

MASSLOAD TECHNOLOGIES



MASTER/SLAVE WEIGH PAD OPERATING INSTRUCTIONS

PLACEMENT:

- Place the weigh pads 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 pads should be centered on the tire. For dual tire weighing the pads may be offset slightly. Care should always be taken to ensure that nothing comes in contact with the indicator face-plate of the master pad. Expensive damage will occur if this happens.
- For the greatest accuracy the vehicle should always be as level as possible. Please see pages 4 & 5 for more information.

OPERATION:

- Connect the Master Pad (with indicator) and the Slave Pad (no indicator) together by using the inter-connect cable. This is done via the four pin side port.
- Turn the weigh pad <ON>. The display will run through an internal diagnostic prior to displaying any weight. Prior to using in cold weather allow a few minutes for the system to warm up.



- The indicator will always power-up on Channel 1 (Master Pad). Press the ->O<- key. Press <2><SELECT> to toggle to Channel 2 (Slave Pad), and press the ->O<- key again. Note that a small LED (light) below the display will indicate which channel is being displayed. By pressing <4><SELECT>, both channels will be displayed along with the total weight applied to both pads.
- Have the vehicle pull up and on to the weigh pads. Ensure that the tires are fully supported by the bearing surface (top plate) prior to taking the weight reading.
- To conserve and extend battery life, always turn the pad <OFF> when not in use. To turn the indicator off, Press and Hold the <ON/OFF> key.

NOTES:

- The indicator will always “power up” reading in Imperial units (lbs.). To toggle to other units (Kgs.), press <7><SELECT>. A small LED (light) below the display will indicate which measurement unit is currently being displayed.
(Should your application require the scale to “power-up” in Kgs rather than lbs, please contact Massload Technical Support and that change can be made easily over the telephone!)

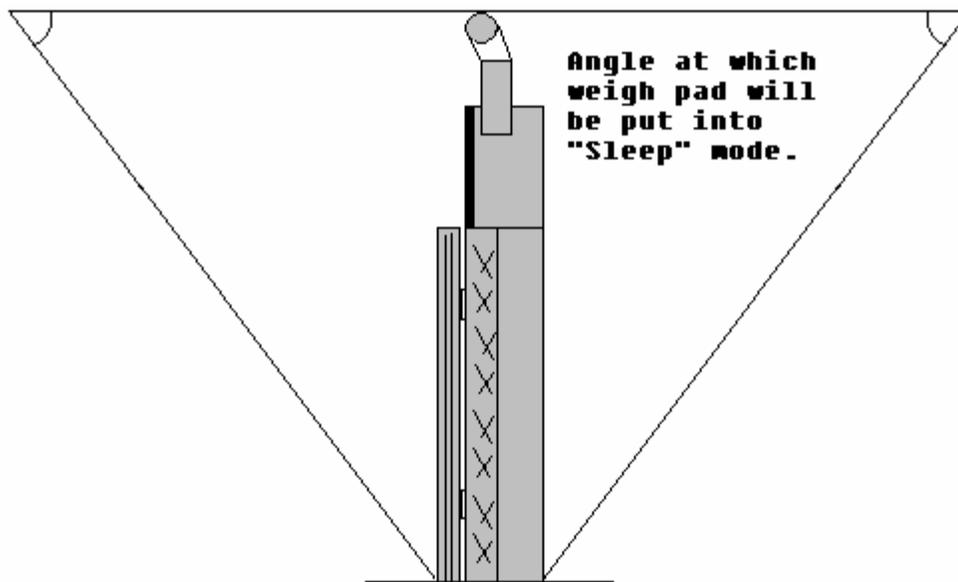
POWER NOTES:

- The system is powered by a 12 volt 2.2 amp hour rechargeable gel cell battery located under the load bearing plate of the master pad. With a new, fully charged battery this should accommodate three to four hours of continuous use. As with any type of re-chargeable battery, this one will also have a finite number of charge/discharge cycles.
- The master weigh pad has been fitted with an internal “Sleep” switch. When this weigh pad is stood up with the handle and indicator to the top, (see attached 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 stored in very cold conditions, or allowed to go into a “deep discharge” condition, it may never accept a full charge again. Always store in temperatures above freezing and charge the battery prior to placing into storage.
- The charger supplied with the weigh pad is an automatic “Float Charger”, not a power supply. This type of charger, (trickle), produces only the amount of current that the battery requires to re-charge and will not produce enough

power to run the system. Over-charging the battery with this type of charger is not a concern, but it should not be left connected indefinitely.

- Always connect the charging plug to the weigh pad using the correct polarity. The gold pin is +12 volts 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:

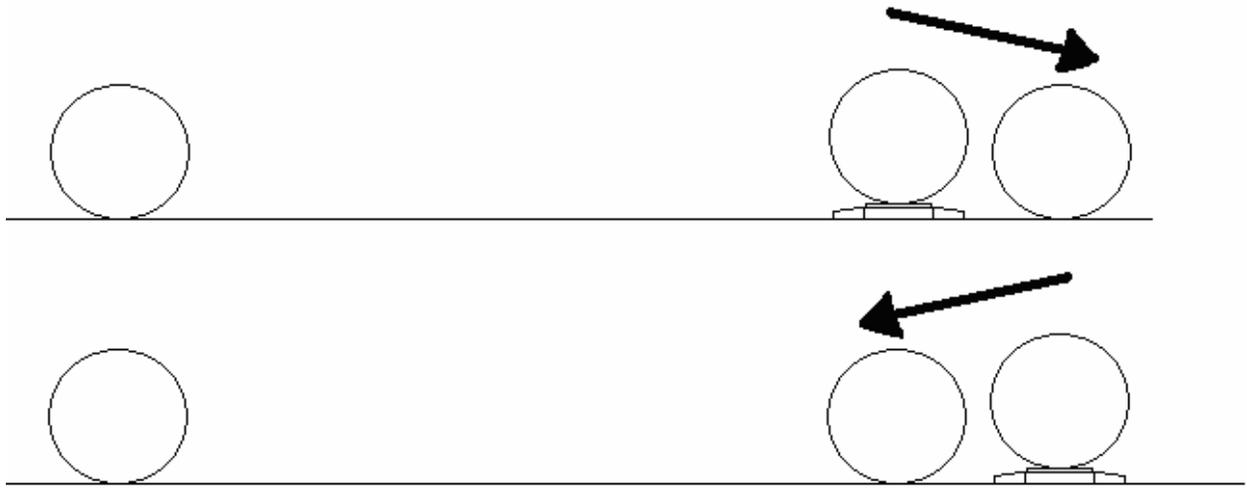
- Axle weighing can be a cost effective method of “check weighing”.
- It is impossible to get “legal for trade” type accuracy when axle weighing with any product.
- Under certain circumstances axle weighing can produce excellent results, but time, care and thought will also be required to achieve this.
- 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.

