

EVEN BRAKE

patent pending

Portable **Proportional** Braking System

Owner's Manual

Entire contents of manual must be read by owner



Part number 9400



Towing and Suspension Solutions

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WELCOME TO THE ROADMASTER FAMILY!

This manual has been prepared to acquaint you with the installation and operation of your Even Brake, and to provide you with important safety information.

Read your owner’s manual cover to cover. Understand how to install and operate your Even Brake, and carefully follow the instructions and safety precautions.

Your Even Brake has a one-year limited warranty. To qualify for your warranty, fill out and return the enclosed product registration card within 30 days of purchase. **As a bonus, we’ll extend your warranty to a total of two years at no additional cost, if we receive the product registration card within 30 days of purchase.**

We thank you for your patronage and greatly appreciate your discerning taste.

Statement of FCC compliance

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.

Even Brake specifications

Height	12 inches
Width.....	11.25 inches
Length.....	16 inches
Weight.....	17.5 pounds
Voltage.....	12 volts DC
Operating temperature range	-2° to +150° F (-19° to +66° C)
Length of standard power cord.....	42 inches
Maximum amperage draw	10.8 amps
Idle amperage draw.....	47mA
Approximate maximum air pressure	60 psi
Maximum force extended on brake pedal.....	106 pounds
Minimum space Even Brake can fit.....	16 inches

Save this manual

Save this manual for future reference. It contains important sections relative to safety, use, maintenance, parts replacement and other information. Therefore, make sure this manual is always with you when you’re towing.

You may download or print a copy of the most current manual at www.roadmasterinc.com (under ‘Tech Support’).

Even Brake serial number

Your Even Brake serial number is on a label on the underside of the unit. You will need this number when you fill out your product registration card.

Write down the serial number in the space below and retain for future reference...

Serial number: _____

IMPORTANT NOTICE!

Safety Definitions

This manual contains information that is very important to know and understand. This information is provided for safety and to prevent equipment problems. To help recognize this information, observe the following symbols:



WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in property damage, serious personal injury, or even death.



CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in property damage, or minor or moderate personal injury.

CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTE

Refers to important information and is placed in italic type. It is recommended that you take special notice of these items.

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WARNING

Read all instructions before installing or operating your Even Brake. Failure to understand how to install or operate Even Brake could result in property damage, personal injury or even death.

CAUTION

Not for use on older vehicles without power brakes. Even Brake is designed to work with vehicles that have a power brake system (even though the power brakes are not activated while towing). Using Even Brake on vehicles that do not have power brakes will result in over-braking and severe non-warranty brake damage.

CAUTION

Do not install Even Brake in a vehicle with an 'active' braking system.

'Active' (or, 'continuous power assist') braking systems are a safety feature on some new vehicles. This feature allows the brakes to always have power, even with the ignition off. The only supplemental braking system that ROADMASTER manufactures for these vehicles is BrakeMaster, with the addition of a Brake Pressure Reducer (part number 900002).

If any ROADMASTER supplemental braking system other than a BrakeMaster with a Brake Pressure Reducer is installed, the vehicle will brake with excessive force, which will damage the tires. Other

non-warranty damage may also occur.

It is the owner's responsibility (or if professionally installed, the installer's responsibility) to determine if the vehicle being equipped with supplemental brakes has an active braking system – refer to the owner's manual, the vehicle manufacturer or the dealership. ROADMASTER expressly disallows any and all claims relating to tire damage, brake damage, or any other damage to vehicles with 'active' braking systems caused by: 1) installation of any ROADMASTER supplemental braking system other than BrakeMaster; or 2) failure to install a Brake Pressure Reducer with the BrakeMaster.

WARNING

The Even Brake 12-volt power cord is always "last in, first out." Never plug in the power cord until Even Brake is completely installed, according to the instructions in this manual.

Once it receives power, any movement of the box could cause Even Brake to activate unexpectedly.

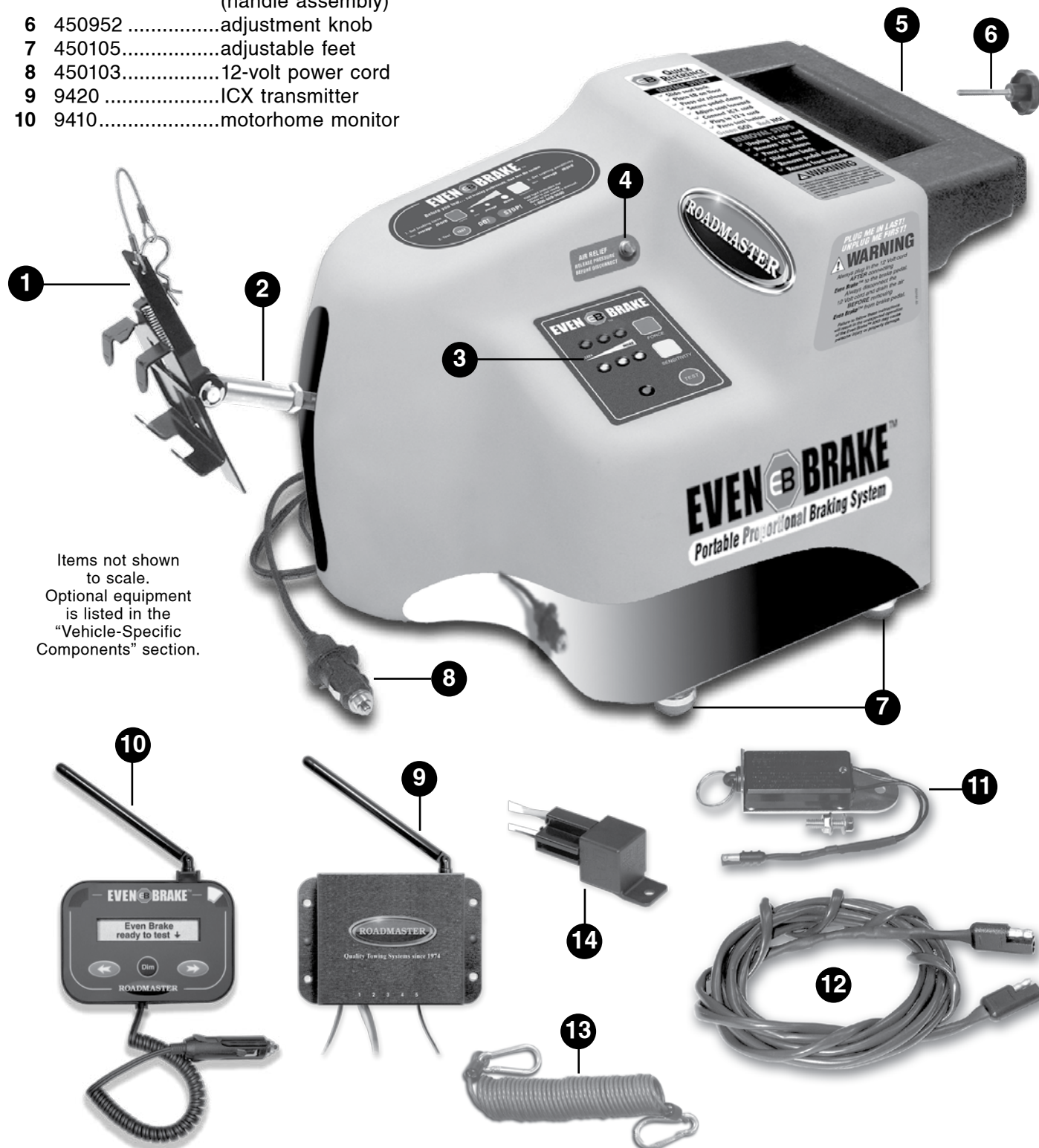
Similarly, never disconnect Even Brake without first unplugging the 12-volt power cord.

Failure to install and operate Even Brake as instructed may cause property damage, personal injury or even death.

COMPONENTS

part number	description
1 9329	brake pedal clamp
2 n/a	air cylinder shaft
3 n/a	touch pad control panel
4 450098	air relief button
5 650996	adjustable seat pad (handle assembly)
6 450952	adjustment knob
7 450105.....	adjustable feet
8 450103.....	12-volt power cord
9 9420	ICX transmitter
10 9410.....	motorhome monitor

part number	description
11 650898	break away switch
12 650900	break away wiring harness
13 8602	break away cable
14 88400	Brake-Lite Relay



Items not shown
to scale.
Optional equipment
is listed in the
"Vehicle-Specific
Components" section.

Before you begin the initial installation...

1. ALWAYS CHECK THE ROADMASTER WEB SITE – www.roadmasterinc.com – for vehicle-specific information. Select 'Vehicle-Specific Info,' enter the motor-home and towed vehicle make, model and year, then select 'Braking Systems.'

2. If the battery must be disconnected for towing, a 12-volt outlet kit (part number 9332) and a stop light switch must be installed. ROADMASTER manufactures stop light switch kits for a number of vehicles; to see if one is available for any specific vehicle, visit www.roadmasterinc.com and select 'Vehicle-Specific Info,' enter the vehicle make, model and year, then select 'Braking Systems' and scroll down the page.

Note: if a stop light switch kit is listed on the web site for any particular vehicle, it is required.

Note: an Automatic Battery Disconnect (part number 765) is available for vehicles which must be towed with the battery disconnected; see "Vehicle-Specific Components," in this manual, for more information.

If you choose to install the Automatic Battery Disconnect, a 12-volt outlet kit and a stop light switch are still required; the Brake-Lite Relay is not required.

3. If fuse(s) must be removed from the vehicle before it can be towed – verify that removing the fuse(s) will not disrupt power to Even Brake or the ICX transmitter, or otherwise affect the installation or operation.

4. Check the towed vehicle's 12-volt outlet for correct power – Even Brake is powered through the 12-volt outlet, with the ignition key turned to the "tow" position. However, some vehicles only have power at the 12-volt outlet when the engine is running. Before you begin the initial installation, verify that you have power in the towed vehicle's 12-volt outlet with the ignition key turned to the "tow" position.

If there is no power, you can install ROADMASTER's optional 12-volt outlet kit (part number 9332). When installed, this kit will provide power to the 12-volt outlet even when the engine is off.

5. Check the 12-volt outlet socket to make certain that: a) the socket has been wired correctly; and b) the socket is not corroded.

a. Make certain that the socket has been wired correctly – the contact point at the bottom of the socket should be positive, and the outer shell around the top of the socket should be negative.

CAUTION

If the socket's positive and negative connections have been reversed, the fuse in the Even Brake power cord will blow when the cord is plugged into the 12-volt outlet.

b. Make certain that the socket is not corroded or

otherwise damaged – a corroded socket may not provide constant power to Even Brake, which may cause intermittent operation or disrupt the Even Brake diagnostic program, causing false alerts.

If the socket is corroded or damaged, you can install ROADMASTER's optional 12-volt outlet kit (part number 9332). When installed, this kit will provide constant power to Even Brake.

CAUTION

If the towed vehicle has a single 12-volt outlet which has been used to heat a cigarette lighter plug, install the optional 12-volt outlet kit for the Even Brake power supply.

Using a cigarette lighter plug in a 12-volt socket will corrode the contact points. The socket will not supply sufficient voltage to be used as the Even Brake power source – Even Brake may not operate, or may only operate intermittently.

6. The circuit at the towed vehicle's 12-volt outlet must be rated at NO LESS THAN 15 AMPS to power Even Brake. Check the fuse at the outlet – if the fuse is rated at 15 amps or higher, the circuit is adequate to power Even Brake. If the fuse is rated at less than 15 amps, install the optional 12-volt outlet kit (part number 9332). When installed, this kit will provide adequate power to Even Brake.

CAUTION

If the circuit at the 12-volt outlet is rated at less than 15 amperes, install the optional 12-volt outlet kit. Depending on the available current during towing, Even Brake may not function, or may function incorrectly, without at least 15 amps.

WARNING

If the circuit is rated at less than 15 amps, do not simply replace the outlet's fuse with a higher-ampere fuse. This will cause the wiring to overheat, which can cause wiring damage, an electrical fire, or other consequential, non-warranty damage.

Failure to follow these instructions may cause property damage, personal injury or even death.

7. Check the towed vehicle's brake lights – Even Brake must function with the ignition key turned to the "tow" position; however, some vehicles' brake lights only operate with the key turned to the "on" position. Check to see if this is the case: turn the ignition key to the "tow" position, apply the brakes, and check to see if the brake lights illuminate. If the brake lights do not illuminate, a two-prong stop light switch and 10-amp

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Before you begin the initial installation...

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fuse must be installed.

Note: check the owner's manual to see if the vehicle is equipped with an "automatic shut down" feature. If this is the case, ensure that the vehicle is not in automatic shut down mode before performing this test.

ROADMASTER manufactures stop light switch kits for a number of vehicles; to see if one is available for any specific vehicle, visit www.roadmasterinc.com and select 'Vehicle-Specific Info,' enter the vehicle make, model and year, then select 'Braking Systems' and scroll down the page.

