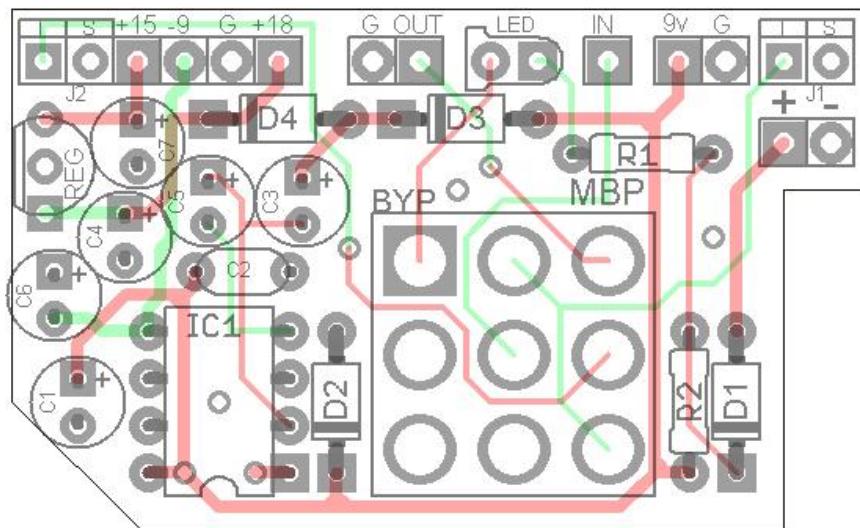
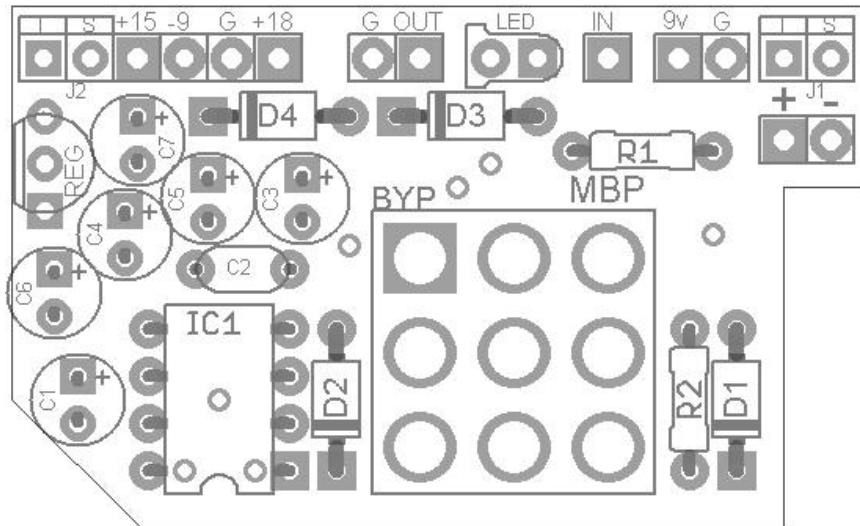


3PRR

FX TYPE: Utility

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1.82" W x 1.11" H

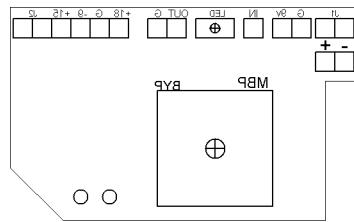


Terms of Use: You are free to use purchased 3PRR circuit boards for both DIY and small commercial operations. You may not offer 3PRR boards for resale or as part of a "kit" in a commercial fashion. Peer to peer re-sale is, of course, okay.

