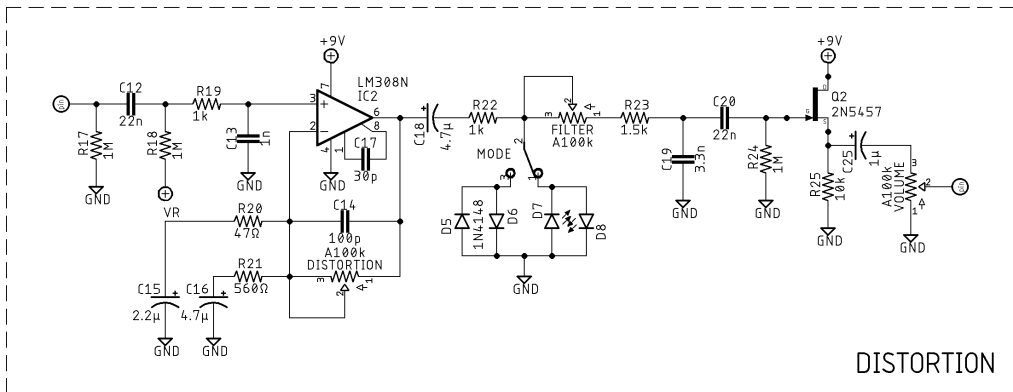
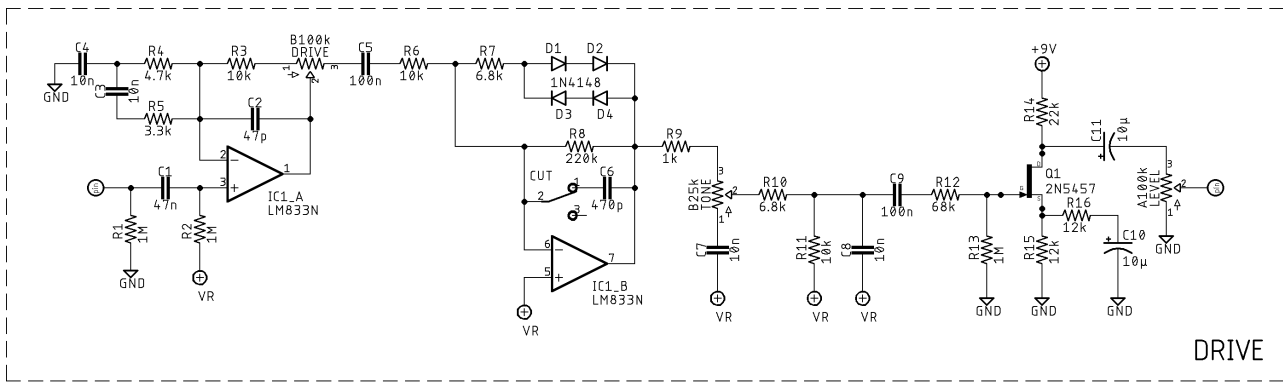


# Loyalist

## DESCRIPTION

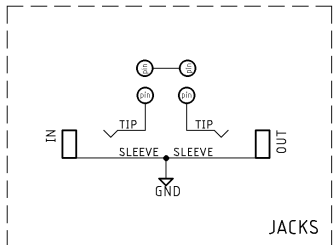
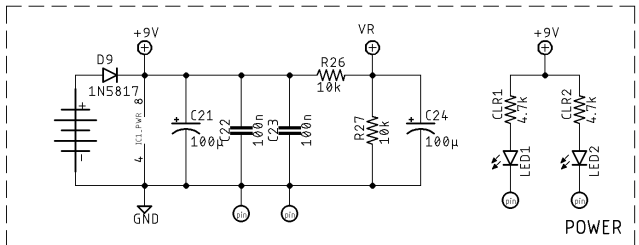
The LOYALIST came about from reading up on the JHS Morning Glory and how at one point Josh Scott had planned to pair the Morning Glory with a ProCo Rat clone in a 2-in-1 called the Patriot. JHS never ending up making this and so I give you the LOYALIST. The Rat section has a mode switch to go between the original Rat with silicon diodes and the Turbo Rat with LEDs.

## SCHEMATIC



## LOYALIST

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## BOM

### Resistors

R1	1M
R2	1M
R3	10k
R4	4.7k
R5	3.3k
R6	10k
R7	6.8k
R8	220k
R9	1k
R10	6.8k
R11	10k
R12	68k
R13	1M
R14	22k
R15	12k
R16	12k
R17	1M
R18	1M
R19	1k
R20	47Ω
R21	560Ω
R22	1k
R23	1.5k
R24	1M
R25	10k
R26	10k
R27	10k
CLR1	4.7k
CLR2	4.7k

### Capacitors

C1	47n
C2	47p
C3	10n
C4	10n
C5	100n
C6	470p
C7	10n
C8	10n
C9	100n
C10	10μ
C11	10μ

C12	22n
C13	1n
C14	100p
C15	2.2μ
C16	4.7μ
C17	30p
C18	4.7μ
C19	3.3n
C20	22n
C21	100μ
C22	100n
C23	100n
C24	100μ
C25	1μ

