ROADMASTER

Towing and suspension solutions

The Roadmaster difference

Corporate philosophy

ROADMASTER is the 21st century version of an Horatio Alger success story. Jerry A. Edwards founded ROADMASTER 36 years ago with not much more than a "can-do" attitude, and a philosophy of personal and corporate self-sufficiency.

"Self-sufficient" is ROADMASTER's core value. So far, it's worked out pretty well for Edwards and his company, which now has 200 employees and 200,000 square feet of office and manufacturing facilities.

'Hands-on' design and manufacturing

ROADMASTER doesn't outsource.

All of the company's products are designed, engineered and manufactured in the Vancouver, Washington metro area, with virtually every process done under the same roof. If it's feasible, that includes building the tools and dies to make the equipment to make the products.

There are two reasons for 'hands-on' manufacturing. The first is simple: quality. "Quality starts on the inside, and when you control the process, you control the quality," as Edwards is fond of saying. To his way of thinking, "quality first" is the reason more ROADMASTER towing products are on the road today than any other brand — by nearly a two-to-one margin.

The second reason is equally important: in these economic times, Edwards would prefer to keep 200 jobs in America.

The most stringent testing in the industry

In the RV towing products industry, testing standards are entirely self-imposed — there are no federal regulations in place, whatsoever. ROADMASTER's standards — "quality to ensure reliability; reliability to ensure safety" — are the highest in the industry.

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Exhaustive product testing

What is FEA? testing

Testing, testing, testing...

ROADMASTER pioneered the use of computerized testing for tow bars and tow systems. The testing method is called "FEA," which stands for "Finite Elemental Analysis."

If that sounds complicated, that's because it is — FEA is the same method **NASA scientists** use to test their designs. The aerospace, automotive and biomedical industries, among others, also use finite elemental analysis.

Every FEA design is displayed as a full-scale, three-dimensional object, which engineers rotate and study on the screen as they apply thousands of pounds of force across the load-bearing components. Up to a million separate points can be analyzed. Stress in the steel is pinpointed and color-coded, and the design is manipulated to remove it. The result is an optimized design, in both materials and components, which has been tested and verified at maximum linear strain.

Every ROADMASTER tow bar design is tested, refined and perfected through finite elemental analysis before the first prototype is ever built. Tow bar prototypes are then further tested in "real world" fatigue tests, to the equivalent of 600,000 road miles (150,000 "push" strokes and 150,000 "pull" strokes on a laboratory simulator, at full capacity). Each prototype testing cycle takes almost a month to complete.

ROADMASTER is the rare company that performs double-testing — computerized stress testing to refine and optimize the design, as well as "real world" physical testing — to ensure the structural integrity and longevity of their products.

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All Terrain tow bars

The freedom from Binding

Releasing your towed vehicle is easy with ROADMASTER's All Terrain tow bars...even when the tow bar is at a hard angle or the towed vehicle is out of level. Four familiar, classic ROADMASTER tow bars — the Sterling, Falcon, BlackHawk 2 and StowMaster — are available in the All Terrain Series. Each is upgraded with ROADMASTER's exclusive Freedom Latch, which releases the tow bar at any angle, level or bind — first time, every time. ROADMASTER also uses more stainless steel than any other tow bar manufacturer. Stainless steel in virtually every moving component results in trouble-free operation, optimum corrosion resistance, and satisfied customers — today and down the road.

After all, who's on vacation here — you, or your tow bar?

Freedom Latch™

A patented cam design inside the Freedom Latch transforms linear motion into rotary motion at a 400-to-one ratio — five pounds of force against the latch equals 2,000 pounds of force against the lock. So you'll never have to straighten and align your towed vehicle and motorhome to release the tow bar.

Quick-disconnect system

Allows "one-person" fast and easy mounting or removal of your Sterling, Falcon or BlackHawk 2 All Terrain tow bar.

U.S. patent number 6,619,686

Patented storage latch

The storage latch makes storing All Terrain tow bars a snap! Simply fold the tow bar toward the motorhome and it will "click," automatically locking in place.

U.S. patent no. 6,168,182

Built-in cable guide

The built-in cable guide enhances appearance and helps keep safety cables and wiring from being crushed or damaged.

6,000-pound rated!

Falcon ALL-TERRAIN

6,000-pound rated!

