

LoadMaxx Plus & QuickLoad Plus Installation Guide



**For Trailers with Air Ride
Suspensions
Single HCV, Dual HCV & Full Trailers**

Air-Weigh Customer Support: 888-459-3247

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Trailer Overview

The scale works using sensors that measure air pressure changes in the trailer's suspension; it then converts those numbers into weight. The weight is displayed on the trailer display and displays weight per axle group. Weights are accurate to within 300 pounds (140 kilograms) and are displayed in 20-pound or 20-kilogram increments.

The LoadMaxx Plus version enables drivers to view steer, drive, trailer, GVW, and net payload on any LoadMaxx equipped tractor.

Air-Weigh App

Download the Air-Weigh app and view weight data on any smart device. Available for download in the Apple and Android app stores.



Installation Overview

There are three major components of the trailer scale that you will install:

- Trailer scale display
- Power interface and extension cables
- Air lines and brass T fittings

Tools Required

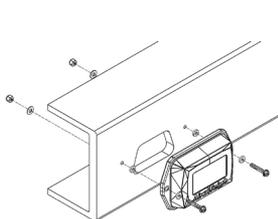
You will need the following tools to install the trailer scale and air line:

- Standard wrench set or adjustable wrench
- Drill with ¼-inch drill bit, or larger if flush mounted
- Flush wire cutter
- Needle nose pliers
- Chalk or permanent marker
- Tape measure
- Flat-blade screwdriver
- Teflon tape

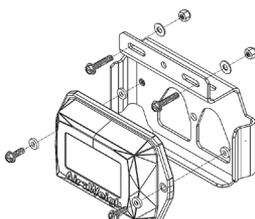
Mounting the Scale

There are three ways you can mount the trailer scale:

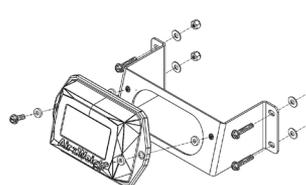
- Flush mounted to the trailer frame itself
- Using a van bracket
- Using a frame rail bracket



Flush Mount



Van Bracket



Frame Rail Bracket

Choose the mounting method that will work the best for your trailer configuration. **Air-Weigh recommends that you mount it on the driver's side, 10 feet ahead of the front axle.** Mount the trailer scale in a position that is easy to view and is protected from direct tire spray and road debris. In regions where severe weather is a consideration, contact Air-Weigh for more information on protective enclosures.

Note: When choosing a location to mount the scale display, first consider the length of cables in your scale kit. Make sure there is enough length in your power and air line to run from where you are mounting the display to where you are connecting to power and installing the brackets.

Note about cables: Do not place strain on the cables. If there is a sharp bend in the wires, the environmental seal could fail, allowing water to damage the scale. If the scale is disconnected from the trailer, the power cable or air line will not support the weight of the scale.

Mounting Flush to the Trailer

A flush mounted scale is mounted directly to the side of the trailer.

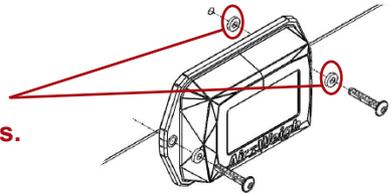
1. Determine the best location to mount the scale. This should be a flat area of the trailer, thin enough to make drilling possible and accessible from both front and back. Make sure the back side of the location is free of obstacles and debris that would interfere with the installation.
2. Use the supplied template or hold the scale in the location you will mount it for reference and cut a hole large enough to fit the port connections on the back.
3. Mark the trailer surface that touches each of the screw holes on the sides of the scale.

At this point, determine whether you want to connect the power to the display before or after you secure it to the trailer. If after, proceed to step 6 before completing steps 4 and 5.

4. Feed the power cables to the back of the trailer display from below the edge of the trailer or through the previously cut hole.
5. Plug the power interface cable into Port 1 on the back of the scale display.
6. Place the scale over the space you have prepared on the trailer, making sure port holes fit the hole on the trailer. Use the provided bolts, rubber washers (one for each front and back of the scale), and nuts to secure the scale to the side of the trailer.
7. Apply the provided blue Loctite to all threaded bolts to prevent bolts from backing out.

