

Resistors marked # are 1% types.

IC10 - LM358

IC12 - unmarked, CD4049 perhaps?

+12v to pin 8 on IC1, IC2, IC4, IC5, IC6, IC10, IC11, IC43, & IC44 pin 13 on IC9, & IC3

+10v to pin 5 on IC7, & IC8

+5v to pin 20 on the ADC0804 a pin # 1

couldn't read on IC12 pin 14 on IC13,

IC14, & IC21 through IC24 pin 16 on

IC15 through IC18 pin 3 on IC19 pin

8 on IC20, & IC30 through IC41 pin 20

on IC27, & IC42 pin 5 on IC28 pin 12 on

IC29, & IC3 pin 7 on IC44 pin 9 on IC19

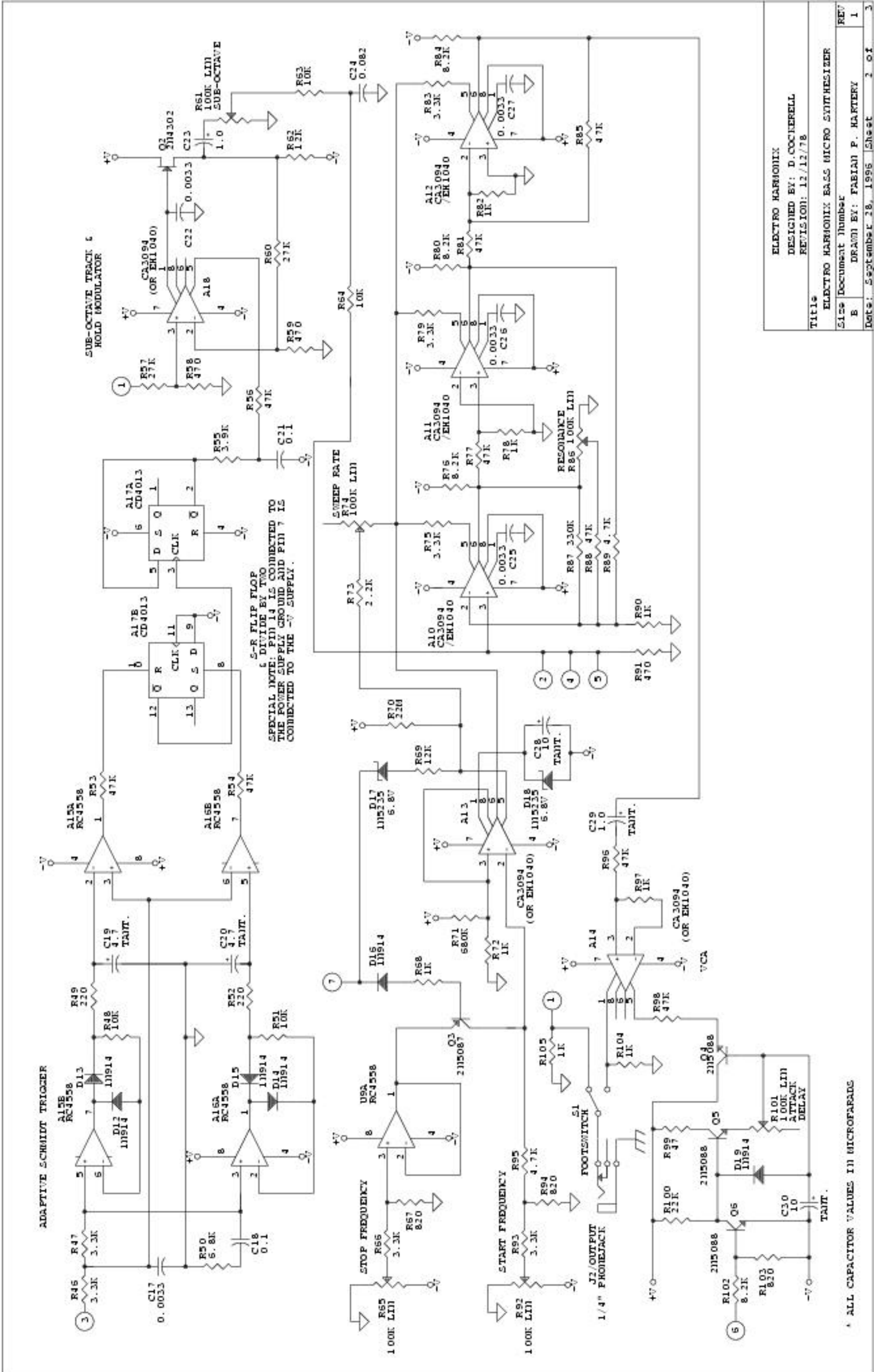
-15v to pin 4 on IC1 through IC4, IC10,

IC11, IC20, IC43, & IC44 pin 17

on IC42

-10v to pins 1 & 6 on IC7, & IC8

All diodes were unmarked.



