

# SPACKLER

**FX TYPE: BOOST**

Based on the Demeter® Fat Control™

PCB artwork ©2011 madbeanpedals

Release date: 01.30.11

The **Spackler** is a modified version of the Demeter® Fat Control™. The effect is a mid-range boost that will push the front end of an amplifier while boosting the lower-mid frequency range resulting in what some might call added “warmth” and “depth” to a guitar signal. The Fat Control™ works well as a stand-alone effect, or before another effect like a dirt box. The **Spackler** adds one extra control for the total gain amount available for the boost.

The stock design has a buffered bypass. While some may find this useful, the **Spackler** allows you to also wire in a hard bypass.

## The controls are as follows

**GAIN:** This control allows you to vary the overall gain produced by the circuit. At fully counter-clockwise the gain will be approximately that of the bypassed signal. At fully clockwise gain will increase for added volume and mid-range boost.

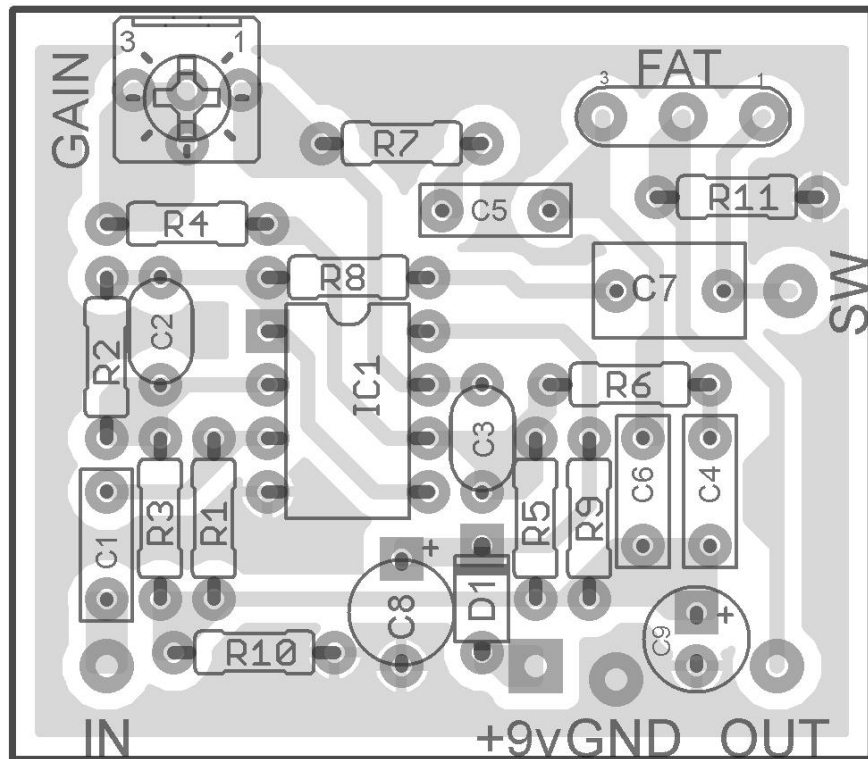
**FAT:** This control blends between the “buffered” and mid boosted signals. Note that the first stage of the op-amp is not a true buffer, but it will sound just like one if you hook the Spackler up using the buffered bypass wiring diagram below.

## SmallBear Parts Guide – [www.smallbearelec.com](http://www.smallbearelec.com)

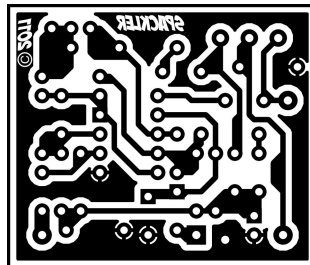
- Panasonic ECQ-B / V film caps or Topmay box caps
- 1/4W carbon or metal film resistors
- 16v electrolytic radial caps
- Ceramic or Silver Mica caps (for pF values)
- 16mm Alpha Pots

