

## How to Change Porsche Carrera S 991.1 Air Filters

Use at your own risk!

Zoiks - REV01 - 4/13/19



### Recommended Supplies

#### 1. Tools / Supplies

- T25 and T30 torx bits, drivers, or sockets. (maybe T20...can't recall, sorry)
- You will need a socket T25 and T30 bit for the fasteners that are under the rear wing. Or, a very short torx bit driver.
- Most T25 or T30 bits are  $\frac{1}{4}$ " drive so make sure you have a  $\frac{1}{4}$ " to 3/8" adapter or a  $\frac{1}{4}$ " driver.
- Soft floor mat to set the bumper cover and tail lights on. (don't scratch it!)
- Socket wrench for T25 and T30 torx bit. (1/4" and/or 3/8"....might need a ¼" to 3/8" adapter. (several fasteners have limited vertical clearance for tool access)

#### 2. Optional

- Trim removal tool
- Floor jack if you desire to raise the vehicle.
- Shop towels and detail towels.
- Something to rest the bumper cover on until your disconnect park assist connector. (roughly 16-20 inches high)
- Rubber gloves



#### **Process Overview – Getting to the Air Filters**

- 1. Raise rear wing to the maximum position. I raised the engine compartment cover too but I don't think it is necessary.
- 2. Remover all T30 fasteners along the top, rear bottom, left and right side bottoms, and around the left and right wheel wells.
- 3. Remove the left and right tail light fastener plastic covers.
- 4. Remove the T25 fasteners beneath the left and right tail light fastener covers. (They might be T20?)
- 5. SLOWLY pull the left and right tail lights STRAIGHT out or you well break the fragile side bracket on the tail lights.
  - \*CAUTION\* see the pictures. There is a fragile portion of the tail light towards the front of the car. If you twist the tail light as you remove it, you will likely break the bracket. This means you just bought a new tail light. (towards the pointy, front side of the tail light.)
- 6. Disconnect each tail light from the wire harness and set safely aside. (again, note my warning)
- 7. Remove the left and right bumper cover fasteners hidden beneath the tail lights towards the front of the car. Near the bumper cover alignment dowel hidden under the tail lights.
- 8. Gently lift the bumper cover off of the left and right bumper cover alignment dowels that were under the tail lights as you pull the bumper cover rearward for removal. (don't pull the bumper cover off yet, just enough to clear the dowels)
- 9. Gently continue to remove the bumper cover and look for the park assist sensor wire harness and connector. Disconnect this connector.
- 10. Fully remove the bumper cover and set aside in a safe location.



#### **Process Overview – Air Filter Service**

- 1. Congratulations You made it to the air filter assembly!
- 2. Clean around the air cleaner assembly so the dirt doesn't fall into the system.
- 3. Remove air filter assembly fasteners, the air filter cover, and remove the air filters from the assembly.
- 4. Again, clean off any contamination from the inside of the assembly then install the new air filters. Press snuggly into position.
- 5. Key Step: Before reinstalling the air filter cover, inspect the triangular sectioned rubber seal in the cover. Ensure that it is orientated correctly in the rubber seal grove such that it seals correctly.
- 6. Install the air filter cover and reinstall all fasteners. At the bottom, there are "tenons" that mate with slots. Ensure these install correctly.
- 7. Gradually tighten the fasteners in a star pattern and make sure all sides of the air filter cover have compressed sufficiently.
- 8. Hopefully you can take it from here to reinstall the bumper cover. A few watch outs:
  - Don't forget to reconnect the park assist sensor harness when you reinstall the bumper cover! Same for those tail light connectors.
  - Don't forget to install the fasteners behind the tail lights prior to installing the tail lights!



### Overview – Fasteners Removed from the Side

My car did not have a fastener behind the light; however, videos show there should be one there.



All fasteners in this view were T30, however, since the fastener behind the rear tail lights was not present it may be different?



#### Overview – Fasteners Removed from the Rear



These fasteners were T30.

These fasteners were T25.

Approximate location of the wire harness connector for the rear park assist sensors. As you remove the bumper cover be careful not to strain the connect and harness.

I need to check the quantity of fasteners removed from the bottom.



## Overview - Tail Lights and Park Assist Sensors



**Approximate** location of the wire harness connector for the rear park assist sensors. As you remove the bumper cover be careful not to strain the connect and harness.