ADAPTIVE SCHMITT TRIGGER

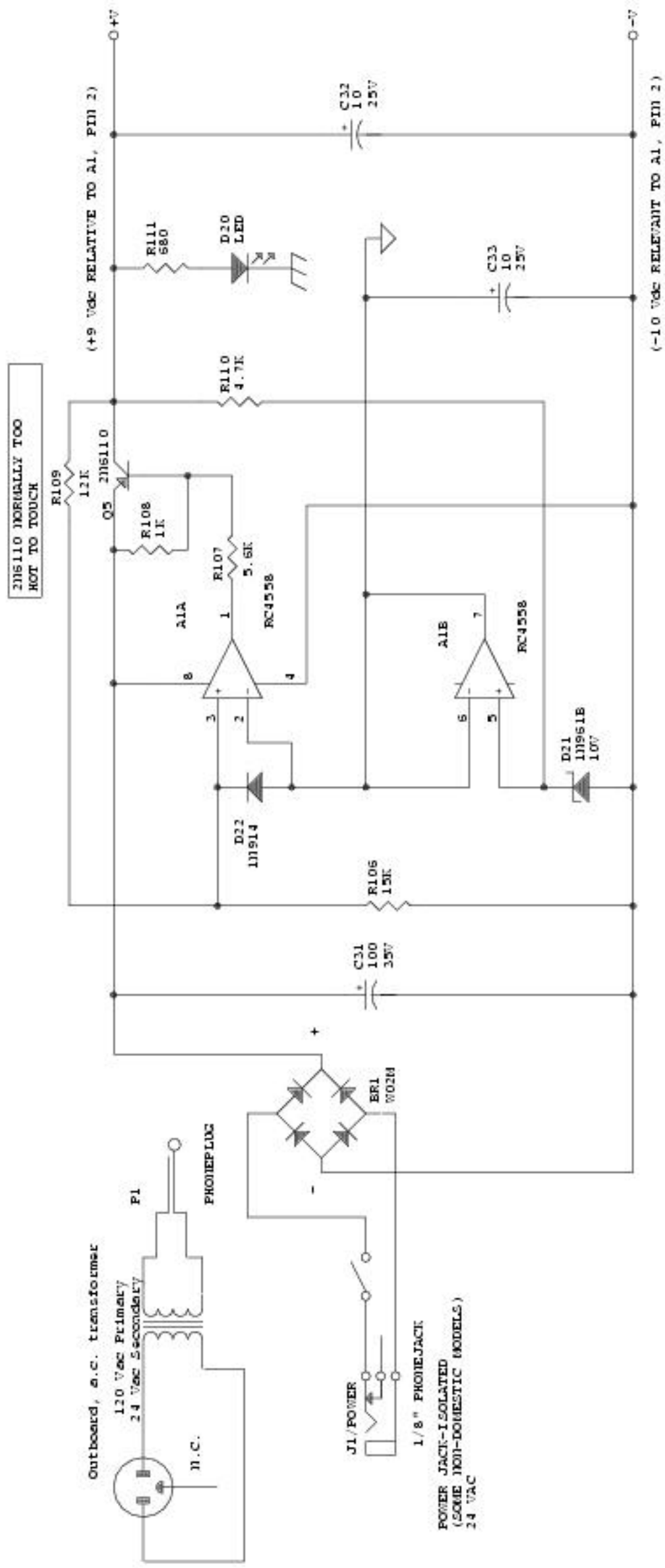
SUB-OCTAVE TRACK & HOLD MODULATOR

5-R FLIP FLOP  
6 DIVIDE BY TWO

SPECIAL NOTE: PIN 14 IS CONNECTED TO THE POWER SUPPLY GROUND AND PIN 7 IS CONNECTED TO THE -V SUPPLY.

\* ALL CAPACITOR VALUES IN MICROFARADS

ELECTRO HARMONIX	
DESIGNED BY: D. COCKRELL	
REVISION: 12/12/78	
Title	
ELECTRO HARMONIX BASS MICRO SYNTHESIZER	
Size	Document Number
B	DRAWN BY: FABIAN P. KARTERY
Date: September 28, 1995	Sheet 2 of 3



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DESIGNED BY: D. COCHERELL  
REVISION: 12/12/78

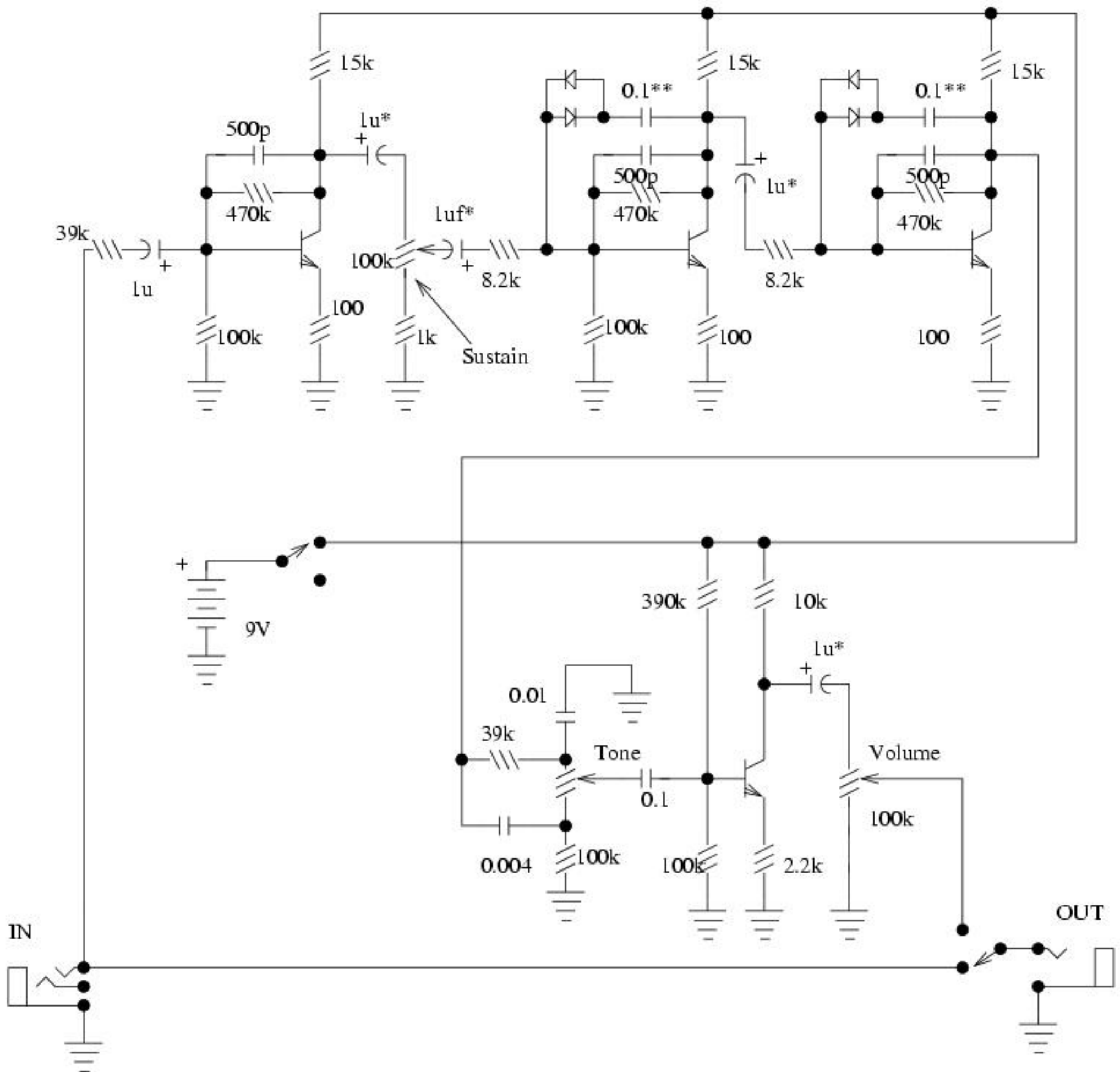
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ELECTRO HARMONIX BASS MICRO SYNTHESIZER

Size Document Number  
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Date: September 28, 1995 Sheet 3 of 3

