The Fulltone Fulldrive2

This was drawn to figure out how to convert a Fulldrive2 into a Bassdrive. Grunt work by BP, hard stuff and mod suggestions by cd.

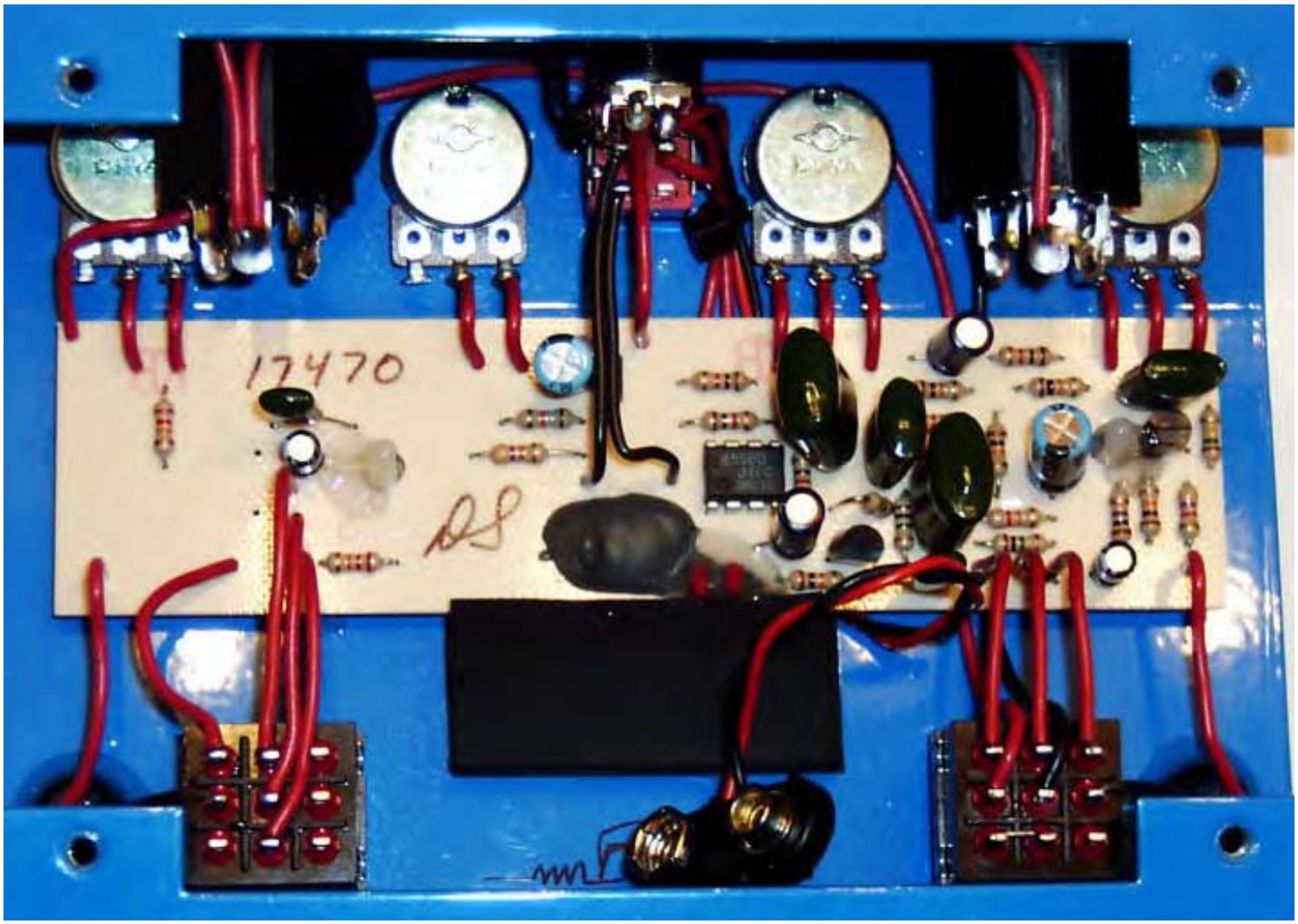
The story.

