

VERUS

ENGINEERING

Carbon Rear Diffuser – 981 Cayman

Install Manual



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Release Date: 2018/11/07

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Document Revisions

Rev	Date	Author	Description
01	2018/11/07	E. Hazen	Initial release of install manual

Rear Diffuser, 981 Cayman – Install Manual

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	<4-12>

Rear Diffuser, 981 Cayman – Install Manual

1. Introduction

1.1. Overview: Detailed instructions on installing the Verus Engineering rear diffuser for the 981 Porsche Cayman.

1.2. Difficulty: Easy

1.3. Time Required: 1-1.5 hour

1.4. Tools Needed:

- 1.4.1. Extension
- 1.4.2. Swivel
- 1.4.3. 7mm Socket
- 1.4.4. 10mm Wrench
- 1.4.5. 16mm Socket
- 1.4.6. Ratchets
- 1.4.7. 2.5mm Allen Wrench
- 1.4.8. 4mm Allen Wrench/Socket
- 1.4.9. Torque Wrench
- 1.4.10. Lady Fingers/Cat Claw

**1.5. Rear Diffuser Components**

- 1.5.1. Left-hand Diffuser Plane
- 1.5.2. Right-hand Diffuser Plane
- 1.5.3. Center Diffuser Plane
- 1.5.4. (4) Brackets
- 1.5.5. (4) Diffuser Strakes
- 1.5.6. Hardware Bag

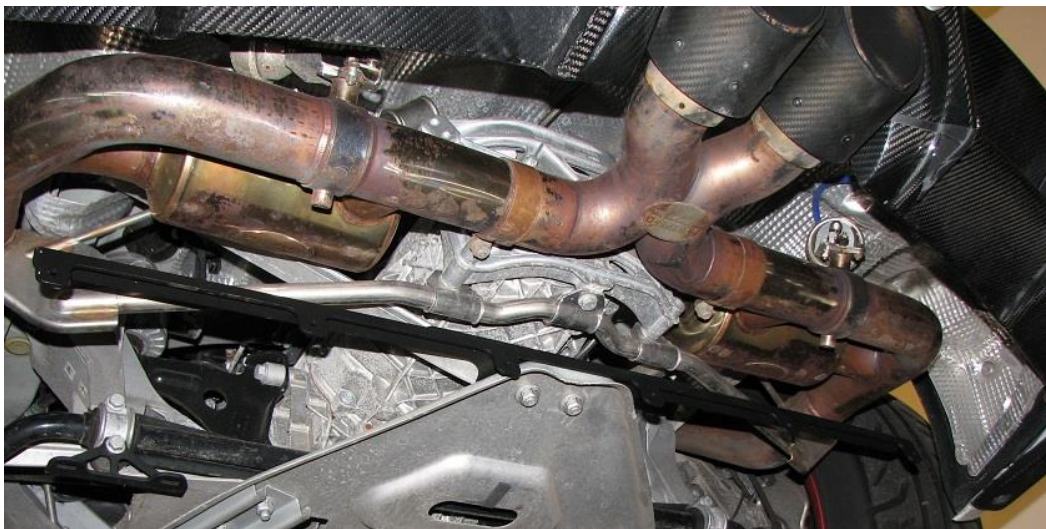
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Rear Diffuser, 981 Cayman – Install Manual

- 1.5.6.1. (26) M4 x 0.7 Stainless Button Head Cap Screw (BHCS), 12mm Long
- 1.5.6.2. (26) M4 x 0.7 Nyloc Nut, Stainless
- 1.5.6.3. (14) M4 Washer, Large Diameter, Stainless
- 1.5.6.4. (40) M4 Washers, Small Diameter, Stainless
- 1.5.6.5. (20) M6 x 1.0 Stainless Button Head Cap Screw (BHCS), 20mm Long
- 1.5.6.6. (26) M6 Large Diameter Washer, Stainless
- 1.5.6.7. (20) M6 x 1.0 Serrated Nut, Stainless

**2. 981 Rear Diffuser Install**

- 2.1. Verus Engineering is not responsible for damage to you or your vehicle by following this manual and/or installing Verus Engineering products.
- 2.2. We begin by either jacking the vehicle up or lifting it up on the lift. Do so by using jacking points and safe practices.
- 2.3. First, let us get familiar with the underside of the 981, right behind the engine specifically.
Note, we have the brackets already installed in this photo, but the black brackets generally would not be there.

