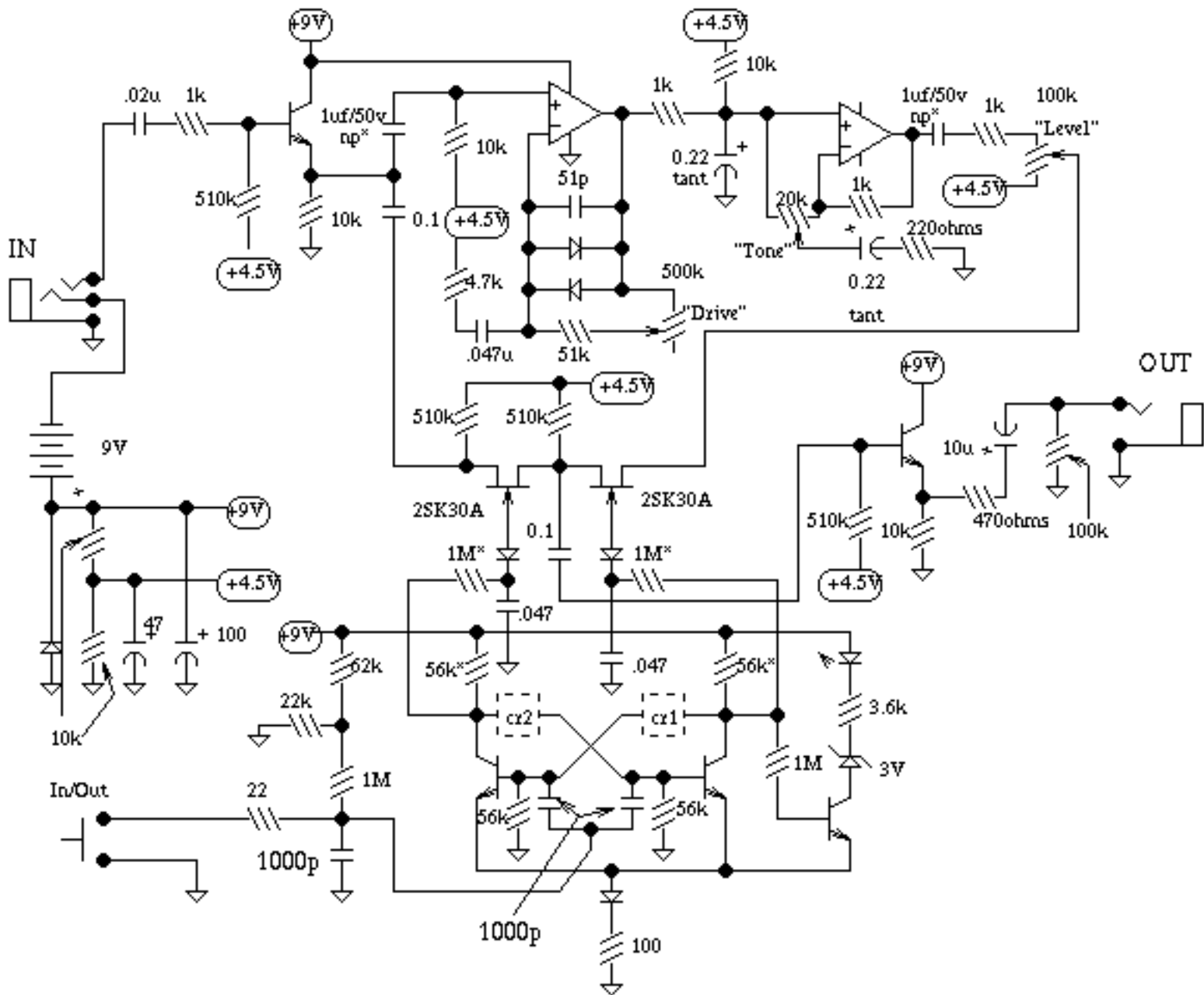


TS-9 Tube Screamer



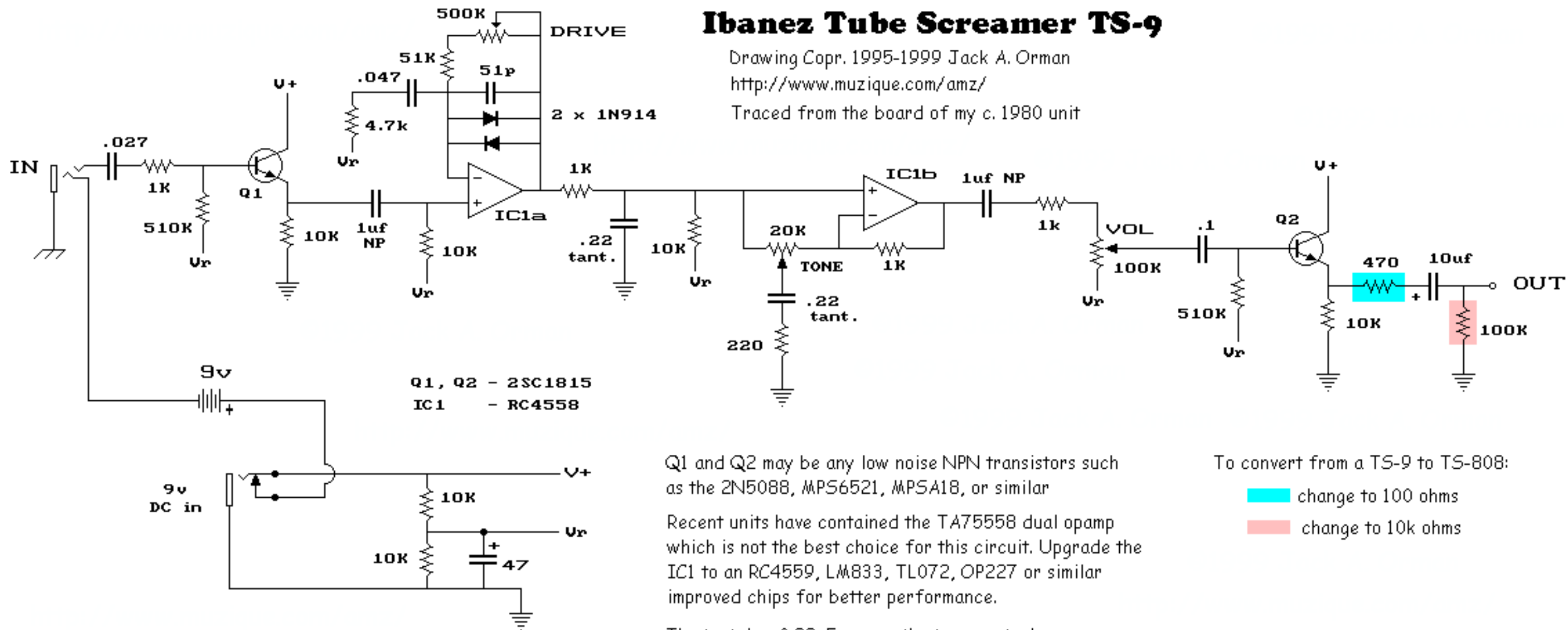
Opamps are in a dual 8 pin dip, 4558. All transistors 2SC1815. All diodes silicon signal diodes, 1n914 or similar.
 np* = nonpolarized resistors denoted by * marked as 1M on original might be 22k and those marked as 56K might be 10k. crf1 and crf2 are a special cap and resistor in parallel, the cap is 51p the resistor is 56k.

Ibanez Tube Screamer TS-9

Drawing Copr. 1995-1999 Jack A. Orman

<http://www.muzique.com/amz/>

Traced from the board of my c. 1980 unit




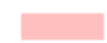
Q1 and Q2 may be any low noise NPN transistors such as the 2N5088, MPS6521, MPSA18, or similar

Recent units have contained the TA75558 dual opamp which is not the best choice for this circuit. Upgrade the IC1 to an RC4559, LM833, TL072, OP227 or similar improved chips for better performance.

