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BrakeMaster air cylinder anchor plate kit

part number 450650-01

for BrakeMaster 9100, 9160 and 9060

Installation Instructions

All specifications are subject to change without notice.

WARNING

Read the instructions before installing the kit components. Failure to understand how to install this product could result in property damage, personal injury or even death.



Kit contents

- (1) anchor plate, part number 450650-1
- (5) 1/4" x 1" hex head bolts, part number 350251-20
- (5) self-locking flange nuts, part number 350400-20
- (1) 3/8" x 5/8" retaining bolt, part number 350455-00
- (1) 3/8" lock washer, part number 350305-00

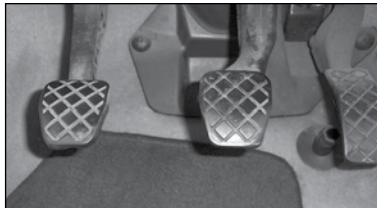
Required tools

- electric drill with 1/4" bit
- half-inch open-end wrench
- 7/32" Allen wrench

Installation instructions

To determine where the anchor plate will be installed, first attach the pedal clamp to the brake pedal. Follow steps one through six below.

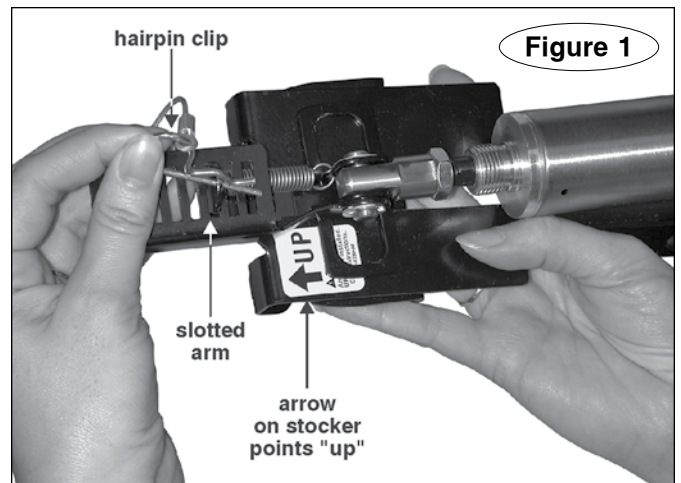
Note: the pedal clamp will not fit the brake pedals of a small number of late-model Volkswagen vehicles, such as the 2007 Volkswagen Golf (above). Use the optional 9329-VW replacement pedal clamp for these vehicles.



Note: on the initial installation, it may be necessary to adjust the tabs on the pedal clamp – use pliers to

1. At the towed vehicle, slide the driver's seat back as far as it will go.
2. Verify that the pedal clamp is right side up, as shown in Figure 1 – the arrow on the sticker will point "Up" when the pedal clamp is properly positioned.
3. Pull the hairpin clip (Figure 1) out, then lift the slotted arm (Figure 1) up and out of the way.
4. Move the pedal clamp over the brake pedal. Then, hold the clevis (Figure 2) and pull back on the spring post (Figure 2), until the tabs under the pedal clamp are wide enough to clear the brake pedal.
5. Fit the pedal clamp onto the brake pedal, so that all four tabs are hooked around it (Figure 3). Then, release the spring post.

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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:

WARNING

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

CAUTION

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

CAUTION

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

NOTE

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

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bend any or all of the tabs so that they hook around and under the towed vehicle's brake pedal.

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

If BrakeMaster is switched between towed vehicles, always check the pedal clamp on the initial installation. Verify that all four tabs are hooked around and under the brake pedal. If necessary, bend the tabs to fit, as described above.

CAUTION

Make certain that all four tabs on the pedal clamp are securely hooked around the brake pedal. If the tabs are loose when the vehicle is towed, the pedal clamp can rotate out of position and hold the brake pedal down, even when BrakeMaster is not activated, which will cause tire and/or brake damage or other consequential, non-warranty damage.

6. Swing the slotted arm back over the spring post, fit the spring post through one of the slots, and reattach the hairpin clip (Figure 3).

