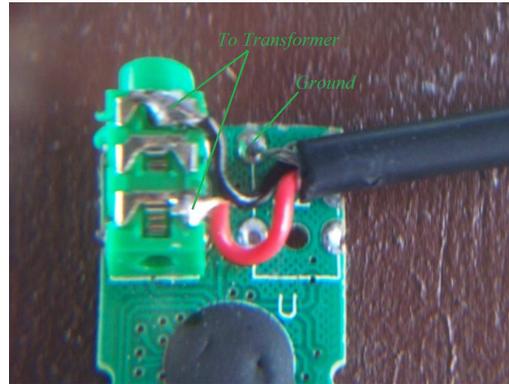
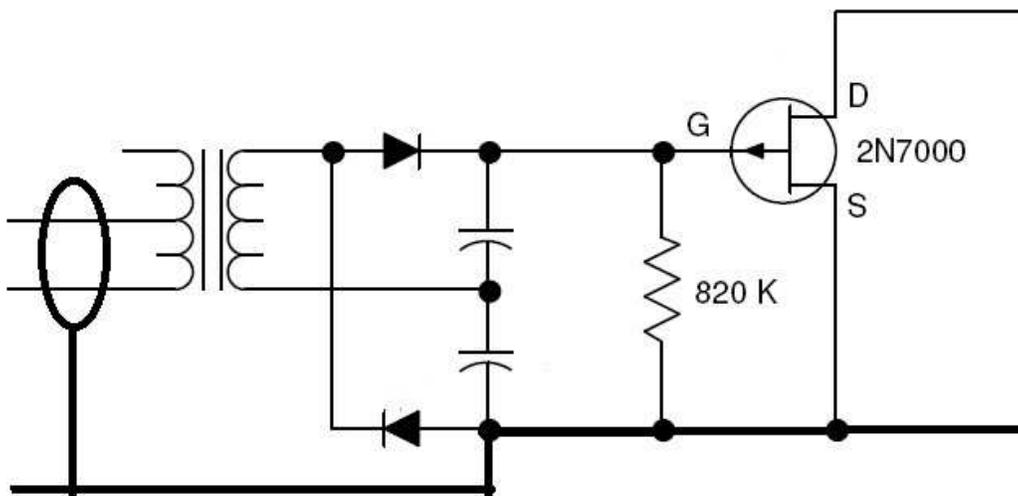


USB – MORSE KEY ADAPTER



The Microphone connector is removed from the USB Audio Card and a 2 conductor shielded cable is connected across the earphone connector as shown. The Red and Black wires are connected to a Radio Shack 600-600 ohm audio transformer. In my Installation, the radio would lock up until I connected the USB adapter GROUND to the circuit. Your installation may not need it but it was necessary at my QTH. If you are careful with soldering the wires to the earphone connector, you can monitor the audio tones sent to the circuit through the earphone jack.

Once the USB Sound Card was modified and working I mixed up a glob of J-B Weld Quick, put some on both sides of the circuit board and basically glued the covers back on. At \$1.50 for each USB Audio Card, if I have a problem with one, I'll just cut the wire and make it again. ;0)



Radio shack has 2 small audio transformers, either one works OK. The diodes are 1N270's, Capacitors are very small 0.1mfd that I had in the junk bin. I used a 2N2222A transistor with a 1K resistor in series with the base lead but the 2N7000 is a better choice. I used what I had available on the road.

The DRAIN (or Collector) output goes directly to a ***1/8 STEREO*** plug TIP connection with the ring connector unused. The DRAIN (Emitter) GROUND connection goes to the STEREO plug GROUND connection. This is an important detail on the TS-590 as a ground connection to the ring would change the KEY SELECTION inside the radio. Other radios may react differently. The whole adapter (except for the USB Audio Card) fits into the smallest Radio Shack project box.

Credits for the schematic artwork belong to W5ZIT who posted a tone controlled interface to the FLDIGI Files folder. I simply copied that schematic into PAINT and edited it for this file.

In Digital Operation I select the TS-590 (USB Audio Codec) and for CW I select the USB-Morse Key Adapter in FLDIGI Audio configuration as shown here. The first time I use one of the macros in FLDIGI after selecting the Morse Codec the radio takes a few seconds to figure out what it wants to do, be patient, it'll work instantly for following transmissions. I haven't figured out why it hesitates at first but it's something I can live with and you might not see this with your setup.

Have fun !

Ken – KB7H

