

2014

GUIDE TO **DINGHY TOWING**

- ▶ **How to Tow Like a Pro**
- ▶ **8 Popular Dinghy Braking Systems**
- ▶ **Essential Accessories For Safe Travel**

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Tow & Go

If you enjoy the thrill of exploring the open road in your motorhome, you've probably found a few instances where bigger is not always better. That's where towing a dinghy behind your coach becomes advantageous. Want to know more? The 2014 Guide to Dinghy Towing provides a selection of informative articles and a listing of new vehicles ready-made to enhance your RVing lifestyle.

Granted, no manufacturer has yet to engineer a plug-and-play setup directly from the factory, but it's never been simpler to equip both dinghy and motorhome for road duty.

For starters, as highlighted in "Things to Know Before You Tow" (page 6), the hard hookup between motorhome and dinghy has become an easy one-person operation: self-aligning tow bars make cinching up a breeze; with some tow-bar designs, routing cables and wiring through hollow arms, the connection is more than easy, it's eye-pleasing. Plus, manufacturers are offering an array of accessories to help keep it that way: An RV underskirt, fitted beneath the equipment, will safeguard the dinghy vehicle and towing hardware from debris. For more ironclad protection, nearly indestructible rock guards are available that quickly attach to the tow bar and shield the dinghy from road debris.

Yet another device to aid in safe dinghy transport, supplemental braking systems have likewise evolved. Portable systems can be installed in just minutes, and permanent installations remain unobtrusive. Dinghy brakes may not be mandatory in some states, but any time you add a few tons of weight to

the back of your motorhome you need a way to slow it down without overtaxing the brakes on the coach.

And make no mistake, contemporary motorhomes can accommodate a lot of dinghy weight. While many new chassis are rated to handle at least 4,000 pounds of dinghy weight, certain luxury coaches today carry gross combined weight ratings (GCWR) of 60,000 pounds or more — with up to 25 percent of that available for towing.

The focus of our annual dinghy towing guide is the dinghies themselves. Manufacturers are becoming increasingly sensitive to the needs of the motorhome community, and the "2014 Dinghy Roundup" (beginning on page 14) lists vehicles that have been manufacturer-approved for four-wheels-down towing. The list includes many of the newest vehicles — from luxurious to economical. For all-terrain fun, there are plenty of 4WD vehicles to choose from. While some vehicles are easy to tow, others require that very specific procedures be followed before and during towing to prevent damage. This year we've included expanded information on the manufacturer guidelines required for flat towing, though you'll still need to check the owner's manual for more detailed procedures.

As motorhomes continue to grow in size and stature, life on the road has never been more comfortable. A dinghy adds to that enjoyment. **DG**



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Things To Know Before You Tow

The Right Equipment Adds Safety, Simplicity and Convenience



Traveling with a dinghy vehicle is almost a given with today's larger motorhomes. Although the trend to bigger coaches has injected camping with more creature comforts than a luxury hotel room, it's not without its drawbacks. Even rigs with a 60-degree wheel cut will encounter some difficulty negotiating narrow roads in smaller towns during sight-seeing tours — and it's just not fun trying to park a 40-footer at local markets when picking up perishables.

A dinghy simplifies such tasks, and eliminates the need to break camp and stow everything each time you need (or want) to venture away from the campground. Additionally, the dinghy can stow gear securely when motorhome

storage is filled (within weight restrictions), and there is the security of having a spare set of wheels in the event of an emergency.

It's not without consequences; towing a dinghy will affect the acceleration, fuel economy and braking of any coach, to some degree. However, proper selection of a dinghy vehicle and towing equipment will enable you to safely and conveniently enjoy the benefits of auxiliary transportation.

FLAT TOWING

The first and most essential step in selecting a dinghy vehicle is to make sure it is approved by its manufacturer for flat towing (see "2014 Dinghy Roundup," page 14). While you do have



A drop receiver might be needed to keep the tow bar level.



other options — many nonapproved passenger cars or light trucks can safely be used as a dinghy, provided a towing accessory (such as a transmission lube pump) is available for that specific model as an aftermarket add-on, or towing on a dolly or trailer is planned — these vehicles have been certified for four-wheels-down towing without affecting their warranties. **However, buyers should always first confirm flat-towability by consulting the respective vehicle's owner's manual before the purchase is finalized.**

When selecting a dinghy, first find out the maximum towing limit of your motorhome and then determine which vehicles fall within that limit. Towing limits aren't the only factor to consider, but they help to eliminate many choices based on weight alone. The weight rating of the motorhome's hitch receiver is another concern, although most are adequate, and receivers can be upgraded. Keep in mind, however, that an upgraded hitch receiver cannot increase the specified towing limit set by the chassis manufacturer.

An economical four-passenger compact car can double as a family's second car when not traveling, but even a larger SUV or sport truck

Demco's Dominator aluminum tow bar has a rating up to 7,500 pounds. Easy trigger release and self-supporting arms provide convenient connection to baseplate.



Roadmaster's aluminum Sterling All-Terrain tow bar is rated to handle vehicles up to 6,000 pounds. Nonbinding design facilitates hookup. Roadmaster's BlackHawk 2 All-Terrain has a rating up to 10,000 pounds.



Aventa LX from Blue Ox uses a ball-in-socket design that allows the arms to swivel 360 degrees for quick hookup. The tow bar is rated to tow vehicles up to 10,000 pounds.





Above: Once the tow bar is pinned in the hitch receiver, make sure electric connections and safety cables are secure. **Below:** While driving your dinghy, this type of tow bar remains on the coach, out of harm's way.



can be towed, providing its weight is within the towing limit of your chassis.

Most flat-towed dinghies track so well that many motorhome drivers don't even know it's there. Front-wheel-drive (FWD) vehicles with manual transmissions and most compact 4WD vehicles with manual transfer cases are among the easiest and most economical to tow. Plus, they tend to rank among the lightest vehicles.

Some auto manufacturers also produce FWD vehicles equipped with automatic transmissions that are flat-towable. They are popular because they're easier to drive and the setup for towing is usually just as simple as a manual.

But some vehicles do require special procedures, such as starting the engine every 200 miles to circulate transmission fluid. Note that this cannot simply be circumvented by overfilling the transmission before towing, because the problem isn't caused by lack of sufficient fluid but rather by lack of oil circulation. Such practices, although inconvenient, are designed to prevent drivetrain damage and must be in-

corporated into the towing routine.

Another vehicle-specific consideration is that towing some dinghies with the ignition switch in a position that allows the steering column to remain unlocked also leaves power applied to various electrical circuits. Over the course of a full day of towing, this can lead to significant battery drain. While strategies for dealing with this vary by model, most fixes involve temporarily unplugging one or more fuses from the vehicle's fuse box before towing. Another alternative is to connect the offending circuit through an owner-added switch, allowing these circuits to be made tow-ready quickly and conveniently. A charge line from the coach can often be a viable alternative.

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Produced by the editors of MotorHome for the publication's April issue, the 2014 Guide to Dinghy Towing was developed with assistance from the following companies:

Blue Ox Products

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The Motorhome/Dinghy Link



Baseplate installation doesn't require welding or specialized tools, but can be involved. If you have any reservations, have a professional do it.

An essential ingredient in safe dinghy towing involves a solid, properly designed and installed mechanical link-age between the coach and the towed vehicle. Hitch receivers, tow bars and baseplates must all be in good working order, rated for the weight you intend to pull and designed for the specific application.

HITCH RECEIVERS

Check the rating of the hitch receiver to ensure that it is suited for the heaviest load you intend to tow. If a receiver is already installed on your coach, the weight limits and class should be visible on it.

However, the riding height of a motorhome rarely matches up with that of the chosen dinghy, oftentimes necessitating the use of a drop

To hook up using a telescoping tow bar, the dinghy vehicle only needs to be near the center and mid-length of the bar.

receiver to allow the tow bar to ride level. These are available in 2- to 10-inch variations. Receivers should be bolted (not welded) in place, using at least Grade 5 bolts and lock washers, locking nuts and thread-locking sealer.

TOW BARS

Tow bars are available in two basic styles: A-frame or self-aligning. A-frame tow bars (offered as "solid" or "folding"), while the most economical, are designed to fit a limited number of baseplates (the mounting brackets affixed to the dinghy) or specific applications; however, the folding design will fit a wider range than the solid design. These types of tow bars are strong, but heavy, and require storage space when not in use. Hitching is easier with a helper to guide alignment.