## Notes

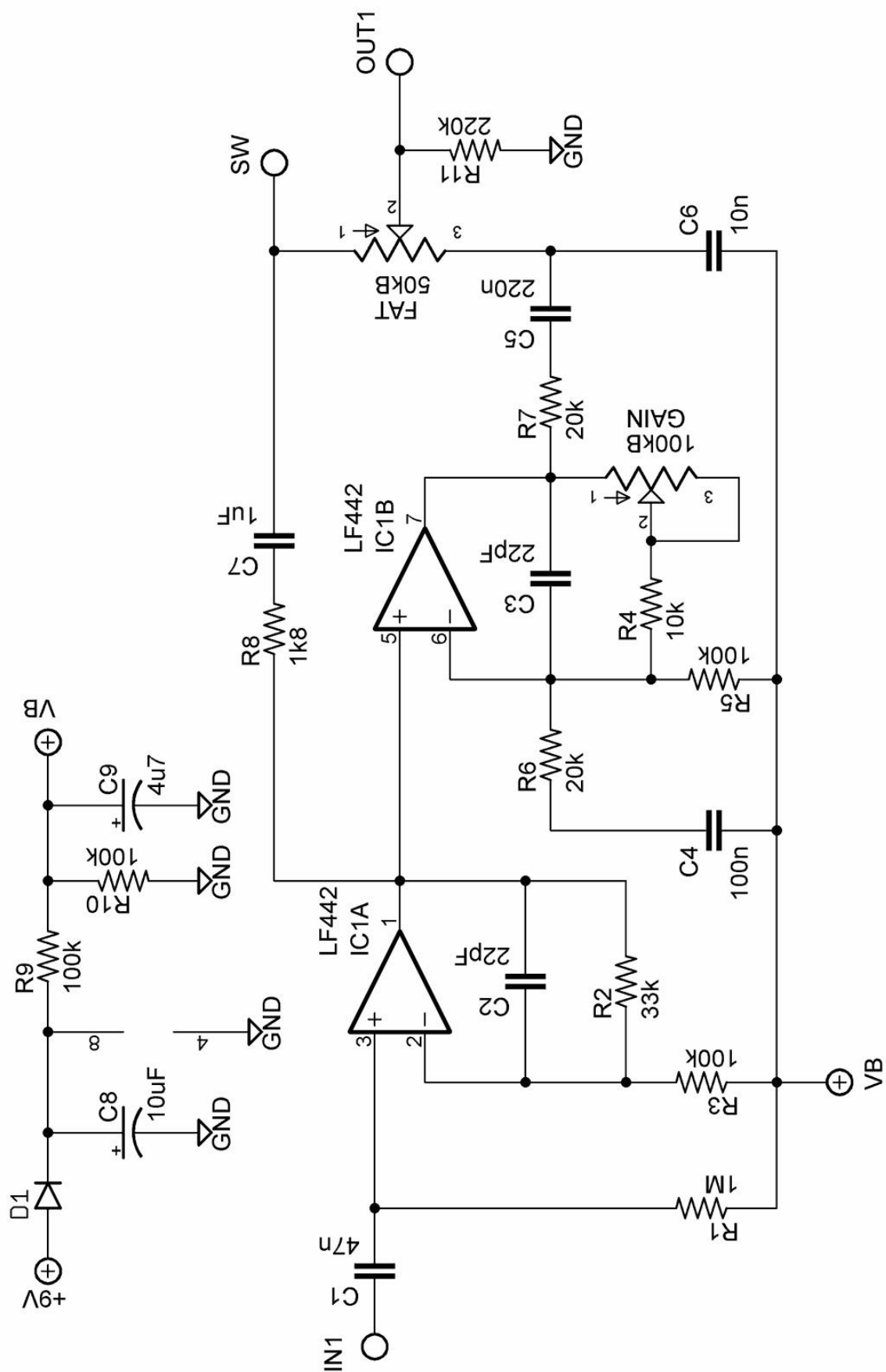
- The **GAIN** control can be hooked up with either an internal trimpot or external panel mount pot (recommended). Although a 1/4” trimpot is pictured in the layout, the standard 3/8” cermet from Smallbear will fit without issue.
- The stock IC is the LF442. This is a low current consumption dual op-amp. Other op-amps will work. Suggested subs are TL062 (low current consumption), TL072, TL082, JRC4458 or OPA2604.
- The **Spackler** has been tested at both 9v and 18v (via charge pump). I found that 9v was actually preferable. If you plan on running it at 18v, make sure your caps are rated at 25v or above.



