Incase I did not mention this else where, the basis of my system to provide random audio bits which the spirits can use to form their voices. The audio bits are from randomly tuning a voltage tunable AM receiver module removed from older digital car stereos (I now make my own tuners). It's my belief that it is the **randomness** that allows spirits, and other entities to get their voices, and signals across dimensions. This principal applies to the use of white noise as well.

011807 There's a problem with previous schematics where the RVG (or tuning voltage) will tend to lock up, staying high. I think the problem is due to the output of the white noise transistor being too low, so the gains have to be made much higher. When the low frequency signal fades the output of the first low pass filter is just noise, and it tends to make the RVG amp go into oscillation, with signals going rail to rail. The solution is to change the white noise transistor to a 2N3904 from Radio Shack, the output is about ten times higher, and the transistor much noisier, which is good in this application. Use a scope to select the best transistor, as well to adjust following stages. Gains will have to be reduced accordingly. I was able to eliminate the DC offset problems by changing transistors, leaving in the coupling capacitor after the transistor, but replacing the rest with 1K resistors, using additional 1K resistors from the + input of the op amps to ground to pull down any DC that came through where needed.

I'm guessing this is what has made it so no one else could get the circuit to work, I hope this helps.

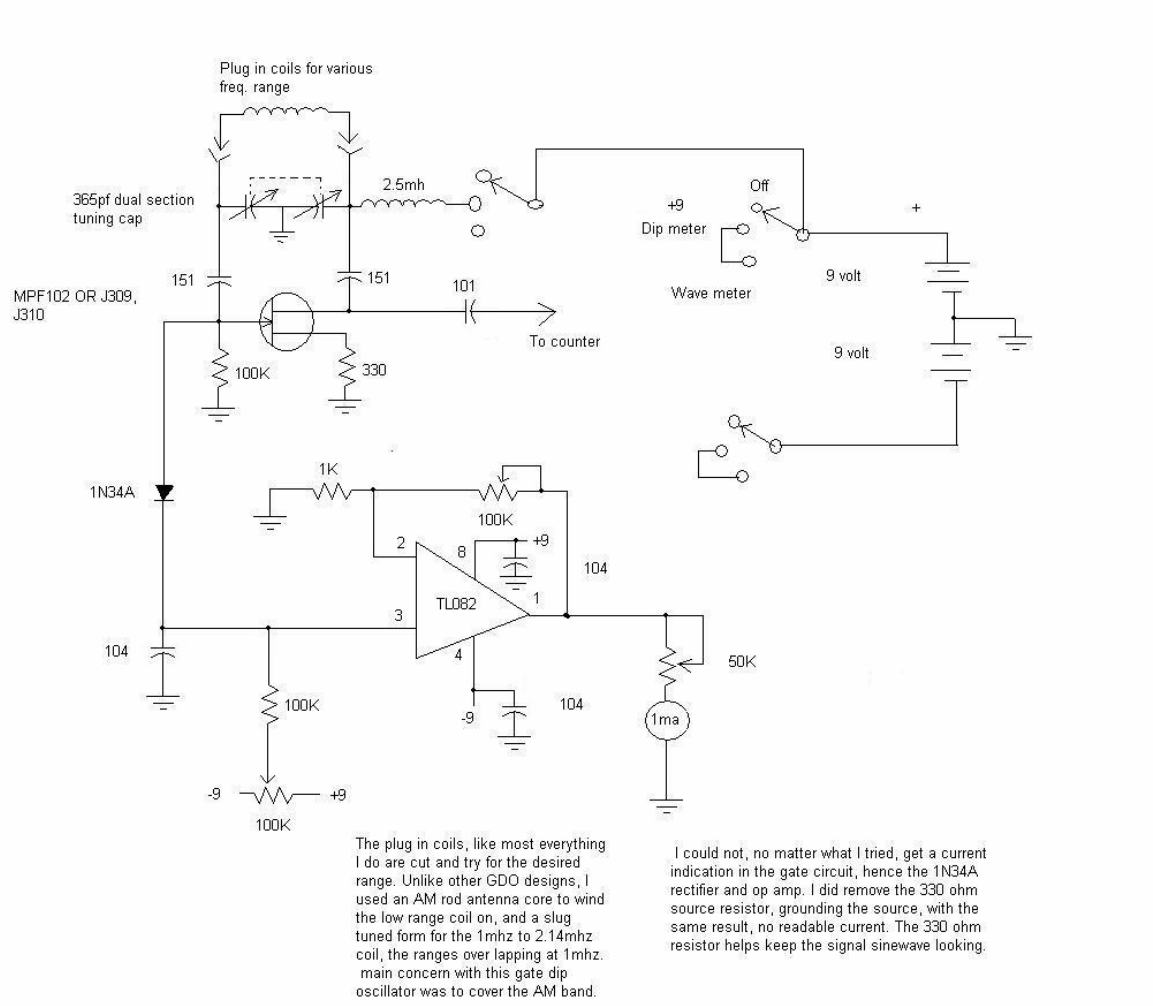
September 2006. This is the schematics and information for the latest system that I called the micro systems, or micro boxes. I used all surface mount components, and had boards made that were only about 2-1/3 X 3-1/2 inches, using one side for the RVG (random voltage generator), and the other side for the audio.