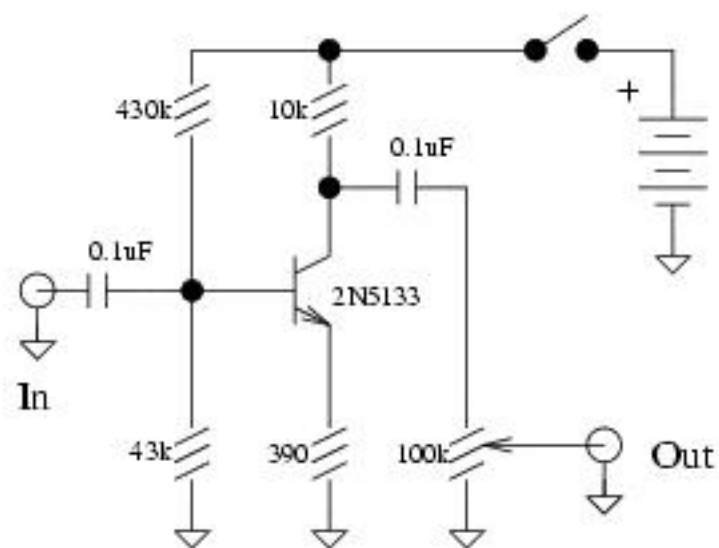
REV  
1

## ELECTRO-HARMONIX BIG MUFF PI



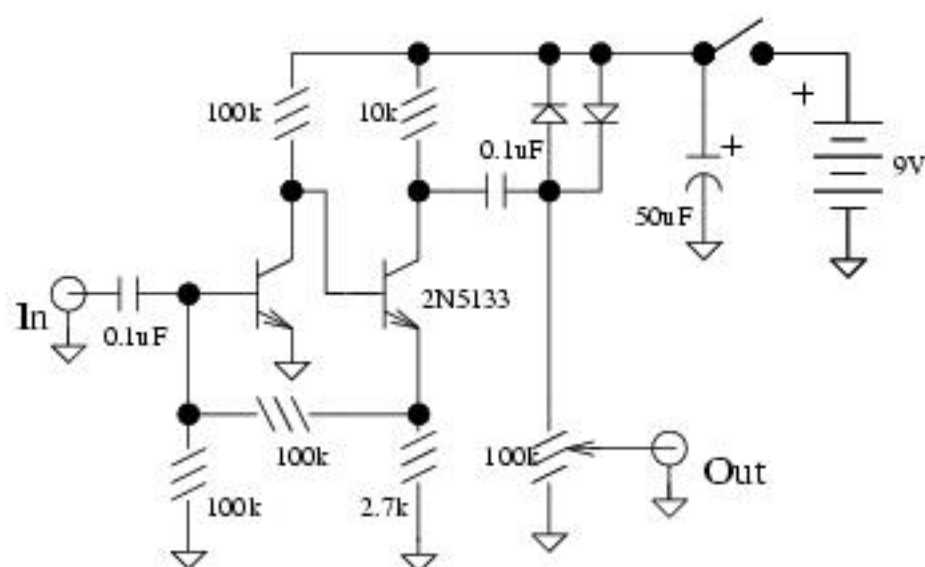
The EH Big Muff Pi would probably be improved by modern input-jack power switching and a DPDT bypass switch. This is the original schematic. The diode and transistor types are unknown. Probably any high gain NPN and 1N914s work. Coupling caps marked by a \* have been reported to sound better if changed to 0.1uF as have the \*\* marked ones if changed to 1.0uF. The original transistors were marked SPT 87-103, and the original diodes were marked 525GY or 523GY (hard to read).

## ELECTRO HARMONIX BOOSTERS

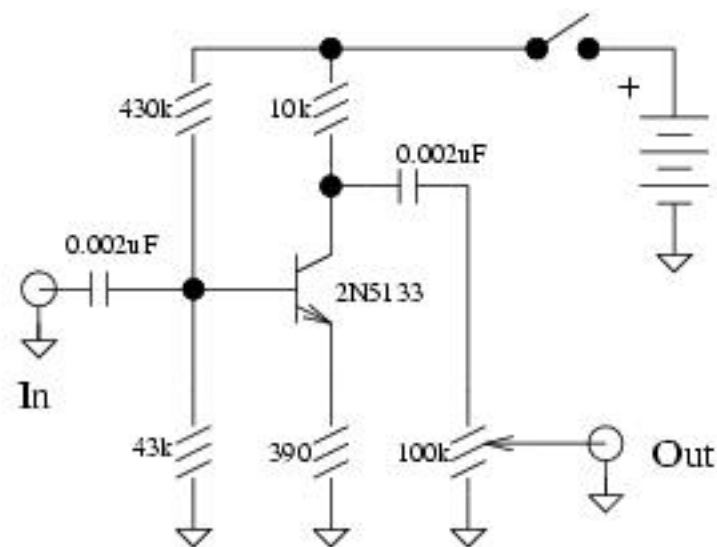


LPB-1, LPB-2, EGO

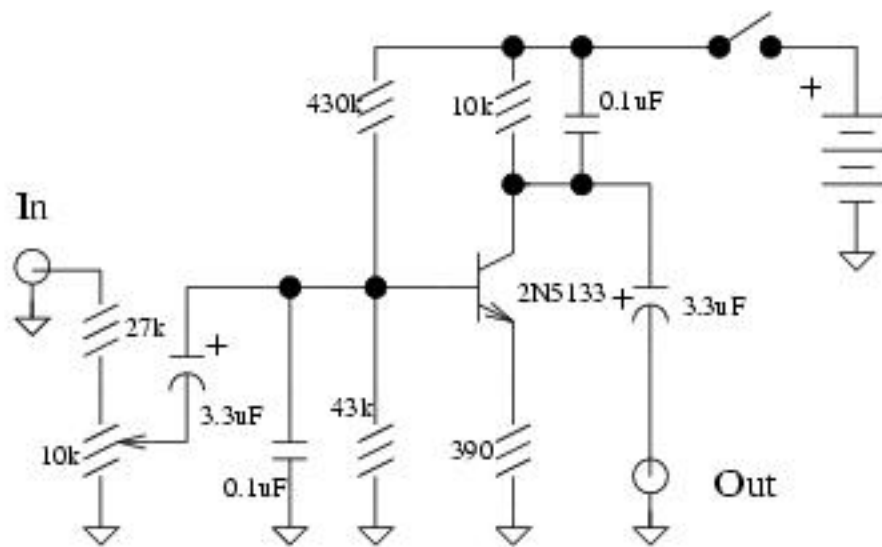
Other variations on the LPB-1 include a BC239 with a 100k resistor from base to ground and a 1M resistor between base and collector.



