

NASSA TC LOGGER-USB

CONFIRMING CALIBRATIONS

The TC LOGGER USB will need to have the Load Cell and Pressure Transducer calibrated before you begin firing motors. These two calibrations are very important to the correct collection of data. Firing Flight Motors requires only a Load Cell so calibrating the Pressure Transducer is not necessary. However, if the firing is for Propellant Characterization calibrating the Pressure Transducer is just as important as the Load Cell.

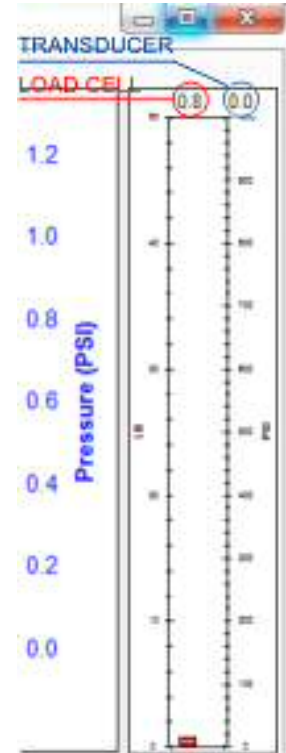
CONFIRMING LOAD CELL

Once you have calibrated the Load Cell, as instructed in the TC LOGGER Manual, and everything is turned on and running, set a known weight on the Load Cell. You will see the Red Bar in the right side window rise. The applied weight is read with the left side number at the top of the bar. If this is the same as the known weight applied the calibration is confirmed. If not repeat the process.

CONFIRMING PRESSURE TRANSDUCER

Be sure you have placed grease inside the Pressure Transducer and that there are no air bubbles within. A toothpick is an ideal tool to insert into the grease; if any air is present it will open the bubble and more grease must be applied.

Once the grease is applied, connect a Grease Gun to the Transducer. The Grease gun must have a pressure gauge attached to show how much pressure is being applied. With the system up and running pump the Grease Gun and watch its gauge. The applied pressure is read on the right side at the top of the bar. It should match what the gauge on the Grease Gun reads. If not make sure there are no air bubbles present.



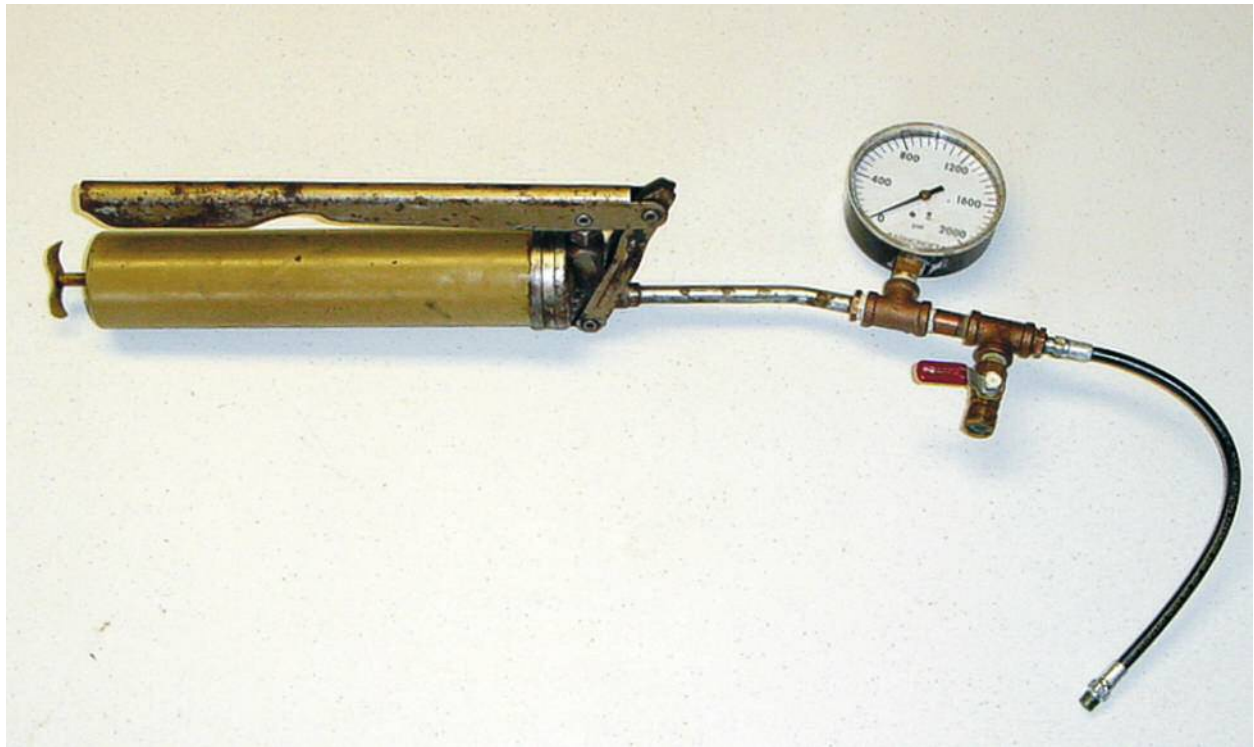
FINAL

Once the Load Cell is calibrated on a given computer, there is no need to recalibrate that computer. You should, however, occasionally confirm that the load cell is still producing the correct output. CATOs, Heat and excess weight on the load cell can damage the load cell and

cause it to change. If a different computer is used OR a different Load Cell is used the System needs recalibrated.

The Pressure Transducer is different. Each day you use the system the Pressure Calibrate button should be clicked to adjust for the current atmospheric pressure. Enter the maximum value for the pressure sensor that you are using into the lower *Value* field. Then press the Calibrate button.

There is no need to confirm calibration of the Pressure Transducer except when additional grease is added, it does need that once in awhile.



Shown here is a Grease Gun set up to test Pressure Calibration. It's simple to assemble using standard Brass Fittings. Shut Off Valve is to reduce pressure for checking. Be careful as grease will come out the bottom so be prepared!