

# AFTERLIFE

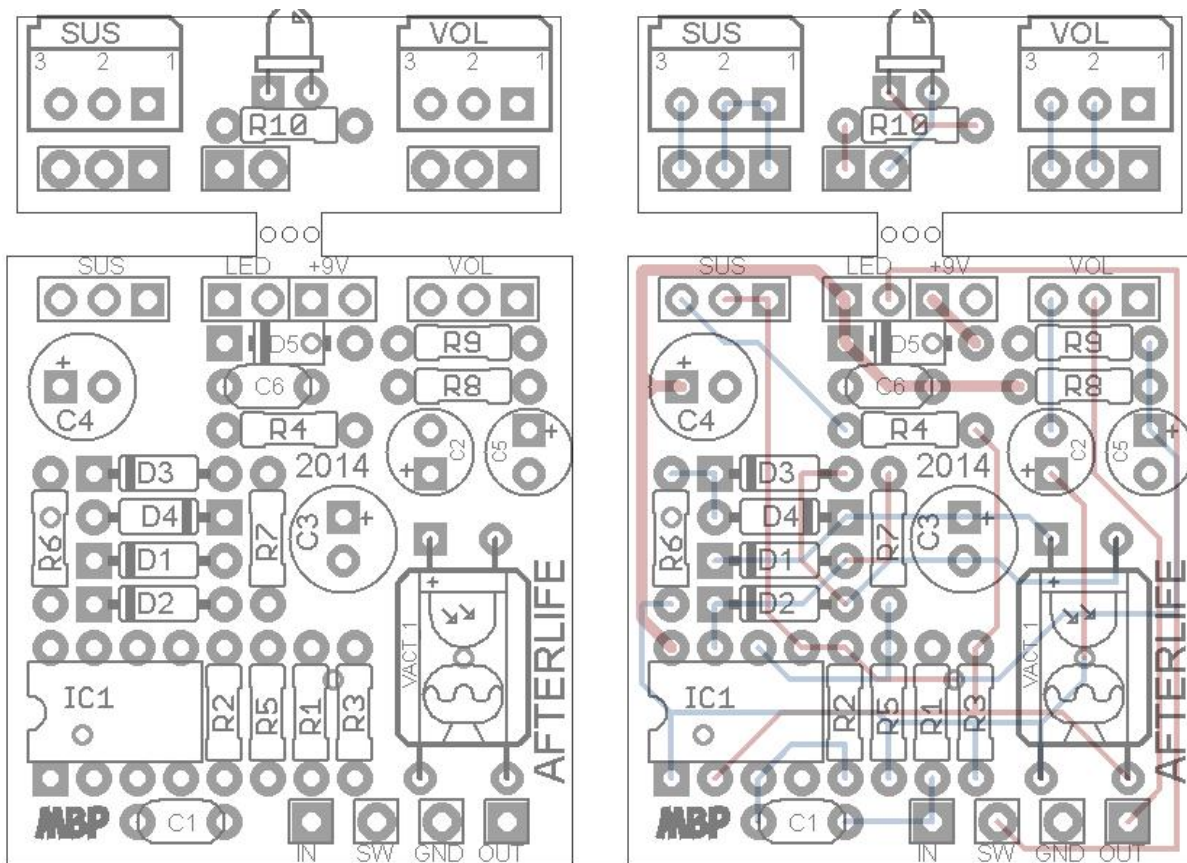
**FX TYPE: Compressor**

Based on the John Hollis Flatline

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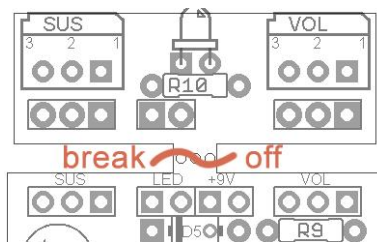
2014 changes: New layout, swapped 1N4001 for 1N5817 polarity protection.

**1.3" W x 1.4" H (main board)**



The extra small pads on the PCB are vias. You do not need to do anything with them.

Before you start populating, be sure to separate the two boards. The main PCB is for components and the daughter PCB is for the 9mm pots. The LED indicator is also mounted directly to the daughter PCB.



Use an Xacto knife to cut away the excess PCB material, if desired.

**Terms of Use:** You are free to use purchased **Afterlife** circuit boards for both DIY and small commercial operations. You may not offer **Afterlife** PCBs for resale or as part of a "kit" in a commercial fashion. Peer to peer re-sale is, of course, okay.

