AIR-WEIGH
AIR AND MECHANICAL SUSPENSION SCALES

iWeigh®
Installation Guide

For Trucks and Tractors

Air and Mechanical Suspensions

Air-Weigh Customer Success: 888-459-3247

PN 901-0189-000 R0 **9/8/25**

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Scale Overview

The iWeigh® Scale is an on-board weighing system for air-ride and mechanical suspensions on trucks and tractors. Both the air-ride and mechanical sensors in the iWeigh® scale measure air pressure change and/or the deflection of the axle and converts the data into a displayed weight that can be viewed on the optional external display or on the Air-Weigh app.

Scales will show on app only when powered.

Air-Weigh App

The Air-Weigh App User Guide is available on our website at https://www.air-weigh.com/installation-manuals/.

Scan the QR code below to download the Air-Weigh app and view weight data on a compatible Android smart device via the Google Play store.

Download the Air-Weigh App

iWeigh® Registration

Please note: Every effort has been made to ensure that the information in this manual is accurate. Air-Weigh is not responsible for printing or clerical errors that occurred during time of publication.

Scale Platform Overview

The iWeigh® Scale is an on-board weighing system for air-ride and spring ride suspensions on trucks, tractors and trailers. The sensors in the iWeigh® scale measure the air pressure change or axle micro-flex and converts this into a displayed weight that can be viewed on the optional external display or on the Air-Weigh app. Scale(s) will show on app only when powered.

The iWeigh® Web Portal allows for iWeigh units to be registered and administered from a central cloud location, however, the scale will still work with limited functionality while unregistered.

iWeigh® Installation Guides

Please check for the installation guides required for your specific configuration.

iWeigh® Admin and User Guide - Web Portal

901-0187-000 - The guide covering how to use and administer the cloud web portal for the iWeigh® platform.

iWeigh® User and Calibration Guide - App Air and Mechanical Suspensions

901-0187-000 - The guide on how to install the app on a smart device, how to use the app, and how to calibrate the iWeigh® scale units using the app.

iWeigh® for Truck and Tractor - Scale Air and Mechanical Suspensions

901-0189-000 - The guide covering how to install an iWeigh® unit on a truck or tractor for air and/or mechanical suspensions. After installing the iWeigh® unit, to install the deflection sensors for your specific configuration, select from the installation guides listed below.

iWeigh® for Truck and Tractor Mechanical Suspensions - Steer

901-0190-000 - Deflection sensor glued installation.
901-0191-000 - Deflection sensor welded installation.

iWeigh® for Truck and Tractor Mechanical Suspensions - Drive

901-0192-000 - Hendrickson Walking Beam
901-0193-000 - Mack Camelback
901-0194-000 - Volvo T-Ride, M-Ride, TufTrac, F650 & F750

iWeigh® for Trailers Air and Mechanical Suspensions

901-0189-000 - The guide covering how to install iWeigh® on air or mechanical suspensions trailers.

Online Guides and Videos

Air-Weigh is proud to provide multiple online sources for installation guides, user guides, calibration guides, and videos for our products. Please scan the QR codes to visit our website for more detailed information.

Installation Guides

Installation Videos

Calibration Guides

Calibration Videos

User Guides

iWeigh® Page

Best Practices & Support

For best practices when calibrating and using on-board scales for your fleet, please scan the QR code below to visit our website for more information.

Best Practices

To contact our Customer Success Department any time M-F 8AM - 4PM Pacific, excluding holidays.

Phone:
1-888-459-3247

Email:
support@air-weigh.com

Website:
Live chat on www.air-weigh.com

About the iWeigh® Web Portal

Scan the QR Code to reach the connected iWeigh® Web Portal. Please read the User and Administration Guide 901-0200-000 for more information on set-up and use.

iWeigh® Web Portal

https://awcloud.air-weigh.com/

Mounting Best Practices

Mounting Hardware

Note: Do NOT over tighten! Secure to 6 in-lbs.

Mounting Location

Note: When choosing a location to mount the scale unit, first consider the length of cables in your scale kit. Make sure there is enough length in your power/ground connections as well as your air line (for air suspensions) and/or sensor extension cables (for mechanical suspensions) to run from where you are mounting the scale to where you are connecting to power and installing the brackets.

