



*part number 4700 –
for all ROADMASTER tow bars with quick-disconnect release systems*



Assembly and Installation Instructions

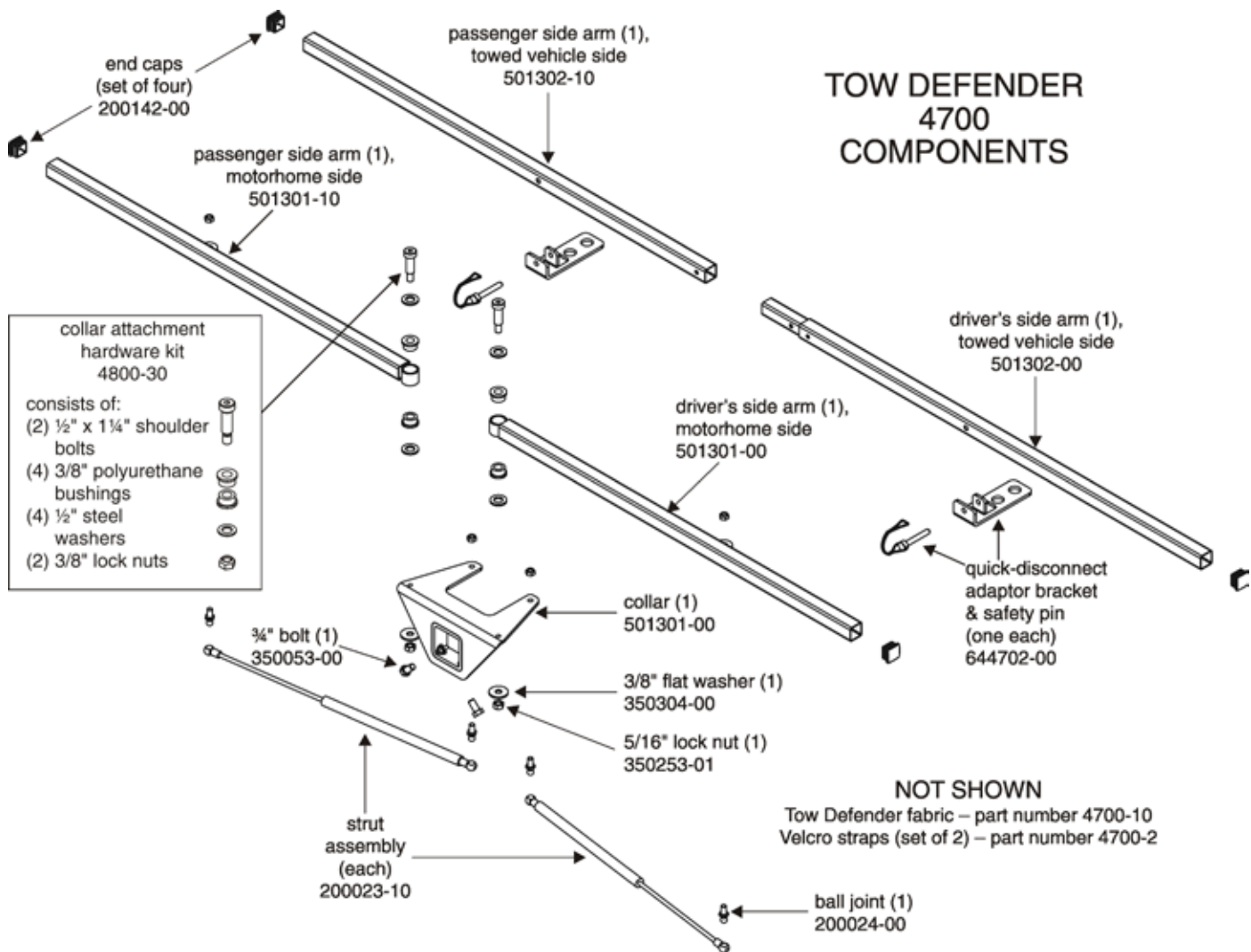


Towing and Suspension Solutions

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Towing and Suspension Solutions

Description

The Tow Defender's all-weather, heavy-duty screen deflects rocks, gravel and road debris down and away, protecting your towed vehicle's finish, headlights and windshield against chips and dings. The vinyl-coated mesh lets air through, keeping it low and over the road.

Fully extended, the Tow Defender measures 45" by 72" (more than 20 square feet), and is held in place with shock-absorbing steel struts. Adjust the tension to fit your towing system by simply sliding the collar up or down the tow bar stinger or ball hitch mount.

