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Dual Dive Plane Kit for Porsche 981 GT4

Install Manual



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1. Introduction

1.1. Overview: Detailed instructions on installing the Verus Engineering dive planes on the Porsche 981 GT4.

1.2. Difficulty: Easy

1.3. Time Required: 1-1.5 hour

1.4. Tools Needed:

- 1.4.1. Tape
- 1.4.2. Drill
- 1.4.3. Scissors
- 1.4.4. Rubbing Alcohol
- 1.4.5. 1/8" Drill Bit
- 1.4.6. 11/64" Drill Bit
- 1.4.7. Center Punch or Sharp Tap
- 1.4.8. Counter Sink
- 1.4.9. 2.5mm Allen Wrench/Socket
- 1.4.10. 7mm Wrench
- 1.4.11. T25 Torx Bit
- 1.4.12. Ratchet for Torx Bit

**1.5. Dive Plane Components**

- 1.5.1. Left-hand Lower Dive Plane
- 1.5.2. Left-hand Upper Dive Plane
- 1.5.3. Right-hand Lower Dive Plane
- 1.5.4. Right-hand Upper Dive Plane
- 1.5.5. Hardware Bag

1.5.5.1. (20) M4 x 0.7 Stainless Button Head Cap Screw (BHCS), 12mm Long

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- 1.5.5.2. (20) M4 x 0.7 Nyloc Nut, Stainless
- 1.5.5.3. (40) M4 Large Diameter Washers, Stainless
- 1.5.5.4. (4) Double Sided Tape
- 1.5.5.5. (2) Vinyl Template



2. Porsche 981 GT4 Dive Plane 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 include both double-sided tape and bolts/nuts/washers so the dive planes can be installed in either fashion. We recommend using the bolts/washers/nuts, as this is a physical bond with the bumper; but in the end the decision is yours to make.
- 2.3. It is wise to have the car fairly clean for this install, or at least the front bumper. Due to the template and possible drilling on the vehicle, starting with a clean car reduces the risk of scratches and improves install ease.
- 2.4. We begin by gaining access to the rear of the front bumper so that we can place the nuts on the back side of the bumper. To do this, we need to remove some of the fender liner.

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- 2.5. To remove the fender liner and gain access to the rear of the bumper, we will need to remove (2) T25 Torx screws from the fender liner, shown below.



- 2.6. Using the supplied template, cut between the two templates so we can install it easier on each side of the vehicle.

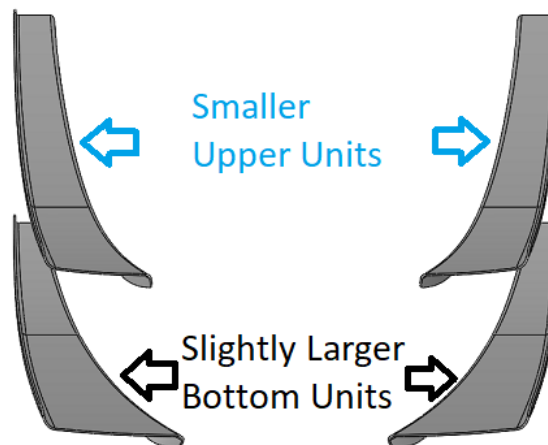
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- 2.7. Place the template on the bumper as shown below. Note how it lines up properly with the side market and front splitter spill plate. Take great care during install of this template, as it is easy to get this slightly off.



- 2.8. Do this to the other side of the vehicle as well.
- 2.9. For the install, the slightly larger units are the bottom dive plane, while the slightly smaller units are the upper dive planes.



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2.10. Bolt/Nut Install – Proceed to step 2.11 if you are using double sided tape to install your dive planes.

2.10.1. Before marking the holes with a center punch or tap, ensure these holes on the template line up with the dive plane's holes and that the dive plane mount surface fits with the bumper well.