The front face of an iWeigh® scale has the QR code. As a best practice, the front face of the iWeigh® scale should face towards the trailer when mounted on a tractor, and towards the tractor when mounted on a trailer, in an upright position with the ‘iWeigh® wording on top in a reading position.

Face of iWeigh® in Upright Position

Cables

Note: 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 mounting unattaches from the vehicle, the power cable or air line will not support the weight of the scale.

Mounting the Scale

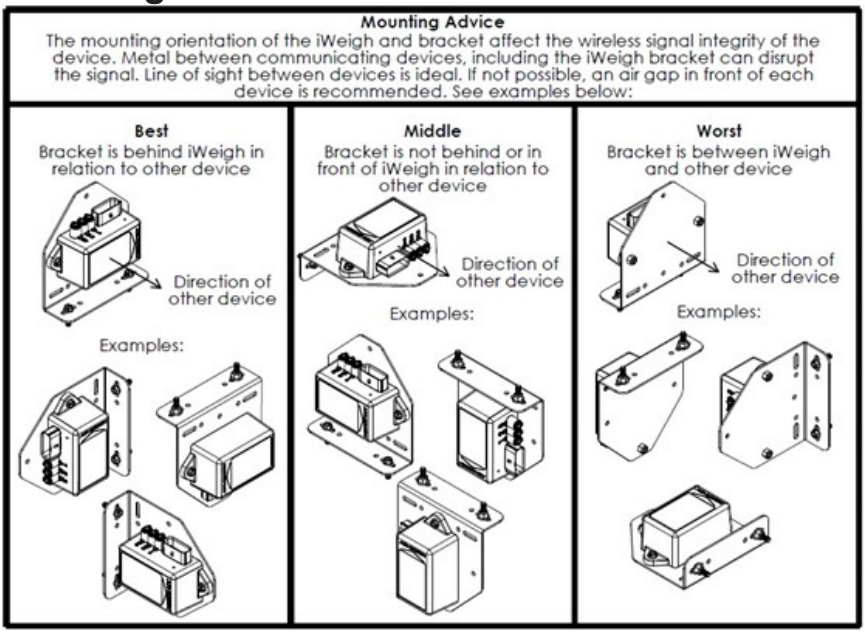
You can mount the scale using the optional mounting bracket or directly to vehicle.

If using the mounting bracket - follow the below instructions:

1. Secure the scale to the mounting bracket with the provided nuts and bolts. Tighten to 6 in-lbs. Do NOT over tighten!
2. Hold the mounting bracket in the location you plan to install the scale and mark where the screws will be placed. Drill mounting holes where you have marked and install the installation bracket and scale to the vehicle.

As a best practice, the front face of the iWeigh® scale should face towards the trailer when mounted on a tractor, and towards the trailer when mounted on a trailer, if applicable.

Mounting Location Advice:



Installation Overview

The scale displays the actual on-ground weight of each axle group to within 300 pounds (140 kilograms). An axle group is defined by the Height Control Valve(s) (HCV), or leveling valve(s), on the air suspension. For instance, a tandem drive axle suspension typically has only one HCV. Two drive axles make up a single group and the displayed weight will be for the total tandem weight.

One (1) individual iWeigh® scale unit allows for up to seven (7) sensor configuration connections per Asset ID. In most configurations, one (1) Asset ID is one (1) trailer, truck, vehicle, etc.

Once the iWeigh® scale is calibrated, it is not necessary to recalibrate unless the suspension characteristics change. Air-Weigh recommends verifying accuracy by checking weight at least once per year.

Tractors equipped with a iWeigh® tractor scale will automatically display an iWeigh®'s equipped trailer's weight data on the connected app. No re-calibration or trailer ID entry is required. No special tractor/trailer connection is necessary.

This is a true drop and hook application.

Note: Following installation, you must calibrate the scale before you can use it to determine axle group and vehicle weight. For instructions on calibration, please consult the iWeigh® User Manual, found at www.air-weigh.com.

Tools Required

The list below contains the tools and other materials (customer supplied) to properly install the AP Drive Sensor(s) on the tractor.

- Screwdriver - flathead and/or Phillips
- Assorted wrenches
- Drill
- Safety glasses
- Wire cutter
- Crimper
- For Mechanical Suspension install, follow the specific install guide(s) provided with the mechanical sensor kits. See list of documents below.