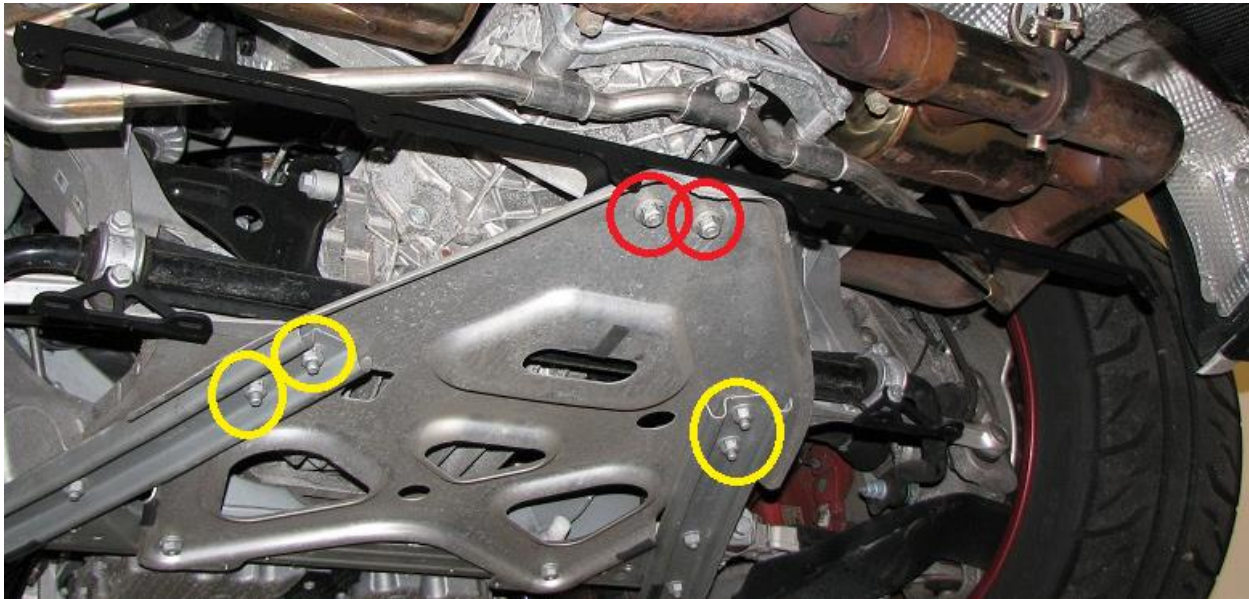


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Rear Diffuser, 981 Cayman – Install Manual

2.4. We will kick off the install with installing the bracket on the top of the factory skid plate.

2.5. Remove only the back two nuts (circled in red) and then loosen the (4) nuts circled in yellow.



2.6. With these nuts removed and loosened, we can pull the skid plate down and install the long bracket as shown below.



2.7. Roughly center the bracket fore and aft on the slots initially and then torque all (6) of the 16mm nuts to 38-42 ft-lbs.

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Rear Diffuser, 981 Cayman – Install Manual

- 2.8.** Grab (6) of the M6 x 1.0 BHCS which are 20mm in length, (6) M6 Fender Washers, and (6) Serrated M6 x 1.0 nuts. These will be used to fasten the secondary, lower front bracket, to the upper front bracket. Utilize the washer on the bolt side; the nut will resist backing off due to the serrated flange feature. **Note: The second, lower bracket, is installed on the rear face of the front bracket as shown below.**



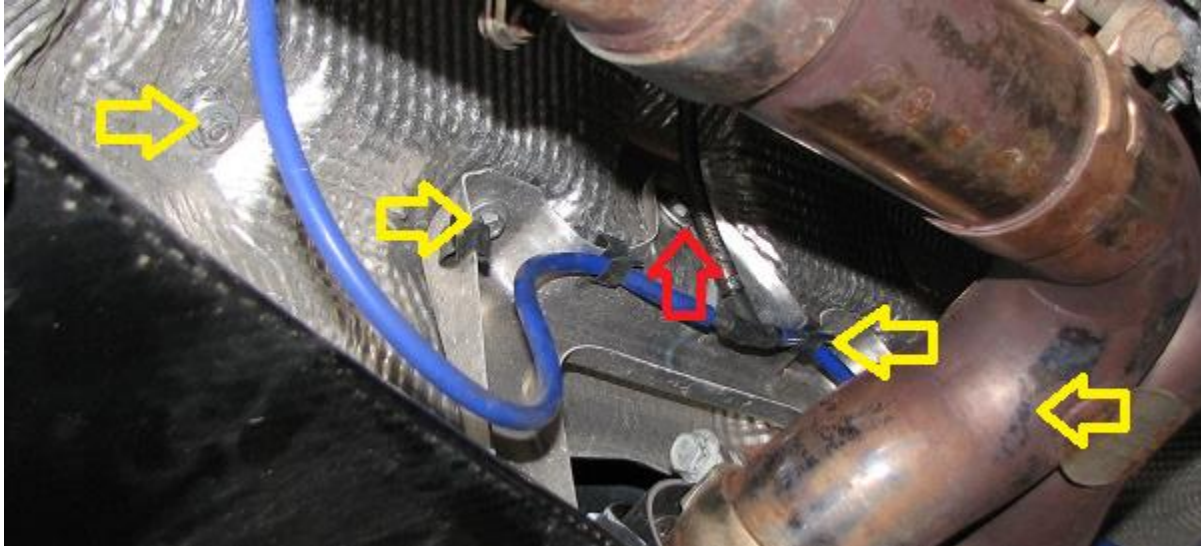
- 2.9.** Tightening torque should be between 6-8 ft-lbs. We recommend tightening from the inside out as well.
- 2.10.** Moving to the rear brackets, we look up at the rear bumper area. Below is a scene that should resemble roughly what you would see as well.



