

INSTALLATION MANUAL

51701

Level of Difficulty

Easy

Installation difficulty levels are based on time and effort involved and may vary depending on the installer level of expertise, condition of the vehicle and proper tools and equipment.

Time Allowance

Initial set-up	10 - 20 minutes
----------------	-----------------

Vehicle Requirements

Compatible with	Gasoline vehicles that are 1996 or newer
	Diesel vehicles that are 2004 or newer
	Automatic transmission
	Manual transmission vehicles will have limited functionality: Weight and Trailer Brake Gain modules will not work
	Requires operational, powered OBD-II diagnostic port
Not compatible	Vehicles with a transmission that is different from the original year, make and model
	Vehicles with foreign engines not sold in the US Market

Device and Bluetooth Requirements

Compatible with	iPhone iOS 10.3 or higher
	Android: 6.0 Marshmallow or higher and Bluetooth-enabled
Not compatible	iPhone 4 and iPhone 5

Maintenance

Periodic inspection of all wires and connections should be performed to ensure there is no visible damage or loose connections.

Product Photo



NOTICE

Before you begin installation, read all instructions thoroughly.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Increase the separation between the equipment and receiver
- Consult the dealer or an experienced radio / TV technician for help

Proper tools will improve the quality of installation and reduce the time required.

All steps must be followed to ensure the product will function properly. Once installed, test for proper function by using a test light or connecting a properly wired trailer.

Product Registration and Warranty

CURT stands behind our products with industry-leading warranties. To get copies of the product warranties, register your purchase or provide feedback, visit: warranty.curtgroup.com/surveys

BEFORE YOU BEGIN

Find a Flat, Level Surface With Minimal Traffic

Betterweigh™'s calibration and measurement processes are best performed on flat level surfaces. This will give you the best accuracy when using the device.

It is easiest to perform these processes with minimal traffic. Empty parking lots or low traffic roads are ideal.

INITIAL SETUP

NOTICE

BetterWeigh can take up to 10-20 minutes to complete the initial set up. After the initial set-up, future measurements take minutes to complete.

A cellular or Wi-Fi connection is required for the initial setup. After initial setup, BetterWeigh requires no internet connection and uses only a Bluetooth connection.

Step 1

Download the mobile application.

To download the app, search 'BetterWeigh Towing Scale' in the Google Play or iOS App Store and install.

Step 2

To perform the initial set-up, the vehicle will need to be on a flat, level surface. This will give you the most accuracy when using the device.

It is easiest to perform these processes with minimal traffic. Empty parking lots or low traffic roads are ideal.

To check the ground is level, shift into neutral and release the brake. If the vehicle rolls, this indicates the ground is not level.

Once the vehicle is on level ground, shift into park.

Keep the engine on.

Step 3 - Installing the BetterWeigh™

To install the BetterWeigh, plug into the OBD-II diagnostic port. This is typically located below the steering wheel.

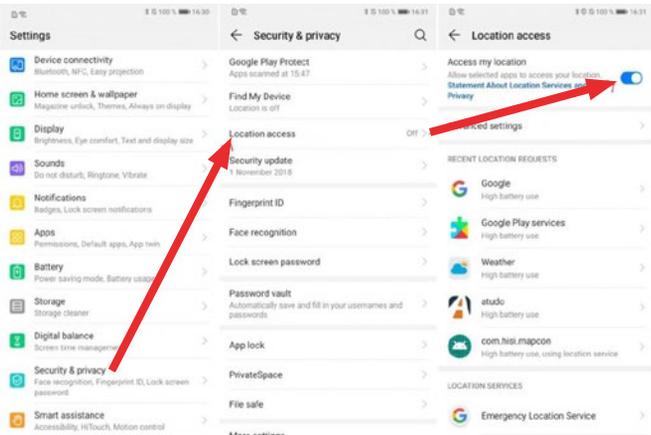
Ensure the OBD-II port is secure and rigid to the dash. Loose or dangling ports will cause inaccuracies in your calibration and weight readings. The vehicle's diagnostic port will only connect with one device at a time. You can leave the BetterWeigh plugged in; it will not drain the vehicle's battery, and many users prefer to do this.



