

Channel 2 is identicle to Channel 1, and uses IC4b for the clipping meter and IC3 for the input/output driver. The input impedance of the TubeHead is about 20k ohms, which is consistant with most gear like Synths, Effects Processors, Mixers, EQs, and so on. 20k is too low for a proper match with high impedance sources like guitar pickups, but a few minor changes take care of this. To use the TubeHead as a instrument pickup preamp, remove the 47k\* resistor and the 20pf cap from the feedback loop of the driving OpAmp. Then change the 47k" resistor to 680k and the 22k resistor in the feedback loop of the driving OpAmp to 100k. Now the TubeHead can be used to warm up a cold sounding guitar amp or just provide a great preamp tone.