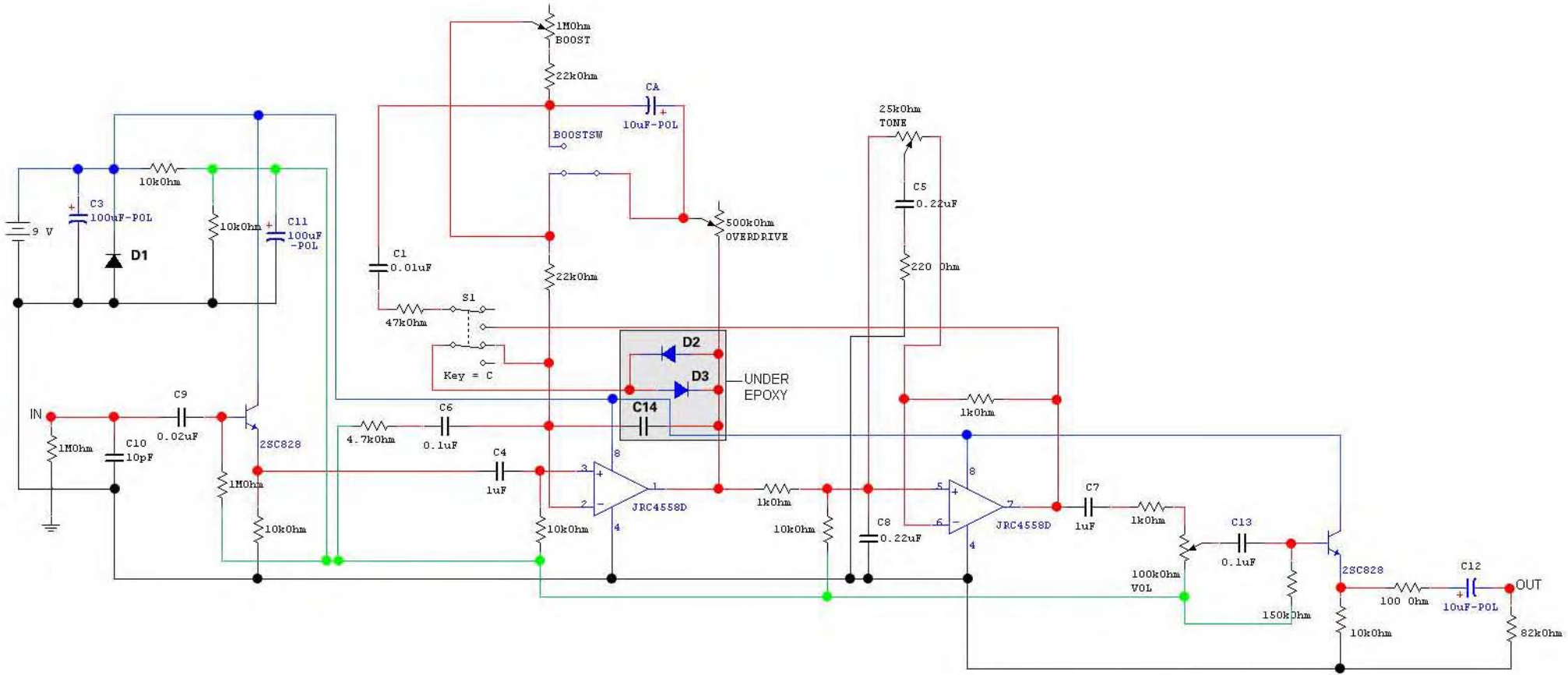
I got a FD2 in trade and used it with my bass, it sounded great, smooth creamy tone, from lightly warmed to pretty gosh darn fuzzy and enough knobs to dial in your own picky tastes. Then I read on the website that there is a version with an extra octave of low end, I had to have it. Off to the internet where I found someone who could tell me how to mod for the extra octave if they could see the schematic, so I learned to draw and we all lived happily ever after.