### Semiconductors

D1	1N4148
D2	1N4148
D3	1N4148
D4	1N4148
D5	1N4148
D6	1N4148
D7	3mm red LED
D8	3mm red LED
D9	1N5817
IC1	LM833N
IC2	LM308N
LED1	3 or 5mm LED
LED2	3 or 5mm LED
Q1	2N5457 or MMBF5457
Q2	2N5457 or MMBF5457

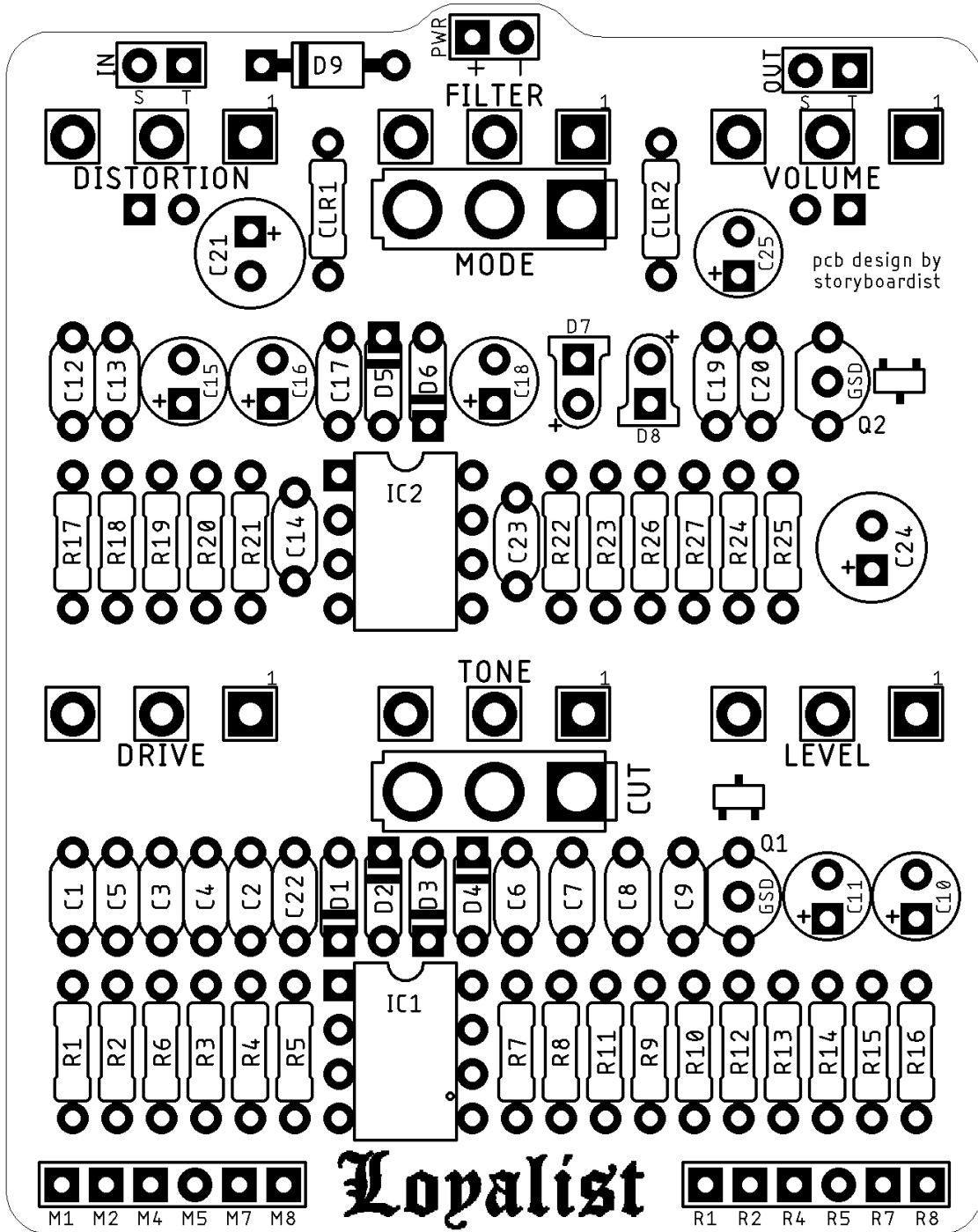
### Electromechanical

Cut	SPDT on/on
Distortion	A100k
Drive	B100k
Filter	A100k
Level	A100k
Mode	SPDT on/on or on/off/on
Tone	B25k
Volume	A100k