10,000-pound rated!

BlackHawk 2 ALL-TERRAIN

StowMaster ALL-TERRAIN

6,000-pound rated!

ROADMASTER

Towed car braking systems

Give yourself a

Brake

Why do you need a supplemental braking system?

Safety is the number one reason most people add supplemental brakes to their towed vehicles. In an emergency, stopping distance is the critical factor between a close call and a tow truck — or worse. A proper supplemental braking system takes the load off your motorhome, allowing the motorhome and the towed vehicle to brake in tandem, taking about 33 percent less distance to come to a controlled stop.

Supplemental brakes also relieve stress on the tow bar and the mounting brackets — a panic stop without supplemental brakes is a leading cause of tow system failure. They also keep the combination straight as you brake, so there's less chance of a "jackknife." And supplemental brakes reduce the chance of a catastrophic brake failure at the motorhome, as a result of sustained braking — for example, when you're driving down a steep grade in the mountains.

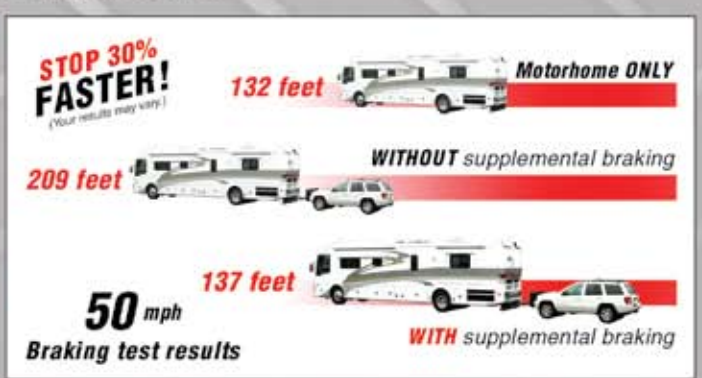
Safety notwithstanding, there are several other compelling reasons to add supplemental brakes...

It's required — According to the American Automobile Association, most states, plus many Canadian provinces, now require supplemental brakes if the towed weight exceeds 3,000 pounds.
Visit http://www.roadmasterinc.com/products/braking/map.html to find the braking requirements in your state.

Chassis warranty — Workhorse will void your chassis warranty if you tow more than 1,000 pounds without supplemental brakes; Ford stipulates 1,500 pounds.

Wear and tear — Because they aren't braking for two vehicles, your motorhome brakes last longer.

It just makes good sense — Every other trailer on the road today — fifth wheels, travel trailers, boat trailers or semi-trailers — has its own braking system. When you're towing two or three extra tons, shouldn't you have a supplemental braking system to stop it?



Comparable braking distances with and without supplemental braking

ROADMASTER

Towed car braking systems

Give yourself the right Brake

Which system is right for me?

A 'direct' system? BrakeMaster is recommended if you don't frequently change motorhomes or towed vehicles. Because it connects directly to the motorhome's braking system, the initial installation is longer than a portable system. But once installed, it's a truly trouble-free and easy-to-use braking system.

A 'progressive' system? InvisiBrake is recommended if you like convenience above all else and plan on keeping your towed vehicle for the foreseeable future.

Or a portable? Even Brake is recommended if you change motorhomes often, or want to switch between towed vehicles. It's a portable system, with no installed components in the motorhome, except for a dashboard monitor. Initial installation time is approximately one hour, depending on the vehicles.

InvisiBrake®

Progressive Braking System

InvisiBrake is a fully automatic, progressive towed vehicle braking system that uses the electrical connections already in place on your towed vehicle (the towed vehicle's electrical harness) to brake when you brake the motorhome — the same electrical signal that activates the towed vehicle's brake lights also activates InvisiBrake.

Why is InvisiBrake better?

- **Nothing** to put in or take out to tow or drive.
- **Hidden from view** — no unsightly equipment to see in your car.
- **Simple operation** — works intuitively. No fuss, no hassle.
- **Charges your battery** — trickle charges the battery while towing. Never drains your towed vehicle's battery.

Even Brake®

Portable Proportional Braking System

Even Brake is the ultimate portable, proportional towed vehicle braking system. It automatically increases or decreases braking pressure in direct proportion to the motorhome. In other words, it brakes evenly — at the same time, and at the same intensity, as you brake the motorhome.

