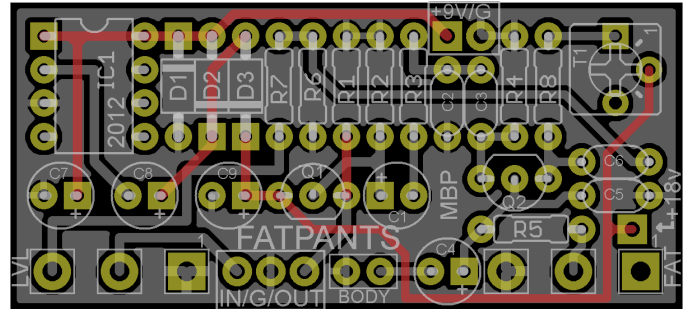
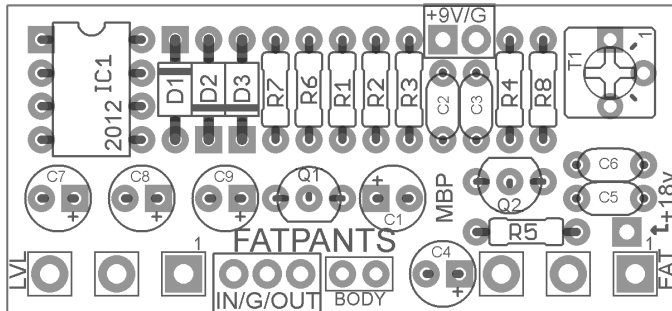


# FATPANTS - 2012 ED.

FX Type: Boost/Overdrive

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2" W x 0.925" H



**UPDATE: The "IN" and "OUT" labels are backwards! "IN" is actually the output and "OUT" is the input. Sorry about that!**

Resistors		Caps		Diodes	
R1	2M2	C1	10uF	D1 – D3	1N4001
R2	10k	C2	220pF	Transistors	
R3	100k	C3	22n	Q1, Q2	J201
R4	1M	C4	47uF	IC	
R5	470R	C5	22n	IC1	TC1044SCPA
R6	470k	C6	100n	Switch	
R7	10k	C7	47uF	BODY	SPST
R8	3k3	C8	10uF	Trimpot	
		C9	10uF	T1	50k
Pots					
FAT				10k	
LVL				500k	

## Overview

[Download previous version of the FatPants \(before 03.2012\)](#)

The **FatPants** design began as an alternative to the “pedalized” versions of the input stage of the Echoplex that became popularized a few years ago. Over the course of the two previous versions the design has evolved, and the **2012** version is no exception. The **2012** version adds a JFET input buffer, a new **Body** switch for high-gain/full spectrum boost and a re-tooled output section. These changes add versatility and dimensionality to the previous design. The **FatPants 2012** is capable of a wide range of boost and overdrive and will serve as a perfect compliment to push your tone into saturation while retaining note clarity and dynamics.

**Fat** – Sets the overall gain of the boost.

**Lvl** – The output volume.

**Body** – Selects between a mid-range and full range boost. In full range mode, it also adds additional gain.

## Notes

**IC1** can be any of the following: TC1044SCPA, MAX1044SCPA or the ICL7660SCPA.

**D1** is indicated as 1N4001. You can use a Zener in its place to protect **IC1** from excessive voltage (the three charge pumps listed above have different voltage tolerances). A 9.1v Zener is appropriate.

If you use 1N5817 for **D2** and **D3** you will get closer to 18v output from **IC1** due to its lower forward voltage drop. This is not critical for operation, however.