Step 4 - Pairing the BetterWeigh

A) Enable location services.

For users with Android phones, BetterWeigh requires Location Services to be turned on. Note that we do not utilize any of the location data for any purpose. General steps in settings:



B) Location services setting needs to be set to 'High Accuracy'.

On some Android phones, this setting also has to be enabled in the Google Settings. Phone menu settings may be different depending on the manufacturer.

C) Open the BetterWeigh app.

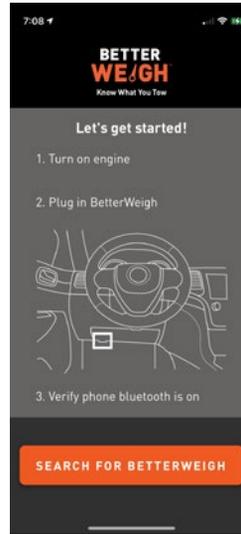
Once you've enable location services, open the BetterWeigh Towing Scale app. Here, you will acknowledge and allow location services.

Hit 'Accept' to agree and to proceed through the prompts.

Step 4 - Pairing the BetterWeigh (continued)

D) Search for BetterWeigh device.

The app will automatically begin searching for your BetterWeigh's Bluetooth signal. Make sure you are near your vehicle while performing this action.



NOTICE

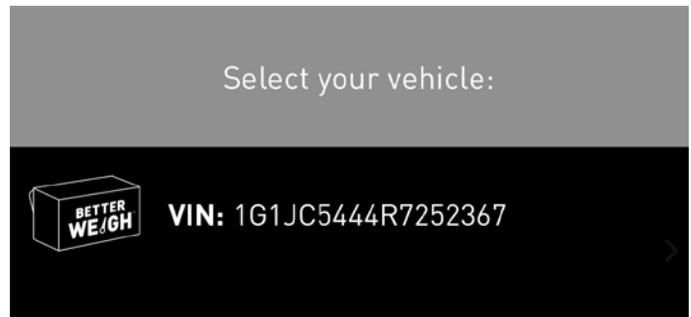
Do not pair directly in the phone's 'Settings > Bluetooth' menu. If paired through this menu, the phone will not find the BetterWeigh device and will not connect. To fix this issue, turn off your phone's Bluetooth for 5 seconds and then turn it back on. Only use the BetterWeigh app to connect.

If 'BetterWeigh Not Found' message received, unplug BetterWeigh then plug it back in again, confirm phone settings and repeat.

E) Select VIN ID.

Once BetterWeigh has found your vehicle's VIN, select it by tapping the VIN number.

In some instances, you'll be asked to select additional vehicle detail that may not be provided within the VIN. For example: transmission type or drive train.



What if BetterWeigh doesn't find my VIN?

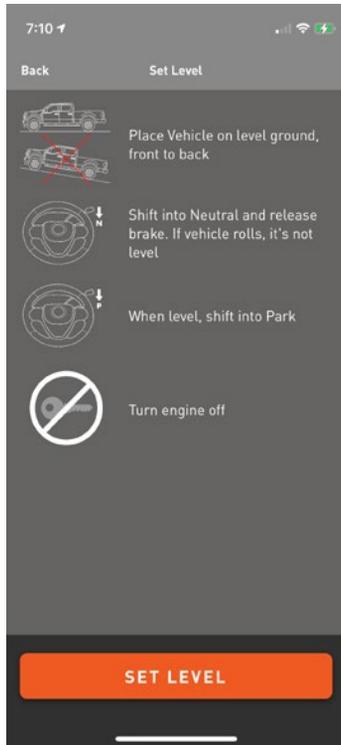
In some vehicles, the engine needs to be started for the BetterWeigh to receive the VIN. Make sure your vehicle is turned on.

