

FREQUENTLY ASKED QUESTIONS

About LOADMAXX REFUSE SCALES

1. What is On-Board Weighing?

Over the last 16 years Air-Weigh has been the industry leader in on-board weighing. Air-Weigh is continually developing new and innovative on-board digital scale technology for use in truck, tractor, and trailer on-board scale offerings. Air-Weigh scales provide accurate real time axle, GVW, and payload weights for fleet drivers and owner operators. Air-Weigh scales are installed directly onto the tractor and trailer allowing the driver monitor axle and payload weights at every loading site.

2. What are the features of an Air-Weigh Scale for refuse vehicles?

The Air-Weigh LoadMaxx Truck Scale is specifically designed for vocational and refuse vehicles. The Scale features an in-dash backlit LCD display, the LoadMaxx scale module, a deflection sensor for the steer axle and air sensors or deflection sensors for the drive suspension. It also includes necessary cables, mounting brackets, and all mounting hardware.

The Scale provides the operator with a convenient, easy to read in-dash display that shows GVW, payload, steer axle, and drive axle group weights. The scale can be set to display in pounds or kilograms, and several language options are available. All calibration and setup parameters can be PIN protected to prevent tampering or unauthorized changes.

Air-Weigh's patented deflection sensor technology measures the flex in axle or beam components and the LoadMaxx scale calculates the corresponding on-the-ground weight for each axle or axle group. Deflection sensors are mounted directly onto the steer or drive axle and do not interfere with vehicle operation.

LoadMaxx scales incorporate state-of-the-art hardware and software technology. There are several innovative features including a standard interface to the J1939 or CAN data bus, an interface to the vehicle J1708 data bus, a serial port, two programmable weight alarm outputs, and an interface to an inclinometer. The J1939 / CAN bus interface allows dash displays and on-board computers to easily obtain weight information for wireless transmission to fleet headquarters or for viewing by the driver in the cab. Two alarm outputs can be used to warn the driver when an axle group weight or GVW exceeds legal limits, or when the load on the steer axle is too small a proportion of the GVW. Reading weights on an incline can result in uneven pressure on a vehicle's suspension, which affects accuracy. With the inclinometer option for LoadMaxx, the weight display, J1939 outputs, and alarm outputs, are turned off when detecting an incline that will affect weight reading accuracy.

3. How does an Air-Weigh Scale compare with a scale that uses Load Cells?

Load-Cell scales do not provide axle weights, they only provide payload and GVW. While the payload reading is accurate, GVW is not always accurate due to variances in the tare weight of the vehicle (e.g. fuel level, driver weight, accessory weight). Since load cells are load-bearing components in the vehicle, they must be carefully designed and manufactured of the highest quality materials to minimize the risk of failure and associated liability. Because they are a direct load-bearing component, they also suffer from load impact and overloading stress which can cause loss of calibration. Typically, to install a load cell requires removing and lifting the entire body so the load cells may be mounted between the frame and body. This can take 15-20 hours, and can alter the design characteristics of the vehicle by increasing

overall height and raising the center of gravity of a loaded vehicle. Because of all this, load cell scales are typically twice as expensive as an Air-Weigh scale, and are prone to much higher maintenance requirements.

Air-Weigh's sensor technology does not require any modification of the vehicle design or load-bearing components. Air-Weigh Deflection Sensors are mounted with various brackets on axle and walking beam components, and only measure the deflection of the existing truck component. This method offers much simpler installation, and lower overall cost.

4. What vehicle suspensions does Air-Weigh have a scale for?

Air-Weigh has on-board scales for refuse vehicles with the following drive suspensions:

- Hendrickson HN 462, HN 402, RT 463, RTE 463, HN FR, HMX 400, HMX
- Mack Camelback
- Volvo T-Ride
- Air-ride

5. Does an Air-Weigh Scale work for container or bin weighing?

While Air-Weigh Scales are designed for vehicle axle weighing, we do have a limited number of customers using our scales as an audit tool for container commercial containers. Some have had positive results and some have not. There are many factors to achieving good results in this type of application, including vehicle parked and level, position of the container at the point of weighing, and the weight of the container. Air-Weigh does not market this capability due to the widely varying results, and customers interested in this type of application should consult with Air-Weigh.

6. How accurate is an Air-Weigh Scale for refuse vehicle weighing?

Air-Weigh scales are accurate to within 2% of maximum GVW.

7. How does a refuse company get benefit from an Air-Weigh Scale?

- √ Maximize the payload before leaving route
- √ Avoid overweight fines or penalties
- √ Reduce equipment overloading and abuse
- √ Drivers are maximizing efficiency and potentially eliminating extra trips to the landfill, reducing fuel and vehicle wear
- √ Drivers have tool to operate safely with legal, properly balanced loads
- √ Audit commercial customer containers

8. How easy is it to install an Air-Weigh Scale?

Air-Weigh has full step by step installation guides for all scales. The Scales are easy to install and unlike load cell type scales, the Air-Weigh scale does not require any modification to the chassis, body, or frame rail attachments. The typical installation time is from 4 to 6 hours per install.

9. What kind of maintenance is required for an Air-Weigh Scale?

Periodic maintenance is not required for an Air-Weigh Scale. We recommend that users check their accuracy against a certified in-ground scale every 3-6 months

10. What is required for calibration of an Air-Weigh Scale?

A simple menu allows the user to quickly calibrate an Air-Weigh Scale by entering the vehicle empty axle weights when the vehicle is empty, and entering the loaded axle weights when the vehicle has a load. Air-

Weigh recommends using the same certified in-ground scale for both empty and loaded weights to achieve the best accuracy.