7. Now that the pedal clamp is in place, attach the anchor plate –

Choose a mounting point under the driver's seat as far back as possible – ideally, the anchor plate should be concealed when the driver's seat is moved forward, and visible only when the driver's seat has been moved back as far as it will go.

BrakeMaster is shipped with the air cylinder at the shortest position. If necessary, lengthen the reach of the air cylinder, to position the anchor plate at the point you have chosen – remove the two bolts and nylon nuts (Figure 4) attaching the cylinder to the adjustable arm (Figure 4). Slide the air cylinder (Figure 4) up the adjustable arm until the anchor plate is over the point you have chosen. Replace the two bolts and nylon nuts.

Note: if BrakeMaster is switched between towed vehicles, it may be necessary to lengthen or shorten the reach of the air cylinder, as described above.

Note: if the vehicle is equipped with an automatic pedal positioning system, adjust the brake pedal to its farthest extension (as close as possible to the driver's seat) before positioning the air cylinder and the mounting post. This will eliminate the possibility of positioning the anchor plate too close to the brake pedal.

8. Next, if necessary, move the air cylinder to the left or the right, until the mounting post (Figure 4) is directly in line with the brake pedal.

CAUTION

The air cylinder must be mounted directly in line with the brake pedal. If it is mounted at an angle to the brake pedal (to one side or the other), the air cylinder may jam in the extended position when BrakeMaster is activated, which will cause severe brake system damage, as well as other con-