The Mods

If you want the equivalent of a Bass-Drive, change C6 to .22uf or .33uf and C8 to .8uf. C1 is only for pop-prevention when the Boost switch is engaged.

Besides that, no other mods should be necessary to let in all the low frequencies. The input cap (.02u) is large enough to let all frequencies through. Same with the output caps. Increasing C8 may not be necessary actually, increasing it will increase the low end which will sound like a high end cut (slight difference).




1MOhm
BOOST
22kOhm
CA
10uF-POL
BOOSTSW
25kOhm
TONE
C5
0.22uF
220 Ohm
500kOhm
OVERDRIVE
C1
0.01uF
22kOhm
S1
47kOhm
Key = C
D2
D3
UNDER
EPOXY
C14
10kOhm
C3
100uF-POL
9 V
D1
C11
100uF
-POL
IN
C9
0.02uF
2SC828
C10
10pF
1MOhm
4.7kOhm
C6
0.1uF
C4
1uF
JRC4558D
1kOhm
C8
0.22uF
C7
C13
0.1uF
100kOhm
VOL
150kOhm
C12
100 Ohm
OUT
82kOhm

Parts list
What we have here are the actual DMM readings and what I could read on the parts. The schematic has standard values substituted for these resistors.

R1 - 21.8k red red orange gold
R2 - 21.6k red red orange gold
R3 - 17.6k purple grey orange gold
R4 - 46.4k yellow purple orange gold
R5 - .98k brown black red gold
R6 - .98k brown black red gold
R7 - .22k red red purple gold
R8 - 9.8k brown black orange gold
R9 - 9.8k brown black orange gold
R10 - 9.8k brown black orange gold
R11 - 4.6k purple red gold
R12 - Jumper
R13 - 1.01meg brown black blue gold
R14 - 1k brown black red gold
R15 - 9.7k brown black orange gold
R16 - 9.8k brown black orange gold
R17 - 81.4k grey red orange gold
R18 - .987 meg brown black blue gold
R19 - 99.1 ohm brown black brown gold
R20 - 9.8k brown black orange gold
R21 - 4.6k purple red gold
R22 - 146.5k purple blue gold

