Acapulco Tone

Based on:
Earthquaker Devices Acapulco Gold

Effect type:
Distortion

Build difficult:
Easy

Amount of parts:
Average, total 33 components

Technology:
LM386

Power consumption:
9V

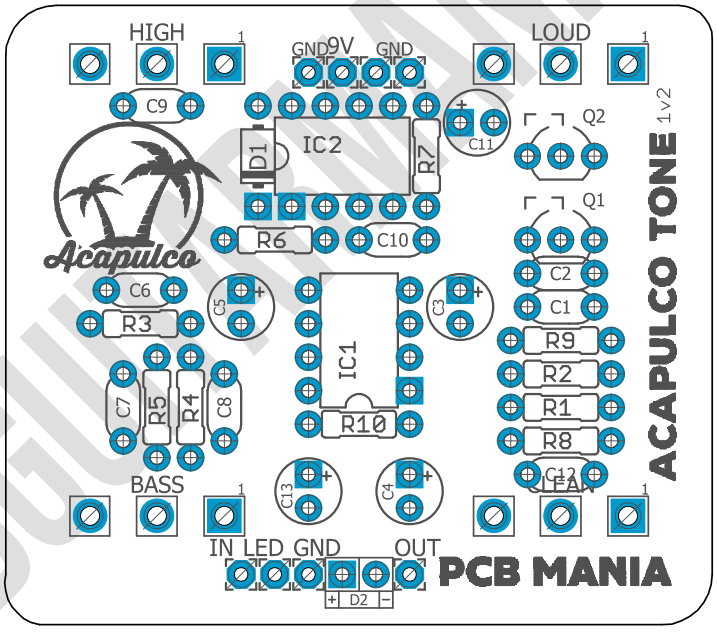
Enclosure type:
125b

Get your board at:
Acapulco Tone

Get your kit at:
Das Musikding (Europe)

Project overview:

The Acapulco Tone is a dirt-simple distortion Device based on the power section of a cranked vintage Sunn Model T, bringing openness, clarity, and crunch.



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Introduction

The big brother of the Acapulco family features a clean blend and a Baxandall tone stack, making this circuit more versatile for both guitar and bass players. Designed to use onboard potentiometers, keep it tidy without using cables!

Controls

Potentiometers

- Bass
- High
- Loud
- Clean

Bill of materials

Resistors	
Part	**Value**
R1	2m2
R2	4k7
R3	100k
R4	4k7
R5	47k
R6	68k
R7	100k
R8	4k7
R9	1m
R10	LED

Semiconductors	
Part	**Value**
IC1	LM386
IC2	LM386
Q1	2N5457
Q2	2N5457
D1	1N4001
D2	LED3MM

Capacitors	
Part	**Value**
C1	100n
C2	100n
C6	1n
C7	1n
C8	4n7
C9	10n
C10	4n7
C12	100n

Electrolytic Capacitors	
Part	**Value**
C3	10uf electrolytic
C4	10uf electrolytic
C5	1uf electrolytic
C11	1uf electrolytic
C13	100uf electrolytic

Potentiometers	
Part	**Value**
BASS	1m A
HIGH	1m A
LOUD	100k B
CLEAN	100k A

Switches	
Part	**Value**
-	3PDT Stomp foot

Jacks	
Part	**Value**
-	DC JACK
-	AUDIO JACK
-	AUDIO JACK

Shopping list

Resistors		
Qty	**Value**	**Parts**
1	2m2	R1
1	47k	R5
3	4k7	R2, R4, R8
1	68k	R6
1	1m	R9
2	100k	R3, R7
1	2k2-4k7	R10

Capacitors		
Qty	**Value**	**Parts**
1	10n	C9
2	1n	C6, C7
3	100n	C1, C2, C12
2	4n7	C8, C10

Electrolytic Capacitors		
Qty	**Value**	**Parts**
2	1uf	C5, C11
1	100uf	C13
2	10uf	C3, C4