Exclusive features include...

- Full-time proportional braking
- A revolutionary motorhome monitor gives you complete, continuous braking information — at a glance.
- 'Power Save' low battery protection — Even Brake warns you of a low battery in the towed vehicle with LED and LCD alerts at the motorhome monitor, giving you time to recharge the battery. If the battery's voltage drops too low, Even Brake goes into sleep mode, while retaining emergency braking power.
- Automatic brake protection — The monitor alerts you after an extended period of continuous braking, then Even Brake releases braking pressure, avoiding excessive wear on the towed vehicle's brakes.

BrakeMaster™

Proportional Braking System

BrakeMaster is a classic, time-tested favorite. It connects directly to the motorhome's air or hydraulic brake line for rock-solid, reliable braking — brake line pressure in the motorhome controls the brakes in the towed vehicle.

Because it connects directly to what powers your motorhome's brakes, BrakeMaster is a truly proportional, truly synchronized braking system — however you brake the motorhome, BrakeMaster automatically applies the same pressure. Every time.

It connects and disconnects from the towed vehicle in under a minute, without any tools, adjustments or settings — attach the brake pedal clamp, secure to the floor or seat adaptor, quick-connect the air hose, and you're ready to tow.

Weighs just 3¾ pounds and measures 17 inches in length — stores almost anywhere.

ROADMASTER

Towing and suspension solutions

Debunking the 'Big rig' myth

Here's an urban legend that MythBusters hasn't gotten around to yet — that motorhomes (or trucks, vans and SUVs) are all supposed to handle like 'big rigs' — in other words, poorly. So the reason you feel like you're in a prize fight behind the steering wheel is simple — you're driving a big rig.

But that simply isn't true — with the correct aftermarket upgrade, your motorhome can be made to handle just like your family sedan.

The chart on this page identifies the primary benefits of aftermarket suspension products. By matching the problem to the product, you can make an informed, decision about what aftermarket suspension product(s) will enhance your vehicle's stability, handling and maneuverability.

The primary benefits of ROADMASTER suspension components are...

Anti-sway bars — virtually eliminate 'body roll' (the vehicle rolls from side to side, especially during cornering). Anti-sway bars stabilize the vehicle, keeping it level through crosswinds, as well as dramatically improving stability and tracking, especially on the curves. (Susceptibility to wind buffeting increases with the size of the vehicle's sides. For this reason the factory anti-sway bars on camper trucks and Class A motorhomes may be inadequate, even if they show no wear. Simply put, most factory anti-sway bars are too small for the size of the RV).

Reflex 'return to center' steering stabilizers — insurance against loss of control after a front tire blow out. A combination shock absorber and spring, 'return to center' stabilizers also offer protection against rut tracking, 'bump steer' (the steering wheel jerks suddenly when the front tires strike potholes or other road hazards) and wind buffeting. Return to center stabilizers are also effective against wandering, which is when the steering feels loose, making it difficult — and physically exhausting — to keep the vehicle in a straight line.

Trac bars — drastically reduce 'wander' (the steering feels loose, making it difficult to keep the vehicle in a straight line). Trac bars lock the leaf spring stack in place laterally, preventing axle side play. The result is more precise, predictable steering. Trac bars are also effective against soft steering, wind buffeting and rut tracking. If you have one of the following chassis, you will need a Tru Trac bar: Workhorse - W16, W18 W20, W22, W24 (00-09) / Kodiak - 4500, 5500 (03-09) Ford - F53, V10 (98-05) / Ford - F53, V8 (88-98) - Freightliner FRED (07 & 08)

Suspension handling problem and solution chart

-Handling problems	-Suspension solutions: Shock Absorbers	Air Bags	RSS Anti-Sway Bar	Bell Crank	Davis Tru Trac Bar	Generic Steering Dampener	Reflex Steering Stabilizer
Bouncing	X						
'Porpoising' (up and down movement)	X						
Rough Ride	X	X					
Sway and Body Roll			X				
Soft Steering			X	X	X	X	X
Wind Buffeting (crosswinds, gusts and passing 18-wheelers)			X		X		X
Wander				X	X		X
Rut Tracking					X		X
Blow Out Protection						X	X
Load Leveling		X					