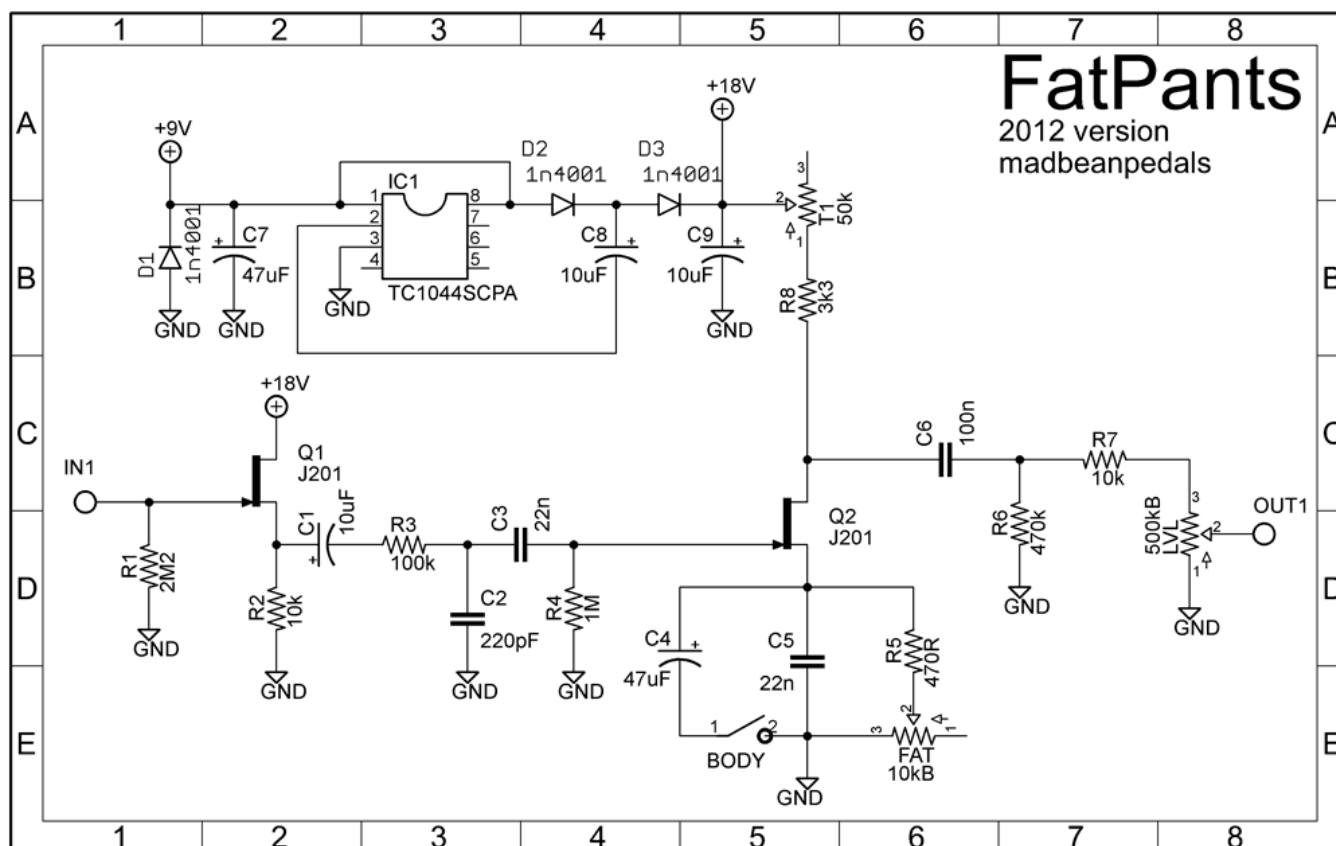
There is an extra +18v tap on the lower right of the PCB. If you are building the **FatPants** as part of a dual effects box, you can use this to power your other circuit at 18v if desired.

You may encounter some scratchiness with the **Fat** control when the **Body** switch is off. This is normal. Unfortunately, this cannot be eliminated from the design without altering the overall character of the effect. The **Fat** control works in concert with the 22n cap to produce frequency-dependent gain. As the control is turned up, it applies increasing gain to the upward filter. This results in increased pick attack and dynamics. When the control is down, the filter is also lowered, but since the overall gain is lowered at the same time it does not “muddy up” the signal.

### Setting up the FatPants:

Leave the **Body** switch off, set the **Fat** control to max. Adjust **T1** until you read approximately 9v on the drain of **Q2** with your multimeter. Tweak as desired for maximum gain.

