

patent pending

Universal brake monitor system

part number 9530

Installation instructions and user guide



Time Tested • Time Proven

FCC Compliance Statement

Warning: Changes or modifications to these devices not expressly approved by Roadmaster, Inc. could void the user's authority to operate the equipment.

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

FCC Radio Frequency Exposure

This equipment complies with radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada License Exempt

This device complies with Industry Canada license-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.

FCC ID: RGY-9510
IC: 22290-9510
FCC ID: RGY-9520
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THESE DEVICES COMPLY WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS.

(1) THESE DEVICES MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THESE DEVICES MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

Specifications

Frequency: 923 MHz
Voltage: 12 volts
Sleep current: 30 mA

All illustrations and specifications contained in this document are based on the latest information available at the time of publication. ROADMASTER, Inc. reserves the right to make changes at any time, without notice, in material, specifications and models, or to discontinue models.

Installation and operation

Note: some vehicles will require a supplemental brake light switch (sold separately). If your vehicle's brake light switch doesn't output a 12-volt signal when the car is in 'tow' mode, you must purchase and install a supplemental brake light switch kit.

Installation

Note: if the supplemental braking system to be monitored is a Roadmaster InvisiBrake®, check the serial number before proceeding with the installation. If it's less than 21603, you must install an optional adaptor, part number 8700-9530.

Note: the most noticeable difference between the motorhome monitor and the towed vehicle transmitter (Figure A) is the wires extending from them. The transmitter has four colored wires; the monitor has one black wire.

1. Choose a suitable installation point for the towed vehicle transmitter under the dashboard. This point should be out of sight but accessible to the installer for troubleshooting. Any mounting point that doesn't present an obstacle to the driver, or interfere with the operation of the vehicle, is suitable.

2. Attach the wires. If necessary, use a butt connector and additional 18-gauge wire (not included) to extend the wiring.

- Attach the black wire to any good chassis ground.
- Connect to power: first, determine if you will use the provided fuse tap or inline fuse holder (Options 1 and 2, Figure B).

Next, attach either the fuse tap or the fuse holder to the red wire extending from the transmitter.

Then attach the red wire to any constant 12V+ source.

CAUTION

The fuse in the fuse tap or fuse holder must be within six inches of the electrical connection. Otherwise, a short circuit may cause significant damage to the towed vehicle's electrical system, an electrical fire or other consequential, non-warranty damage.

Note: determine if the vehicle has a 'retained accessory power' mode. If so, choose a different circuit to connect the red wire. Otherwise, power to the transmitter will be lost within a few minutes after the ignition switch is turned off.

- Attach the yellow wire to the wire on the break away switch which will be energized during a break away.
- Attach the blue wire to the cold ('switched') side of the brake light switch.

3. Insert the provided fuse into either the fuse tap or fuse holder (Figure B).

4. Use the included zip ties to attach the transmitter and professionally secure the wiring.

5. Plug the motorhome monitor into any 12V+ source in the motorhome, and attach it with the hook and loop fastener strips at any location where it can be seen by the driver.

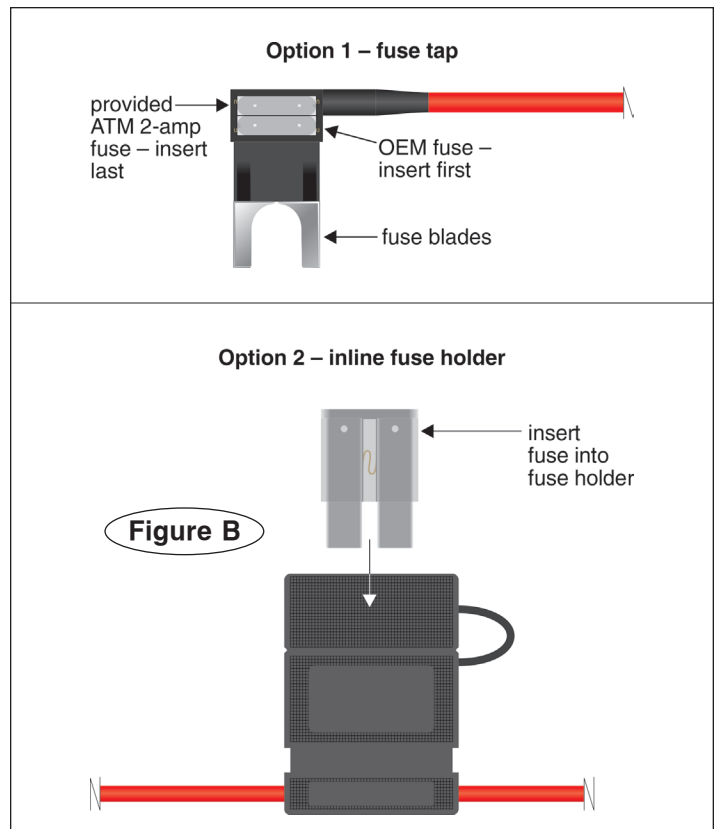
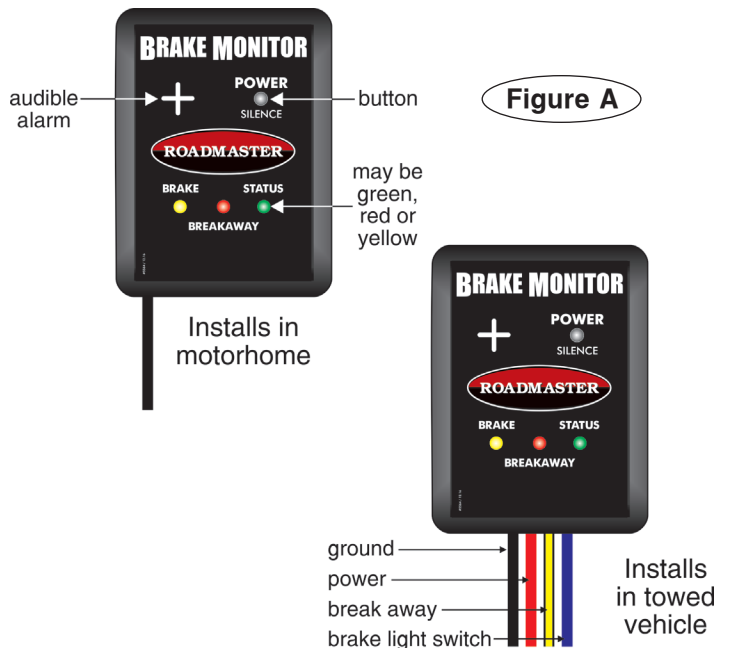
Operating the monitor