AS YOU GO

- Observe the speed limit for towing in each state or province you traverse.
- Maintain adequate stopping distance from the vehicle in front of you. A minimum five-second interval is recommended.
- Avoid towing in snowy or icy conditions.
- Pay particular attention to traffic merging onto the freeway, and be prepared to take evasive action to avoid "daydreamers."
- Plan ahead — most flat-towed dinghies can't be backed more than a few feet, so it's necessary to focus on easy ingress and egress. Most tow-bar manufacturers will not warrant damage caused by backing. Dollies tend to jackknife quickly. It's better to disconnect the dinghy and drive to a safe place to reconnect.
- Avoid having to make tight turns; they put a lot of pressure on tow bars.
- Towing in deep sand or gravel may cause the dinghy's front wheels to turn to one side. If this happens, you must manually re-center them before continuing.
- Walk around the coach and dinghy to inspect all connections, check tire pressure (or use a monitoring system like the nVision TPMS from Hopkins) and look for signs of trouble every time you stop.



Connecting tow-bar arms to the baseplate requires the use of pins and clips. Then secure the safety cables and plug in the electrical umbilical cord.

Self-aligning tow bars are available in two styles: dinghy-mounted and coach-mounted. Coach-mounted units are the most desirable, as there is less chance of damage when not in use — and hitching is a one-person operation. Highly adaptable, self-aligning tow bars fit a broad range of vehicles by attaching to model-specific baseplates: Class III (5,000-pound) or Class IV (10,000-pound) models are available. Contact tow-bar manufacturers to find out if baseplates are offered for the dinghy you plan to tow.

BASEPLATES

Baseplates are perhaps the most critical variable in this link. While tow bars and, obviously, hitch receivers are intended for mass fitment, various brands, models and years of dinghy vehicles require specific baseplates and installation procedures, so proper selection and installation are essential.

Installing a baseplate typically entails very detailed procedures. On some vehicles, the bumper covering (fascia) must be temporarily removed. Some minor drilling may be required and the bumper covering and/or grille may also require some trimming.

On some vehicles, the baseplate installation process can be even more intricate. For example, the air dam may need to be trimmed or the factory-installed belly pan may require either trimming or permanent removal. Such requirements are described in the manufacturer's fitment charts — hopefully eliminating any unpleasant surprises at installation time. Today's baseplates do a good job of blending into the exterior lines of the dinghy vehicle.

Remember that all 50 states require properly rated safety chains or cables to keep the

dinghy from separating from the coach if the tow bar or ball fails. Safety chains or cables should be connected securely to the dinghy and crossed under the tow bar, then secured to the hitch receiver. They should be long enough to allow full turning without binding, but should not drag when slack.

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BEFORE YOU TOW

- Make sure your equipment is rated for the dinghy's weight and that you are not exceeding your motorhome's gross combination weight rating (GCWR).
- Confirm hitch height is correct.
- Confirm all hitch bolts, tow-bar and baseplate fasteners are securely tightened.
- Confirm all hitch and wiring connections are engaged and secure; all safety chains or cables are attached; and all locking pins are properly installed.
- Connect brake system and breakaway device.
- Check motorhome and dinghy for proper function of taillights, brakelights and turn signals.
- Check tire pressure of all tires on coach and dinghy — including spare tires.
- Make sure the dinghy is set up for towing: steering unlocked; emergency brake off; gear selector in the position specified by manufacturer; ignition in proper position; lube-pump switch, driveshaft coupler, 4WD transfer case and hubs (if applicable) in proper position.



Other Towing Equipment

Modern baseplates are secured to the frame of the dinghy vehicle. While some installations are a little more complicated, the end result usually is a clean appearance.

Should you choose (or already own) a vehicle that is not flat-towable as produced, there are retrofit kits for many models. A good percentage of passenger vehicles can be modified to serve as dinghies using retrofit products that are on the market.

For rear-wheel-drive (RWD) and some four-wheel-drive applications, couplers from REMCO DSC (www.superflow.com) enable the driveshaft to be easily disconnected from the transmission or differential by a cable or lever mounted near the driver's seat. These kits run about \$750 and can be installed in about three hours.

A transmission-lube pump sold by Remco Industries (www.remcotowing.com) can be mounted and plumbed into some automatic transmissions to keep fluid circulating while the vehicle is in tow.

Check with your dealer to make sure a spe-

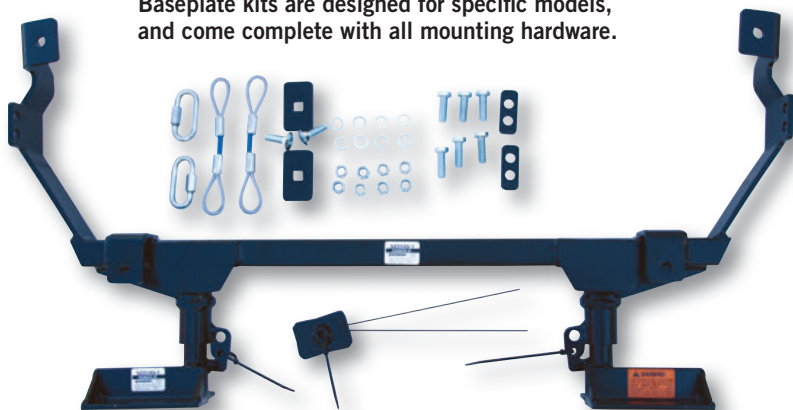
cific modification does not affect the dinghy's warranty.

Tow dollies also offer an alternative to flat towing, although they take up space in camp. Remember that the dolly weight must be figured in with the total weight of the dinghy.

Trailers track better than dollies, but they take up even more precious space in camp. Also, the weight of the trailer drastically cuts into the total weight that can be pulled behind a motorhome, thereby making this method a distant third choice.

There are a number of other accessories for dinghy towing. Some, like dinghy braking devices, should be considered mandatory, while others (such as rock guards and RV under-skirts) protect against road debris. These components are addressed in "Towing Accessories" (page 26), along with dinghy wiring and lighting. **DG**

Baseplate kits are designed for specific models, and come complete with all mounting hardware.



Lube pumps allow towing of some automatic transmission-equipped vehicles not manufacturer-approved for flat towing.

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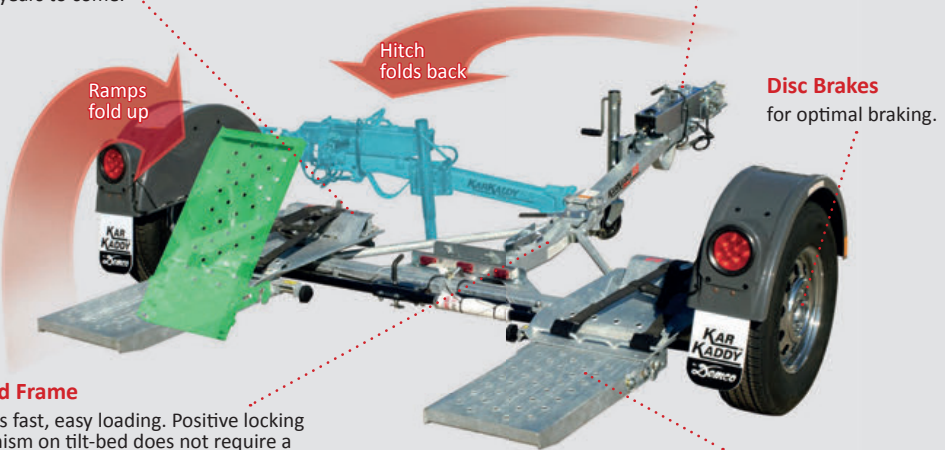
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Dinghy Towing 2014

Whether you want economy, style or utility, this year's crop of dinghy towables offers something for everyone

by Chris Hemer



Toyota Corolla

The practice of towing a vehicle four-wheels-down behind a motorhome is still the most convenient way for owners to get around once they've reached their destination. Rather than breaking camp every time you need to leave the RV park or campsite, simply jump in your car and drive off, just like you would at your home.

In the early years, only a handful of manufacturers recognized the practice, and most could only verify a few models as being towable. With each passing year, however, more manufacturers are recognizing the benefits of dinghy towing, and are becoming more active in approving their vehicles. As a result, there are more choices now than ever, and also a lot more variety — from fuel sipping compact cars and hybrids to full-size pickups and SUVs.

You've probably noticed that there are other vehicles out there being dinghy towed that aren't on our list, and you may have wondered why. To put it simply, the vehicles in our guide must be approved by the manufacturer for dinghy towing in order to qualify. That means the manufacturer has confirmed that its vehicle can be dinghy towed without causing damage to the drivetrain or otherwise voiding the warranty. Second, the vehicle must be towable without requiring significant mechanical modification (such as disconnecting the driveshaft, for example). Finally, the

vehicle must be towable at a speed of at least 55 MPH for no fewer than 200 miles before some sort of prescribed startup procedure is required to circulate fluid through the transmission and/or transfer case.