The next version will incorporate my own radio design using an AM radio chip, such as the LA1130, or LA1135, so I won't have to rely on car stereo tuners. Usable car stereos are getting harder to find, newer tuners being tuned digitally.

For those unfamiliar with my system, I use a random voltage generator to produce a tuning voltage to randomly tune a radio module removed from older digital car stereos. The random audio from the tuner is amplified, and fed to an echo box of sorts, where the spirits/entities manipulate the sound to form their voices. I record the sound from the box with a mike element inside the box. The "echo box" isn't necessary, as even an open room will work, but I've found that the voices are more consistent using an aluminum foil box. The concept of the echo box was kind of impressed on me, kind of like a telepathic message. Even the system "popped" into my head fully formed, all I did was build it, back in 2002.

September 9, 2006 This is the gate dip oscillator I made to help determine the resonant frequency of coils for the receiver I'm working on. I want to be able to incorporate my own AM circuit on the main to make the system more consistent, also, the AM tuners

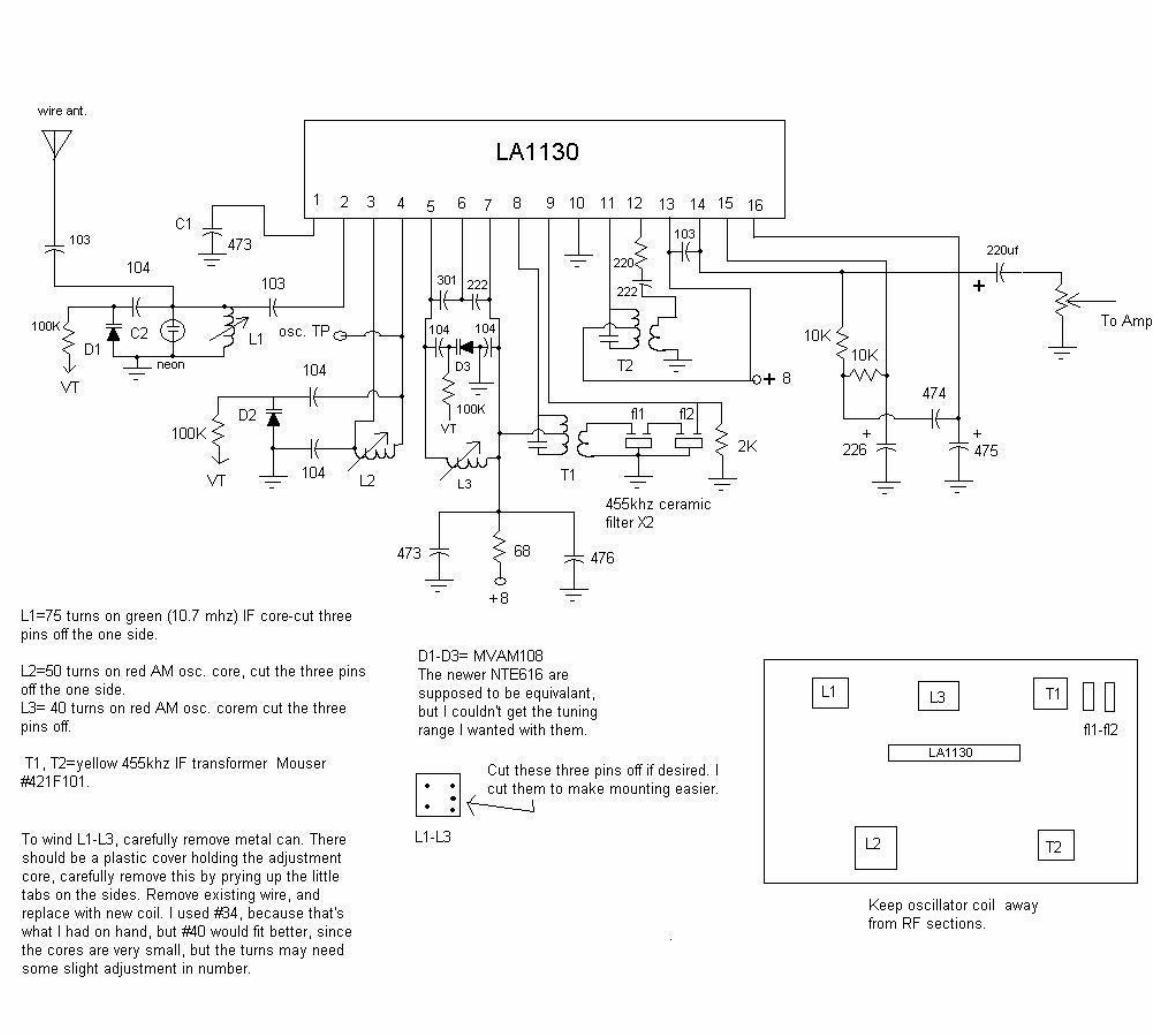
suitable for my system are getting harder to find. (Jan. 2007, I realize my freq counter really changes the frequency of the tuned circuits, so I don't have a frequency standard to use with the receiver, and shortwave converter. I use the old Radio Shack DX-440 to verify the frequency of the oscillators.)



