

MASSLOAD TECHNOLOGIES



M2000 MASTER WEIGH PAD OPERATING INSTRUCTIONS

PLACEMENT:

- Place the weigh pad on a hard flat surface such as asphalt or concrete and in front of the tire to be weighed. This surface should be clear of snow, ice or loose debris such as gravel.
- For single tire weighing the pad should be centered in front of the tire to be weighed. For dual tire weighing the pad may be offset slightly, but care should always be taken to ensure that nothing comes in contact with the indicator face. Expensive damage will occur if this happens.
- For the greatest accuracy the vehicle should always be as level as possible.

OPERATION:

- To turn the weigh pad on, hold the <ON/OFF> key until the display becomes active. The indicator will count through an internal diagnostic and then shift to the weighing mode. In cold weather conditions allow a few minutes for the electronics to warm up.
- To zero the weight display, press the <->0<-> key below the display, (not the <0> key on the numeric keypad).
- Have the vehicle pull up and on to the weigh pad. Always ensure the tire is fully supported by the weigh pad bearing surface (top plate) prior to taking any the weight reading.

- To conserve and extend battery life, always turn the weigh pad off when not in use. To turn the indicator off, press and hold the <ON/OFF> key until it powers down.

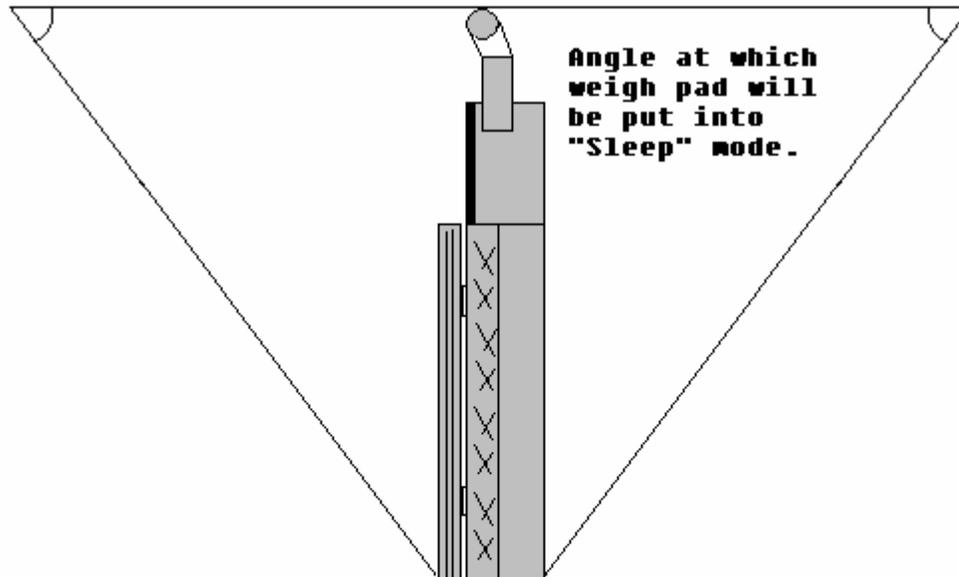
NOTES:

- The indicator will always “power up” reading in Imperial units (lbs.). To toggle to the other units (kgs.), press <7>< SELECT>. A small LED arrow below the display will indicate which measurement unit is currently being displayed.

POWER NOTES:

- The weigh pad is powered by a 12 volt 2.0 amp hour rechargeable gel cell battery. With a new, fully charged battery this should accommodate approximately four hours of continuous use. As with any type of re-chargeable battery they have a finite number of charge / discharge cycles.
- The weigh pad is equipped with an internal “Sleep” switch. When the weigh pad is stood up, (handle and indicator to the top, [see drawing]), this switch disrupts power to the indicator. **IT IS STRONGLY SUGGESTED THAT THE WEIGH PAD BE STORED IN THIS POSITION!** The weigh pad battery can be recharged regardless of the pad position. If the battery is allowed to freeze or go into “deep discharge” it may never accept a full charge again. Always charge the battery prior to placing the weigh pad into storage.
- The charger supplied with the weigh pad is a “Float Charger”, not a power supply. This type of charger, (automatic trickle), produces only the amount of current that the battery requires to re-charge. Over-charging with this type of charger is not a concern but it should not be left connected indefinitely. Charging time is dependant on battery temperature and discharge state. Overnight is typical.
- Always connect the charging plug to the weigh pad using correct polarity. The gold pin is +12VDC and the silver pin is ground.