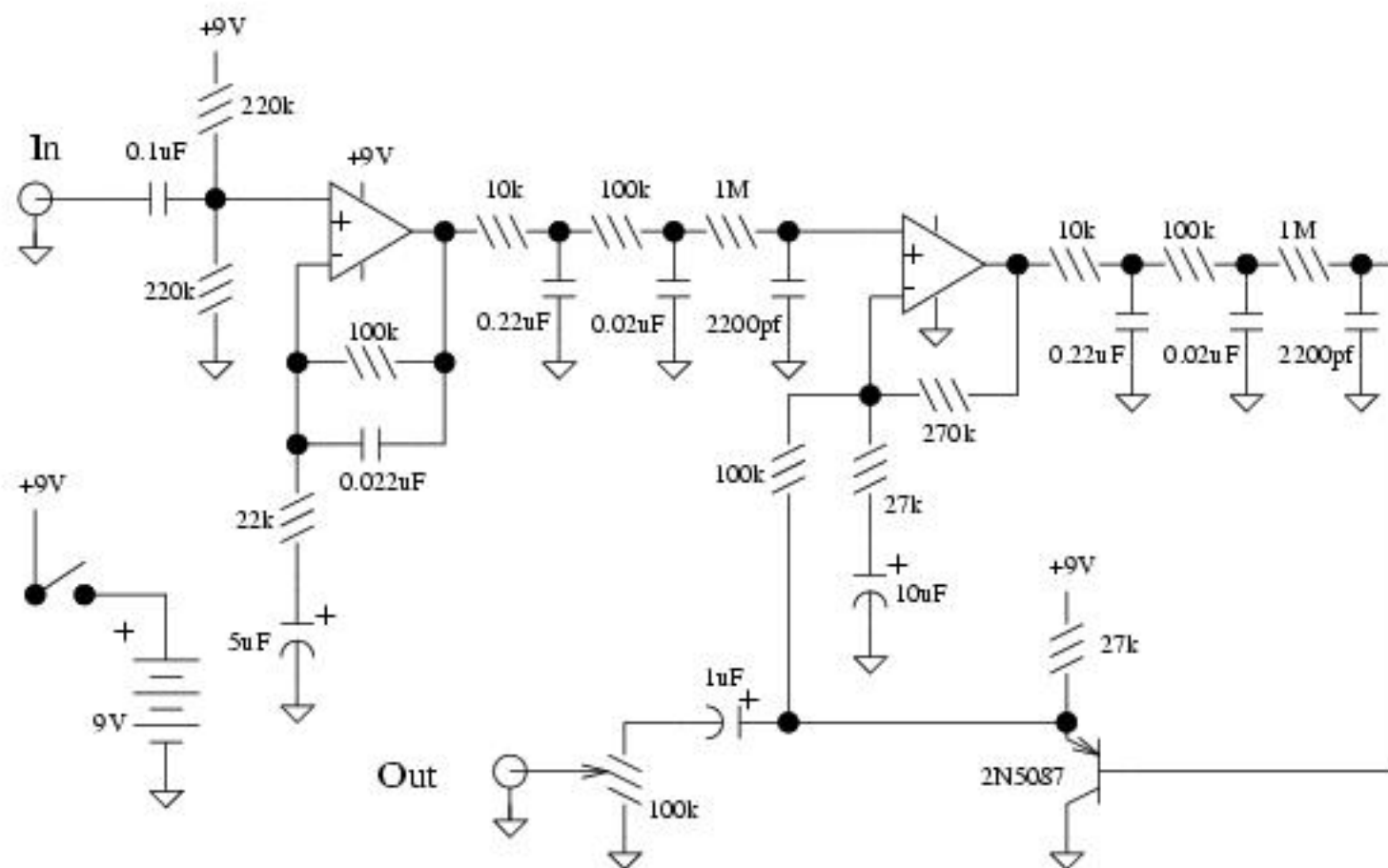
Muff Fuzz / Little Muff Pi (early)



Screaming Bird/Tree



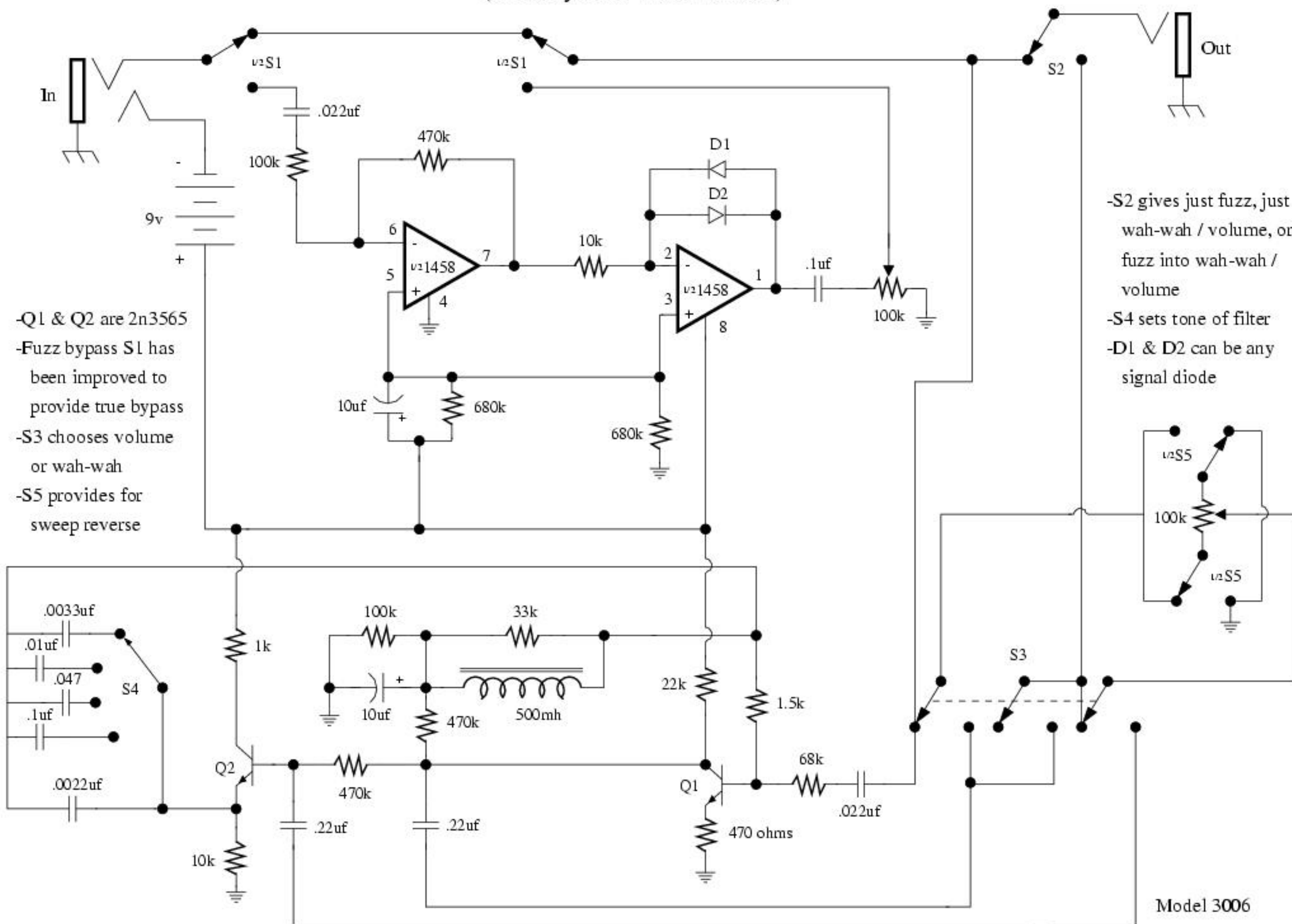
Mole/ Hog's Foot (Old Version)



Hog's Foot (new)