You'll note that some vehicles will appear and disappear from the list every year, and that's largely because of changes to the vehicle and/or its drivetrain. In other instances, a manufacturer may not have had time to test a new vehicle's dinghy towing worthiness in time for last year's guide, and has since determined that the vehicle is towable.

Keep in mind that we've made every effort to check, and double check with each manufacturer to make sure that the listings are correct and current. However, much of the information we receive is preliminary when the guide is compiled, and can change by the time this issue goes to press. Therefore, we cannot stress enough that you check with the dealer to be certain that the vehicle you are considering is dinghy towable. Ask to see a copy of the owner's manual; somewhere in the index, there should be a notation for "recreational," "four-down," or "flat" towing. If the owner's manual states that the vehicle is not towable, consider something else, or be prepared to modify the vehicle and probably void any stated warranties.

With all that being said, let's take a look at some of the new flat-towable offerings for 2014.

Fiat 500L

If a little is good, then more must be better — at least that's the thinking behind Fiat's five-door, five-passenger 500L. Borrowing from the smaller 500's exterior design cues, the 500L was built on the company's new "small-wide" vehicle architecture for a length increase of 27 inches, and a height/width increase of 6 inches. The changes result in a whopping 42 percent extra space over its sibling, delivering an EPA Large Car interior with increased comfort and versatility. In fact, Fiat claims best-in-class front headroom, shoulder room, and rear cargo space (with rear seats up). With side glass from the A to D pillars, the 500L promises nearly 360 degrees of panoramic views — and with the elevated second row seats and an available dual-glass panel sunroof, passengers are afforded even more opportunities to admire the passing scenery.

The 500L is powered by a 1.4 liter MultiAir Turbo four-cylinder engine with 160 horsepower, and is offered with a six-speed manual or Euro Twin Clutch transmission, although only the manual model is approved for dinghy towing. The 500L model is available in four trim levels: Pop, Easy, Trekking and Lounge, each with its own distinct styling theme.

Jeep Cherokee

Small SUVs are popular with the mainstream, but enthusiasts tend to disregard them as "soft roaders," not capable of true off-road



Fiat 500L

duty. Jeep hopes to change that perception with its all-new Jeep Cherokee. For openers, it's available with three 4WD systems, although only those with a neutral position in the transfer case are cleared for dinghy towing. A new Jeep Selec-Terrain traction control system offers up to five customized modes, including Auto, Snow, Sport, Sand/Mud and Rock. And, when equipped with the new 3.2-liter Pentastar V-6, it has a best in class tow rating of 4,500 pounds. It's also the first SUV with a nine-speed automatic transmission (the only one offered with the V-6 or 2.4-liter Tigershark four-cylinder). Up to 31 MPG is promised, due in part to an industry-first rear axle disconnect that results in reduced energy loss when 4x4 capability isn't needed.

Of course, most of the time SUVs are driven on paved roads, so the Cherokee was built on FIAT Group architecture that features increased torsional stiffness and independent suspension front and rear for better ride and handling. Offered in Sport, Limited, Latitude and Trailhawk trim levels, Cherokee's interior was designed to raise the bar in the small SUV segment with sophisticated design and high-quality materials.



Jeep Cherokee

Toyota Corolla

When you've got a car that has been a success for nearly 50 years and has sold 40 million copies in 154 countries, you probably shouldn't mess with success. But time marches on — so when Toyota decided to introduce an all-new, 11th generation Corolla, it wanted to make sure it did everything right.

In a departure from previous models, the new Corolla offers a bolder, more chiseled exterior appearance that is decidedly modern. An increase of almost 4 inches in both wheelbase and overall length translate to more passenger room, and the redesigned interior is a vast improvement in aesthetics and comfort.

Corolla is offered in four grades, with all

models powered by Toyota's tried-and-true 1.8-liter four cylinder. This engine produces 132-horsepower in the base L and sporty S models (the latter pictured here), the only versions deemed towable by virtue of their six-speed manual transmissions. All Corollas come with an impressive list of standard features that includes LED low beam headlamps with LED daytime running lights, an in-glass AM/FM antenna, color-keyed outside door handles, color-keyed outside mirrors, a 60/40 split fold-down rear seat, power door locks with automatic locking feature, power windows with driver-side one-touch up/down, air conditioning with pollen filter and standard Bluetooth connectivity. **DG**

2015 General Motors Vehicles

This is the first year we can recall that we're reporting on next year's vehicles even as the current year has been introduced, but GM has already released details on many of its 2015 models. Obviously we don't have all the info at this point, but GM is claiming that its 2015 **Chevy Colorado/GMC Canyon** mid-size pick-ups and full-size **Tahoe/Suburban** and **GMC Yukon/Yukon XL 4WD** models are towable.

The Chevy Tahoe/Suburban and GMC Yukon/Yukon XL get the new 5.3-liter V-8 from the 1500 truck family as the only engine offering, paired with a six-speed automatic transmission. All of GM's full-size SUVs deliver much improved refinement, a quieter ride, and interiors that rival many European sedans. The Colorado/Canyon, meanwhile, is expected to deliver class-leading power, payload and tow capacity to the midsize segment. The base 2.4-liter inline-four-cylinder is estimated at 193 horsepower, while the 3.6-liter engine is estimated at 302 horsepower. Also available will be the segment's only diesel engine — a Duramax 2.8-liter turbodiesel already offered in global markets. All engines will be matched with a six-speed automatic transmission equipped with features like grade braking and tow/haul mode. Some available features across the lineup include an EZ Lift-and-Lower tailgate, factory-installed spray-in bed liner, 8-inch diagonal color touch screen and multiple USB drives, driver information screen, next-gen OnStar and MyLink with voice recognition and navigation.



GMC Canyon



GMC Yukon Denali



Chevrolet Suburban

2014 DINGHY ROUNDUP

MODEL	BASE CURB WEIGHT	SPEED/DISTANCE LIMITS	TOWABLE WITH MANUAL TRANS.	TOWABLE WITH AUTO TRANS.	MILEAGE CITY/HWY.	APPROX. RETAIL PRICE RANGE	SPECIAL PROCEDURES (SEE OWNER'S MANUAL FOR DETAILED INSTRUCTIONS)
BUICK							
Enclave FWD/AWD	4,724/4,922	65 MPH/None	N/A	Yes	17/24-16/22	\$39,665-\$48,315	Run engine at the beginning of each day and at each fuel stop for 5 minutes. Remove 50-amp BATT1 fuse while towing.
Regal GS FWD	3,725	60 MPH/None	Yes	No	21/31	\$37,830-\$39,270	Run engine at the beginning of each day and at each fuel stop for 5 minutes.
CHEVROLET							
Cruze	3,093	None	Yes	No	25/36	\$17,270-\$24,630	
Colorado 4WD (2015 model)	N/A	None	No	Yes	N/A	N/A	Only 4WD models equipped with a two-speed automatic transfer case are towable.
Equinox	3,777	65 MPH/None	N/A	Yes	22/32	\$24,440-\$33,400	Run engine at the beginning of each day and at each fuel stop for 5 minutes. Remove fuse 32 while towing.
Equinox AWD	3,922	65 MPH/None	N/A	Yes	20/29	\$24,440-\$33,400	Run engine at the beginning of each day and at each fuel stop for 5 minutes. Remove fuse 32 while towing.
Malibu	3,393	None	N/A	Yes*	25/36	\$23,570-\$25,845	*For models without eAssist only. Shift transmission to NEUTRAL. Place the ignition in the ACC/ACCESSORY position. Remove fuse 8,22 (Key Access only), and 24 from the instrument panel fuse block.
Silverado 1500 4WD	4,587	None	N/A	Yes	15/21	\$25,965-\$48,880	
Silverado 2500 HD 4WD	5,962	None	N/A	Yes	Not Rated	\$37,635-\$62,154	Shift transmission to PARK. Turn engine off and set parking brake. Shift transfer case to NEUTRAL. Release parking brake only after the vehicle being towed is firmly attached to the motorhome. Turn ignition to LOCK/OFF and remove key. Steering wheel will still turn.
Silverado 3500 HD 4WD	6,092	None	N/A	Yes	Not Rated	\$37,635-\$64,800	Shift transmission to PARK. Turn engine off and set parking brake. Shift transfer case to NEUTRAL. Release parking brake only after the vehicle being towed is firmly attached to the motorhome. Turn ignition to LOCK/OFF and remove key. Steering wheel will still turn.
Sonic	2,690	65 MPH/None	Yes	Yes*	27/40	\$15,595-\$22,435	Remove fuse DL1S. *1.8-L model only.
Spark	2,269	None	Yes	No	31/39	\$12,170-\$15,290	
Suburban 1500 4WD	5,824	None	N/A	Yes	15/21	\$46,300-\$58,400	Requires optional Active, 2-Speed Transfer Case.
Suburban 1500 4WD (2015 model)	5,775	None	N/A	Yes	N/A	N/A	Only 4WD models equipped with a two-speed automatic transfer case are towable.
Tahoe 4WD	5,567	None	N/A	Yes	15/21	\$43,600-\$56,255	Requires optional Active, 2-Speed Transfer Case.
Tahoe 4WD (2015 model)	5,545	None	N/A	Yes	N/A	N/A	Only 4WD models equipped with a two-speed automatic transfer case are towable.
Traverse	4,713	65 MPH/None	N/A	Yes	17/24	\$30,795-\$41,255	Run engine at the beginning of each day and at each fuel stop for 5 minutes. Remove 50-amp BATT1 fuse while towing.