Resistors		B.O.M. Caps		Diodes	
R1	10M	C1	1n	D1 - D4	GE
R2	10M	C2	1uF	D5	1N5817
R3	220k	C3	100uF	IC	
R4	10k	C4	100uF	IC1	TL072
R5	10k	C5	10uF	Vactrol	
R6	330R	C6	100n	VACT_1	VTL5C3
R7	47k			Pots	
R8	10k			SUS	100kA
R9	10k			VOL	100kA
R10	4k7				

Shopping List			
Value	QTY	Type	Rating
330R	1	Metal or Carbon Film	1/4 W
4k7	1	Metal or Carbon Film	1/4 W
10k	4	Metal or Carbon Film	1/4 W
47k	1	Metal or Carbon Film	1/4 W
220k	1	Metal or Carbon Film	1/4 W
10M	2	Metal or Carbon Film	1/4 W
1n	1	Film	16v
100n	1	Film	16v
1uF	1	Electrolytic or Tantalum	16v
10uF	1	Electrolytic or Tantalum	16v
100uF	2	Electrolytic	16v
1n270	4	or, 1n34a	
1N5817	1		
TL072	1	DIP	
VTL5C3	1	or, Macron1210CLF-R	
100kA	2	9mm Alpha	

VTL5C3: <http://www.smallbearelec.com/servlet/Detail?no=347>

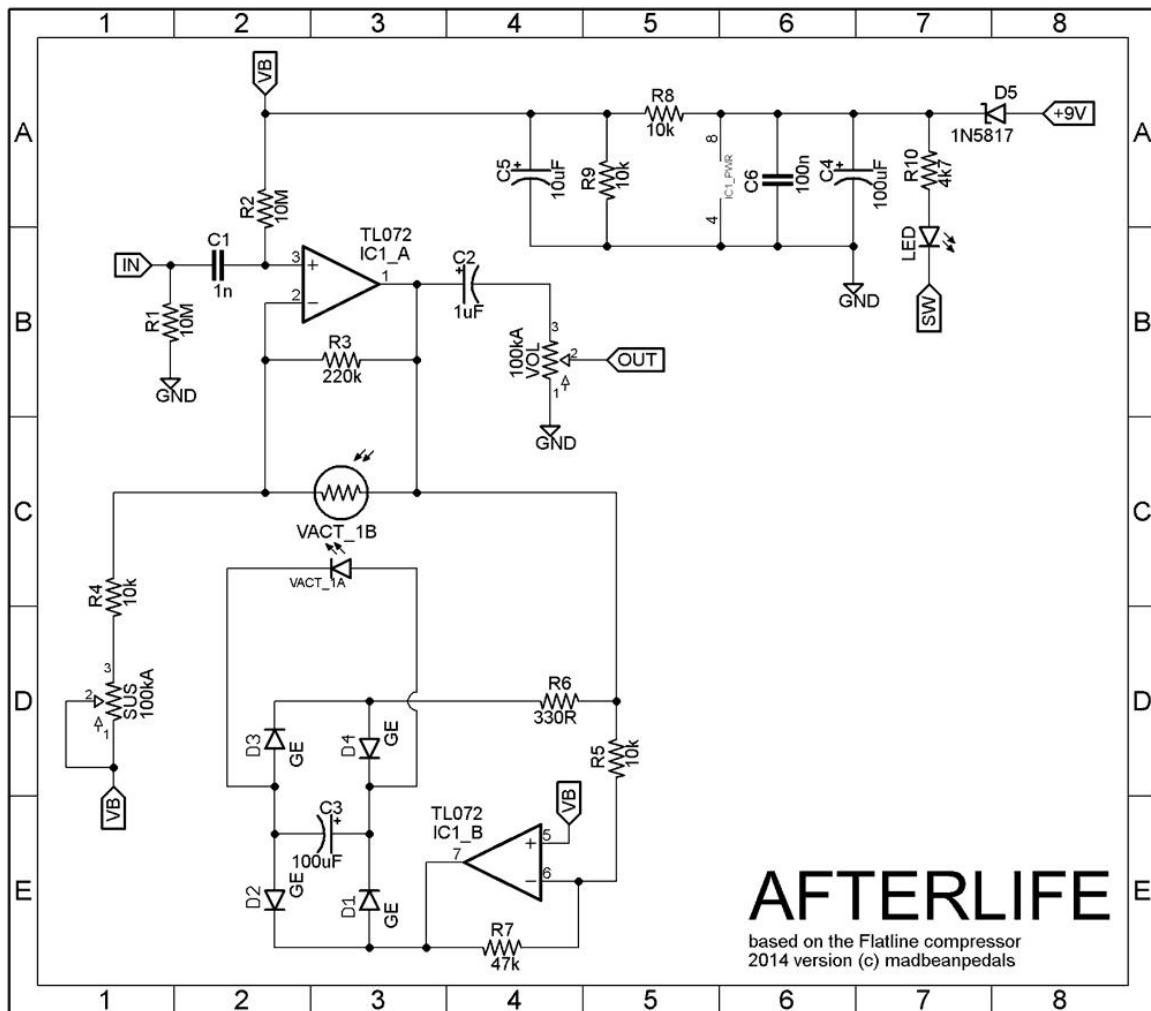
Macron 1210CLF-R: <http://www.smallbearelec.com/servlet/Detail?no=1255>