Mechanical Suspensions - Steer

901-0190-000 - Deflection sensor glued installation.

901-0191-000 - Deflection sensor welded installation.

Mechanical Suspensions - Drive

901-0192-000 - Hendrickson Walking Beam

901-0193-000 - Mack Camelback

901-0194-000 - Volvo T-Ride, M-Ride, TufTrac, F650 & F750

iWeigh® for Trailers - Air and Mechanical Suspensions

901-0189-000 - Trailers, air and mechanical suspensions.

Installing the Air Line to iWeigh® Scale

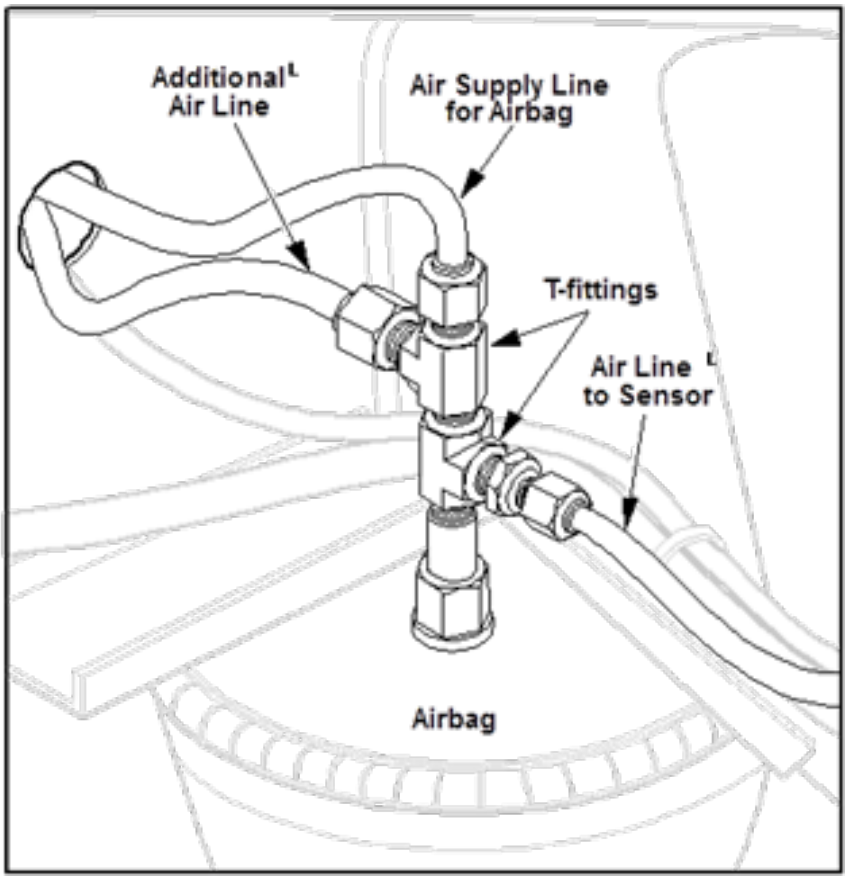
Route the air line from the air suspension to iWeigh®. You will install one airline per leveling valve or per tandem axle, in the case of a 6x2 tractor/truck.

For dual height control valve air suspensions, the leveling valves will be found on the left and right. For 6x2 tractors/trucks, they will be in the front and rear. Follow the same instructions for air line installation for both drive suspensions.

1. Route a ¼-inch air line from the airbag suspension to the iWeigh® module.
2. Use a ¼-inch straight street-T at the top of a convenient drive axle suspension air bag to access air pressure. If you choose to connect in the middle of an existing air line between two air bags, thoroughly remove any paint on the air line and wipe clean before cutting the air line.
3. Loosely connect the air line to the other air lines and cable with cable ties to prevent it from being damaged.