# Electro Harmonix Fuzz-Wah

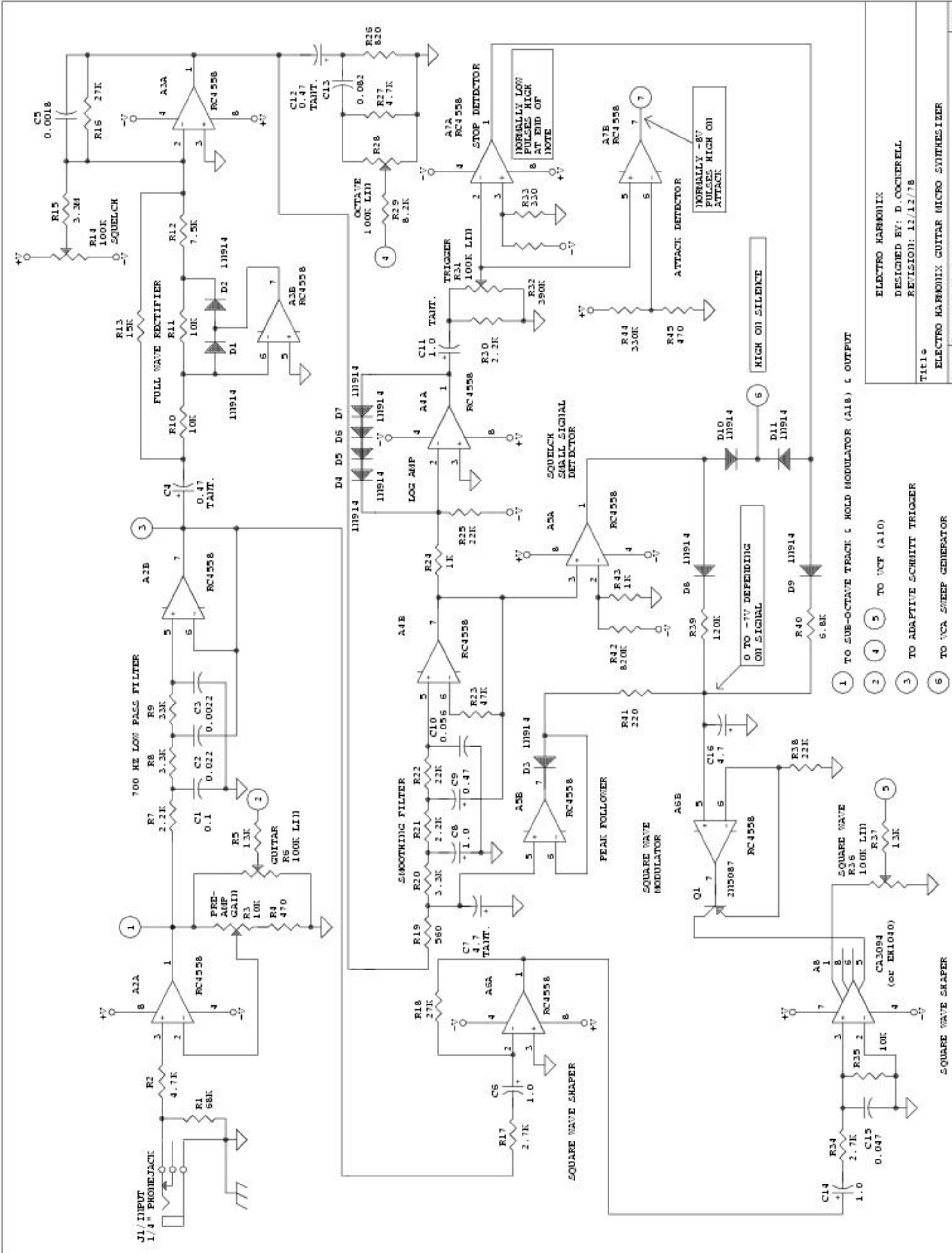
(Actually Fuzz-Wah/Volume)



- Q1 & Q2 are 2n3565
- Fuzz bypass S1 has been improved to provide true bypass
- S3 chooses volume or wah-wah
- S5 provides for sweep reverse

- S2 gives just fuzz, just wah-wah / volume, or fuzz into wah-wah / volume
- S4 sets tone of filter
- D1 & D2 can be any signal diode

