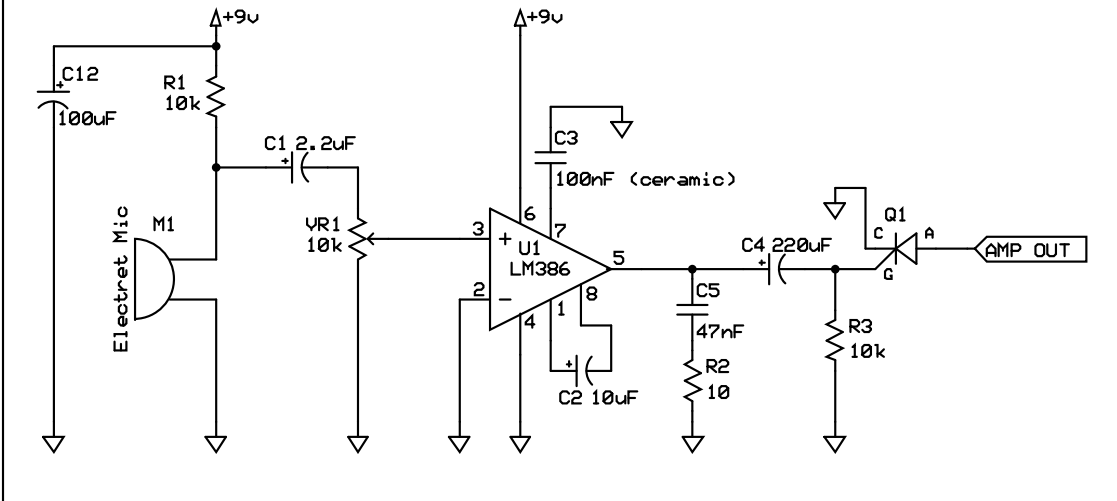


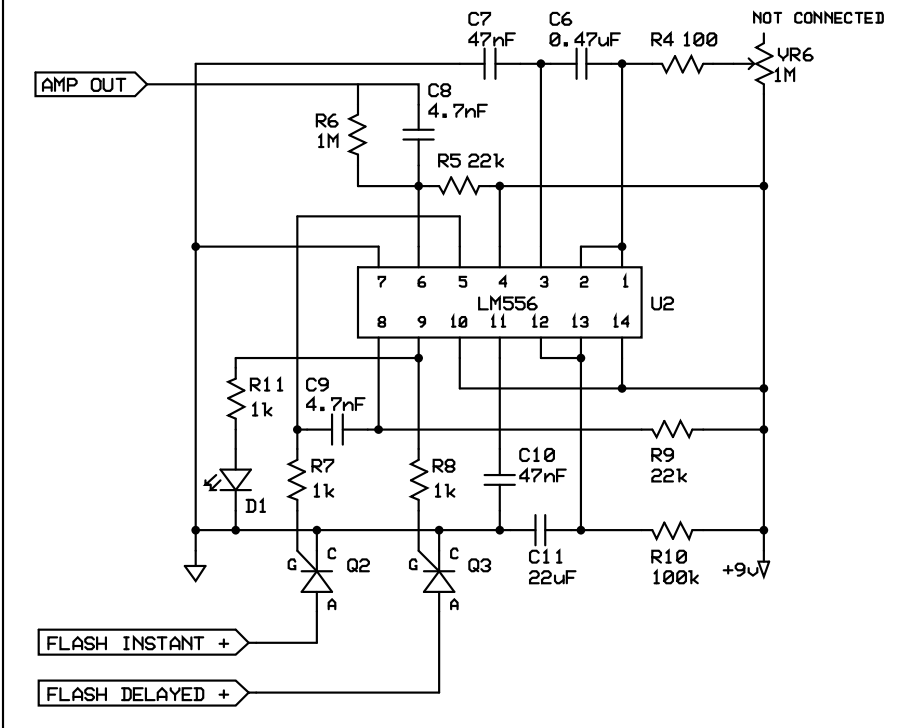
AMPLIFIER CIRCUIT



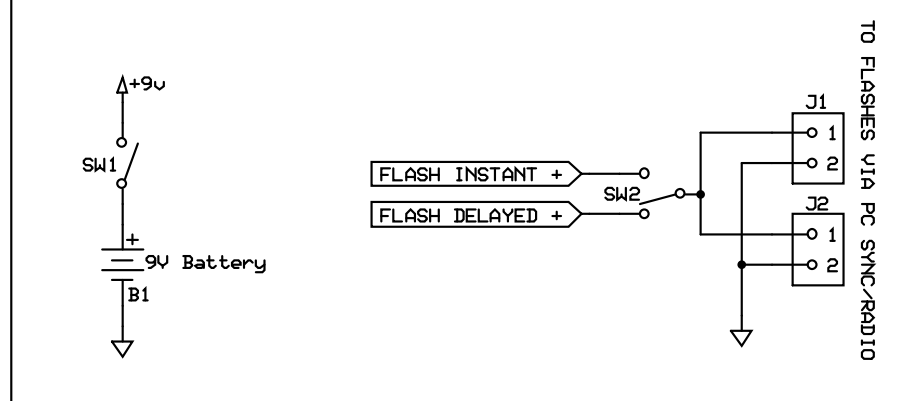
Notes:

- The amplifier circuit can be used independently (without delay/debounce) to fire flashes from AMP OUT.
- It is quite important that C3 is ceramic or a capacitor with low inductance to prevent the amp from oscillating whilst configured for maximum gain.
- The C5/R2 Zobel network is not strictly required since the amp is not driving a speaker but is included for completeness.
- The debounce and delay circuit is based on one from HiViz.
- The LED in the debounce indicates a) that a signal has been sent to the flash outputs and b) the debounce period - approx 2.5s.
- As shown the delay range is up to approx 0.5s max. You can reduce this range and give finer control by reducing the value of C6 - eg 0.1µF=0.1s max.
- A possible power switch is shown along with a switch to change the flash outputs from instant to delayed.
- The FLASH INSTANT output is not debounced and will fire for any sound at a speed determined by the attached flash recycle time.
- Pot VR1 controls the amplifier gain/mic sensitivity. VR2 controls the delay period.

DEBOUNCE/DELAY CIRCUIT



SWITCHES



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Flash Sound Trigger

Rev 1.00

Oct 2009

Bill of Materials

B1	9V Battery		R1	10k	
C1	2.2uF		R2	10	
C2	10uF		R3	10k	
C3	100nF (ceramic)		R4	100	
C4	220uF		R5	22k	
C5	47nF		R6	1M	
C6	0.47uF		R7	1k	
C7	47nF		R8	1k	
C8	4.7nF		R9	22k	
C9	4.7nF		R10	100k	
C10	47nF		R11	1k	
C11	22uF		SW1	Switch	JAYCAR NO. ST0300
C12	100uF		SW2	Switch	JAYCAR NO. ST0300
D1	LED		U1	LM386	JAYCAR NO. ZL3386
J1	3.5mm mono	JAYCAR NO. PS0120	U2	LM556	JAYCAR NO. ZL3556
J2	3.5mm mono	JAYCAR NO. PS0120	VR1	10k	
M1	Electret Mic	JAYCAR NO. AM4011	VR6	1M	
Q1	SCR	JAYCAR NO. ZX7006			
Q2	SCR	JAYCAR NO. ZX7006			
Q3	SCR	JAYCAR NO. ZX7006			

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