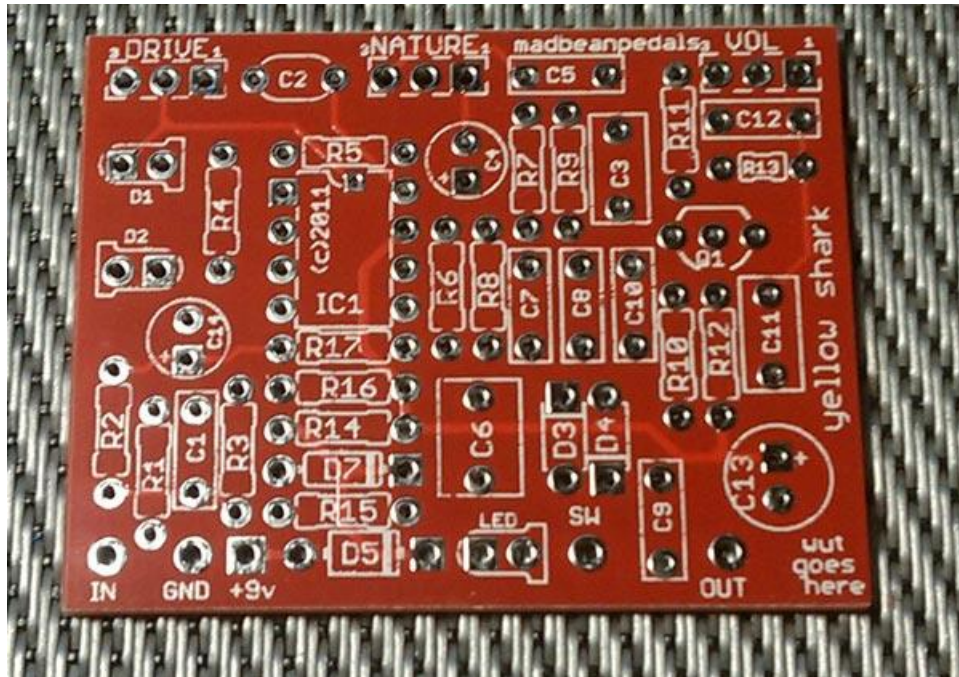


YELLOW SHARK



FX TYPE: OVERDRIVE

Based on the BJT Electronics® Honey Bee™

PCB artwork ©2011 madbeanpedals

Release date: 04.03.11

The controls are as follows

DRIVE: The total amount of overdrive.

NATURE: This is a very unusual tone control. Unlike many ordinary passive filters, the **Nature** pot does several things at one. At fully counter-clockwise, the **C4** is connected directly to ground, and **C5** connects to ground via a 50k resistor (the value of the pot). At clockwise, the opposite is in effect. Additionally, **C5** and **C4** are connected through a constant 50k resistance regardless of the position of the control. The result is a unique changing of the amount of bass clipped in the op-amp and feedback from **Q1** with the turn of a single pot.

VOL: The total output.

Notes

- The two 31k6 resistors act as a voltage divider to create the Vb voltage for biasing. These are unusual values, and it is totally fine to substitute near values without changing the tone. Suggestions are 30k or 33k.
- **D1** and **D2** are green diffused 5mm LEDs in the stock unit. Having built this circuit a few times, I've found red diffused LEDs were preferable.

- There are several variations of the CA3130. Try to use the plain CA3130, CA3130A, CA3130AE, CA3130E, or CA3130EZ. Here are some places to purchase one

CA3130EZ

<http://www.alliedelec.com/search/productdetail.aspx?SKU=9030071>

<http://www.newark.com/intersil/ca3130ez/ic-op-amp-15mhz-30v-%C2%B5s-dip-8/dp/80K5721>

<http://www.taydaelectronics.com/servlet/the-284/CA3130EZ-CA3130-IC-OPERATING/Detail>