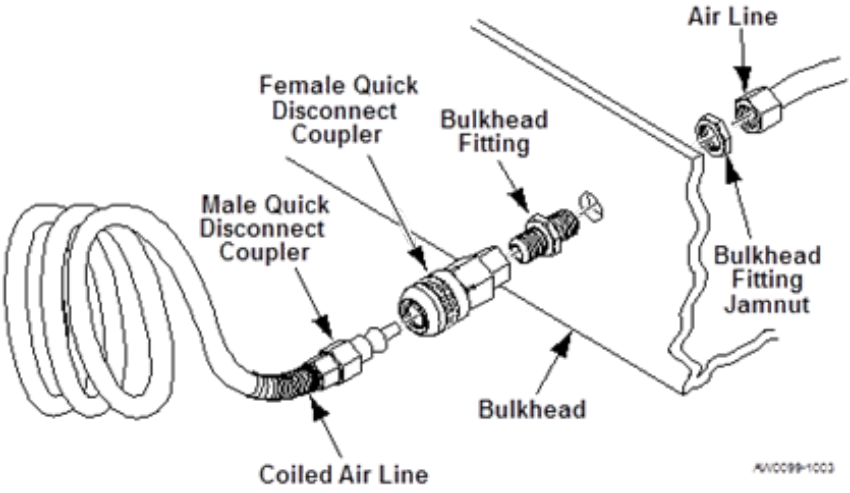
Note: Avoid connecting on the air bag's supply line or a lift/ auxiliary axle.

Note: Air lines and cables, and any other Air-Weigh wiring, must be separated by a minimum of 12 inches, or properly shielded, from exhaust piping.


Additional L
Air Line
Air Supply Line
for Airbag
T-fittings
Air Line L
to Sensor
Airbag

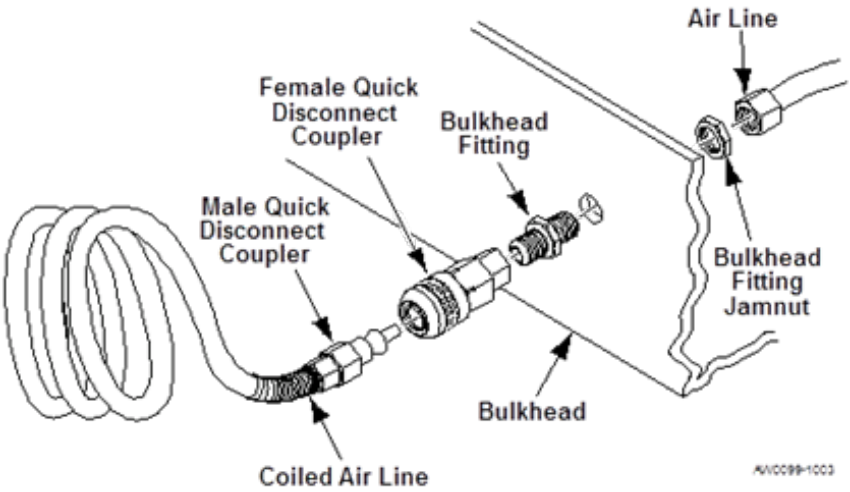
Routing Air Line for Dedicated Tractor

1. Remove existing air line connection from one trailer air bag.
2. Install street-T into air bag.
3. Install fitting into side of street-T and connect to air line.
4. Reinstall original air line and fitting connector to top of street-T.
5. Run air line to front of trailer. Secure with cable ties.
6. Drill hole for trailer bulkhead fitting at a point near where existing airlines attach to trailer.
7. Install bulkhead fitting.
8. Cut air line to length and connect to rear side of bulkhead fitting. Use remaining air line in step 13.
9. Attach female quick-disconnect coupling to face of bulkhead fitting.
10. Connect end of coiled air line with male quick disconnect coupling to female quick disconnect coupling.



11. Attach quick disconnect fitting to one end of coiled air hose and couple to quick disconnect fitting on front bulkhead of trailer.
12. Drill hole in tractor bulkhead near where existing air lines attach to the tractor and install bulkhead fitting.
13. Connect the other end of the coiled air line to the face of the bulkhead fitting.
14. Install brass fitting into rear of bulkhead fitting. Run air line from brass fitting to iWeigh® module mounting location. Secure with cable ties.
15. Connect open end of air line to Air Port 2 on the iWeigh® module

Note: If a mechanical deflection sensor is needed to complete this install, follow the Mechanical Install Guide provided in the mechanical sensor kit before continuing on to next steps.



Connecting Scale Power

The iWeigh® Power and Data Interface module is a true pass through cable. The location of the connection may vary as per the vehicle.