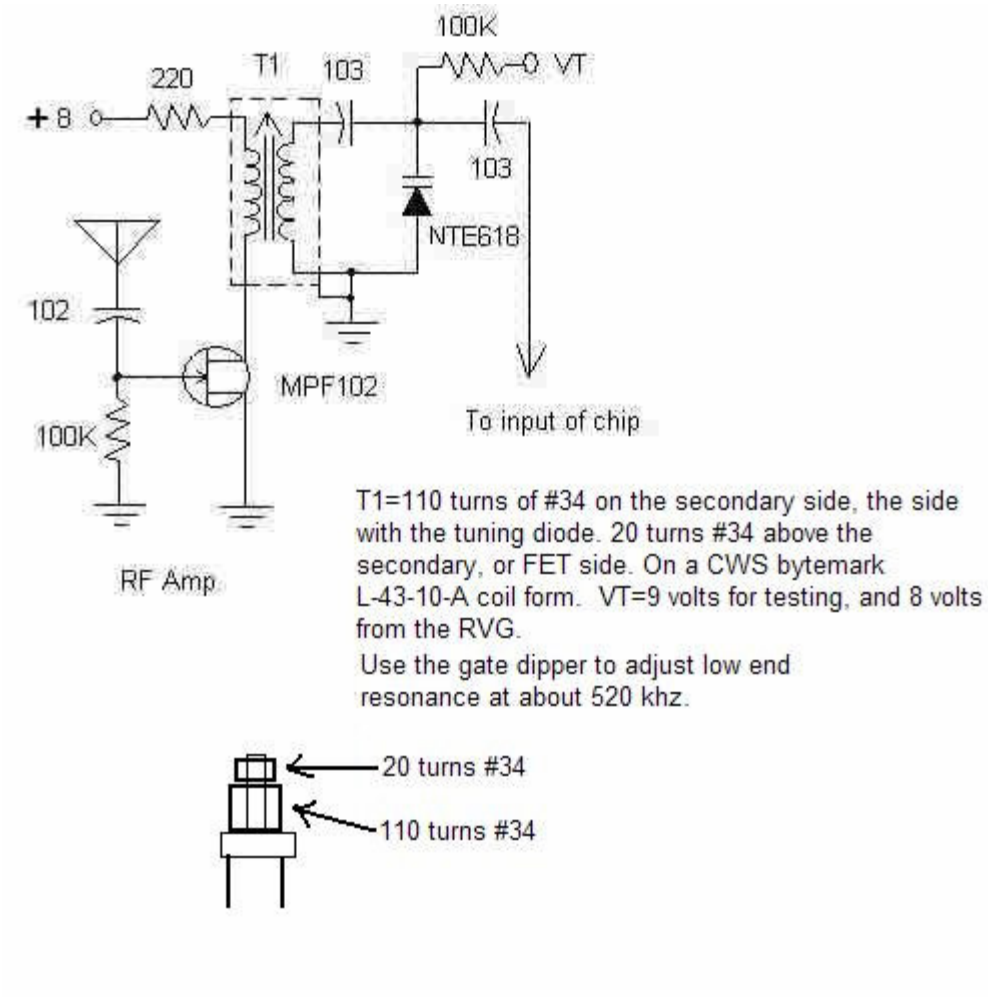
September 19, 2006. Here's a schematic for a voltage tunable AM receiver based on the LA1130 chip. The chip was designed (I guess) to use a permeability system, using adjustable coils instead of capacitors, so I had to come up with my own coils for the RF (antenna), and oscillator coils. I have not used this with the ghost boxes yet, but it covers the AM band, and seems to have good enough sensitivity. I have one more chip I want to experiment with, the LA1135. I also want to try the LM3820 again with what I've learned from these chips, since the 3820 will oscillate well into the short wave ranges, I couldn't get the LA1130 to go much above the AM band, but, I'm no engineer, and probably didn't configure the oscillator correctly. The LA1135 is designed to be voltage tuned, and should be easier to use, especially since it's "dip" chip, instead of a 'SIP", as the LA1130.