The system battery is located directly under the load bearing plate of the Master Weigh Pad. To access the battery remove the four 3/4” counter-sink bolts securing the bearing plate.



The Weigh Pad indicator draws a small amount of power even when turned off. When placed in the "Sleep" mode there is no such power drain. Always store the pad in the "Sleep" mode.

**** The Weigh Pad can be charged while in the "Sleep" mode but cannot be powered up.**

Axle Weighing and Errors

Things to remember about axle weighing:

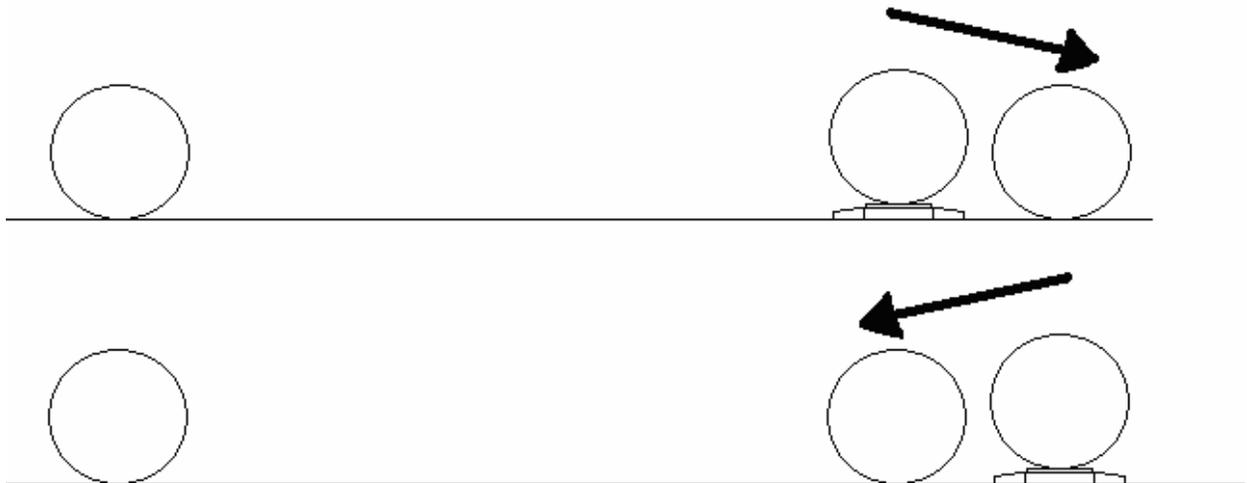
- Axle weighing can be a cost effective method of "check weighing".
- It is impossible to get "legal for trade" type accuracy when axle weighing with any product.
- Under certain circumstances axle weighing can produce excellent results, but time, care and thought will also be required to achieve this.
- When a scale manufacturer states a level of accuracy (or percentage of error) for a scale, any error is based strictly on the load currently supported by the scale. It does not apply directly to the accumulated weights from a number of loads that had been applied.
- There are many "external" factors that can have an affect on axle weighing results. Here are just a few of those to consider:

- 1- The foundation that the scales are placed on (hard and flat or soft, spongy or uneven?).
- 2- The gradient of the site (how much of a slope is there to the site in all directions?).
- 3- The type of commodity carried by the vehicle (solid or liquid?).
- 4- Tire pressure? When using weigh pads to weigh a set of dual tires it is imperative that the inside tires do not come in contact the foundation.

Important note about vehicle suspension:

Tandem and triple axle combinations are designed to share the load evenly between all axles within the same axle group. Vehicle suspension, in a compensating arrangement, can therefore cause very real problems for axle weighing.

The transfer of weight from one axle to another during the weighing process can happen, but to what degree and effect this will have on weighing results is not predictable. The example below illustrates what could happen when weighing a tandem axle truck. The arrows show the direction of the weight transfer.



Even under ideal circumstances axle weighing is not an exact science. There are however some steps that can be taken to minimize errors.

- 1-If at all possible do all weighing on a hard, clean and level surface.

2-When weighing an axle combination/group (tandem or tri-axle) always attempt to have all the axles of that group at the same height throughout the weighing process.

A relatively inexpensive way to do this is to construct “dummy” pads, (of the same height as the weigh pad), that can be placed on either side of the Weigh Pads.

