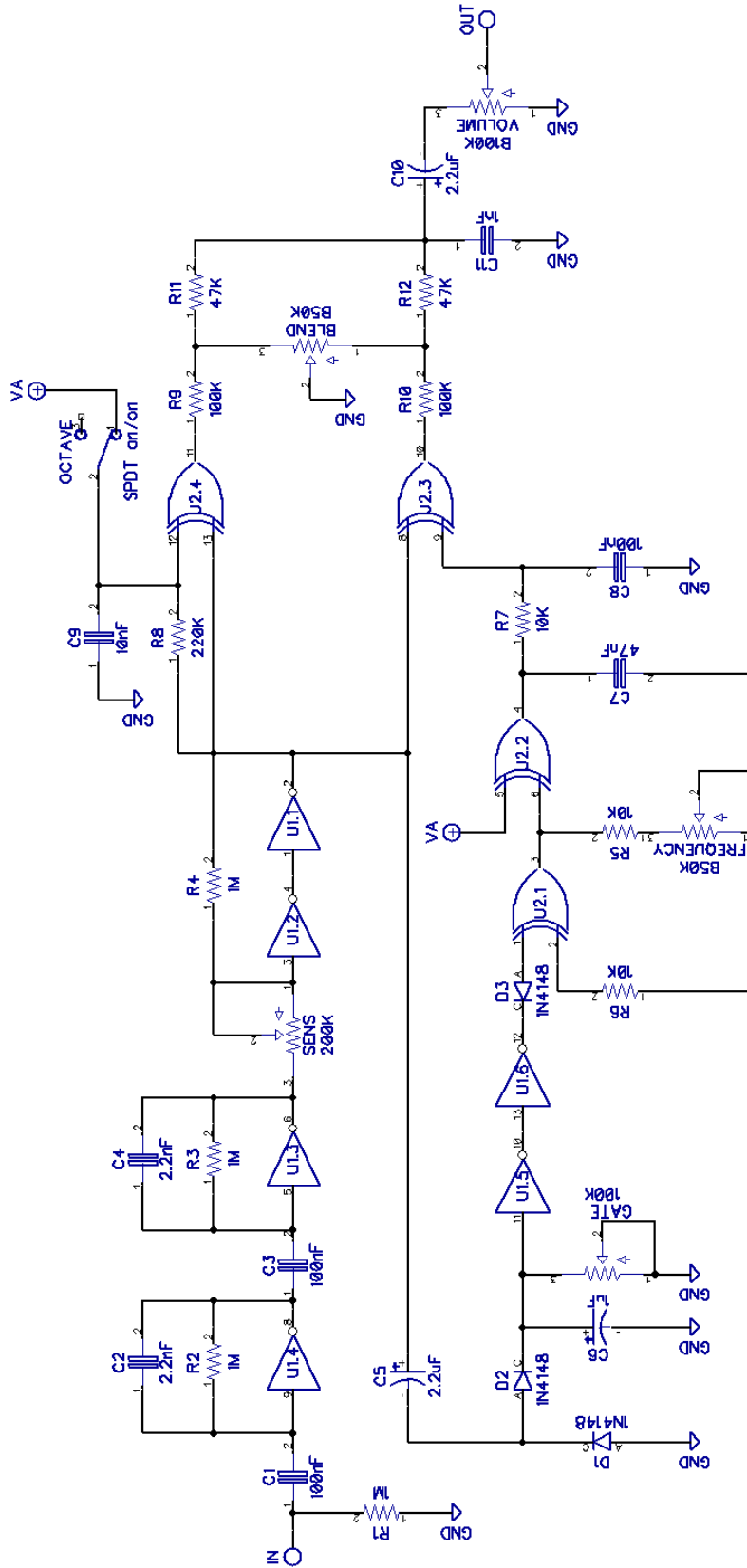
You can use the Modboard daughterboard hooked up to M1/M2 to modulate the ring mod carrier frequency.

## Drilling Template (1590B)



- Use at your own risk! This template is approximate.
- Make sure your printer isn't doing any scaling / is set to 100% print size.
- Drill footswitch, DC jack and input/output jacks to your own preference.
- **Measure and confirm before drilling!**

# Schematic



Note: DC-filtering and polarity protection not shown

## **Troubleshooting**

There's always a chance of running into trouble. To minimize error, follow the BOM and general building tips carefully. Take your time and don't rush. Take a break now and then. Use good solder, and it helps to have a decent soldering station instead of a cheap iron.

If you are still having trouble, please visit the madbean forum Parasit Studio subforum section and ask for help there.

<http://www.madbeanpedals.com/forum/index.php?board=84.0>

If you have bought the Musikding kit and have received a faulty or missing component, please contact musikding directly.

<https://www.musikding.de/kontakt.php?lang=eng>

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