2014 DINGHY ROUNDUP

MODEL	BASE CURB WEIGHT	SPEED/DISTANCE LIMITS	TOWABLE WITH MANUAL TRANS.	TOWABLE WITH AUTO TRANS.	MILEAGE CITY/HWY.	APPROX. RETAIL PRICE RANGE	SPECIAL PROCEDURES (SEE OWNER'S MANUAL FOR DETAILED INSTRUCTIONS)
Traverse AWD	4,956	65 MPH/None	N/A	Yes	16/23	\$32,795-\$43,255	Run engine at the beginning of each day and at each fuel stop for 5 minutes. Remove 50-amp BATT1 fuse while towing.
DODGE							
Challenger	3,834	65 MPH/None	Yes	No	18/27	\$26,295-\$44,775	Transmission must be in neutral.
Dart	3,186	None	Yes	No	25/29	\$15,995-\$19,295	Transmission must be in neutral.
Durango 4WD	6,500	None	N/A	Yes (a)	14/16	\$29,795-\$43,395	Transmission in PARK, transfer case must be set to NEUTRAL. (a) 4x4 V-8 only.
Ram 1500 4WD	4,731	None	N/A	Yes	16/23	\$24,385-\$51,510	
Ram 2500 4WD	6,632	None	Yes	Yes	Not Rated	\$29,785-\$56,180	For models with manual shift transfer case, shut engine off, press brake pedal, shift transmission into NEUTRAL, shift transfer case lever to NEUTRAL, start engine, shift transmission into REVERSE, release brake pedal for 5 seconds, shift transmission into DRIVE, release brake pedal for 5 seconds, turn engine off, shift transmission to PARK.
Ram 3500 4WD	7,667	None	No	Yes	Not Rated	\$30,540-\$57,270	For models with manual shift transfer case, shut engine off, press brake pedal, shift transmission into NEUTRAL, shift transfer case lever to NEUTRAL, start engine, shift transmission into REVERSE, release brake pedal for 5 seconds, shift transmission into DRIVE, release brake pedal for 5 seconds, turn engine off, shift transmission to PARK.
FIAT							
500	2,363	None	Yes	No	28/34	\$16,195-\$23,750	Transmission must be in NEUTRAL.
500 Cabrio	2,411	None	Yes	No	28/34	\$19,695-\$22,500	Transmission must be in NEUTRAL.
500L	3,203	None	Yes	No	25/33	\$19,100-\$24,195	Transmission must be in NEUTRAL.
FORD							
C-MAX Hybrid	3,640	70 MPH/None	N/A	Yes	47/47	\$25,995-\$29,290	Start engine and allow it to run 5 minutes at the beginning of each day and every 6 hours thereafter.
C-MAX Hybrid Energi	3,899	70 MPH/None	N/A	Yes	108/92	\$33,745	Start engine and allow it to run 5 minutes at the beginning of each day and every 6 hours thereafter.
Edge 3.5/3.7-L FWD/AWD	4,052-4,458	65 MPH/None	N/A	Yes	19/26-17/23	\$27,495-\$36,995	Start engine and allow it to run 5 minutes at the beginning of each day and every 6 hours thereafter.
Explorer FWD/AWD	4,432-4,610	65 MPH/None	N/A	Yes	17/24-17/23	\$28,910-\$40,570	Start engine and allow it to run 5 minutes at the beginning of each day and every 6 hours thereafter.
F-150 4WD	4,925	None	N/A	Yes	17/23	\$29,085-\$53,830	Place transfer case and transmission in NEUTRAL position and engage the four-wheel-towing feature. See Owner's Manual.
F-250/F-350/F-450 Super Duty 4WD	6,990	None	N/A	Yes	Not Rated	\$30,035-\$67,765	Only with manual shift transfer case vehicles, not Electronic Shift-On-the-Fly or 4x2 vehicles. Transmission in NEUTRAL, manual transfer case shifted into NEUTRAL.



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2014 DINGHY ROUNDUP

MODEL	BASE CURB WEIGHT	SPEED/DISTANCE LIMITS	TOWABLE WITH MANUAL TRANS.	TOWABLE WITH AUTO TRANS.	MILEAGE CITY/HWY.	APPROX. RETAIL PRICE RANGE	SPECIAL PROCEDURES (SEE OWNER'S MANUAL FOR DETAILED INSTRUCTIONS)
Fiesta (all except ST)	2,578	70 MPH/None	Yes	Yes	29/39	\$13,425-\$17,625	On automatic transmission-equipped vehicles, transmission must be in NEUTRAL during four-wheel-down towing (ignition must be "ON" before shifting into NEUTRAL. See Owner's Guide for more details).
Flex FWD/AWD	4,439-4,637	65 MPH/None	N/A	Yes	18/25-17/23	\$28,410-\$36,995	Start engine and allow it to run 5 minutes at the beginning of each day and every 6 hours thereafter.
Focus (all except ST and Electric)	2,907	70 MPH/None	Yes	Yes	26/36	\$15,135-\$21,400	Automatic transmission must be in NEUTRAL (ignition must be "ON" before shifting into NEUTRAL, see Owner's Guide for more details).
Fusion Hybrid	3,668	70 MPH/None	N/A	Yes	47/47	\$21,970-\$36,500	Release parking brake. Place transmission in position N. Place ignition in the OFF position. Place transmission in position P, start vehicle and allow it to run 1 minute at the beginning of each day. After allowing the vehicle to run, place transmission back into N and the ignition in the ACC position.
Fusion Hybrid Energi	3,913	70 MPH/None	N/A	Yes	108/92	\$34,700-\$36,500	Release parking brake. Place transmission in position N. Place ignition in the OFF position. Place transmission in position P, start vehicle and allow it to run 1 minute at the beginning of each day. After allowing the vehicle to run, place transmission back into N and the ignition in the ACC position.
Taurus FWD/AWD	3,969-4,196	65 MPH/None	N/A	Yes	19/29-18/26	\$23,105-\$36,305	Start engine and allow it to run 5 minutes at the beginning of each day and every 6 hours thereafter.
GMC							
Acadia FWD/AWD	4,656/4,850	65 MPH/None	N/A	Yes	17/24-16/23	\$35,335-\$44,410	Run engine at the beginning of each day and at each fuel stop for 5 minutes. Remove 50-amp BATT1 fuse while towing.
Canyon 4WD (2015 model)	N/A	None	N/A	Yes	N/A	N/A	Only 4WD models equipped with a two-speed automatic transfer case are towable.
Sierra 1500 4WD	4,587	None	N/A	Yes	17/22	\$36,150-\$46,405	
Sierra 2500 HD 4WD	5,962	None	N/A	Yes	N/A	\$35,360-\$59,045	Shift transmission to PARK. Turn engine off and set parking brake. Shift transfer case to NEUTRAL. Release parking brake only after the vehicle being towed is firmly attached to the motorhome. Turn ignition to LOCK/OFF and remove key. Steering wheel will still turn.
Sierra 3500 HD 4WD	6,092	None	N/A	Yes	N/A	\$36,855-\$66,149	Shift transmission to PARK. Turn engine off and set parking brake. Shift transfer case to NEUTRAL. Release parking brake only after the vehicle being towed is firmly attached to the motorhome. Turn ignition to LOCK/OFF and remove key. Steering wheel will still turn.
Terrain FWD/AWD	3,853	65 MPH/None	N/A	Yes	22/32-20/29	\$26,465-\$34,935	Run engine at the beginning of each day and at each fuel stop for 5 minutes. Remove fuse 32 while towing.