INITIAL INSTALLATION

In addition to wiring and connection instructions, this section contains information about the components of your supplemental braking system, and how they function. For that reason, read this section, even if you will not be installing these components yourself.

Step One

Install the break away system

"Break away" systems are secondary safety devices, required by law in many states, which will brake the towed vehicle if it separates ("breaks away") from the motorhome.

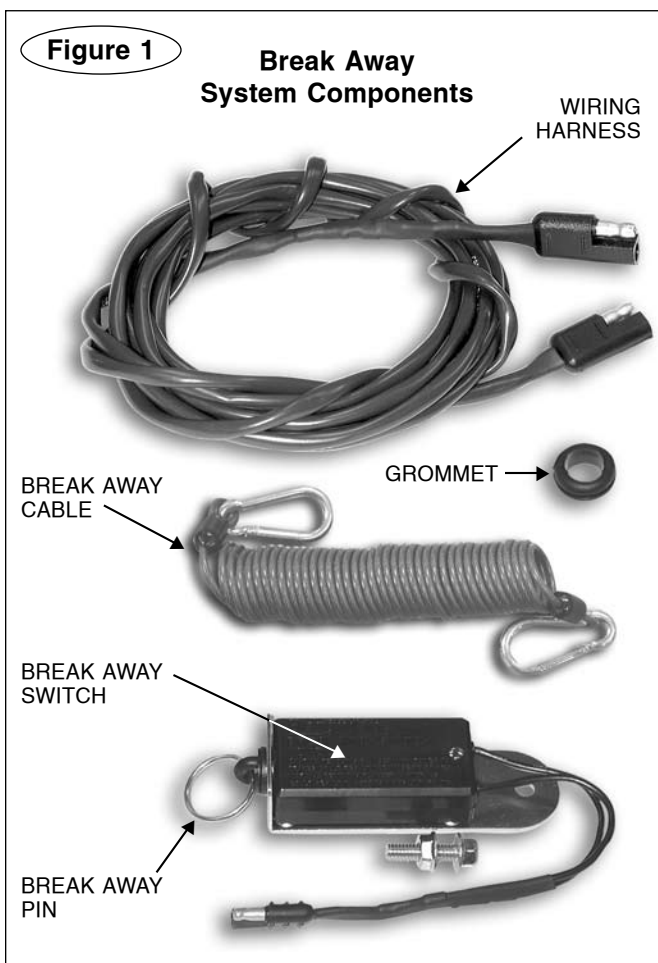
1. Mount the break away switch (Figure 1) at the front of the vehicle, on the driver's side. Choose an area you can easily reach, with a surface of sufficient strength to hold the switch firmly in place, so that the break away pin (Figure 1) will pull freely from the switch. Mount the switch in a horizontal position, with the break away pin facing toward the motorhome.

Ensure that the break away pin can be pulled freely away from the towed vehicle, without any obstructions.

WARNING

Do not attach the break away switch to the tow bar or the tow bar bracket. If the tow bar or bracket fails, the break away switch will separate with it, preventing the break away system from activating. If the towed vehicle separates, the brakes will not be applied, which may cause property damage, personal injury or even death.

2. The Inter Connect transmitter ("ICX transmitter") will
continued on next page



Install the break away system

continued from preceding page

be attached in a later step; however, since the break away wiring harness will be connected to it, choose a location for the ICX transmitter now. Look for a mounting point on the driver's side of the towed vehicle, on the lower portion of the dashboard, where the end of the transmitter with the antenna and socket will be visible and accessible.

Choose an area away from pre-existing components or electronics, and where the transmitter will not present an obstruction or hazard to the driver of the vehicle, or interfere with the operation of the vehicle. The mounting surface must be of sufficient strength to hold the transmitter firmly in place, so that an electrical connector can be plugged into and out of the transmitter.

3. Once you have found a location for the ICX transmitter, look for a pre-existing hole in the firewall (or, if there is sufficient space, a pre-existing grommet with other wiring) close to where you will mount the ICX transmitter, to route the break away wiring harness through the firewall.

If there is no pre-existing hole or grommet with sufficient space, drill a 1/2" hole through the firewall.

Drill from the engine compartment or from the interior of the vehicle, whichever is more convenient. Before drilling, make certain you will not damage any components on the other side of the firewall.

4. Route the wiring harness (Figure 1) from the break away switch to the firewall (or, from the firewall to the break away switch, whichever is more convenient), avoiding lines, hoses, moving parts or "hot" components such as exhaust systems. Where appropriate, use wire ties to secure the break away wiring harness.

Connect the wiring harness to the break away switch.

5. Cut through the included grommet (Figure 1) on one side, slide it over the wiring harness, and fit the grommet into the hole in the firewall. Feed the remaining length of the wiring harness through the grommet. Then, seal the grommet with a silicone sealant.

You will connect the wiring harness to the ICX transmitter in a later step.

Step Two Modifications to the towed vehicle's lighting system

A supplemental braking system will affect the operation of the vehicle's tow lighting system. Use the information below to determine if optional components must be installed in a vehicle which has been wired for towing – or, if no lighting system has been installed, which systems are appropriate.

1. First, identify the type of brake and turn signals in the vehicle. There are two types – combined or separate. In a **combined** system (Figure 2), the brake light does the flashing for the turn signal; in a **separate** system (Figure 2), there are amber or red turn signal lights which are separate from the brake lights.

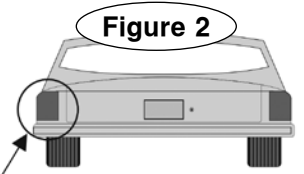
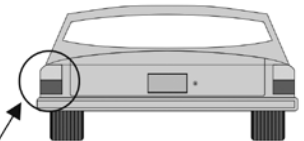


Figure 2
Combined brake and turn signal lights – The brake light does the flashing for the turn signal.



Separate brake and turn signal lights – There are amber or red turn signals which are separate from the brake lights.

2. Next, test to see if the towed vehicle's brake lights will illuminate with the engine off – turn the ignition key to the "tow" position, press the brake pedal, and check the brake lights.

3. Based on whether or not the brake lights illuminate, and the type of brake and turn signals, there are three possibilities: 1) the brake lights illuminate and the towed vehicle has combined lighting; 2) the brake lights illuminate and the towed vehicle has separate lighting; or 3) the brake lights do not illuminate. Choose from the appropriate list below to install either an optional component or another lighting system.

(If you choose to install a system of diodes and rewire the vehicle's turn signals, taillights and brake lights for towing, wiring diagrams are available at www.roadmasterinc.com.)

1. If the brake lights illuminate and the towed vehicle has combined lighting...

...one of the three alternatives below is required.

A. A system of diodes (the vehicle's turn signals, taillights and brake lights have been rewired for towing) **with** a Brake-Lite Relay. See Step Three – "If required, install the Brake-Lite Relay."

(This method cannot be used in Ford vehicles with 'neutral tow' kits. See "Ford 'neutral tow' vehicles," in this manual, for wiring instructions.)

B. Install an optional "bulb and socket set" (also called a "taillight wiring kit," part number 155).

C. Install an optional magnetic tow light system (part number 2100 or 2120).

2. If the brake lights illuminate and the towed vehicle has separate lighting...

...one of the four alternatives below is required.

A. A system of diodes (the vehicle's turn signals, taillights and brake lights have been rewired for towing) **with** a Brake-Lite Relay. See Step Three – "If required, install the Brake-Lite Relay."

(This method cannot be used in Ford vehicles with

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Modifications to the towed vehicle's lighting system

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'neutral tow' kits. See "Ford 'neutral tow' vehicles," in this manual, for wiring instructions.)

B. A system of diodes **with the diodes jumped**. This method is also used to wire Ford vehicles with 'neutral tow' kits. See Figure 24.

C. Install an optional "bulb and socket set" (also called a "taillight wiring kit," part number 155).

D. Install an optional magnetic tow light system (part number 2100 or 2120).

3. If the brake lights do not illuminate...

...an optional stop light switch **must** be installed. ROADMASTER manufactures stop light switch kits for a number of vehicles; visit www.roadmasterinc.com for the most current list of available kits.

Any one of the following tow lighting systems must also be installed with the stop light switch:

- a system of diodes (the vehicle's turn signals, tail-lights and brake lights have been rewired for towing)
- an optional "bulb and socket set" (also called a "taillight wiring kit," part number 155)
- an optional magnetic tow light system (part number 2100 or 2120)

Step Three

If required, install the Brake-Lite Relay

(These instructions apply to the majority of vehicles; however, applications vary. Before wiring, refer to the owner's manual, or ask the dealership or manufacturer for vehicle-specific information.)

Note: do not install the Brake-Lite Relay unless it is required. Refer to Step Two – "Modifications to the towed vehicle's lighting system."

CAUTION

Do not install the Brake-Lite Relay in any Ford

vehicle with a 'neutral tow' kit. Using the Brake-Lite Relay in these vehicles may prevent disengagement of the transmission for towing, causing severe non-warranty transmission damage.

Refer to "Ford 'neutral tow' vehicles," in this manual, for wiring instructions.

1. Locate the towed vehicle's brake light switch and, with a test light, find the "cold" side of the brake light switch – the "cold" side of the switch does not register voltage unless the brakes are applied. With a 12-volt meter, verify that you have found 12 VDC+. Then, remove the vehicle's brake light fuse, located in the vehicle's fuse panel.

CAUTION

Failure to remove the brake light fuse from the vehicle's fuse panel may activate the vehicle's theft deterrent system, or other electrical system indicators, if the brake pedal is pressed during the installation. This may require non-warranty repair to the vehicle.

2. Cut the brake light wire, a few inches downstream from the "cold" side of the brake light switch.

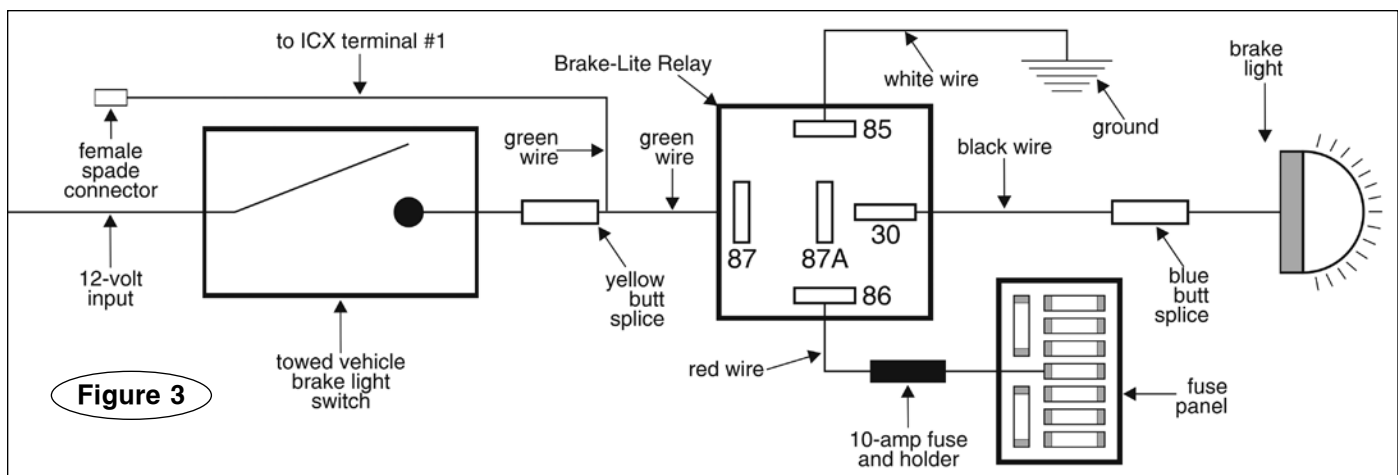
CAUTION

In order to prevent damage from a short circuit, the 10-amp fuse and holder assembly must be within six inches of the electrical connections. If the 10-amp fuse assembly is farther than six inches, a short circuit may cause an electrical fire, resulting in severe damage to the vehicle.

3. Install the Brake-Lite Relay in line (Figure 3).

4. Using the included fuse tap (Figure 4), connect the red wire from the Brake-Lite Relay to the "hot" side of any fuse which is powered only when the towed vehicle's ignition is turned on.

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If required, install the Brake-Lite Relay

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Note: the “hot” side of the socket is the one that registers voltage when the fuse is pulled, the ignition switch is on, and the tester is connected between the socket and ground.

5. Connect the white wire from the Brake-Lite Relay to any good chassis ground.

6. Secure the Brake-Lite Relay in place, using one or more of the included wire ties.

7. Reinstall the brake light fuse, which you removed in step 1.

8. Test to ensure that the Brake-Lite Relay has been properly installed:

a. When the towed vehicle’s engine is running, the brake lights function normally.

b. When the towed vehicle’s ignition key is in the “tow” position, the brake lights do not function.

