



 **RV** brake 2™
*where **PASSION** meets **INNOVATION***

Installation and User Guide

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Welcome

Develop a passion for learning. If you do, you will never cease to grow.
-William Pollard

That is the heart behind our culture at RVibrake.

RVibrake2 is the next step, of many, in product innovations from RVibrake. Our desire is to delight our customers through logical design and cutting-edge innovations. This industry is about fun and leisure. We want to bring peace of mind by helping to keep your family and vehicles safe.

Everyday our goal is to excite and captivate our customers. We are customers of products too, and we love companies that create excellent design experiences.

- Enjoy your journey!

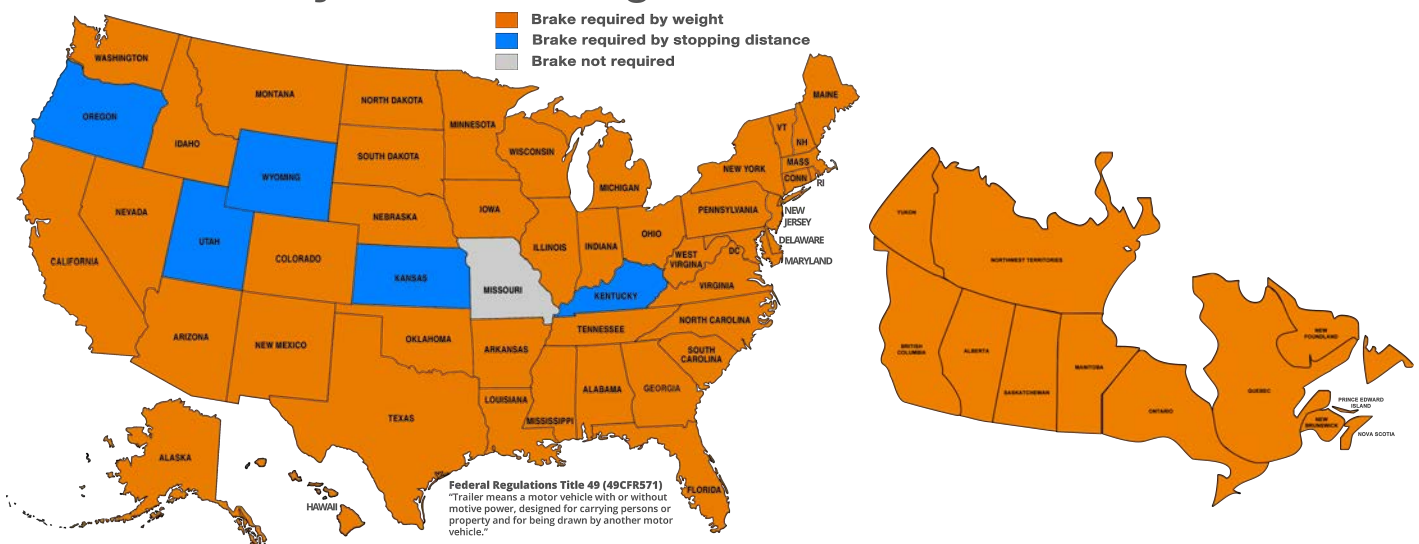
Introduction

RVibrake2 auxiliary braking system makes your towing experience as safe as possible by providing the most effective portable braking system available.

The use of RVibrake2 or any of its accessories in a manner inconsistent with these instructions could cause damage to the motor home or towed vehicle and may cause serious injury or even death.

This document provides step-by-step instructions on how to accurately install RVibrake2. If there are any questions while installing or using this product, please call RVibrake Customer Service found on page 20.

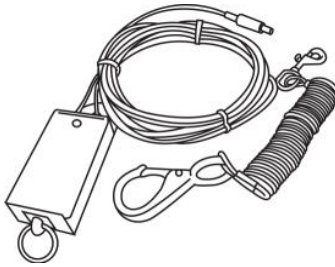
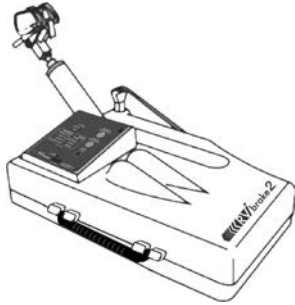
State by State Towing Laws



RVibrake2 Installation

Prior to the installation of RVibrake2, remove all contents from the shipping packaging:

- RVibrake2
- Breakaway System
- Wireless Monitor
- Stop Plate
- Antennas (2)



Note: If there is ANY shipping damage, immediately call RVibrake Customer Service found on page 20.

