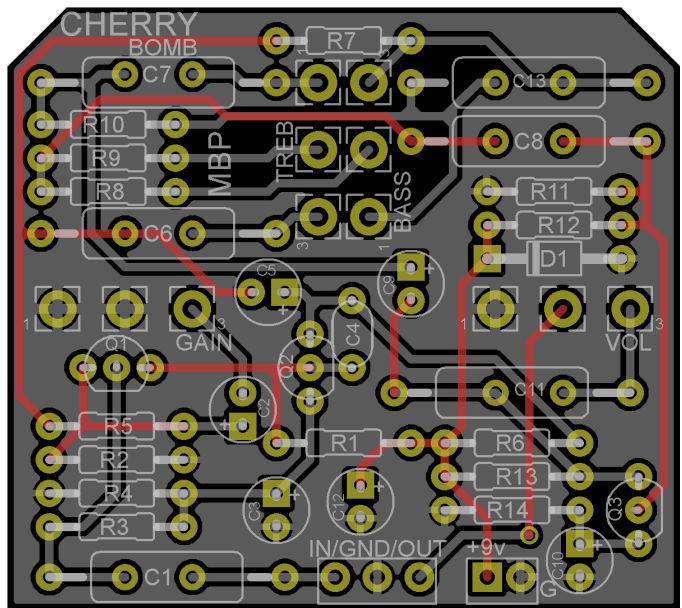
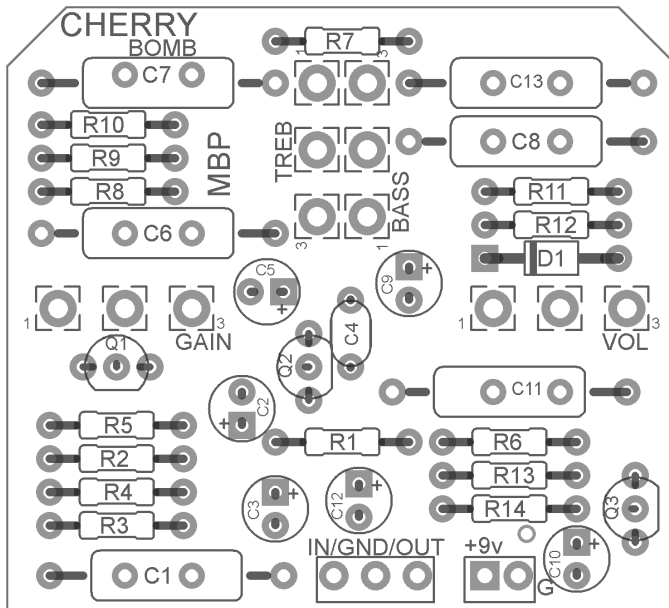


# CHERRYBOMB

FX Type: Overdrive  
© 2012 [madbeanpedals](http://madbeanpedals.com)