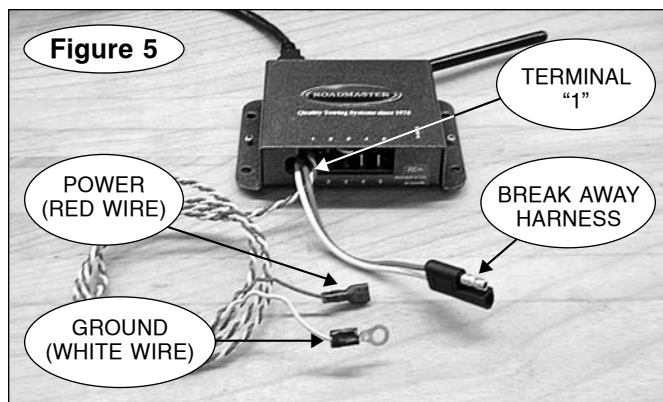
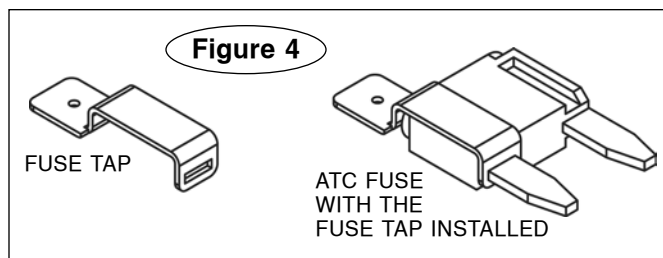
Step Four

Wire and attach the ICX transmitter

Once installed, the ICX transmitter will transmit braking activity and system status information from Even Brake to the motorhome monitor.

1. Before attaching the ICX transmitter, first connect the break away system harness and the towed vehicle’s brake switch wire to the ICX transmitter. Then, connect the ICX transmitter to a 12-volt power source, as well as a suitable ground...

a. Connect the break away system – plug the end of the break away wiring harness, which you routed through the vehicle’s firewall in Step One, into the flat,



two-prong molded plug in the ICX transmitter (Figure 5).

b. Connect the brake switch wire...

- If the Brake-Lite Relay **was** installed – push the female spade connector extending from the Brake-Lite Relay (at the end of the green wire) into the terminal marked “1” on the ICX transmitter (Figure 5).

- If the Brake-Lite Relay **was not** installed – connect the “cold” side of the brake light switch to the terminal marked “1” on the ICX terminal (Figure 5).

c. Connect a power source – using the included fuse tap (Figure 4), connect the red wire from the ICX transmitter to the “cold” side of any fuse with a continuous source of power.

Note: determine which side of the fuse is “cold” – the “cold” side of the socket is the one that registers no voltage when the fuse is pulled.

Note: unless the red (power) wire is connected to a fuse that provides 12 VDC+ at all times, the motorhome monitor will display error messages relating to low battery power, such as “Low Battery,” when towing.

d. Connect to a suitable ground – connect the white wire from the ICX transmitter to any good chassis ground.

2. Once you have connected the break away system harness and the vehicle’s brake switch wire to the ICX transmitter, and connected the ICX transmitter to a 12-volt power source and ground, attach the ICX transmitter to the driver’s side dashboard, at the mounting point you chose in Step One.

Attach the transmitter so that the end of the transmitter with the antenna and socket will be facing the rear of the vehicle.

Use either the supplied screws (one at each corner) or the Velcro strips to mount the transmitter.

3. Ensure that the wiring for the break away system, the brake switch wire, and the power and ground connections will not present an obstacle or hazard to the driver of the vehicle, or interfere with the operation of the vehicle. Use one or more of the included wire ties, if necessary, to secure the wiring out of the way.

Step Five

Install the motorhome monitor

CAUTION

The following instructions are for the initial installation only.

The ICX transmitter and the motorhome monitor are programmed as a set. If a replacement monitor, a replacement ICX transmitter or a second vehicle kit is to be installed, follow the instructions under “Program the monitor.”

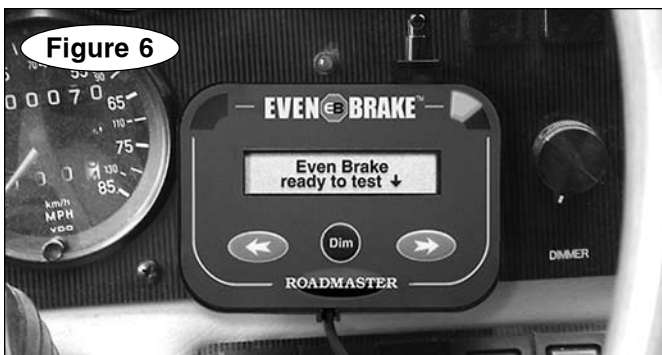
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Install the motorhome monitor

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Until both units are programmed as a set, the motorhome monitor will not receive the signal from the ICX transmitter.

1. Find a suitable location for the monitor, near the motorhome driver's seat, which will allow the driver to clearly see the monitor.
2. Before attaching the monitor, test the reception...
 - a. Install Even Brake according to the instructions in the next section in this manual – "Day-to-day operation."
 - b. With Even Brake installed and fully functional, plug the monitor power cord into the motorhome's 12-volt outlet.
 - c. Start the motorhome engine.
 - d. Hold the monitor where you plan to attach it. The LCD text display will read "Even Brake ready to test ↓" (Figure 6) to confirm that the monitor is receiving the signal.
3. After you have confirmed that the monitor is receiving the signal, attach the monitor with the supplied Velcro – peel back the sticker on the Velcro strip, press it into place, and attach the monitor to it by pressing the two pieces of Velcro together.
4. If you have unplugged the monitor power cord to attach the monitor, plug it back into the motorhome's 12-volt outlet and secure it with the cord lock (Figures 14 and 15).



CAUTION – for Saturn Vue and other vehicles – If the towed vehicle's engine must be started periodically...

Always deplete the vacuum in the vehicle's power brake system BEFORE YOU RESUME TOWING. If the vacuum is not released, Even Brake will apply excessive force when it is activated, which will cause severe tire and/or brake system damage to the towed vehicle. Refer to the caution statement on pages 15 and 16 for further information.

DAY-TO-DAY OPERATION

This section contains detailed operating instructions. Refer to this section until you become familiar with each step. (Before connecting or disconnecting Even Brake, also refer to the "Quick Reference Checklist" for additional warnings and cautions.)

Step One

Attach the pedal clamp

1. First, connect the tow bar to the motorhome and the towed vehicle.

Then, according to the manufacturer, make all adjustments necessary to prepare the vehicle for towing.

These adjustments may include: turning the ignition key to the 'tow' position; pulling fuses; disconnecting the battery; and setting the transmission to a particular gear or in a particular sequence.

Refer to the owner's manual, or call the dealership or the manufacturer for vehicle-specific information.

CAUTION

To prevent the towed vehicle from rolling, connect and attach the tow bar to both vehicles before shifting the towed vehicle's transmission into the proper gear for towing.

2. Remove Even Brake from the box, using the adjustable seat pad as a handle.
3. Slide the driver's seat back, as far as it will go.
4. Position Even Brake between the driver's seat and the brake pedal, at the approximate position it will sit when connected to the brake pedal.

Note: if the towed vehicle has a steering wheel tilt latch, it may be easier to position Even Brake with the

steering wheel tilted up.

Note: rubberized floor mats will cause Even Brake to "climb" the driver's seat. If the vehicle has a rubberized floor mat, remove it when towing.

Note: the adjustable seat pad at the back may be removed, if that provides the best fit.

WARNING

Seat and/or pedal positioning systems may affect the towed vehicle braking system.

Determine if the vehicle to be towed is equipped with pedal presets and/or automatic seat adjustments. Proper installation of the braking system may be affected by these presets; if the vehicle is so equipped, note the original installed position and return to that position before towing the vehicle.

If the seat and/or brake pedal are not at the original installed position when the vehicle is towed, the brake pedal may apply unnecessary braking force, which will damage the brake system and/or electrical system, causing brake system failure, electrical system failure or other non-warranty damage.

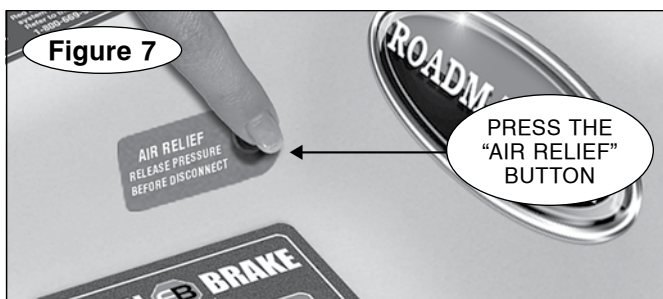
Failure to follow these instructions may result in property damage, personal injury or even death.

5. Press the air relief button (Figure 7) to make certain that all of the air in the Even Brake air reservoir has been released. If there is air in the reservoir, continue to hold the button down until the air is released – air in the reservoir will prevent the cylinder from extending when you connect the brake pedal clamp to the brake pedal.

6. Continue to hold the air relief button down, and pull forward on the pedal clamp, to extend the air cylinder shaft. Release the air relief button.

7. Verify that the pedal clamp is right side up, as shown in Figure 8 – the arrow on the sticker will point "Up"

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Attach the pedal clamp

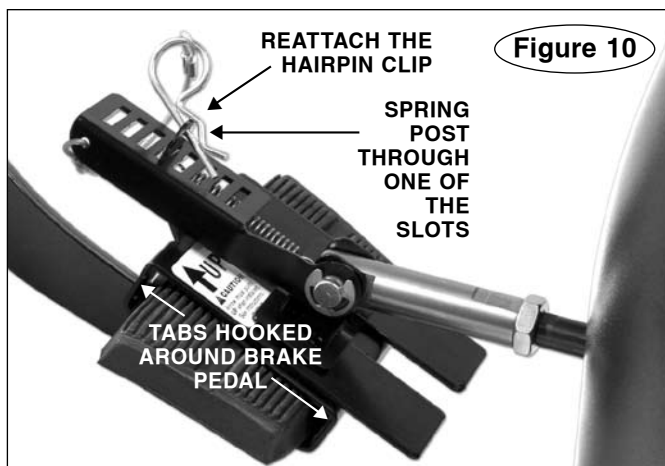
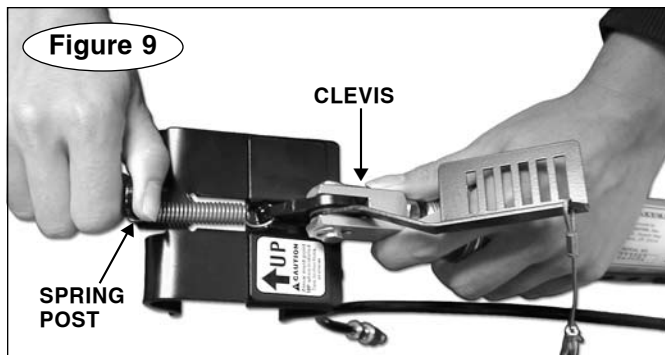
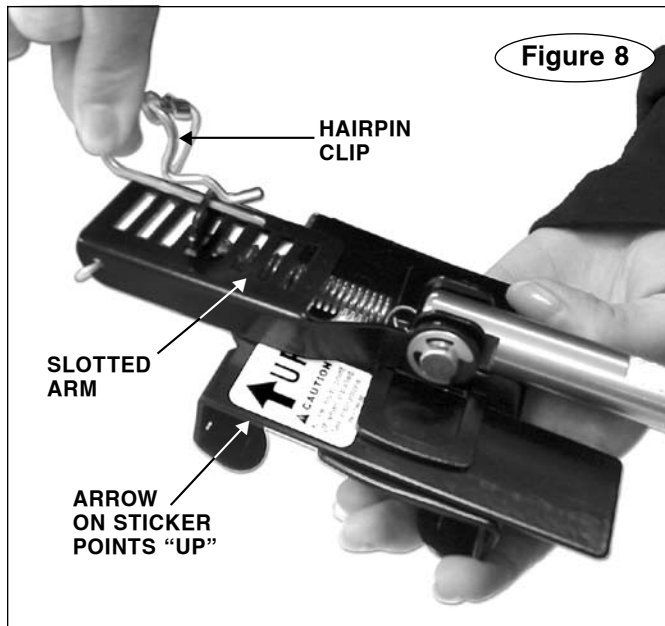
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when the pedal clamp is properly positioned.

8. Pull the hairpin clip (Figure 8) out, then lift the slotted arm (Figure 8) up and out of the way.

9. Move the pedal clamp over the brake pedal. Then, hold the clevis (Figure 9) and pull back on the spring post (Figure 9) until the tabs under the pedal clamp are wide enough to clear the brake pedal.

10. Fit the pedal clamp onto the brake pedal, so that



all four tabs are hooked around it (Figure 10). Then, release the spring post.