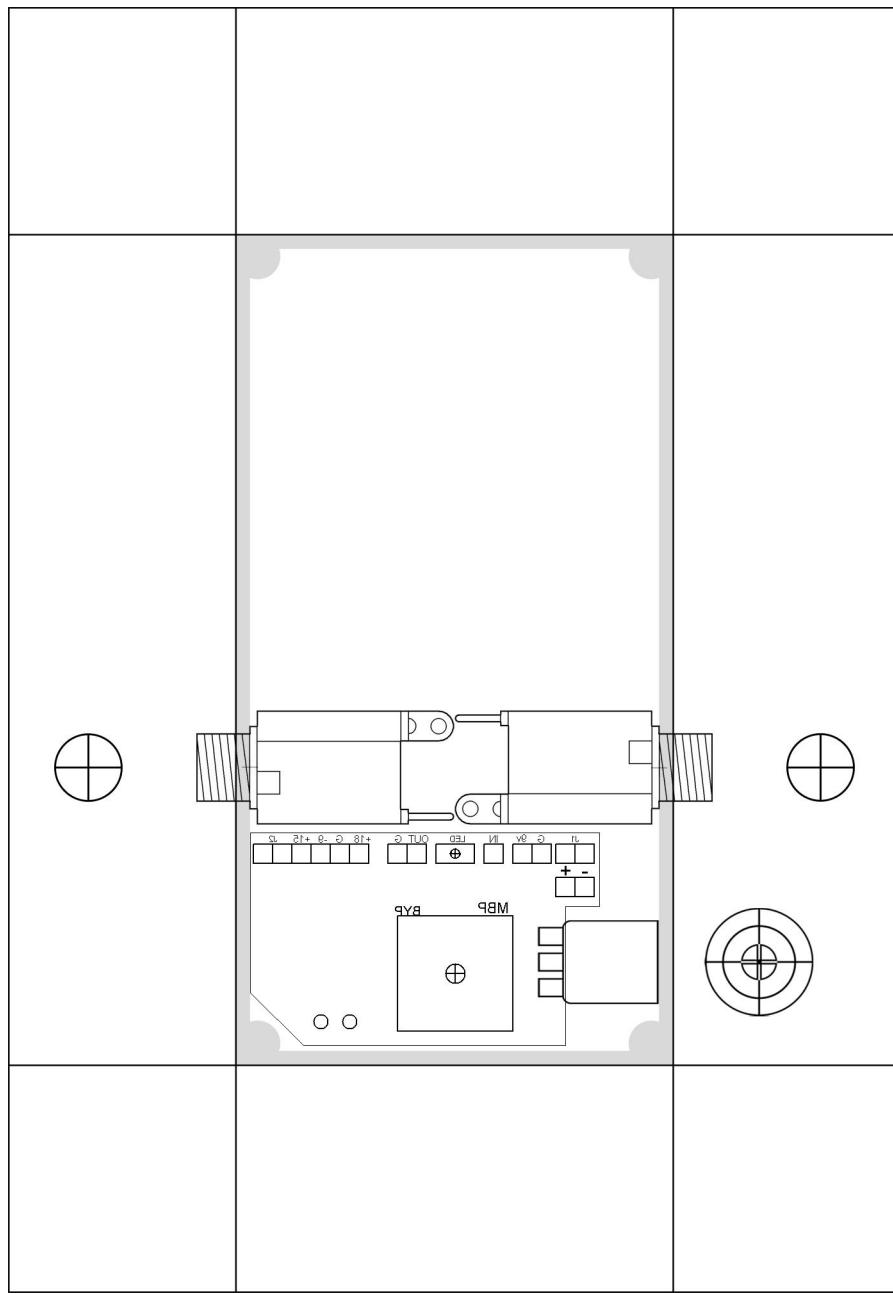
Resistors	
R1	4k7
R2	10R
Caps	
C1	47uF
C2	100n
C3	10uF
C4	10uF
C5	10uF
C6	10uF
C7	10uF
Diodes	
D1	1N5817
D2	12v Zener
D3	1N5817
D4	1N5817
LED	3MM/5MM
Regulator	
REG	LM78L15
IC	
IC1	Charge Pump
Switch	
BYP	3PDT

Value	QTY	Type	Rating
10R	1	Carbon / Metal Film	1/4W
4k7	1	Carbon / Metal Film	1/4W
100n	1	Film / MLCC	25v
10uF	5	Electrolytic	25v
47uF	1	Electrolytic	25v
1N5817	3		
12v Zener	1		
LM78L15	1	T0-92	
Charge Pump	1	*see notes	
LED	1	3mm or 5mm	
3PDT	1	Solder Lug Footswitch	