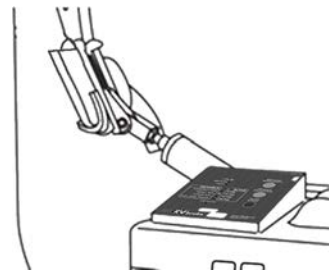
Installation Steps

- 1) In the vehicle being towed, adjust the driver's seat to the far back position and place RVibrake2 on the floorboard so the black brake pedal clevis is directly in front of the brake pedal.

Note: Carpeted floor mats do not need to be removed, but thicker rubber mats should be removed prior to using RVibrake2.

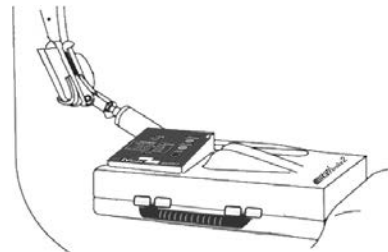
- 2) Attach the brake pedal clevis to the brake pedal of the towed vehicle.

The lower part of the clevis should grip the bottom of the brake pedal first, and then extend to the upper part of the clevis over the top of the brake pedal.



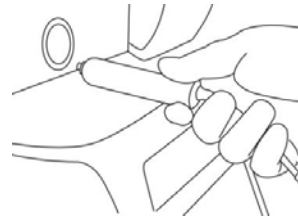
- 3) Slide RVibrake2 back towards the seat until RVibrake2 reaches the edge of the seat pan.

Note: The seat pan is the slightly elevated area of the floorboard where the driver's seat is mounted.



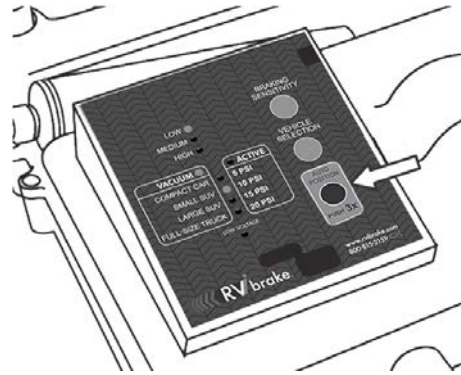
If the towed vehicle has a flat floorboard with no seat pan to push against, please refer to the **Stop Plate Installation Guide** inside the Stop Plate package.

- 4) Insert RVibrake2's 12-volt adapter into the 12-volt receptacle of the towed vehicle.



The red lights on the control panel of RVibrake2 will start to flash. The compressor may or may not come on at this time.

- 5) Push the green **Auto Position** button 3 times on the control panel. Allow the actuator to press the brake pedal and retract after you press the button each time.



RVibrake2 actuator will push on the brake pedal accomplishing two different tasks:

- a) It automatically positions RVibrake2 in the seat pan of the towed vehicle.
- b) It removes vacuum stored in the towed vehicles braking reservoir.

IMPORTANT: Anytime the towed vehicle's engine is started, (to charge the battery or run through the gears etc.) the Auto Position process must be completed again to drain the vacuum in the braking reservoir.

- 1) Unplug the 12-volt adapter.
- 2) Proceed to the above steps 4 and 5.

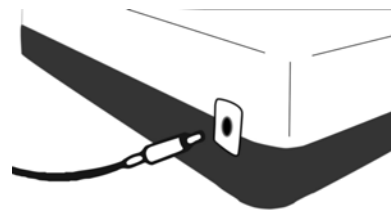
WARNING: Failure to drain the vacuum will result in tire damage or excessive brake wear.

- 6) Attach the Long Range antenna to RVibrake2 and drape the other end over the driver's side sun visor.



IMPORTANT: Before leaving on any trip, always confirm the brake lights on the towed vehicle are not illuminated. Failure to do so can result in tire damage or excessive brake wear.

- 7) Lastly, plug in the Breakaway plug into RVibrake.



Reference: *The Breakaway Installation Guide for installation and operation.*

RVibrake2's settings display on the screen of the Wireless Monitor once RVibrake2 installation is complete.