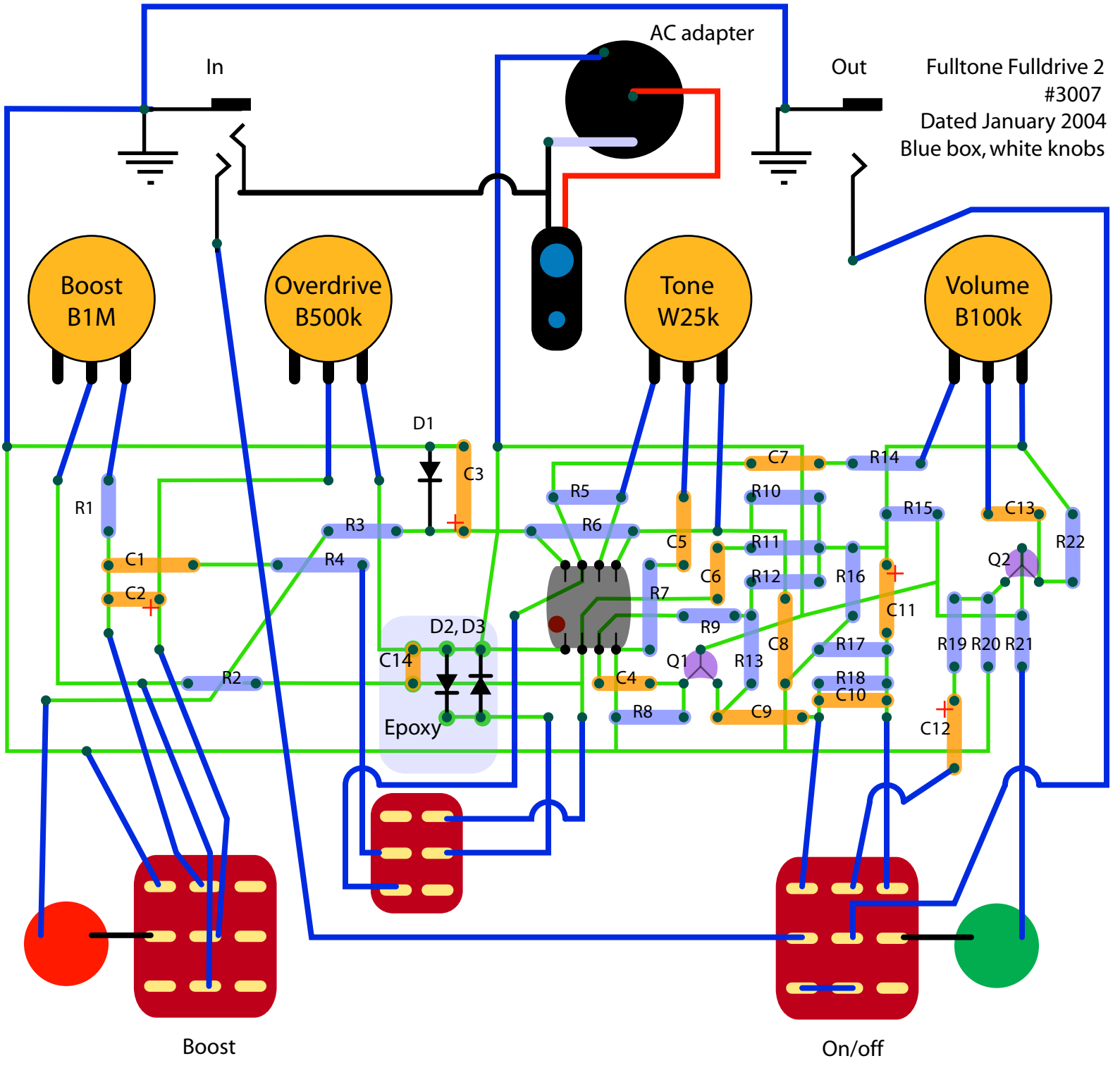
C1 - 2a103kt
C2 - 10uf
C3 - 100uf
C4 - 1uf
C5 - 2a224k tracon
C6 - 1h104k tracon
C7 - 1uf
C8 - 2a224k tracon
C9 - 1h203kt
C10 - ceramic, says simply 10
C11 - 100uf
C12 - 10uf
C13 - 1h104 tracon
C14 - unknown, under epoxy, a 1996 schematic says 51pf