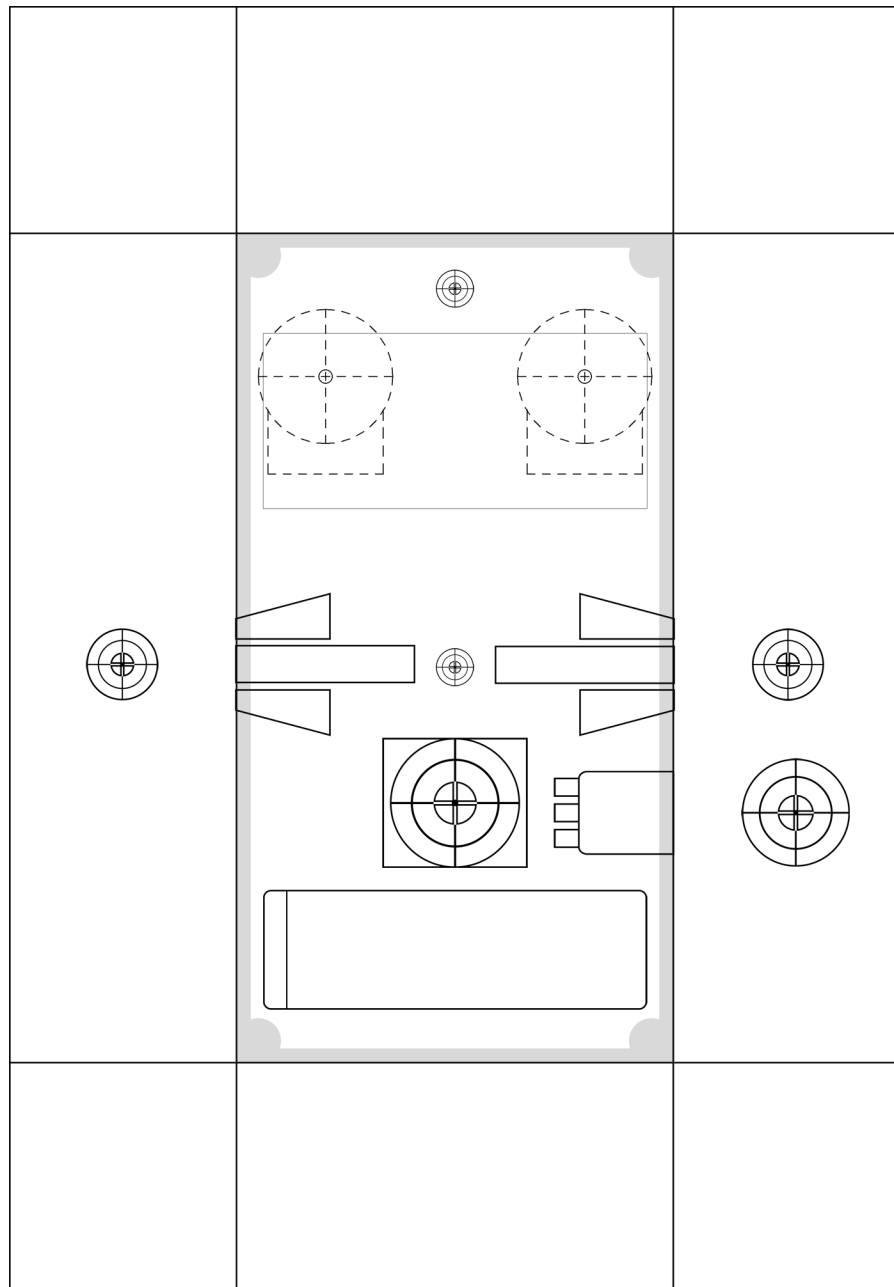
## Schematic



## 1590B Drill Template

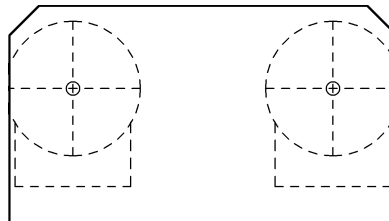
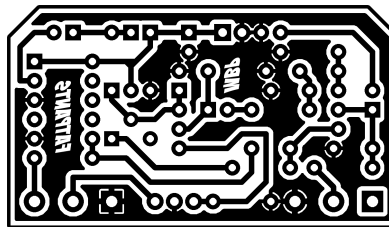
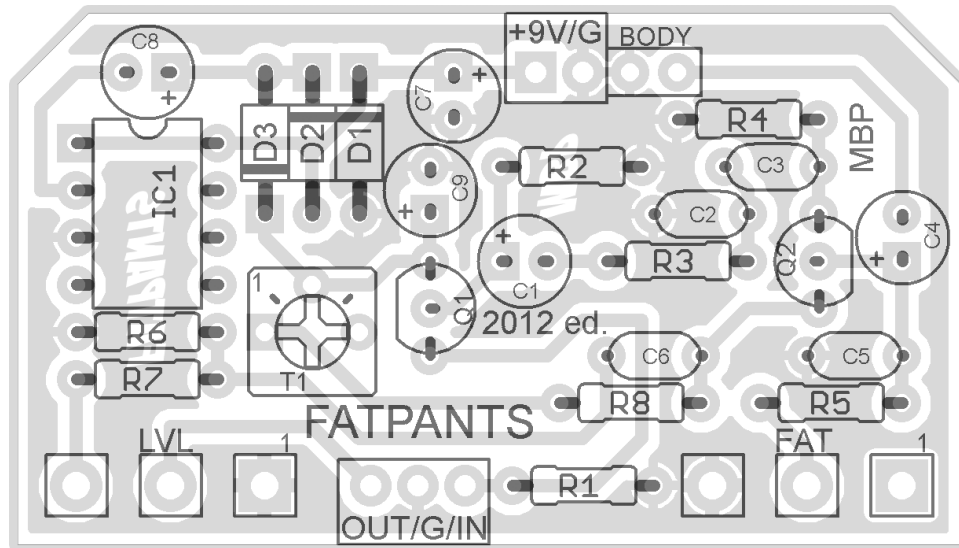
**4.64"W x 6.69"H**

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



## PCB Artwork for etching

2.04" W x 1.16" H (including borders)



### Licensing

PCBs purchased from madbeanpedals (or etched from the artwork provided) for the **FatPants** 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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