Uninstall RVibrake2

To uninstall RVibrake2:

- 1) Unplug the 12-volt cord.
- 2) Remove the clevis from the brake pedal.
- 3) Retract the actuator cylinder to the home position by lifting up the actuator and sliding it back so the clevis legs are placed into the 2 holes of the RVibrake2 case.

RVibrake2 Operation

Vacuum vs. Active Brakes

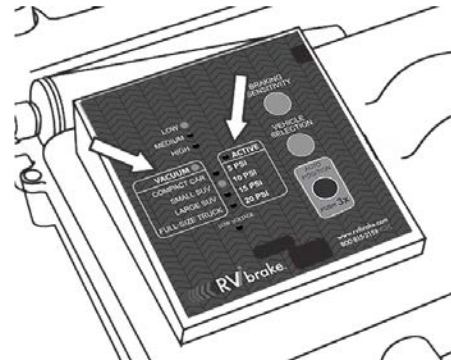
RVibrake2 is designed to work with both Vacuum and Active assist brake towed vehicles. Vacuum assist vehicles use vacuum to boost the pressure when braking and Active brake vehicles have constant electrical or hydraulic systems to assist in

braking whether the engine is running or not. Most hybrid vehicles use Active assist brakes.

Most vehicles on the market use engine vacuum (Vacuum assist brakes) to assist in braking. This means when the engine is off, 2-3 brakings of assist are stored in master booster and must be depleted by the RVibrake2, see page 3, step 5.

To determine what brake type your vehicle has, consult your Manufacturers Owners Guide.

Any further questions, please call RVibrake Customer Service found on page 20.



Note: Failure to properly set the vehicle selection to the proper setting may cause severe tire and/or vehicle damage.

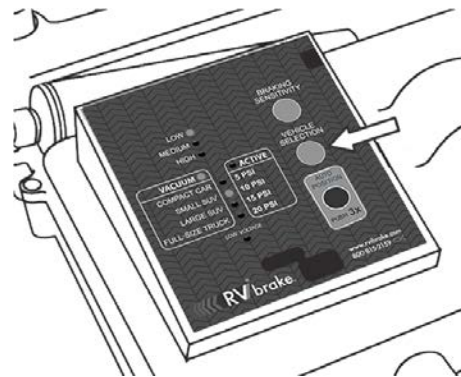
Vacuum Brakes Operating Steps

1) Vehicle Selection (Vacuum)

If the vehicle is Vacuum assist, push the **Vehicle Selection** button on the control panel until the Vacuum light is illuminated.

Once the Vacuum light is illuminated push the **Vehicle Selection** button again until the type of vehicle you are towing is illuminated:

- Compact Car
- Small SUV
- Large SUV or
- Full Size Truck



Note: If you are towing an SUV always start in the Small SUV setting first. During the Vacuum Brakes Test, this can be increased based on the testing results.

2) Sensitivity Setting (Vacuum)

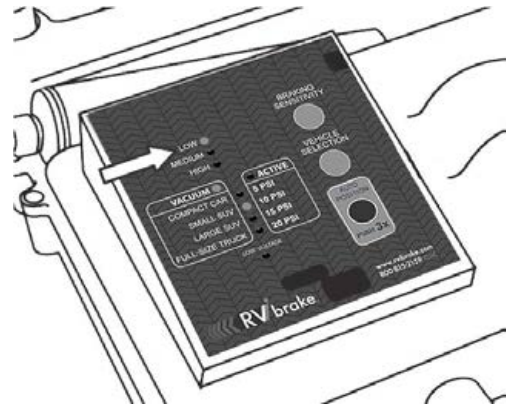
The sensitivity setting on the control panel has 3 different settings: *High*, *Medium* and *Low*. This determines how often RVibrake2 will assist in the braking.

When applying brakes the segmented bar graph on the wireless monitor indicates the level of braking force applied to the towed vehicle.

For the initial setup, push the **Braking Sensitivity** button until the Sensitivity setting is on *High*.

In the *High* setting RVibrake2 will activate during most brakings. In the *Low* setting, only a sudden, forceful brake will activate RVibrake2.

