



How to Change Porsche Carrera S 991.1 Air Filters

Use at your own risk! Know your limits.

Zoiks - REV02 – 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 spoiler. Or, a very short torx bit driver.
- Most T25 or T30 bits are 1/4" drive so make sure you have a 1/4" to 3/8" adapter or a 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 1/4" 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 the park assist sensors and license plate power connector. (roughly 16-20 inches high)
- Rubber gloves



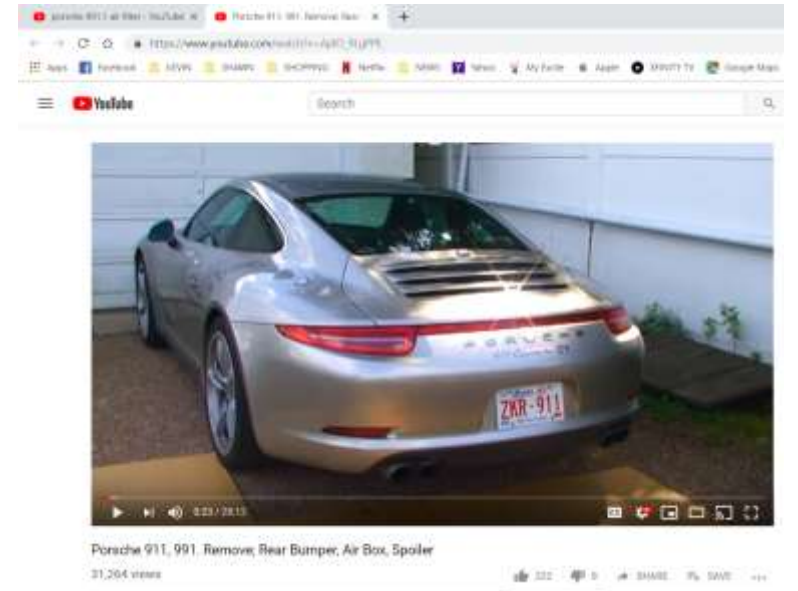
Helpful Videos

1. https://www.youtube.com/watch?v=ApIO_9LgPPE

- Very helpful video on a 2013 911.1 4S, however, note that the purpose of this video was to reduce the induction noise into the cars cabin. So you obviously do not need to take apart everything that is shown in this video. 0:00 to 14:29 and 22:10 to 28:12 is the relevant material. The middle content is not necessary. (ie- don't remove the fan assembly)

2. <https://www.youtube.com/watch?v=pWU7beZdWNY>

- On this video, you can tell the author is figuring out what to do real time just like I was. This is the video I saw prior to my attempt. I wish I had seen the video above since it was much more detailed and helpful.





Process Overview – Getting to the Air Filters

1. Raise the rear spoiler to the maximum position. I raised the engine compartment cover too but I don't think it is necessary.
2. Remove 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 will break the fragile side tab 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 tab. 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 them 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. T30.
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 and license plate light power wire harness and connector. Pull connector free from the rear bumper, then 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 snugly 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 groove 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

