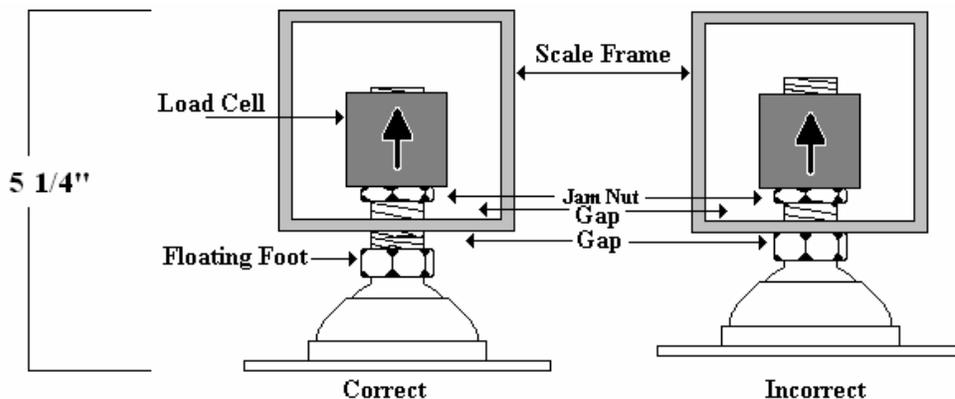


## Load Beam Information Package c/w TI 500 BWL



**Please note the two examples above. These are end views of the load cells in your scale, (one at each corner). In the "Correct" example there is a gap between the floating foot (leveling leg) and the frame of the scale. In the "Incorrect" example there is no such gap and this condition WILL CAUSE THE SCALE TO WEIGH INACCURATE!**

**In certain applications (high vibration) it is not uncommon for the feet to turn into the load cells on their own. It is therefore recommended that these be checked on a regular basis and adjusted as needed. Should your application be such that frequent adjustment is required, the installation of 1/2" UNF Jam Nuts may be a solution to lock the feet in place. These are usually available through hardware or bolt supply outlets.**

Here is a quick and easy test you can use to determine that the feet have not turned into the load cell. Have someone walk around and stand on each corner of the scale while taking readings. The readings should all be within a pound or two of each other. Next place a heavy weight on the scale and walk around again. The results should be about the same. If one (or more) corner appears to read very light, turn the feet out of the load cell(s) one or two turns and run the test again. If this does not fix the problem contact Massload for assistance.

Sept., 2005

### **Product Update**

Thank you for purchasing your load beam scale system from Massload Technologies. We genuinely hope that this system will provide years of trouble free operation in your application and to this end we also hope that this document will help to ensure that.

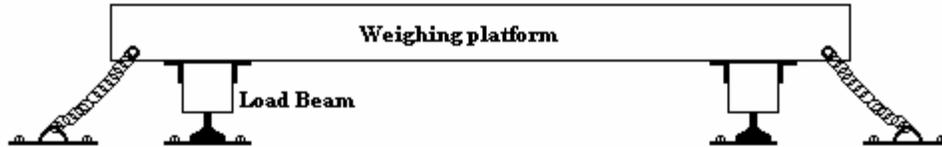
As you may know there are numerous manufacturers of animal squeezes, pens and weighing platforms on the market. We also know that many of our customers are ingenious in how they plan to use the product. For these reasons Massload Technologies has designed the Load Beam scale system to be as versatile as possible, but each installation is different and yet each is the same in how the Load Beams work. The fact that each customer likely has a unique apparatus mounted to their load beam scale system, makes it virtually impossible for us at Massload to provide detailed installation information. We have however, over the years, had a number of customers contact us with some very good ideas that they have incorporated into their installations that would increase the longevity of their scale systems.

For the most part components used in the load beam scale system do not fail in normal weighing applications. Having stated this, the one exception may be the “Floating Foot” assembly when used in an animal weighing application. What typically causes a “Floating Foot” to fail is from the repeated shocks from animals hitting the head end of the scale platform and or the platform lifting and then slamming down as the animal enters or leaves the scale system. Since about 95% of our customers use the load beams in exactly that application, here are a few suggestions passed on to us by other users in how they put “checks” in place to limit movement.