# On to the Details!



There are four T30 Torx fasteners along the top. Switch to a socket wrench with a T30 Torx bit or use a short T30 Torx screwdriver.



There are two T30 Torx fasteners along the bottom. (if I recall correctly!)

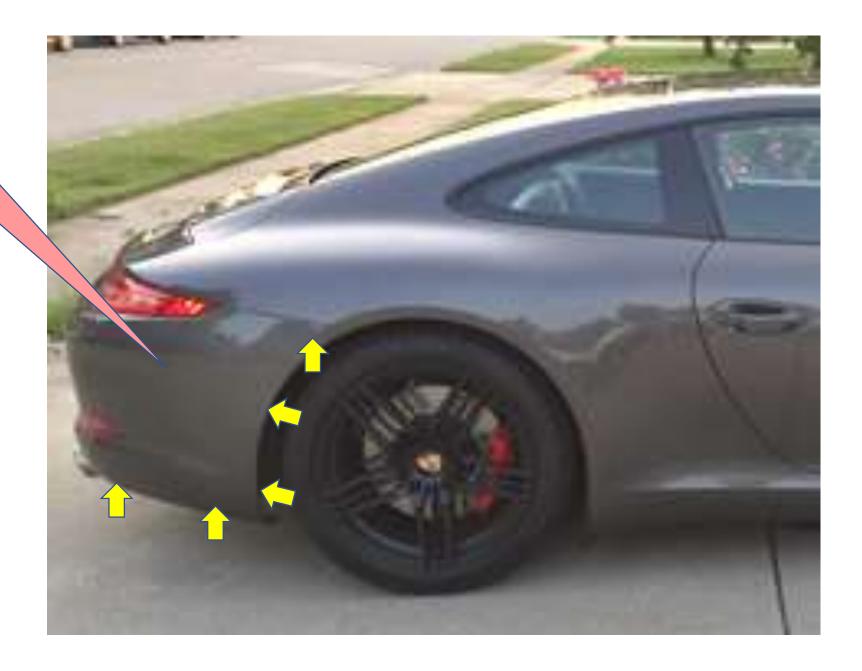




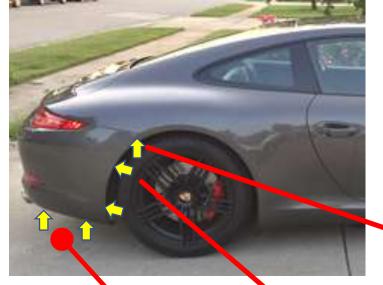




There are five T30 Torx fasteners in this view. I had the wheels off since I was doing a brake fluid flush at the same time. Three fasteners in the wheel well area and two from the bottom of the sides. Repeat for left and right sides.











There are five total T30 Torx fasteners. Three around the wheel well and two along the bottom. I removed the wheel for access since I was headed to change brake fluid.









Remove
Tail Light
Fastener
Covers



Remove
Tail Light
Fastener
Covers



The Covers
Remove Easily
with Very Little
Force. The Trim
Removal Tool
Really Isn't
Needed.



\* Compliments of Zoiks - Rev 01 - April 2019



Drivers side shown – You will see three fasteners. You only need to remove two of the three. The larger fastener does NOT need to be removed. I believe these were T25 fasteners but they might have been T20.











I noticed in some of the videos some folks had to wedge a screwdriver on this nut to prevent it from spinning. I did not have a problem. This adjusts the tail light alignment. Same feature is on both tail light fasteners.





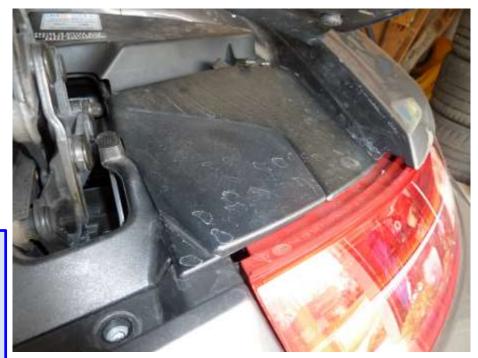




\* Compliments of Zoiks - Rev 01 - April 2019 \*



Just some additional views. Remove the fasteners and wait on removing the tail light until you see the next two pages...