Model 3006

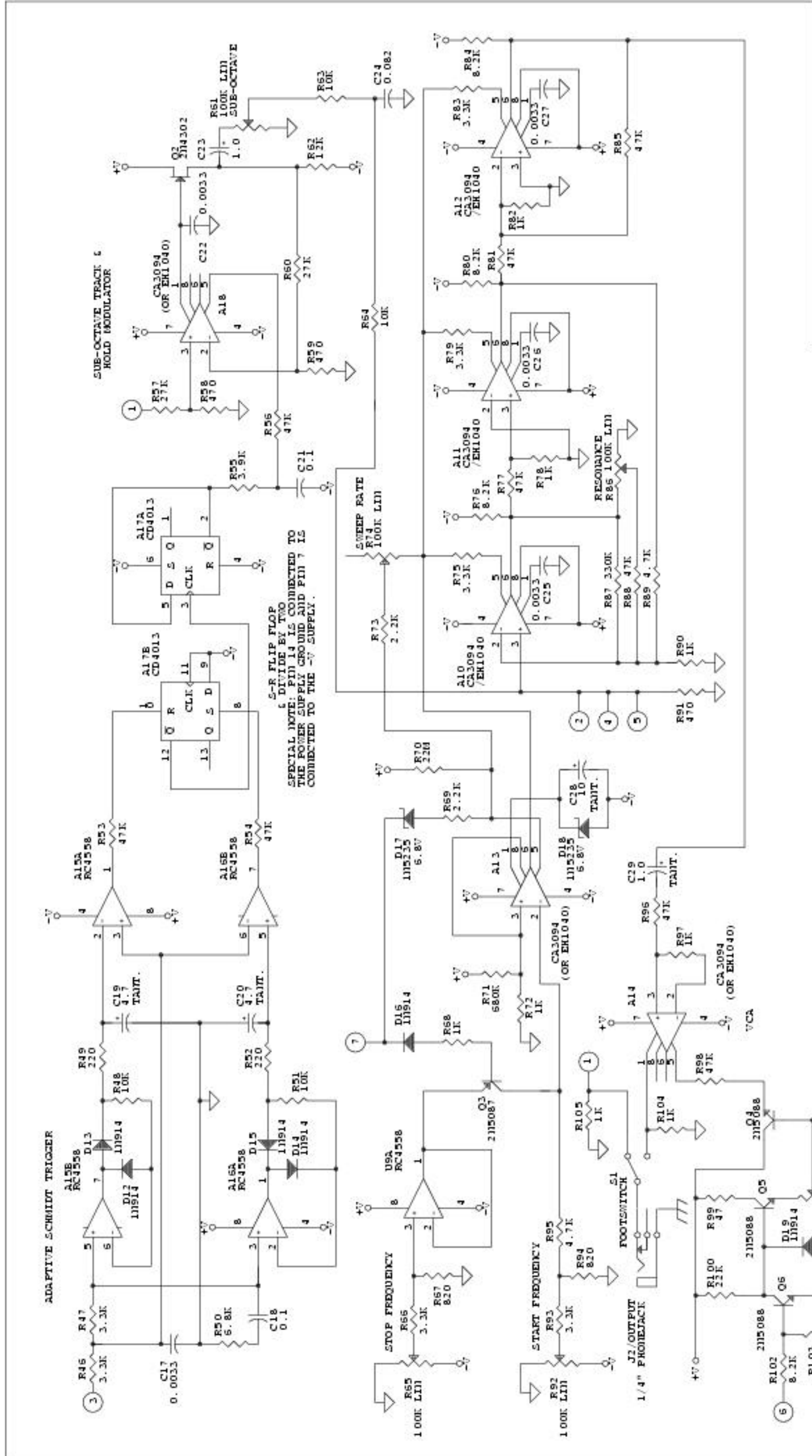


- 1 TO SUB-OCTAVE TRACK & HOLD MODULATOR (A18) & OUTPUT
- 2 (4) 5 TO VCF (A10)
- 3 TO ADAPTIVE SCHMITT TRIGGER
- 5 TO VCA SWEEP GENERATOR
- 7 TO VCF SWEEP GENERATOR

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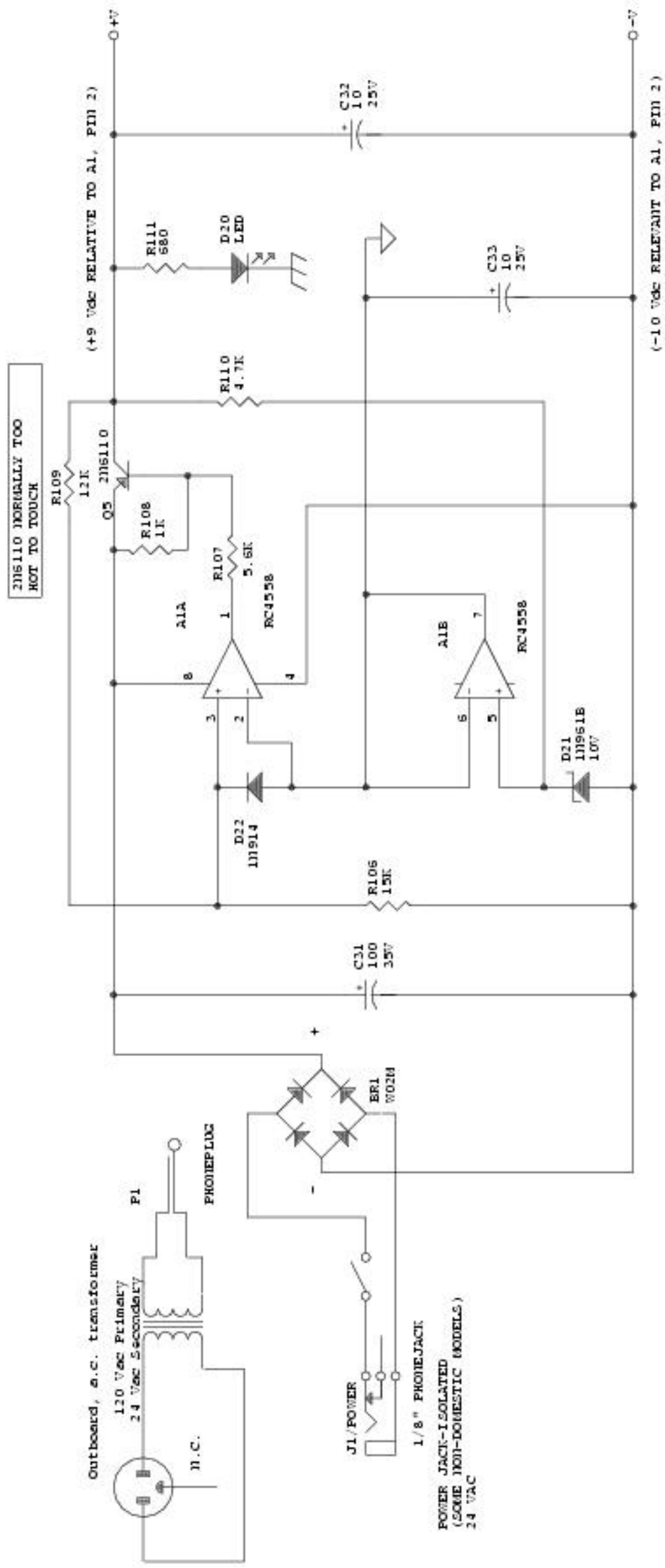
\* ALL CAPACITOR VALUES IN MICROFARADS





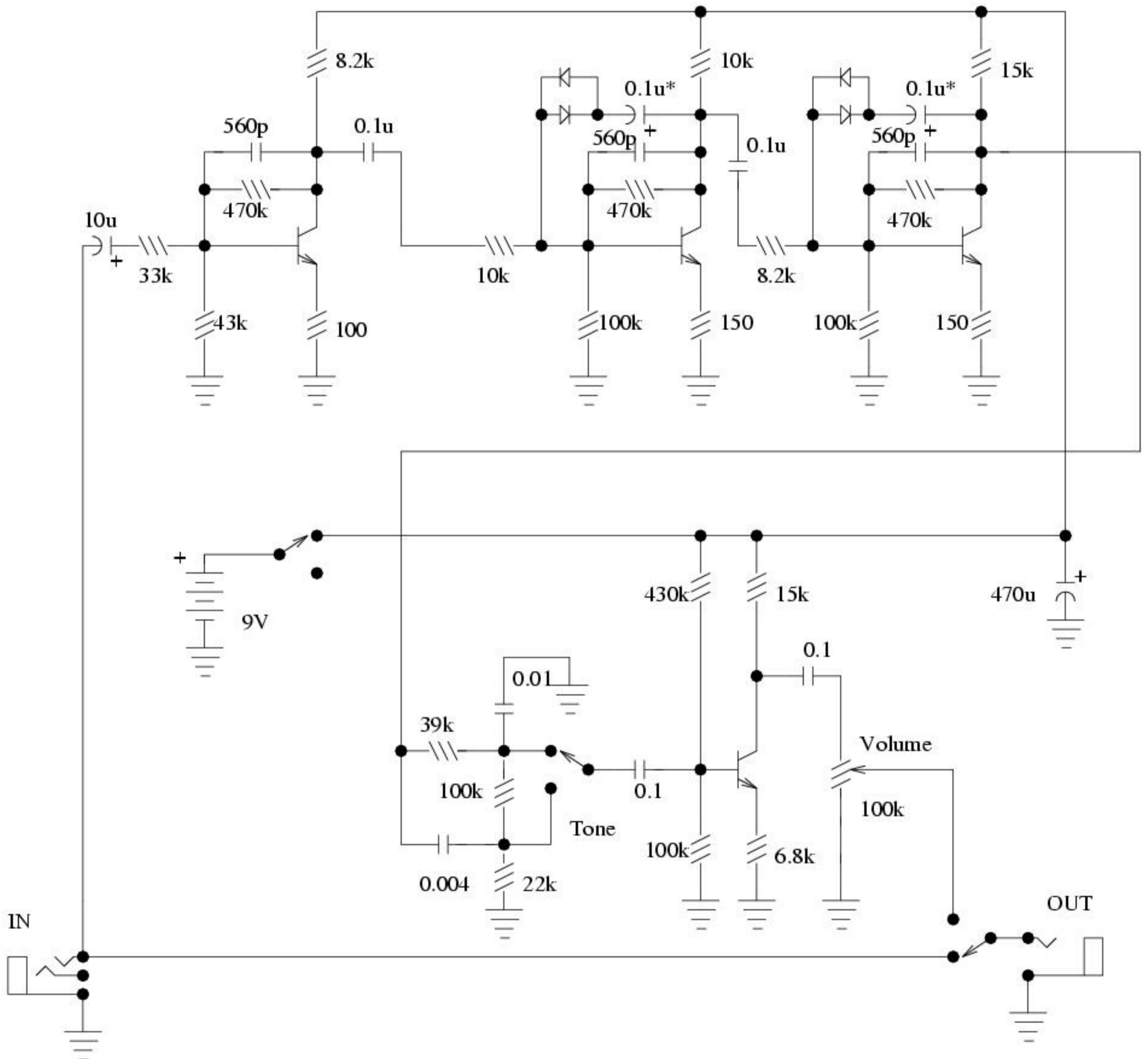
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 Date: September 28, 1995 Sheet 2 of 3