IC - JRC 4558D
Q1, Q2 - C828 R25

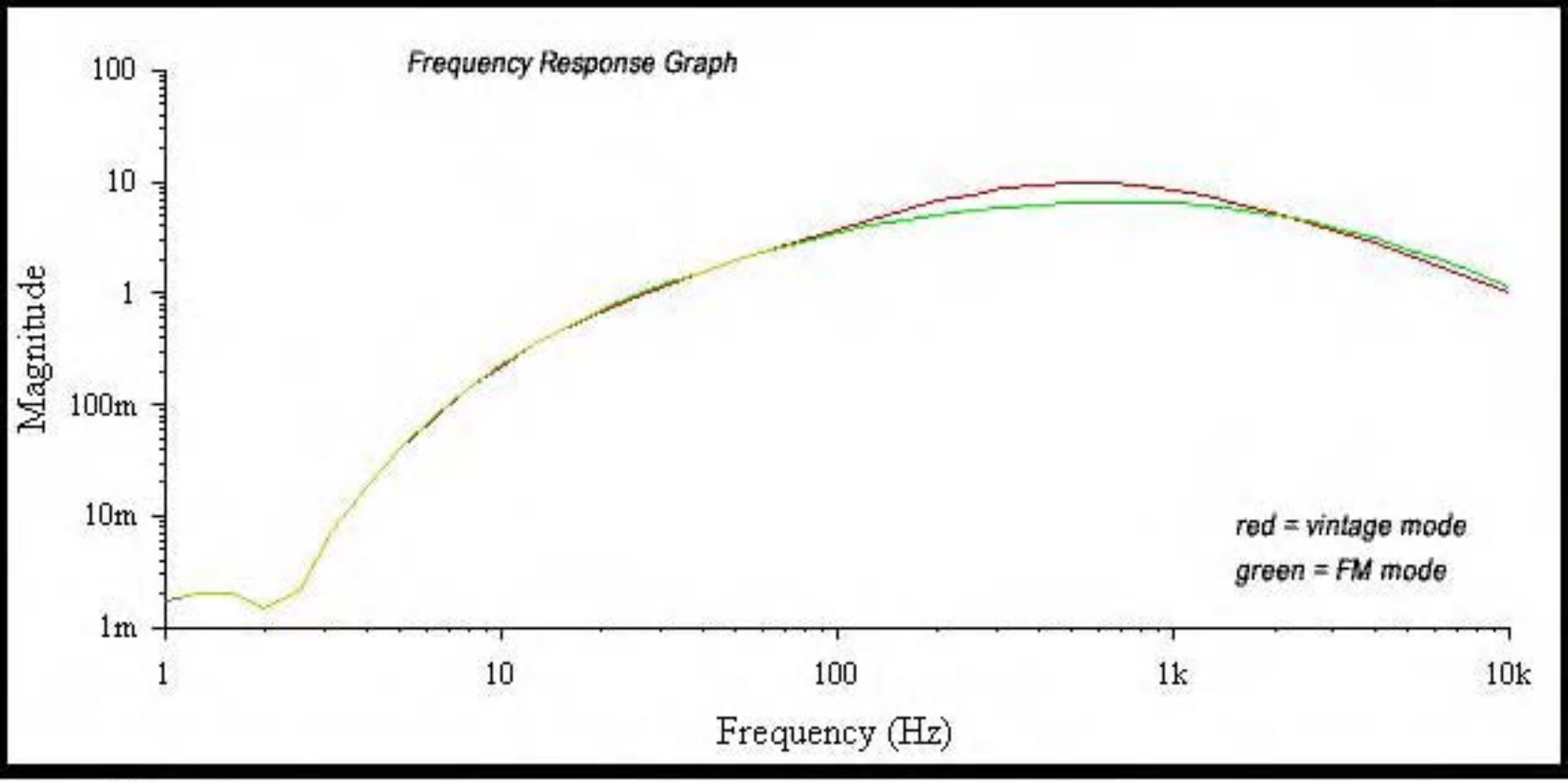
VR1 - 936k - DI YA 0333
VR2 -503k - DI YA 0331
VR3 - 25k - DI YA 0329
VR4 - 88k - DI YA 0342

D1 - 1N***5 (all I could read)
D2, D3 - These are under epoxy and are asymetric with voltage drops of .584 & .607v

Switch 1 - DPDT on on on



Blue lines are insulated and only connect where you see a •



Notes:

- all resistor values confirmed via multimeter. Cap values taken from cap markings (unmeasured)
- cap in feedback loop and clipping diodes are under epoxy, these values are probable guesses (voltage drop of diodes is .584V and .607V)
- S1 is the Vintage/FM/Comp-Cut switch (ON-ON-ON). The Vintage and Comp-Cut modes are shown, however in the FM mode BOTH sides of the DPDT are shorted (not shown). If you ignore the comp-cut feature, in Vintage mode the 47k/.01u combination is NOT connected to pin 7; in FM mode the combination is connected to pin 7 (see frequency response graph above).