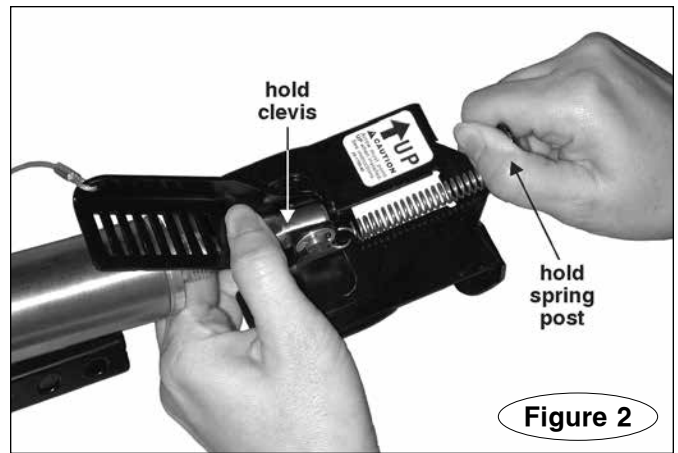


Figure 2

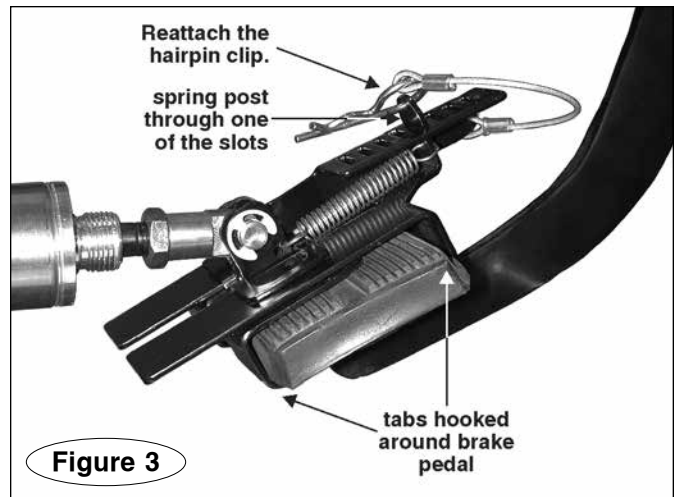


Figure 3

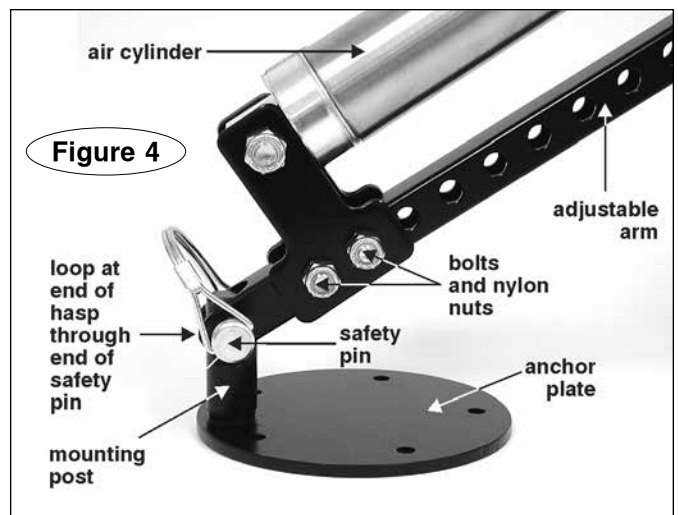


Figure 4

sequential, non-warranty damage.

Note: the mounting post is included with all BrakeMaster supplemental braking systems. If another is required, order part number 450596.

Note: the anchor plate can be rotated clockwise or counterclockwise, if necessary, to clear any obstructions – to rotate the anchor plate, remove the air cylinder and lock the plate in a vise. Use a half-inch open-end wrench to loosen the mounting post, while holding the retaining bolt (at the bottom of the plate)

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with a 7/32" Allen wrench. Do not turn the retaining bolt with the Allen wrench, as you may damage the wrench or the bolt. When the mounting post is loose, rotate the anchor plate. Then, tighten the mounting post.

9. Before attaching the anchor plate, verify that the following conditions are met:

A. Make certain that the pedal clamp is not depressing the towed vehicle's brake pedal – examine the brake pedal, and also check the towed vehicle's brake lights, to make certain they are not illuminated.

 **WARNING**

Make certain that the pedal clamp is not depressing the towed vehicle's brake pedal.

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

B. When it is connected, the air cylinder must be pulled back toward the anchor plate in order to insert the safety pin (Figure 4) through the mounting post.

CAUTION

The air cylinder must be pulled back when it is connected, in order to create sufficient spring tension to keep the weight of the cylinder off the brake pedal. If the cylinder is not pulled back when it is connected, the weight of the cylinder may cause the pedal clamp to depress the towed vehicle's brakes continuously, which will cause excessive brake wear, brake system damage or other consequential, non-warranty damage.

C. The pedal clamp must be flat against the brake pedal and properly secured with the hairpin clip (Figure 3).

D. Make certain that there is sufficient clearance between the mounting post and the bottom of the seat to allow the seat to slide properly.

10. Once the four conditions in step 9 (above) are met, attach the anchor plate. (It may be helpful to remove the driver's seat to facilitate the rest of the installation.)

The anchor plate can be attached on top of the carpet, or underneath it.

A. To mount the plate on **top of the carpet**, first use the anchor plate as a template and mark the five holes to be drilled.

Before drilling, make certain that the retaining screw (at the bottom of the mounting post) is fully tightened. (To tighten the screw, reverse the instructions in step 8, above.) Also, make certain that you will not drill through any wiring or electrical components underneath the carpeting, or damage any components on the otherside of the floorboard.

 **WARNING**

Do not drill through any wiring. The air bag sen-

sor wire may be located under the driver's seat. Drilling into this wire may disable the air bag system, or may cause the air bags to deploy immediately, which may cause severe personal injury.

Next, drill five 1/4" holes at the points you marked. Drill through the carpet and the floorboard. Use caution to prevent the drill bit from catching on threads in the carpet and unraveling it.

B. If mounting the anchor plate **underneath the carpet**, cut a small flap in the carpet to allow the mounting post to protrude through it.

As described above, use the anchor plate as a template, and drill five 1/4" holes through the floorboard.