As of the middle of November I have the first proto type system made using the LA1135. It works well, with less noise, and between station interference from HD radio transmissions then the car tuners have. I added a short wave converter, but couldn't get much; I think I should have used higher frequencies in the down converter, so it overshoots the shortwave bands. I changed the oscillators, but haven't tried it yet.

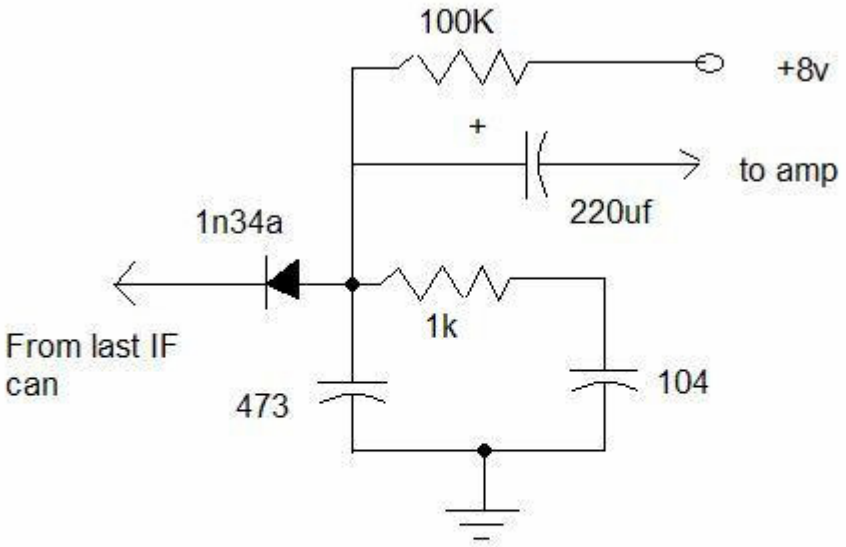
Last week I started a new board, this time using transistors I picked up at Radio Shack. I bought a pack of "NPN Switching Transistors" that contain some 2N3904's, these produced a much, much larger white noise signal than the 2N2222's that I have always used in the past. The result was that there was enough signal that I could use a 10K resistor on the output of the DC blocking capacitor to swamp out the DC offset voltage that has always plagued this design. That resulted in needing no coupling caps between stages to block the DC offset, and no DC offset pots to compensate for the voltage originating in the white noise circuit. This also makes the RVG start up faster, taking only ten seconds to produce a stable random tuning voltage. Of course, solve one problem, and create others, I needed more gain after the first filter, but that's just a matter of change pot values. I have this board almost completed, and am now just building up the AM tuner using an LA1130 on this board. By proto type, I mean it's made on perf board with point to point wiring.



10/06/06 This is the RF AMP I'm using for both the LA1130, and the LM3820 circuits. So far, I can't get the LA1135 to work.