2014 DINGHY ROUNDUP

MODEL	BASE CURB WEIGHT	SPEED/DISTANCE LIMITS	TOWABLE WITH MANUAL TRANS.	TOWABLE WITH AUTO TRANS.	MILEAGE CITY/HWY.	APPROX. RETAIL PRICE RANGE	SPECIAL PROCEDURES (SEE OWNER'S MANUAL FOR DETAILED INSTRUCTIONS)
Yukon 4WD	5,567	None	N/A	Yes	15/21	\$48,460-\$52,730	Only 4WD models equipped with a two-speed automatic transfer case are towable.
Yukon 4WD (2015 model)	5,545	None	N/A	Yes	N/A	N/A	Only 4WD models equipped with a two-speed automatic transfer case are towable.
Yukon XL 1500 4WD	5,824	None	N/A	Yes	15/21	\$50,710-\$54,830	Only 4WD models equipped with a two-speed automatic transfer case are towable.
Yukon XL 1500 4WD (2015 model)	5,775	None	N/A	Yes	N/A	N/A	Only 4WD models equipped with a two-speed automatic transfer case are towable.
HONDA							
CR-V	3,305	65 MPH/None	N/A	Yes	23/31	\$22,945-\$30,445	Run engine at the beginning of each day, press brake pedal and move shifter through all positions, shift into drive and hold for 5 seconds, then to NEUTRAL and let engine run for 3 minutes. Repeat at least every 8 hours thereafter. When towing for long periods, remove 7.5-A accessory radio fuse.
CR-V 4WD	3,426	65 MPH/None	N/A	Yes	22/30	\$22,945-\$30,445	Run engine at the beginning of each day, press brake pedal and move shifter through all positions, shift into drive and hold for 5 seconds, then to NEUTRAL and let engine run for 3 minutes. Repeat at least every 8 hours thereafter. When towing for long periods, remove 7.5-A accessory radio fuse.
HYUNDAI							
Accent	2,480	None	Yes	No	27/38	\$14,645-\$16,395	
Elantra 1.8-L	2,773	None	Yes	No	27/37	\$17,200-\$21,650	
Elantra 2.0-L	2,890	None	Yes	No	24/34	\$21,700-\$23,510	
Veloster	2,584	None	Yes	No	27/37	\$17,800-\$21,600	
Veloster Turbo	2,800	None	Yes	No	24/35	\$21,300-\$25,000	
INFINITI							
Q60 Sport 6 Convertible	4,149	70 MPH/500 miles	Yes	No	16/24	\$52,750-\$59,004	Idle engine in neutral for 2 minutes every 500 miles.
Q60 Sport 6 Coupe	3,708	70 MPH/500 miles	Yes	No	17/25	\$50,500-\$51,530	Idle engine in neutral for 2 minutes every 500 miles.
JEEP							
Cherokee 4WD	4,044	None	N/A	Yes	19/27	\$22,995-\$49,495	Transfer case must be shifted into NEUTRAL and transmission in PARK for recreational towing. The NEUTRAL selection button is adjacent to the transfer case selector switch. Shifts into and out of the transfer case NEUTRAL can take place with selector switch in any position. See owner's manual for details.
Compass 2WD	3,097	None	Yes	No	23/30	\$18,495-\$27,095	
Compass 4WD	3,260	None	Yes	No	23/28	\$18,495-\$27,095	
Grand Cherokee 4WD	4,632	None	N/A	Yes	17/23	\$28,795-\$50,995	Only 4WD vehicles equipped with Quadra-Trac II (V-6 models) and Quadra-Drive II systems (V-8 models) are towable. Press brake

2014 DINGHY ROUNDUP

MODEL	BASE CURB WEIGHT	SPEED/DISTANCE LIMITS	TOWABLE WITH MANUAL TRANS.	TOWABLE WITH AUTO TRANS.	MILEAGE CITY/HWY.	APPROX. RETAIL PRICE RANGE	SPECIAL PROCEDURES (SEE OWNER'S MANUAL FOR DETAILED INSTRUCTIONS)
							pedal, turn ignition key on, engine off, shift transmission into NEUTRAL, shift transfer case into NEUTRAL, start engine, shift transmission into DRIVE, release brake pedal, shut engine off, shift transmission to PARK.
Patriot 2WD	3,149	None	Yes	No	23/28	\$15,995-\$25,895	
Patriot 4WD	3,293	None	Yes	No	22/28	\$15,995-\$25,895	
Wrangler 4WD	3,760	None	Yes	Yes	17/21	\$22,395-\$30,895	Put automatic transmission into PARK. Manual transmission in gear (not in NEUTRAL). Transfer case in NEUTRAL. Follow detailed procedure in owner's manual for shifting transfer case into NEUTRAL.
Wrangler Unlimited 4WD	4,075	None	Yes	Yes	16/20	\$25,995-\$34,495	Put automatic transmission into PARK. Manual transmission in gear (not in NEUTRAL). Transfer case in NEUTRAL. Follow detailed procedure in owner's manual for shifting transfer case into NEUTRAL.
LINCOLN							
MKS FWD/AWD	4,126-4,479	65 MPH/None	N/A	Yes	17/25-19/28	\$43,050-\$45,045	Start engine and allow it to run 5 minutes at the beginning of each day and every 6 hours thereafter.
MKT 3.7 FWD/AWD	4,702-4,942	65 MPH/None	N/A	Yes	17/25-16/23	\$45,285-\$47,280	Start engine and allow it to run 5 minutes at the beginning of each day and every 6 hours thereafter.
MKX 3.7 FWD/AWD	4,236-4,413	65 MPH/None	N/A	Yes	19/26-17/23	\$39,575-\$41,525	Start engine and allow it to run 5 minutes at the beginning of each day and every 6 hours thereafter.
MKZ 3.7 FWD/AWD	3,849-4,002	65 MPH/None	N/A	Yes	19/28-18/26	\$37,420-\$39,310	Start engine and allow it to run 5 minutes at the beginning of each day and every 6 hours thereafter. Select NEUTRAL TOW mode — refer to Owner's Manual.
MKZ Hybrid	3,911	70 MPH/None	N/A	Yes	45/45	\$36,190	Start engine and allow it to run 5 minutes at the beginning of each day and every 6 hours thereafter. Select NEUTRAL TOW mode — refer to Owner's Manual.
NISSAN							
370Z Coupe	3,278	70 MPH/500 miles	Yes	No	18/26	\$29,990-\$38,300	Idle engine in NEUTRAL for 2 minutes every 500 miles.
370Z Roadster	3,488	70 MPH/500 miles	Yes	No	17/25	\$41,470-\$47,000	Idle engine in NEUTRAL for 2 minutes every 500 miles.
Cube	2,798	70 MPH/500 miles	Yes	No	25/27	\$16,760-\$18,860	Idle engine in NEUTRAL for 2 minutes every 500 miles. Models with Continuously Variable Transmission (CVT) are not flat towable.
Frontier King/ Crew Cab 2WD I-4	3,708	None/500 miles	Yes	No	19/23	\$17,990-\$22,410	Idle engine in NEUTRAL for 2 minutes every 500 miles.
Frontier King/ Crew Cab	4,175	None/500 miles	Yes	No	16/22	\$23,300-\$31,070	Idle engine in NEUTRAL for 2 minutes every 500 miles.
Frontier King/ Crew Cab 4WD V-6	4,294	None/500 miles	Yes	No	15/19	\$26,000-\$33,720	Place transfer case in the 2H range. Idle engine in NEUTRAL for 2 minutes every 500 miles.
Juke FWD SV	2,959	70 MPH/500 miles	Yes	No	27/32	\$18,990-\$24,290	Idle engine in NEUTRAL for 2 minutes every 500 miles.
Sentra	2,832	None/500 miles	Yes	No	27/36	\$15,990-\$19,590	Idle engine in NEUTRAL for 2 minutes every 500 miles.