On vehicles 2008 and older, the vehicle often does not send the VIN through OBD and has to be either scanned by using your phone's camera or entered in manually. The VIN is typically located on the dash of the driver's side near the windshield or on the inside of a driver-side door.

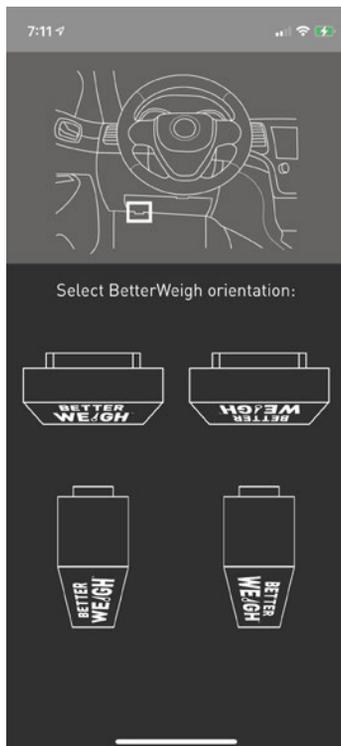
Step 5 - Setting Vehicle Level Position

You will now be asked to complete the set level. This establishes the proper orientation of the device. Follow the on-screen instructions.

When all steps are complete, press the 'Set Level' button. Do not bump the vehicle while performing this step. The message will be displayed for 10 seconds.

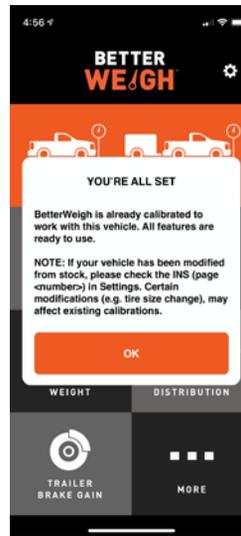


In certain instances, you may be prompted to provide the orientation of the BetterWeigh™ unit within the ODB-II port.



Step 6

Set up complete. You're ready to get started with BetterWeigh!



NOTICE - Variations - Additional Calibration Requirements

If your vehicle calibration doesn't exist in the BetterWeigh database, you may need to complete one or both of the following:

Suspension Calibration: You may need to complete a suspension calibration if your vehicle:

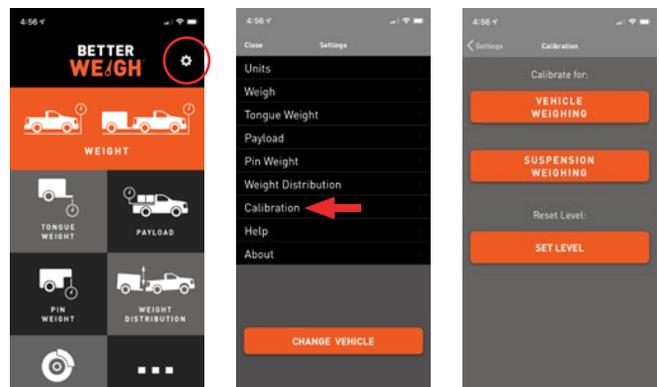
- Doesn't have a calibration
- Vehicle has been modified from stock (i.e. Leaf springs)
Note: 3/4 or 1 ton truck that does not have a calibration, you'll need an additional 500lbs of material on hand to complete the calibration.
- 2500 or 3500 trucks / vehicles
Note: You'll need to have an additional 500 lbs. of material on hand to complete the calibration.
- Air bag suspensions
- Auto-leveling suspensions

Vehicle Weighing Calibration:

You may need to complete a vehicle weighing calibration if:

- Your vehicle has an attribute or modification scenario below:
 - Change in tire size
 - Axle ratio change
 - Non-stock torque converter

You can complete the suspension calibration by navigating to Settings > Calibrations. From here you can select the type of calibration you need to complete.