**1.61" W x 1.39" H (including borders)**

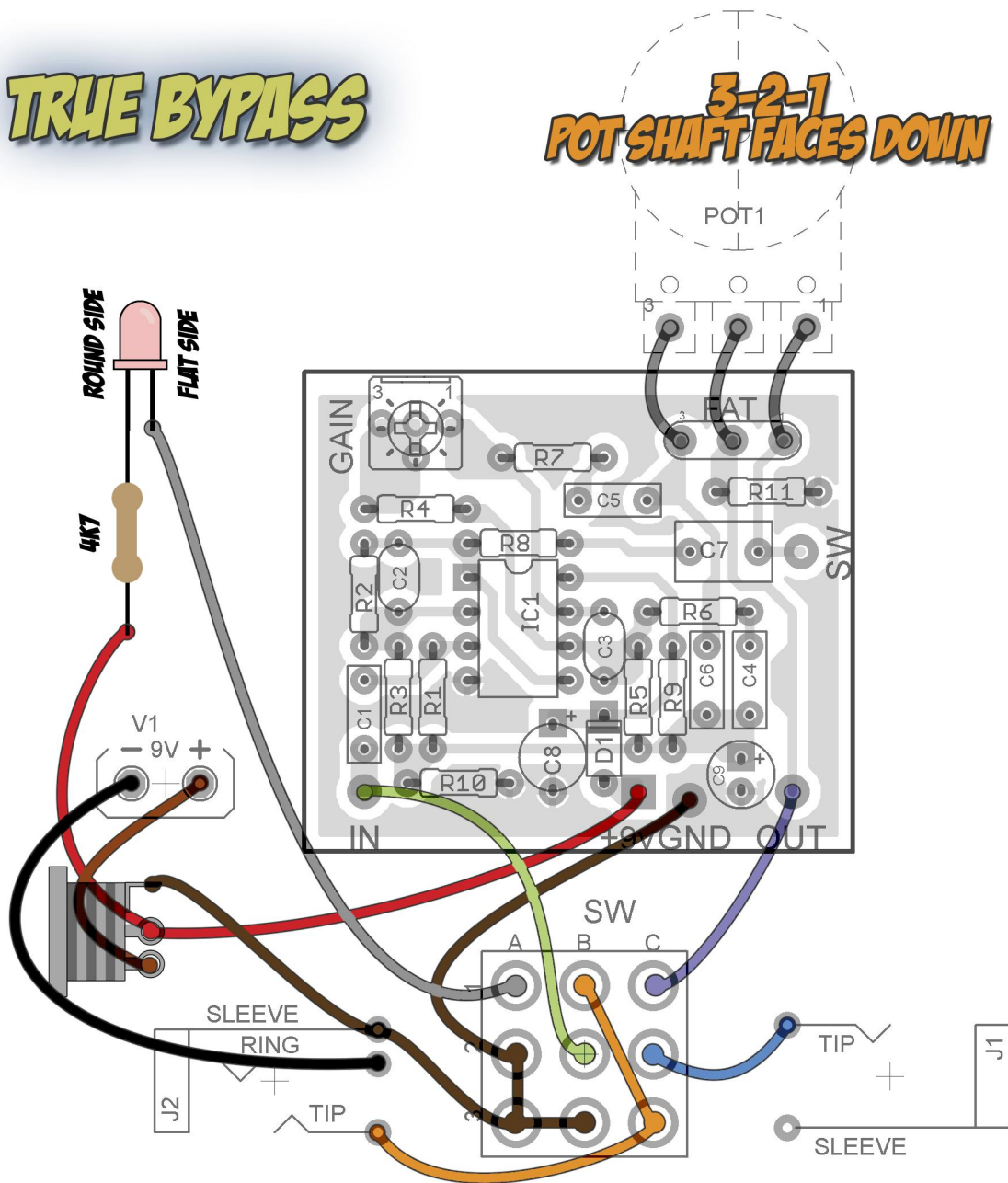


Resistors		Caps		Diodes	
R1	1M	C1	47n	D1	1N4001
R2	33k	C2	22pF	<b>IC</b>	
R3	100k	C3	22pF	IC1	LF442
R4	10k	C4	100n	<b>Pots</b>	
R5	100k	C5	220n	FAT	50kB
R6	20k	C6	10n	GAIN	100kB
R7	20k	C7	1uF		
R8	1k8	C8	10uF		
R9	100k	C9	4u7		
R10	100k				
R11	220k				