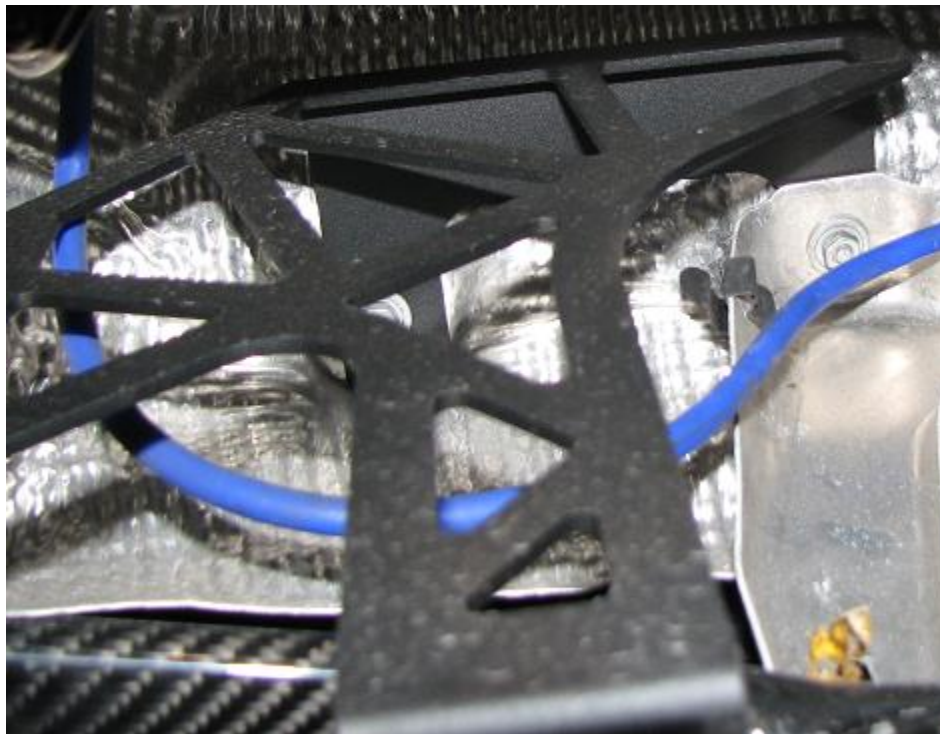
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Rear Diffuser, 981 Cayman – Install Manual

- 2.11.** We will be removing (4) 10mm nuts, and loosening (1) 10mm nut. These are shown below, yellow arrows are fully removed and the red arrow nut is loosened.



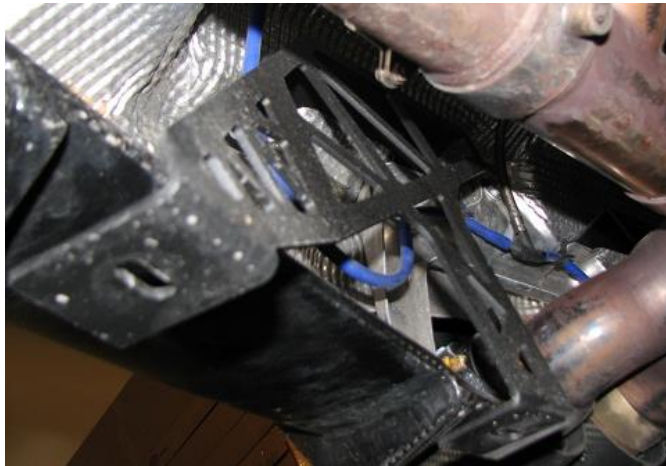
- 2.12.** With the (4) nuts fully removed, we can pull the OEM metal shield down and install our rear brackets on these studs with the OEM nuts. The brackets will be installed where the yellow arrows are. We recommend starting the install with the rear brackets pushed as far rearward as they can be.