2" W x 1.8" H

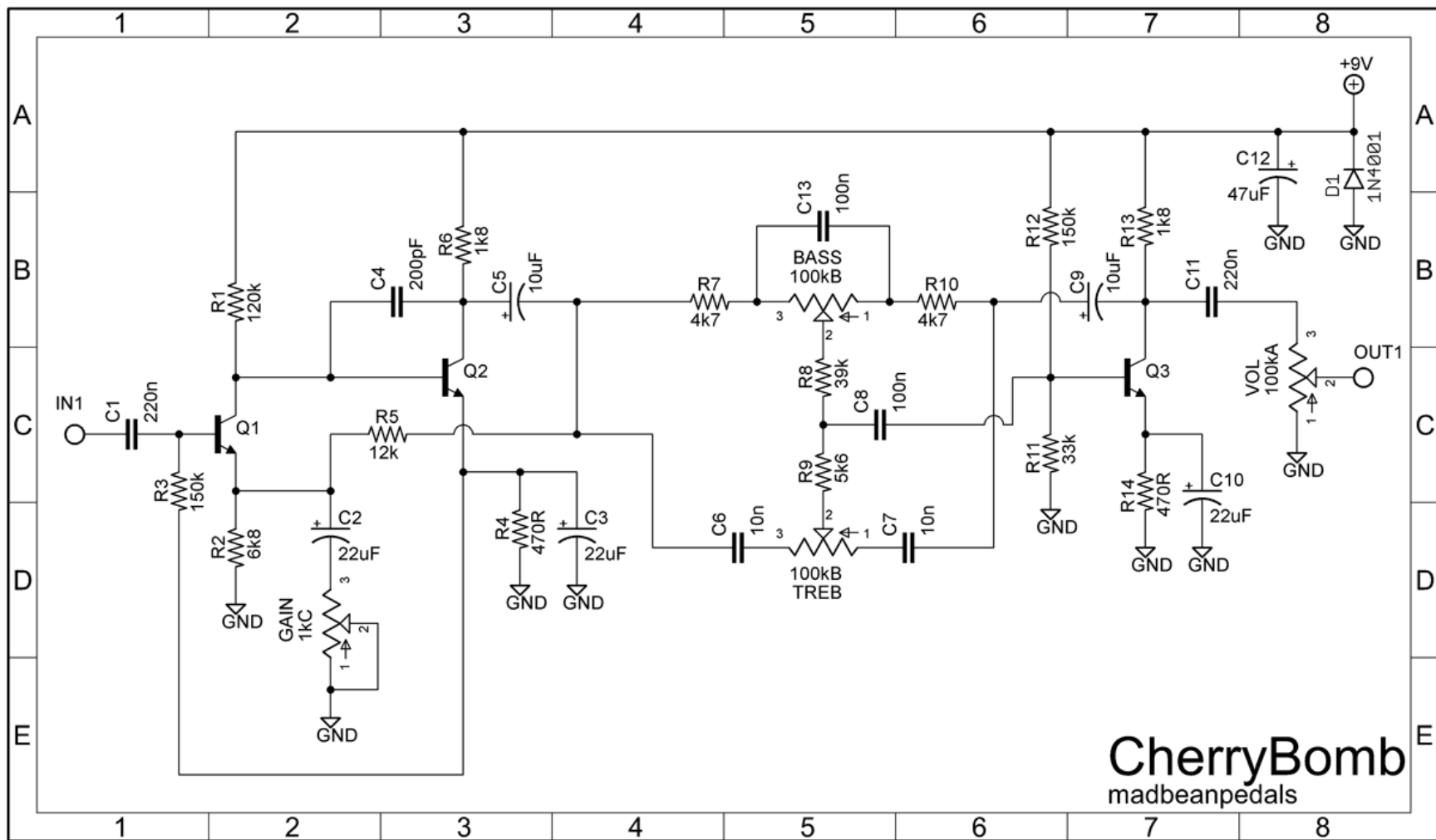


Resistors		Caps		Diodes	
R1	120k	C1	220n	D1	1N4001
R2	6k8	C2	22uF	Transistors	
R3	150k	C3	22uF	Q1 - Q3	see notes
R4	470R	C4	200pF	Pots	
R5	12k	C5	10uF	GAIN	1kC
R6	1k8	C6	10n	BASS	100kB
R7	4k7	C7	10n	TREB	100kB
R8	39k	C8	100n	VOL	100kA
R9	5k6	C9	10uF		
R10	4k7	C10	22uF		
R11	33k	C11	220n		
R12	150k	C12	47uF		
R13	1k8	C13	100n		
R14	470R				

The **CherryBomb** is based on the Colorsound Overdriver™. Two transistors at the input stage provide the initial overdrive. This feeds into a passive Baxandall-type tone control which allows boost and cut of the **Bass** and **Treble** frequencies. A gain recovery stage rounds out the circuit just before the output.

The **CherryBomb** makes the following changes to the classic circuit:

- **C2** is listed as 22uF since it is more common than the original 25uF.
- The **Gain** pot is listed as 1kC (reverse audio) to prevent the extreme “bunching up” of the original 10kB.
- An output volume control has been added.



## Notes:

There seems to be a variety of opinions on which transistors were used in the CSOD. From the factory schematic it appears they were BC109

[http://www.schematichaven.com/effects/colorsound\\_overdriver.pdf](http://www.schematichaven.com/effects/colorsound_overdriver.pdf)

However, two other schems list a mixture of BC169, BC184 and BC109

<http://fuzzcentral.ssguitar.com/schematics/overdriverschem.gif>

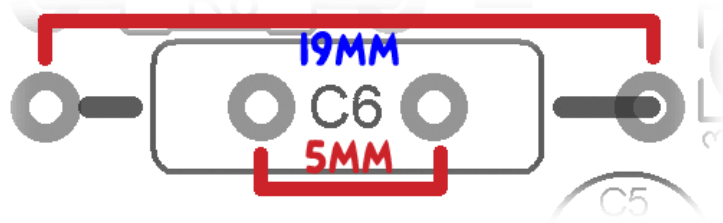
<http://www.freestompboxes.org/download/file.php?id=4125&mode=view>

The [BC109](#) is available at smallbear.