Once you've reached your destination, roll up the Tow Defender, snap the elastic straps around each end, and store it against the motorhome.

The Tow Defender features powder-coated steel supports and heavy-duty gas struts for maximum durability, support and cornering flexibility.

The model 4700 Tow Defender is designed for all ROADMASTER tow bars with quick-disconnect release systems.

Unpacking

After unpacking the Tow Defender, inspect carefully for any damage that may have occurred during transit. Check for loose, missing or damaged parts. Check to be sure all supplied components are enclosed.

In case of questions, damaged or missing parts, please call 800-669-9690 for customer assistance.

IMPORTANT

The Tow Defender is designed to reduce the damage to the vehicle while being towed. Although the Tow Defender will significantly reduce the amount of vehicle damage, the Tow Defender will not eliminate all damage, under all circumstances.

Accordingly, ROADMASTER expressly disallows any and all claims related to rock chips, dings, scratches or any other damage incurred to the towed vehicle.

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



Made in the U.S.A.

IMPORTANT NOTICE!

Safety Definitions

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



WARNING

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



CAUTION

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

CAUTION

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

NOTE

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



CAUTION

Read all instructions before installing or using the Tow Defender. Failure to understand how to properly install or use the Tow Defender could result in property damage or personal injury.



Save these instructions

Save these instructions for future reference. they contain important sections relative to safety, use, parts replacement and other information. Therefore, make sure this manual is always with you when you're towing. You may download or print a copy of the most current instructions at www.roadmasterinc.com (under 'Tech Support').

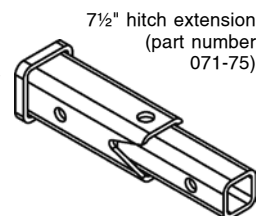
CAUTION – A hitch extension may be required.

Some motorhome chassis have such a tight turning radius that the Tow Defender may contact and cause damage to the motorhome or towed vehicle during sharp turns. For this reason, check the motorhome turning radius before using the Tow Defender for the first time – in an empty parking lot, attach the Tow Defender, then have someone watch as you slowly turn the motorhome sharply.

If the Tow Defender is too near the motorhome,

you must attach a hitch extension to the motorhome hitch receiver in order to use the Tow Defender. This will extend the distance between the motorhome and the Tow Defender.

We recommend our 7½" extension (part number 071-75, pictured above) for this purpose.



For StowMaster™ or StowMaster All Terrain™ applications only...

CAUTION

To ensure adequate clearance, the coupler on the StowMaster or StowMaster All Terrain tow bar must be mounted on a ball hitch extension with a drop of at least two to four inches.

Otherwise, the coupler will wear through the Tow Defender fabric if, while towing, any portion of the fabric comes into direct contact with the coupler.



WARNING

Do not install a ball hitch extension with a drop for the sole purpose of gaining adequate clearance for the Tow Defender.

The StowMaster tow bar must be approximately level. If the tow bar is not level, it may be damaged during towing, or it may detach from the ball mount.

Refer to the StowMaster owner's manual for additional information.

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

CAUTION

The mesh fabric may be warped or otherwise damaged by the heat from exhausts at the rear of the motorhome. Do not attach the Tow Defender so that the mesh fabric is in close proximity to the engine exhaust pipe.

If the exhaust is located directly below the Tow Defender, install a 'turn down' extension (sold separately) on the engine exhaust (according to the manufacturer's recommendations), to redirect the exhaust away from the fabric. The Tow Defender fabric may be warped or otherwise damaged if a turn down extension is not installed, or if other exhausts which cannot be redirected (recessed exhausts, or exhausts from "hydronic" heating systems) are in close proximity to the fabric.

Under what conditions could heat from exhaust pipes damage the Tow Defender fabric?

1. Heat from the engine exhaust could potentially damage the fabric – the temperature at the engine exhaust pipe can be over 1,000° Fahrenheit, under certain conditions.

Install a "turn down" extension, as instructed above, if the engine exhaust pipe is directly below the Tow Defender.

2. Heat from a "hydronic" heating system exhaust will damage the fabric, if it is directed out the rear of the motorhome, in close proximity to the fabric – the temperature at the exhaust pipe may be between 500° and 600° Fahrenheit.

Many of these systems vent the exhaust at the side of the motorhome. Side-vent exhaust will not damage the Tow Defender fabric – only exhaust which is vented at the back of the motorhome could potentially damage the fabric.