Note: on the initial fitting, it may be necessary to adjust the tabs on the pedal clamp – use pliers to bend any or all of the tabs so that they hook around and under the towed vehicle's brake pedal.

Once the tabs have been adjusted to a specific brake pedal, no further adjustment to the pedal clamp is necessary for that vehicle.

For every subsequent vehicle, inspect the pedal clamp on the initial fitting. Verify that all four tabs are hooked around and under the brake pedal. If necessary, bend the tabs to fit, as described above.

CAUTION

Make certain that all four tabs on the pedal clamp are securely hooked around the brake pedal (Figure 10). If the tabs are loose, the pedal clamp can rotate out of position and hold the brake pedal down, even when Even Brake is not activated, which will cause brake damage or other consequential, non-warranty damage.

11. Swing the slotted arm back over the spring post, fit the spring post through one of the slots, and reattach the hairpin clip (Figure 10).

Note: the spring post may be bent slightly with a pair of pliers, if necessary, in order to fit it through one of the slots.

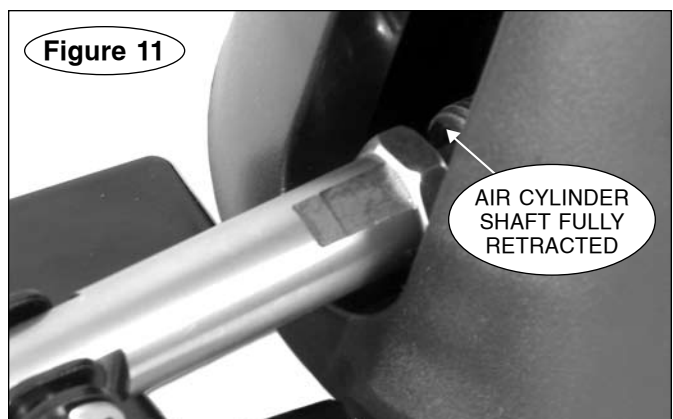
Step Two

Adjust the feet and the seat pad

1. Now that the pedal clamp is in place, move Even Brake forward, until the air cylinder shaft is fully retracted. (Figure 11). Make certain that Even Brake is not depressing the towed vehicle's brake pedal.

WARNING

Do not move Even Brake too far forward, to the
continued on next page



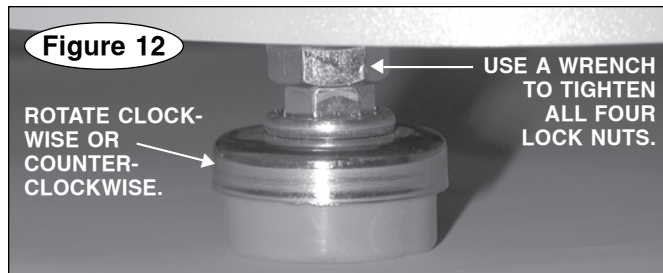
Adjust the feet and the seat pad

continued from preceding page

extent that the pedal clamp is depressing the brake pedal. If the brake pedal is depressed, the brakes will be applied continuously, which will cause severe tire and/or brake system damage, as well as other consequential, non-warranty damage.

Failure to follow these instructions may cause property damage, personal injury or even death.

2. If necessary, adjust the feet on the bottom of Even Brake (one at each corner – Figure 12) up or down, by turning them clockwise or counterclockwise.



wise. Make certain that all four feet are making contact with the floor of the vehicle, and that Even Brake is stationary – it should not rock back and forth.

(It may be necessary to remove one or more of the feet for some vehicles, or it may be necessary to add one or more optional extensions – see the “Vehicle-Specific Components” section in this manual.)

3. With a wrench, tighten the lock nut at the top of each foot extension (Figure 12).

CAUTION

Unless the lock nuts are tightened with a wrench, the feet may vibrate loose during towing, and Even Brake may shift from the installed position. Unless Even Brake is properly positioned, it will not function at full capacity – the pedal clamp will not apply the proper braking pressure against the brake pedal.

4. Find a bracing point on the front of the driver’s seat for the adjustable seat pad – the seat pad stabilizes Even Brake, keeping it down as it presses against the brake pedal. Press the front of the seat to find the firmest point for the seat pad.

Note: do not brace the adjustable seat pad against plastic trim. The plastic will crack when Even Brake is activated.

Now that you have selected a bracing point for the adjustable seat pad, loosen the adjustment knob (see “Components,” page two) at the back of the seat pad, and move the seat pad up or down until the top of the seat pad matches the height of the bracing point.

Once the height is adjusted, tighten the knob on

the seat pad.

Note: the seat pad may be rotated 180 degrees or removed entirely for a better fit. There are also two anchor holes that the knob on the seat pad may be threaded into, for additional fit options.

5. Next, slide the driver’s seat forward, until it just touches the adjustable seat pad. If necessary, allow a small gap, rather than allowing Even Brake to depress the brake pedal.

Make certain that Even Brake is not depressing the towed vehicle’s brake pedal.

WARNING

The driver’s seat must not be too far forward, to the extent that the Even Brake pedal clamp is depressing the towed vehicle’s brake pedal.

If the brake pedal is depressed, the brakes will be applied continuously, which will cause severe tire and/or brake system damage, as well as other consequential, non-warranty damage.

Failure to follow these instructions may cause property damage, personal injury or even death.

Step Three

Connect Even Brake to the ICX transmitter

1. Connect the ICX transmitter cord from Even Brake to the ICX transmitter (Figure 13).



Step Four

Plug in the power cord

WARNING

The Even Brake 12-volt power cord is always “last in, first out.” Never plug in the power cord until Even Brake is completely installed.

Once it receives power, any movement of the box could cause Even Brake to activate unexpectedly.

Similarly, never disconnect Even Brake without first unplugging the 12-volt power cord.

Failure to install and operate Even Brake as instructed may cause property damage, personal injury or even death.

continued on next page

Plug in the power cord

continued from preceding page

CAUTION

Check the 12-volt outlet socket before plugging in the Even Brake 12-volt power cord, to make certain that the socket has been wired correctly. The contact point at the bottom of the socket should be positive, and the outer shell around the top of the socket should be negative.

If the positive and negative connections have been reversed, the fuse in the Even Brake power cord will blow when the cord is plugged into the 12-volt outlet.

1. Plug the 12-volt power cord into the 12-volt outlet and secure it by pressing the cord lock into the 12-volt outlet (Figures 14 and 15).

CAUTION

Push the cord lock forward, into the 12-volt outlet, to properly secure the 12-volt power cord. If the cord lock is not over the 12-volt outlet, the 12-volt power cord may vibrate loose, causing a loss of power or an intermittent power supply.

Even Brake will not function without a continuous power supply.

2. Now, the red light on the 12-volt power cord should illuminate. If not, there is no power.

Some vehicles only have power at the outlet when the engine is running.

If there is no power, you can install ROADMASTER's optional 12-volt outlet kit (part number 9332; refer to the "Vehicle-Specific Components" section). When installed, this outlet will provide power even when the



engine is off.

3. When the power cord is plugged in, the air compressor will run, until the air reservoir is filled. Wait for the air reservoir to fill before pressing the "Test" button (Step Six, "Test and adjust positioning; deplete the vacuum in the power brakes").

Step Five

Plug in the motorhome monitor

1. Now that the power cord is connected, plug the motorhome monitor power cord into the motorhome's 12-volt outlet.

Note: press the cord lock on the motorhome monitor power cord into the motorhome's 12-volt outlet – follow the instructions in the preceding section (step one under "Plug in the power cord") to properly secure the 12-volt power cord.

2. Start the motorhome engine.

The motorhome monitor LCD text display will read "Even Brake ready to test ↓" (Figure 16), and the yellow LED will be illuminated, to confirm that the monitor is receiving the signal.



CAUTION

If the green LED is illuminated and the LCD text message reads "Even Brake," the motorhome monitor is not receiving a signal from the ICX transmitter. The motorhome monitor will not report braking activity or system status information.

Severe damage to the towed vehicle can occur if the driver of the motorhome is unaware of braking activity at the towed vehicle.

Follow the appropriate instructions in the "Troubleshooting" or "Communications" sections ("Overview" and "Reference Chart") in this manual, until the monitor LCD text display reads "Even Brake ready to test ↓."

Step Six

Test and adjust positioning; deplete the vacuum in the power brakes

Before towing, always press the “Test” button down, then release it – Even Brake will cycle the pedal clamp up and down three times.

This test cycle is necessary for two reasons: 1) to ensure that Even Brake is positioned correctly; and 2) to deplete any stored vacuum in the towed vehicle’s power brake system.

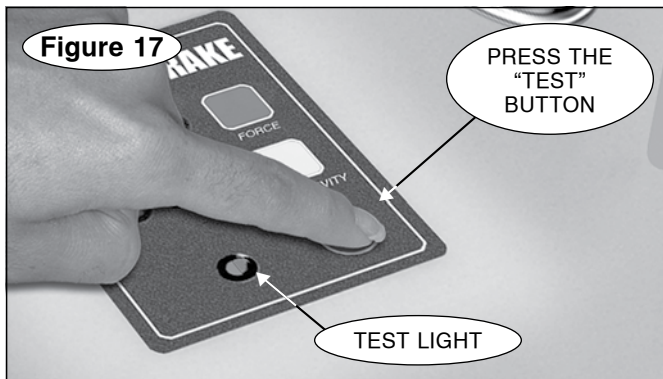
CAUTION

Always deplete the stored vacuum in the towed vehicle’s power brake system before towing – press the “Test” button down, then release it, to cycle the pedal clamp up and down three times.

Depending on the make and model of the towed vehicle, it may be necessary to repeat the test cycle a second time.

If the vacuum is not released, Even Brake will apply excessive braking force when it is activated, which will cause severe tire and/or brake system damage to the towed vehicle.

1. Press the green “Test” button (Figure 17) on the touch pad control panel. Even Brake will begin a self-diagnostic test.



As part of the test, Even Brake will cycle the pedal clamp up and down three times.

If Even Brake moves excessively, or interferes with seat position controls, adjust its position. Check the adjustable seat pad and readjust it, if necessary.

Note: rubberized floor mats will cause Even Brake to “climb” the driver’s seat. If the vehicle has a rubberized floor mat, remove it when towing.

CAUTION

If the adjustable seat pad is not properly positioned, Even Brake can “climb” up the driver’s seat. This will cause the rear of the box to rise up off the floor, making Even Brake more sensitive.

If this occurs, the towed vehicle will brake exces-

sively and unnecessarily, which may cause non-warranty brake damage.

Check the adjustable seat pad after the pedal clamp has cycled during a test. If the rear of the box has “climbed” the driver’s seat, readjust the seat pad so that Even Brake cannot “climb.”

2. After Even Brake has completed the self-diagnostic test, the test light (Figure 17) will illuminate green to indicate the system is ready, or red to indicate the system is not ready.

If the test light is green, proceed to the next step – programming brake force and sensitivity.

If the test light is red, check the motorhome monitor LCD text display for detailed information. You can also refer to the “Communications” sections (“Overview” and “Reference Chart”) in this manual.

Step Seven

Set braking force and braking sensitivity preferences

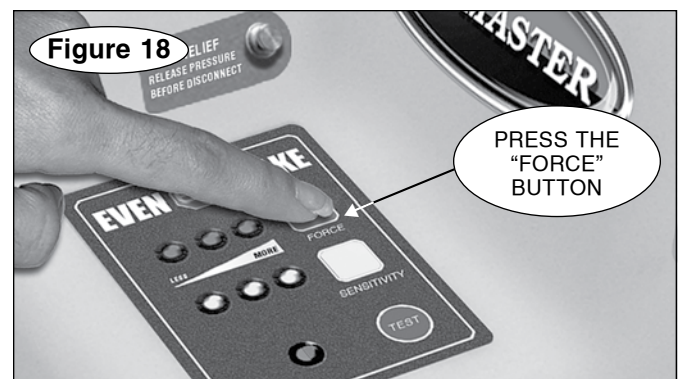
(Even Brake is a proportional system, and will always brake the towed vehicle in tandem with the motorhome. The range of its response to the motorhome is virtually infinite. Setting braking preferences will program Even Brake to respond with the appropriate force and sensitivity within that range.)

It is not necessary to set braking force and sensitivity preferences – if no preferences are selected, Even Brake will revert to the “average” setting for both, which is the default value.

It is also not necessary to select braking preferences every time you connect Even Brake. It will always revert to the last preferences selected (or the default values, if none were selected), when you connect it to the towed vehicle.

1. Set the braking force. This setting tells Even Brake how **hard** to apply the brakes. There are three choices: “less,” “average,” or “more” force.

