A few photos of my 2009 K2002 with MEM2 upgrade

The other photos are of my old A10 preamp enclosure and preregulators. The preamp draws less than 5 ma so the 1.2 AH lead acid batteries ($15 ea) should last over 1 week between recharges.

The +-10v preregulator configuration is a little unusual so be sure to have two independent sources for charging the batteries.

I have a power switch, gain knob on the output and a shorting switch on the input. The output of the preamp feeds a k2000 used for digitizing the voltage.

The spreadsheet is the start of noise testing of different models of DVMs and preamps. I don’t know the state of NPLC, filtering or autozero for the different meters yet. That’s why the data is preliminary. All instruments are on their most sensitive range.

K2182, shorting plug

HP34420A, shorted input leads

K2002, normal banana shorting leads on input

K181 nanovoltmeter with analog output feeding another k2000 for digitizing

K182 has some noise spikes.

The A10 preamp data is very nice! It was stable within 1 nv for over 30 minutes!

I did another plot that averages 60 seconds of data and plots it offset from the raw data. This is the noise level everyone should have!