



## Shopping List

Value	QTY	Type	Rating	Notes
470R	1	Metal / Carbon Film	1/4W	
1k	4	Metal / Carbon Film	1/4W	
10k	1	Metal / Carbon Film	1/4W	
1M	1	Metal / Carbon Film	1/4W	
2M2	2	Metal / Carbon Film	1/4W	
10pF	1	MLCC / Ceramic	16v min	2.54mm spacing
33pF	1	MLCC / Ceramic	16v min	2.54mm spacing
100pF	1	MLCC / Ceramic	16v min	2.54mm spacing
1n	2	Film	16v min	
4n7	1	Film	16v min	
100n	2	MLCC / Ceramic	16v min	2.54mm spacing
220n	3	Film	16v min	
1uF	2	Film	16v min	
4u7	1	Electrolytic	16v min	
1n4148	4			
1n34a	1			
2n5458	1	or, J111		
BS170	1			
LM308	1			
100kA	1	PC Mount Right Angle	16mm	
100kC	1	PC Mount Right Angle	16mm	
10kC	1	PC Mount Right Angle, Plastic Shaft	9mm	
1MD	1	PC Mount Right Angle	16mm	<b>Included w/ PCB</b>
W20k [C]	1	PC Mount Right Angle, Plastic Shaft	9mm	<b>Included w/ PCB</b>
W1M [C]	1	PC Mount Right Angle, Plastic Shaft	9mm	<b>Included w/ PCB</b>

*11.13.17 update: removed two 470k resistors listed in BOM that are not in the build.*

### 2.54mm MLCC

**10pF:** <http://www.mouser.com/ProductDetail/KEMET/C320C100J1G5TA?qs=sGAEpiMZZMt3KoXD5rJ2N4ZL0L4F3GD0sicU2qoOz3M%3d>

**33pF:** <http://www.mouser.com/ProductDetail/KEMET/C320C330J1G5TA?qs=sGAEpiMZZMt3KoXD5rJ2N4ZL0L4F3GD0sicU2qoOz3M%3d>

**100pF:** <http://www.mouser.com/ProductDetail/KEMET/C320C101J5G5TA?qs=sGAEpiMZZMt3KoXD5rJ2N54QGdmtVhtg63%252bt7NgZMo0%3d>

**100n:** <http://www.mouser.com/Search/ProductDetail.aspx?R=C320C104K5R5TAvirtualkey64600000virtualkey80-C320C104K5R>

*You can also just use regular 5mm spaced ceramics or MLCC if you bend the leads inward a bit so don't feel like you have to order the Mouser parts listed above.*

**100kA, 100kC:** <http://smallbear-electronics.mybigcommerce.com/alpha-single-gang-16mm-right-angle-pc-mount/>

**10kC:** <http://smallbear-electronics.mybigcommerce.com/alpha-single-gang-9mm-right-angle-pc-mount-w-knurled-plastic-shaft/>

**UA308:** (metal can sub for LM308): <http://smallbear-electronics.mybigcommerce.com/ic-ua308hc/>

**2n5458:** <http://smallbear-electronics.mybigcommerce.com/transistor-fet-2n5458/>

The 1MD (GAIN) pot is 1MA with 10% tolerance. The 20k (HARD) and 1M (SOFT) pots are W taper with center detent.

**July 31<sup>st</sup> update:** All the W1M [C] taper pots are gone and will no longer be included with this project. Use a regular 1MB pot in its place. The W1M [C] pot has a center detent which the 1MB pot does not. Both pots will cover the same tones although the 1MB pot may find similar settings in slightly different positions than the W1M [C]. The 1MD and W20k [C] are still included with the PCBs.

1MB pot: <http://smallbear-electronics.mybigcommerce.com/alpha-single-gang-9mm-right-angle-pc-mount-w-knurled-plastic-shaft/>





Voltages			
9.42v One Spot			
IC	DC	2n5484	DC
1	8.59	D	9.13
2	4.57	S	1.69
3	4.12	G	0
4	0	BS170	
5	~	D	4.57
6	4.57	G	4.57
7	9.13	S	4.39
8	4.66		

## Build Pic



Note: On this build I used a wired DC jack (my preferred method) and alternate foot-switch location since I am not using batteries.



Alpha Dog  
<http://www.vfepedals.com/>

