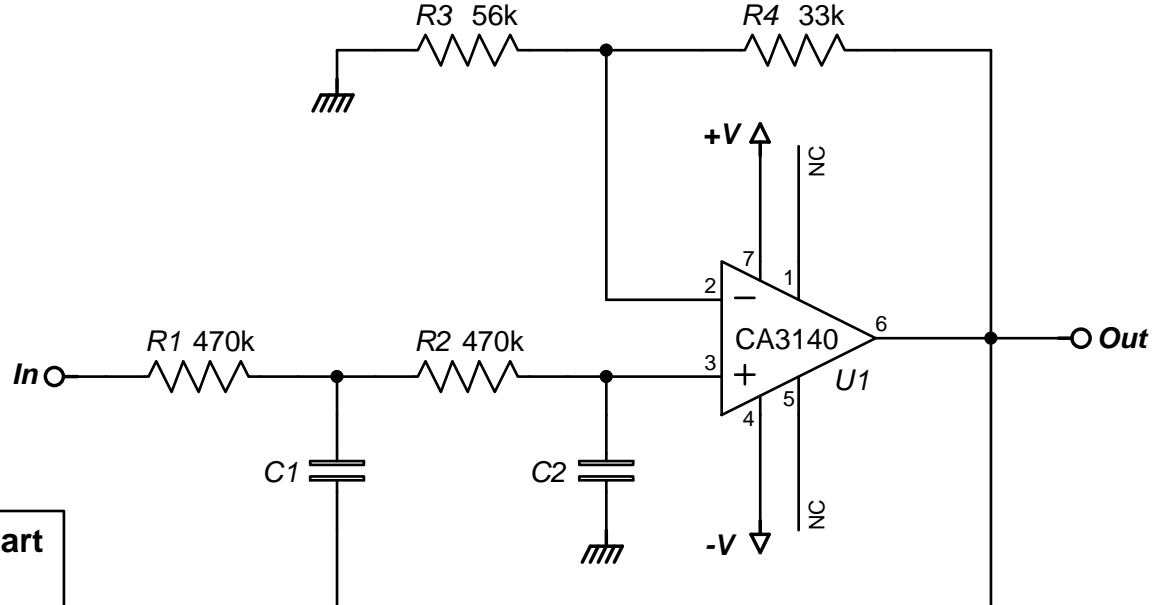


IMPROVED CCL LOW PASS FILTER

Second Order VCVS Equal Component Value Sallen-Key Butterworth Active Filter

This gadget is intended for use with surface CCL processing circuitry to suppress high frequency noise, especially that caused by the 20 Hz cement bond trigger pulse. Useful CCL signal is generally below one Hz.



Capacitor Selection Chart

3 db Fc	C1 & C2 Values
3.4 Hz	0.10 mfd
1.5 Hz	0.22 mfd
0.7 Hz	0.47 mfd

NOTES:
 This filter has a gain of 1.6 and a falloff of 12 db per octave.
 For Bessel / Thomson response change R4 to 15 k ohms (1.3 gain).
 Power supply may require bypassing with both tantalum and ceramic caps.

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CCL Low Pass Filter		CCLF1.sch
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