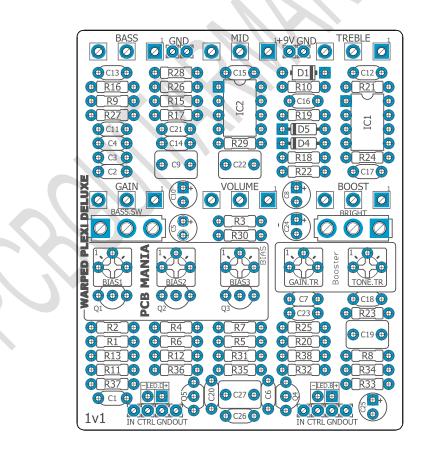
Warped Plexi Deluxe

Based on: Wampler Plexi Drive Deluxe Effect type: Modern Marshall voiced overdrive Build difficult: Advanced Number of parts: High, total 89 components Technology: JFET cascade Power consumption: 9V Enclosure type: 125b Get your board at: <u>Warped Plexi Deluxe</u> Get your kit at: <u>Das Musikding (Europe)</u>

Project overview:

Conceptually based on the Plexi-Drive Deluxe, this pedal expands upon the original <u>Wampler Pedal "Plexi-Drive"</u> by offering enhanced control options that allow you to finely tailor and sculpt your desired tone.

Our version features a front boost inspired by the tube screamer, equipped with gain and tone trimmers, followed by an active EQ for enhanced control and versatility.



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Introduction

This reinvention of the <u>Plexi-Drive</u> takes a leap into the modern era of pedals by adding a 3-band active EQ, additional brightness control, and a perfectly voiced pregain booster. With these features, you can achieve a wide range of Plexi tones from virtually any amplifier.

Marshall Amplifiers® have been at the forefront of rock tones since the early 60s, renowned for their tight overdrive and coveted bass response. Legends like Jimi Hendrix, Led Zeppelin, Cream, and AC/DC played a pivotal role in creating iconic rock tones, solidifying Marshall® as a legendary rock brand.

Just like the original <u>Plexi-Drive</u>, this Deluxe version maintains a unique gain structure capable of delivering vintage '68 style Plexi tones as well as massive rock tones reminiscent of a cranked JTM-45® amplifier.

The addition of the all-new active 3-band Bass/Mids/Treble EQ stack provides even more control over your tone. The bass boost option allows you to emulate the low-end thump of a 4x12" cabinet at the flick of a switch, perfect for dialing in your low end at lower volume gigs or bedroom playing.

In addition, we've included a bright switch to add high-end sparkle, making it effortless to switch between bright and dark guitars or amps. The Warped Plexi Deluxe also boasts a pre-gain boost soft click switch with a voice reminiscent of "that 'valve' screaming green overdrive with pronounced mids," enabling you to push your leads into thick, creamy overdrive.

The pedal fills the Marshall® void in your rig, providing the crunch, response, boost, and feel that you've been longing for. Whether you're playing sold-out shows or rocking out in solitude, this pedal will elevate your tone and allow you to create your own signature flavor of rock.

Controls

Potentiometers

- BASS
- BOOST
- GAIN
- MID
- TREBLE

• VOLUME

Switches

- BRIGHT
- BASS BOOST

- 5. Schematic
- 6. Components, Build Notes, Wiring Diagram
- 7. Drill Template, Licensing and Usage

Bill of materials

Resistors		
Part	Value	
R1	1M	
R2	1K	
R3	1K	
R4	1K	
R5	10K	
R6	100K	
R7	1K	
R8	6K2	
R9	10K	
R10	10R	
R11	10k	
R12	6K2	
R13	10k	
R15	10K	
R16	10K	
R17	3k3	
R18	10K	
R19	4K7	
R20	51K	
R21	1K	
R22	10K	
R23	1K	
R24	1K	
R25	1K	
R26	3k3	
R27	2k2	
R28	2k2	
R29	1k	
R30	1k	
R31	33k	
R32	33k	
R33	100k	
R34	100r	
R35	1k	
R36	560k	
R37	10k	

R38

Part

C1

C2

Capacitors

С3	2n2	
C4	220p	
C6	22n	
C7	220p	
C9	1u	
C11	220n	
C12	51p	
C13	47n	
C14	22n	
C15	4n7	
C16	47n	
C17	220n	
C18	220n	
C19	1u	
C20	100n	
C21	4n7	
C22	1u	
C23	470p	
C26	100n	
C27	1u	

1m

Value

47p

470p

Electrolytics Capacitors		
Part	Value	
C5	47u	
C8	47u	
C10	100u	
C24	1u	
C25	1u	

Potentiometers		
Part	Value	
BASS	B50K	
BOOST	A100K	
GAIN	A500K	
MID	B50K	
TREBLE	B100K	
VOLUME	A100K	