CA3130AE

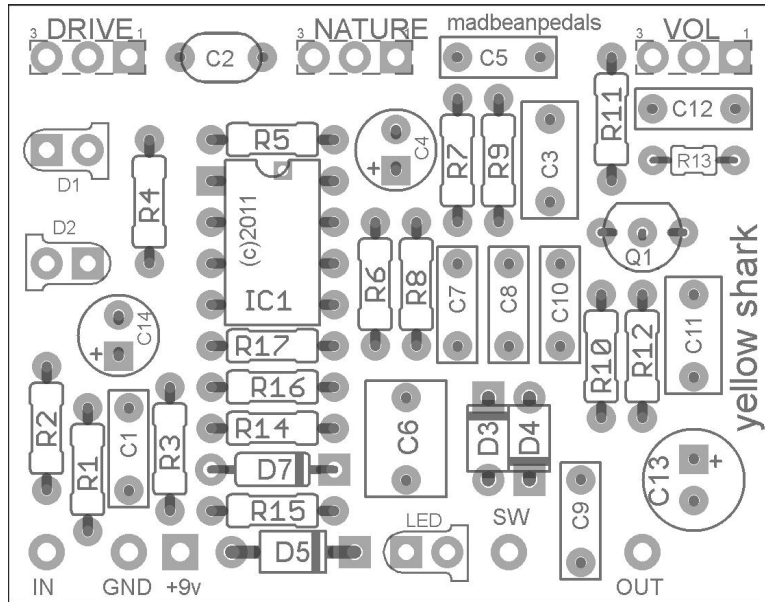
<http://www.newark.com/intersil/ca3130e/ic-op-amp-15mhz-30v-%C2%B5s-dip-8/dp/06F2086>

You can use the CA3140 available from smallbear, as well. The specs on this version are not as good so there may be some subtle tonal changes.

<http://www.smallbearelec.com/Detail.bok?no=223>

You can also find the CA3130 on eBay!

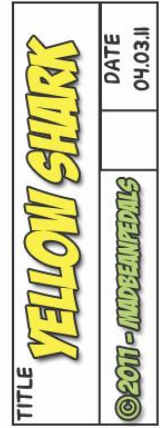
MANUFACTURED VERSION



1.875"W x 1.45"H
This version will fit in a 1590B.

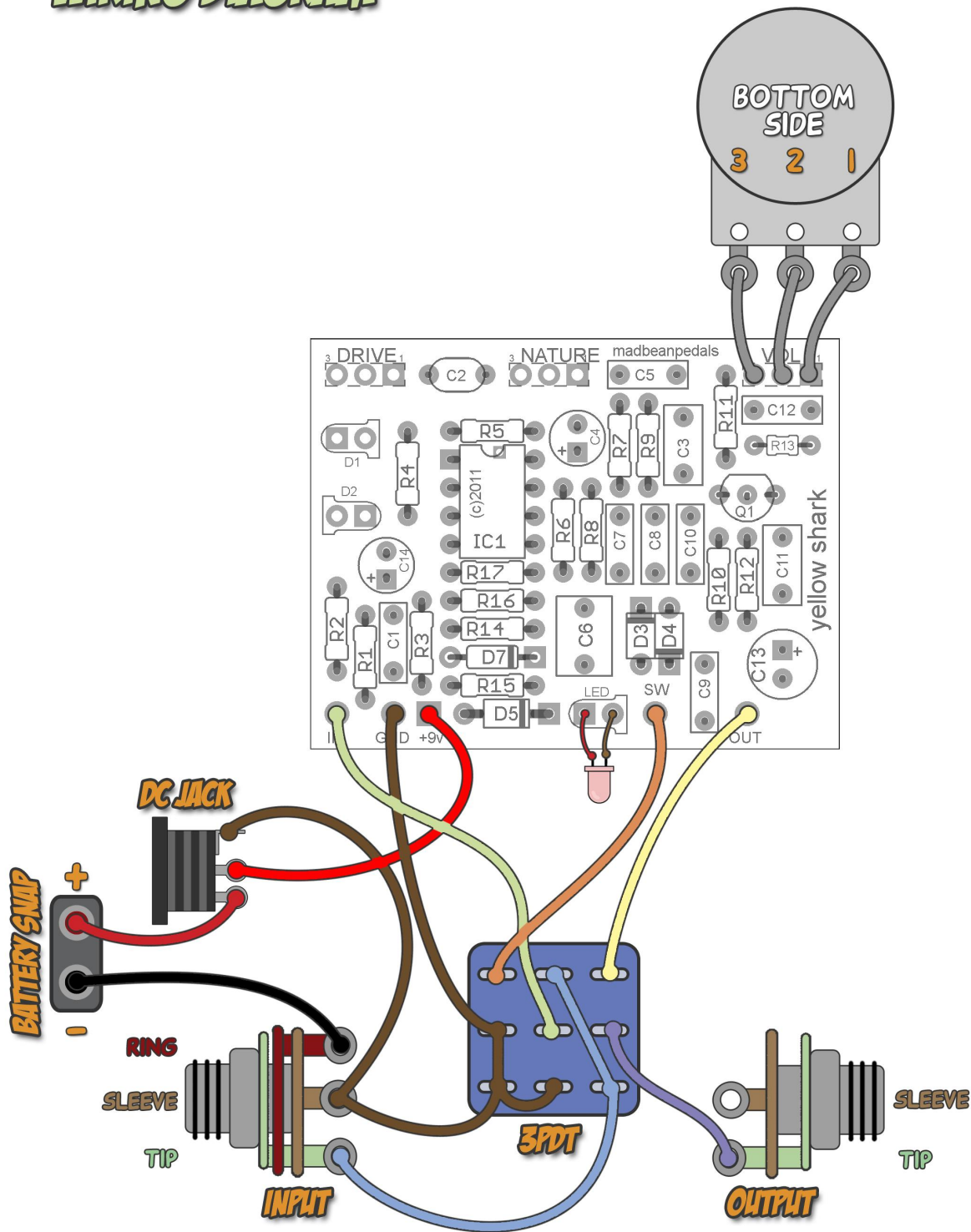
Resistors		Caps		Diodes	
R1	1M	C1	47n	D1, D2	Green LED
R2	360k	C2	100pF	D3 - D5	1n4007
R3	15k	C3	220n	D4	1n4007
R4	3k	C4	2u2	D5	1n4007
R5	1k	C5	4n7	D7	5v1 Zener
R6	1k	C6	1uF	Transistors	
R7	27k	C7	22n	Q1	2N5457
R8	10k	C8	4n7	IC	
R9	47k	C9	22n	IC1	CA3130
R10	1M	C10	4n7	Pots	
R11	2k2	C11	1uF	DRIVE	500kA
R12	5k6	C12	4n7	NATURE	50kA
R13	47k	C13	100uF	VOL	50kB
R14	51R	C14	22uF		
R15	1k				
R16	31k6				
R17	31k6				