Some manufacturers stipulate that hydronic system exhausts at the rear of the motorhome be directed straight

back (horizontal to the road). The exhaust cannot be directed down, or a fire may result when the motorhome is parked in dry, grassy areas, according to these manufacturers.

Redirecting the exhaust may void the manufacturer's warranty – several manufacturers stipulate a maximum of two 90° bends over the entire length of the exhaust pipe – more than two 90° bends may cause back pressure to destroy the exhaust pipe or force the exhaust back into the heating system.

Redirecting the exhaust at any angle may be ineffective, as far as avoiding damage to the Tow Defender fabric – the exhaust would still be carried back and over (or under) the fabric.

3. Heat from the generator exhaust could potentially damage the fabric – the generator may run when the motorhome is stationary, and the heat may not be dissipated as quickly as it would be if the motorhome was moving.

Similarly, if the motorhome is stationary for an extended period, with the engine idling, the Tow Defender fabric can be damaged by heat from the engine exhaust.

4. Additionally, heat from recessed exhausts (for the furnace and/or water heater) could conceivably cause damage, if they were close enough to the fabric.

5. Heat from the exhaust of other systems, which ROADMASTER is presently unaware of, may also cause damage.

To assemble the Tow Defender...

1. On a flat, level surface, unfold both ends and roll them apart.
2. Connect one of the gas shock absorbers to the collar – pivot the end of one of the shock absorbers until the cap at the end of the shock absorber (Figure 1) is over the ball joint (Figure 1) on that side. Press the cap down onto the ball joint, until it ‘snaps’ in place over the ball joint. Repeat to connect the other shock absorber.
3. With both of the shock absorbers connected to the collar, move to the other side and connect the car-side support bars – one of the support bars has a pre-drilled hole near one end; the other has a push-button lock. Slide both of the support bars through the center of the Tow Defender and into the pocket at the edge of the screen (Figure 2), so that the hole and the push-button lock are at the center. Then, depress the push-button lock and slide the bars together, until the lock snaps through the hole (Figure 2).

To connect the Tow Defender...

1. With the mesh fabric on top of the tow bar, slide the Tow Defender collar over the tow bar stinger or ball hitch extension (Figure 3) so that when the tow bar stinger (or ball hitch extension) is attached to the motorhome, the Tow Defender struts will be facing the towed vehicle, as shown in Figure 3.

Then, slide the tow bar stinger or ball hitch extension into the motorhome hitch receiver.

Attach the stinger or ball hitch extension to the hitch receiver, according to the instructions in the tow bar owner’s manual.

2. Attach the tow bar to the towed vehicle. Also attach the safety cables, electrical cord and any other components which are connected between the two vehicles, according to the manufacturers’ instructions.

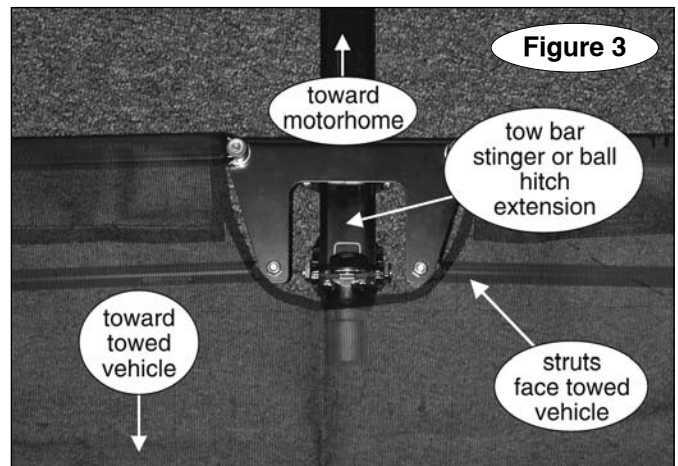
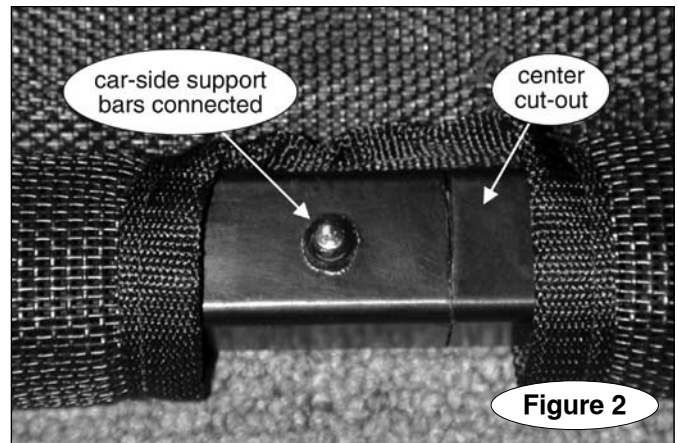
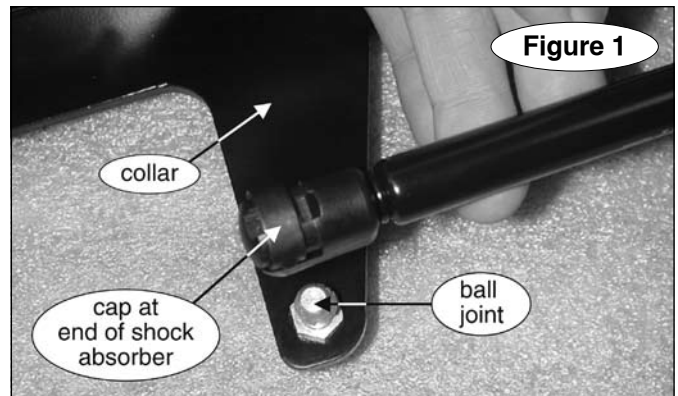
3. **For all motorhome-mounted tow bars** – At both sides of the quick-disconnect (QD) crossbar, remove the QD lynch pins (Figure 4) from the pins at the top of both QDs. Then, position the QD adaptor brackets (Figure 4) over the pins at the top of the QDs and replace and lock the QD lynch pins, as shown in Figure 4.