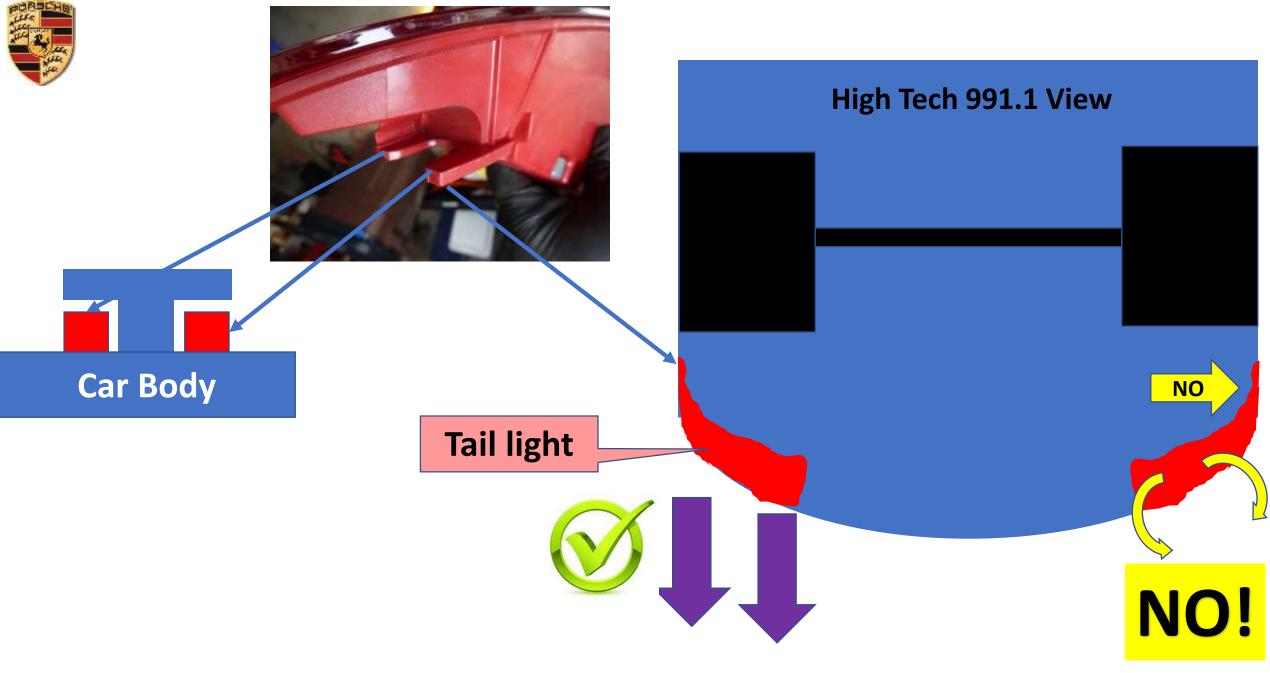


\* Compliments of Zoiks - Rev 01 - April 2019 \*



Hopefully you have removed the 2 fasteners on the left and right sides. Before you start removing the tail lights this is my warning. The picture shows the fragile bracket on the tail light. My guess is if you are not gentle with the tail light removal you could break this off. So, be careful!







Gently slide tail light out.
The connector release is pointing down. You will need to turn the tail light upside down to access the connector release.