Actual Size

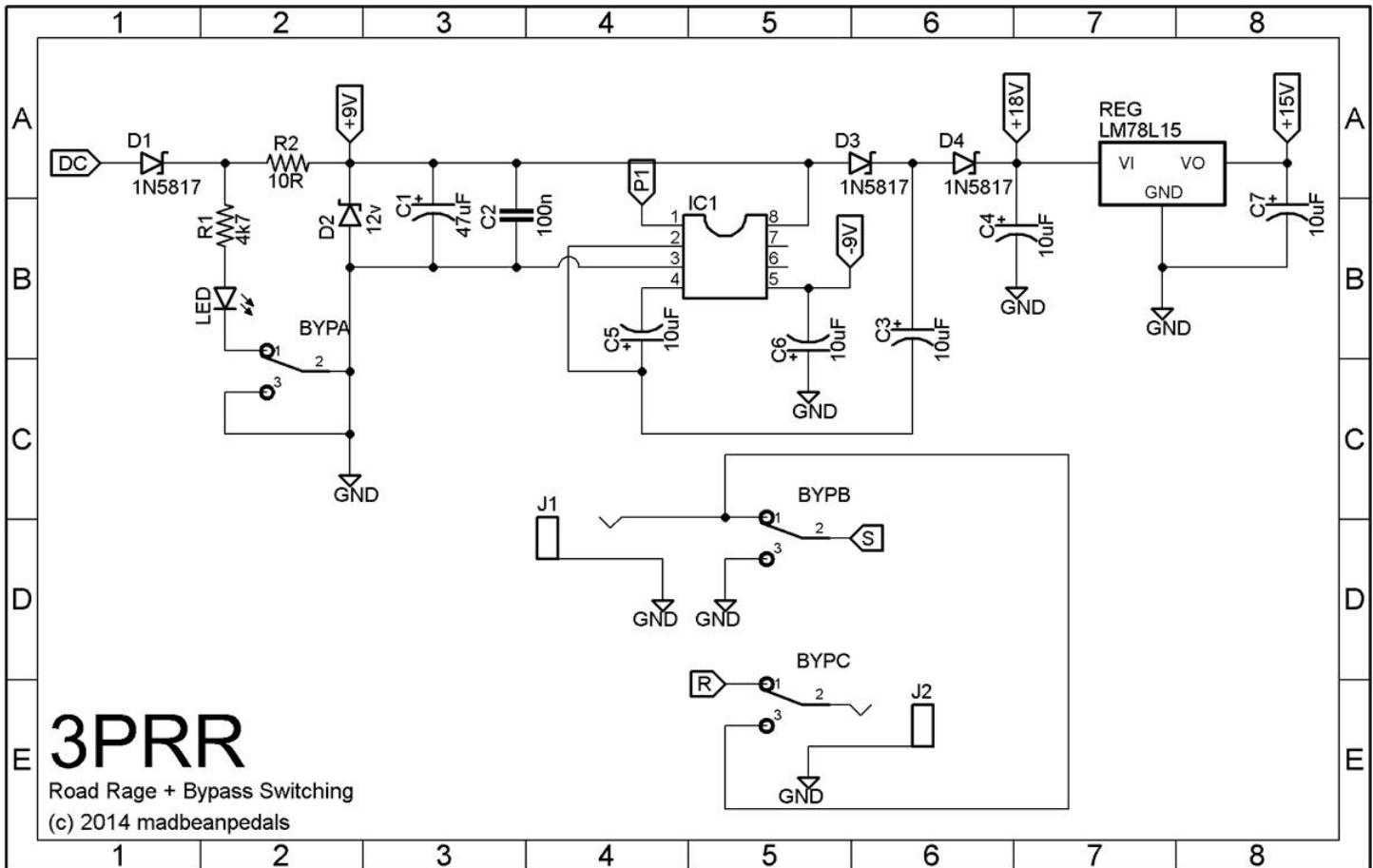


1590B
4.64"W x 6.68"H



This is the top down view looking at the front face of the 1590B enclosure.

Download the Photoshop template for this guide here:
http://www.madbeanpedals.com/projects/3PRR/3PRR_Drill.zip



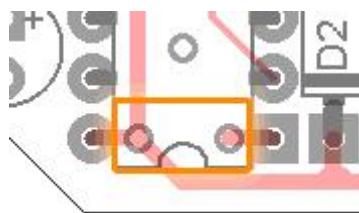
The **3PRR** is a combination of two utility circuits onto a single PCB: a charge pump / voltage inverter and bypass switcher. The switching mechanism is true bypass with effect input grounded, and the charge pump section can provide + or - 9v, +18v (unregulated) and/or +15v (or +12v) regulated. All outputs can be used simultaneously, if needed, so long as the circuit load does not exceed the current supply available through the charge pump. This ranges from 20mA-100mA depending on the charge pump used.

Building tips:

The 3PDT switch and components are mounted on the same side of the PCB (the one with the component silk screen). The entire assembly is flipped over to mount in the enclosure.

The 9v output is a courtesy output. This can be used if you are building two effects in a larger enclosure that have different power requirements. Example: a boost that uses 18v and a compressor that uses 9v. In this case, the 9v pad and G pad would be wired to the compressor. The 18v pad and the other G pad would be wired to the boost. You should be able to combine positive and negative ground effects, too. Example: a fuzz that uses -9v and a boost that uses +9v.

You can use any of the following charge pumps: MAX1044CPA, TC1044SCPA, ICL7660SCPA, and the LT1054. There are two small pads connected to pins 1 and 8 of IC1. These pads must be jumpered for all the charge pumps EXCEPT the LT1054. Do not jumper the pads for the LT1054.



You only need to populate the charge pump parts for the function you require

- 1) -9v operation: leave off D3, D4, C3, C4, REG, and C7.
- 2) +18v operation: leave off C6, REG and C7.
- 3) +15 (or +12v) operation: leave off C6.

This wiring diagram shows what you will see inside the enclosure.