Diodes	
Part	Value
D1	1N5817
D4	1N4148
D5	1N4148
MAIN	3mm red LED
BST.LED	3mm red LED

Trimpots		
Part	Value	
BIAS1	50K	
BIAS2	50K	
BIAS3	50K	
GAIN.TR	500K	
TONE.TR	20K	

IC	
Part	Value
IC1	NJM4558D
IC2	TL071

Transistors		
Part	Value	
Q1	J201	
Q2	J201	
Q3	J201	
Q4	2N3904	
Q5	2N5088	

Switches	
Part	Value
BRIGHT	spdt on/on
BASS	spdt on/on
BOOST	

Shopping list

Resis	Resistors		
Qty	Value	Parts	
2	100K	R6, R33	
1	100r	R34	
9	10K	R5, R9, R15, R16, R18, R22, R11, R13, R37	
1	10R	R10	
11	1K	R2, R3, R4, R7, R21, R23, R24, R25, R29, R30, R35	
2	1M	R1, R38	
2	2k2	R27, R28	
2	33k	R31, R32	
2	3k3	R17, R26	
1	4K7	R19	
1	51K	R20	
1	560k	R36	
2	6K2	R8, R12	

2	4n7	C15, C21
1	51p	C12

Electrolytics Capacitors		
Qty Value Parts		
1	100u	C10
2	1u	C24, C25
2	47u	C5, C8

Potentiometers		
Qty	Value	Parts
2	A100K	BOOST, VOLUME
1	A500K	GAIN
1	B100K	TREBLE
2	B50K	BASS, MID

Trimpots		
Qty	Value	Parts
1	20K	TONE.TR
1	500K	<u>GAIN.TR</u>
3	50K	BIAS1, BIAS2,
		BIAS3

IC		
Qty	Value	Parts
1	NJM4558D	IC1
1	TL071	IC2

 Value
 Parts

 1
 2N3904
 Q4

 1
 2N5088
 Q5

 3
 J201
 Q1, Q2, Q3

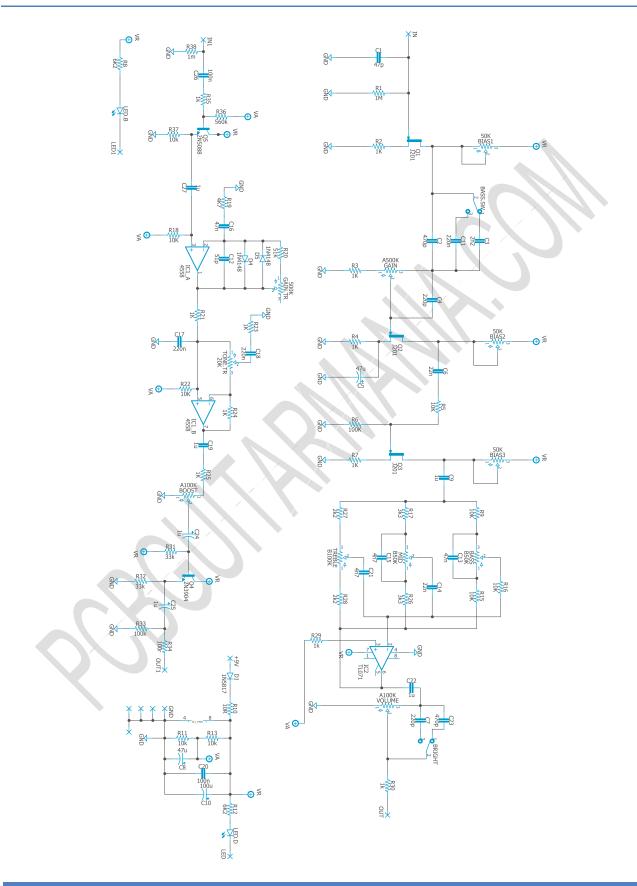
Switches		
Qty	Value	Parts
2	3PDT	-
	Stomp foot	
2	BASS	spdt on/on
	BOOST,	
	BRIGHT	

Diodes		
Qty	Value	Parts
2	1N4148	D4, D5
1	1N5817	D1
2	LEDSTATUS-	LED.B,
	LED	LED.D

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

Capacitors		
Qty	Value	Parts
2	100n	C20, C26
4	1u	C9, C19, C22, C27
3	220n	C11, C17, C18
2	220p	C4, C7
2	22n	C6, C14
1	2n2	C3
2	470p	C2, C23
2	47n	C13, C16
1	47p	C1

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

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.

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 <u>PCB Guitar Mania – Builders Group</u> 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!