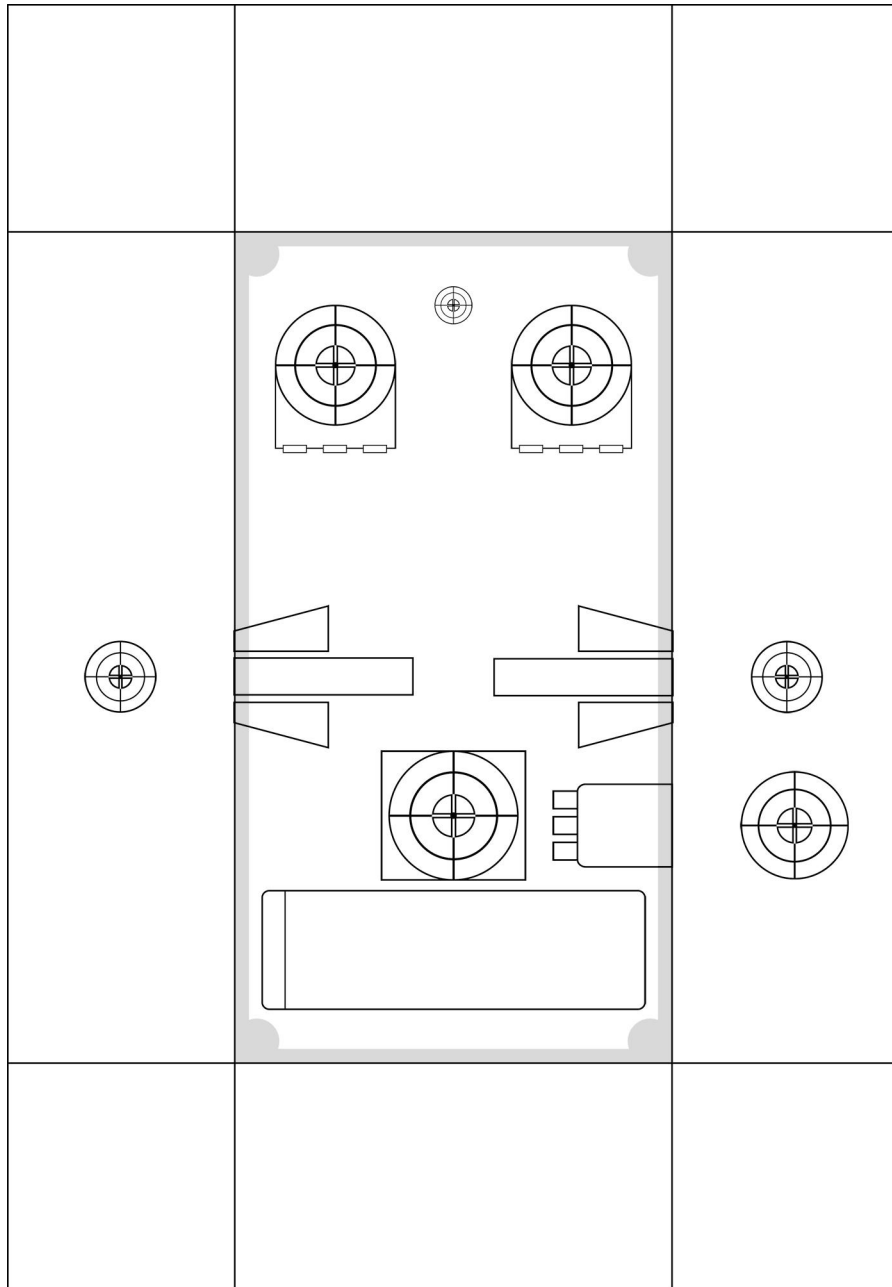
# TRUE BYPASS

## 3-2-1 POT SHAFT FACES DOWN





**1590B Layout**  
**4.64" W x 6.69" H**



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