WEIGH MODULES OVERVIEW AND TUTORIALS

NOTICE

The BetterWeigh™ Mobile Towing Scale is a great tool to measure the overall weight of your vehicle and trailer setup. Below is an overview of each individual module and the step-by-step process to complete your measurements.

WEIGHT

Before You Begin

Find a flat, level surface with minimal traffic.

Allow vehicle to warm up prior to taking measurements.

Identify what you would like to measure:

To get the weight of your vehicle:

Perform the process below on your vehicle alone.

To get the gross weight of your vehicle and trailer:

Perform the process with your vehicle and trailer attached.

To get only the weight of the trailer: Perform the process below on the vehicle alone, then with the trailer/load attached. Subtract the second measurement from the first and you'll have the trailer weight.

Step 1

To begin a weight measurement, select the 'Weight' module from the home screen.

Step 2

From a complete stop on a level surface, accelerate through 15 miles per hour in a straight line. This will provide your vehicle's weight reading.

Step 3

If you do not get a measurement – repeat the process again.

BetterWeigh may need to take multiple readings to increase the accuracy of your readout. If your vehicle is from 2008 or earlier or is a Toyota, BetterWeigh will take at least 2 readings to calculate the weight.

Step 4

Once you have a measurement, you can increase or decrease the scale range by pressing the '+' or '-' button to the left or right of the gauge.

You can also take a screenshot by pressing the screenshot icon. This will save your measurement to your photo gallery with a date stamp for your records.

PAYLOAD

Before You Begin

For best results find a flat, level surface. Remove any weight that is not permanently installed in truck bed.

REMINDER: Any weight added to the truck bed before you will begin will be zeroed out and will not be included as part of your payload weight measurement. This can include truck tool boxes, fuel tanks and other installed truck bed accessories. You will need to account for this weight after your measurement is taken.

NOTICE

Do not load your vehicle prior to measuring.

NOTICE

Vehicles equipped with auto-leveling suspensions need to have the auto-leveling turned off prior to loading. This is usually done in the vehicle's console by putting

Before You Begin (continued)

the vehicle into 'tire jack mode', or consult your owner's manual. This mode must be turned off before driving.

NOTICE

Do not close out or return to the main menu at any time during the process. This will clear the initial pitch measurement and you will need to repeat the process.

NOTICE

When calibrating or taking measurements in vehicles with airbags, the airbags need to be empty (or at the minimum pressure recommended by the manufacturer, usually 5-10 psi). Make sure to empty the airbags to the same level each when using BetterWeigh in the future.

Step 1 - Initial Pitch Measurement

Park where you intend to load your vehicle and turn your vehicle to auxiliary/pre-start mode. This will allow continuous power to the OBD-II port and your BetterWeigh™.

Step outside the vehicle and lower the tailgate if applicable. It is important that you and your passengers are outside the vehicle to eliminate errors while taking your initial pitch reading.

To measure your payload, BetterWeigh first needs to calculate the pitch of your vehicle before it is loaded. To do this, open the BetterWeigh app and select the 'Payload' module from the home screen.

Select 'Ready' to take your initial pitch reading.

Do not bump your vehicle during the initialization process. Anything that affects the pitch of your vehicle after this reading will be measured as a change in payload weight.

Step 2 - Payload Weight Measurement

Once the initial pitch measurement is complete, you can begin loading your truck bed.

Center load over rear axle. Now you will see the weight reading in real time.

Once you have a measurement, you can increase or decrease the scale range by pressing the '+' or '-' button to the left or right of the gauge.

You can also take a screenshot by pressing the screenshot icon. This will save your measurement to your photo gallery with a date stamp for your records.

PIN WEIGHT

Before You Begin

For best results find a flat, level surface.