For StowMaster and StowMaster All Terrain tow bars – the attachment method is the same as above, but the lynch pins attach through the holes at the end of the QD adaptor brackets. Refer to Figure 6.

Note: to use the Guardian™ rock shield with the Tow Defender – If the Guardian rock shield is to be used with the Tow Defender, connect the Tow Defender first. Then attach the Guardian, according to the instructions included with the Guardian.

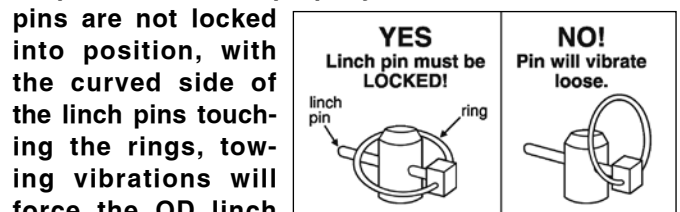
For motorhome-mounted tow bars – use the holes at the end of the QD adaptor brackets to attach the Tow Defender (identified as “attachment for Tow Defender with Guardian” in Figure 5).

For StowMaster and StowMaster All Terrain tow bars – always use the holes at the ends of the QD adaptor brackets to attach the Tow Defender, regardless of whether or not the Guardian rock shield will also be attached. See Figure 6.



WARNING

Make certain that the QD lynch pins at both of the adaptor brackets are properly attached. If the QD lynch pins are not locked into position, with the curved side of the lynch pins touching the rings, towing vibrations will force the QD lynch pins out, which will cause the tow bar to separate from the towed vehicle.



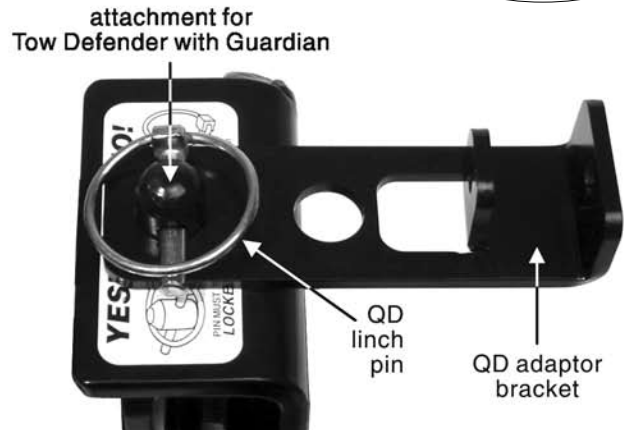
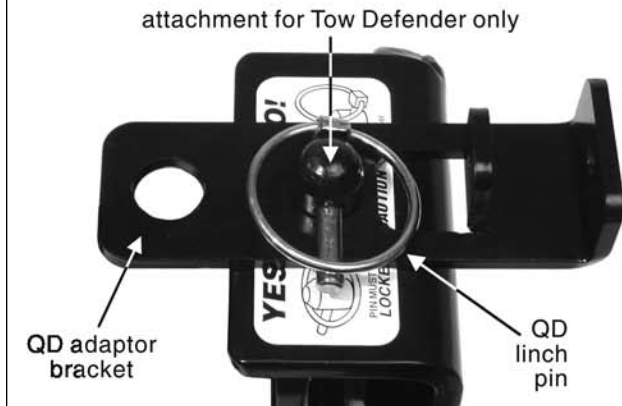
If safety cables are not present, the towed vehicle will separate from the motorhome, which will cause property damage, personal injury or even death.