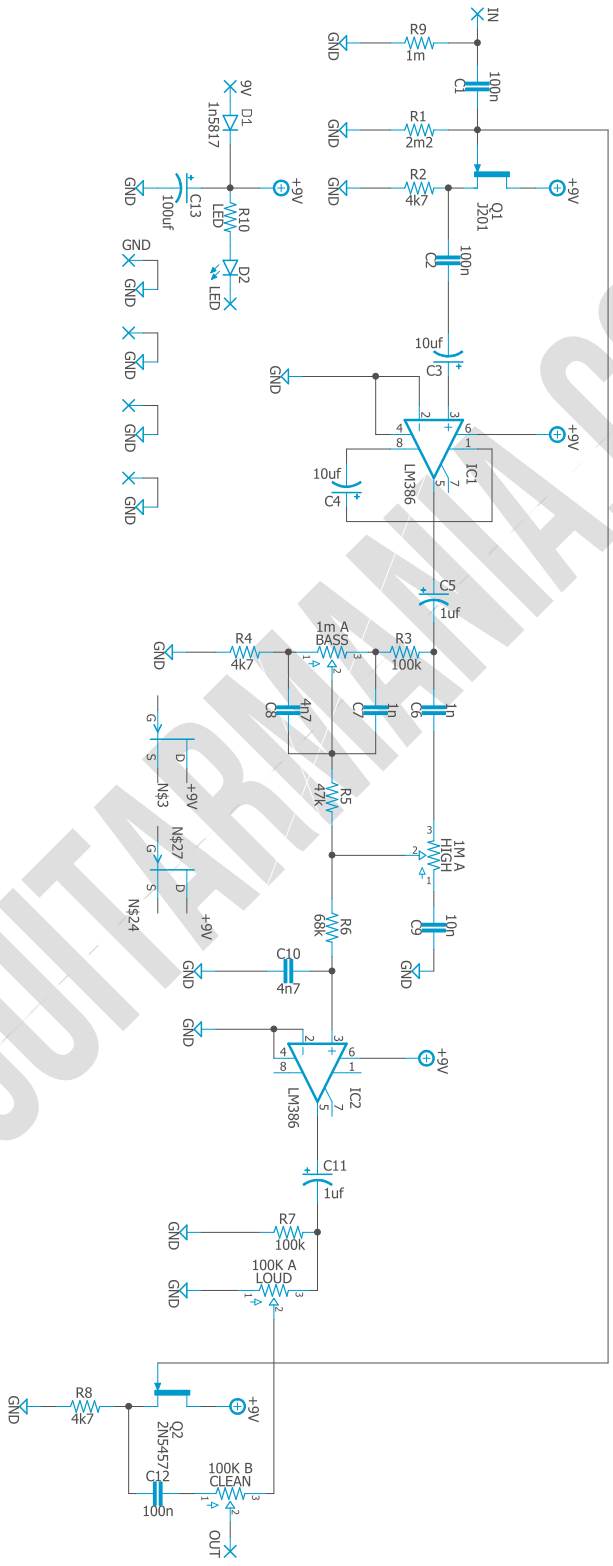
Potentiometers		
Qty	**Value**	**Parts**
1	100k B	CLEAN
1	100k A	LOUD
2	1m A	BASS, HIGH

Semiconductors		
Qty	**Value**	**Parts**
2	2N5457	Q2
2	LM386	IC1, IC2
1	LED3MM	D2
1	1N4001	D1

Switches		
Qty	**Value**	**Parts**
1	3PDT Stomp foot	-

Jacks		
Qty	**Value**	**Parts**
1	DC JACK	-
2	AUDIO JACK	-

Schematic



Components Recommendations

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

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:

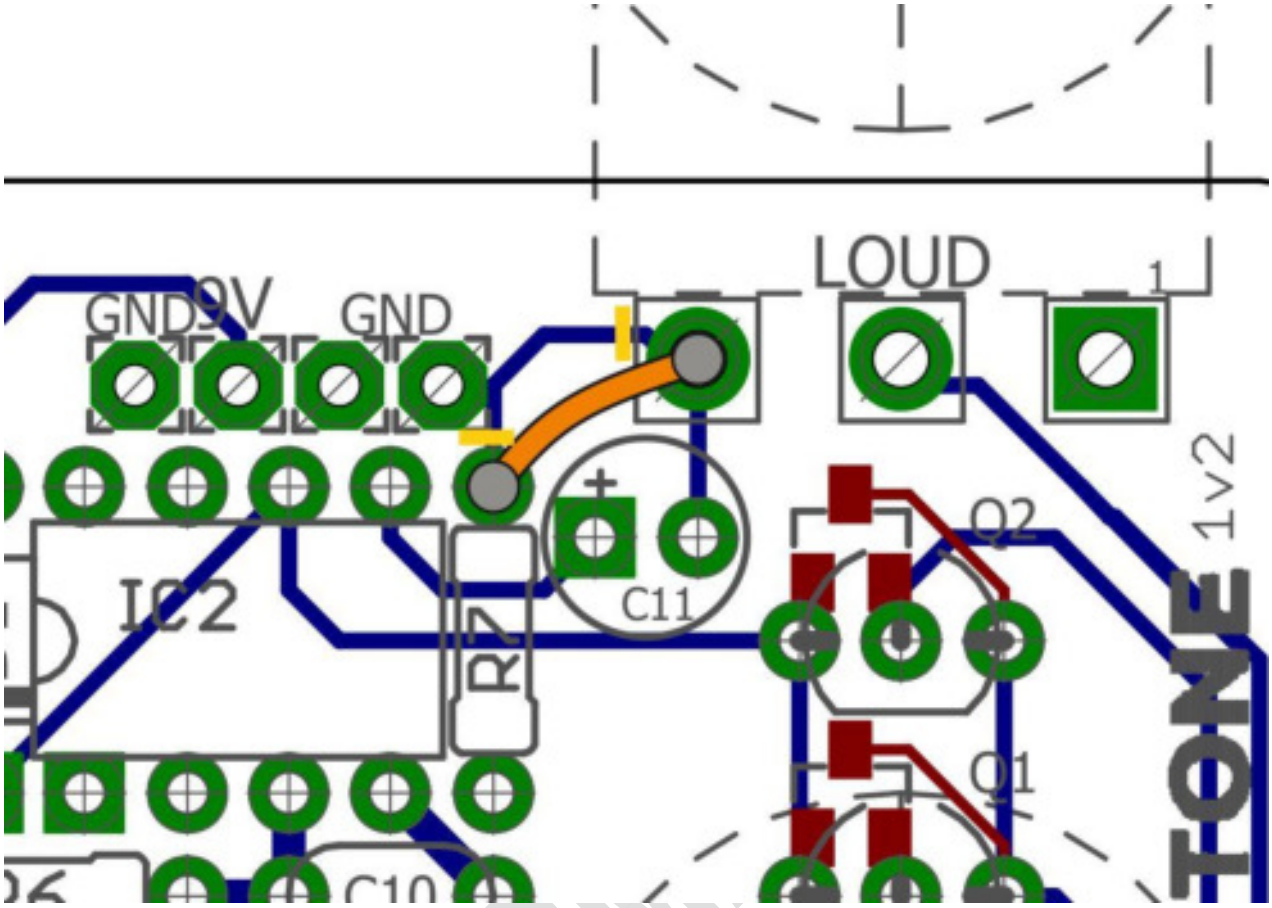
1. Resistors & diodes
2. Capacitors, starting with the smaller ones and the ceramic ones.
3. Electrolytic capacitors (always check the polarity)
4. Transistors
5. Wires
6. Potentiometers and switches
7. Off-board wiring

Important: If you have the 1.2 version, it is a small chance that you got a board that does not work correctly due to a mistake in tracing. We took all the defective boards from circulation as soon as we realized it. The new version of 1v2 is working perfectly.

If your PCB has issues, **please get in touch with us** so we can send you the updated board or give you a refund. Below you will find instructions to make the pedal work.

Repair instructions:

There is an overlap in the path that goes from R7 to LOUD pin 3. You will need to cut it (marks in yellow) and add a jumper (orange).



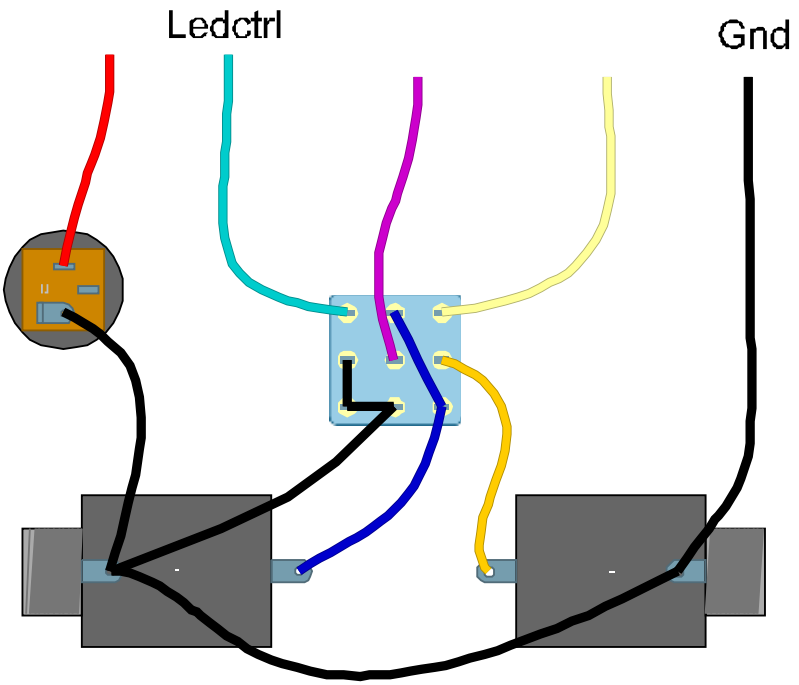
Wiring Diagram

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.

Off Board Wiring



Drill Template

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

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.

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