REMINDER: Any weight added to the truck bed before you will begin will be zeroed out and will not be included as part of your pin weight measurement. This can include truck tool boxes, fuel tanks and other installed truck bed related accessories. You will need to account for this weight after your measurement is taken.

NOTICE

Vehicles equipped with auto-leveling suspensions need to be turned off prior to loading. This is usually done in the vehicle's console by putting the vehicle into 'Tire Jack Mode', or consult your owner's manual. This mode must be turned off before driving.

NOTICE

Do not close out or return to the main menu until you're loaded. This will clear the initial pitch measurement and you will need to repeat the process.

NOTICE

When calibrating or taking measurements in vehicles with airbags, the airbags need to be empty (or at the minimum pressure recommended by the manufacturer, usually 5-10 psi). Make sure to empty the airbags to the same level each when using BetterWeigh in the future.

Step 1 - Initial Pitch Measurement

Park where you intend to load your vehicle and turn your vehicle to auxiliary/pre-start mode. This will allow continuous power to the OBD-II port and your BetterWeigh.

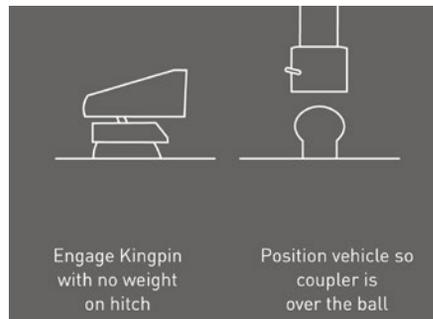
Step outside the vehicle and lower the tailgate if applicable. It is important that you and your passengers are outside the vehicle to eliminate errors while taking your initial pitch reading.

Align your trailer:

For 5th Wheel Trailers: Engage and connect king pin to 5th wheel hitch, but do not apply weight.

For Gooseneck Trailers: Position vehicle so coupler is directly over hitch ball, but is not connected.

Step 1 - Initial Pitch Measurement (continued)



To measure your pin weight, BetterWeigh first needs to calculate the pitch of your vehicle before it is loaded. To do this, open the BetterWeigh app and select the 'Pin Weight' module from the home screen.

Select 'Ready' to take your initial pitch reading.

Do not bump your vehicle during the initialization process. Anything that affects the pitch of your vehicle after this reading will be measured as a change in pin weight.

Step 2 - Pin Weight Measurement

Once the initial pitch measurement is complete, lower the trailer onto your 5th wheel hitch or gooseneck ball. You will see the weight reading change in real-time.

REMINDER: The recommended pin weight is 20-25% of the gross trailer weight. It is also important to balance the load properly for safe towing. To lower the pin weight, redistribute the weight towards the rear of the trailer. To increase pin weight, redistribute the weight towards the front of the trailer.

Once you have a measurement, you can increase or decrease the scale range by pressing the '+' or '-' button to the left or right of the gauge.

You can also take a screenshot by pressing the screenshot icon. This will save your measurement to your photo gallery with a date stamp for your records.

TONGUE WEIGHT

Before You Begin

For best results find a flat, level surface.

Remove any weight that is not permanently installed in truck bed.

REMINDER: Any weight added to the truck bed before you will begin will be zeroed out and will not be included as part of your tongue weight measurement. This can include truck tool boxes, fuel tanks and other installed truck bed related accessories. You will need to account for this weight after your measurement is taken.

NOTICE

Do not load your vehicle prior to measuring.

NOTICE

Vehicles equipped with auto-leveling suspensions need to be turned off prior to loading. This is usually done in the vehicle's console by putting the vehicle into 'Tire Jack Mode', or consult your owner's manual. This mode must be turned off before driving.

NOTICE

Do not close out or return to the main menu until you're loaded. This will clear the initial pitch measurement and you will need to repeat the process.

NOTICE

When calibrating or taking measurements in vehicles with airbags, the airbags need to be empty (or at the minimum pressure recommended by the manufacturer, usually 5-10 psi). Make sure to empty the airbags to the same level each when using BetterWeigh in the future.

