

DR GOGO

Nonlinearcircuits

This is basically the analogue section of a DR-55 with a few extra bits for the input sub-circuits, power regulating and tweaking the BD and RS sounds. Look for the DR-55 schematic to troubleshoot, very easy to find online.

Contact me via Muffs (andrewF) or nonlinearcircuits at hotmail dot com if you spot some errors or have questions.

BOM – get spares, I can't count

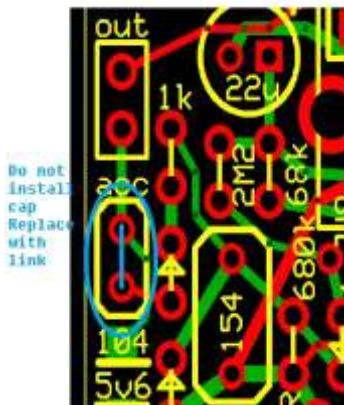
Note the surface mount components are 1206 sized **not** 0805

Pots	number		
1MA	2	tone, accent	
100kB	3	vol, bd tune, rs tune	
1kB	1	bd decay	
78L06	1		
BC547 NPN	9		
J108 FET	1	any general FET should work, GSD pinout marked on PCB	
45mH inductor	1	I used 47mH. See notes below	
1206 SMD caps			
682	4		
472	2		
222	5	One is labelled 2n2 on the PCB, don't know why	
102	3		
473	2		
273	2		
683	4		
152	2		
272	1		
104	3		
562	1		
1206 SMD resistors			
100k	8	marked "Ck"	
10k	10		
22k	7		
Electro caps			
10u	1		
22u	3		

4u7	4		
Trimpots			
50k	1	accent	
10k	1	noise	
Capacitors			
182	1		
154	1		
183	1		
47p	1		
104	3	for triggers, 103 better?	replace 104 cap by accent input with a link
unmarked	2	decoupling use 473-104	
Resistors			
10R	1		
100R	1		
270R	1		
330R	2		
1k	5		
4k7	1		
33k	3		
47k	4		
68k	1		
82k	1		
120k	1		
150k	1		
180k	1		
220k	1		
470k	1		
680k	2		
1M	3		
2M2	9		
Diodes			
1N4004	1	marked 400x	
1N4148	8		
5V6 zener	2	5V1 okay	

Errors / Mods

- The accent input does not need a capacitor. Replace the 104 cap directly next to the accent input with a link.



- I did not have a 1k pot for the BD decay, so used a 10k. Much of the range is useless, so if using a 10k pot, place a resistor across the two solder points to reduce the total resistance, 1k5 to 2k2 would suit. **If you have a 1k pot, do not do this mod, it is only if you cannot find a 1k pot and use a 10k. See pic.**



45Mh Inductor – I could not find one for a reasonable price so used a 47mH from Element 14, for \$1.08 each. It is available from Mouser, Farnell, Digikey, etc. (even cheaper)

MURATA POWER SOLUTIONS - 13R476C - INDUCTOR, 47MH, 10% 0.045A TH RADIAL

Panel connections

pots	jacks
tone	out
volume	accent in
accent	SD in
BD decay	HH in
BD tune	BD in
RS tune	RS in

The circuit has a 6V regulator and runs fine on a +12V supply, although the power connector has a -12V terminal, this is not used.

Pots

These are a common footprint. I use R0903N from Song Huei, Alps RK09K11 also suit.

Basically look for - **Potentiometer,9mm,snap in, vertical mount**

Dimensions