Note: The provided rubber washers are required to dampen the vibration.

**Note: Do not overtighten mounting bolts.
Torque to 10 inch lbs or 1.1 Nm.**



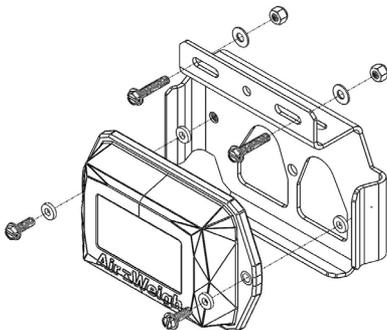
Mounting with a Van or a Frame Rail Bracket

1. Determine the best location to mount the scale. For the Van Bracket, the bracket screws should be mounted on a ledge, and the scale itself should hang off the ledge with no obstacles blocking it. For the Frame Rail Bracket, it should be visible while loading and in a protected area from direct tire spray.
2. Hold the bracket in the location you will mount it. Mark the trailer surface that is visible through the holes in the top of the bracket using a permanent marker.
3. Using the marked areas as a guide, drill two 1/4-inch holes into the surface of the trailer.
4. Secure the scale to the bracket by using the provided bolts and rubber washers. Insert one bolt and washer on each side of the scale through each of the scale wing holes and tighten.
5. Apply provided blue Loctite on threaded bolts.

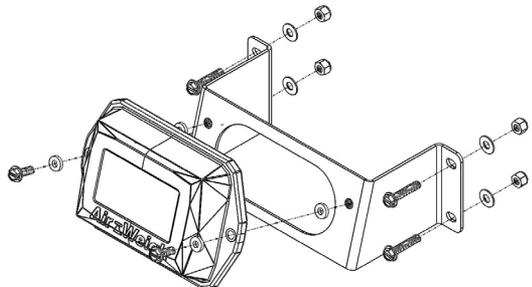
At this point, determine whether you want to connect the power to the display before or after you secure the bracket to the trailer. If after, proceed to step 8 before completing steps 6 and 7.

6. Feed the power cables to the back of the trailer display.
7. Plug the power interface cable into Port 1 on the back of the scale.
8. Secure the bracket to the trailer surface. To prevent the bolts from backing out, apply the provided blue Loctite to all threaded bolts before placing through bracket and securing to the trailer.

Do not overtighten mounting bolts. Torque to 6 inch lbs or .68 Nm.



Van Mounting Bracket



Frame Rail Mounting Bracket

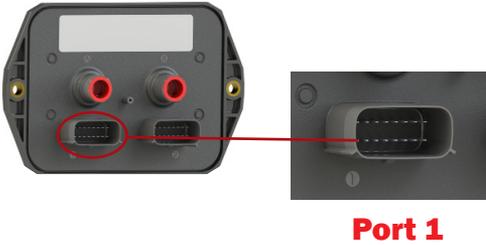
Connecting Power to the Scale

You can connect the trailer scale to the trailer's power either through the ABS brake harness, through the junction box, or directly through the lighting harness. All methods are equally effective regardless of your trailer setup; choose the method that is most convenient.

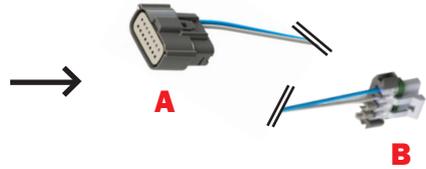
Note: If using lighting harness for power, the lights need to be on in order for the trailer scale to have power.

