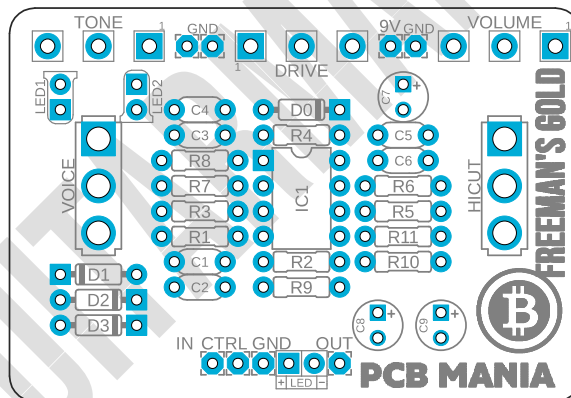


# Freeman Gold

<b>Based on:</b> Friedman Golden Pearl Overdrive	<b>Amount of parts:</b> Low, total 33 components	<b>Enclosure type:</b> 125b
<b>Effect type:</b> Transparent, lower gain Overdrive	<b>Technology:</b> Dual Op Amp	<b>Get your board at:</b> <a href="#">Freeman Gold</a>
<b>Build difficult:</b> Easy	<b>Power consumption:</b> 9V	<b>Get your kit at:</b> <a href="#">Das Musikding (Europe)</a>

## Project overview:

Based on Friedman Golden Pearl Overdrive. Everything from a gentle transparent wave to a fat, overdriven sound can be reached with this pedal, all along with plenty of character and soul.



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## Introduction

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When thinking about Dave Friedman, the first thing that comes to mind is the excellent high-gain amplifiers he's designed for some of the biggest names in rock 'n' roll. But once you try this overdrive pedal, based on Friedman Golden Pearl's design, you will see that he knows just as much about subtlety and transparency.

The circuit of Freeman's Gold was specially designed with the lower-gain players in mind. It delivers a clear, lower gain overdrive sound, and you can also use its versatility into a clean amp to achieve that elusive semi-broken-up tone.

Get ready to push any already overdriven amp into captivating saturation.

## Controls

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- DRIVE
- TONE
- VOLUME

# Bill of materials

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Resistors	
Part	Value
R1	1M
R2	1M
R3	1K
R4	10K
R5	2k2
R6	22K
R7	10K
R8	2k2
R9	4k7
R10	10K
R11	10K

Capacitors	
Part	Value
C1	22n
C2	47p
C3	100p
C4	47n
C5	2n2
C6	3n9

Electrolytics Capacitors	
Part	Value
C7	10u
C8	47u
C9	22u

Potentiometers	
Part	Value
DRIVE	1M A
TONE	25K B
VOLUME	10K A

IC	
Part	Value
IC1	LM833N

Switches	
Part	Value
VOICE	SPDT ON/OFF/ON
HICUT	SPDT ON/OFF/ON

Diodes	
Part	Value
D0	1N5817
D1	1N4148
D2	1N4148
D3	1N4148
LED	3mm Red LED
LED1	3mm Yellow LED
LED2	3mm Yellow LED

# Shopping list

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Resistors		
Qty	Value	Parts
4	10K	R4, R7, R10, R11
1	1K	R3
2	1M	R1, R2
1	22K	R6
2	2k2	R5, R8
1	4k7	R9

Capacitors		
Qty	Value	Parts
1	100p	C3
1	22n	C1
1	2n2	C5
1	3n9	C6
1	47n	C4
1	47p	C2

