

VERUS

ENGINEERING

Rear Diffuser – Mk7 VW Golf R

Install Manual



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Release Date: 2018/02/26

Approvals: E. Hazen, P. Lucas

Document Revisions

Rev	Date	Author	Description
01	2018/02/26	E. Hazen	Initial release of install manual.

Mk7 VW Golf R Diffuser Install

CONTENTS

1. Introduction	<3>
1.1. Overview	<3>
1.2. Difficult	<3>
1.3. Time Required	<3>
1.4. Tools Needed	<3>
1.5. Rear Diffuser Components	<3-4>
2. Rear Diffuser Install	<4-11>

Mk7 VW Golf R Diffuser Install

1. Introduction

1.1. Overview: Detailed instructions on installing the Verus Engineering rear diffuser for the Mk7 Golf R.

1.2. Difficulty: Beginner

1.3. Time Required: 1.5 hours

1.4. Tools Needed:

- 1.4.1. Jack and Jack Stands (or a lift)
- 1.4.2. 10mm Socket
- 1.4.3. 13mm Socket
- 1.4.4. 14mm Socket
- 1.4.5. Ratchet
- 1.4.6. Extension(s)
- 1.4.7. 4mm Allen wrench or socket
- 1.4.8. Torx bits
- 1.4.9. 10mm wrench
- 1.4.10. Level

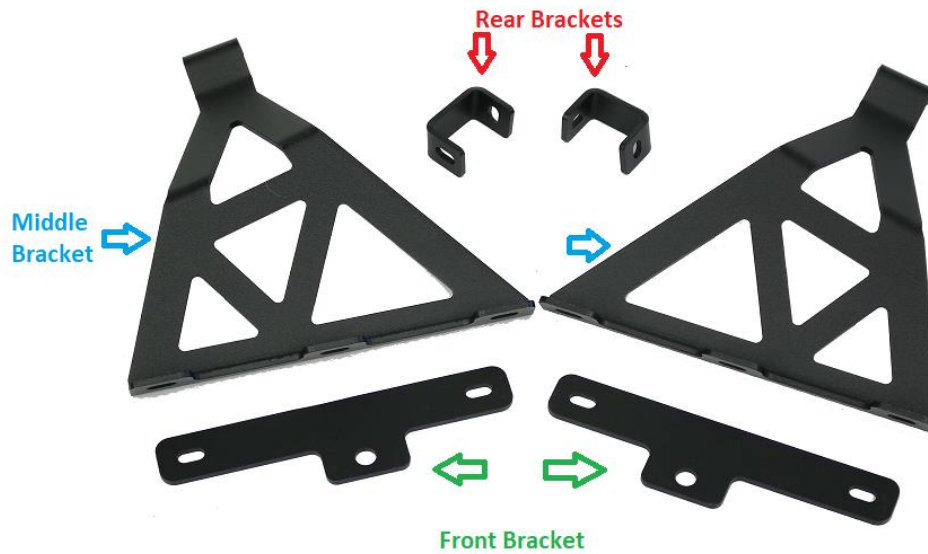
1.5. Rear Diffuser Components:

- 1.5.1. Rear Diffuser
- 1.5.2. (2) Front Brackets
- 1.5.3. (2) Mid-Brackets
- 1.5.4. (2) Rear Brackets
- 1.5.5. (1) Hardware Bag
 - 1.5.5.1. (15) M6x1.0 Button Head Cap Screw (BHCS) x 16mm Long, SS
 - 1.5.5.2. (20) M6 Fender Washers, SS
 - 1.5.5.3. (15) M6x1.0 Serrated Flanged Nut, SS
 - 1.5.5.4. (2) M8x1.25 Serrated Flanged Nut, SS
 - 1.5.5.5. (8) M6x1.0 BHCS x 45mm Long, SS
 - 1.5.5.6. (8) M6 5mm Long Nylon Spacer
 - 1.5.5.7. (8) M6 10mm Long Nylon Spacer
 - 1.5.5.8. (8) M6 15mm Long Nylon Spacer



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Mk7 VW Golf R Diffuser Install

**2. Rear Diffuser Install**

- 2.1. Verus is not responsible for damage to you or your vehicle by following this manual and/or installing Verus Engineering products on your vehicle.
- 2.2. We begin by jacking the car up on a level surface. Use of wheel chocks is suggested to keep the front wheels from rolling. Using a lift is also a possibility.
- 2.3. Secure the car with two jack stands with enough room to access all the area under the rear bumper. The pinch welds are good choices, as are frame rails.
- 2.4. With the car up in the air, we can have a good look at what we are working with! The front brackets will go where the green circles are located, the mid-brackets will be installed where the blue circles are located, and finally the rear brackets will go where the red circles are located.