1. Check the "Status" light:

- If the light is solid green you're ready to tow.
- If the light is alternately flashing red and green, it's not receiving a signal. Pump the towed vehicle's brake pedal – the light should now be solid green.

2. To turn the monitor off, press the "Power" button. (The monitor will always turn off after a few minutes when the motorhome's engine is turned off.)

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How to pair the monitor and transmitter

The motorhome monitor and the towed vehicle transmitter have been paired at the factory. If they've lost connectivity pair them as follows:

1. Power on the motorhome monitor.
2. Depress and hold the "Power" button on the motorhome monitor for about five seconds. The "Status" light will flicker yellow.
3. Release the "Power" button. The "Status" light on both the towed vehicle transmitter and the motorhome monitor will start flashing yellow. The units are now in pairing mode.
4. Depress and release the brake pedal in the towed vehicle. The lights will stop flashing. The transmitter and monitor are paired.

Monitor alerts

Comprehensive list of monitor messages

- **The "Status" light is solid green.**
The system is ready for towing.
- **The "Status" light is flashing green.**
The transmitter in the towed car is asleep. If the system does not detect any braking activity in four hours, it will go to sleep.
- **The "Status light is flashing red and green.**
The monitor isn't receiving a signal from the towed vehicle. Pump the towed vehicle's brake pedal – the light should now be solid green.
- **The "Status" light is off.**
The monitor "Power" switch has been turned off, or the monitor has powered down.
- **The "Status" light is yellow.**
The towed vehicle's battery is low.
- **The "Status" light is flashing bright red; the "Brake" light is flashing yellow; accompanied with an audible alarm.**
The towed vehicle's brakes have been on continuously for 30 seconds (for example, at a long stop light). Pump the motorhome brakes to reset the 30 second timer.

Alternatively, press the "Silence" button once – the timer will now alarm only after 60 seconds of continuous braking.

If the "Silence" button is pressed again after the alarm at 60 seconds, it will reset the timer to only alarm after 90 seconds. This can be extended once more to 120 seconds.

Caution

If the monitor alerts you to extended braking when you are not braking the motorhome, the brakes in the towed vehicle are being applied inappropriately. Immediately pull over and investigate to prevent brake damage.

- **The "Status" light is flashing bright red; the "Break away" light is solid red; accompanied with an audible alarm.**

The monitor is reporting a break away signal from the towed vehicle. Pull over as soon as it is safe to do so and investigate.

- **The "Brake" light is yellow.**

The "Brake" light will illuminate yellow whenever the towed car's brakes are on.

Motorhome monitor color code chart

Status Light	Brake Light	Breakaway Light	Color	Description
●			solid green.....	The system is ready for towing.
●			flashing green.....	The system is asleep.
●●			flashing red and green	The monitor isn't receiving a signal from the transmitter.
○			"status" light is off	The "Power" switch has been turned off.
●			yellow	The towed vehicle's battery is low.
●●	●		flashing red and yellow	Extended braking alert ♪ (includes an audio alert)
●●		●	solid red and flashing red ...	A break away is in progress. ♪ (includes an audio alert)
	●		solid yellow.....	The towed vehicle's brakes are being applied.