10/20/15 check out photodiode transimpedance amp, diff amp freq resp, noise floor 1/2

Use Ac freq meas sys V4.3.6d

- Use sensor 00 (1068?) - 33 mVDC
borrowed by JSR - in shaker 4 mm deep
40 dB accel. gain

Use sine sequence sinseq049_24k6 from David Chham directory:
98 Hz - 24.5 kHz, 6 pts/octave
0 dBA, 10 dB k-H gain, N=50 avgs/pt.
~~NOTE: EDL rack power~~
f87 - 129 - Sensor has low sensitivity but above noise to ~14 kHz.
Orig photodiode through diff amp outside chamber (new big box) chan 1, gain x10

f130-157 Old Photodiode through EDL mic amp 40 dB gain
EDL rack power off.

NOTE: What powers DC meters?
Repeat 158-200 - better
Repeat, 20 dB mic amp gain
f201 - 243
New Evan photodiode "simple" 20 dB mic amp gain - 0 dB gain
f244 - 286 Looks like sensitivity ~2 dB lower, noise floor ~4 dB lower
f287 - 329 Repeat - similar
Other new Evan photodiode "reverse bias" - through mic amp as above; 20 dB mic amp gain
f330 - 372 - similar to 329, 286
f373 - 415
Repeat, max freq 31.6 kHz; ~~use sine sequence by default ch. 1~~
~~20 dB k-H gain, 5 dB atten~~
f416 - 460 - too noisy

NOTE: No error from freq mismatch.

10/20/15 cont.

#467 – 507. 10 dB K-H gain, ND50 as before.
Repeat, weight by 50% chan 1 (cancel.):
20 dB K-H gain, 5 dB atten.
#508-553
Repeat, 0 dB A, 20 dB K-H gain
#554-599
Back to Evan "simple" photodiode – through EPL mic amp, 20 dB gain
#600 607-652 – similar to #599, noise floor to #599

Back to old IJS photodiode through EPL mic amp
#653-698 ~5 dB quieter sensitivity,
5-7 dB higher noise floor than #652

Back to IJS photodiode through diff amp outside chamber.
gain x10
#722 – 746 ODA
Repeat: #767-812 – similar to 698;
noise floors look similar too.
All for today – analyze later.