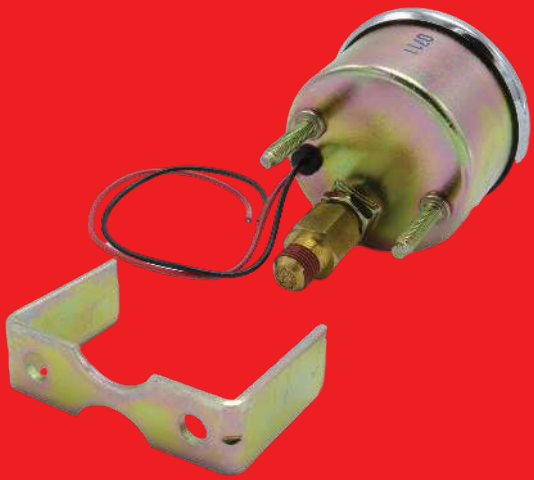
RIGHT WEIGH

Installation & Operation Manual



ONBOARD LOAD SCALE

INTERIOR ANALOG | 510 Series

WELCOME

Thank you for choosing to drive more and scale less! Here at Right Weigh, we are committed to making our products simple to install and easy to use. We understand that installation can vary between vehicles and yours may not be described in this manual. In any event, our technical support team is ready to answer your questions!

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www.rwls.com/how-to-calibrate-install/
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IMPORTANT!

Please read instructions COMPLETELY and thoroughly before installation. Right Weigh, Inc. is not responsible or liable for product failure or vehicle damage due to improper installation. The installation requirements are outlined in this manual and should be followed thoroughly to avoid inaccuracy or damage to the product.

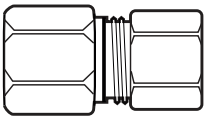
It is also important to be aware of vehicle manufacturer policies before making modifications to the vehicle. Right Weigh, Inc. is not liable or responsible for issues regarding warranties with other manufacturers. This is the responsibility of the customer. If you are unsure about how these installation practices apply to your vehicle, please contact your vehicle or component manufacturer.

FOLLOW US!

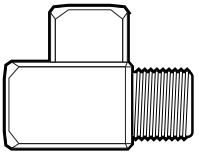
CONTENTS

PARTS REQUIRED

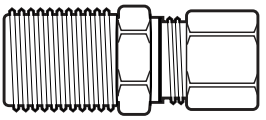
These parts are included in the 510-RK (Retail Kit) products and are sold separately in the 101-SK kit:



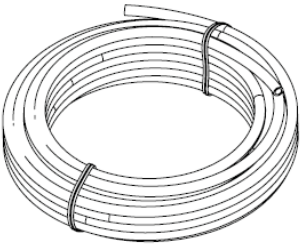
1/8" Female NPT to 1/4" Tube Fitting
Straight or elbow configuration, to connect the air line to the back of the gauge



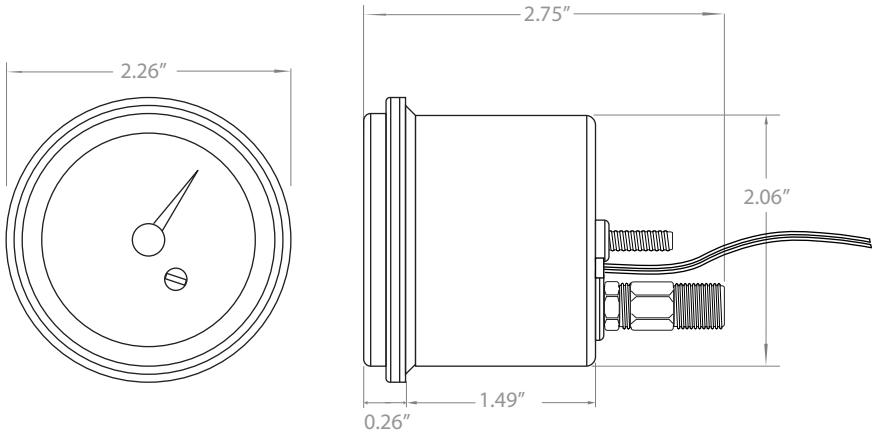
Street Tee Fitting
The thread size and type should match the thread size and type of the vehicle suspension



Male NPT to 1/4" Tube Fitting
The thread size and type should match the thread size and type of the vehicle suspension



1/4" Air Line
The amount of air line needed depends on the mounting location of the gauge



The 510 series is designed for use on an air suspension axle group with one height control valve. Within this series, there are different products designed for different axle group configurations. Before installation, make sure you have the correct gauge for your application:

Suspension	Gauge - Pounds (LBS)	Gauge - Kilograms (KGS)
Single Axle	510-30	510-16KG
Tandem Axle	510-46	510-21KG
Tri Axle	Unavailable	510-25KG

If you have the wrong gauge for your application, please call our technical support listed on page 2.