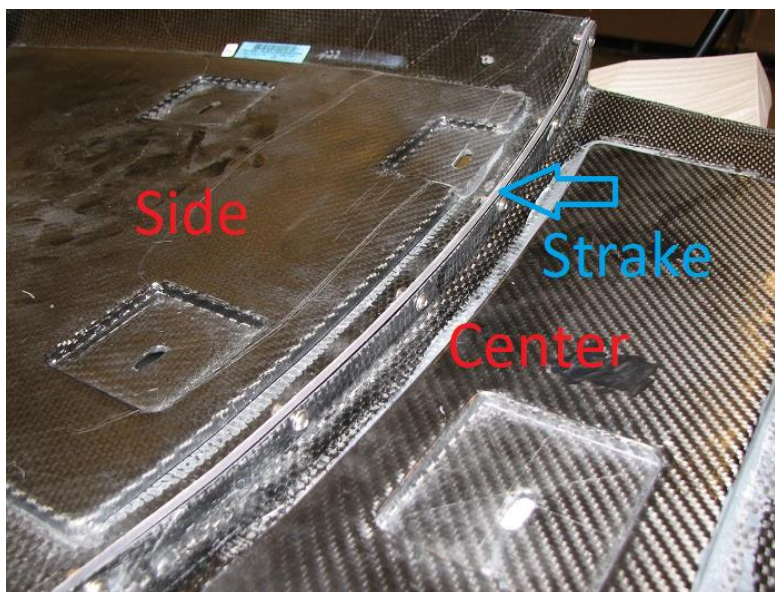
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Rear Diffuser, 981 Cayman – Install Manual

- 2.13. Tighten these nuts to approximately 6-8 ft-lbs.



- 2.14. We can now begin assembling the rear diffuser.
- 2.15. Find a gentle surface to do the install; foam, cardboard, blanket all are viable options.
- 2.16. We can start with the inner joints. The line-up will be bolt, small washer, carbon, strake, carbon, small washer, and nyloc nut. We personally placed the BHCS on the center diffuser plane side.



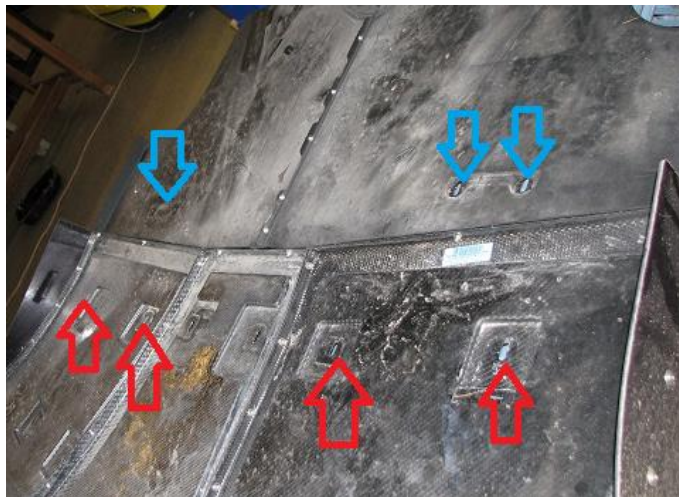
- 2.17. Moving to the outer strakes. The hardware line-up will be bolt, m4 fender washer, strake, carbon, small washer, and nyloc nut on these. This is shown below.

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Rear Diffuser, 981 Cayman – Install Manual



- 2.18. Tighten these nuts/bolts to 50-80 lb *inches-lbs*. These do not need to be extremely tight, they are small hardware and the nylocs will not back off.
- 2.19. With the diffuser fully assembled; we can install it on car. It helps to have a second set of hands for this.
- 2.20. **If you are installing the flat underbody panel; we need to fasten to rear diffuser to the flat underbody panel at this point. Please refer to flat underbody install manual at this time!**
- 2.21. If you are installing just the rear diffuser, we suggest starting with the outer most front holes to hold the diffuser up initially (red arrows below). If you are installing both the flat underbody panel and rear diffuser, we suggest you install the (4) flat underbody panel bolts and nuts (blue arrows) first then move to the red arrowed holes suggested above.



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Rear Diffuser, 981 Cayman – Install Manual

- 2.22.** Utilizing the 20mm long M6 BHCS on the bottom with a washer, and the serrated nut on top is the correct fastening form.