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Mk7 VW Golf R Diffuser Install



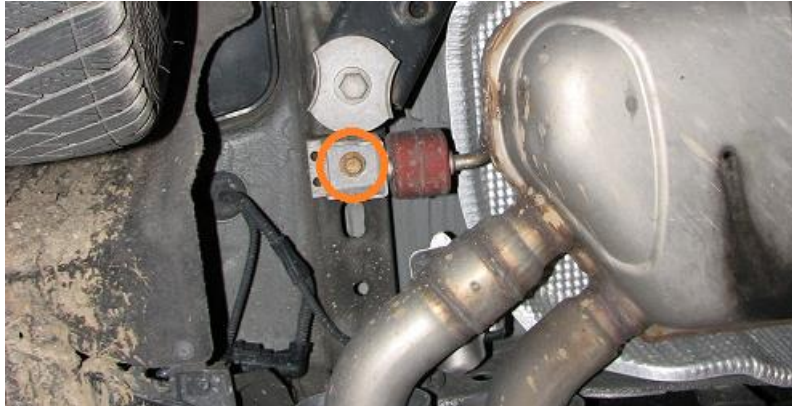
- 2.5. Starting with the front mounting points, we install the bracket on the threaded side of the sway bar mount utilizing the supplied M8x1.25 nut.



- 2.6. Torque the nut to approximately 18 ft-lbs.
- 2.7. Moving onto the mid-bracket, remove the 14mm bolt which is circled in orange below. Note, this is the passenger side.

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Mk7 VW Golf R Diffuser Install



- 2.8. Install the mid-bracket as shown below. Note orientation of the bracket. Below photo is again, of passenger side of car. Use the OEM bolt to secure this bracket but **do not tighten it yet.**



- 2.9. Finally, we move to the rear brackets. Remove the bolt with an appropriate bit.

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Mk7 VW Golf R Diffuser Install



- 2.10.** Pull down on the bumper to remove the plastic clip completely.



- 2.11.** Install the **rear** brackets as shown below using an M6x1.0 x 16mm BHCS and washer on the bottom side, and a nut on the top. Note orientation and how the angle of the bottom of the bracket slopes upward towards the rear of the car. The vertical section of the bracket should be vertical. The picture below is of the CAD model to clearly see this.

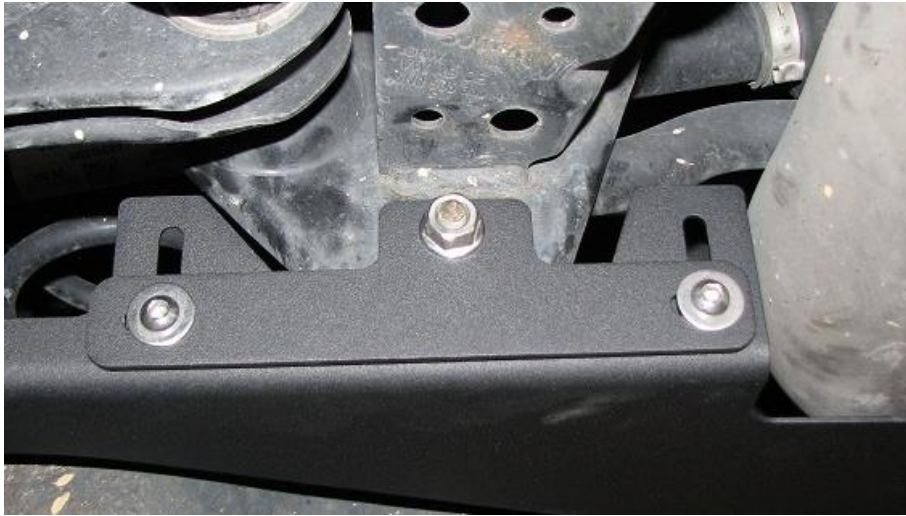


- 2.12.** Repeat steps until all brackets are installed.
- 2.13.** The rear diffuser is now ready to install!
- 2.14.** Installing the diffuser is aided by a second pair of hands, but it can be done alone.

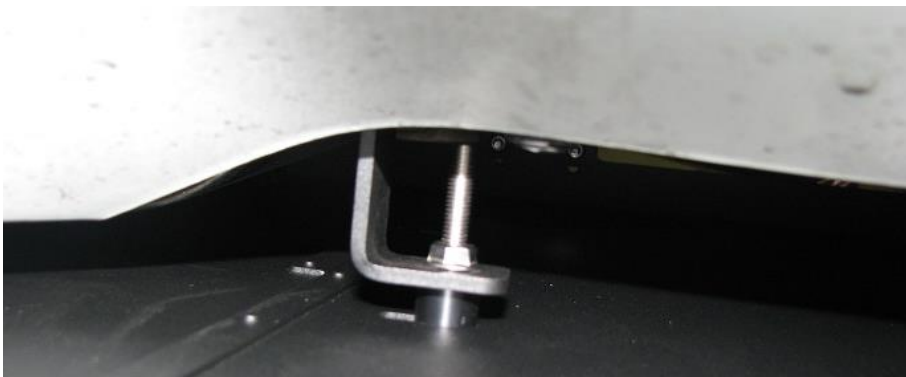
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Mk7 VW Golf R Diffuser Install

- 2.15.** Ensure the middle brackets line up with the holes appropriately. If they do, fully tighten the upper bolt to the vehicle.
- 2.16.** The front **four** bolts receive a M6 x 1.0 x 16mm bolt and a washer from the front, and get a nut on the rear. The mid and rear brackets receive either the 16mm long bolts, if the diffuser can be installed in the highest position; or, if the diffuser has to be installed lower, the M6 x 1.0 x 45mm long BHCS. Washers go on the bottom side, serrated nuts on the top.
- 2.17.** Front bolts installed correctly shown below.