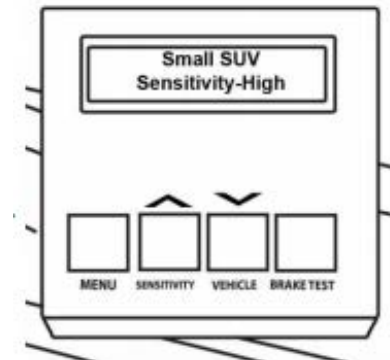
Adjust the Sensitivity setting to fit your driving preference. RVibrake2 automatically stores the last used settings.



- 3) In the motor home, plug the Wireless Monitor into the 12-volt receptacle and display the monitor so it is seen from the driver's seat.

The screen displays the programmed RVibrake2 settings for the Vehicle and Braking Sensitivity.

Reference: *The Wireless Monitor Operation* section of this guide on page 10, for additional information.



IMPORTANT: *Prior to towing with RVibrake2, confirm all the Installation Steps have been completed. After confirmation, proceed to the Vacuum Brakes Test on the following page.*

Vacuum Brakes Test

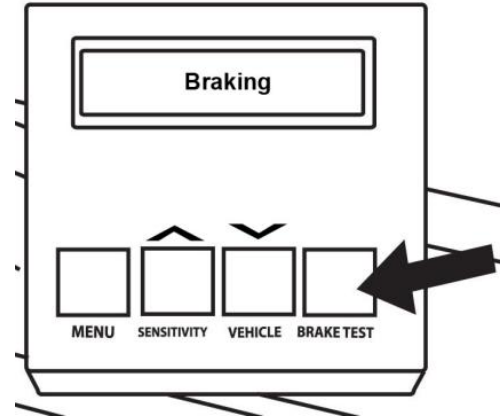
In the motor home, accelerate to approximately 30 MPH then lift off the accelerator. While coasting, push the **Brake Test** button on the Wireless Monitor for 5 seconds; you should feel a gentle pull on the motor home.

If you do not feel a gentle pull on the motor home, push the **Vehicle** button, to choose a larger vehicle type for greater pull and repeat the test.

If you feel too much pull on the motor home, push the **Vehicle** button, to cycle through the vehicles and pick a small vehicle type for less pull. Repeat the test.

Any questions, please call RVibrake Customer Service found on page 20.

IMPORTANT: Before leaving on any trip, confirm the brake lights on the towed vehicle are *NOT* illuminated.

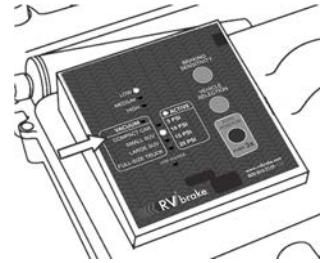


Active Brakes Operating Steps

1) Vehicle Selection (Active)

If the vehicle has Active brakes, push the **Vehicle Selection** button on the control panel until the *Active* light is illuminated.

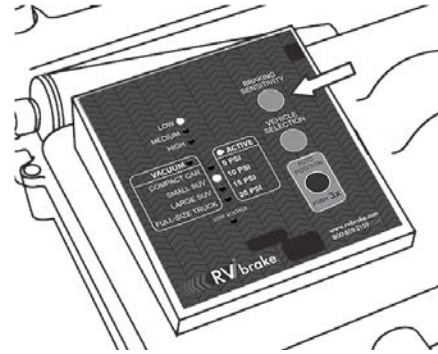
Once the *Active* light is illuminated push the **Vehicle Selection** button again until the *5-psi* light is illuminated.



2) Sensitivity Setting (Active)

The sensitivity setting on the control panel has 3 different settings: *High*, *Medium* and *Low*. This determines how hard you have to brake in the motor home before RVibrake2 will assist in the braking.

When applying brakes the segmented bar graph on the wireless monitor indicates the level of braking force applied to the towed vehicle.



For the initial setup, push the **Braking Sensitivity** button until the Sensitivity setting is on *High*.

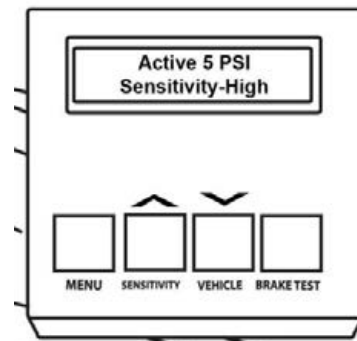
In the *High* setting RVibrake2 will activate during most brakings. In the *Low* setting, only a sudden, forceful brake will activate RVibrake2.