Power Cable Installation Guide

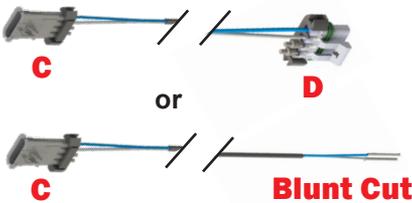
1. Scale Display



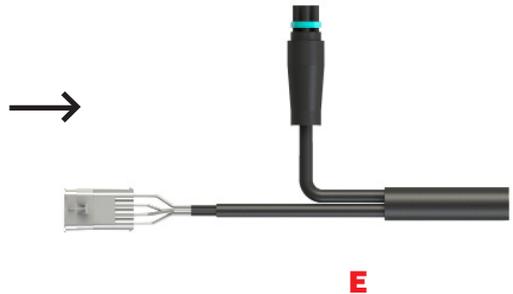
2. Interface Cable



3. Power Cable



4. ABS-T Breakout



Connection order

1. Plug interface cable (A) into Scale Display Port 1
2. Plug interface cable (B) to Power Cable (C)
3. Plug Power Cable (D) into ABS T-Breakout (E) or wire Blunt cut end to junction box or lighting harness

Connecting Power with the ABS Connector



Connecting the T-Breakout to the Power Cable

North American trailer manufacturers use one of two standard connectors to connect the trailer's wiring harness to the ABS brake system: USA Brand, which uses a 6-pin plug, or Sealco, which uses a 5-pin plug. Air-Weigh provides T-breakout connectors that do not require splicing or soldering and do not interrupt power to the ABS system for each of these connector types.

1. Locate the ABS system harness. Trace the harness to the breakout connection.
2. Disconnect the 5- or 6-pin breakout connection.
3. Connect the supplied ABS T-breakout connector to both ends of the ABS harness breakout. Make sure the locking tabs are locked securely. If you are using the USA connector, make sure all pins are properly aligned and the white plug is firmly seated in its locking hole. Failure to do so will cause faults in your ABS system.
4. Connect the scale's power extension cable to the T-breakout connector.
5. Route the power extension cable along the frame of the trailer toward the location where the scale is installed. If possible, route along an existing wiring harness. If the trailer has a sliding suspension you **must** use an existing wiring harness or umbilical to avoid damaging or breaking the cable.
6. Secure the cable loosely to the frame using zip ties.
7. Connect the end of the power extension cable to the power interface cable. Make sure the cable is under no strain and is not bent.

Connecting Power to a Junction Box

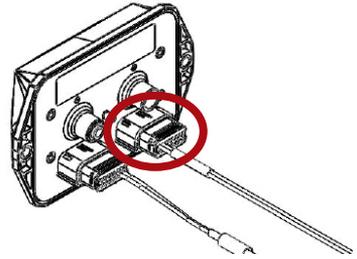
1. Starting at the 7-way connector at the front of the trailer, follow the wiring harness until you reach/find the junction box. Remove the cover of the junction box to expose the wiring. Find the blue ABS power wire.
2. Using the supplied ring terminals, connect the blue power wire on the end of the trailer scale power cable to the blue ABS wire in the junction box. Connect the white ground wire on the end of the scale power cable to the white ground wire in the junction box.
3. Route the power extension cable along the frame of the trailer toward the location where the scale is installed. If possible, route along an existing wiring harness. If the trailer has a sliding suspension you **must** use an existing wiring harness or umbilical to avoid damaging or breaking the cable.
4. Secure the cable loosely to the frame using zip ties.
5. Connect the end of the power extension cable to the power interface cable. Make sure the cable is under no strain and is not bent.

Alarm Installation

Note: If you ordered the Alarm Cable kit with your scale follow the below instructions for install.

Insert the Alarm cable into Port 2 on the back of the scale. The gray, sealed wire from the main wiring harness is the alarm circuit output. It can be connected to any self-grounded alarm device with a current draw of 1.0 amps or less. The alarm voltage will be the same as the vehicle output voltage. You must install a relay for any device that draws more than 1.0 amps. Do not disturb the sealed end of the wire if alarm is not installed.

When using an alarm, connect the alarm output wire and the ground return wire to the desired device. Ensure that any unused alarm wires are electrically insulated.



IMPORTANT: to prevent water intrusion, leave the dummy plug in Port-2 installed if you are not installing an alarm cable.