October, 2008

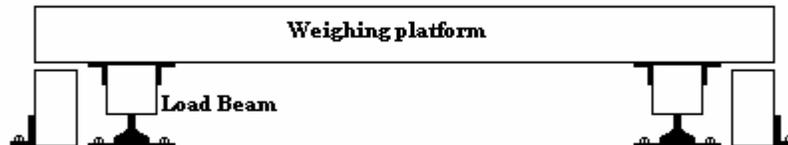
Over the past number of months a few customers have asked if they can get “floating feet” that have larger diameter thread than the ½” UNF supplied. This is not possible for the following reason:

The four ML100 load cells installed inside the load beams are referred to as “Industry Standard” cells. This means that exact type, style and capacity of load cell is produced by numerous load cell manufacturers world wide. [This means that should a load cell fail in your system, your local scale service company will have ready access to replacement cells.] As mentioned, “Industry Standard” load cells are manufactured to be interchangeable and therefore all dimensions including thread size are exactly the same.



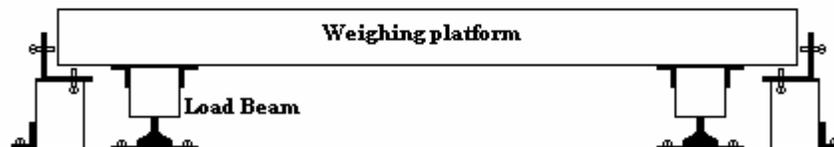
In this example the customer anchored four plates into the foundation and attached a small length of chain to each corner of the weighing platform. He then left about a small amount of slack in each chain so that they would not interfere with the weighing operation. With this setup it is important to check the chains on a regular basis to ensure that they do not become too tight at one end and loose at the other.

---



In this example the customer anchored a large wood block just under the end of the weighing platform at each end. He left about 1/4" gap between the top of the wood and the bottom of the weighing platform. With this setup it is important that the 1/4" gap is monitored on a regular basis as the feet can turn up into the load cell under high vibration applications. Please note that only up and down movement is checked with this setup.

---



This example is by far the best we have seen. The customer has devised a "bumper bolt" assembly for each corner that he can adjust as needed and can "check" movement in all directions. He used some steel tubing, angle iron and 8 bolts (not counting the anchors to the foundation) to build this setup.

Of the three examples above, we recommend the last as the best. What should be noted is that any type of "check" system is better than none and this could save you some time and money! Please make an attempt to incorporate a system on your scales.

**Procedure for Re-Zeroing Transcell TI 500BWL Indicator**

-Assemble any additional equipment to the weighing portion of the scale that is required for your application. Ensure that the scale is installed level by using the floating feet, and that all of the load cells will be bearing a portion of any load applied. **The scale (and add-ons) must be free of interference from anything not part of the scale.**

-Hook up the indicator to the scale.

-Before applying power to the indicator, remove the “Calibration Switch” cover plate, (two silver thumb screws), at the back bottom left, (underside), of the indicator. Move the switch to the opposite position and apply power. “F 1” should be displayed.

-To set the “Deadload (internal re-zero)”: Press the <Print> key until “F 16” is displayed. Press the <Zero> key. The indicator will do a zero calculation and display a number. Press the <Zero> key once more and the display should now read “0”. Press <Net / Gross> key. The display should flash “SET”, then flash “NC 0” and return to “F 16”.

- Move the Cal. switch back to the original position. Replace the cover plate.

- The scale should now be at or around “Zero”. This whole procedure only has to be done on initial set up of the system.

- Pressing the <Zero> key should be all that is required for regular use.

**\*\*\* Making alterations to the values loaded into any of the other “F” parameters could cause serious problems with your system! Contact factory for assistance.**

## **TI500BWL Power Saving and Peak/Hold Functions**

-Assemble any additional equipment to the weighing portion of the scale that is required for your application. Ensure that the scale is installed level by using the floating feet, and that all of the load cells will be bearing a portion of any load applied. **The scale (and add-ons) must be free of interference from anything not part of the scale.**

-Hook up the indicator to the scale.