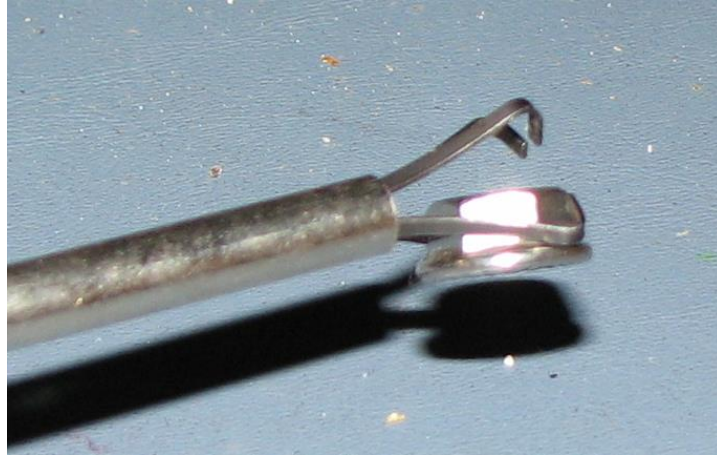


- 2.23.** Work your way through the rest of the bolts on the rear diffuser; leaving the center two bolts/nuts as the final fasteners to be installed.



- 2.24.** To install the center forward most nuts/bolts, use the lady fingers to position the nut in the correct location and thread a bolt on from below.

Rear Diffuser, 981 Cayman – Install Manual

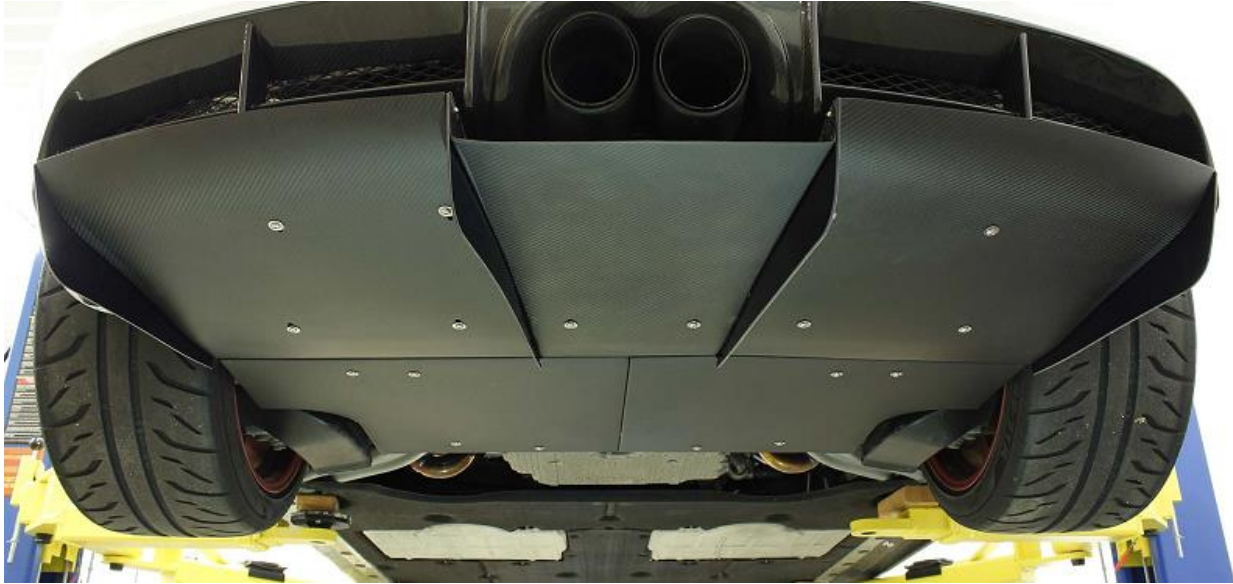


- 2.25. At this point, the rear diffuser should be completely fastened to the brackets with the bolts loose.



- 2.26. We recommend starting from the center and working your way outward, this allows the diffuser to “settle” naturally. You can lightly move the diffuser around at this point to center it, ensuring best fit. Utilizing a 4mm allen socket on a low-torque impact works well with the serrated nuts.
- 2.27. Congratulations, you have successfully installed the Verus Engineering Porsche 981 rear diffuser! You can now benefit from an increase in rear end downforce and a reduction in vehicle drag among other benefits. **We also offer a flat underbody cover that further enhances the benefits of the rear diffuser.**
- 2.28. Please contact Verus with any feedback, concerns, and questions via e-mail, sales@verus-engineering.com.

Rear Diffuser, 981 Cayman – Install Manual



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