

Roadmaster's Sterling tow bar connects an Itasca coach and a Honda CR-V, with the capability of unhitching in a bind.



OUTFITTING A HONDA CR-V FOR FLAT TOWING

ROADMASTER'S STERLING ALL-TERRAIN TOW BAR CREATES A STRONG, VERSATILE LINK BETWEEN COACH AND DINGHY

by BRAD CLAYTON

Once in a while, those of us who tow dinghy vehicles get into "oops" situations in which we need to unhitch the car and back out. Unfortunately, it may happen that the car is at too much of an angle relative to the motorhome, creating so much tension that we can't release the tow bar arms. What to do now?

The Roadmaster Sterling All-Terrain

tow bar has the answer: a feature called the Freedom Latch that is designed to allow the owner to release the arms even when the motorhome and dinghy are in a bind. The latch is a patented cam design that multiplies force when the owner pulls one of the release levers.

The latch is but one of the features of the Sterling that make it a top contender with motorhomers who tow cars, SUVs and light trucks. Made of aircraft-grade aluminum with stainless steel telescoping

inner arms, the bar weighs 35 pounds and is rated to tow up to 6,000 pounds.

Roadmaster mates this bar and several others in its towing products lineup with mounting brackets (also called baseplates) built for specific dinghy vehicles — in this case a 2011 Honda CR-V. We arranged for installation of the tow bar (\$950 Camping World President's Club price) along with Roadmaster's mounting bracket (\$460) and wiring/safety cable kit (\$240) at the Camping World store in Henderson, Nev.

THE INSTALLATION

The Camping World technicians we enlisted for the project know tow bar jobs so well that their moves seemed almost choreographed — nice to find that level of experience. In terms of effort, they rate the CR-V at or near the top of the list for ease of installation.

Installation of the Roadmaster mounting bracket involves removal of the Honda's radiator cover and front plastic fascia, exposing the metal bumper core. Removal of the core exposes two square openings in the car's frame rails, into which the mounting bracket is inserted. The bracket is well-made and a precise fit, bolted into place using the



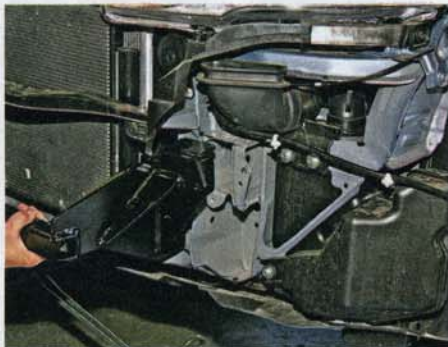
Made of aircraft-grade aluminum with stainless steel arms, the Sterling has integral channels for cables and wiring.



The Honda CR-V grille/bumper fascia was easily removed for installation of the mounting bracket for towing.



Original Honda fasteners were used when bolting the Roadmaster mounting bracket to the frame.



The mounting bracket was a precise fit for the CR-V, inserted into the car frame in place of the bumper core.



Quick-disconnect assembly adds rigidity for towing and offers easy disassembly, leaving two small receiver tubes visible on the car.



A taillight lens for the CR-V is easily removed, exposing wiring into which diodes are spliced and connected to the motorhome wiring harness.

same 10 frame-attached nuts that Honda used for attachment of the bumper core.

The Roadmaster bracket is quite beefy, which is the company's recipe for protecting the car in areas that receive towing force — force that Honda didn't have in mind when it engineered the car.

The Honda fascia was trimmed slightly to permit inserting two arms into the mounting bracket. The arms would be the connecting points to the Roadmaster quick-disconnect system, the front-of-car hardware to which the tow bar would be attached.

The quick-disconnect system is very substantial and is hardly a stylish addition to the CR-V, but a plastic cover (\$80) can be set in place when not towing. Or the assembly can be removed in three pieces by removing clips, hitch pins and padlocks, leaving only two small, square receiver tubes protruding from the black Honda fascia.

LIGHTS, TURN SIGNALS AND A FUSE

Onward to the Roadmaster wiring kit, which consists of a wiring harness complete with diodes (one-way electrical "valves") that are spliced into the running light and brakelight wires to prevent feedback problems while connected to the

motorhome's lighting system.

When towing the CR-V for long periods, Honda recommends that a fuse be removed from an under-dash fuse block to keep the radio/navigation system from drawing down the battery, which could happen over a number of hours with the key in the accessory (ACC) position (necessary to unlock the steering wheel).

Therein lies a problem: The fuse is very difficult to access even once — much less on a daily basis — and the solution is to wire a fused ON/OFF switch into the Honda fuse receptacle and locate the switch within easy reach under the instrument panel.