Press the red “Force” button on the touch pad control panel (Figure 18). One of the three LEDs next to *continued on next page*



Set braking force and sensitivity

continued from preceding page

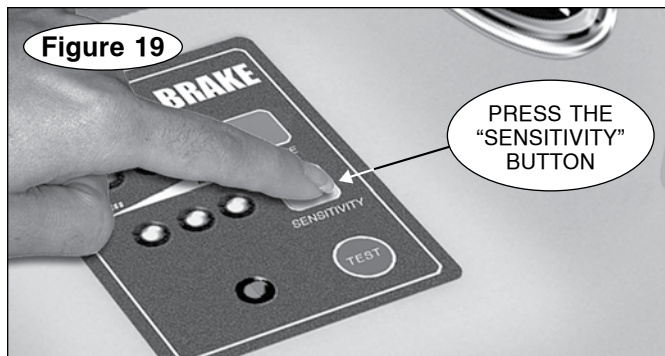
the “Force” button will illuminate. The LED furthest away from the “Force” button indicates “less” force; the center LED indicates “average” force; and the LED closest to the “Force” button indicates “more” force. Continue to press the “Force” button until the appropriate LED illuminates to confirm your choice.

If you are unsure which setting to select, set Even Brake to “average” and readjust it later, if you find that you prefer more or less braking force.

2. Set the braking sensitivity. This setting tells Even Brake **when** to apply the brakes. There are three choices: “less,” “average,” or “more” sensitivity. If Even Brake is “more” sensitive, it will brake more often; if Even Brake is “less” sensitive, it will brake less often.

Press the yellow “Sensitivity” button on the touch pad control panel (Figure 19). One of the three LEDs next to the “Sensitivity” button will illuminate. The LED farthest away from the “Sensitivity” button indicates “less” sensitivity; the center LED indicates “average” sensitivity; and the LED closest to the “Sensitivity” button indicates “more” sensitivity. Continue to press the “Sensitivity” button until the appropriate LED illuminates to confirm your choice.

If you are unsure which setting to select, set Even Brake to “average” and readjust it later, if you find that you prefer more or less braking sensitivity.



Step Eight

Connect the break away cable and test the break away system

1. Clip the steel break away cable (Figure 1) to the large ring on the break away pin (Figure 1), then clip the other end of the steel cable to the rear of the motorhome, close to the center.

2. Periodically, test the break away system – pull the break away pin (Figure 1) out of the break away switch. Even Brake should activate when the pin is pulled – the pedal clamp will extend. Insert the pin back into the switch. The Even Brake pedal clamp will retract.

To clear the break away message from the motor-

home monitor, unplug the motorhome monitor, then plug it back in.

WARNING

When connecting the break away system, always check the following:

- **Connect the cable at the rear of the motorhome, close to the center. Connecting the cable toward either side of the motorhome may cause the break away pin to be pulled when the motorhome turns, activating the break away system.**
- **Be sure there are no obstructions which would prevent the cable from pulling freely away from the break away switch. Do not wrap the cable around anything – doing so could keep the cable from pulling the break away pin, preventing the system from activating in a break away.**
- **Make certain the cable is the correct length...**
 - **The cable must be long enough to prevent the break away pin from being pulled out during normal towing – make certain there is enough slack to allow for sharp turns. If the cable is not long enough, the break away system will activate even though the towed vehicle has not detached.**
 - **The break away cable must be longer than the safety cables. This will prevent the break away system from activating if a component of the towing system has separated, but the towed vehicle is still held by the safety cables.**
 - **Make certain that the cable is not too long – it should not hang down to the extent it may catch on obstructions, or drag on the ground. This much slack could allow the cable to be pulled inadvertently, activating the break away system.**
 - **If you have a telescoping tow bar, allow enough slack for the tow bar arms to be fully extended.**
- **Leave the break away pin in place, even when the vehicle is not being towed. If the pin is not in place when Even Brake is connected, the break away system will be activated – the air cylinder will extend and will not retract.**

Additionally, as long as the pin is removed, the ICX transmitter will send a break away signal. This signal may interfere with or disrupt keyless entry systems or other remote controlled devices.

Failure to follow these instructions may cause property damage, personal injury or even death.

QUICK REFERENCE CHECKLIST

Once the other components of your supplemental braking system have been installed, follow the steps below to connect Even Brake to the towed vehicle; see the next page to disconnect Even Brake. For more detailed information, refer to the appropriate section under “Day-to-day operation.”

Connecting Even Brake

1. Slide the driver's seat back, as far as it will go.
2. Position Even Brake between the driver's seat and the brake pedal, at the approximate position it will sit when connected to the brake pedal. (The adjustable seat pad can be used as a handle.)
3. Press the air relief button (Figure 7) to make certain that all of the air in the Even Brake air reservoir has been released.
4. Attach the pedal clamp to the brake pedal.
5. Move Even Brake forward, until the air cylinder shaft is fully retracted (Figure 11).
6. Slide the driver's seat forward, until it just touches the Even Brake adjustable seat pad. If necessary, allow a small gap, rather than allowing Even Brake to depress the brake pedal.

WARNING

The driver's seat must not be too far forward, to the extent that the Even Brake pedal clamp is depressing the towed vehicle's brake pedal.

If the brake pedal is depressed, the brakes will be applied continuously, which will cause severe tire and/or brake system damage, as well as other consequential, non-warranty damage.

Failure to follow these instructions may cause property damage, personal injury or even death.

7. Connect the ICX transmitter cord.
8. Connect the 12-volt power cord, and secure it with the cord lock.
9. Plug in the motorhome monitor, and secure it with the cord lock.
10. Press the “Test” button (Figure 17). After the self-diagnostics test, verify that the “Test” light is green.

CAUTION

Always deplete the stored vacuum in the towed vehicle's power brake system before towing – press the “Test” button down, then release it, to cycle the pedal clamp up and down three times.

Depending on the make and model of the towed vehicle, it may be necessary to repeat the test cycle a second time.

If the vacuum is not released, Even Brake will apply excessive braking force when it is activated,

which will cause severe tire and/or brake system damage to the towed vehicle.

11. Connect the break away cable (Figure 1) to the front of the towed vehicle and to the rear of the motorhome. Periodically, test the break away system.

12. Make certain that the towed vehicle's emergency brake is released.

WARNING

Failure to release the towed vehicle's emergency brake before towing will result in severe brake damage, or a brake system fire.

Damage caused by neglecting to release the emergency brake before towing is not covered under warranty.

Failure to follow these instructions may cause property damage, personal injury or even death.

CAUTION

Even Brake is designed to work with a ‘dead’ brake pedal. Do not leave the vehicle's engine running while towing, as this will allow the power brakes to function. The power brakes will cause excessive braking in the towed vehicle, resulting in non-warranty tire and/or brake system damage.

Disconnect Even Brake if, for any reason, you must tow with the engine running.

CAUTION

If the towed vehicle's engine must be started periodically (according to the manufacturer's instructions), and Even Brake is installed, stop the motorhome while the towed vehicle's engine is running.

During the test, Even Brake will extend and retract the brake pedal clamp, which will release the vacuum in the towed vehicle's power brake system.

Depending on the make and model of the towed vehicle, it may be necessary to repeat the test cycle a second time.

If the vacuum is not released, Even Brake will apply excessive braking force when it is activated, which will cause severe tire and/or brake system damage to the towed vehicle.

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Connecting Even Brake

continued from preceding page

Disconnecting Even Brake

1. Pull on the cord lock (Figure 14 and 15) to release it, and unplug the Even Brake 12-volt power cord. Then, unplug the ICX transmitter cord.
2. Move the driver's seat back, as far as it will go.
3. Press and hold the air relief button (Figure 7) until all the air in the air reservoir is released. If necessary, continue to hold the air relief button and move Even Brake back, to allow easier access to the brake pedal.
4. Detach the pedal clamp from the brake pedal. Press and hold the air relief button and move the pedal clamp back, toward Even Brake, until the air cylinder shaft is fully retracted (Figure 11).
5. Wrap the 12-volt power cord and the ICX transmitter cord around the cord holder, and lift Even Brake out of the vehicle. (The adjustable seat pad can be used as a handle.)
6. Disconnect the break away cable (Figure 1) from the front of the towed vehicle and the motorhome. Do not remove the large ring and pin from the break away switch.

CAUTION

Leave the break away pin in place, even when the vehicle is not being towed...

- **If the pin is not in place when Even Brake is connected, the break away system will be activated – the air cylinder will extend and will not retract.**
- **Additionally, as long as the pin is removed, the ICX transmitter will send a break away signal. This signal may interfere with or disrupt keyless entry systems or other remote controlled devices.**

COMMUNICATIONS

CONNECTION and BRAKING

Monitor messages

Even Brake will report system status at the motorhome monitor as you connect it to the towed vehicle, and also when it applies the brakes. The chart below shows which color LED will illuminate for each condition or activity, the LCD text message(s) that will accompany it, and if there will be an audio alert.

The LED on the Even Brake control pad (next to the “Test” button) may also illuminate to indicate a certain activity or condition.

(Even Brake will also report conditions or activities which require an adjustment. See the “Communications” sections – “Overview” and “Reference Chart” – in this manual.)

The LCD text display will first report the activity or condition. (The “1st message” column in the chart below lists the initial messages.) If the first message ends with a flashing down-

ward pointing arrow (↴), a specific action is required. Press the button with the right-hand arrow (➤) on the motorhome monitor (Figure 20) to scroll to the second message, which will display the required action (the “2nd message” column in the chart below).

Expanded descriptions

A description of the connection and braking messages follows.

1. System is ready to test

Even Brake has been installed, and the ICX transmitter cord and the power cord are connected. The LCD display will read “Even Brake ready to test ↴.” An audio alert at the motorhome monitor will accompany this message; it will stop when you press the button with the right-hand arrow (➤) on the motorhome monitor to scroll to the second message, which will prompt you to

“Press (the) Even Brake Test button” on the Even Brake control pad.

2. Passed test – system ready

When the “Test” button is pressed, Even Brake will run a self-diagnostic test. To indicate that the braking system is operational and ready to brake the towed vehicle, the LCD display will read “Test is good – System ready.”

3. System is fully operational (no braking)

When towing, the green LED on the motorhome monitor will stay illuminated constantly, to indicate that Even Brake is fully operational and ready to brake.

4. Normal braking

When Even Brake is activated, the LCD display will read “Braking” and the red LED on the motorhome monitor will illuminate, to indicate that the towed vehicle’s brakes are being applied.

Even Brake will report system status at the motorhome monitor as you connect it to the towed vehicle, and also when it applies the brakes. Refer to the section above for an expanded description of each message.

MOTORHOME LCD TEXT DISPLAY		MOTORHOME LED DISPLAY			AUDIO	REPORTED ACTIVITY OR CONDITION	EVEN BRAKE CONTROL PAD		
1st MESSAGE	2nd MESSAGE	RED	YELLOW	GREEN			RED	GREEN	RED/ GREEN
“Even Brake ready to test ↴”	“Press Even Brake Test button”		•		•	1. System is ready to test (power and ICX transmitter cords connected)			•
“Test is good System ready”				•		2. Passed test – system ready		•	
				•		3. System is fully operational (no braking activity)		•	
“Braking”		•				4. Normal braking (Even Brake has activated)		•	

TROUBLESHOOTING

Even Brake will report symptoms and solutions through the motorhome monitor's LED display, the LCD text display, and also, in some instances, with an audio alert. Refer to the "Communications" sections ("Overview" and "Reference Chart") in this manual for further information.

The solutions to other symptoms are listed below.

Symptom	Solution
Even Brake doesn't fit properly in the towed vehicle.	Positioning Use one or more foot extensions to elevate Even Brake over obstructions such as duct work, a door jamb or a center console that juts into the available space. Refer to the "Vehicle-Specific Components" section.
The pedal clamp doesn't fit the brake pedal securely.	Use a pair of pliers to bend the tabs of the pedal clamp for a better fit. If the pedal clamp still doesn't fit, contact ROADMASTER.
The air cylinder shaft will not extend to connect the pedal clamp to the brake pedal.	The air reservoir is full of air. Release the air by pressing the air relief button (Figure 7).
The pedal clamp does not extend to the brake pedal, when Even Brake is properly installed.	Use an optional air cylinder shaft extension to extend the reach of the air cylinder shaft. (Refer to the "Vehicle-Specific Components" section.)
The brake pedal clamp comes into contact with the Even Brake housing.	Brake pedals that are somewhat horizontal cause the pedal clamp to tilt, and to interfere with the Even Brake housing when it retracts. Use an optional air cylinder shaft extension to gain additional clearance. (Refer to the "Vehicle-Specific Components" section.)
The towed vehicle's seat moves after Even Brake depresses the brake pedal.	Readjust the seat and/or the adjustable seat pad. Refer to Step Two in "Day-to-day operation" – "Adjust the feet and the seat pad." After adjusting the seat, make certain that it is locked. Then, press the "Test" button (Figure 17) and watch the seat as the air cylinder shaft extends and retracts.
Even Brake "climbs" up the seat.	<ul style="list-style-type: none">• If there is a rubberized floor mat under Even Brake, remove it during towing.• Check the position of the adjustable seat pad. The seat pad serves as an anchor point, to keep Even Brake down as it presses the brake pedal. Adjust the seat pad up or down, if necessary.
The brakes are being applied before I want them to, or when I don't think they should.	Brake pressure setting Readjust the braking sensitivity preference to a lower setting. Refer to Step Seven in "Day-to-day operation" – "Set braking force and braking sensitivity preferences."
A quick acceleration of the motorhome sometimes activates Even Brake, even though I have not applied the motorhome brakes.	Lower the braking sensitivity preference by one setting. Refer to Step Seven in "Day-to-day operation" – "Set braking force and braking sensitivity preferences."
After towing, there is excessive brake dust on the wheels of the towed vehicle, or an unusual odor coming from the towed vehicle's brakes.	Readjust the braking sensitivity and/or force preference to a lower setting. Refer to Step Seven in "Day-to-day operation" – "Set braking force and braking sensitivity preferences."
The first time Even Brake is activated, the towed vehicle brakes with excessive force, 'flat-spotting' the tires.	Installed in vehicle with 'active' brakes The vehicle may have an 'active' braking system. Refer to the caution statement on page one for information.

