Glory Drive DLX

Based on:
JHS Morning Glory ™

Number of parts:
Average, total 58 components

Enclosure type:
125b

Effect type:
Transparent Overdrive

Technology:
Dual Op Amp

Get your board at:
Glory Drive DLX

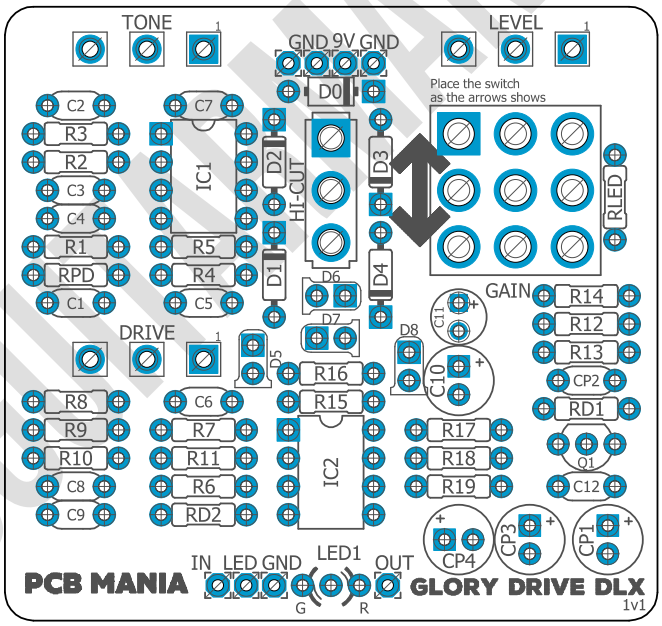
Build difficult:
Intermediate

Power consumption:
9V

Get your kit at:
Das Musikding (Europe)

Project overview:

Glory Drive DLX has all the features of the Glory Drive but includes an entirely switchable extra gain stage mod and an external Hi-cut switch.
The hi-cut tonal effect improves tone shaping and feedback control, but the fact that it is hard to flip on the original Glory Drive can be a drawback. This pedal's sounds are sweet and can add a lot to your effects rig.



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Introduction

Don't you love when something keeps getting better and better? This is definitively the case with the classic Marshall Bluesbreaker. It all started when JHS pedals ™ made a version addressing some of the original circuit volume issues by adding a JFET output buffer. They also added a high-cut switch to make the pedal more suitable for Strats and single coils.

Glory Drive DLX features all those improvements and includes an entirely switchable extra gain stage mod and an external Hi-cut switch. This is the final step of a series of enhancements that transformed a good pedal into an exemplary one.

This pedal is a low/mid gain drive that works the best with single coils and Fenderish guitars, for everything from blues, country, and classic rock, and it's almost impossible not to get a great tone out of it. With a barely open gain knob, your sound will be pretty close to what you used from your amp. From there, you dial in the gain till you get the number of overtones you desire but still open.

The pedal produces more treble the further you crank the gain. That's where the high-cut toggle comes in handy, depending on your setup.

This latest version of an already well-thought pedal is now at the pinnacle of circuit evolution. No wonder why so many people like it!

Controls

Potentiometers

- Tone
- Level
- Drive

Switches

- Gain
- Hi-cut

Bill of materials

Resistors	
Part	**Value**
R1	1M
R2	3K3
R3	4K7
R4	10K
R5	220K
R6	6K8
R7	1K
R8	6K8
R9	100K
R10	68K
R11	1M
R12	12K
R13	22K
R14	12K
R15	1K
R16	1K
R17	1K
R18	1K
R19	3k9
RD1	47K
RD2	47K
RLED	4K7
RPD	2M2

Capacitors	
Part	**Value**
C1	47n
C2	47p
C3	10n
C4	10n
C5	100n
C6	470p
C7	10n
C8	10n
C9	100n
C12	180nf
CP2	100n

Electrolytic Capacitors	
Part	**Value**
C10	2u2
C11	10u
CP1	100u
CP3	100u
CP4	100u

Potentiometers	
Part	**Value**
DRIVE	B100K
LEVEL	A100K
TONE	B25K

IC	
Part	**Value**
IC1	LM833N
IC2	LM833N

Switches	
Part	**Value**
Hi-Cut	Spdt On-On
GainA	3pdt On-On

Transistors	
Part	**Value**
Q1	2N5457

Diodes	
Part	**Value**
D0	1N5817
D1	1N914
D2	1N914
D3	1N914
D4	1N914
D5	3mm red LED
D6	3mm red LED
D7	3mm red LED
D8	3mm red LED
LED1	LED Dual Common Cathode

Shopping list

Resistors		
Qty	**Value**	**Parts**
1	100K	R9
1	10K	R4
2	12K	R12, R14
5	1K	R7, R15, R16, R17, R18
2	1M	R1, R11
1	220K	R5
1	22K	R13
1	2M2	RPD
1	3K3	R2
1	3k9	R19
2	47K	RD1, RD2
2	4K7	R3, RLED
1	68K	R10
2	6K8	R6, R8