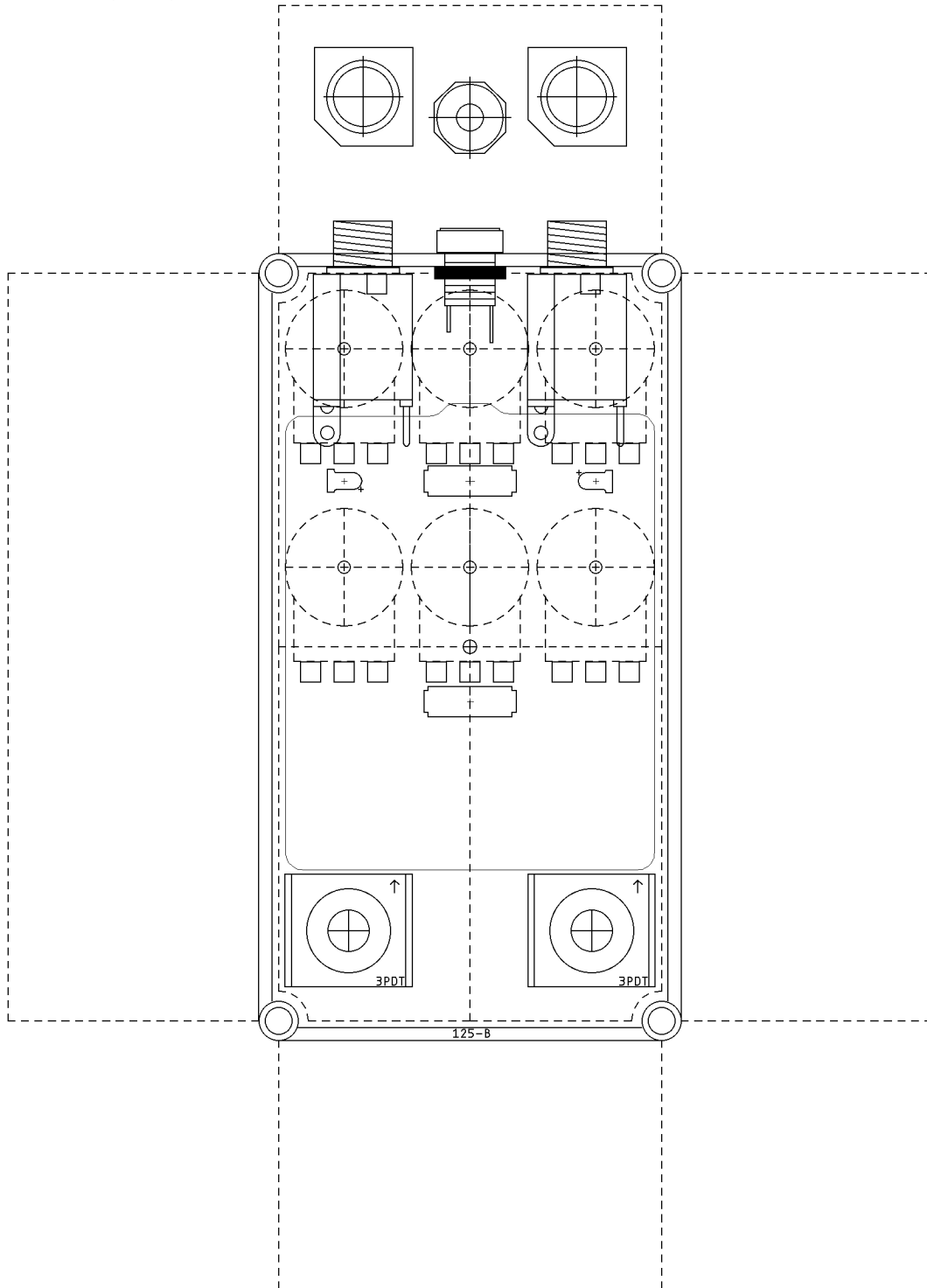
## SHOPPING LIST

Part	Type (suggested)	Quantity
47Ω	¼ watt metal or carbon film	1
560Ω	¼ watt metal or carbon film	1
1k	¼ watt metal or carbon film	3
1.5k	¼ watt metal or carbon film	1
3.3k	¼ watt metal or carbon film	1
4.7k	¼ watt metal or carbon film	3
6.8k	¼ watt metal or carbon film	2
10k	¼ watt metal or carbon film	6
12k	¼ watt metal or carbon film	2
22k	¼ watt metal or carbon film	1
68k	¼ watt metal or carbon film	1
220k	¼ watt metal or carbon film	1
1M	¼ watt metal or carbon film	6
30p	Ceramic	1
47p	Ceramic	1
100p	Ceramic	1
470p	Ceramic	1
1n	Film	1
3.3n	Film	1
10n	Film	4
22n	Film	2
47n	Film	1
100n	Film	4
1μ	Electrolytic (25v+)	1
2.2μ	Electrolytic (25v+)	1
4.7μ	Electrolytic (25v+)	2
10μ	Electrolytic (25v+)	2
100μ	Electrolytic (25v+)	2
1N4148	Silicon switching diode	6
1N5817	Schottky rectifier diode	1
2N5457/MMBF5457	JFET	1
LED	3mm red	2
LED	3 or 5mm	2
LM308N	Opamp	1
LM833N	Dual opamp	1
SPDT	on/on toggle	2
A100k	16mm right angle PC mount	4
B25k	16mm right angle PC mount	1
B100k	16mm right angle PC mount	1

LAYOUT



# DRILL TEMPLATE (125B)



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Not for non-peer to peer resale.