9mm Pots: <http://www.smallbearelec.com/servlet/Detail?no=693>

1n270: <http://www.smallbearelec.com/servlet/Detail?no=323>

1n34a: <http://www.smallbearelec.com/servlet/Detail?no=1540>

*Download the pdf file for the previous version of the Afterlife here (before August 2014):*  
<http://www.madbeanpedals.com/projects/Afterlife/Afterlife.zip>



The **Afterlife** compressor is based on the [John Hollis Flatline](#). It is a low-parts count, optical compressor that will add warm, long-lasting sustain to your guitar. A simple op-amp gain stage at the signal input sets the compression amount. The dynamic level of the input is processed through **IC1B** where the signal is then rectified to drive an LED. The LED is the “engine” that drives the photocell in parallel with **R3** which dynamically changes the overall gain of **IC1A**. The end result is that your guitar signal is compressed so that the overall dynamic level is evened out, thus creating sustain. The release of the compression is determined by the value of **C3**.

**SUS – Sets the overall compression level**

**VOL – Sets the output volume.**

### Notes

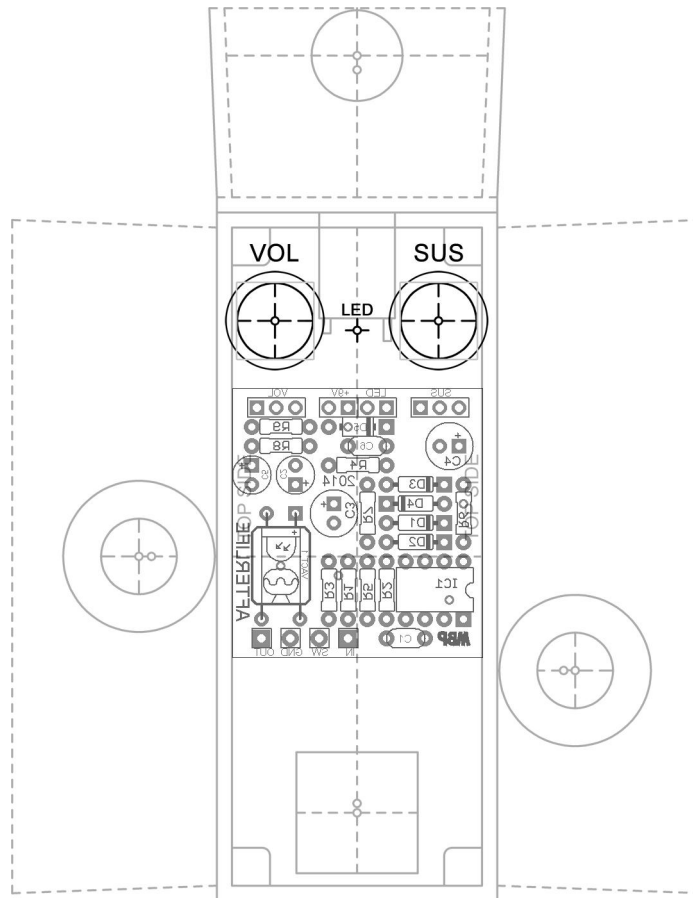
A VTL5C3 Vactrol is recommended for the **Afterlife**. Testing confirmed that the overall compression and sustain was vastly superior using the Vactrol over the “roll your own” method of a wrapped LED and photocell. The Macron equivalent is less expensive and will work just as well as the VTL.

You can increase the sensitivity of the compressor with higher values of **R7**. 47k seems to provide the most balance.

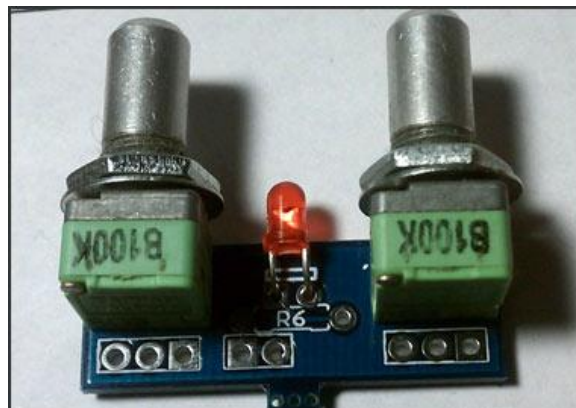
1n270 is recommended for the GE diodes, but other germaniums such as 1n34a and 1n60 will work. BAT41 may also work, but this is untested.

## 1590A Drill Guide

3.6" W x 4.66" H



Your LED should fold over the daughter PCB so that the bulb extends just beyond its edge. This means you will not need to use an LED bezel. Just drill the appropriate size hole for the 3mm LED. Be sure to check your pots and LED up against this template before drilling your holes to ensure that the line up properly.



Download the Photoshop file used to make the drilling template here:  
[http://www.madbeanpedals.com/projects/Afterlife/Afterlife\\_Drill.zip](http://www.madbeanpedals.com/projects/Afterlife/Afterlife_Drill.zip)

## Wiring