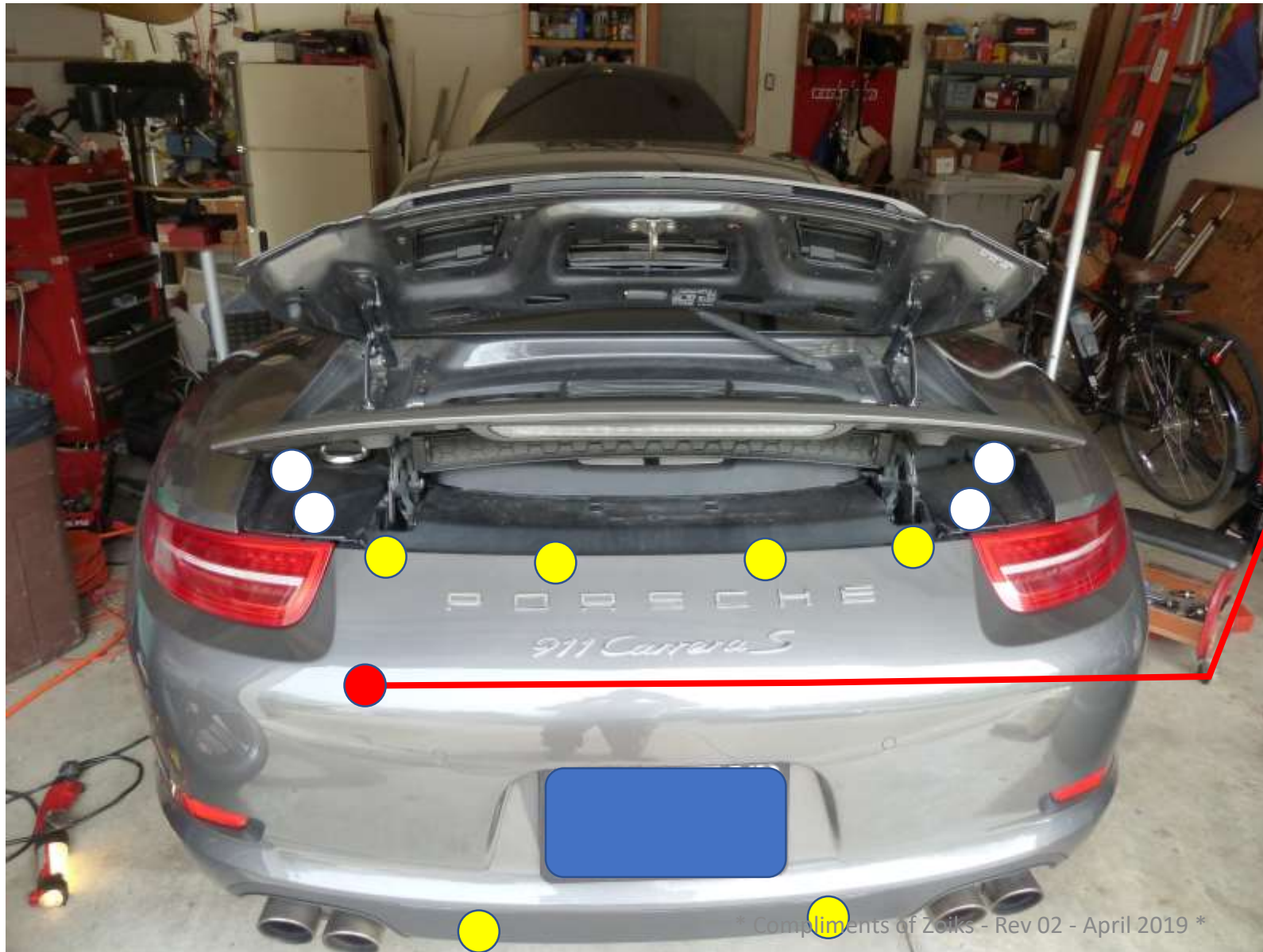
My car did not have a fastener behind the light; however, videos show there should be one there.



● 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.

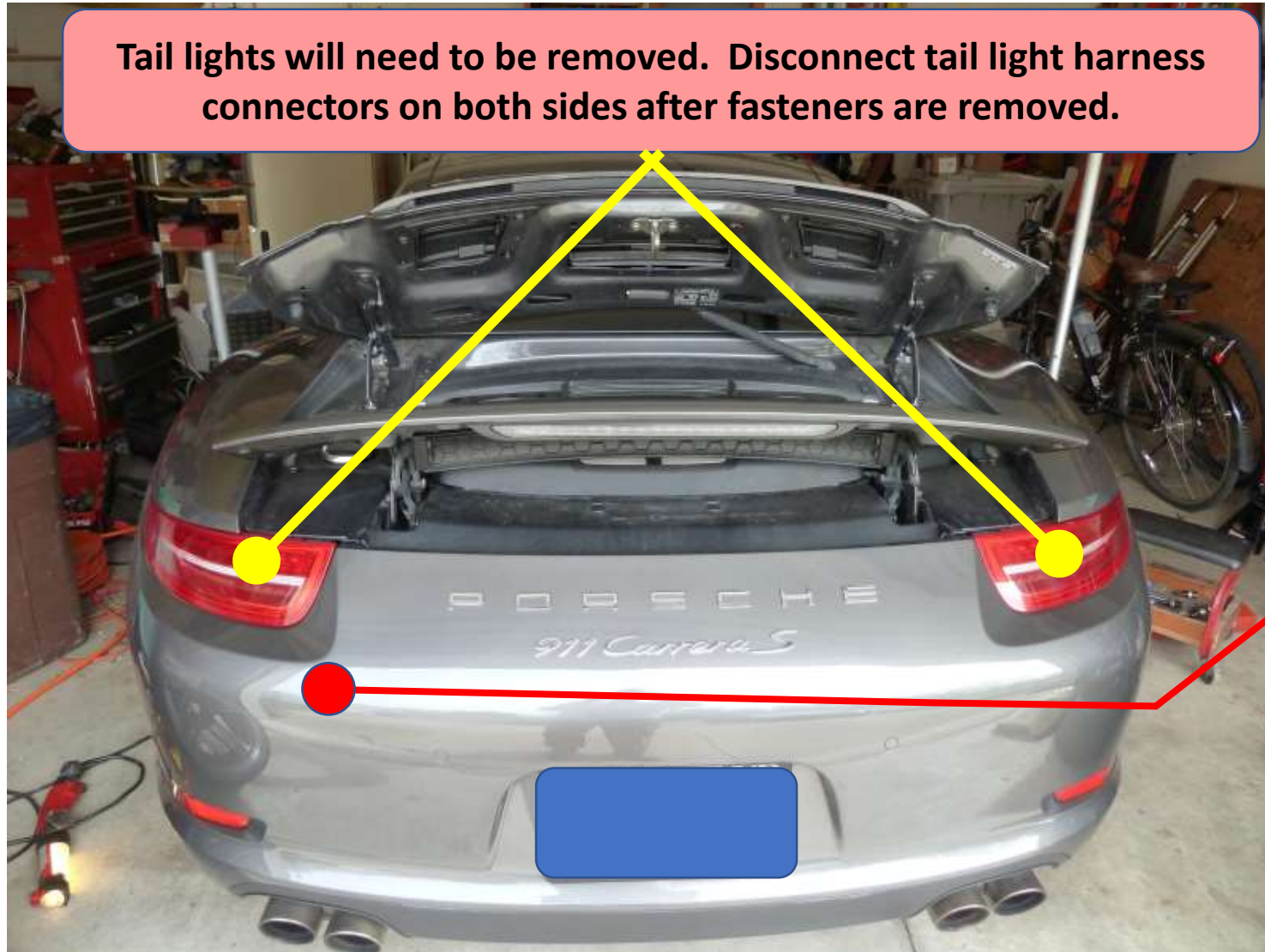
○ These fasteners were T25.