Symptom

Even Brake does not pass the initial self-diagnostics test. The second motorhome monitor message is “No brake light switch detected.”

Nothing happens after proper installation.

The towed vehicle’s fuse for the 12-volt outlet keeps blowing.

The compressor comes on when Even Brake is plugged in, but not actually being used for braking.

A monitor message – a red LED and a “Braking” LCD text message, or a green LED with an “Even Brake” LCD text message – stays on the screen (does not clear).

A few minutes after beginning to tow, the motorhome monitor indicates the towed vehicle has a low battery, even though the battery is charged.

After installation, the motorhome monitor does not report braking activity or system status. The LCD text message reads, “Even Brake.”

Solution

Electrical

- If fuse(s) must be removed from the vehicle before it can be towed, Even Brake may have been incorrectly installed. Check to see if Even Brake operates normally with the fuse(s) in place. If it does, re-wire the Brake Lite Relay so that it will function with the fuse(s) removed.
- If an aftermarket stop light switch was installed, check the physical installation of the stop light switch – make certain that the plunger is compressed when the brake pedal is fully released.

If the plunger is properly adjusted, check the brake light fuse.

- If the motorhome is stationary, Even Brake will not activate if the motorhome’s brake pedal is depressed. Even Brake responds to the deceleration of the motorhome, not to the brake pedal.
- Check the towed vehicle’s battery voltage. If the battery doesn’t have sufficient power, Even Brake will not operate.
- Check to make certain that the break away pin is in place.
- Check for a red light at the end of the 12-volt power cord. If there is no light, there is no power.
 - Check the fuse on the end of the 12-volt power cord. If the fuse is blown, polarity at the 12-volt outlet may be crossed, with positive connected to ground, and ground to positive. Correct the wiring, and replace the fuse in the 12-volt power cord.
- An optional 12-volt outlet kit may be required. Refer to “Before you begin the initial installation,” in this manual.
- **The operating temperature range is between -2° and +150° F (-19° to +66° C). Even Brake will not operate at temperatures above or below this range.**
- Check the 12-volt outlet fuse size. It must be rated at 15 amps or higher. If the amperage is not sufficient, install the optional 12-volt outlet kit. (Refer to the “Vehicle-Specific Components” section.)
- If the fuse is of sufficient size, unplug the break away harness connection at the ICX transmitter. If the fuse stops blowing, you have a short in the break away wiring harness. Inspect the wire for possible grounding.

Even Brake’s compressor will activate about every 10 minutes due to normal air dissipation. If the compressor activates repeatedly within 10 minutes or less (when not braking), contact ROADMASTER – you may have an air leak in the air cylinder.

Communications

The motorhome monitor is not receiving a clear signal from the ICX transmitter.

- If possible, relocate the ICX transmitter to a higher position.
- Relocate the motorhome monitor.

Check the power and ground connections at the ICX transmitter – the red wire should be connected to 12 volts positive (power); the white wire should be connected to 12 volts negative (ground).

The monitor is not programmed to the ICX transmitter. The ICX transmitter and the motorhome monitor are programmed as a set. If a replacement monitor, a replacement ICX transmitter or a second vehicle kit has been installed, follow the instructions under “Program the monitor.”

Responding to an LCD prompt

Even Brake will report braking activities or system conditions at the motorhome monitor, some of which require a specific action. The LCD text display will prompt you with a flashing downward-pointing arrow (↓) to indicate there is further information.

The LCD text display will first report the activity or condition. (The “1st message” column in the chart on page 23 lists the initial messages.) If the first message ends with a flashing downward-pointing arrow (↓), press the button with the right-hand arrow (→) on the motorhome monitor to scroll to the second message (Figure 20), which will display the required action or additional information (the “2nd message” column in the chart on page 23).

If the second message or a subsequent message ends with a flashing downward-pointing arrow (↓), press the button with the right-hand arrow (→) on the motorhome monitor to scroll to the next message.

After the first message, each subsequent message in that series will be displayed for 15 seconds after the button with the right-hand arrow is pressed. If the button is not pressed after that time, the LCD screen will revert to the first message in that series.

To clear the monitor

After an adjustment in response to an LCD text message, unplug the Even Brake 12-volt power cord at the towed vehicle, then unplug the ICX transmitter cord. Then, plug the cords back in and press the “Test” button. This will clear the current message.

Note: after an adjustment, unless the Even Brake power cord and the ICX transmitter cord are unplugged and then plugged back in, and the “Test” button is pressed, the motorhome monitor will continue to display the same message.

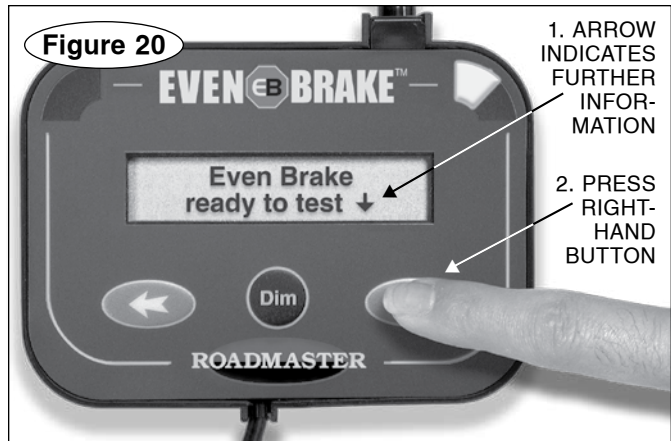
Audio alerts

In addition to LED and LCD signals, an audio alert will accompany braking activities or conditions of immediate concern. The audio alerts will vary in intensity, depending on the activity or condition.

The audio alert will stop when either the button with the left-hand arrow (←) or the right-hand arrow (→) on the motorhome monitor is pressed.

Dimmer button

For night time driving, press the “Dim” button on the motorhome monitor to reduce the intensity of the LEDs and LCD display by 40 percent. Pressing the “Dim” button a second time will return the intensity



of the LEDs and LCD display to 100 percent.

Towed vehicle battery voltage check

The voltage in the towed vehicle’s battery can be checked after at least one braking activity. Press the button with the left-hand arrow (←) on the motorhome monitor once, and the voltage will be displayed on the LCD text display.

(Note: it may take up to five minutes before the voltage data is available.)

Reference chart

The chart on page 23 shows which color LED(s) will illuminate for each condition or activity, the LCD text message(s) that will accompany it, and if there will be an audio alert.

The chart also shows if the LED on the Even Brake control pad (next to the “Test” button) will also illuminate to indicate a certain activity or condition.

Expanded descriptions

A description of the motorhome monitor messages listed on page 23 follows.

1. The Even Brake power cord or ICX transmitter cord has been unplugged

If either the 12-volt power cord or the ICX transmitter cord has been unplugged, Even Brake will shut down until the cord is plugged back in.

The red LED on the motorhome monitor will illuminate, and the LCD text display will read “Even Brake is Turning Off.”

2. The break away wiring harness has a short circuit

As part of the self-diagnostic program, Even Brake
continued on next page

Communications – Overview

continued from preceding page

checks the towed vehicle's break away system electrical circuit. If the break away harness has a short circuit, the LCD text display on the motorhome monitor will read "Break Away Cable Not Operational ↓," and the red and yellow LEDs on the monitor will illuminate. The second message in this series will instruct you to call the factory for further information.

3. Battery level is low on initial self-diagnostic test

In order to function, Even Brake draws power from the towed vehicle's battery. If there is insufficient voltage in the towed vehicle's battery to power Even Brake, it will not operate.

If the LCD text message at the motorhome monitor reads "Not operational – Low Battery ↓" during the initial self-diagnostic test, recharge the towed vehicle's battery (with a battery charger or by running the engine) to increase the voltage.

4. Battery voltage check

The voltage in the towed vehicle's battery can be checked after at least one braking activity. Press the button with the left-hand arrow (<) on the motorhome monitor once, and the voltage will be displayed on the LCD text display.

(Note: it may take up to five minutes before the voltage data is available.)

5. Insufficient voltage – low battery

In order to function, Even Brake draws power from the towed vehicle's battery. If the LCD text message reads "Low battery – Charge battery," there is insufficient voltage to power Even Brake.

Recharge the towed vehicle's battery (with a battery charger or by running the engine) to increase the voltage.

An audio alert accompanies this message.

6. 'Power Save' mode activated

Before the voltage in the towed vehicle's battery is completely depleted, Even Brake will revert to the 'Power Save' mode. In this mode, Even Brake will not draw power from the towed vehicle's battery, and will not function except in an emergency break away.

An audio alert accompanies this message.

To regain normal braking in the towed vehicle...

a. Unplug the Even Brake 12-volt power cord and the ICX power cord.

b. Charge the towed vehicle's battery (with a battery charger or by running the engine).

c. Plug the Even Brake ICX power cord back into the ICX transmitter, and the 12-volt power cord back into the towed vehicle's 12-volt outlet.

d. Press the "Test" button on the Even Brake control pad.

CAUTION

If the towed vehicle's engine has been turned on for any reason, press the "Test" button on the Even Brake control pad once the engine has been turned off and the vehicle is ready to be towed.

As part of the test, Even Brake will extend and retract the pedal clamp, which will deplete the residual vacuum in the vehicle's power brakes.

If the vacuum is not depleted, Even Brake will brake excessively, resulting in non-warranty tire and/or brake system damage.

7. Compressor time limit exceeded

When Even Brake is connected to the towed vehicle, it will run a self-diagnostics test. As part of the test, Even Brake will measure the amount of time it takes to fill the air reservoir. If it takes an inordinate amount of time to fill the reservoir, Even Brake will instruct you to call the factory for further information.

8. Brake pedal depressed continuously

As part of the initial self-diagnostic test, Even Brake checks the towed vehicle's brake light switch. If the brake light switch remains on, indicating that the brake pedal is being depressed continuously, the LCD message will read "Not operational – more info. ↓." Press the button with the right-hand arrow (>) on the monitor to scroll to the second and subsequent messages, which will display the required action(s).

An audio alert accompanies this message.

9. Towed vehicle brake electronics are not connected to Even Brake

As part of the initial self-diagnostic test, Even Brake will check the towed vehicle's brake light switch. If there is no signal from the switch, indicating that the braking system electronics are not connected to Even Brake, the LCD message will read "Not operational – more info. ↓." Press the button with the right-hand arrow (>) on the monitor to scroll to the second and subsequent messages, which will display the required action(s).

An audio alert accompanies this message.

10. Towed vehicle brake pedal depressed; Even Brake has not been activated

If the LCD text display in the monitor reads "Braking ↓," and the second message reads "Stop ASAP – Brakes are ON! ↓," stop the motorhome immediately – the towed vehicle's brakes may be damaged if you continue.

An audio alert accompanies this message.

continued on next page

WARNING

Some motorhome monitor messages are intended to alert you to potentially dangerous conditions. Ignoring an LCD message to stop the motorhome or call the factory for further information may result in property damage, personal injury or even death.

Communications – Overview

continued from preceding page

After you have stopped, press the button with the right-hand arrow (>) on the monitor to scroll to the subsequent messages, which will display the required action(s).

11. Proportional regulator test

As part of the initial self-diagnostic test, Even Brake will check the proportional regulator. If the regulator is not functioning at full capacity, Even Brake will instruct you to call the factory for further information.

An audio alert accompanies this message.

12. Extended braking

After an extended period of continuous braking, the LCD text display will read, "Stop ASAP!! Brakes are ON ↓." Stop immediately – the towed vehicle's brakes may be damaged if you continue.

An audio alert accompanies this message.

After you have stopped, press the button with the right-hand arrow (>) on the monitor to scroll to the subsequent messages, which will display the required action(s).

13. Break away mode

The towed vehicle has separated from the motorhome. The LCD text display reads "TOW break away – Emergency STOP." Even Brake has applied maximum pressure to the towed vehicle's brakes to bring it to a stop.