Adjust the Sensitivity setting to fit your driving preference. RVibrake2 automatically stores the last used settings.

3) In the motor home, plug the Wireless Monitor into the 12-volt receptacle and display the monitor so it is seen from the driver's seat.

The screen displays RVibrake2 settings for the Vehicle and Braking Sensitivity, which confirms accurate communication.

Reference: *The Wireless Monitor Operation section of this guide on page 10, for additional information.*



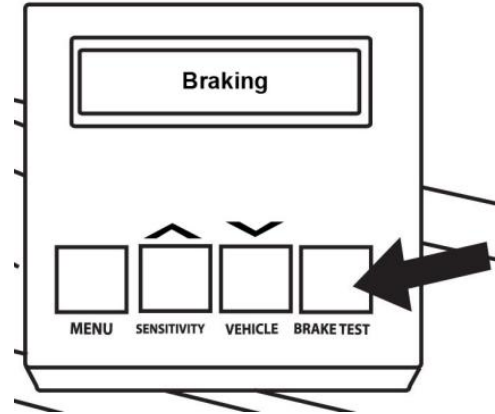
IMPORTANT: *Prior to towing with RVibrake2, confirm all the Installation Steps have been completed. After confirmation, proceed to the Active Brakes Test.*

Active Brakes Test

In the motor home, accelerate to approximately 30 MPH then lift off the accelerator. While coasting, push the **Brake Test** button on the Wireless Monitor for approximately 5 seconds; you should feel a gentle pull on the motor home.

If you do not feel a gentle pull on the motor home, push the **Vehicle** button, so *10-psi* displays on the screen and repeat the test.

Any questions, please call RVibrake Customer Service found on page 20.



IMPORTANT: Before leaving on any trip, confirm the brake lights on the towed vehicle are NOT illuminated.

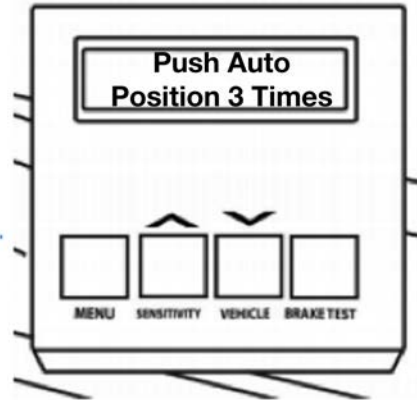
Wireless Monitor Operation

Wireless Monitor Operating Steps

- 1) In the motor home, plug the Wireless Monitor into the 12-volt receptacle and display the monitor so it is seen from the driver's seat.

If RVibrake2 has not been run through the Auto Position cycle, the screen will display *Push Auto Position 3 Times*.

Once RVibrake2 has completed the Auto Position cycle, RVibrake2's settings will display on the screen.



- 2) The **Menu** button on the Wireless Monitor displays the *Contrast*, *Backlight* and *Pairing* options.

When *Contrast* is displayed, push the up or down arrows until the desired setting.

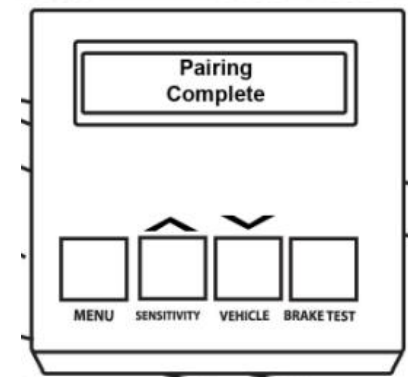
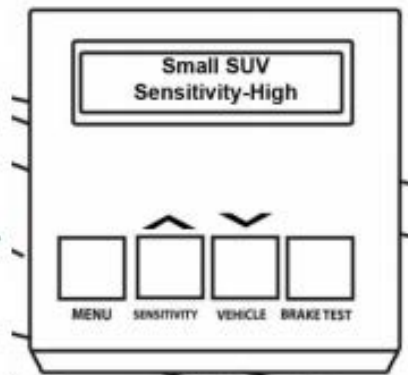
When *Backlight* is displayed, push the up arrow to turn on the backlight or push the down arrow to turn off the backlight.

RVibrake2 and Wireless Monitor are already paired and tested prior to delivery.