-Before applying power, remove the “Calibration Switch” cover plate, (two silver thumb screws), at the back, bottom left (underside) of the indicator. Move the switch to the opposite position and apply power. “F 1” should be displayed.

**Note:** *The <Print> key turns the TI500BWL “ON” and holding down the <ZERO> key will turn the indicator “OFF”.*

### **-Power Saving**

Using the <Print> or <Tare> keys, scroll through until “A10” is displayed. This parameter is only important if the TI500BWL indicator is powered by batteries. This setting will help to conserve battery life. Press the <Zero> key. Using the <Print> and <Tare> keys select the number of minutes that the scale display will stay “ON” after the last weighing activity took place on the scale. When the selection has been made, press the <Net/Gross> key to save that value.

### **-Hold Function for animal weighing:**

{**This has not been activated** prior to shipment.}

Press the <Print> key until “A 11” is displayed. Press the <Zero> key. Using the <Print> or <Tare> keys you can select a value of “0” (Peak/Hold “OFF”), **“1” (Automatic Hold “ON”)** or “2” for (Peak Hold). **It is recommended to use the “Automatic Hold” for weighing animals.** When the desired value is displayed, press the <Net/Gross> key to save the selection.

The “Automatic Hold” function works as follows: {With “Automatic Hold” function turned “ON”.} When a weight is applied to the scale, and motion on the scale has settled, the indicator will do an internal averaging and the display will “lock” on the average weight. The “Hold” function will hold the “display lock” until 50% of the locked weight is removed from the scale.

*\*\*\*Please see next page for a rough explanation of this feature.\*\*\**

**IMPORTANT NOTE:** If you wish, you may “Unlock” the display by pressing the <Zero> key momentarily. The indicator will then re-calculate the weight and once again “Lock” that newly calculated weight. {\*\*\*On page 7-2 of the Operator’s Manual it states that the <Tare> key also unlocks the display. It is not advised that this key be used as it may cause a “TARE” weight to be installed into the indicator [indicated by a “T” in lower left of the display]}. This may result in a “0” on the display and the next animal weight to not register. There are two ways to “un-install” a “TARE”.

**1-Remove all weight from the scale. Press <GROSS/NET> (so that a “G” appears in the lower left of the display). Press <ZERO>. The tare should now be canceled.**

**2-Power down the indicator and power it back up!**

*-Remember to move the “calibration switch” back to the original position and replace the cover plate when all programming selections have been made.*

**\*\*\*NOTES:**

The “Hold” may be turned “on” or “off” as often as you wish by accessing parameter “A11” and choosing between values 0 (off) & 1 (“auto”on).

\*\*\* Making alterations to the values loaded into any of the other “F” or “A” parameters could cause serious problems with your system! Contact the factory for assistance.

“Automatic Hold” explained a bit more:

Although this is not exactly how it happens, it is maybe the best way to attempt to explain the concept.

Without “Automatic Hold” turned off the weight indicator (TI 500 BWL) processes the weight it sees very quickly and then shows an average of say the last 10 readings that it looked at internally. When an animal is on the scale and moving around, the display continues to constantly look at and average the last 10 readings and showing that on the display. The display, in this case, will appear to be very active and maybe not even readable at times.

When the “Automatic Hold” feature is turned on, (A11 set to 1), the display will continue to do the same as in the above example with one exception. When the indicator sees 10 readings in a row that did not change more than +/- 5 graduations (counts by), the indicator will automatically lock on the average of those last 10 readings, thus giving a solid display. This first “locked” weight may or may not be a true reliable weight if the animal was still moving a lot. Wait for the animal to settle down slightly. To “unlock” the display lightly tap the <Zero> key. This should cause the display to unlock and then re-lock very quickly on the average of the newest 10 readings it has internally. This “unlock/re-lock” can be done as often as you like and what you will likely see is that the locked weight will start to become consistent to within a few lbs. That means that the weight should be true and accurate.