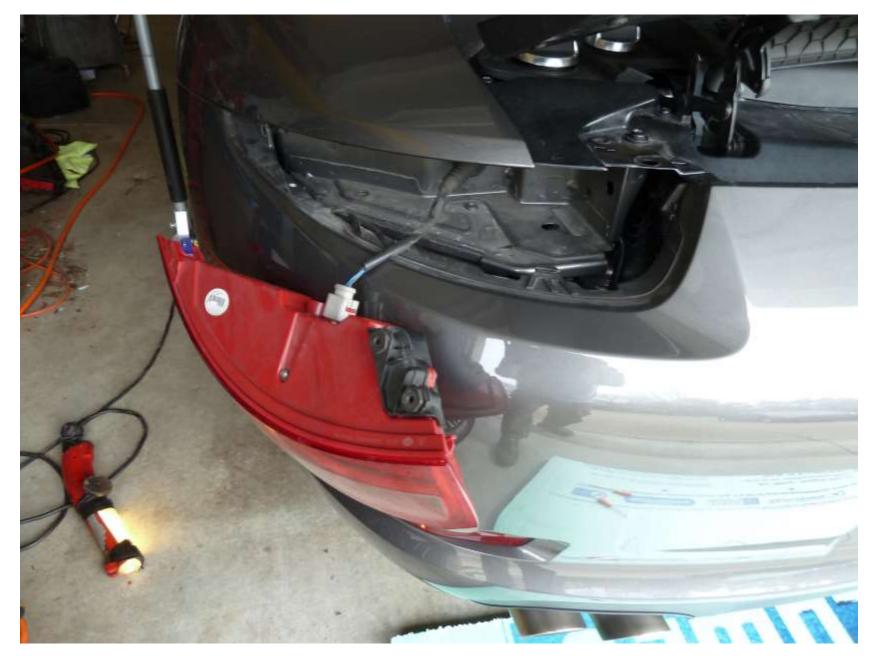
FRAGILE PORTION



Use a small screwdriver or pick to release the connector. (I forgot to take pictures of how to release it)





