

SI/HI Span Calibration:

SI Span Calibration:

- 1. Press the TARE key to zero the scale.
- 2. Press the TARE key and hold down while pressing the MODE key.
- 3. Release both keys and the display should read SPAN.
- 4. Press the MODE key to enter Span calibration mode. The balance will display its full capacity calibration point. To calibrate the balance at full scale, place calibration weight on the pan and press the MODE key.
- 5. The display will read ACAL and then display the value of the weight on the pan. The balance is now in normal weighing mode. Once the weight is removed from the pan, the display will return to zero.

To calibrate the balance at other weights, instead of pressing the MODE key, press the TARE key to display other calibration points. Press the MODE key to accept the calibration point desired. Place calibration weight on the pan and press the MODE key. The display will read ACAL and then display the value of the weight on the pan. The balance is now in normal weighing mode. Once the weight is removed from the pan, the display will return to zero.

Note: If the test weight varies by +/-1% from the factory calibration, the span calibration will not be accepted and NOCAL will be displayed. In this case, a Full Linear Calibration needs to be performed.

HI Span Calibration:

- 1. Press the TARE key to zero the scale.
- 2. Press the CAL key and the balance will display its full capacity calibration point. To calibrate the balance at full scale place calibration weight on the pan and press CAL key. The display will read ACAL and then display the value of the weight on the pan. The balance is now in normal weighing mode. Once the weight is removed from the pan, the display will return to zero.
- 3. To calibrate the balance at half capacity, instead of pressing the CAL key, press the TARE key and the balance will display the capacity which is half of full scale. To calibrate the balance at half scale place calibration weight on the pan and press CAL key. The display will read ACAL and then display the value of the weight on the pan. The balance is now in normal weighing mode. Once the weight is removed from the pan, the display will return to zero.

Note: If the test weight varies by +/-1% from the factory calibration, the span calibration will not be accepted and NOCAL will be displayed. In this case, a Full Linear Calibration needs to be performed.

SI/HI Full Linearity Calibration:

Have the following weights (NIST Class S, ANSI/ASTM Class 1, or better) ready:

Model	Weights				
HI 410S	50g x 2 pcs & 100g x 3 pcs				
HI 4100S	500g x 2 pcs & 1kg x 3 pcs				
SI 200S	40g x 5 pcs				
SI 410D	50g x 2pcs & 100g x 3 pcs				
SI 2000S	400g x 5 pcs				
SI 4100D	500g x 2 pcs & 1kg x 3 pcs				

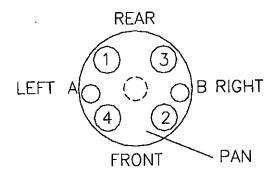
Make sure that the balance has been warmed up with power on for at least two hours at room temperature.

- 1. Hold down the TARE key. Also hold down the MODE key.
- 2. Release the TARE key briefly, hold it down again.
- 3. Release the MODE key briefly, hold it down again.
- 4. Release the TARE and MODE keys together. The display should read TEST.
- 5. Press the TARE key several times until display reads CAL A.
- 6. Move the CAL/PROTECT switch on the back of the balance to the left position (CAL).
- 7. Press the MODE key. (For SI balances the display should flash LOAD xxxx, where xxxx is the highest calibration point. For HI balances the display should read DO CAL. Press the CAL, PRINT, UNITS and % keys in that order. The display should then flash LOAD xxxx, where xxxx is the highest calibration point).
- 8. Load weights equaling the displayed value on the balance and press MODE key. Either add or remove weights so that the weight on the pan equals each of the values sequentially displayed by the balance. Press the MODE key after each weight has been loaded.
- 9. When PROTEC is displayed, all weights should be removed and the CAL/PROTECT switch on the back of the balance should be moved to the right position (PROTECT).
- 10. Press the TARE key to clear the display.

SI/HI Side to Side Adjustment:

Be sure that the balance is level. Remove the top cover and re-install only the pan support. For units with a one piece pan support, lift off the pan assembly to make the adjustment. Replace the assembly and continue adjustment procedure. Use the following test weights:

Capacity	200g - 410 g	2000g - 4100g	
Test Weight	100g	1000g	
Tolerance	+/-0.002g	+/-0.02g	



Perform side to side adjustments as follows:

- 1. Place a test weight on the pan at location 1.
- 2. Press the TARE key.
- 3. Move the weight to location 2. If the reading is greater than tolerance, adjust the flexure at point A.
- 4. Use a 1/8" Allen wrench. If the reading is a negative number, turn the adjustment screw clockwise. If the reading is a positive number, turn the adjustment screw counterclockwise.
- 5. Place test weight on the pan at location 3.
- 6. Press the TARE key.
- 7. Move the weight to location 4. If the reading is greater than tolerance, adjust the flexure at point B. If the reading is a negative number, turn the adjustment screw clockwise. If the reading is a positive number, turn the adjustment screw counterclockwise.
- 8. After adjustments are made, a linearity calibration should be performed.