Installing the Air Line and Brass T Fitting

Note: This process will be repeated for both air lines if you are installing on a trailer with dual height control valves or a full trailer.

1. Detach the air line connection from the top of the most convenient air bag.
2. Apply Teflon tape, then thread the brass T fitting provided in your trailer kit into the top of the air bag and tighten securely.
3. Apply Teflon tape, then thread the existing airline fitting into the top of the Air-Weigh brass T fitting.

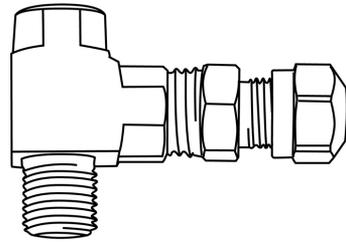
4. Connect the air line fitting to the side of the brass T fitting and tighten securely.
5. Remove the end cap and compression band from the air line (compression) fitting.

6. Slide the end cap and the compression band onto the fitting for the air line.

7. Slide the air line onto the T fitting as far as it will go.

8. Securely tighten the end cap. Check that the air lines are secure.

Brass T Fitting



Airline Fittin

9. Route the blue air line to the coupler that is connected to the display. Cut the air line as needed to the desired length. The cut end should be flat and perpendicular to the hose.
10. Insert the air line into the open end of the quick release in Port A, as far as it will go. Tug on the air line to ensure it is properly installed.

Note: If you are installing on a full or dual trailer, you will use Port A and Port B. The second air line will come from an airbag controlled by the second HCV.

11. Secure the air line to existing wiring beneath the trailer using plastic zip ties provided in your installation kit. Make sure to not overtighten zip ties or kink the air line.

Checking the Installation

After you finish installing your scale, follow the steps below to make sure you have installed the scale correctly. This will prevent the user from running into issues when calibrating and using the scale.

1. With power to your trailer, turn on your scale. If the scale is off, touch the screen to wake it up
2. Select the image of a wrench  to go to the Setup menu
3. Select the medical bag  to go to Scale Diagnostics
4. Press the down arrow  until you see information on A/D readings. The screen should show a number. That number is your A/D reading. Use the table below to determine if your A/D reading is appropriate

Note: For Full or Dual HCV trailers, you will see two sensor readings from Port A and Port B.

5. If the A/D readings are appropriate, your trailer has been installed correctly. If they are off, check all connections and make sure they are securely attached. Then check the height control valve to see if it is loose or broken, which can cause inaccurate A/D readings

A/D Readings and Significance

A/D Reading	Should Reflect
450 (Approximately)	air bag deflated, no weight - equivalent to 0 pounds
929 to 2518 (Approximately)	appropriate for an empty trailer
2700 to 4096 (Approximately)	appropriate for a trailer loaded to full capacity

Note: If you're getting 450 and your air bags are fully inflated, please contact our support team for assistance.

Limited Warranty

Air-Weigh warrants (the "Limited Warranty") that the Products will be free from defects in material and workmanship under normal use and service with proper maintenance for the following time periods:

- (a) for new Scale kits, the Limited Warranty period will be 3 years;
- (b) for new parts and accessories sold separately, the Limited Warranty period will be 1 year; and
- (c) for repaired or refurbished items, including repaired or refurbished Scale kits and repaired or refurbished parts and accessories sold separately, the Limited Warranty period will be 90 days.

If any Product is determined to not conform to this Limited Warranty during its applicable Limited Warranty period, Air-Weigh will, at its exclusive option, either repair or replace the Product.

Limitations of Limited Warranty. Air-Weigh will have no obligation under the Limited Warranty with respect to any product if (a) Buyer fails to notify Air-Weigh in writing during the warranty period of a non-conformity, or (b) Buyer or any other person, entity, or governmental authority uses, misuses, or neglects the product in a manner inconsistent with the product's specifications or directions for use or maintenance, modifies the product or improperly installs, handles, or maintains the product.