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Figure 4

All motorhome-mounted tow bars

Figure 5



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4. Unfold the Tow Defender (Figure 7) until the support bars (Figure 8) are over both QD adaptor brackets. Rotate the support bars, if necessary, so that the pre-drilled holes in the support bars align to the pre-drilled holes in the QD adaptor brackets. Then fit the support bars into the slots in the adaptor brackets, as shown in Figure 8. Next, insert the two safety pins (Figure 8) through the pre-drilled holes in the support bars and the QD adaptor brackets, and lock them in place, as shown in Figure 8.

Note: the safety pins can only be attached with the open end facing the towed vehicle, as shown in Figure 8.

CAUTION

If the safety pins are not locked in place as shown in Figure 8, the Tow Defender will separate from the towed vehicle, which may cause significant damage to the towed vehicle or the Tow Defender.

5. If necessary, slide the Tow Defender collar (Figure 9) up or down the tow bar stinger (or ball hitch extension), to further adjust the screen, so that the Tow Defender screen appears snug, but not tight (Figure 10).

Now, to allow enough slack for sharp turns, pull the collar (Figure 9) back one inch, toward the towed vehicle.

CAUTION

Unless the collar is pulled back one inch, the Tow Defender fabric may be damaged when the motorhome turns sharply.

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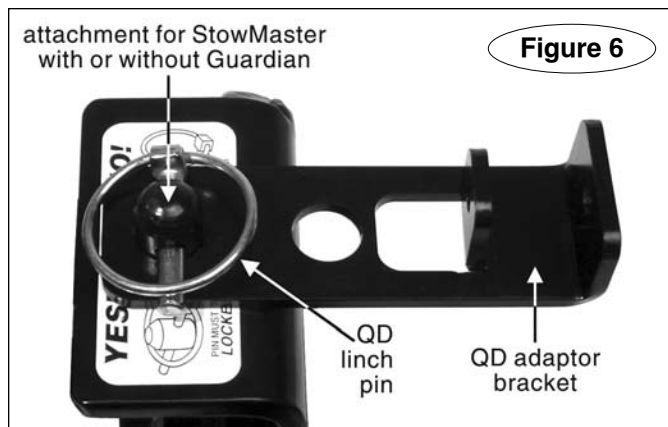


Figure 6



Figure 7

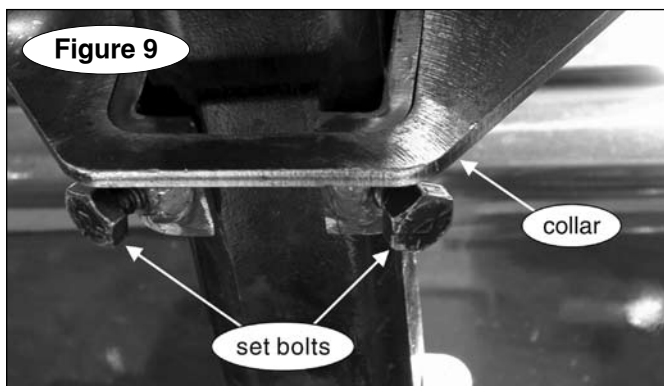


Figure 9

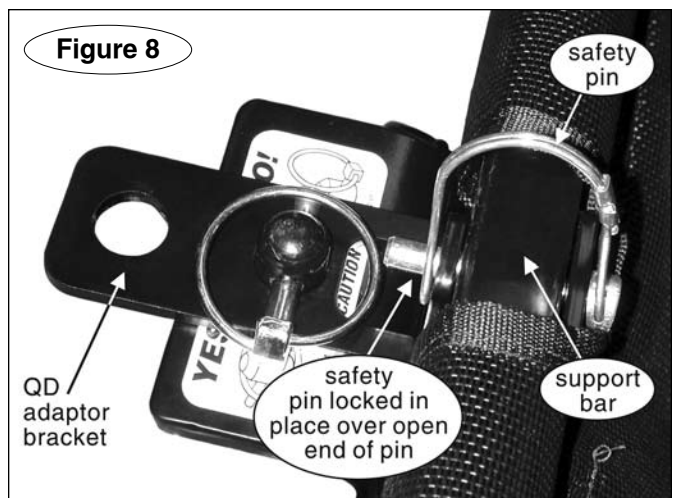


Figure 8

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Note: a secondary pocket is available (for motorhome-mounted tow bars only) to further tighten the Tow Defender screen. If the screen is still loose after adjusting the Tow Defender collar to its furthest extent, remove the car-side support bar – press the push-button lock down and separate the two sections. Then slide the two sections into the secondary pocket and connect them (Figure 11).

