Force transducer calibration with computer recording.v2

Principle:

Before we could us the force transducer and the computer recording system, we need to calibrate the system to set the baseline and calibrate the system.



Procedures:

- 1. Turn on the power supply to the amplifiers and turn on the power for the channel for at least 30 min (recommend to leave it on without turning it off after use)
- 2. Prepare the force transducer with basic connecting devices (hook and string) without weight.
- 3. Set Input Section to Bridge 2K and $\frac{1}{2}$ AMP to 35 Hz.
- 4. Set "polarity switch" in + position.
- 5. Set "Adj cal dial" to around 8.
- 6. Set the computer detection scale between 6 and -1.
- 7. Set "Sensitivity MV/CM" dial to 20.
- 8. Use baseline dial to adjust baseline to close to 0.
- 9. Turn "Sensitivity MV/CM" to 10 and turn "Voltage" (1 MV/Turn) to bring the baseline to 0.
- 10. Turn "Sensitivity MV/CM" to 5 and turn "Voltage" (1 MV/Turn) to bring the baseline to 0.
- 11. Turn "Sensitivity MV/CM" to 2 and turn "Voltage" (1 MV/Turn) to bring the baseline to 0.
- 12. Turn "Sensitivity MV/CM" to 1 and turn "Voltage" (1 MV/Turn) to bring the baseline to 0.
- 13. Repeat step 1-12 a few times until you get 0 for each of the sensitivities.
- 14. Set "Sensitivity MV/CM" dial to 20 and add 50 g weight standard and adjust Adj. Cal such that the reading is 2.5.
- 15. Double-check the readings for no weight and weight of 50 g.
- 16. With this calibration, when setting "Sensitivity MV/CM" dial to 10 the measure force will be the voltage reading x 10.