No Repair or Modification of the products. Except as explicitly authorized or in a separate written agreement with Air-Weigh, Buyer will not service, repair, modify, alter, replace, reverse engineer, or otherwise change any of the products.

Disclaimer of All Other Warranties. EXCEPT FOR THE LIMITED WARRANTIES SET OUT ABOVE, NEITHER AIR-WEIGH NOR ANY PERSON OR ENTITY ON AIR-WEIGH'S BEHALF HAS MADE OR MAKES FOR BUYER'S BENEFIT ANY EXPRESS OR IMPLIED REPRESENTATION OR WARRANTY WHATSOEVER, INCLUDING ANY WARRANTIES OF: (i) MERCHANTABILITY; (ii) FITNESS FOR A PARTICULAR PURPOSE; (iii) TITLE; OR (iv) NON-INFRINGEMENT; WHETHER ARISING BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE, ALL OF WHICH ARE EXPRESSLY DISCLAIMED. BUYER ACKNOWLEDGES THAT IT HAS NOT RELIED ON ANY OTHER REPRESENTATION OR WARRANTY MADE BY AIR-WEIGH, OR ANY OTHER PERSON OR ENTITY ON AIR-WEIGH'S BEHALF.

Limitation of Liability.

IN NO EVENT WILL AIR-WEIGH BE LIABLE FOR CONSEQUENTIAL, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, PUNITIVE, OR ENHANCED DAMAGES, LOST PROFITS OR REVENUES, OR DIMINUTION IN VALUE, ARISING OUT OF OR RELATING TO ANY BREACH OF THESE TERMS, REGARDLESS OF WHETHER OR NOT THE DAMAGES WERE FORESEEABLE, WHETHER OR NOT AIR-WEIGH WAS ADVISED OF THE POSSIBILITY OF THE DAMAGES, OR THE LEGAL OR EQUITABLE THEORY (CONTRACT, TORT, OR OTHERWISE) ON WHICH THE CLAIM IS BASED.

IN NO CASE WILL AIR-WEIGH'S AGGREGATE LIABILITY ARISING OUT OF OR RELATED TO THESE TERMS, WHETHER ARISING OUT OF OR RELATED TO BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), OR OTHERWISE, EXCEED THE TOTAL OF THE AMOUNTS PAID TO AIR-WEIGH FOR THE PRODUCTS.

THE FOREGOING LIMITATIONS APPLY EVEN IF BUYER'S REMEDIES UNDER THESE TERMS FAIL OF THEIR ESSENTIAL PURPOSE.

Procedure For Warranty Claims

ALL customers should first contact Air-Weigh Customer Support Department at (888) 459-3247 for questions regarding the use, operation, repair or return of any Air-Weigh product.

In the event Air-Weigh requests to examine the product prior to disposition OR for repair or replacement, Air-Weigh requires a Return Material Authorization (RMA) number be issued before the item is returned. Customer Support will issue the RMA number. Please reference this RMA number in all correspondence.

Claimed items shall be shipped freight pre-paid to:

Air-Weigh
Customer Support Department
1720 Willow Creek Circle, Suite 510
Eugene, Oregon 97402, USA

The Air-Weigh RMA number **must** appear on the outside of the return packaging. Air-Weigh shall examine returned material within 30 days after receipt, or sooner if mutually agreed upon. If Air-Weigh determines that the part or assembly was defective in material or workmanship and within the warranty period, Air-Weigh will repair or replace the part or assembly and return freight pre-paid. In the event Air-Weigh determines that the part or assembly cannot be repaired or replaced and is within the warranty period, a credit not to exceed the purchase price will be issued to the Air-Weigh customer.

For our customers using purchase orders Air-Weigh will process a credit memo and notify the customer by email or fax. The customer will process a corresponding debit memo and notify Air-Weigh accordingly.

If the part or assembly received by Air-Weigh does not meet the requirements of the warranty program set forth above, at the Air-Weigh customer's request the part or assembly will either be discarded, returned freight collect, or repaired or replaced at the Air-Weigh customer's expense and returned freight collect.

Air Weigh

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