

DFX II Series Calibration

IMPORTANT

Gauge calibration should be performed only by those properly trained to service and calibrate Chatillon instruments. Factory service and calibration is available on these instruments and traceable Certificates of Calibration are provided as requested. Visit www.chatillon.com for a listing of authorized Distributors.

Any changes made to the gauge using the calibration procedure voids the Certificate of Calibration that accompanied your DFX II Series force gauge. Customers electing to calibrate their gauge do so at their risk and with the understanding that they are effecting the performance of the gauge.

The Calibration Procedure described in the following pages will permit a user to calibrate and re-characterize the loadcell being used. Exercise extreme caution when calibrating any precision instrument.

IMPORTANT

The sensor used in your DFX II Series gauge is temperature sensitive. The gauge should be turned ON and allowed to acclimate to ambient temperature before normal use and before being calibrated.

A 5 minute "warm-up" period is recommended.

Calibration Setup

A hanger must be used when calibrating the DFX II Series digital force gauge in compression mode. The hanger will ensure that side loading effects are eliminated. Stacking deadweights onto a platen to perform a compression calibration is NOT acceptable.



Shown: a correct compression calibration setup using a hanger fixture.

Procedure

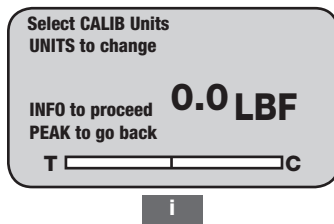
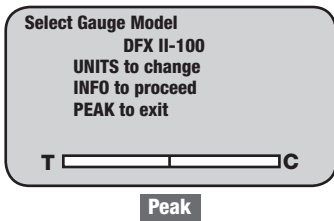
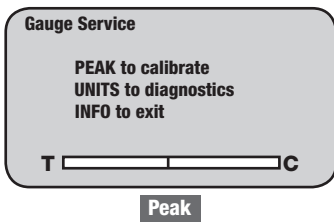
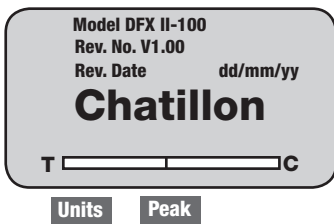
The Chatillon DFX II Series is supplied with a Certificate of Conformance. The gauge was tested and found to have a measurement accuracy of 0.5% of full scale or better.

Calibration Procedure

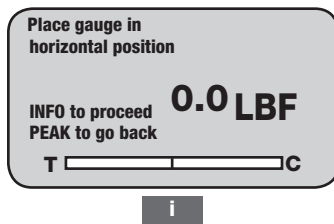
The DFX II Series calibration procedure is contained in the gauge firmware. The calibration is a four point calibration: full scale compression, zero compression, full scale tension, zero tension.

To access the calibration routine, begin with the gauge power OFF.

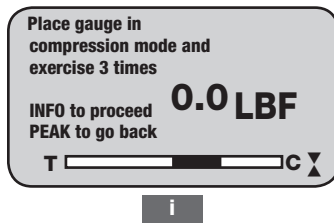
Press the ON key. While the "Chatillon Logo" is displayed, press PEAK then UNITS.



Note: The units of measure selected must correspond to the weights that are being used for the calibration.



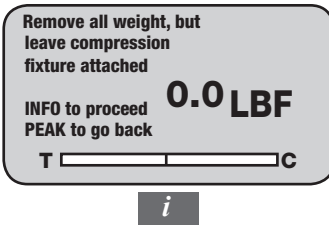
Note: Placing the gauge horizontally means to lay the gauge perfectly flat on its backside making sure no load is being applied to the loadcell shaft.



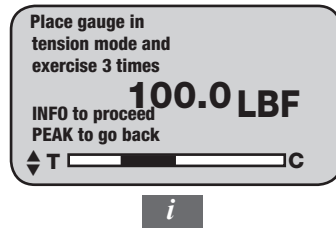
Note: You must use a hanger when performing the compression calibration routine to eliminate side load effects on the loadcell.

Note
Selecting PEAK during the calibration procedure will take you back to the last step in the procedure.

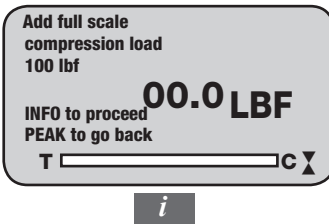
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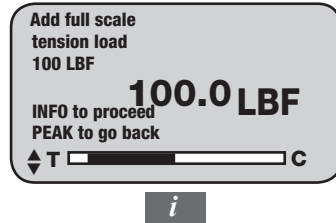
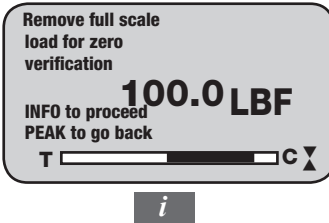
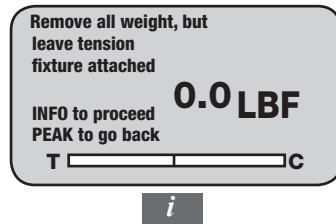
Note: Remove all weights but leave compression calibration hanger attached to the force gauge.



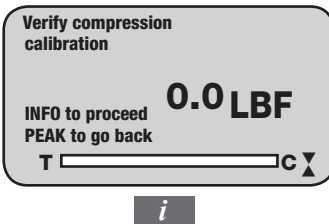
Note: Exercise the loadcell three times by pulling on the loadcell shaft.



Note: Carefully add weights equal to the DFX II gauge's full scale capacity to the hanger fixture.

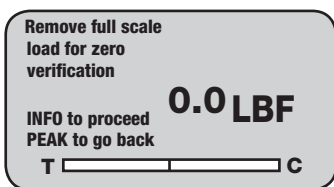


Note: Carefully add weights equal to the DFX II gauge's full scale capacity to the hanger fixture.

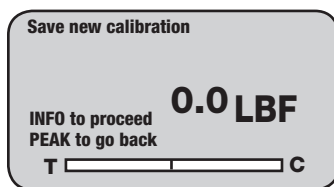


Note: Verify the compression calibration by checking both the full scale (span) and zero. When no load is applied, the display should read zero. When full scale weights are applied to the fixture, the display should read the full scale weight equivalent.

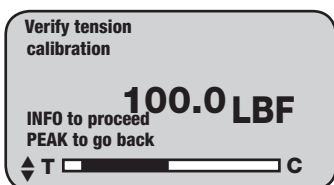
Note
Selecting PEAK during the calibration procedure will take you back to the last step in the procedure.



Note: Remove all weights but leave tension fixture attached to the force gauge.



Note: Select INFO to save the calibration.



Note: Verify the tension calibration by checking both the full scale (span) and zero. When no load is applied, the display should read zero. When full scale weights are applied to the fixture, the display should read the full scale weight equivalent.