ROADMASTER

Tow dolly options

Hello
Dolly

Tow almost any vehicle with an adjustable tow dolly

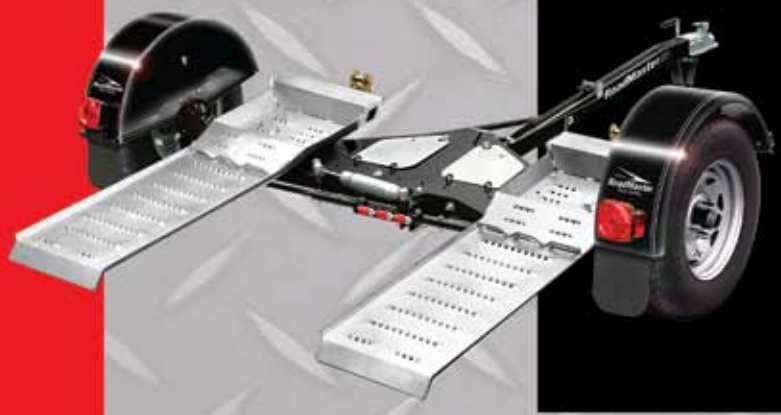
Tow virtually any vehicle, from an ultra-compact car to a full-size pickup or SUV, on a rugged, adaptable tow dolly with built-in ROADMASTER quality, value and safety features.

Both of these dollies are ideal for anyone who wants to tow multiple vehicles without having to buy a tow bar or install a tow bar mounting bracket. And a transmission lube pump is not necessary for vehicles with front wheel drive transmissions, since the front wheels are off the ground.

The RoadMaster Tow Dolly, part number 2000-1, is ROADMASTER's premium dolly; the RM3477, part number 2050-1, is the economical alternative.

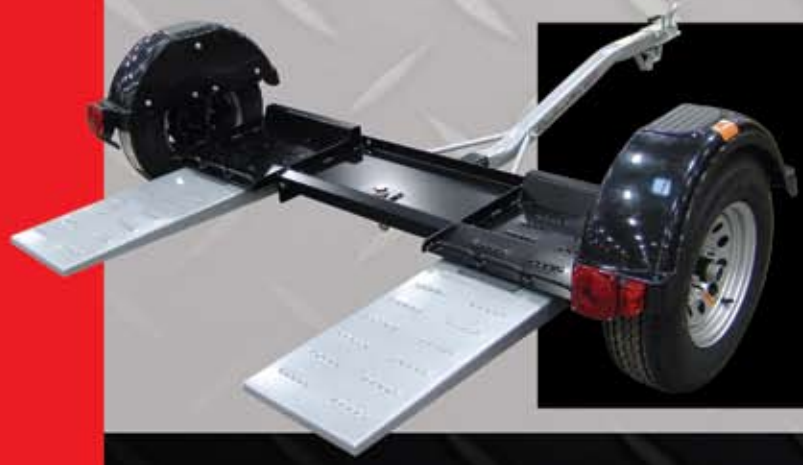
shared features —

- The coupler handle is balanced over the axle for easy handling and maneuvering.
- Accu-Lube™ hubs allow you to easily repack the bearings through the grease fitting.
- The raised TrueGrip™ tread pattern offers positive traction in both directions for safer loading and unloading.
- Built-in electric brakes for safer stops and reduced wear on the towing vehicle's brakes
- Heavy-duty trailer tires
- Powder coat finish on the ramps, axles and deck for maximum durability.
- Complete with adjustable TieDown™ straps (fit most tires from 12 to 16 inches) and ratchets.



Premium tow dolly 2000-1 individual features

- **Self steering wheels** - Allows tow dolly to track motorhome without cutting corners.
- **Locking storage trays** - For TieDown straps and various equipment. One key fits both trays.
- **Conveniently located bed tilt release** - Eliminates crawling under the car to tilt the bed.
- **Fully adjustable** - The only tow dolly on the market with patented adjustable width ramps and axles to virtually tow any vehicle.



Economical tow dolly 2050-1 individual features

- **Adjustable deck** - Deck swivels 9º for easy cornering.
- **High-density polyethylene fenders** - Eliminate metal fatigue problems frequently associated with some metal fenders, and they will not rust.
- **Feature packed** - More features than any other comparable entry level tow dolly.