Spring Gage Probe Calibration Instructions

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Non-contact free-length measurements are completely dependent on the size, type, and shape of the spring being measured. For this reason the gaging system *cannot* be calibrated for absolute measurements. It *must be* calibrated for each individual setup. Calibrating according to these instructions will provide an accurate, NIST traceable calibration for each setup.

Required Equipment:

Mechanical gage calibrated to NIST (micrometer, caliper, etc.).

Calibration process:

1. Wind a spring to cutoff.
2. Position the probe tip 0.050" to 0.500" (1mm to 10mm) from the spring end.
3. Zero the probe. Two beeps indicate successful zeroing.
4. Now move the probe to one of the sort points. *On the Panther, be sure to move the probe the same amount as the tolerance listed at the top of the setup screen*!
5. Set the sort point on the gage. Two beeps will sound to confirm the point is set.
6. Now move the probe to the other sort point. *On the Panther, be sure to move the probe the same amount as the tolerance listed at the top of the setup screen*!
7. Set the sort point on the gage. Two beeps will sound to confirm the point is set.
8. Press the DONE button.
9. Return micrometer to zero position before starting production.
10. Cutoff the setup spring.
11. Measure the free length of the setup spring with a NIST calibrated device.
12. If the free length is different than desired (different than nominal setting on Panther gage) then adjust the gage probe micrometer equal to the amount of deviation of the setup spring.
    If the spring is too short, move the probe micrometer away from the coiler.
    If the spring is too long, move the probe micrometer toward the coiler.
13. Start spring production.
14. Catch and measure a spring which the gage indicates is of nominal length (keep hands at least 4” away while catching springs).
15. If the free length measured with the NIST traceable device is different than the gage reading, readjust the probe micrometer.
16. Repeat steps 13 & 14 until NIST traceable device and gage reading are equal.
    This provides a NIST traceable calibration of the spring gage setup.