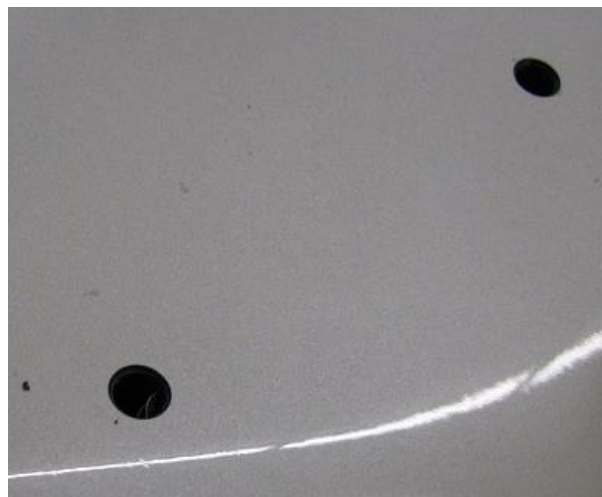
2.10.2. Mark the center of the holes with a center punch or tap.



2.10.3. Begin drilling the holes with a 1/8" drill bit.

2.10.4. Increasing the drill size to 11/64" and open the holes to 11/64".

2.10.5. Using the countersink, clean the holes from any burrs from drilling.



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2.10.6. Using the M4 bolts, and a washer on the outside if you chose, begin installing the dive planes. **We chose not to use a washer on the outside but there is enough supplied in the kit to do a washer on both sides.**

2.10.7. Reaching your hand behind the front bumper you can start threading on the washer and then the nyloc nut.

2.10.8. With the nuts and washers on the rear side of the bumper, you can tighten the bolts on the dive planes. We found tightening the bolts from the outside while holding the nuts on the rear with a wrench easiest.

2.10.9. Tighten torque should be no more than 40-60 in-lbs. The nyloc will resist backing off, so the fasteners only need to be snug to the bumper.

2.10.10. Repeat the steps on the other side of the car.

2.11. Double Side Tape Install

2.11.1. We begin by installing the double-sided tape on the dive planes.

2.11.2. It is ***highly*** recommended to follow 3M's VHB install instructions, which are listed in these steps below. The ambient temperature should be over 50 degrees F. 50% of the ultimate bond strength will be achieved after 20 minutes, 90% after 24 hours, and 100% after 72 hours.

2.11.3. Thoroughly clean the dive plane mounting flange with a 50/50 solution of alcohol/water.

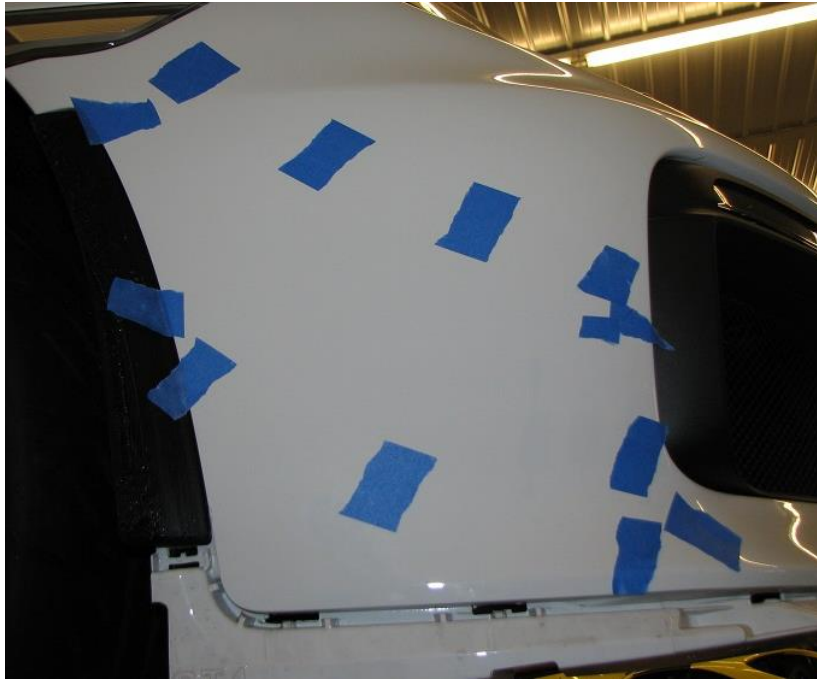
2.11.4. Install the doubled sided tape on the dive plane by removing the white side of the double sided tape.