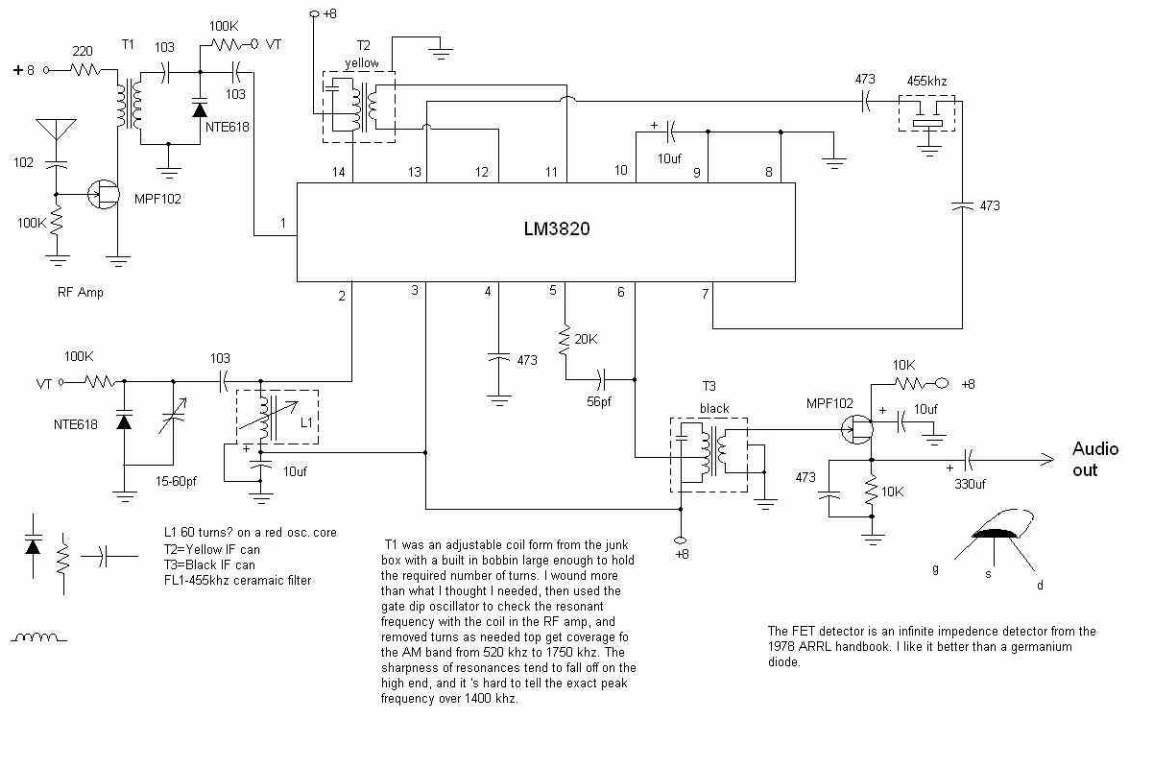


10/06/06 I like this detector for the LM3820 better than the FET detector I had in the schematic.



Audio was supposed to come off the top of the .1 cap, but I liked the level at the anode of the diode better. to take the audio from the oterh end of the 1oK resistor, reduce the size of the .1 capacitor to maybe .003 uf.

10/06/06 This is the LM3820 schematic. The chip is still available from B.G. Micro for 12 cents each; you have to buy tubes of 25, which is still dirt cheap. I have had the oscillator up to about 20 MHz and it runs ok, so it's also good for short wave. The only draw back is it's doesn't have a build in detector, which isn't really a problem.