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2014 DINGHY ROUNDUP

MODEL	BASE CURB WEIGHT	SPEED/DISTANCE LIMITS	TOWABLE WITH MANUAL TRANS.	TOWABLE WITH AUTO TRANS.	MILEAGE CITY/HWY.	APPROX. RETAIL PRICE RANGE	SPECIAL PROCEDURES (SEE OWNER'S MANUAL FOR DETAILED INSTRUCTIONS)
Versa Note	2,412	None/500 miles	Yes	No	27/36	\$13,990-\$18,490	Idle engine in NEUTRAL for 2 minutes every 500 miles.
Versa Sedan	2,363	None/500 miles	Yes	No	27/36	\$11,990-\$15,240	Idle engine in NEUTRAL for 2 minutes every 500 miles.
Xterra Manual 4WD	4,358	None/500 miles	Yes	No	16/20	\$26,020-\$30,040	On 4WD models, place transfer case in 2H range. Idle engine in NEUTRAL for 2 minutes every 500 miles.
SCION							
tC	3,082	None	Yes	No	23/31	\$19,965	Shift lever to N. Vehicles without Smart Key system: Turn engine switch to ACC position. Vehicles with Smart Key system: Turn ENGINE START STOP switch to ACC mode. Ensure audio system and other powered devices are turned off. After towing, leave engine in idle for at least 3 minutes before driving.
xB	3,027	None	Yes	No	22/26	\$17,725	Shift lever to N. Turn engine switch to ACC position. Ensure audio system and other powered devices are turned off. After towing, leave engine in idle for at least 3 minutes before driving.
xD	2,625	None	Yes	No	27/33	\$16,500	Shift lever to N. Turn engine switch to ACC position. Ensure audio system and other powered devices are turned off. After towing, leave engine in idle for at least 3 minutes before driving.
SMART							
fortwo/fortwo cabriolet	1,808-1,852	None	Yes	N/A	34/38	\$13,270-\$17,930	Manufacturer recommends installing a matching on/ off switch on battery terminal and has very detailed procedures for towing. See owner's manual for more information.
SUBARU							
Forester 2.5XT	3,250	None	Yes	No	21/27	\$21,295-\$24,295	
Impreza 2.0i	2,911	None	Yes	No	25/34	\$17,895-\$20,795	
Legacy 2.5i	3,315	None	Yes	No	21/28	\$20,295-\$28,895	
Outback 2.5i	3,423	None	Yes	No	19/27	\$23,495-\$29,095	
STI	3,384	None	Yes	N/A	17/23	\$34,295-\$37,645	Requires driver's control center differential (DCCD) be set in MANUAL mode and DCCD control dial be set to the farthest rearward position.
WRX	3,208	None	Yes	N/A	19/25	\$25,795-\$29,295	
XV Crosstrek	3,087	None	Yes	No	23/30	\$21,995-\$22,995	
TOYOTA							
Corolla	2,845	None	Yes	No	28/37	\$16,800-\$21,300	After towing, run engine in idle for at least 3 minutes before driving.
Yaris	2,295	None	Yes	No	30/37	\$14,430-\$16,540	After towing, run engine in idle for at least 3 minutes before driving.

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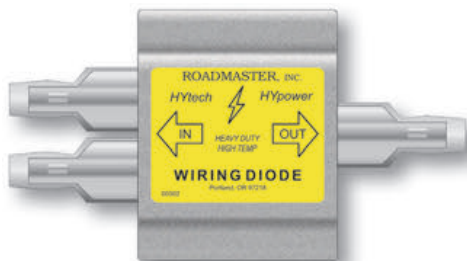
The research has been done, the financing arranged, the papers signed ... and that new dinghy vehicle is now sitting in your driveway. You've shopped carefully to pick a model that's approved by its manufacturer for flat towing, you've checked the vehicle's weight to confirm that it's within the motorhome's safe towing capabilities and you've ordered it with any requisite factory options to make it towable with all wheels rolling.

Now what?

As any seasoned motorhome owner will tell you, there are a lot of steps involved in getting a new vehicle to the point where it can be towed safely. Unfortunately, no automaker offers a plug-and-play solution that makes its products ready for safe dinghy towing right from the factory. Thus, it's up to you (and perhaps a knowledgeable towing equipment dealer) to get the job done right.

As an alternative, you can install an extra pair of lamps in the dinghy's tail-light assembly, independent of its electrical system.

Above: Plug receptacles added to the dinghy and coach allow easy hookup of an electrical connector for taillights, turn signals and the supplemental braking system.



One-way diodes, such as this one from Roadmaster, prevent electrical feedback when using the dinghy's lighting circuit.





Accessory kits such as this one from Demco include everything needed for a safe hookup, including wiring kits, pins, locks, receptacles — and a cover to keep the tow bar protected from the elements.

DINGHY WIRING

One of the most important aspects of dinghy prep involves connecting the wiring between the two vehicles. Tail, brake and turn signals on the back of the dinghy are required in all 50 states and all Canadian provinces, so this isn't a step that you can overlook. (Neither side clearance nor backup lights are required, and are rarely used.)

The most common source of dinghy wiring confusion centers on differences in the way the turn-signal lights are wired on various cars and motorhomes. Some models are wired to supply turn-signal power to the same bulbs that are used for the brakelights (commonly referred to as a 4-wire system), while others use separate amber bulbs for the rear turn signals (a 5-wire system). Note that 4- and 5-wire systems are used on both motorhomes and cars, so any one of four solutions may be needed for any particular application. Adapters are readily available to electronically match the wiring systems of the dinghy and motorhome.

The traditional method of wiring a dinghy vehicle involves the use of steering diodes, which function as one-way gates to the flow of electricity, allowing power from either the motorhome or vehicle to be supplied to the rear bulbs. Because no electricity can flow backward through a diode, it also prevents power from the motorhome from being inadvertently introduced to any other circuits in the dinghy vehicle.

Many late-model vehicles are equipped with on-board diagnostics that continuously check for proper operation of turn-signal and brake-light bulbs. Unfortunately, the introduction of aftermarket steering diodes into the vehicle's wiring can "fool" this diagnostic function,

typically causing it to give false warnings about burned-out bulbs.

For this reason, it's common to modify each of the vehicle's tail-lamp assemblies to accept a separate bulb. This bulb is then connected directly to the motorhome, eliminating any connections to the vehicle's existing wiring harness. This modification usually involves drilling a large hole in the tail-lamp reflector. Fortunately, special snap-in sockets are available that make this job somewhat easier. Since the new socket takes up considerable space behind the lamp assembly, care must be taken in selecting a location for the new hole that avoids socket interference with any other objects behind it.

Note that most states allow the turn signals to be either red or amber in color, but only permit the brakelights to be red. Thus, on automobiles equipped with amber turn signals, the new socket is typically installed behind the red brake-lamp lens.

In situations where modifications to the dinghy's original wiring either aren't desirable or practical, a set of removable towing



Hopkins nVision Tire Pressure Monitoring System keeps an eye on motorhome and dinghy tire air pressure. The wireless system can be easily transferred between vehicles and used in the dinghy without the motorhome.



Above left: Adding large rubber flaps at the rear of a motorhome, such as these from Blue Ox, will minimize towed-vehicle damage from debris, dirt and grime kicked up by coach tires. **Above right:** The KarGuard shield from Blue Ox attaches to the tow bar and adds yet another level of dinghy protection, guarding against potential damage from road debris.

lights often provides a workable solution. Most of these products are affixed with magnets, although some models can be equipped with suction cups or hook-and-loop fasteners (ideal for use on plastic or fiberglass surfaces). A cable is then snaked across the vehicle to the connector at the motorhome hitch receiver.

In some cases, the cable is semipermanently routed inside or underneath the vehicle, allowing the lights to be quickly removed and stowed inside the trunk. Several companies offer wireless, removable towing lights, thereby eliminating the need for this cable altogether.

Although many motorhomes come with a factory-installed 4- or 5-pin connector, there are situations where a different connector is necessary. Some unapproved dinghies equipped with an automatic transmission must also be equipped with an electric lube pump, which requires a connector pin for 12-volt DC power (and ideally, a separate connector pin for ground, in order to avoid drawing excessive current through the existing one). Also, some auxiliary braking systems require connections to the motorhome, further increasing the connector-pin count. Many motorhome manufacturers provide a standard

seven-way receptacle from the factory.

Ideally, the industry-standard connection scheme should be observed when installing a new connector, so that it can also be used when towing boats, ATVs, horse trailers, etc.

Unfortunately, since no industrywide standard exists for wire color codes used in automobiles, another hurdle in dinghy wiring involves identifying the proper wires for the stop, turn and tail lamps (as well as a suitable ground connection). If you've had the foresight to purchase a service manual for your particular vehicle, this can sometimes be accomplished by visual inspection of the wire harness. More often than not, it involves connecting a test light to each suspected wire in order to match it with the corresponding bulb. Note that on 4-wire systems, the same wire may be "hot" when either the brake or one of the turn signals is operated.

When splicing diodes or other connections into the vehicle's wiring harness, it is important to use top-quality connectors or soldered splices. In order to prevent any chance of corrosion, all connections should be waterproof. Heat-shrink tubing works very well for this purpose, as does self-vulcanizing plastic tape. **DG**



Tow Defender's mesh material is suspended over the tow bar, covering the space between the coach and dinghy vehicle.

If you're like a lot of motorhome owners, you'd probably like to put a bumper sticker on the back of your towed vehicle that reads, "It's a motorhome thing. You wouldn't understand." Because only motorhome owners realize the benefits of dinghy towing — the freedom to travel anywhere without having to break camp. But when you're shopping for the necessary equipment to tow a vehicle behind your motorhome, don't stop at the tow bar and baseplate. A supplemental dinghy brake system — designed to apply the brakes in the towed vehicle when the coach's brakes are applied — should be considered a necessity as well.

