Vibration Measurement for NMR Installation:

(note: document is on file --- "NMR equipment" also on my web note. Shaoxiong Wu, Jan 26, 2012)

Equipments:

- 1. TDS 3040B with FFT chip installed
- 2. P31 Power Unit/Amplifier (Wilcoxon Research Inc. 301-330-8811)
- 3. 731A Seismic Accelerometer



Settings:

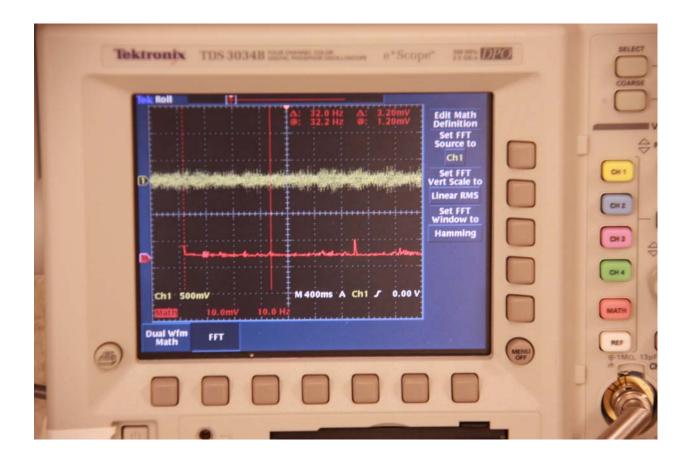
- 1. Power on the scope and power off P31 unit.
- 2. Connect the cable from P31 to 731A, use a BNC cable connect scope to P31.
- 3. Scope setting:

Set FFT source to CH1, Linear RMS, Hamming, 500mV scale 400ms.

Press menu: DC, coupling DC, 1M ohms.

Press MATH (for FFT, red line). 5mV. Use two red cursors to measure frequencies.

Use the scale knob (<>) to select the frequency range.



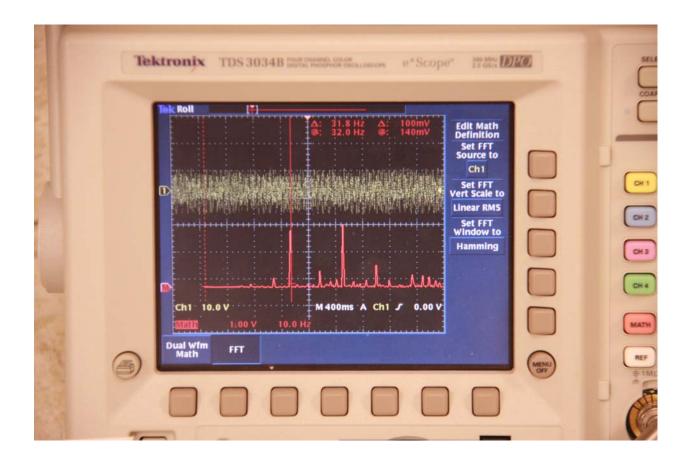
Settins on the P31

Power: on/off/test ----- flip to the test position to check the battery power (2 9VDC in side of the

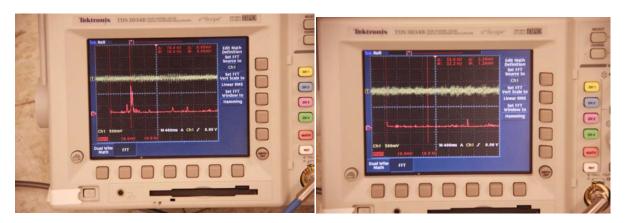
unit)

Filter: 450Hz/100Hz/VeL set it to 100Hz

ACC: 10/100/1000 v/g start with the lowest sensitivity 10.



Put the 731A sensor near the cooling system. The vibration has two big peaks: 31.8 Hz and 42 Hz. Their intensities are 2.4V.



Without antivibration table

With Anti-vibration table.