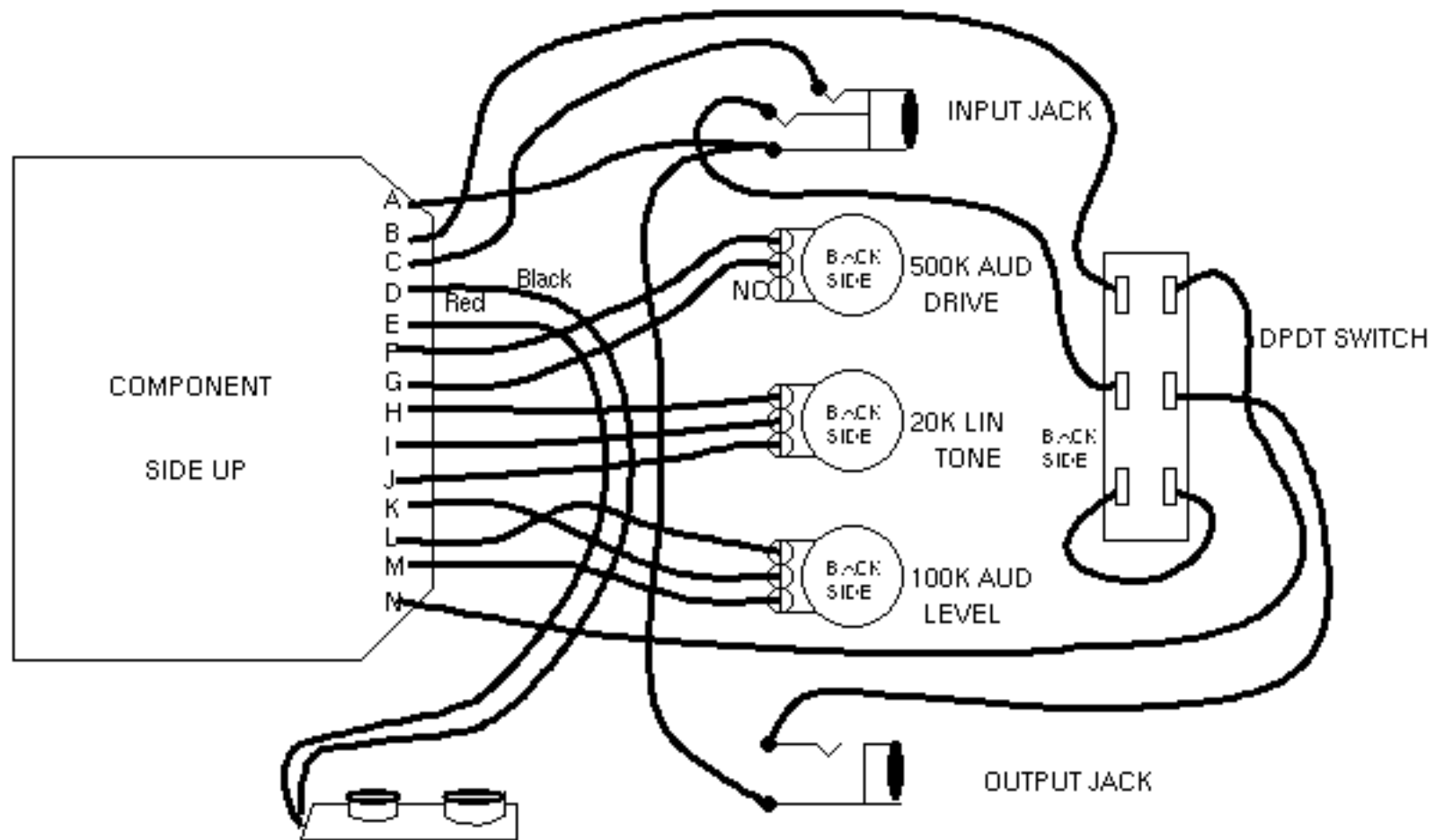
The tantalum 0.22uF cap on the tone control can be changed to a poly film type for better response. Also, it may be lowered to 0.1uF to open the range.

