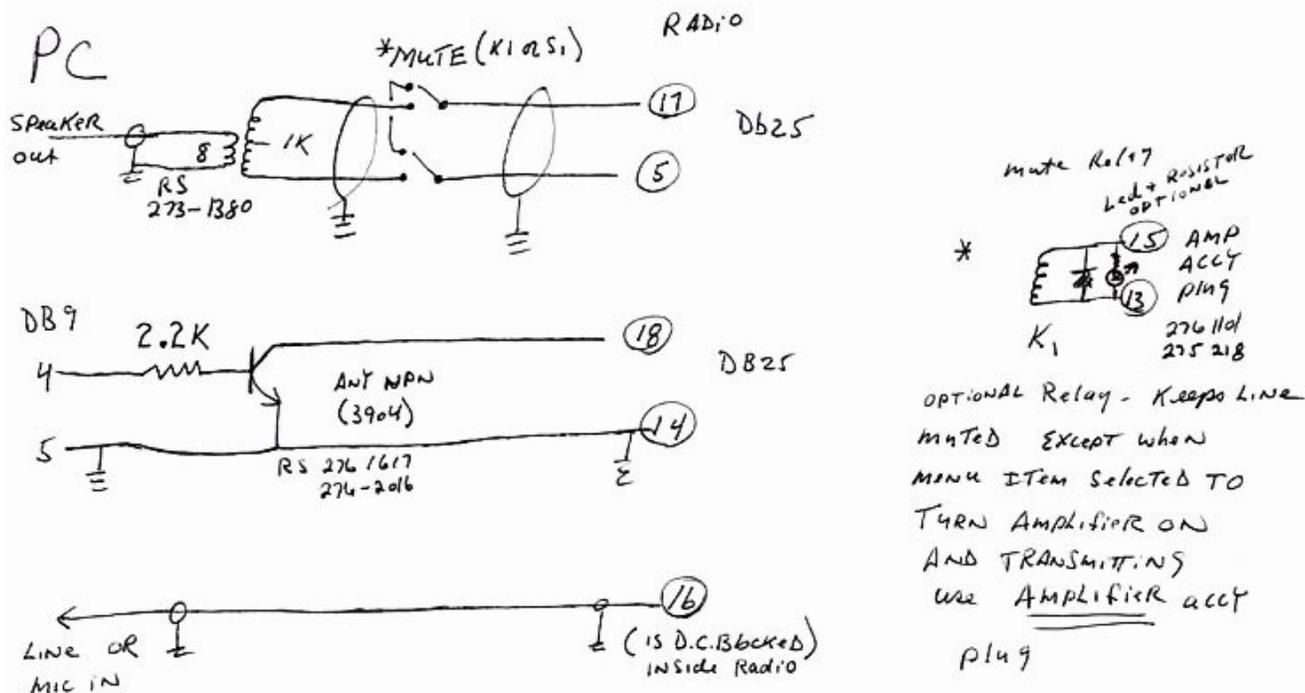


Sound Card Interface for Kachina 505DSP

(adapted from original writeup by John, KA9CAR)

KACHINA DSP 505 SOUND CARD INTERFACE



I have used this circuit on My Kachina for about a year. It works for any sound card function including: voice recorder, SSTV, and PSK31.

The Kachina has a balanced input on the accessory plug that requires a fairly high level of drive. I experimented with several types of connections and found that using a 8 ohm to 1,000 ohm miniature audio transformer and the Speaker output on the computer provided the best results. If you prefer a heftier transformer look for a "70 volt" audio transformer at Radio Shack, hook the speaker side to the computer and experiment to find the correct tap value for the radio side.

[The mute circuit was found to be unnecessary and is no longer in use at KA9CAR but it worked fine. (1/2004)]

Notice the "mute" circuit. I included this to allow easy cut off of PC audio from the radio. Since I don't have a linear amplifier, but I did have a relay in the junk box I used the relay, driven by the Radios Amp relay driver output, to allow me to control the mute function from the radio menu. On the Kachina TX menu, when the amplifier is on PC audio passes to the Radio. When the amplifier is off, the balanced inputs are tied together for silencing. The reverse bias diode protects the

radio from the magneto effect of opening the relay coil circuit. I also included an LED to show when the relay coil was energized.

PTT is a simple transistor and resistor INSIDE the DB9 plug. The resistor is to limit the base to emitter current. I did not include a reverse bias diode, as the Kachina does not expose this input to a relay coil.

For audio to the PC, I found a simple patch cable was all that was required. WIRE ONLY the tip and sleeve of the stereo plug. The Kachina has a very high output level, and it works fine with my sound cards.

On the schematic, RS means Radio Shack part number.