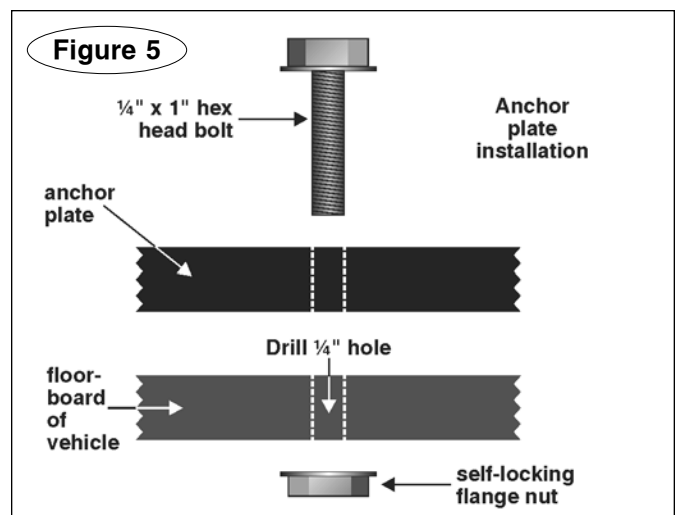
11. Next, attach the anchor plate as shown in Figure 5, using the provided 1/4" x 1" hex head bolts and self-locking flange nuts.

 **WARNING**

Automatic pedal positioning systems may affect the towed vehicle braking system.

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

If the brake pedal is not at the original installed position when the vehicle is towed, the pedal clamp may apply excessive braking force, which will damage the brake system and/or electrical system, and may cause brake or electrical system failure, as well as other non-warranty damage.



— ADVERTISEMENT —

Towed vehicle protection

Protect your towed vehicle's finish, headlights and windshield against damage with these two ROADMASTER products!



Made in the U.S.A.



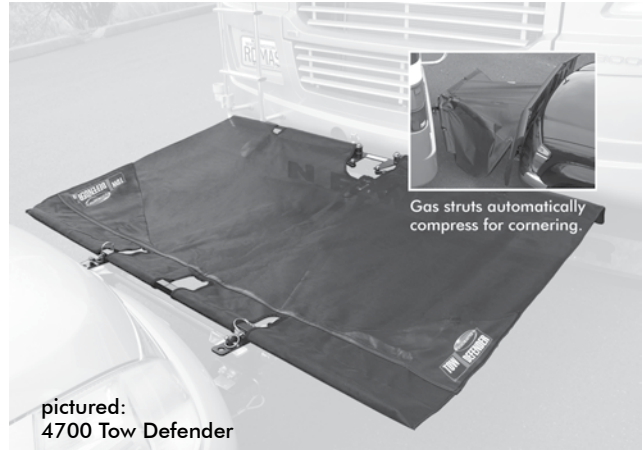
Protect your towed vehicle and RV against dings and rock chips!

The Guardian is crafted from rotationally-molded, high-impact polyethylene to absorb the impact of rocks, gravel and road debris – instead of ricocheting it back at the motorhome.

The Guardian can be attached and removed in seconds, and fits all ROADMASTER tow bars equipped with quick-disconnects. (Note: MX brackets will not accommodate the Guardian.)

The Guardian can also be used with a tow dolly to help protect your towed vehicle by using the Guardian bracket (part number 2000-8).

If you tow more than one vehicle, the second vehicle kit has all the mounting hardware necessary to swap the Guardian from one vehicle to another.



pictured:
4700 Tow Defender

U.S. patent number
8,708,369



A bumper-to-bumper blanket of protection!

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, both Tow Defenders offer 20 square feet of protection, and are held in place with shock-absorbing gas struts. Once you've reached your destination, roll up the Tow Defender, snap the elastic straps around each end, and store it against the motorhome.

- Quick installation and release
- Lightweight and compact – weighs just 14.5 pounds, and rolls up to four inches in diameter
- Powder-coated steel supports and heavy-duty gas struts for maximum durability, support and cornering flexibility

For maximum protection, use a Tow Defender and a Guardian.

Motorhomes kick up rocks, gravel and road debris, but so does oncoming traffic. A Tow Defender/Guardian combination protects your towed vehicle's finish, headlights and windshield against damage from both lanes.