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A	DR0071 BY: FABIAN P. HARTERY
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Sheet	3 of 3
REV	1

## Electro-Harmonix Little Big Muff



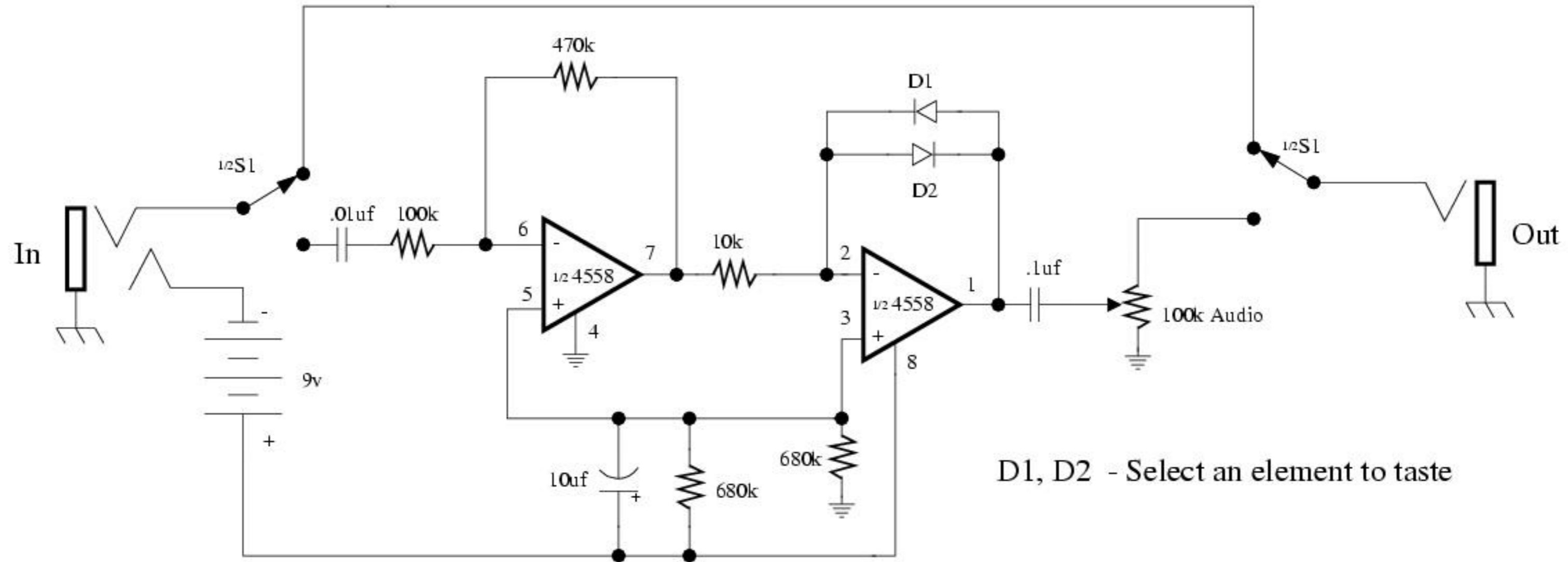
The EH Little Big Muff could probably be improved with modern input jack power switching and a DPDT bypass.

This is the original schematic. The diode and transistor types are unknown. Probably any high gain NPN and 1N914s work.

The caps marked with a \* have been reported to work great at 1.0uF.