If necessary *pair* the Wireless Monitor to RVibrake2:

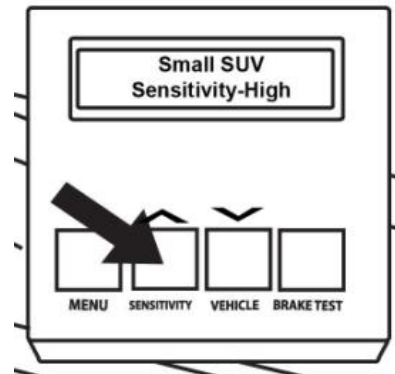
- a) Plug in both the Wireless Monitor (motor home) and RVibrake2 (towed vehicle) into the respective 12-volt receptacles.
- b) Push the **Menu** button until *Press ^ to Pair with Main* is displayed.
- c) Push the **Up arrow** button to pair.

When pairing is successful the screen displays *Pairing Complete*. When the pairing is not successful the screen displays *Pairing Failed*.



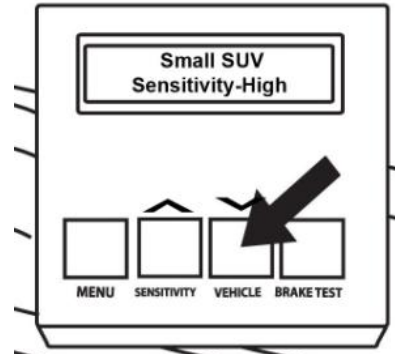
- 3) The **Sensitivity** button on the Wireless Monitor will change the *Low, Medium* and *High* settings on RVibrake2.

Reference: *The Sensitivity Settings section on page 6(Vacuum), or page 8(Active), of this guide for additional information.*



- 4) In Vacuum mode, the **Vehicle** button changes from *Compact, Small SUV, Large SUV* to *Full Size Truck*.

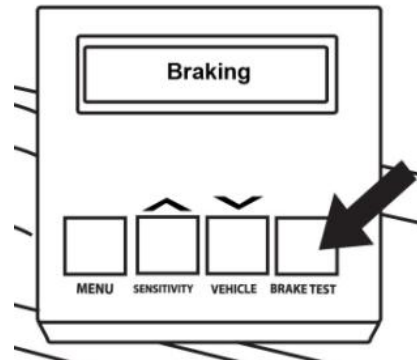
In the Active mode the **Vehicle** button changes from *5-psi, 10-psi, 15-psi* to *20-psi*.



- 5) The **Brake Test** button initiates the brake test by holding the button for approximately 5 seconds.

Note: *The Brake Test button activates the brakes in the towed vehicle without applying the brakes in the motor home.*

Reference: *The Vacuum Brakes Test on page 7, or Active Brakes section on page 9, of this guide for additional information.*



Wireless Monitor Warnings & Messages

Low Voltage Shut-off

RVibrake2 continuously monitors the voltage coming from the battery through the 12-volt receptacle in your towed vehicle.

If the battery voltage drops below 10-volts, an audible alarm sounds from the Wireless Monitor and displays Low Voltage Shut-off on the screen.

- RVibrake2 powers off to preserve the towed vehicle's battery.
- The alarm signals a possible dying cell in the battery.
- The towed car may still be started at this time, but the battery may need to be serviced or replaced.

If the battery is healthy, then the 12-volt receptacle in your vehicle is not sufficient to continually produce enough voltage to operate RVibrake2. At this point a *12-volt battery direct kit* is needed. The *12-volt Battery Direct Kit* can be purchased from a local RV dealer, but it can also be purchased directly from RVibrake. Call RVibrake Customer Service found on page 20 to purchase.

15 Second Braking

If *15 SECOND BRAKING* displays on the Wireless Monitor screen and an audible alarm sounds, RVibrake2 has been applying the brakes for 15 seconds. Once it has been engaged for 15 seconds it is immediately disengaged to preserve the brakes from continuously being used. To re-engage RVibrake2 let off the motor home brake and reapply pressure.

Breakaway Alert

*****BREAKAWAY***** displays on the Wireless Monitor screen and an audible alarm sounds when the towed vehicle has become unattached from the motor home. The Breakaway pin will be pulled on the junction box, RVibrake2 applies the brakes on the towed vehicle, and bring it to a complete stop.

TIRE PRESSURE SENSOR WARNINGS

The following warnings are only applicable if Tire Pressure Sensors (TPS) have been purchased and are installed.