After that procedure, the car was ready. We hitch-pinned the tow bar in place and connected the safety cables, which have hooks at one end and at the other, very easy-to-connect steel beads that are inserted into convenient anchor points on the car bracketry. The Roadmaster wiring harness as well as the cables are conveniently routed partially through channels in the tow bar arms.

DROP RECEIVER

It became apparent that the motorhome hitch receiver was too high. Roadmaster specifies that the tow bar should not be

more than 3 inches out of level, and our motorhome was 5.5 inches higher than the attachment points on the car. We used a Roadmaster 6-inch drop receiver (\$90) to lower the tow bar to a level position, although a 4-inch drop receiver would have been a better choice.

The drop receiver increased the length between the motorhome and car by 10.5 inches, which is convenient if the owner wants to mount a bicycle rack on the receiver. For owners who don't, it would be convenient if Roadmaster would offer a shorter drop receiver because the tow bar instructions recommend against extending towing length. The longer drop receiver also requires a more expensive wiring harness, and safety cables.

The Roadmaster owner's manual was thorough on how to use the equipment, and the Camping World staff took the time to explain everything in detail. The project took about 5.5 hours at \$89 per hour which, when added to the cost of the component parts, brought the total to \$1,840.

ON THE ROAD

The towing length added by the drop receiver caused the tow bar to swing in a



The Sterling tow bar is easy to handle and collapses for storage behind the motorhome. A drop receiver is used to lower the bar to a level position.



Roadmaster's Freedom Latch eases the release of tow bar arms even when they're under pressure in a bind.



Convenient slots for steel safety cables speed up the hitching procedure.

larger vertical arc as the coach traveled undulating road surfaces, but the Roadmaster equipment nevertheless guided the Honda with precision, to the extent that we were only minimally aware that the car was back there. Motorhome tracking on curves was not altered; there was no jerky motion from the car on rough pavement, and no slack in the tow bar assembly that would have resulted in banging noises.

Hitching and unhitching the Sterling tow bar went very smoothly, even when the motorhome and car were in a bind. The quality of the bar was apparent to the eye, and obvious during everyday use.

HONDA CR-V

The CR-V is approved by Honda for flat towing with a couple of pre-tow procedures: While idling the engine, press the brake pedal and move the shift lever through all its positions. Then shift the transmission to DRIVE and hold for five seconds, then to NEUTRAL and idle for three minutes. (Warning: severe transmission damage will occur if the vehicle is shifted from REVERSE to NEUTRAL and then towed; it must be shifted from DRIVE to NEUTRAL after idling for five seconds.) Next, turn the ignition key to the ACC position, which shuts the engine off but leaves the steering wheel unlocked. The above procedure should be repeated after eight hours of continuous towing. Removing the aforementioned fuse also is recommended (only remove the fuse after you have performed the transmission shifting procedure and the key is in the ACC position). Also make sure the radio and any items plugged into the accessory power sockets are turned off so they don't drain the battery.

The CR-V is a popular choice as a dinghy vehicle on several counts. The car is relatively lightweight (3,554-pound curb weight for the 4WD EX-L model), gets 21 MPG in the city and 27 MPG on the highway, has a firm suspension and good road manners, comfortable seating and 4WD versatility (optional). The price for the fully loaded CR-V 4WD EX-L model is \$29,895. The car's few negatives include slightly elevated road noise and modest acceleration with its 180-hp 2.4-L 4-cylinder engine.

The Honda is a good choice for motorhomers who are shopping for a versatile midsize, midpriced SUV as a tag-along, and the Roadmaster Sterling is an effective way to tow it. ♦

FOR MORE INFORMATION

CAMPING WORLD

800-626-3636,
www.campingworld.com.

HONDA

800-999-1009,
www.automobiles.honda.com.

ROADMASTER

800-669-9690,
www.roadmasterinc.com.
Circle 143 on Reader Service Card.

EVEN BRAKE

PROPORTIONAL BRAKING FOR DINGHY VEHICLES FROM ROADMASTER



An air compressor and inertia-sensing controls are contained in the Even Brake unit, which is attached to the brake pedal before each towing session.

Few of us who tow dinghy vehicles would complain that we have too much braking capability in view of the fact that the combined weight of our motorhomes and dinghy vehicles may range from 10 to 20 tons.

Consideration of our personal safety, chassis manufacturer requirements, state/provincial towing laws and personal liability have combined to bring supplemental braking for our dinghy vehicles into increasingly sharp focus.

Chassis manufacturers and motorhome builders address the issue in various ways, so it's necessary for motorhome owners to check their owner's manuals for specifics.

For example, Ford's service brakes are rated for operation up to the chassis gross vehicle weight rating (GVWR) and requires auxiliary braking for a vehicle or trailer weighing more than 1,500 pounds. Freightliner Custom Chassis states that auxiliary braking systems are a must for dinghy vehicles or trailers weighing more than 1,500 pounds.