Electrolytics Capacitors		
Qty	Value	Parts
1	10u	C7
1	22u	C9
1	47u	C8

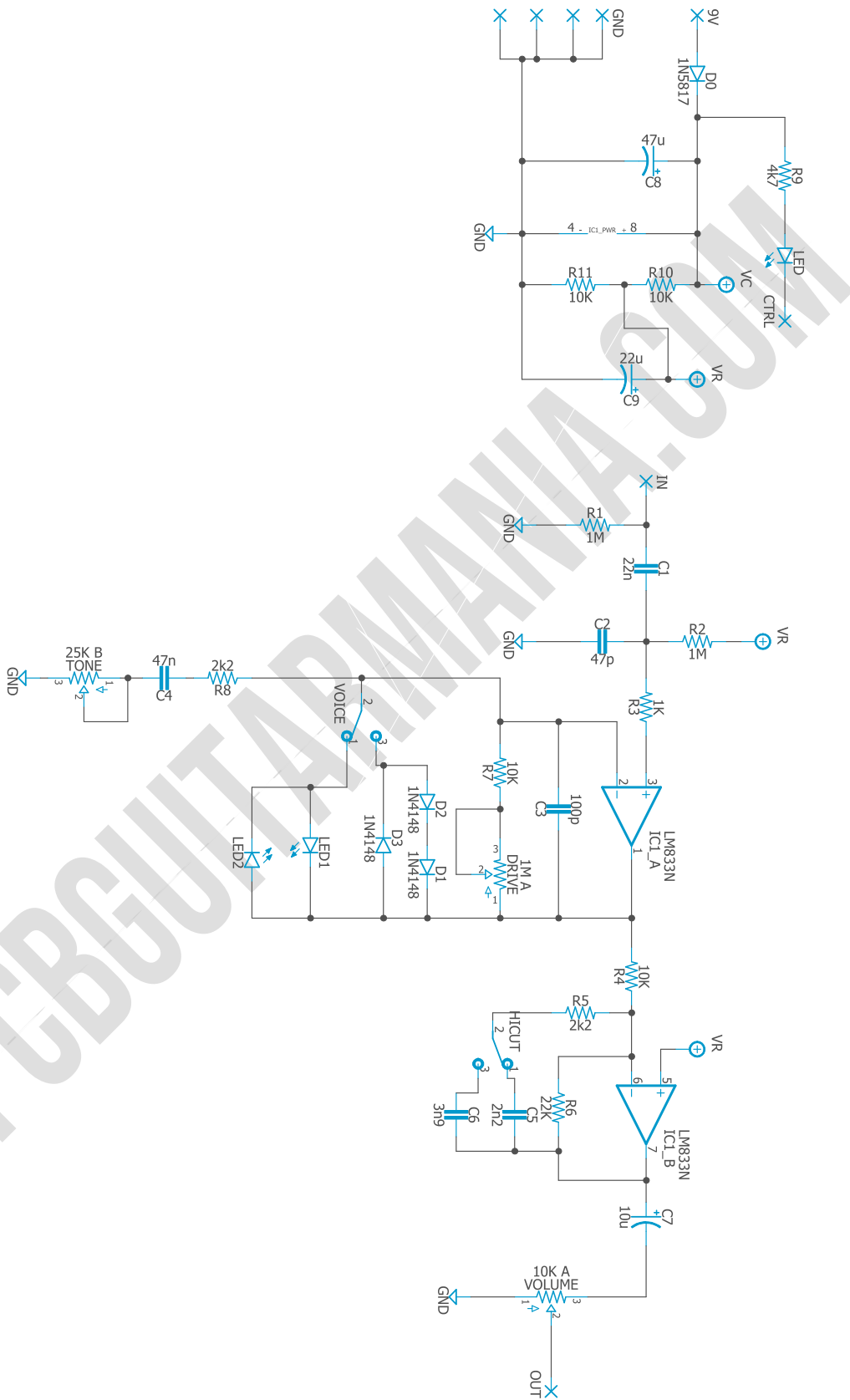
Potentiometers		
Qty	Value	Parts
1	10K A	VOLUME
1	1M A	DRIVE
1	25K B	TONE

IC		
Qty	Value	Parts
1	LM833N	IC1

Switches		
Qty	Value	Parts
2	SPDT ON/OFF/ON	HICUT, VOICE

Diodes		
Qty	Value	Parts
3	1N4148	D1, D2, D3
1	1N5817	D0
1	3mm Red LED	LED
2	3mm Yellow LED	LED1, LED2

# Schematic



# Components Recommendations

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As many people like to experiment with some pedals with higher voltage, always ensure your **electrolytic capacitors'** max tolerance is over 25v.

This board has been tested using Film box capacitors for most of the values over 1nf and ceramics discs for those under 1nf. However, high-quality components such as Wima's Capacitors and Panasonic's electrolytics can deliver a better performance.

All the resistors used for testing this project are 1/4W Metal Film.

The BOM and Shopping list are exclusive regarding this project. It doesn't include all the hardware like the 3PDT bypass switch, audio/dc jacks, enclosure, etc.

## Build Notes

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If this is one of your first projects, I recommend you to take a look at our [Pedal Building Guide](#).

For a successful and tidy build, it's recommended the following order:

1. Resistors & diodes
2. Capacitors, starting with the smaller ones and the ceramic ones.
3. Electrolytic capacitors (always check the polarity)
4. Transistors
5. Wires
6. Potentiometers and switches
7. Off-board wiring

## Wiring Diagram

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All our projects include a free 3PDT Board to make the wiring easier and tidier. Also, all of our PCBs feature the status LED on board.

The pad named "Ctrl" or "LED" is the one that controls the status of the led; wire it to the "LED" pad on the 3PDT board or in the control slug of your 3PDT.

This board has been designed to match our EZ 3PDT PCB; check it [here](#) to access our [Pedal Wiring Guide](#).

# Drill Template

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This Project has been planned to fit into a 125b enclosure type.

Check the Attached “Drilling templates” to drill the box properly. The files are on Scale 1:1, ready to print on an A4 page.

## Licensing and Usage

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We really appreciate your trust and support in buying this PCB, as well as your will to dive into the DIY electronics world. For us, that's why you can make this project work properly and enjoy not only the building process but also experiment and play with it on your rig.

We try to reply to every question we receive on our email or our social media. Still, we try to encourage all our customers to join our [PCB Guitar Mania - Builders Group](#) on Facebook to post all your doubts, issues, suggestions, or requests, share your builds, and have some feedback from other fellow builders and us!

We tested all our projects following this same guide on their standard configurations. Although, not all of the variations and mods have necessarily been checked. These are suggestions based on the schematic analysis and the experiences and opinions of others. Feel free to share with us your views and recommendations regarding the mods your personal experimentation.

These boards may be used for commercial endeavors in any quantity unless expressly noted. No attribution is necessary, though accreditation or a link back is always much appreciated.

If you are a builder planning to make your own run of pedals, we also offer the service of custom-made boards with your brand and logo, design according to your specifications.

The only usage restrictions are that, first, you cannot resell the PCB as part of a kit without prior arrangement with us, and second, you cannot scratch off the silkscreen or other way of trying to hide our logos and the source of the PCBs. Like it's written above, if you want to have your designs with your brand and logo, we could undoubtedly reach an agreement.

Follow us on [Instagram](#) and [Facebook](#) to stay in tune with the latest projects!