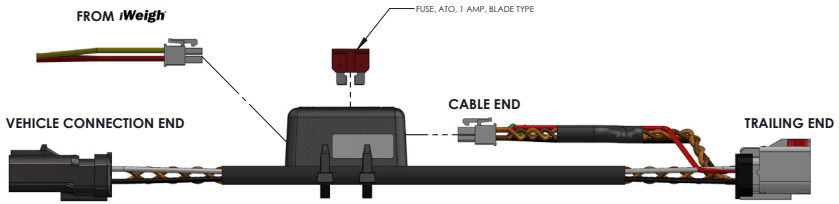
Connect the vehicle connection end and the trailing end of the RP1226 connectors to the vehicles RP1226 connectors present. Connect the incoming power cable from the iWeigh® unit and plug into the 4-pin Molex connector.

All data will continue to pass through the RP1226 connection, with the additional iWeigh® data. Following the recommended placement guidelines listed earlier, install the scale.

The iWeigh® connectors should be oriented with the connectors facing downward and installed by any of the following three methods, using the hardware provided.

Use self-tapping screws to secure to its location.

Note: To check if iWeigh® data is correctly passing through, log into the companion web portal and check the scale unit for data.



Secure Cables

1. Coil excess wires and secure using nylon cable ties.
2. Cable tie wires and sensor assemblies to other secured harnesses, to prevent damage due to vibration.
3. Reassemble the dash assembly. Ensure all connections are tight.
4. Turn the ignition key ON and perform a final system check.

Note: The scale will only display accurate weights via Android App after it has been completely calibrated to a certified in-ground scale, by entering empty and loaded axle weights into the Air-Weigh Scale. Enter empty weights only when the vehicle is empty! Enter loaded weights only when the vehicle is loaded!

See iWeigh® Calibration and Operations Manual for Calibration and user instructions.

Note: Check that data is being passed from iWeigh® unit to both mobile app, and web portal, before installation is complete.

Note: Air lines and cables, and any other Air-Weigh wiring, must be separated by a minimum of 12 inches, or properly shielded, from exhaust piping.

RP1226 Cable Connections

If using RP1226 connections please contact Air-Weigh for installation methods.

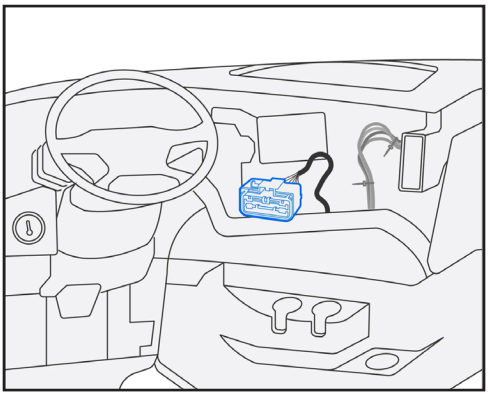
RP1226 Cable Locations

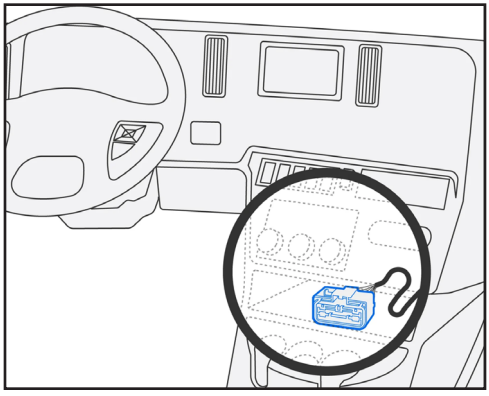
The RP1226 connector is a standard 14-pin connector used in many heavy duty vehicles, enabling power and communication transfer between a truck and external devices.

The iWeigh® Power and Data Interface module is a true pass through cable. All data will continue to pass through the RP1226 connection, with the additional iWeigh® data.

Freightliner

The RP1226 connector is located behind the dashboard panel on Freightliner vehicles.