An audio alert accompanies this message.

14. Communication link

A component of the communications system is not connected. Press the button with the right-hand arrow (>) on the monitor to scroll to the second and subsequent messages, which will display the required action(s).

An audio alert accompanies this message.

WARNING

Some motorhome monitor messages are intended to alert you to potentially dangerous conditions. Ignoring an LCD message to stop the motorhome or call the factory for further information may result in property damage, personal injury or even death.

COMMUNICATIONS

REFERENCE CHART

The chart below shows the motorhome monitor and control pad response to the braking activities or conditions listed in the “Reported Activity or Condition” column – which color LED(s) will illuminate, the LCD text message(s), and if there will be an audio alert. Refer to the “Communications – Overview” section for an expanded description of each message, how to access specific information, and how to clear the monitor after an adjustment in response to an LCD text message.

MOTORHOME LCD TEXT DISPLAY		MOTORHOME LED DISPLAY			AUDIO	REPORTED ACTIVITY OR CONDITION	EVEN BRAKE CONTROL PAD		
1st MESSAGE	2nd MESSAGE	RED	YELLOW	GREEN			RED	GREEN	RED/ GREEN
"Even Brake is Turning Off"		●				1. Even Brake power cord or ICX cord has been unplugged			
"Break Away Cable Not Operational ↓"	"Fault Detected Call Tech Dept ↓"	●	●			2. The break away harness has a short circuit to ground			●
"Not operational Low battery ↓"	"Low battery Charge required"		●			3. Battery level is low on initial self-diagnostic test	●		
"Battery Voltage (value)"						4. Battery voltage check – press the button with the left-hand arrow (<)			
"Low battery Charge battery"			●		●	5. Insufficient voltage – low battery		● (pulse red)	
"Not operational Power Save mode ↓"	"Low battery Charge battery"		●		●	6. Power Save mode activated			● (pulse)
"Not operational Call Tech Dept ↓"	"Diagnostic code #14 ↓"		●			7. Compressor time limit exceeded	●		
"Not operational more info. ↓"	"Brake pedal is depressed ↓"		●		●	8. Brake pedal depressed continuously	●		
"Not operational more info. ↓"	"No brake light switch detected ↓"		●		●	9. Towed vehicle brake electronics are not connected to Even Brake	●		
"Braking ↓"	"Stop ASAP Brakes are ON ↓"	●			●	10. Towed vehicle brake pedal depressed; Even Brake has not been activated	●		
"Not operational Call Tech Dept ↓"	"Diagnostic code #15 ↓"		●		●	11. Proportional regulator test	●		
"Stop ASAP!! brakes are ON! ↓"	"Brake Pedal is Depressed ↓"	●	●		●	12. Extended braking		●	
"TOW break away Emergency STOP"		● (strobe)	● (strobe)	● (strobe)	●	13. Break away mode		●	
"Check Even Brake stop ASAP! ↓"	"No communication with Even Brake ↓"	●			●	14. Communication link		●	

PROGRAM THE MONITOR

The ICX transmitter and the motorhome monitor must be programmed as a set. If a replacement monitor, a replacement ICX transmitter or a second vehicle kit is to be installed, follow the instructions below.

Program the motorhome monitor

Until both the ICX transmitter and the motorhome monitor are programmed as a set, the motorhome monitor will not receive the signal from the ICX transmitter. Follow the instructions below to program the system.

A second 12-volt outlet (in addition to the towed vehicle's) will be necessary.

1. Before programming, first install and connect Even Brake in the towed vehicle – follow the “Initial Installation” and “Day-to-day operation” instructions in this manual. Even Brake must be completely installed and connected, with both the ICX transmitter cord and the power cord plugged in.

WARNING

Read all instructions in this manual before installing or operating Even Brake. Failure to understand how to install or operate Even Brake could result in property damage, personal injury or even death.

Note: before transferring Even Brake to a second (or third, or fourth) vehicle, it may be necessary to adjust the feet to maintain stability. Refer to Step Two – “Adjust the feet and the seat pad” – in the “Day-to-day operation” section of this manual.

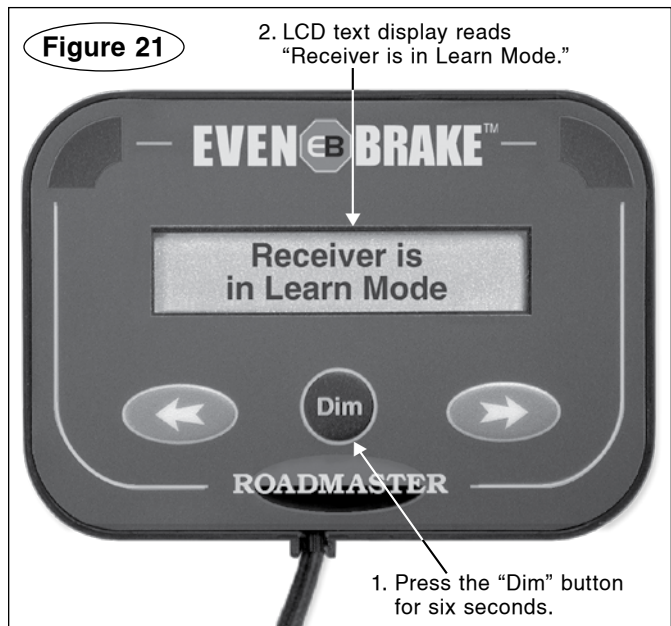
2. Next, at the towed vehicle, plug the motorhome monitor power cord into the second 12-volt outlet. (This outlet must be receiving power for the monitor to operate.) The LCD text display will read “Even Brake.”

3. Now, press the “Dim” button on the motorhome monitor (Figure 21) for approximately six seconds, until the LCD text display reads “Receiver is in Learn Mode.”

4. Release the “Dim” button. The LCD text display will read “Learning ICX #1 – Advance? OK ↓.”

If you are installing a replacement motorhome monitor or ICX transmitter into the towed vehicle, press the button with the right-hand arrow (→) on the motorhome monitor. The LCD text display will read “Press Even Brake Test Button.”

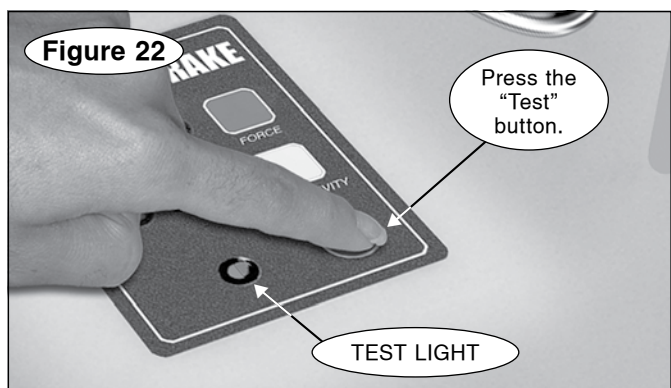
(If you are programming the monitor for a second towed vehicle, press the button with the left-hand arrow (←) on the monitor to scroll to the next message – “Learning ICX #2 – Advance? OK ↓.” If you are programming the monitor for a third or fourth towed vehicle, continue to press the button with the left-hand arrow (←) on the motorhome monitor to scroll to the ap-



propriate message in this series – “Learning ICX #3...” or “Learning ICX #4...”)

5. Press the “Test” button (Figure 22) on the Even Brake touch pad control panel. Even Brake will begin a self-diagnostic test.

(As part of the test, Even Brake will cycle the brake pedal clamp up and down three times. When the



brake pedal clamp is depressed, the LCD display on the motorhome monitor will read “Braking.”)

6. After Even Brake has completed the self-diagnostic test, the test light on the touch pad control panel (Figure 22) will illuminate green to indicate the system is ready, or red to indicate the system is not ready.

- If the test light is green and the LCD display reads
- continued on next page*

Program the motorhome monitor

continued from preceding page

“Test Is Good – System Ready,” the motorhome monitor is programmed to the ICX transmitter. When the vehicle is towed, the monitor will display braking activity and system status information from Even Brake.

The monitor can be programmed in this manner for up to four vehicles. Once programmed, the monitor will automatically recognize the ICX transmitter in each vehicle without further adjustment.

- If the test light is red, check the motorhome monitor LCD text display for detailed information. You can also refer to the “Communications” sections (“Overview” and “Reference Chart”) in this manual.

7. Before towing, read this owner’s manual, cover to cover. Understand how to install and operate Even Brake, and carefully follow the instructions and safety precautions.



WARNING

Read all instructions in this manual before installing or operating Even Brake. Failure to understand how to install or operate Even Brake could result in property damage, personal injury or even death.

FORD 'NEUTRAL TOW' VEHICLES

Some Ford vehicles, such as the Ford Explorer, are equipped with a 'neutral tow' kit. Use the instructions below to wire these vehicles for supplemental braking, and for towing.

To wire the vehicle for supplemental braking...

CAUTION

If Even Brake is to be installed in any Ford vehicle with a 'neutral tow' kit, do not install a Brake-Lite Relay. Using a Brake-Lite Relay in these vehicles may prevent disengagement of the transmission for towing, causing severe damage to the transmission.

Install a diode, rather than a Brake-Lite Relay, according to the instructions below.

1. Locate the towed vehicle's brake light switch and, with a test light, find the "cold" side of the brake light switch. (The "cold" side of the switch does not register voltage unless the brakes are applied.) With a 12-volt meter, verify that you have found 12 VDC+.

Then, remove the brake light fuse, located in the vehicle's fuse panel.

CAUTION

Failure to remove the brake light fuse from the vehicle's fuse panel may activate the vehicle's theft deterrent system, or other electrical system indicators, if the brake pedal is pressed during the installation. This may require non-warranty repair to the vehicle.

2. Next, cut the brake light wire, a few inches downstream from the "cold" side of the brake light switch.

3. Install the diode in line, as shown in Figure 23.

Mount the diode under the dashboard, a few inches away from the brake light switch.

4. Reinstall the brake light fuse, which you removed in step 1.

5. Test to verify that the diode has been properly installed – the towed vehicle's brake lights will illuminate when the brake pedal is pressed.

To wire the vehicle for towing...

There are three methods available which will allow a towed vehicle's turn signals, brake lights and running lights to work in conjunction with the motorhome's: 1) install a taillight wiring kit (also called a 'bulb and socket kit,' part number 155); 2) install magnetic tow lights (part number 2100 or 2120); or 3) wire the vehicle's turn signals, taillights and brake lights for towing.

Instructions for the third method are below; instructions for the first two methods are included with the kits.

1. After you have installed a diode downstream from the brake light switch (Figure 23), wire the vehicle's turn signals, taillights and brake lights for towing by installing six diodes (Figure 24).

Before installing the diodes, verify that the towed vehicle has *separate* brake and turn signals – on each side, there are amber or red turn signal lights which are *separate* from the brake lights (Figure 2).

Note: if the motorhome has combined brake and turn signals, use Figure 24 to wire the towed vehicle. If the motorhome has separate brake and turn signals, visit www.roadmasterinc.com. Use the 'Separate towed vehicle to 'separate' motorhome' wiring diagram, under 'Tech Support.'

Note: if a 3-to-2 converter has been installed in a motorhome with separate brake and turn signals, wire the towed vehicle according to Figure 24.

To test for a 3-to-2 converter, use a test light to find
continued on next page

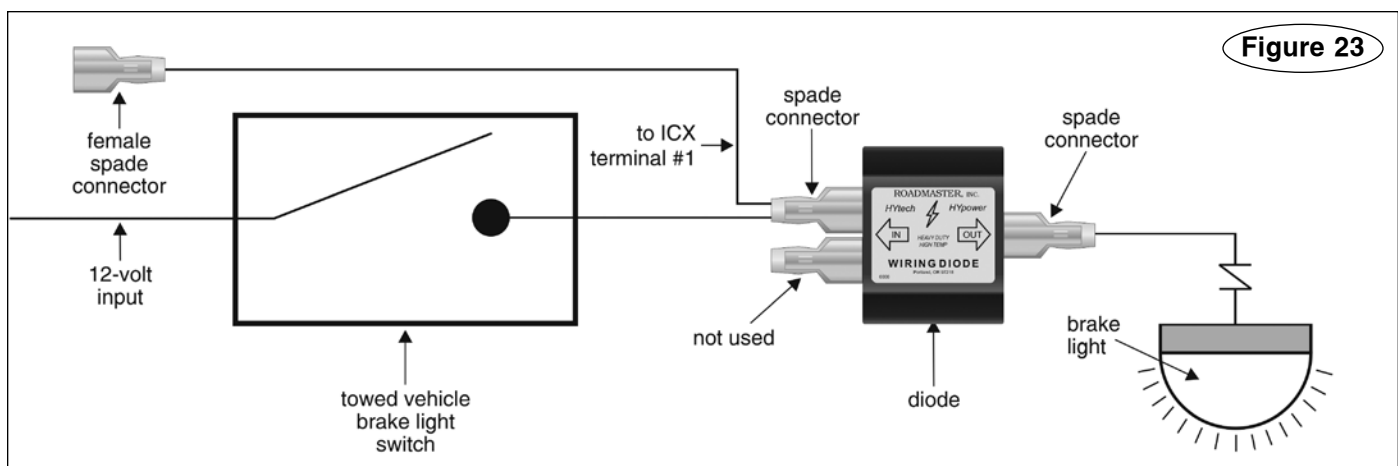


Figure 23

Ford 'neutral tow' vehicles

continued from preceding page

the turn signal and brake light circuits on the motorhome electrical socket. If the same circuit energizes both the turn signals and the brake lights, a 3-to-2 converter has been installed. If the turn signal and brake lights have separate circuits, a 3-to-2 converter has not been installed.