Roadmaster, a veteran in the towing equipment business, is at the forefront of the issue with products such as Even Brake, a portable unit suitable for a wide variety of flat-towed dinghy vehicles. The product is designed to sense changes in the inertia of the motorhome and activate dinghy brakes



The monitor reflects the status of the Even Brake and signals when brakes are applied.



A clamp fitted to the pedal allows the Even Brake to actuate brakes during towing.



The transmitter relays performance and troubleshooting data to the monitor.

at varying levels proportionally.

Even Brake is popular with motorhomers who may change dinghy vehicles on a relatively frequent basis. The unit requires no equipment in the motorhome other than a wireless monitor that communicates functional status and braking activity of the Even Brake.

An alternative for motorhome owners who don't change vehicles as often is Roadmaster's BrakeMaster, which requires installation of equipment in the motorhome but utilizes a more compact brake pedal actuator in the dinghy vehicle.

Even Brake is the simplest to install, including an air compressor, brake-pedal actuator, inertia sensor and controls in a single unit. But it requires placing and removing the unit on the floor of the dinghy before and after each towing session. Both units utilize a breakaway switch that actuates if the dinghy vehicle was to separate from the motorhome during towing.

We arranged for a road test of the Even Brake in a 2011 Honda CR-V towed by a Ford-based 35-foot Itasca motorhome, with the installation performed at Camping World in Henderson, Nev.

Although the Even Brake unit is portable, two compact ancillary components are permanently installed in the dinghy: the ICX transmitter, attached to the cowl below the steering column, and a breakaway switch. Even Brake is plugged into the transmitter in preparation for towing and it sends data to a wireless monitor attached to the motorhome dash. The transmitter also is connected via a cable to a breakaway switch, which is attached to the lower front fascia on the Honda and would activate the brake unit if the car were to become detached from the motorhome during towing.

The Even Brake unit is powered via a cigarette lighter receptacle (12-volt DC). Addition of a cigarette lighter receptacle was necessary in the CR-V because the two standard receptacles were deactivated by removal of a fuse from the Honda fuse block (see accompanying story). With the installation complete, we were ready to tow.

The routine is to complete all pre-tow procedures before positioning the Even Brake on the floor in front of the driver's seat. A steel shaft with a clamp protrudes from the Even Brake, and the clamp must be affixed to the brake pedal. Instructions are specific on how the Even Brake should be positioned between the seat and the brake pedal so the unit is braced for action. Attaching the clamp to the brake pedal was a bit difficult in the Honda because the seat cannot be moved back as far as is the case in larger vehicles, but the procedure was easier after a few run-throughs.

Two Even Brake cords were connected, one to the ICX transmitter and the other to power, causing an internal air compressor in the brake unit to build pressure to an automatic shutoff point. This was reflected in a READY TO TEST message on the monitor. Then we set the braking sensitivity and force (pedal pressure) to medium levels.

Pressing a test button caused the Even Brake to pump the Honda brake pedal three times, which bled vacuum from the power brake unit. Everything was correct, and the unit gave us a green light; the motorhome monitor flashed the words TEST IS GOOD, SYSTEM READY. We were ready for the road.

While driving, we used medium pedal pressure in the motorhome for our first brake actuation, and the inertia-sensing Even Brake took a fraction of a second to

actuate. A red light was illuminated on the left corner of the monitor and the word BRAKING flashed on the screen. We could feel the braking of the CR-V — a gentle tug and a continued feeling of drag, which is what we had expected from a 3,600-pound car behind a 22,000-pound motorhome. We braked repeatedly, varying the amount of pressure on the brake pedal, and the Even Brake responded consistently.

Then we increased the force setting to maximum and could feel a modest increase in braking force, again not expecting dramatic braking difference due to the motorhome/car weight difference. Later we rode in the car's passenger seat while it was being towed (on a controlled course — do not attempt on a public road), and could see and feel the Even Brake actuating in response to each motorhome brake action — other than gentle pressure on the pedal, which did not actuate the unit.

Even Brake did not actuate on steep downhill grades when we downshifted to lower gears to restrain speed, which prevents continuous dinghy braking and the chance of brake overheating.

The monitor will signal if improper positioning or adjustment of the Even Brake causes it to press the dinghy brake pedal when it shouldn't, and the system includes a number of other diagnostic functions.

The Even Brake system performed consistently well and gave us more of a feeling of security any time we encountered the need for aggressive braking.

Camping World lists the Even Brake at \$1,300 and the BrakeMaster ranges between \$922 and \$1,389, depending on motorhome application. Cost of the Honda installation was \$279, including \$237 for labor plus the cost of a brakelight switch and cigarette lighter receptacle.