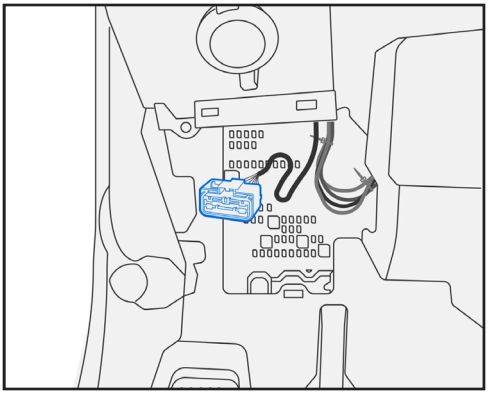


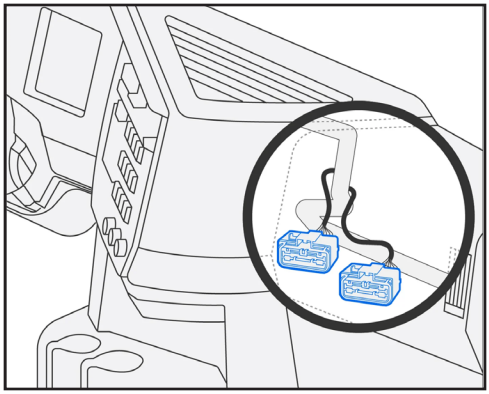
International

The RP1226 connector is located behind and below the cup holder on International vehicles.

Kenworth & Peterbilt

The RP1226 connector is located behind the left-hand side of the steering wheel behind the dash/ fuse panel cover on Kenworth and Peterbilt vehicles.



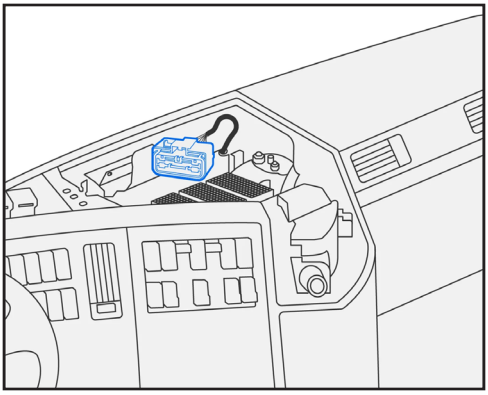


Mack

The RP1226 connector is located under the instrument panel on Mack vehicles.

Volvo

The RP1226 connector is located under the instrument panel on Volvo vehicles.



Switching Power Module Channels

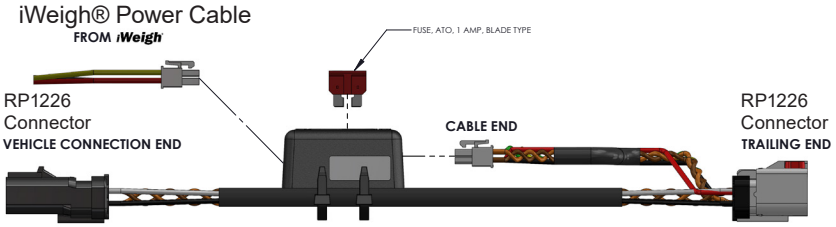
The iWeigh® Power and Data Interface module is a true pass through cable. All data will continue to pass through the RP1226 connection, with the additional iWeigh® data.

Note: To check if iWeigh® data is correctly passing through, log into the companion web portal and check the scale unit for data.

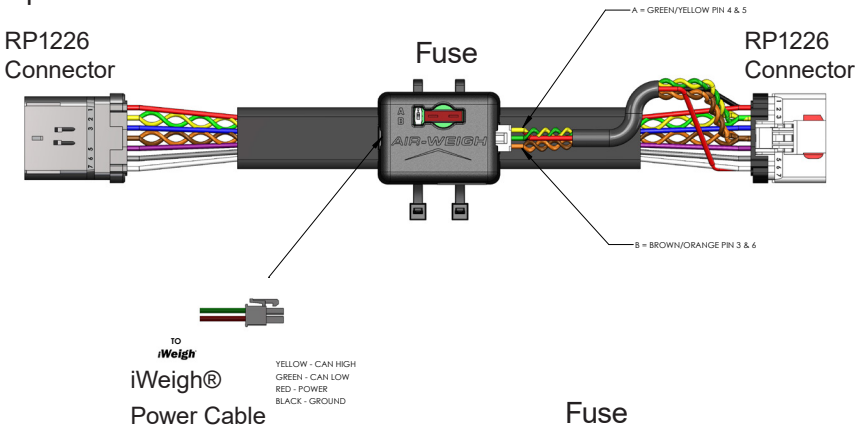
If no data is passing through the iWeigh® unit to the cloud but truck data is still passing through, switch the channel setting. The A and B channel setting switch is within the recessed area next to the fuse on the module. Use a small (1/8” to 5/32”) flat head screwdriver to gently switch channel tab. Do not use too much force.