TWO HEIGHT CONTROL VALVES:

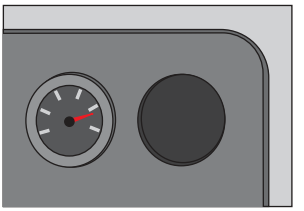
If your axle group has two Height Control Valves (HCVs), then you will need a dual leveling valve toggle switch sold separately (PN: 919-MINI-M3). This will allow the gauge to connect to both of the separate air systems and give you an accurate weight reading for the axle group

The 510 series scale is designed to be mounted inside the vehicle cabin, it is not for outdoor use. The following steps will walk you through how to correctly install the gauge.

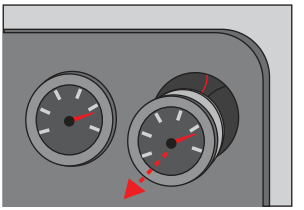
1 CHOOSE MOUNTING LOCATION

The gauge can be mounted in the dash panel either using an existing factory gauge hole or by creating one. If this option is unavailable or not desirable, Right Weigh has an optional bracket (510-B-BR or 510-C-BR) that can be purchased separately to mount the gauge. See below for a detailed list of options for mounting into the dash:

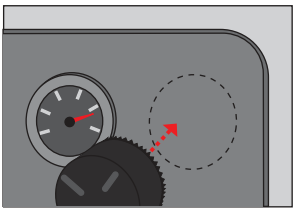
a. Use an available 2 1/16" (52mm) factory gauge hole.



b. Remove and replace a factory installed air suspension pressure gauge.



c. Cut a new hole in the dash panel using a 2 1/16" (52mm) hole saw as shown.



Make sure to check behind the dash panel for internal wires and components that may need to be moved to avoid damage.

d. Use Right Weigh 510-B-BR or 510-C-BR bracket or an aftermarket bracket to mount the gauge.

2 DUMP AIR FROM SUSPENSION SYSTEM

3 CONNECT AIR LINE TO GAUGE

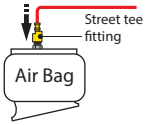
If replacing a factory installed air suspenson pressure gauge, connect the existing air line to the Right Weigh gauge and skip ahead to Step 7. Otherwise, route a new air line through the gauge cutout and connect to the back of the Right Weigh gauge using the appropriate fitting.

4 ROUTE NEW AIR LINE TO SUSPENSION

5 INSTALL TEE FITTING IN AIR BAG

Remove the suspension air line fitting from the top of one of the air bags.

Insert a street tee fitting into the top of the air bag that matches the thread size. Reinstall the suspension air line and fitting into the street tee.

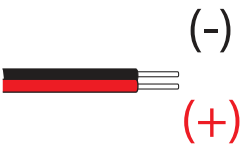


6 CONNECT NEW AIR LINE TO TEE FITTING

Connect the new 1/4" air line to the remaining port on the tee using the male NPT tube fitting.

7 CONNECT TO POWER AND GROUND

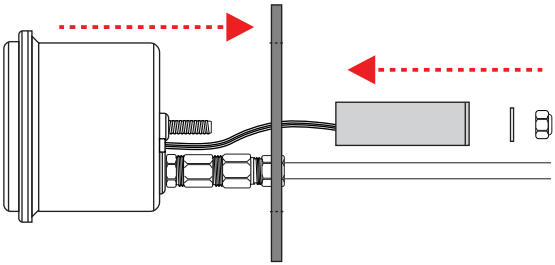
Connect the gauge wiring harness to power and ground. Be sure the RED wire is connected to a SWITCHED positive (+) power source and the BLACK wire to chassis ground (-). Supply voltage must be between 9 and 32 volts DC.



DO NOT wire the gauge to the instrument cluster dimmer circuit. The dimmer control may disrupt the color changing back light and cause it to malfunction.

8 MOUNT GAUGE

Use the U-bracket and hardware provided to mount the gauge to the dash panel or bracket.



9 AIR UP SUSPENSION SYSTEM TO CHECK FOR LEAKS

CALIBRATING

1: The vehicle must be fully loaded. For best results, calibrate with a loaded weight within 1500lbs or 750kgs of your typical axle group weight (DO NOT calibrate empty!)

2: Using a certified in-ground scale, obtain a loaded weight for the axle group attached to the gauge.

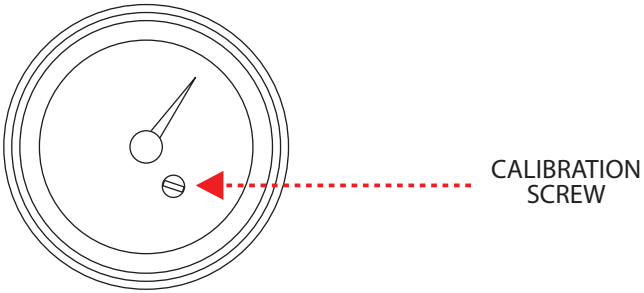
3: Park on a level surface. Shift the transmission to neutral and set the parking brakes.

4: Chock the wheels to prevent unexpected vehicle movment.

5: Release the parking brakes.