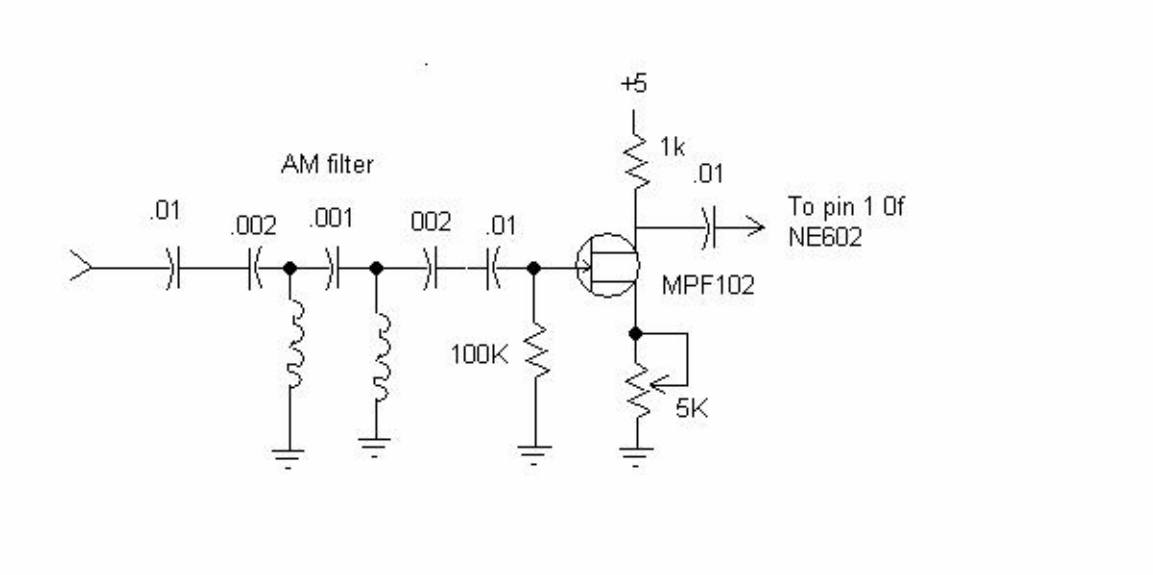
01/12/07 This is the RF amp I use for the short wave converter, placed after the AM BCB filter, going to the NE602 mixer. I found that the MPF102 works about 100% better than the J309, or J310 FETs. Using relays, in shortwave mode I switch the AM tuner to a fixed tuning voltage that comes from the 8 volt regulator through a trim pot, setting the tuning for roughly 1MHZ (1455KHZ l.o.) then tune the converter using the VT signal from the RVG using a red LED as a tuning capacitor.

DOH! I left out the values of the coils for the AM filter, they are 3.3uh.

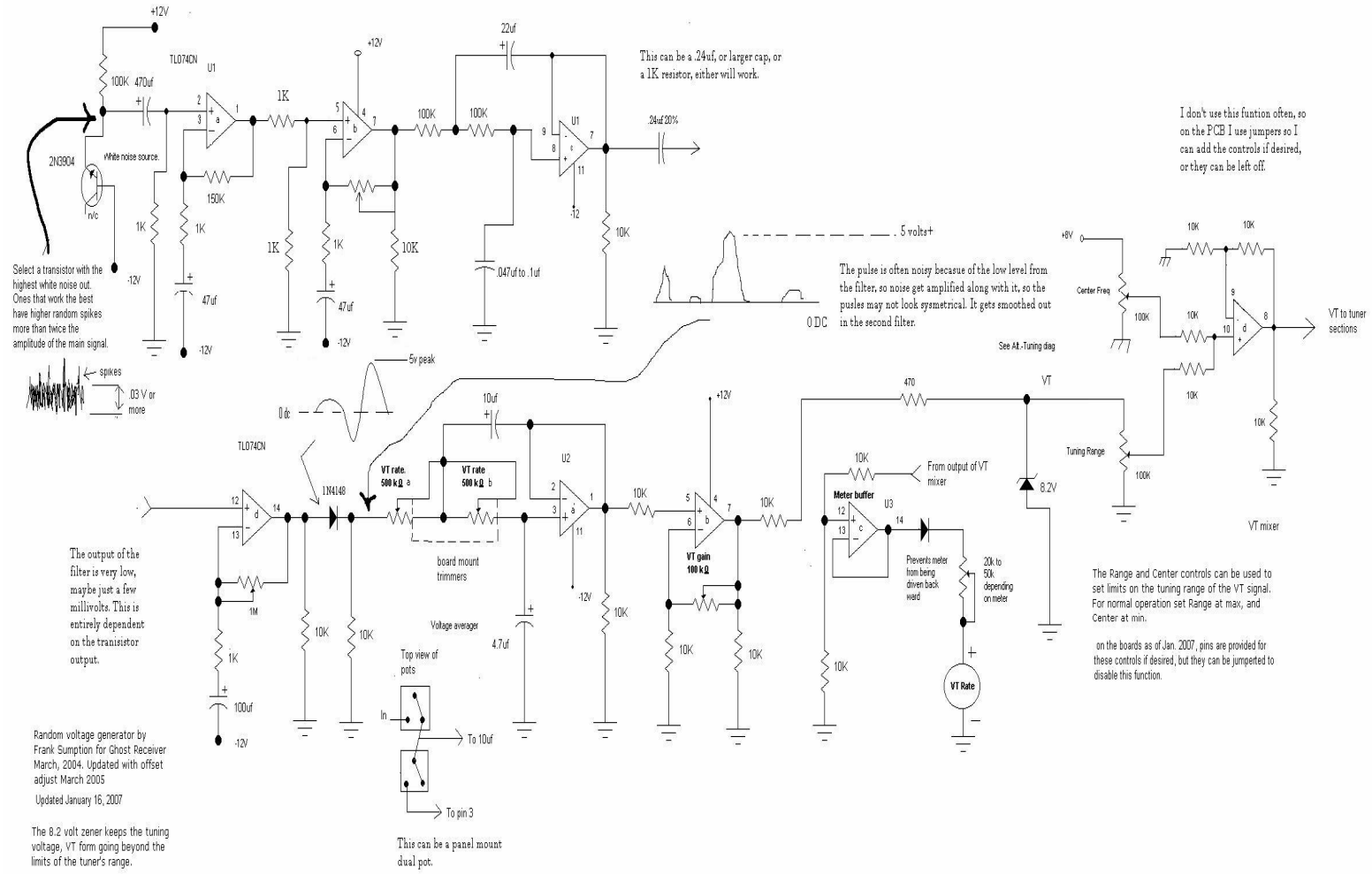
01/26/07 So far, I have not been able to get the converter to work in an acceptable manor; usually I get nothing on shortwave, even though the circuit seems to be working. If I take out the BCB filter I at least get some stations. I've been using information found on the web as a guide for the converter, and in fact most of my circuits. This information seems inaccurate at best, and the circuits rarely work as presented. Last night, and this morning I was able to get shortwave signals that I could also pick up on a little Sony receiver I have for verification. It seems if I set the converter freq. to 520 kHz below the given shortwave band edge, then the signals are converted into the AM band leaving out the BCB filter. The short wave signals are mixed in with the AM signals, which maybe an advantage, as it provides yet rawer audio in areas where the AM stations are available.