Capacitors		
Qty	**Value**	**Parts**
3	100n	C5, C9, CP2
4	10n	C3, C4, C7, C8
1	180nf	C12
1	470p	C6
1	47n	C1
1	47p	C2

Electrolytic Capacitors		
Qty	**Value**	**Parts**
3	100u	CP1, CP3, CP4
1	10u	C11
1	2u2	C10

Potentiometers		
Qty	**Value**	**Parts**
1	A100K	LEVEL
1	B100K	DRIVE
1	B25K	TONE

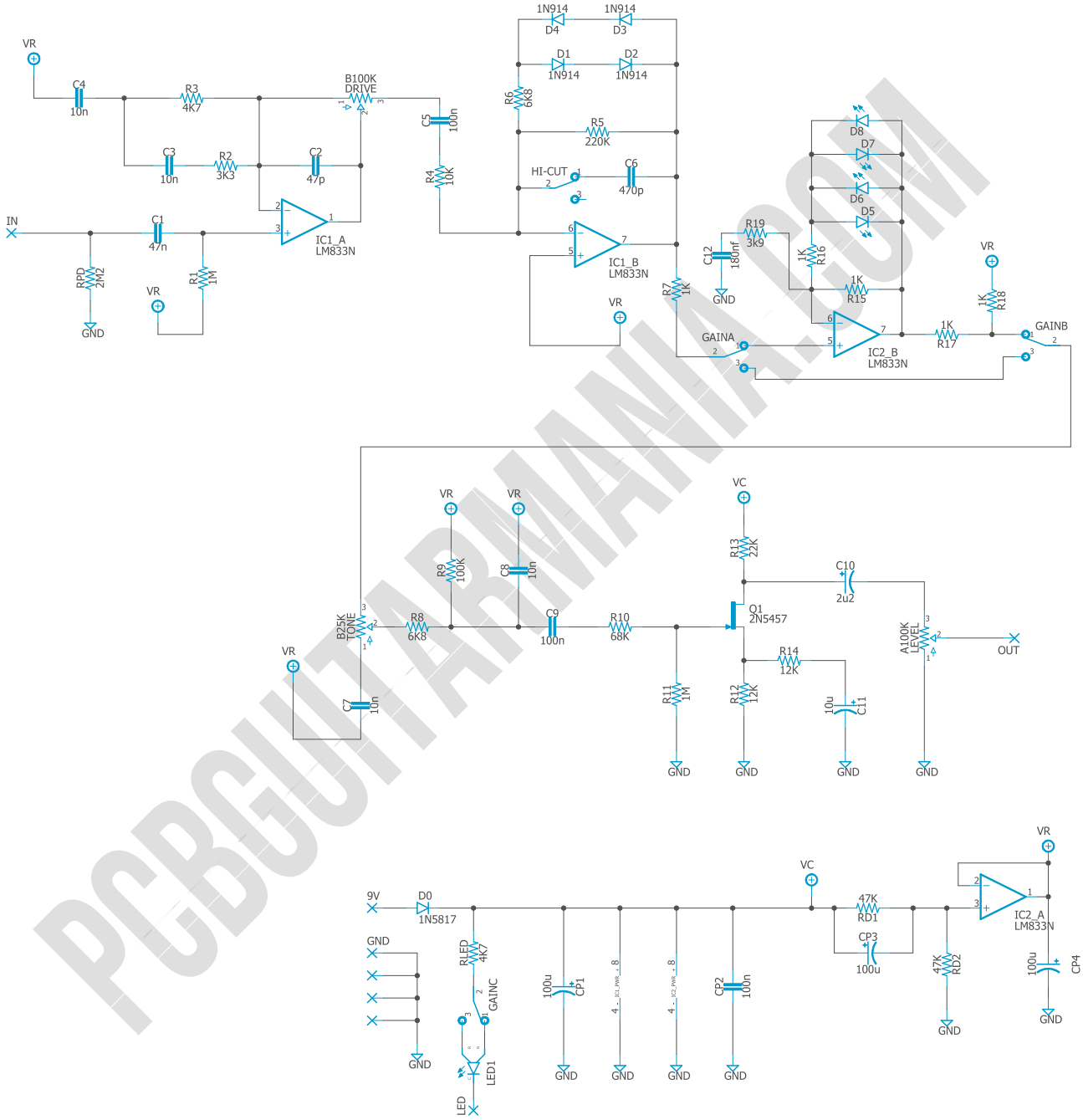
IC		
Qty	**Value**	**Parts**
2	LM833N	IC1, IC2

Transistors		
Qty	**Value**	**Parts**
1	2N5457	Q1

Switches		
Qty	**Value**	**Parts**
1	Hi-Cut	Spdt On-On
1	GainA	3pdt On-On
1	3PDT Stomp foot	-

Diodes		
Qty	**Value**	**Parts**
1	1N5817	D0
4	1N914	D1, D2, D3, D4
2	47K	RD1, RD2
1	LED Dual Common Cathode	LED1
4	3mm red LED	D5, D6, D7, D8

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 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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