TPS Low Pressure*

TPS LOW PRESSURE displays on the Wireless Monitor when one or more tires have reached the low pressure point.

TPS Zero Pressure*

TPS ZERO PRESSURE displays and an audible alarm sounds from the Wireless Monitor when one or more tires are flat. Immediately pull over in a safe location to check the tires.

High Temp Alert*

HIGH TEMP ALERT displays and an audible alarm sounds from the Wireless Monitor when one or more tires have reached 170° degrees or higher. Call RVibrake Customer Service found on page 20 for additional information.

Tire Pressure Sensor Installation

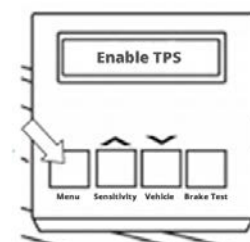
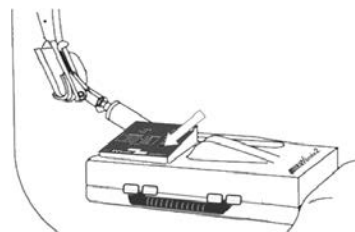
Note: The Tire Pressure Sensor (TPS) is sold separately, but can be purchased at any time. Please contact RVibrake Customer Service found on page 20, for purchasing.

Installation Steps

- 1) RVibrake2 must be properly installed before Sensors can pair.

Reference: The RVibrake2 Installation section of this guide on page 2, for additional information.

- 2) Using the Wireless Monitor in the motor home push the **Menu** button until *Enable TPS* is displayed, then push the **Up Arrow** button. RVibrake2 is now ready to pair with the Tire Pressure Sensors.



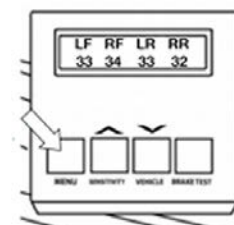
- 3) On the towed vehicle, thread the Tire Pressure Sensors onto the valve stems of the tires one at a time. Wait one minute before threading the next sensor.

LF Sensor will go on the Left Front tire, etc. When pairing is successful the screen displays *Pairing Complete*.



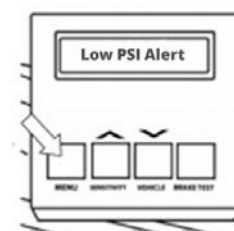
Note: Sensors can be put on in any order. If a sensor fails to pair, unthread and repeat Steps 2-3. Any questions, please call RVibrake Customer Service found on page 20.

- 4) To display the individual pressures for each tire push the **Menu** button.



- 5) Finally, using the Wireless Monitor in the coach set the **Low PSI Alert**. The default for the Low Pressure Alert is 25 PSI.

Push the **Menu** button until **Low PSI Alert** is displayed, then push the **Arrow** button(s) for desired setting.



Tire Pressure Sensor installation is complete.

Tire Pressure Sensor Helpful Hints

Prolong TPS Battery Life

To prolong the life of the batteries in the sensors, unthread the sensors during the off-season.

After the off-season, simply rethread the already paired sensors. Sensors will automatically re-connect within 7 minutes of the installation of RVibrake2.

Frequently Asked Questions

What is RVibrake2?

Q. What is the RVibrake2 system?

A. RVibrake2 is the smallest, easiest to use, portable auxiliary braking system available.

Unlike other portable braking systems, RVibrake2 installs against the floor pan (the rise in the floor where the driver's seat is mounted) providing a firm foundation during activation. The placement of RVibrake2 allows the design to be as small as possible, making it easy to install and stow.

Is it Required?

Q. Why do I need RVibrake2?

A. For safety and it is required by law (throughout most of North America).

Safety

Towing a vehicle behind a motor home becomes "dead weight". This dead weight pushes the motor home when the motor home decreases in speed or comes to a complete stop. In many cases, the towed vehicle creates stress on the motor home's brakes so eventually they fade or completely fail.

The additional weight of the towed vehicle also greatly increases the distance it takes to stop the motor home. RVibrake2 takes the entire weight of the towed vehicle off the motor home's overburdened brakes. RVibrake2 also dramatically reduces the stopping distance by reducing the dead weight of the towed vehicle for a safer stop.

Required by law

It is the law in 42 of the 50 states, and all of Canada (except Newfoundland).