Other changes I've made are to take out the "range and center" controls, and use that op amp channel for the audio limiter (AGC). The result is a higher level audio after limiting because of the 12 volts supplies supplies. I tried running without he AGC, but the signals

are too distorted when strong stations come through. The limiter circuit is the same as before, except leaving out the 220k resistors used for biasing a single supply op amp.



101807 This is the schematic of the RVG that I have been working with lately to try to eliminate the bugs.


+12V
TL074CN
U1
100K
.470uf
2N3904
White noise source.
rv/c
-12V
1K
150K
47uf
Select a transistor with the highest white noise out. Ones that work the best have higher random spikes more than twice the amplitude of the main signal.
spikes
.03 V or more
This can be a .24uf, or larger cap, or a 1K resistor, either will work.
22uf
100K
.24uf 20%
.047uf to .1uf
10K
5 volts+
0 DC
The pulse is often noisy because of the low level from the filter, so noise get amplified along with it, so the pusles may not look symetrical. It gets smoothed out in the second filter.
I don't use this funtion often, so on the PCB I use jumpers so I can add the controls if desired, or they can be left off.
+8V
Center Freq
See Alt.-Tuning diag
VT to tuner sections
5v peak
0 dc
10uf
1N4148
VT rate 500 k Ω a
VT rate 500 k Ω b
board mount trimmers
U2
VT gain 100 k Ω
470
VT
From output of VT mixer
Meter buffer
U3
Prevents meter from being driven back ward
20k to 50k depending on meter
VT Rate
8.2V
Tuning Range
VT mixer
The output of the filter is very low, maybe just a few millivolts. This is entirely dependent on the tranisistor output.
Voltage averager
4.7uf
Top view of pots
In
To 10uf
To pin 3
This can be a panel mount dual pot.
The Range and Center controls can be used to set limits on the tuning range of the VT signal. For normal operation set Range at max, and Center at min.
on the boards as of Jan. 2007, pins are provided for these controls if desired, but they can be jumperted to disable this function.
Random voltage generator by Frank Sumption for Ghost Receiver March, 2004. Updated with offset adjust March 2005
Updated January 16, 2007
The 8.2 volt zener keeps the tuning voltage, VT form going beyond the limits of the tuner's range.