Step 1 - Initial Pitch Measurement

Park where you intend to connect your vehicle and trailer and turn your vehicle to auxiliary/pre-start mode. This will allow continuous power to the OBD-II port and your BetterWeigh™. Align trailer ball and trailer coupler in position, but do not lower/couple at this time.

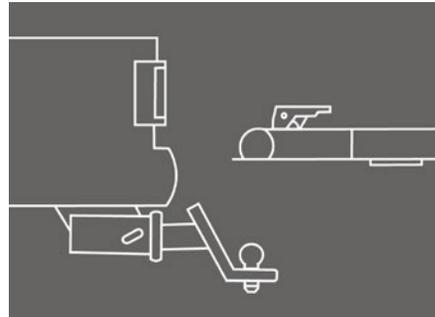
It is important that you and your passengers are outside the vehicle to eliminate errors while taking your initial pitch reading.

Open the BetterWeigh app and select the 'Tongue Weight' module from the home screen.

Step 1 - Initial Pitch Measurement (continued)

Select 'Ready' to take your initial pitch reading.

Do not bump your vehicle during the initialization process. Anything that affects the pitch of your vehicle after this reading will be measured as a change in tongue weight.



Step 2 - Tongue Weight Measurement

Once the initial pitch measurement is complete, lower the trailer coupler onto the ball mount.

Trailer can be pre-loaded or loaded at this time to see the weight reading change in real-time.

REMINDER: The recommended tongue weight is 10-15% of the gross trailer weight. It is also important to balance the load properly for safe towing. To lower the tongue weight, redistribute the weight towards the rear of the trailer. To increase tongue weight, redistribute the weight towards the front of the trailer.

Once you have a measurement, you can increase or decrease the scale range by pressing the '+' or '-' button to the left or right of the gauge.

You can also take a screenshot by pressing the screenshot icon. This will save your measurement to your photo gallery with a date stamp for your records.

WEIGHT DISTRIBUTION

Before You Begin

Find a flat, level surface. Align your vehicle and trailer so the coupler is over the ball mount, but do not couple your weight distribution system at this time.

NOTICE

Vehicles equipped with auto-leveling suspensions need to be turned off prior to loading. This is usually done in the vehicle's console by putting the vehicle into 'tire jack mode', or consult your owner's manual. This mode must be turned off before driving.

Before You Begin (continued)

NOTICE

Do not close out or return to the main menu until weight measurement is complete.

NOTICE

When calibrating or taking measurements in vehicles with airbags, the airbags need to be empty (or at the minimum pressure recommended by the manufacturer, usually 5-10 psi). Make sure to empty the airbags to the same level each when using BetterWeigh in the future.

Step 1 - Initial Pitch Measurement

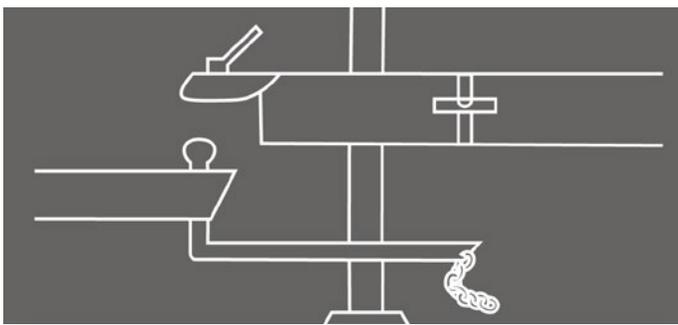
Park vehicle where you intend to couple your trailer and turn your vehicle to auxiliary/pre-start mode. This will allow continuous power to the OBD-II port and your BetterWeigh™.

Step outside the vehicle. It is important that you and your passengers are outside the vehicle to eliminate errors while taking your initial pitch reading.

Open the BetterWeigh app and select the 'Weight Distribution' module from the home screen.