6. With the collar in the correct position, tighten the two set bolts at the bottom of the collar (Figure 9) with a 9/16" wrench, until the collar is fixed in place.

7. When not in use, the Tow Defender may be stored at the rear of the motorhome – remove the QD adaptor safety pins and both of the QD adaptor brackets, roll the screen toward the motorhome, and loop and attach one of the two storage straps around each side of the Tow Defender (Figure 12).

CAUTION

Remove both of the QD adaptor brackets when the Tow Defender is not in use. If the Tow Defender is not attached to them, the brackets may rotate out of position and damage the towed vehicle's finish.



CAUTION

Do not lift or carry the Tow Defender by the safety pins. The pins will separate and the Tow Defender will fall, which may cause property damage or personal injury.

CAUTION

When the motorhome is stationary with the engine idling, the Tow Defender fabric can be warped or otherwise damaged by the heat from exhaust systems at the rear of the motorhome. Do not idle the motorhome engine for an extended period when the Tow Defender is attached to the motorhome, or non-warranty damage to the fabric may occur.



WARNING

The Tow Defender fabric may conceal the towing system attachment points, as well as the attachment points for other components underneath it. Before towing, and after every stop, make certain that the tow bar, safety cables, electrical cord and any other components which are underneath the Tow Defender are securely attached, according to the manufacturers' instructions.

If a component of the towing system, or any other component underneath the Tow Defender, has detached and is not reattached, the towing system or other components may fail, which may cause property damage, personal injury or even death.



Figure 10

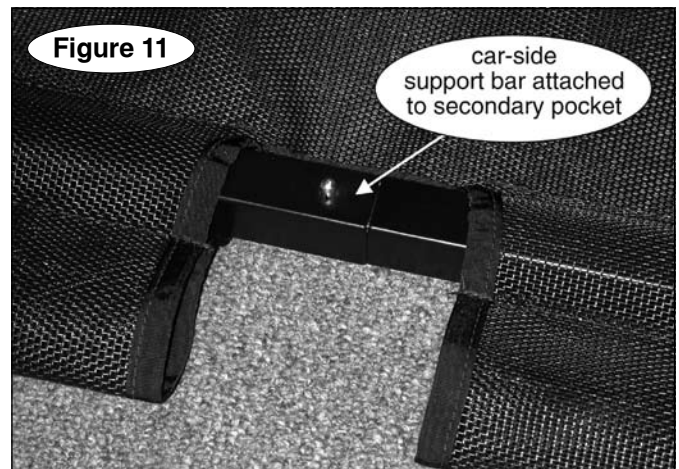


Figure 11



Figure 12

WHY FIGHT IT?

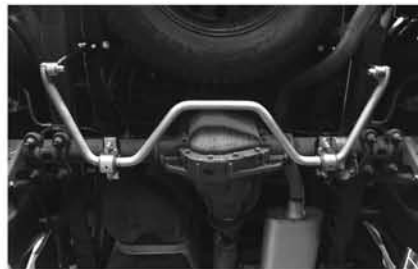
Does your suspension have
the best of you?...beat you
down?...control you?



Driving your truck or RV should be an enjoyable experience. And it can be. Adding a set of RSS anti-sway bars to your suspension has an immediate effect on stability and cornering control (especially with towing combinations) — the vehicle stays level, even through the turns.

An RSS bar anchors the frame to the axle, so that the pressure shifts caused by crosswinds or cornering are virtually eliminated. The anti-sway bar does all the fighting — instead of you — so even after hours at the wheel, you arrive fresh, instead of fatigued.

So what are you waiting for? It's time to relax, and enjoy the ride.



RSS anti-sway bar benefits

Improved handling • Increased stability • A safer, smoother ride • Reduced body roll • Combats crosswinds
Corner with confidence • Less driver fatigue • Improvement over factory standard equipment

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