2. First, cut the factory turn signal, taillight and brake light wires, as close to the lights as possible.
3. Next, install the six diodes in line, as close to the lights as possible.

CAUTION

Attach the diodes as close to the vehicle's lights as possible, to avoid interaction with other circuits which may be tied into the center brake light, the running lights, the turn signals or the brake light wires. Attaching the diodes further away may cause the towed vehicle's lights to work improperly, and may also cause damage to other electrical components in the vehicle.

4. On each side, jump the brake and turn signal diodes, as shown in Figure 24.

CAUTION

Unless the brake and turn signal diodes are jumped, the towed vehicle's brake light circuits will 'override' the motorhome's turn signals – the towed vehicle's turn signals will not operate in conjunction with the motorhome's turn signals, as required by law.

5. Test to verify that the diodes have been properly installed...

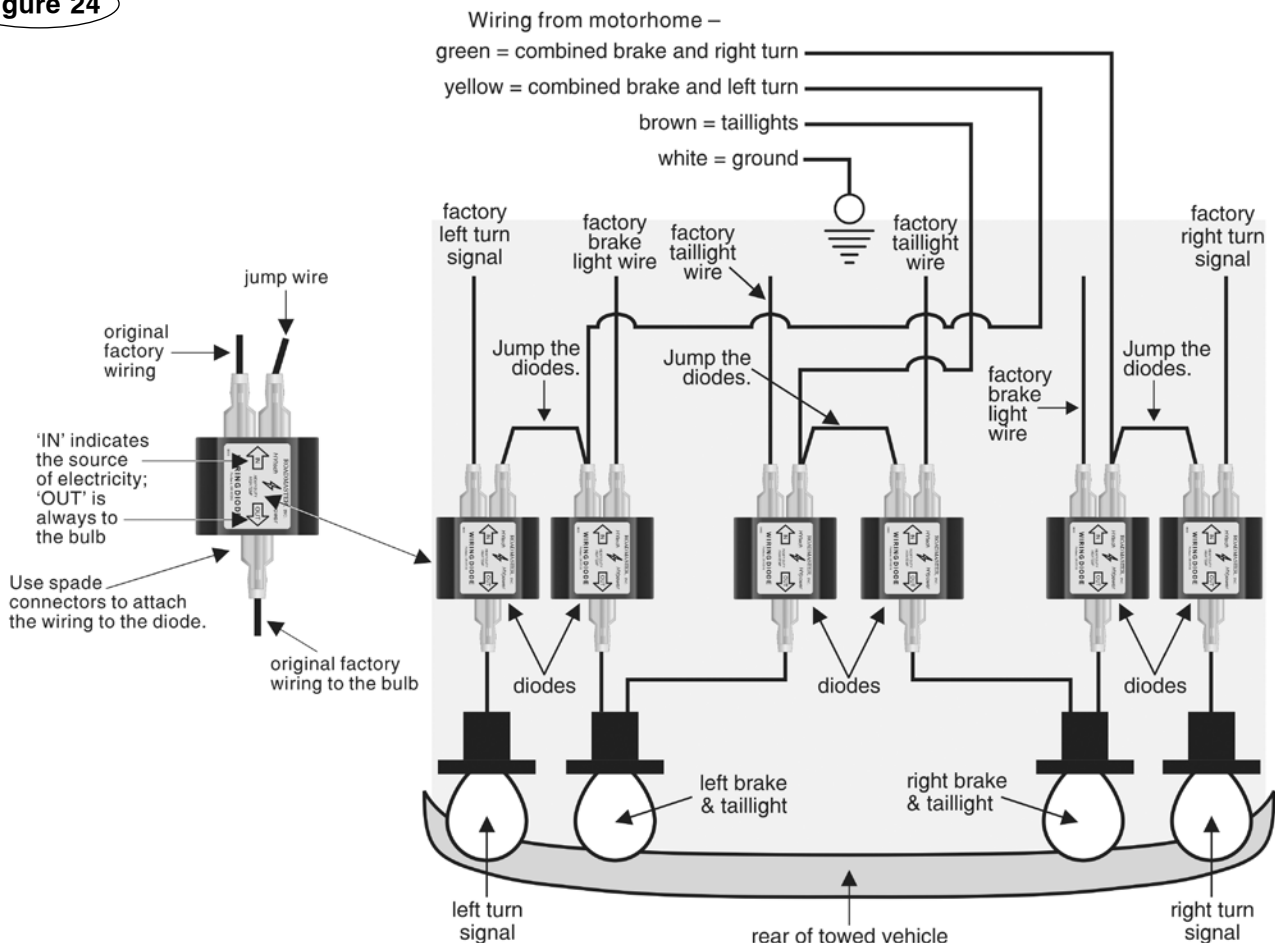
a. If the motorhome has a 'combined' lighting system...

1. The towed vehicle's turn signals and brake lights will both flash (each side) when the motorhome's turn signal is on; and

2. When the motorhome's turn signal and brake signal are both on (each side), the towed vehicle's brake lights will stay illuminated, while the turn signal flashes.

b. If the motorhome has a 'separate' lighting system, the towed vehicle's turn signals and brake lights will illuminate identically to the motorhome's.

Figure 24



VEHICLE-SPECIFIC COMPONENTS

12-volt 'Y' adaptor (part number 9330)

Use this 'Y' adaptor to connect more than one 12-volt accessory to a single 12-volt outlet.



12-volt extension cord (part number 9331)

This extension cord will extend your 12-volt outlet by six feet.



12-volt outlet kit (part number 9332)

Even Brake is powered through the 12-volt outlet, with the ignition key turned to the "tow" position. If your vehicle has no power to the outlet with the key in this position, use this kit.



BREAK AWAY SYSTEM

BRAKE-LITE RELAY

Second vehicle kit (part number 98400)

If you switch Even Brake between two vehicles, install this break away system, ICX transmitter and Brake-Lite Relay in the second vehicle.



ICX TRANSMITTER

Automatic Battery Disconnect (part number 765)

If you tow a Jeep Liberty, Jeep Wrangler or any other vehicle which must be towed with the battery cable disconnected, install the Automatic Battery Disconnect. After the initial installation, your vehicle can be towed and then driven without any further adjustment to the battery.



Air cylinder shaft and foot extensions

Although Even Brake fits most vehicles as is, with no modifications needed, it may be necessary to gain additional clearance over obstructions on the floor, or to extend the reach of Even Brake to ensure a secure and stable fit.

The air cylinder shaft extensions increase the reach of Even Brake. Use an air cylinder shaft extension if the distance between the driver's seat and the brake pedal is too far to maintain a secure anchor point between the seat and the adjustable seat pad.

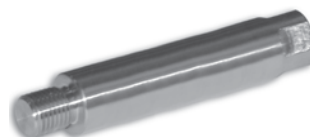
Use one or more foot extensions to elevate Even Brake over obstructions such as duct work, a door jamb or a center console that juts into the available space.



1.5" cylinder shaft extension (part number 9336)

(part number 9336)

This option extends the reach of the air cylinder shaft by 1½ inches. It threads between the pedal clamp and the cylinder arm.



3.5" cylinder shaft extension (part number 9336-3)

(part number 9336-3)

This option extends the reach of the air cylinder shaft by 3½ inches. It threads between the pedal clamp and the cylinder arm.



Foot extensions

(one extension: part number 9337

four extensions: part number 9337-4)

This option allows Even Brake to sit up to one inch higher in the vehicle. Unscrew the included foot, screw the extension in, and then screw the original foot into the extension.

LIMITED WARRANTY

1. WARRANTY

1a. WARRANTY OF CONFORMITY AT TIME OF SALE

ROADMASTER, Inc. warrants that at the time of sale of this product it will be free from defects in material and manufacture and will conform to ROADMASTER'S specifications for the product.

1b. CONDITIONAL ONE-YEAR WARRANTY

In addition to the preceding time-of-sale warranty, if the product registration card is completely and accurately filled out and mailed to ROADMASTER within thirty (30) days of purchase, ROADMASTER will provide an additional warranty that for a period of one year after sale the product will remain in good working order, PROVIDED THAT the product is installed and maintained in accordance with ROADMASTER'S instructions and is not subjected to: (a) alteration or unauthorized repairs or repairs by anyone other than ROADMASTER or a ROADMASTER-authorized service center, (b) misuse, abuse, commercial use, or improper maintenance, (c) Acts of God (including without limitation hurricanes, tornadoes, floods, or other severe weather or natural phenomena), (d) failures due to products not supplied by ROADMASTER, or (e) other treatments, uses, or installations for which the product was not intended. This warranty extends only to the first retail purchaser-consumer of the product and is not transferable.

EXTENDED WARRANTY PERIOD: If ROADMASTER receives the product registration card, completely and accurately filled out, within thirty (30) days of purchase, ROADMASTER will enlarge the one-year warranty period in the preceding paragraph to a period of two years.

2. DISCLAIMER OF OTHER WARRANTIES

The preceding warranties are the exclusive and sole express warranties given by ROADMASTER. They supersede any prior, contrary or additional representations, whether oral or written. No agent, representative, dealer or employee has the authority to alter or increase the obligations or limitations of this warranty. Any implied warranties, including the WARRANTY OF MERCHANTABILITY and any WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, are limited in duration to thirty days or the term of the applicable express warranty provided above, whichever is longer.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

3. EXCLUSIVE REMEDY FOR ANY NONCONFORMITIES

If during the applicable Warranty Period, the product does not conform to the preceding Warranties, notify ROADMASTER as provided below, and within a reasonable time ROADMASTER will provide, at its option, one of the following: (1) replacement components for any nonconforming or defective product or components or (2) the percentage of the purchase price for the nonconforming product equal to the percentage of the Warranty Period remaining when ROADMASTER is notified of the nonconformity. ROADMASTER will, at its option, (a) use new and/or reconditioned parts in performing warranty repairs and making replacement products, (b) use parts or products of original or improved design in the repair or replacement. If ROADMAS-

TER repairs or replaces a product, its warranty continues for the remaining portion of the original Warranty Period or 60 days from the date of the return shipment to the customer, whichever is greater. All replaced products and all parts removed from repaired products become the property of ROADMASTER. ROADMASTER will not provide, and will not be liable for, labor, costs of removal or reinstallation of components, disposal, shipping, freight, taxes, or other incidental charges.

THESE REMEDIES ARE THE EXCLUSIVE AND SOLE REMEDIES FOR ANY BREACH OF WARRANTY.

For any breach of warranty, the Owner must telephone ROADMASTER at 1-800-669-9690 within thirty (30) days after discovering the nonconformity. Do not return any product without first calling ROADMASTER and getting a return authorization number. Returned products must include the return authorization number and a copy of the original invoice, bill or other proof of the date of purchase. The date of purchase must coincide with the original warranty registration card on file. ROADMASTER will authorize (a) shipment of the product to ROADMASTER or (b) repair or replacement at the nearest warranty service center—in both cases with shipping at your expense. Do not purchase replacement parts or pay for repair labor—you will not be reimbursed. Compliance with the requirements of this paragraph is a condition to coverage under the Warranty: if these requirements are not complied with, ROADMASTER will have no obligation to provide any remedy for any breach of warranty.

4. DISCLAIMER OF INCIDENTAL AND CONSEQUENTIAL DAMAGES

IN NO EVENT SHALL ROADMASTER BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM NONDELIVERY OR FROM THE USE, MISUSE OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

5. APPLICABLE LAW

This Warranty will be interpreted, construed, and enforced in all respects in accordance with the laws of the State of Washington, without reference to its choice of law rules. The U.N. Convention on Contracts for the International Sale of Goods will not apply to this Warranty.

6. SEVERABILITY

If any provision of this warranty is found to be invalid or unenforceable, then the remainder shall have full force and effect, and the invalid provision shall be partially enforced to the maximum extent permitted by law to effectuate the purpose of the agreement.

7. ADDRESS FOR NOTICES TO ROADMASTER

ROADMASTER, Inc., 6110 NE 127th Ave, Vancouver, WA 98682

This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

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Towing and Suspension Solutions

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