Select 'Ready' to take your initial pitch reading.

Do not bump your vehicle during the initialization process. Anything that affects the pitch of your vehicle after this reading will be measured as a change in weight.



Step 2 - Weight Distribution Measurement

Once the initial pitch measurement is complete, lower the trailer coupler onto the ball mount until jack is slightly off the ground.

Now you will see the tongue weight reading in real time for your weight distribution system.

Once you have a measurement, you can increase or decrease the scale range by pressing the '+' or '-' button to the left or right of the gauge.

You can also take a screenshot by pressing the screenshot icon. This will save your measurement to your photo gallery with a date stamp for your records.

REMINDER: The recommended tongue weight is 10-15% of the gross trailer weight. It is also important to balance the load properly for safe towing. To lower the tongue weight, redistribute the weight towards the rear of the trailer. To increase tongue weight, redistribute the weight towards the front of the trailer.

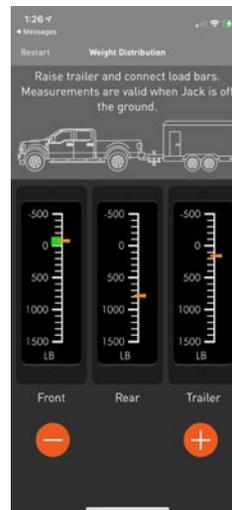
Step 3 - Weight Distribution 3-Point Relative Scale

Once the tongue weight measurement is complete, step 3 will help you to learn how your weight is currently distributed and to better balance your weight distribution system.

Select 'Ready' from the last tongue weight reading in step 2 to collect a second pitch reading.

Do not bump your vehicle during the initialization process. Anything that affects the pitch of your vehicle after this reading will be measured as a change in weight.

You will now see a 3-point relative scale that shows how your weight is distributed across your vehicle's front and rear axles and your trailer axle.



The objective is to distribute the weight towards the front of the vehicle in the 'green zone'.

Latch the trailer coupler onto the ball and raise the jack stand to lift the rear of the vehicle so you can engage the weight distribution bars.

Once the bars or chains of the weight distribution system are attached, raise the jack so that it is off the ground.

Adjust your weight distribution hitch as needed by raising or lowering the jack until the front axle marker is in the green zone of the front meter.

Once in the front axle is in the green, you can finish hooking up your weight distribution set-up (safety chains, electrical connections, etc.) and you are ready to tow.

TRAILER BRAKE GAIN

Before You Begin

Find a flat, level surface with minimal traffic. Allow vehicle to warm up prior to taking measurement. Have your trailer weight and combined trailer/vehicle weight ready. If you do not have this information from a recent measurement, use the 'Weight' module to collect this information.

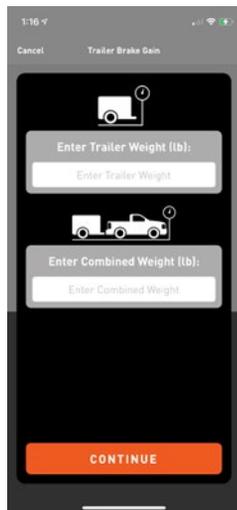
Ensure your brake controller is connected and ready to use.

Step 1

Park vehicle and trailer where you intend take the Trailer Brake Gain set-up. Open the BetterWeigh™ app and select the 'Trailer Brake Gain' module from the home screen.

Enter 'Trailer Weight' in the first text field

Enter 'Combined Weight' of vehicle and trailer in second text field



Press 'Continue'

Select your trailer type that matches your towing scenario: Bumper Tow or 5th Wheel / Gooseneck.

Select 'Ready' to begin the calibration process.

Step 1 (continued)



Follow the prompts on the screen.

Set trailer brake gain to 3.0.

Activate your trailer brake controller by fully engaging the manual override. Continue to hold manual override.

From a complete stop, slowly accelerate (1 - 2 mph) until the progress bar at the bottom of the screen is complete.