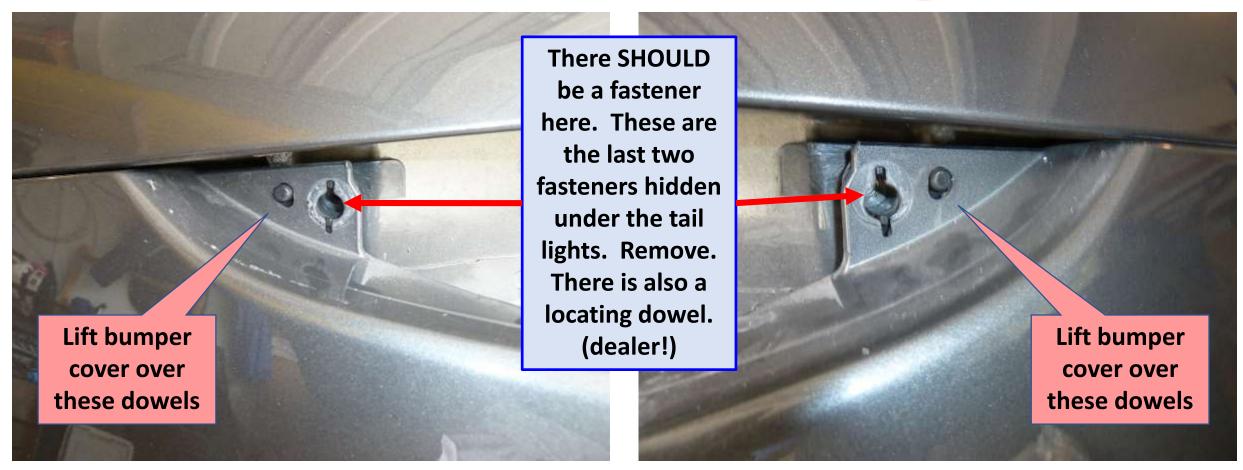


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## **Drivers Side**

## Passengers Side



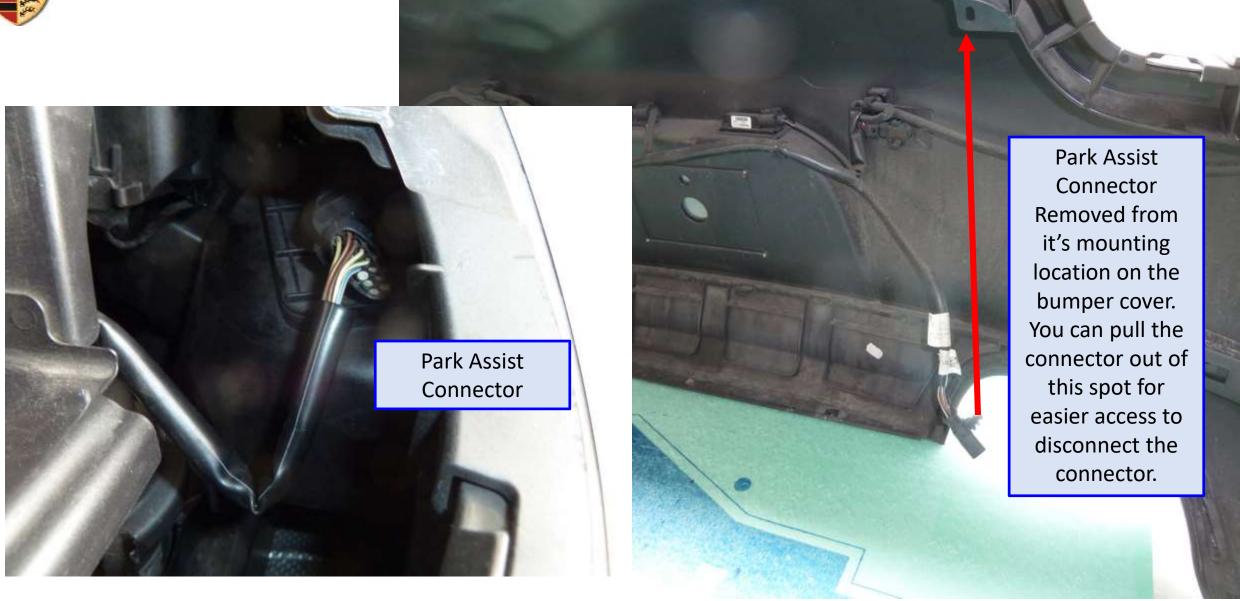


Congratulations! You've now reached the point of removing the bumper cover...except, if you have park assist sensors you will need to remove the connector as you remove the bumper cover. I've marked the approximate location of the connector that has to be disconnected. Look for it as you slowly remove the bumper cover.

Approximate location of the wire harness connector for the rear park assist sensors. As you remove the bumper cover be careful not to strain the connect and harness. The next page provides some views to help you access it.









Park Assist
Connector after
the fir tree is
pulled from the
bumper cover

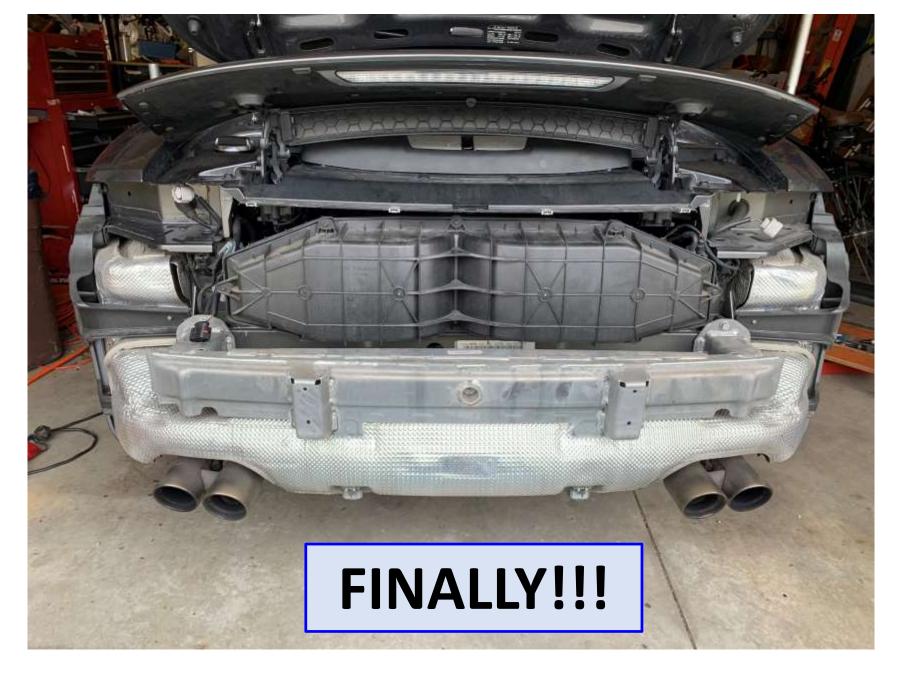


 $^{*}$  Compliments of Zoiks - Rev 01 - April 2019  $^{*}$ 











#### Remove fasteners from the top and sides. Next page shows location of fasteners.



Remove fasteners from the bottom. Next page shows location of fasteners.







Slots for tenons in the cover





Inspect the rubber triangular section seal and ensure it is orientated correctly. This IS NOT correct in two places.

Correct the orientation prior to reassembling.



The new filters seated into the housing and ready for the cover to be installed. I wrote on the filter the date and mileage it was installed.





- Install the cover tilting the bottom tenons into the housing slots.
- 2. Make sure the filters did not unseat as you installed the cover.
- 3. Install all fasteners slightly snug. I then tighten them in an alternating pattern working from the center to the outside. Inspect all sides and ensure the cover correctly compressed the gasket seal.





All done. I'll add some reassemble details later...break time!