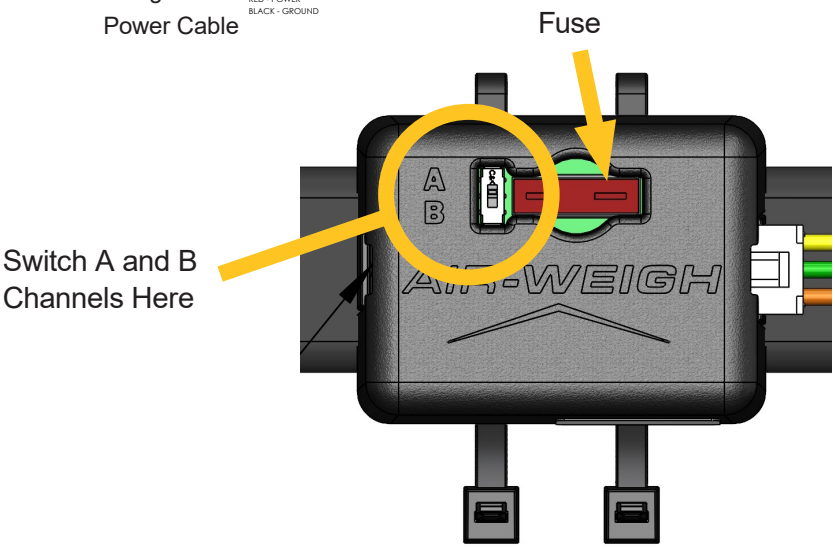
If no iWeigh® data is passing through to the web portal, AND no truck data is passing through, check the connections and iWeigh® power cable. If the iWeigh® unit is not powered, check the fuse located next to the channel switch, replace if needed.

Side View



Top View





Download the Air-Weigh App

Download the Air-Weigh app.

The home screen will show all Air-Weigh iWeigh® and QuickWeigh® scales within broadcast range. Prior to naming your scale, it will show as **QuickWeigh® or iWeigh® and the serial number of your scale. For iWeigh®, the serial number of your scale is below the QR code on the face of the scale.**

For more details using the Air-Weigh app, please review our Air-Weigh App User guide, available on our website at https://www.air-weigh.com/installation-manuals/.

Scan the QR code below to download the Air-Weigh app and view weight data on a compatible Android smart device via the Google Play store. Scale must be powered.

Download the Air-Weigh App

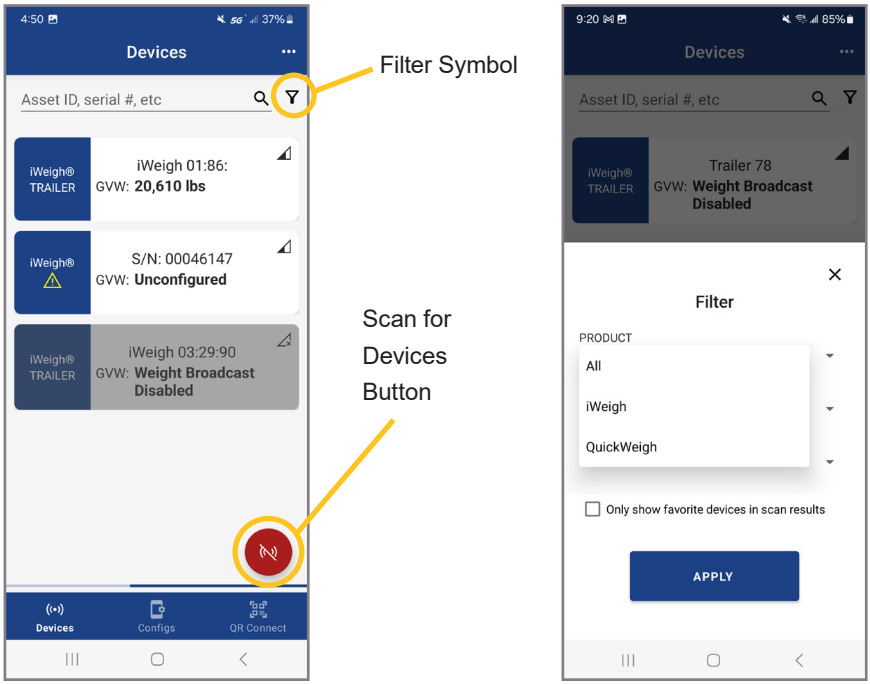
iWeigh® Registration

Using the Air-Weigh App

The initial start of the app will show the ‘Devices’ screen. All Air-Weigh app compatible Air-Weigh iWeigh® and QuickWeigh® scales within broadcast range will appear in the Devices menu.