Anytime you tow something and apply the brakes, that towed load is going to push on the coach, extending its stopping distance. For that reason, some chassis manufacturers specify that towed loads in excess of 1,500 pounds should have independent brakes and safety breakaway systems.

The fact that dinghy brakes are not always required by law in all states is inconsequential. Many state and local governments are either unfamiliar with the practice of dinghy towing, or simply have not considered it, but that doesn't mean towing without supplemental

dinghy braking is a safe practice.

Fortunately, there are a number of dinghy braking systems on the market. Some are completely portable (easily transferable from one vehicle to another) some are semi-portable (can be used in another vehicle with some exceptions) and some are permanent (require modification to coach and/or dinghy and therefore can't be transferred from one vehicle to the next).

Recently, a couple of new systems were introduced to the market. The BrakeBuddy Stealth is the latest from Hopkins and it can be installed in an inconspicuous place virtually anywhere in the dinghy vehicle. From Danko, the RViBrake2 is the first unit to have a tire air pressure monitor as part of the package. Refinements from Roadmaster and Blue Ox continue to make braking devices more effective and user friendly.

The popular systems on the following pages — those from Blue Ox, BrakeBuddy, Roadmaster and RViBrake — generally have a significant edge in ease of installation. Use of a dinghy-braking device saves wear and tear on your coach's brakes, while providing the confidence of state and provincial compliance and safe travels.

More complete
and better than ever
by Chris Hemer

Dinghy Braking Systems



HOPKINS MANUFACTURING

BrakeBuddy Digital Classic

Portable Supplemental Braking System

MSRP: \$1,149



HOW IT'S INSTALLED:

First, install the emergency breakaway system. Next, set the BrakeBuddy on the dinghy's driver's side floor in front of the driver's side seat and attach the clevis to the brake pedal. Adjust the driver's seat forward to touch the adjustable handle of the BrakeBuddy. Plug in the 12-volt DC power and emergency breakaway cords. Then, verify the program settings are customized to your dinghy's weight or braking sensitivity and plug in the wireless remote inside the coach. Total installation time is less than 30 minutes; after the initial installation, the setup time for towing is less than five minutes.

HOW IT WORKS:

By way of an electronic decelerometer, the BrakeBuddy senses the inertia created during braking. The sensed inertia activates an internal air cylinder that puts a specified amount of pressure on the towed vehicle's brake pedal. An air compressor and tank supply the air pressure. The coach operator is notified of the towed vehicle's braking via the BrakeBuddy Alert System, which has a light that indicates that safe braking has occurred.

FEATURES AND BENEFITS:

- Billions of miles of experience.
- Three-year, 30-day money-back guarantee.
- Meets or exceeds all state and provincial towing laws.
- Utilizes advanced terrain sensing technology and provides the right braking force needed.
- The unit's compact design fits within all towed vehicles and is lightweight at only 12 pounds. Because it is portable, it can easily be transferred from vehicle to vehicle.

WHAT'S INCLUDED:

Diagnostic wireless remote and emergency breakaway system.

BrakeBuddy VANTAGE SELECT

Portable Supplemental Braking System

MSRP: \$1,499



HOW IT'S INSTALLED:

Same installation procedure as the Digital Classic BrakeBuddy

HOW IT WORKS:

Operates the same as the Classic BrakeBuddy, but with the addition of a fully automatic one-touch startup button. Choose between Full and Proportional braking technology at the touch of a button.

FEATURES AND BENEFITS:

- "On the fly" Braking Adjustability: Vantage Select lets the driver adjust braking sensitivity on the fly from the coach to react to changing road conditions. Utilizes radio frequency technology and is AA-battery powered.
- Fully Automatic Startup feature: Push the AUTO START button and Vantage Select prepares itself for use. This allows the driver the opportunity to ensure the dinghy brake-lights are operational.

WHAT'S INCLUDED:

Diagnostic wireless remote and emergency breakaway system.

BrakeBuddy STEALTH

Supplemental Braking System

MSRP: \$1099



HOW IT'S INSTALLED:

STEALTH main unit mounts anywhere in the towed vehicle you desire. Patent-pending all-in-one adapter mounts at the front of the vehicle, and the dual controller mounts inside the motorhome where it is easily viewed and within reach.

HOW IT WORKS:

Senses the inertia of the braking event, and communicates the exact amount of pressure to apply the towed vehicle's brake pedal. After braking, the vacuum pump restores vacuum to the towed vehicle.

FEATURES AND BENEFITS:

- Compact unit mounts anywhere in dinghy.
- Easy installation.
- Dual controller offers "on the fly" sensitivity and gain adjustments. Can be switched between dinghy towing and conventional trailer towing.
- Dual braking mode allows towing a dinghy vehicle or trailer at the push of a button.
- Easy to use. Plug in adapter while attaching the tow bar and it's ready to go (also connects lights, braking system and charge line).

WHAT'S INCLUDED:

Main unit, All-In-One adapter, Dual Controller and mounting hardware.

CONTACT:

Hopkins Manufacturing Corp.
800-470-2287; www.brakebuddy.com

BLUE OX

Patriot

Portable Supplemental Braking System
MSRP: \$1,395



HOW IT'S INSTALLED:

Place the Patriot on the driver's-side floorboard, adjust the push pad/feet, attach the spring-loaded brake claw to the brake pedal, plug the unit in, push the button and the unit will self-calibrate.

HOW IT WORKS:

When the coach's brakes are applied, the Patriot applies progressive and proportional braking force using an electric cylinder and actuator.

FEATURES AND BENEFITS:

- Self contained unit sits on the floor in front of the driver's seat. Installed within a few minutes after the initial installation.
- Works with all coaches and towed vehicles.
- Features internal 12-volt battery to extend towed vehicle battery life.
- Adjustable push pad and feet.
- Weighs only 15 pounds.

WHAT'S INCLUDED:

Everything needed for basic installation, including hardware and brake bracket assembly.

CONTACT:

Blue Ox
800-228-9289; www.blueox.com

ROADMASTER

BrakeMaster

Permanently Mounted Brake System
MSRP: \$1,304.68

(for coaches with hydraulic brakes),
\$883.85 (for coaches with air over hydraulic or air brakes)

HOW IT'S INSTALLED:

The BrakeMaster is connected directly to the motorhome's air or hydraulic brake line. The initial installation (in the coach and the towed vehicle) takes from four to six hours, depending on the motorhome's brake system and the specific towed vehicle. Once the initial installation is complete, BrakeMaster connects and disconnects from the towed vehicle in just a minute or two, without any tools, adjustments or settings. Attach the brake pedal clamp to the towed vehicle's brake pedal, secure to the floor or seat adapter and quick-connect the air hose.

HOW IT WORKS:

Because it connects directly to what powers the motorhome's brakes, BrakeMaster is a truly



proportional, truly synchronized braking system — brake line pressure in the coach controls the brakes in the towed vehicle. Whenever the motorhome's brakes are applied, BrakeMaster automatically applies the same pressure to the dinghy vehicle.

FEATURES AND BENEFITS:

- Proportional braking means the towed vehicle's brakes respond to the coach's brakes, at the same time and at the same intensity.
- Emergency breakaway system is included.
- Works in virtually any vehicle with power brakes.
- Monitor light in the motorhome's dash illuminates when the towed vehicle's brakes are applied.
- Meets U.S. and Canadian braking requirements.

WHAT'S INCLUDED:

BrakeMaster system, monitor light, breakaway system, wiring and electrical components, easy-to-read installation and operating instructions.

Even Brake

Portable Braking System

MSRP: \$1,555.60



HOW IT'S INSTALLED:

The initial installation of electrical components in the towed vehicle takes less than an hour. Once the initial installation is complete, Even Brake connects and disconnects from the towed vehicle in just a minute or two. Position Even Brake between the driver's seat and the brake pedal, and adjust the pedal clamp over the brake pedal, move the driver's seat forward against Even Brake, plug in the wiring harness cord and the power cord, and press the TEST button.

HOW IT WORKS:

Even Brake automatically increases or

decreases braking pressure in direct proportion to motorhome deceleration. When the coach brakes are applied, an electronic microprocessor inside Even Brake signals a magnetic valve to release a proportional amount of air pressure, activating the brake cylinder, which applies braking force on the towed vehicle's brake pedal. The amount of brake pressure applied is determined by the amount of braking pressure applied in the motorhome.