2.11.5. With the double sided tape installed on the dive planes, we can begin creating our secondary templates to aid in install.

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- 2.11.6.** Before creating the secondary templates, ensure the dive planes fit the bumper contour well to ensure the templates were installed correct.
- 2.11.7.** After ensuring proper bumper fitment, use painters tape and the dive planes to create a secondary template on the car's body.
- 2.11.8.** Remove the vinyl template from the bumper. Below is a photo of what we were left with, after creating the secondary template from painter's tape.



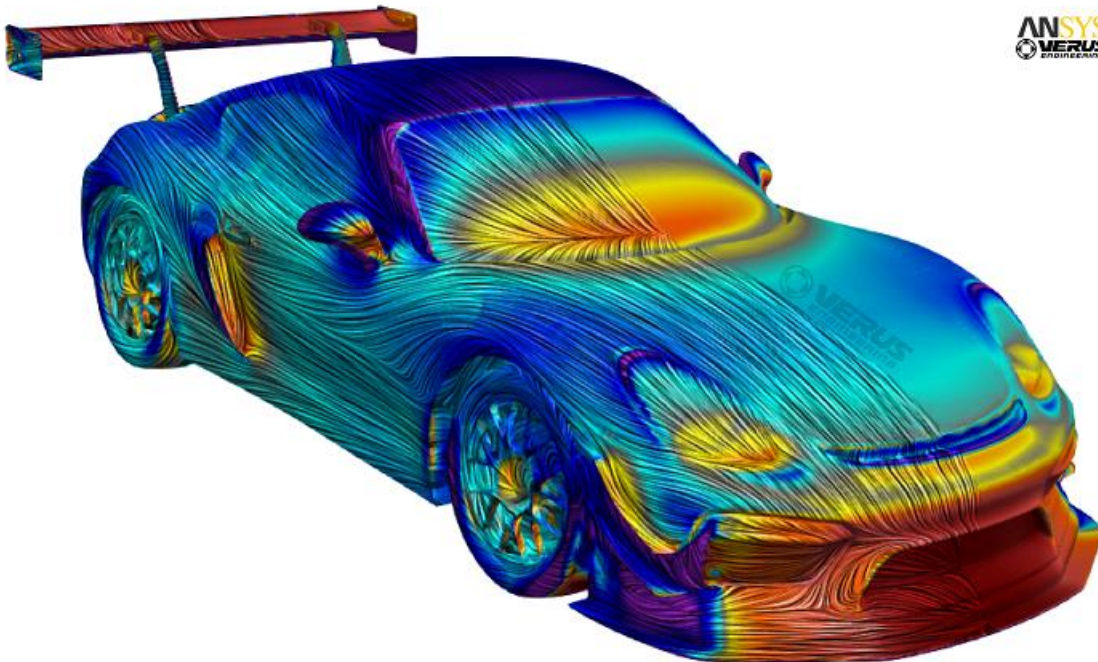
- 2.11.9.** Note how the tape allows the dive plane to be properly and easily placed in the same location that the vinyl template located the dive plane.



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- 2.11.10.** Utilize a 50/50 alcohol/water mixture with a microfiber towel and thoroughly clean the area the dive plane will be installed. This allows a clean surface for the tape to adhere to. If you do not feel comfortable using this mixture on the car's paint, then do not; however, this is the recommended solution to use prior to install from 3M.
- 2.11.11.** Peel the red protective film off the tape, and install the dive plane. Work the dive plane into the bumper; reaching your hand behind the bumper to firmly press the dive plane to the bumper for maximum adhesion.
- 2.11.12.** Allow the dive plane to stay on car for a minimum of 24 hours, 72 for the best possible adhesion.
- 2.12.** Reinstall the fender liner with the Torx bit.
- 2.13.** Congratulations on installing the Verus Engineering dive planes for the Porsche 981 GT4. Enjoy the benefits the dive planes have on front end downforce, sealing the sides of the Porsche, and increasing pressure at the air intake scoops.
- 2.14.** Please send any questions, comments, concerns, or photos to Verus Engineering via e-mail; sales@verus-engineering.com.



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