If you hear a lock-up (squeeling tires) occur, but progress bar is not filled completely, stop and hit the 'Lock-Up Occurred' button.

You will be asked to set the Trailer Brake Gain to a lower number and will need to follow the calibration steps again.

Once the calibration is complete, select 'Okay'. BetterWeigh will provide you with your Optimum Gain number.

Adjust your vehicle's trailer brake controller to match the Optimum Gain number.

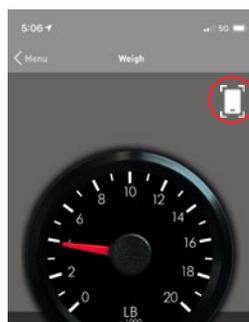
NOTICE

If you alter the trailer weight, select the 'Change Weight' button to enter your new trailer weight. Select 'Continue'. BetterWeigh will suggest a new Optimum Gain setting and you will not need to complete a new calibration.

Saving Your Weights

Don't forget to save your weights! Each module has a convenient screenshot button near the top of the screen. This makes it easy to recall or use for other areas of the app that require existing weight readings.

Push the screenshot icon to save an image to your photo gallery. It will include a date stamp for your records.



TROUBLESHOOTING AND PRODUCT SUPPORT

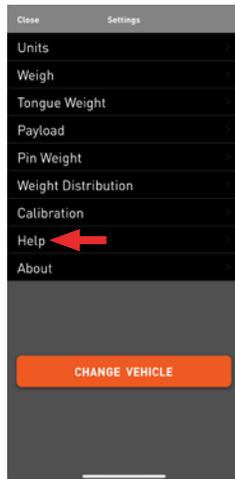
NOTICE

Need assistance or have inaccurate measurements? Please reach out to our Product Support specialists who would be happy to help assist you with configuring or troubleshooting your BetterWeigh™.

- For immediate assistance, call our support team at: 877.287.8634
- Email from within the settings Menu > Help

For additional resources, including helpful tutorial videos, visit curtmfg.com/BetterWeigh to learn more.

All steps must be followed to ensure the product will function properly. Once installed, test for proper function by using a test light or connecting a properly wired trailer.



Bluetooth Connection - Not Finding BetterWeigh

To fix this issue, turn off your phone's Bluetooth for 5 seconds and then turn it back on. Use the BetterWeigh app interface to connect Bluetooth signal.

Ensure that you are the only person connected to the BetterWeigh. You will not be able to connect if another device is connected.

The BetterWeigh's Bluetooth range is approximately 25ft. Ensure that you are within range to avoid being disconnected while taking measurements.

GLOSSARY OF TERMS

Term	Definition
Gross Vehicle Weight Rating (GVWR)	The maximum operating weight/mass of a vehicle as specified by the manufacturer including the vehicle's chassis, body, engine, engine fluids, fuel, accessories, driver, passengers and cargo but excluding that of any trailers
Combined Weight	The total weight of everything inside or on the vehicle and the trailer
Trailer Brake Gain	A factor applied to the brake signal from the vehicle. The gain multiplies the amount the driver presses on the brake pedal to produce the right amount of braking from the trailer brakes.
Initializing	The process in which a scale is zero-out in preparation for taking a weight reading. Suspension based modules, like Payload, Pin Weight, Tongue Weight, and Weight Distribution require an initializing step.

Term	Definition
Suspension Calibration	This calibration is required for the following modules, using vehicle pitch to make measurements. <ul style="list-style-type: none"> • Tongue Weight • Payload • Pin Weight • Weight Distribution
Vehicle weigh calibration	This calibration is required for modules the following modules, using BetterWeigh's triple-axis accelerometer. <ul style="list-style-type: none"> • Weight • Trailer Brake Gain
VIN	The car's vehicle identification number (VIN) is the identifying code for a specific automobile. The VIN is typically located on the dash of the drivers side near the windshield or on the inside of a driver-side door.