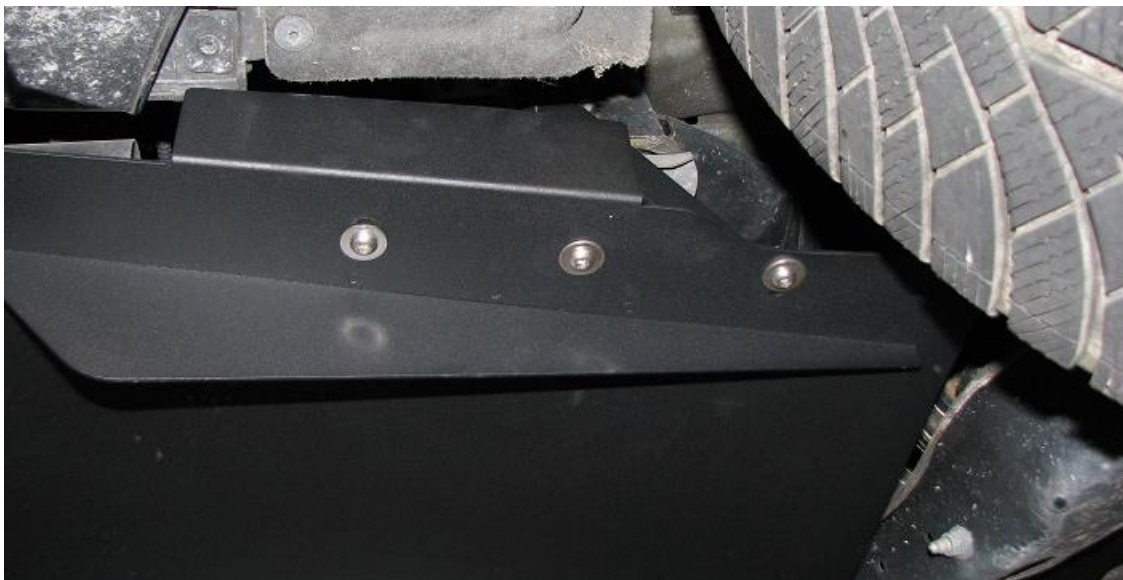
- 2.18.** At this point, we need to figure out how far up the diffuser can sit. This is determined by the exhaust used on the car. We recommend installing the diffuser as far upward on the car as possible without hitting the exhaust.
- 2.19.** When you figure out how high up the diffuser can sit, we can install the mid-bracket bolts. Using washers and/or nylon spacers to achieve the correct height, install these between the rear diffuser and the bracket (as shown below). On our specific install, we used no spacers/washers for the desired diffuser install height.



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Mk7 VW Golf R Diffuser Install

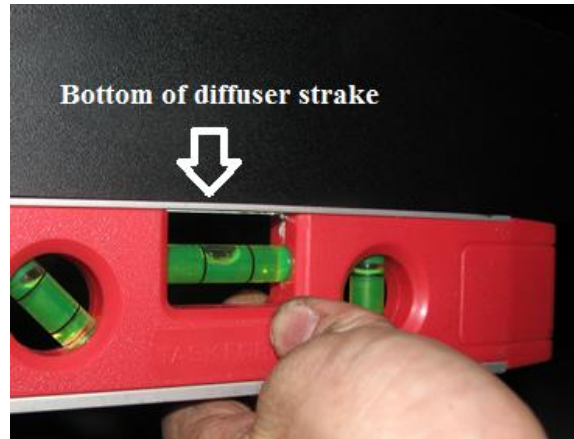
- 2.20.** Once all the mid-brackets bolts and nuts are installed, we can move to the rear brackets. Install spacers as necessary to achieve correct diffuser height install.
- 2.21.** Once all bolts and nuts are installed, tighten all button head cap screws to approximately 10 ft-lbs. The serrated nuts, when tightened, will resist backing off.



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- 2.22.** With the car on the ground and no rake, the diffuser strakes should be level. If the car does have some rake, you need to match the underbody's angle with the level of the bottom of the strake. Shown below is a car with no rake.



- 2.23.** You should also ensure that the diffuser is level laterally (left to right) with a level when on a level surface.
- 2.24.** Congratulations, you have successfully installed the Verus Engineering Mk7 Golf R rear diffuser! You can now benefit from an increase in rear end downforce and a reduction in vehicle drag among other benefits.
- 2.25.** Please contact Verus with any feedback, concerns, and questions via e-mails, sales@verus-engineering.com.



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