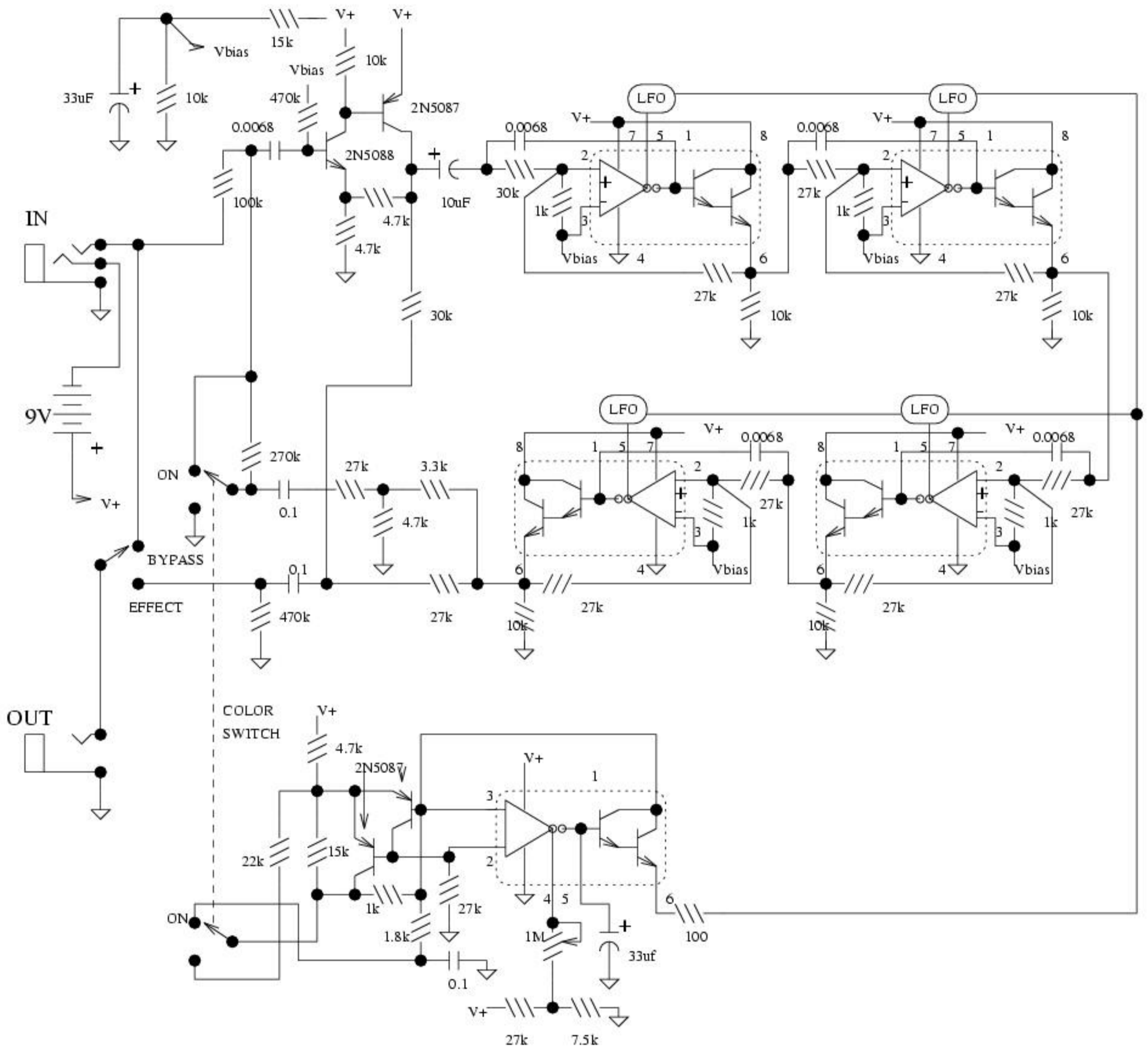
# Muff Fuzz

Electro Harmonix

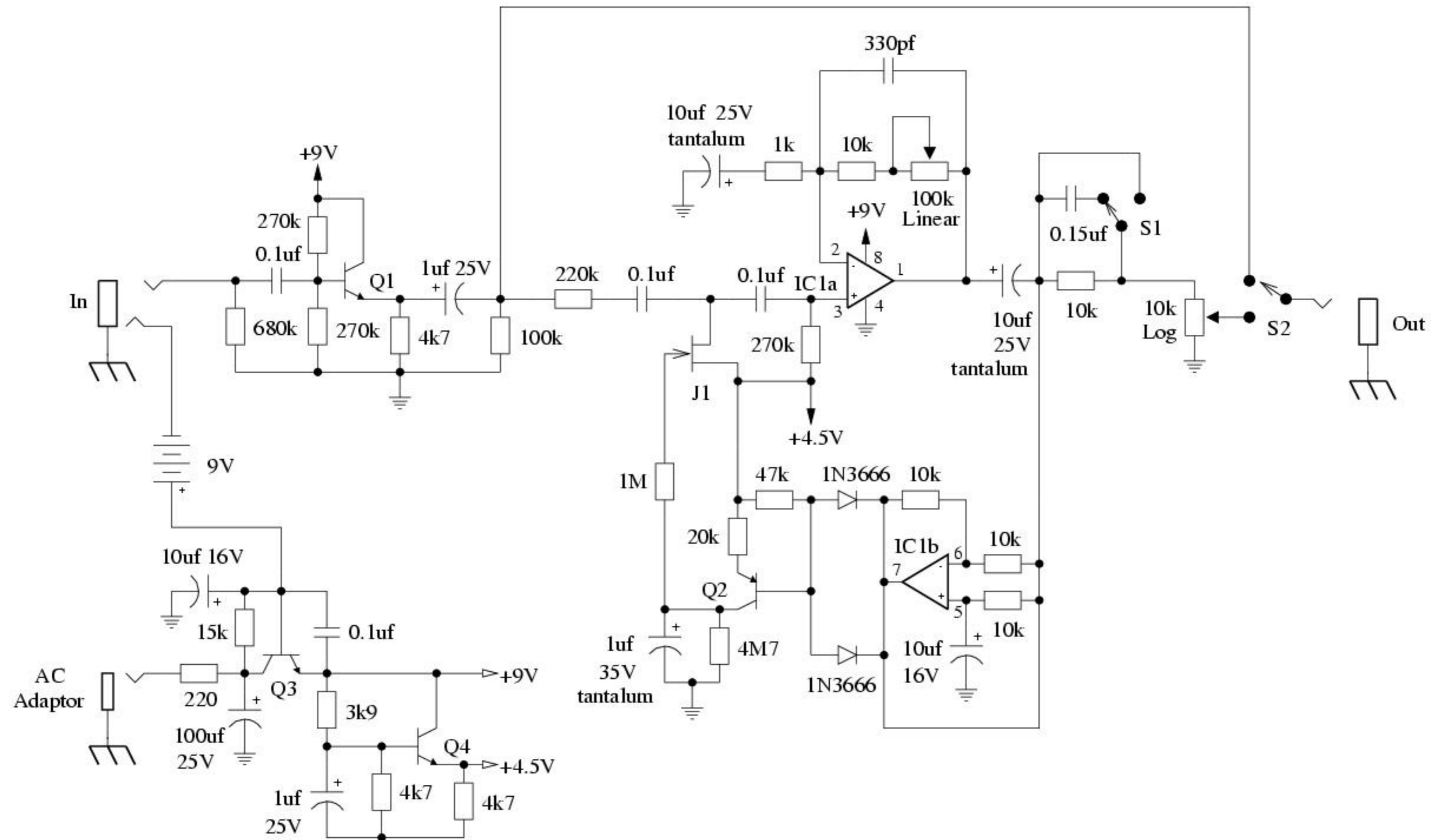


# EH Small Stone Phaser

## Issue J



The Small Stone is somewhat unique in using Operational Transconductance Amplifiers (OTA's) for phase shift stages instead of opamps with variable resistors. All of the IC's are house marked EH1048, but can be replaced with CA3094 which is a combination of an OTA equal to the CA3080 and a darlington emitter follower. Later Small Stones used slightly different circuits, but all used the OTA.



- All resistors are carbon film, 1/4W, 5%, unless otherwise noted
- All non-polarized capacitors are mylar, 50V, 10%, unless otherwise noted
- Transistors Q1-4 and FET J1 are unknown
- IC1 is a 4558

- |                  |   |                       |
|------------------|---|-----------------------|
| IC1 - TL082      | IC9 - 571   | IC7, IC8 - Unmarked ? |
| IC2 - 4558       | IC11, IC4 - Unmarked Dual Op-Amp, probably a 4558 |                       |
| Q1, Q4 - 2N5087  | D1, D2 - Signal Diode ?                           |                       |
| Q2, Q3 - 2N4859A | D3, D4 - 6.8v Zener                               |                       |