6: Make sure the Height Control Valve (HCV) has fully inflated the air bags. If needed, briefly dump the air from the suspension and allow the HCV to refill the system.

7: Using a flathead screwdriver, turn the calibration screw on the dial face until the gauge matches the certified axle group weight.



OPERATING AND WEIGHING

1: Park on a level surface. Shift the transmission to neutral and set the parking brakes.

2: Chock the wheels to prevent unexpected vehicle movment. Release the parking brakes.

3: Make sure the Height Control Valve (HCV) has fully inflated the air bags. If needed, briefly dump the air from the suspension and allow the HCV to refill the system.

4: View the load scale to determine the on-the-ground axle group weight.

PROBLEM WITH THE GAUGE?

Below is a list of problems we have seen with a simple fix. If you don't see your problem listed here or our troubleshooting doesn't fix your problem, call Right Weigh Tech Support listed on page 2 for further assistance!

ERRATIC / INACCURATE READINGS

The vehicle is not parked on a level surface:
Parking on sloped or banked surfaces will cause the vehicle weight distribution to shift between the axle groups.

The vehicle's brakes are on:
When the vehicle brakes are set, they could apply additional pressure or torque on the suspension airbags. This will cause the suspension to have a different air pressure than what is actually needed to hold up the weight.

The vehicle is parked on an uneven or rough surface:
If one or more of the vehicle's wheels are in a pothole, that could result in additional pressure or torque on the suspension airbags. This will cause the suspension to have a different air pressure than what is actually needed to hold up the weight.

There is a significant air leak in the suspension system:
This could cause the HCV to refill the suspension in intervals to maintain the vehicle's ride height. If there is a significant leak, the gauge display will slowly decrease in value and then quickly increase in value when the HCV refills the suspension system.

The Height Control Valve (HCV) is malfunctioning or broken:
If the HCV is not functioning correctly, the air pressure applied to the suspension system could be inconsistent and/or erratic. To test for an HCV problem, acquire a weight reading from the Right Weigh gauge and write it down (refer to gauge operating instructions for proper procedure). Drive the vehicle around the block and return to the same location. Acquire a second reading from the Right Weigh gauge. If the two readings are significantly different, then the HCV might be malfunctioning.

WARRANTY

Right Weigh is committed to providing quality products that function as intended, and we always stand behind our workmanship. Our industry leading warranty is our best effort to express this commitment. Products manufactured or sold by Right Weigh, Inc. are warrantied to be free from significant defects in material and workmanship 3 years from date of purchase. During this time, and within the boundaries set forth in this warranty statement, Right Weigh, Inc. will, at its sole discretion, correct the product problem or replace the product.

This warranty shall not apply to product problems resulting from: (1) Improper application, installation, incorrect wiring, or operation outside of the approved specifications of the product. (2) Accidents, faulty suspension parts or power surges (3) Inadequate maintenance or preparation by the buyer or user (4) Abuse, misuse, or unauthorized modification. (5) Acts of God, lightning strike, floods, fire, earthquake, etc.

Right Weigh, Inc. assumes no responsibility or liability for any loss or damages resulting from use of Right Weigh, Inc. products.

In no event shall Right Weigh, Inc. be liable for direct, indirect, special, incidental or consequential damages (including loss of profits or loss of time) resulting from the performance of a Right Weigh, Inc. product. In all cases, Right Weigh, Inc. liability will be limited to the original cost of the product in question. Right Weigh, Inc. reserves the right to make improvements in design, construction, and appearance of products without notice.

Return Policy and Authorization

Before returning any product, please obtain a Return Merchandise Authorization number (RMA#) by calling Customer Service at 503-628-0838 or e-mailing support@rwls.com. Include the RMA# and information regarding the reason for the return with the returned product. Shipping costs for returns must be prepaid by the customer. For your protection, items must be carefully packed to prevent damage in shipment and insured against possible damage or loss. Right Weigh, Inc. will not be responsible for damage resulting from careless or insufficient packing or loss in transit.

An RMA# must be obtained by the original purchaser before any product can be returned. Only new, unused products may be returned. Installed, used, damaged, modified or customized products can not be returned for credit. Credit will be issued to the original purchaser after evaluation by Right Weigh, Inc.

Repairs/Replacements

An RMA# must be obtained before any product can be returned. Right Weigh, Inc. will evaluate returned products at no charge. If Right Weigh, Inc. determines that the returned product is under warranty it will repair the product or parts thereof at no charge, or if unrepairable, replace it with the same or functionally equivalent product whenever possible. Right Weigh, Inc. will return the product at its expense via a shipping method (carrier to be at sole discretion of Right Weigh, Inc.) equal to or faster than the method used by the customer. Products or parts thereof not covered by warranty will be repaired or replaced at customer expense upon authorization by the customer. Right Weigh, Inc. will return the repaired product at customer expense via a shipping method (carrier to be at sole discretion of Right Weigh, Inc.) equal to or faster than the method used by the customer.

For additional support contact:

United States and Canada:

Right Weigh, Inc.

(503) 628-0838

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