Prior to configuring your scale, it will show as **QuickWeigh® or iWeigh® and the serial number of the scale. For iWeigh®, the serial number of your scale is below the QR code on the face of the scale.**

To filter iWeigh®, QuickWeigh® scales, or set favorite scales, click the filter symbol on the upper right. Select filtering options, then hit the ‘Apply’ button.



Scale Set Up

All powered iWeigh® and QuickWeigh® scales within broadcast range will appear on the screen. Scale with strongest (closest) broadcast signal is displayed at top of list on app dashboard screen.

Select the scale to configure by the serial number. The scale's serial number is located on the decal overlay on the face of the scale unit.

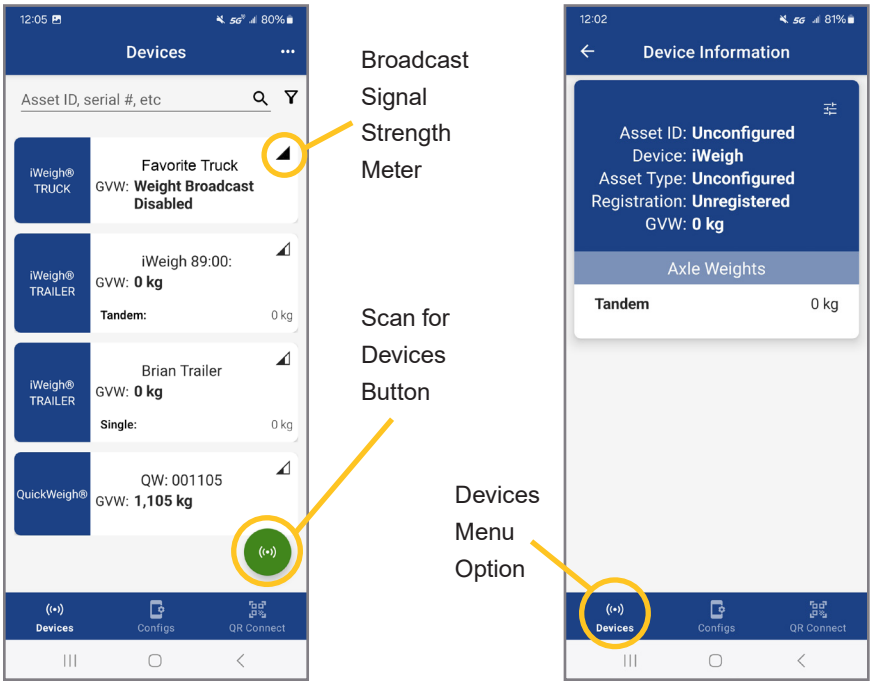
Note: If a 'Permission Not Granted for This Device' error appears, contact your company's iWeigh® administrator for access.

App Dashboard - Devices

When the app opens, by default the ‘Devices’ screen appears and starts to scan for any powered compatible scales within broadcast range. To turn off scanning, press the ‘Scan for Devices’ Button. Press when green to turn on scanning, press when red to turn off scanning.

The broadcast signal strength meter is located in the upper right corner for each scale, the stronger the signal, the fuller the meter will be. Scales with strongest (closest) broadcast signal is displayed at top of list on devices screen.

For further instructions, read guide 901-0187-000. iWeigh® User and Calibration Guide - App Air and Mechanical Suspensions.



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 Success Department at (888) 459-3247 for questions regarding the use, operation, repair or return of any Air-Weigh product.

Warranty Questions

Warranty Questions can be submitted by utilizing our email address: *support@air-weigh.com*

Please include the device serial number, description of the issue, and contact information ton expedite the claim process.

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 Success 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 Success 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 e-mail 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

AIR AND MECHANICAL SUSPENSION SCALES

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www.Air-Weigh.com