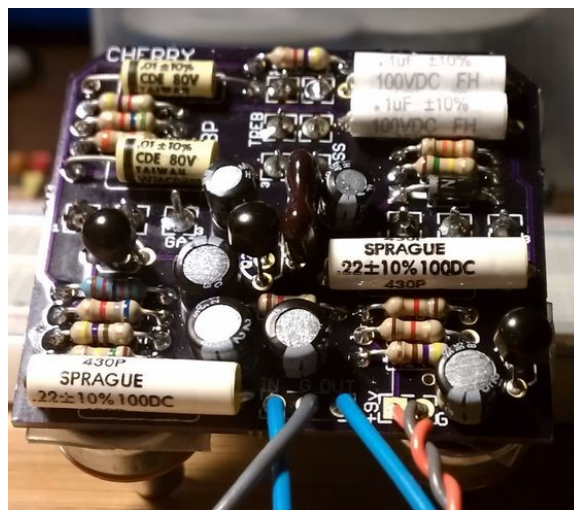
The [BC184C](#) is available at Mouser.

The BC169 might be a bit harder to track down. However, you can substitute a variety of bi-polar silicon transistors. *I particularly enjoyed the [2n3565](#) in my most recent build.*

The newest version of the CherryBomb project allows for either axial or radial film caps. Note on the PCB layout above that **C1**, **C6**, **C7**, **C8**, **C11** and **C13** each have two extra pads in the middle of their package drawing. The spacing on these pads is 5mm, which works for the [typical box-type cap](#) or the [Panasonic ECQ-V/B](#) film caps. The axial spacing is about 19mm. [Cornell Dubilier](#) caps should work well here, but be sure to check the lead spacing before buying.



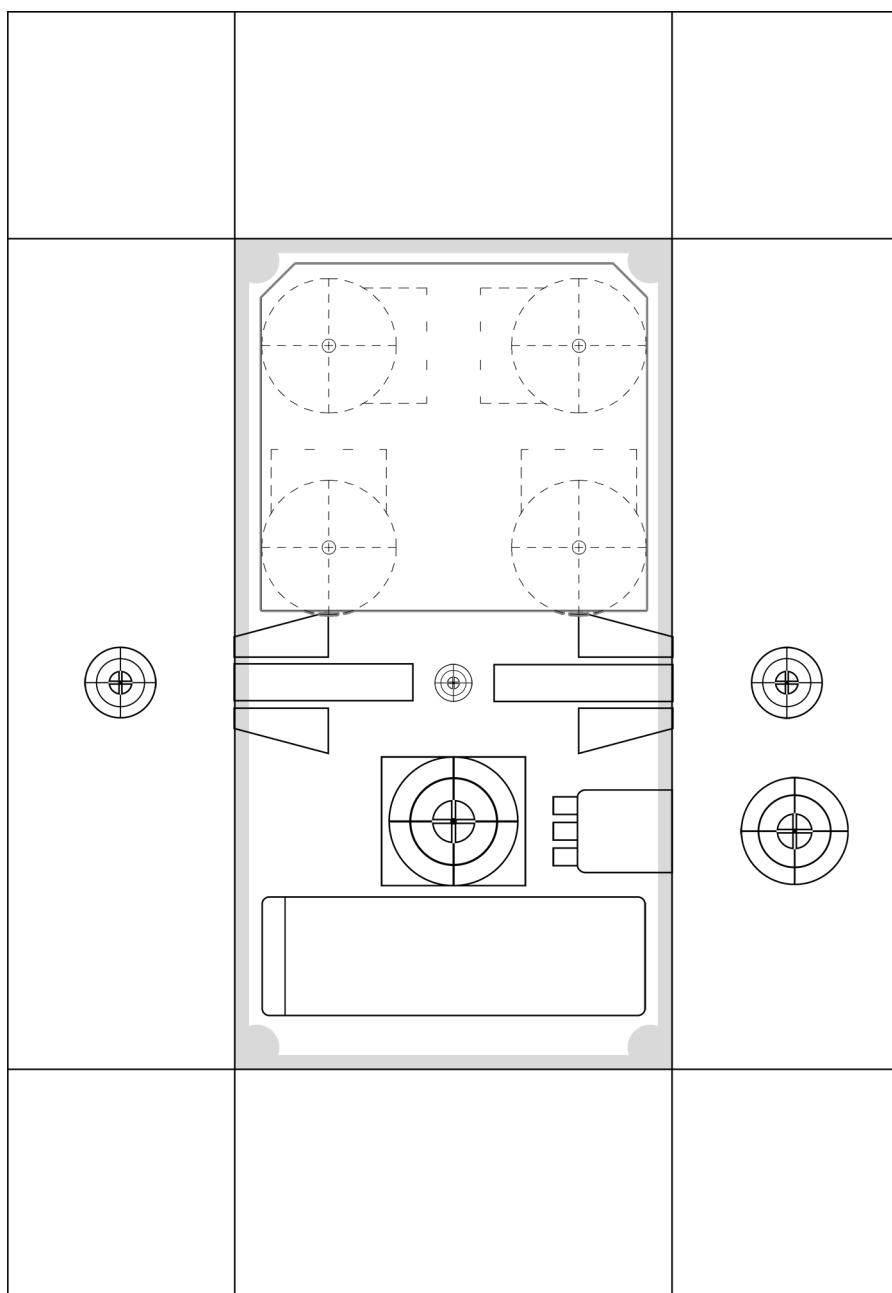
Here's a pic of a build that I used some Spragues on mixed in with some other axial caps.



