MXR "Dynacomp"

Low Battery Simulation (1996) // Hi-Fi Mods (2004)

DynaComp HI-FI Mods (June/04)

Both the top and bottom end frequency responses are severely curtailed in this MXR design - two caps affect these parameters and these both can be altered without incuring any secondary effect in the functioning of the unit ... some versions of the pedal have the second feed to the DC converter circuit operating - in my Script Logo version this feed was left disabled at the factory ... this tie-in can lead to "fuzzing" at the output when the signal amplitude gets large enough - no wonder it was disabled in some versions (check your's today !) ...

My Modded DynaComp Schematic

My Modded DynaComp Layout

Two Caps ...

The 0.001uF cap (see ref. [1] in my schematic) which acts to shunt highs to ground across the 150k OTA load resistor can be lowered or elliminated to give the circuit full or emphasized top end response - ie. around 330pF for flat or none for slight top end emphasis ...

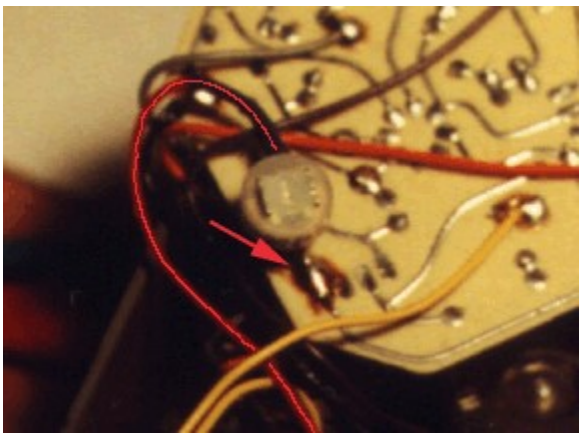
The output signal cap 0.05u (see ref. [2] in my schematic) can be enlarged to a 1uF Tantalum to give the circuit full bottom end response ...

... these two swaps lead to a much clearer and fuller sounding compressor - of course, you should set these according to your taste and gear ... remember, they called this circuit a compressor but really it's more of a limiter - compressors act to maintain a constant signal level even when the signal goes low whereas this circuit (like most of them) settles back to a preset gain level ... so this circuit more-or-less curbs the attack levels and lets decay levels die down instead of amplifying them to keep the output constant ... still, one can ride the attack/decay envelopes and within this range the circuit sort-of acts as a compressor ... a pretty bland circuit really ...

DynaComp Tired-Battery Mod (1996)

A music producer once told me that the MXR DynaComp had a reputation for sounding better when

the battery is tired - few circuits benefit from this but I thought I'd give it a try ... since the internal resistance of a battery is what increases as a battery looses strength we can mimmick this by inserting a sufficient resistance in series with a battery or wall-wart ... in the Dynacomp I'm dialing in about 10k resistor from a 25k trimpot in series with the battery - I measured 9.53 volts at the battery while the supply voltage on the idling dynaComp circuit now 4.65volts (bias with no-signal) ... this pedal seems to have a slightly slower ATTACK as a result ...



~:(HOME :)~

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MXR

"DYNA-COMP"