To convert from a TS-9 to TS-808:

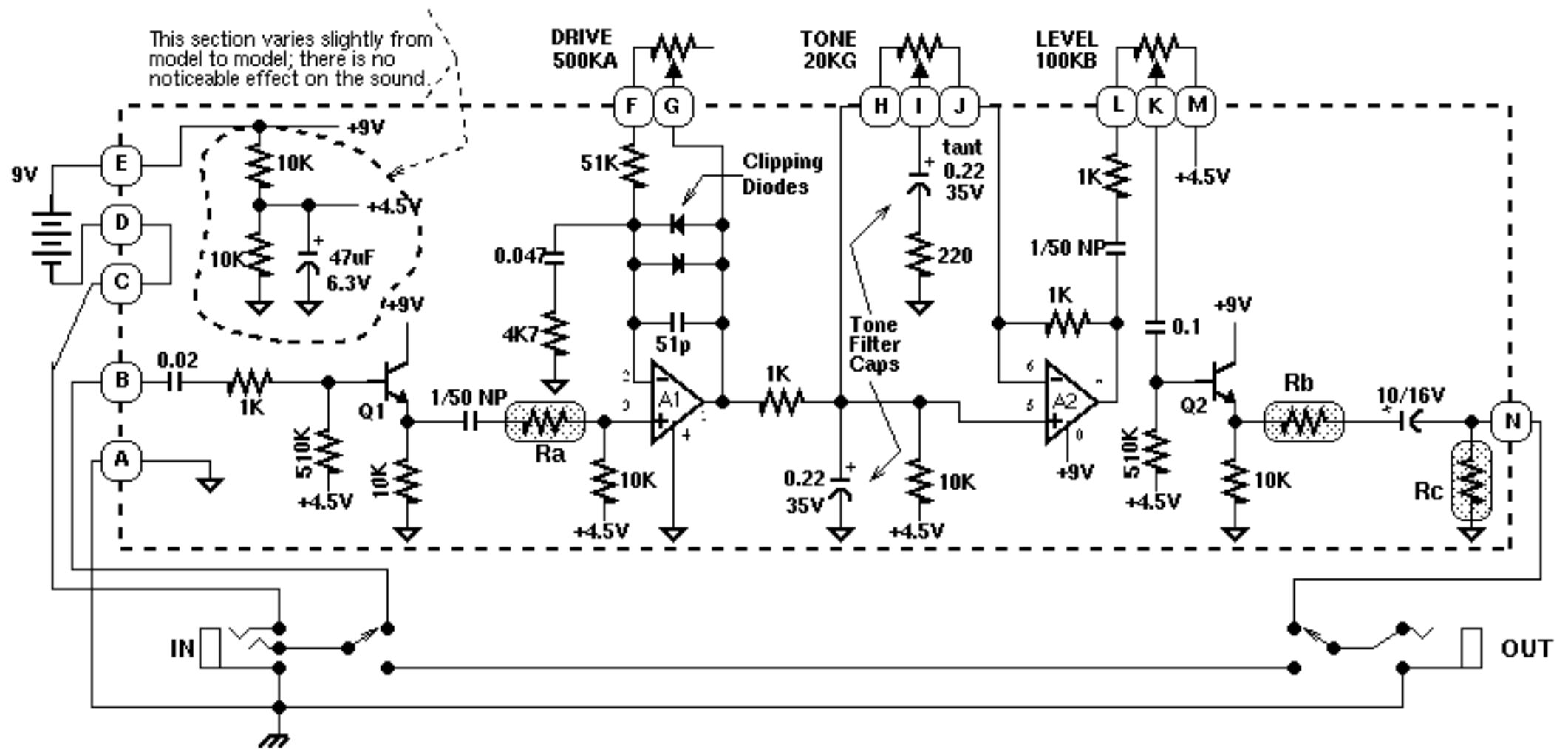
 change to 100 ohms

 change to 10k ohms

SCREAMERS – WIRING DIAGRAM FOR OFF-BOARD COMPONENTS



TS -9, -10, -808 Signal Path with External Switching



Component differences from model to model

	Ra	Rb	Rc	Op Amp
TS808	0	100	10K	RC4558
TS9	0	470	100K	RC4558
TS10	220	470	100K	NJM4558

TS-5 is the same schematic as TS-9.

Fertile areas for mods

- Clipping diodes - change ONE diode to a different type for asymmetrical clipping. Perhaps one diode gets changed to two or three germanium diodes (1N34A, Radio Shack) for asymmetrical clipping, or both changed to different colored LED's.
- tone filter caps - change to film from tantalum and tink with values; up to as much as 0.47uF for more bass and mids, down to 0.1 for more treble.
- Other dual opamps: some units have TA75558 opamps installed; put in a socket and swap amps for lowest noise and best distortion. Good possibilities are LM358, TL072, LM833, LT1124, OP227.