Physical Design

Q. Will RVibrake2 fit in my vehicle?

A. Yes. RVibrake2 fits in all vehicles. If needed, a complimentary custom engineered stop plate will be created for the towed vehicle to ensure proper installation.

Q. Is RVibrake2 easily transferable between most vehicles?

A. Yes. RVibrake2 is small, lightweight, and fully adjustable to accommodate the different needs of each towed vehicle. Installation and removal can be done in less than a minute.

Q. Is RVibrake2 a proportional system?

A. Yes. RVibrake2 is a portable braking system that is truly proportional.

RVibrake2 installs against the floor pan (the rise in the floor where the driver's seat is mounted) keeping RVibrake2 stationary.

Other braking systems install against seat cushions, which actually absorb force and create movement upon activation resulting in limited proportional braking.

Installation

Q. How long does it take to install RVibrake2 system?

A. Installation and removal can be done in under a minute.

Q. Is there any installation to the motor home?

A. RVibrake2 is installed in the towed vehicle. The wireless monitor is plugged in to the 12-volt receptacle of the motor home to view and adjust RVibrake2 settings.

Engineered Design

Q. How does RVibrake2 know when to brake?

A. RVibrake2 is an inertia-activated system designed to detect brakings. Upon activation, RVibrake2 removes the weight of the towed vehicle from the motor home.

Q. Will RVibrake2 ride the brakes down steep grades?

A. No. RVibrake2 applies the brakes in the towed vehicle only when the motor home brakes are applied and it adjusts for inclines and declines.

Using exhaust brakes or downshifting does not engage RVibrake2.

Q. Will RVibrake2 wear down my car battery?

A. No. You may tow for two to three days. If the towed vehicle battery drains, it could be due to a fuse not being pulled (see vehicle manual on towing) or a bad battery.

RVibrake2 monitors the voltage coming from the battery in the towed vehicle; it also notifies you if the battery is getting low.

Q. If the towed vehicle engine is not running. Will RVibrake2 have the power to operate the brakes with out vacuum assist?

A. Yes. RVibrake2 is specifically designed to push with enough force to overcome the absence of vacuum assist.

Q. Since RVibrake2 is an inertia-activated system; will I get any unwanted braking on bumpy roads?

A. No. RVibrake2 uses custom software to insure RVibrake2 will not engage unnecessarily on bumpy roads, bridges, or railroad tracks.

Q. How does RVibrake2 interact with my anti-lock braking system (ABS)?

A. When the engine of the towed vehicle is not running, the ABS, an electrical feature, is not functioning either.

Compliance

Antenna Usage

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. FCC radiation Exposure Statement to comply with FCC RV exposure requirements in section 1.1307, a minimum separation distance of 0.81 cm (0.3 inches) is required between the antenna and all persons. 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:

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

The Installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RV field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website

<http://www.hc-sc.gc.ca/rpb>

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement

IMPORTANT: *Changes or modifications not expressly approved by Danko Manufacturing LLC could void the user's authority to operate the equipment.*

Warranty

Limited Warranty

How long is the warranty?

RVibrake2 has a three year limited warranty and a 30-day money back guarantee from the original purchase date.

RVibrake2 Tire Pressure Sensors (sold separately) have a one year limited warranty and a 30-day money back guarantee from the original purchase date.

What is covered?

It warrants your product to be free of mechanical and electrical defects in material and workmanship.

Where or how do I get assistance for my RVibrake2?

During the warranty period, RVibrake2 will repair or replace the product (at RVibrake's discretion), which will be your exclusive solution under this warranty.

Do NOT return the product, doing so may delay the processing of your claim and the repair or replacement of the product. For return instructions, please call RVibrake Customer Service found on page 20.

What is not covered?

The warranty will not cover damage resulting from neglect or misuse of the product, use contrary to operating instructions, or disassembly, repair, or alteration by any person other than RVibrake's repair department. RVibrake is not liable for any incidental or consequential damages for breach of any expressed or implied warranty on the product.

How state laws may apply

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation may NOT apply. This warranty gives specific legal rights, and you may also have other rights, which vary from state to state.

"This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation."

Contact Information

RVibrake Customer Service

1-800-815-2159

Address

624 Atchison Way #103
Castle Rock, CO 80109

Website

<http://www.rvibrake.com>