redrawn June13/04
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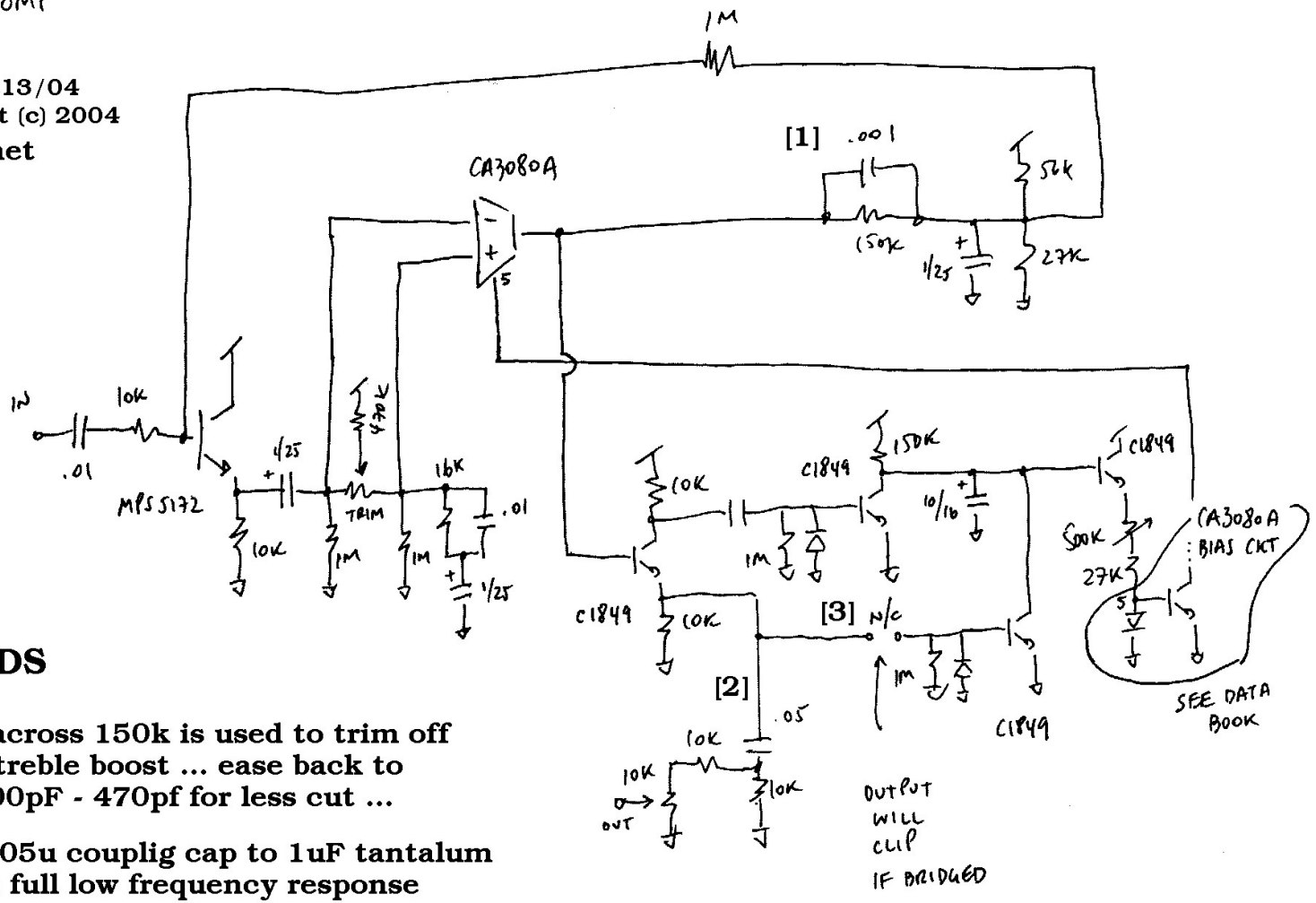
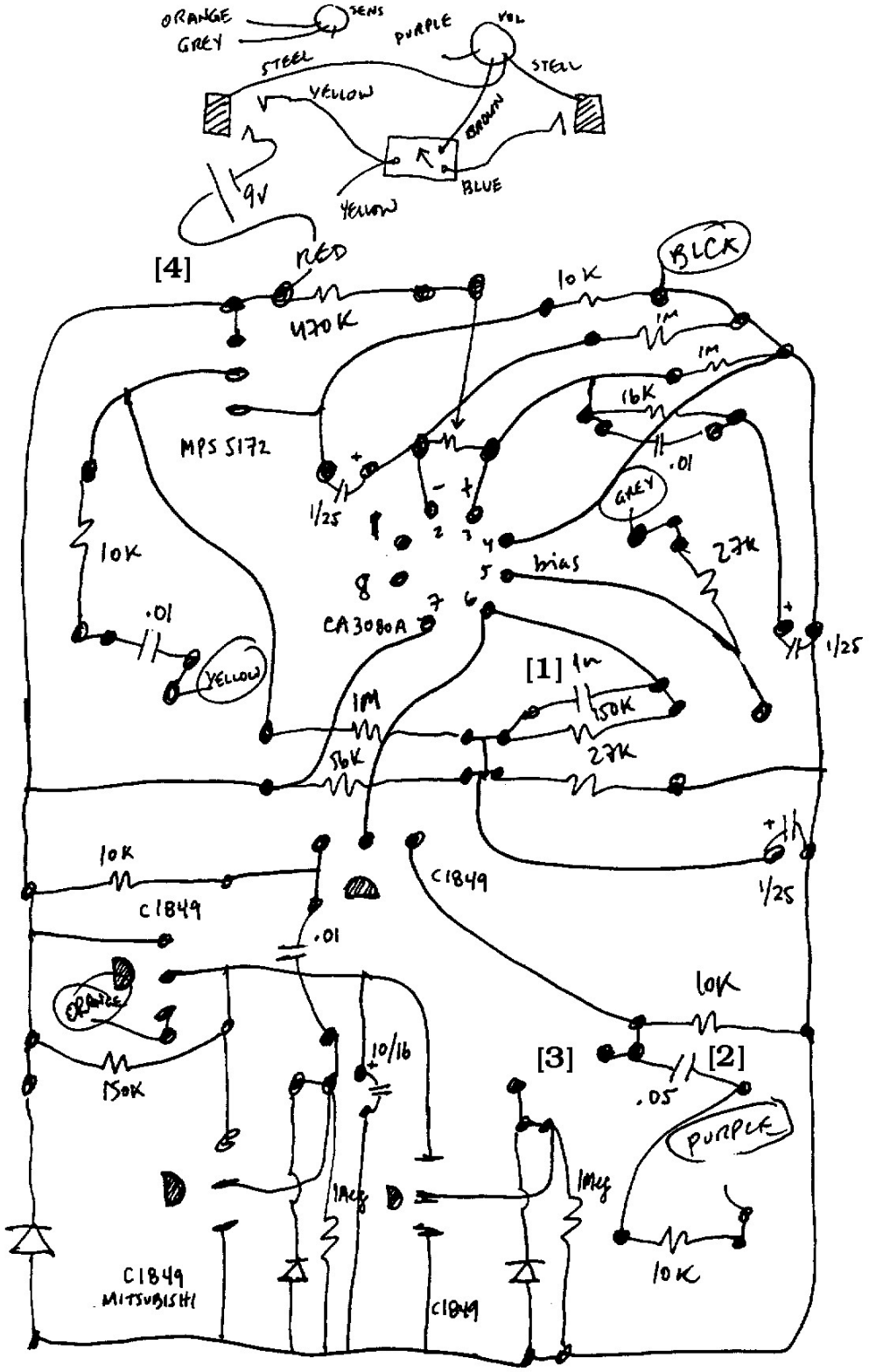


HI-Fi MODS

[1] 0.001uF across 150k is used to trim off inherent treble boost ... ease back to around 100pF - 470pf for less cut ...

[2] change 0.05u couplig cap to 1uF tantalum to restore full low frequency response

[3] ... in some pedals the second converter stage is wired in - it's clipping diode may likely leak into the signal path ... disconnect the 0.01u feed cap



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