The electrolytic caps must be radial.

You can also use [16mm short-pin PCB mounted](#) pots on this version.

**1590B Drill Template**  
**4.64"W x 6.69"H**



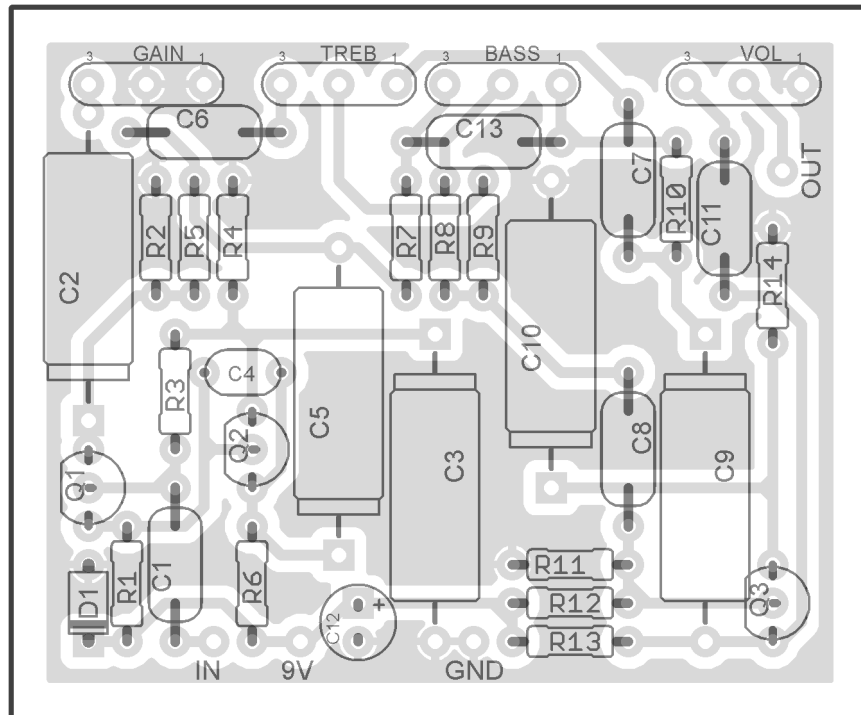
*This template is approximate. Please check carefully before committing to drill.*

**Licensing**

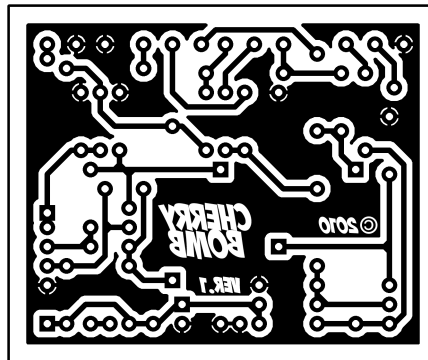
PCBs purchased from madbeanpedals (or etched from the artwork provided) for the **CherryBomb** are intended for DIY / non-commercial use only. If you are a commercial pedal builder or “work for hire”, please do not use madbeanpedals materials for your product offerings. Similarly, madbeanpedals PCBs are prohibited from commercial re-distribution including “kits”.

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## PCB Artwork for etching



2.24"W x 1.87"H



The first version of the **CherryBomb** (single sided etching layout) is a bit different. It uses axial spacing for the electrolytic caps, and the film caps are about 11mm. Note that if you are building from this layout, your component requirements are different than the ones listed on page 3. Here are some axial electrolytic caps:

47uF - <http://www.mouser.com/ProductDetail/Xicon/140-XAL16V47-RC/?qs=sGAEpiMZZMtZ1n0r9vR22WuTsnx9Abs06LIs4UxOZOQ%3d>

22uF - <http://www.mouser.com/ProductDetail/Xicon/140-XAL16V22-RC/?qs=sGAEpiMZZMtZ1n0r9vR22WuTsnx9Abs080XzbBJyVPs%3d>

10uF - <http://www.mouser.com/ProductDetail/Xicon/140-XAL16V10-RC/?qs=sGAEpiMZZMtZ1n0r9vR22UhSjrTM10DE%2f0bdMBW7sWA%3d>

25uF - <http://www.mouser.com/ProductDetail/Vishay-Sprague/TVA1148/?qs=sGAEpiMZZMtZ1n0r9vR22UzXQwAPJeqEWol81toQYEM%3d>