* there is no D6 diode



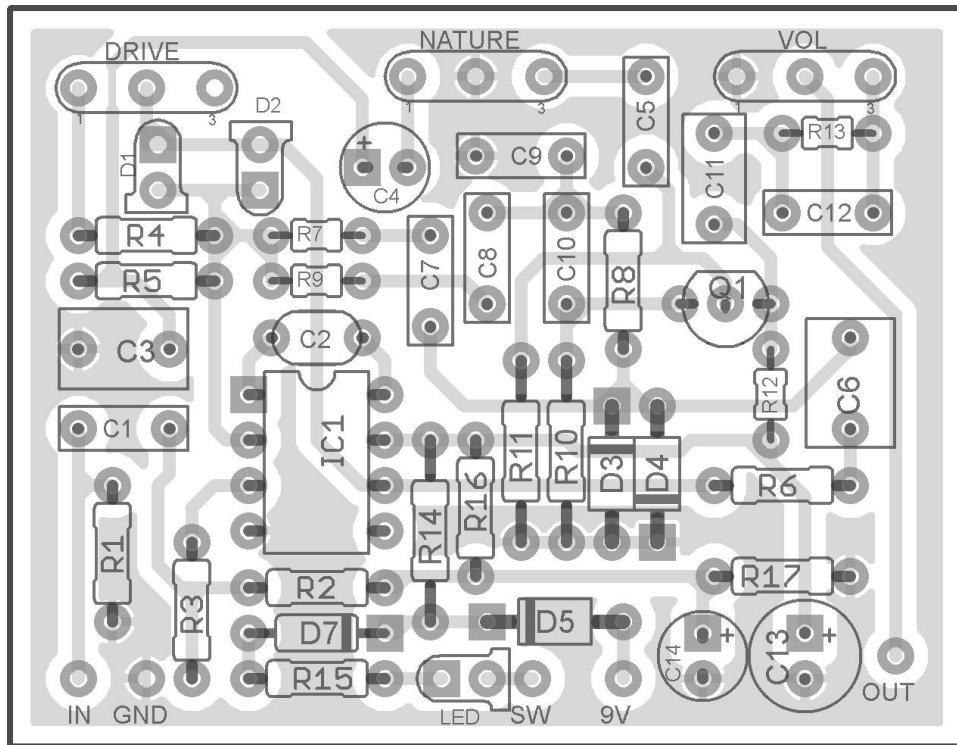
YELLOW SHARK

WIRING DIAGRAM

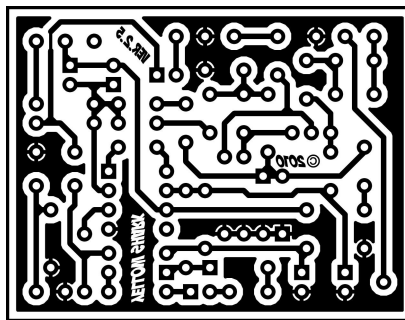


SINGLE SIDED VERSION FOR ETCHING

NOTE THAT POTS ARE WIRED 1-2-3 IN THIS VERSION.



2.12" W x 1.64" H (including borders)



This product is intended for DIY use only. Commercial use, including the sale of PCBs, kits or pedals utilizing this information, is strictly prohibited.