FEATURES AND BENEFITS:

- Proportional braking.
- Three-tiered motorhome monitor (LED light, LCD text message, audio tone) provides complete, continuous braking information at a glance. Reports any braking activity, or a change in system status, to a wireless monitor in the motorhome.
- Continuous monitoring allows any changes in system status to be transmitted to the coach monitor.
- Power Save low battery protection warns of a low battery in the towed vehicle with LED and LCD alerts at the motorhome monitor.
- Automatic brake protection alerts the driver after an extended period of continuous braking, then releases braking pressure to avoid excessive wear on dinghy brakes.
- On-board memory remembers the settings even when unplugged, and will automatically adjust itself.
- Includes a brake relay to allow the dinghy's turn signals and brakelights to work simultaneously with the dinghy-to-motorhome electrical connection.

WHAT'S INCLUDED:

Even Brake unit, motorhome monitor, towed vehicle transmitter, breakaway system, brakelight relay, easy-to-read installation and operating instructions.



InvisiBrake

Fully Automatic, Progressive Supplemental Braking System

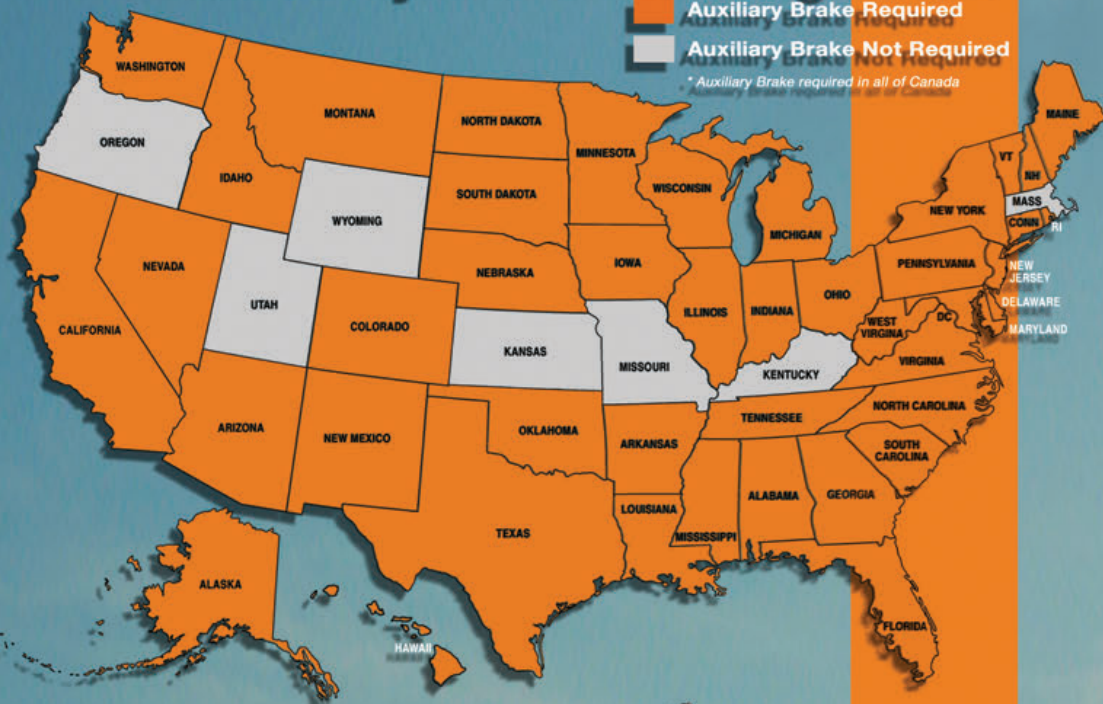
MSRP: \$999.99



State by State Towing Laws

-  Auxiliary Brake Required
-  Auxiliary Brake Not Required

* Auxiliary Brake required in all of Canada



Before you tow, you need to know!

HOW IT'S INSTALLED:

In most applications, the InvisiBrake controller is installed beneath the front seat of the towed vehicle. An air cylinder is installed close to the controller; a bracket and cable pulley are installed on the brake pedal arm. The entire system is designed to stay in the vehicle.

HOW IT WORKS: InvisiBrake uses the towed vehicle's electrical harness — the same electrical signal that activates the towed vehicle's brakelights also activates InvisiBrake.

FEATURES AND BENEFITS:

- Nothing to put in or take out to tow or drive.
- Hidden from view — no unsightly equipment in the car. InvisiBrake is so small (8¾-by-8¾-by-2¾ inches) it can usually be mounted under the driver's seat.
- Simple operation. Works intuitively. No fuss, no hassle.
- Charges the battery — InvisiBrake connects directly to the towed vehicle's battery providing a constant charge during towing.
- InvisiBrake engages the power braking system whether towing or driving.
- Works in virtually any towed vehicle with vacuum-powered brakes, including hybrids and those with full-time (active) power braking systems.
- Includes an emergency breakaway system and two-stage monitor alarm.

WHAT'S INCLUDED:

The InvisiBrake controller, cable, air cylinder, brake pedal bracket, all electrical wiring and a breakaway system.

CONTACT:

Roadmaster Inc.
800-669-9690; www.roadmasterinc.com

DANKO MANUFACTURING

RVibrake2

Auxiliary Braking System

MSRP: \$1,350

RVibrake2 is the first braking system to integrate tire pressure monitoring and towed vehicle braking all in one. RVibrake Tire Pressure Sensors simply thread on to the towed vehicle's valve stems and are activated when the RVibrake2 Wireless Monitor is enabled.

HOW IT'S INSTALLED:

The Breakaway System is the only thing that has to be permanently installed in the dinghy vehicle. Installation of the breakaway takes approximately 25 to 45 minutes. Once the



breakaway is installed, place RVibrake2 on the floorboard of the towed vehicle and push the AUTO-START button. This will not only deplete the vacuum in the brakes, but it will also auto position itself. There is no need to adjust the seat, because RVibrake2 pushes up against the rise in the floor pan. Setting up the RVibrake2 takes less than 60 seconds.

HOW IT WORKS:

RVibrake2 is an inertia-activated system. It applies the brakes in the towed vehicle in proportion to motorhome braking. RVibrake2's cutting-edge software adjusts for terrain, whether the motorhome is going uphill or downhill.

The RVibrake2 housing pushes against the floor pan (the rise in the floor where the driver's seat is mounted) instead of the soft seat when activating. This allows RVibrake2 to be truly proportional.

FEATURES AND BENEFITS:

- RVibrake2 is compatible with RVibrake Tire Pressure Sensors.
- Installation only takes 60 seconds.
- One-touch auto positioning.
- True proportional braking.
- Three-year warranty.
- Motorhome driver can monitor performance and adjust settings on the fly from the coach with the Wireless Monitor.
- Fits in all vehicles.
- Weighs 8 pounds.
- Available accessories include a soft shell case for storage (\$35) and a 12-volt DC Direct to Battery Kit (\$20).

WHAT'S INCLUDED:

Wireless Monitor and breakaway system.

CONTACT:

Danko Manufacturing
800-815-2159; www.rvibrake.com **DG**

WHY ROADMASTER?

The leader in innovation, quality, durability, fit and finish, service and ease of use.

With Roadmaster you always know you're going to get the best product possible for your towing and suspension needs. Roadmaster puts more into development, testing, quality control, service and customer loyalty than anyone in the industry. Period. When we say "The best on the planet", we mean it.

INVISIBRAKE

The world's best towed car supplemental braking system

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.
- **MONITORS** towed car's braking with audio and visual alerts.



For more information scan the QR code at right with your smartphone or tablet.



FUSEMASTER

Eliminates the hassle of pulling fuses

What is FuseMaster? An easy way to remove fuses that must be pulled to tow some cars. Just flip a switch! FuseMaster stops the hassle of having to find & pull fuses.



Simply push a button to disconnect the fuse.



Easy to Install!



Stop the pain. Stop doing the fuse limbo.

For more information scan the QR code at right with your smartphone or tablet.



800-669-9690 • www.roadmasterinc.com
Time Tested and Time Proven



LOOK AHEAD LEAVE THE WORRIES BEHIND

Towed vehicle braking systems are essential when towing a vehicle behind your motorhome and in most states and provinces they are required. BrakeBuddy® provides the best in towed vehicle braking systems to keep you safe and legal.

STEALTH™



SCAN FOR
MORE INFO



Most Innovative Built-In

The only system that works for towing a dinghy or trailer

Eliminates all of the set up ... Just plug and go!

VANTAGE SELECT™



SCAN FOR
MORE INFO



Industry's Best Portable

The only system with a patented One-Touch Start-Up Button.

Switch between full or proportional braking at the touch of a button



FIND OUT MORE:

Call 800.487.2287 or Visit www.BrakeBuddy.com