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| **Procedure Name** | **COTS Hybrid Hot Fire 03/21/2015 – Calibration** |
| **Summary** | **This document covers the step-by-step procedure for how to calibrate the LC while it is mounted on the test stand. LC is already mounted to the test stand before this procedure.**  **Compression calibration is done beforehand.** |

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|  | **Name** | **Date** |
| **Created By** | **Alex Omar** | **3/11/2015** |
| **Started By** |  |  |
| **Finished By** |  |  |

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| **Materials** | |
| **Name** | **Quantity** |
| **Test Computer** | **1** |
| **Load Cell** | **1** |
| **Calibration Mass** | **1** |
| **Launch Binder[[1]](#footnote-1)** | **1** |
| **Sand Bucket** | **1** |
| **Bathroom Scale** | **1** |
| **Relay Box (yellow box)** | **1** |
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| **Participants** | |
| **Name** | **Date** |
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| **#** | **Done (initial)** | **Checked**  **(initial)** | **Directions** |
|  |  |  | **If the mass of the sand-filled bucket is not measured yet, seal it with duct tape and measure it on concrete floor (or flat horizontal floor).** |
|  |  |  | **Bring the bucket to near the I-beam.** |
|  |  |  | **Wait till propulsion has mounted Load Cell to test stand. Check that LC does not have anything attached to it.** |
|  |  |  | **Connect LC to wire, which is connected to the relay box.** |
|  |  |  | **Ensure LC reads 0 lbs. If not, rezero the cell. To rezero the cell, apply no force and change the *Volt-Lbs Zero* field on LabVIEW until you are reading 0 lbs on the screen.** |
|  |  |  | **Ensure the calibration mass has not been tampered with. The seal should not be broken. The contents should not have spilled or otherwise been removed. If they have been removed, notify Kai and Alex.** |
|  |  |  | **Suspend your calibration mass from the LC.** |
|  |  |  | **Change the Volt-Lbs Coefficient field on LabVIEW until you read the expected weight. Noise will prevent you from reaching exactly the expected weight.** |
|  |  |  | **Write the calibration values in the notebook.** |
|  |  |  | **Remove calibration mass and ensure LC is reading close to 0lbs. If not, recalibrate.** |
|  |  |  | **Terminate the LabVIEW program (do not close the window, only press the Terminate button).** |
|  |  |  | **Inform Propulsion they may begin mounting the motor.** |
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1. There will be a white binder labeled Launch Binder that contains many datasheets and scratch paper. [↑](#footnote-ref-1)