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



Overview - Tail Lights and Park Assist Sensors

Tail lights will need to be removed. Disconnect tail light harness connectors on both sides after fasteners are removed.



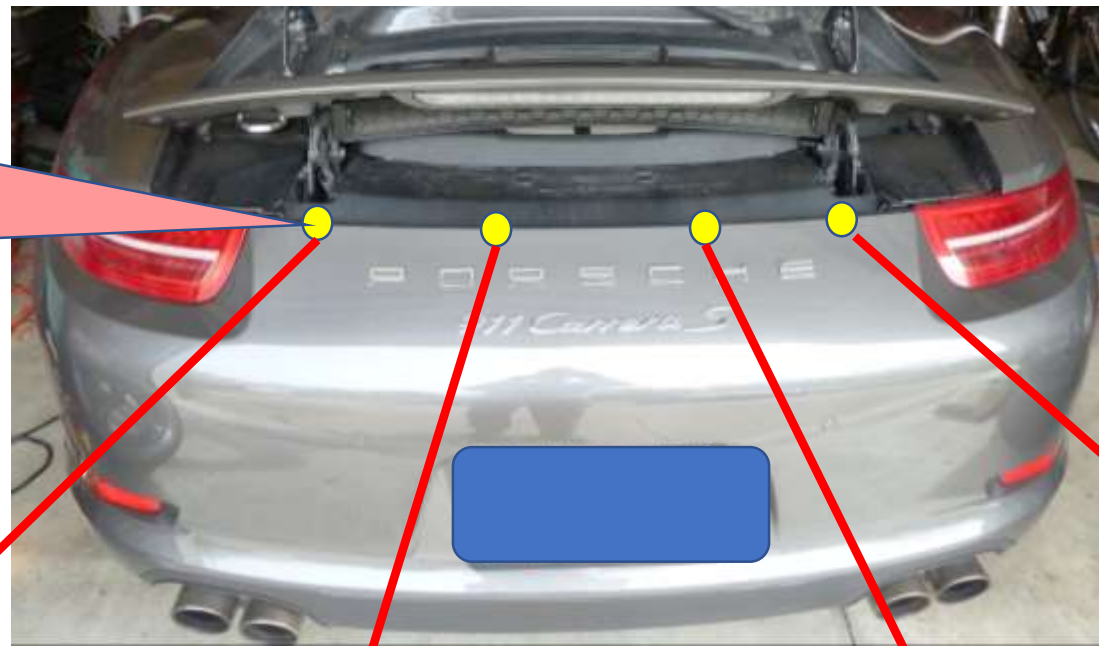
Approximate location of the wire harness connector for the rear park assist sensors and license plate power. As you remove the bumper cover be careful not to strain the connector and harness.



On to the Details!



T30 Torx



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!)

T30 Torx





T30 Torx



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.**



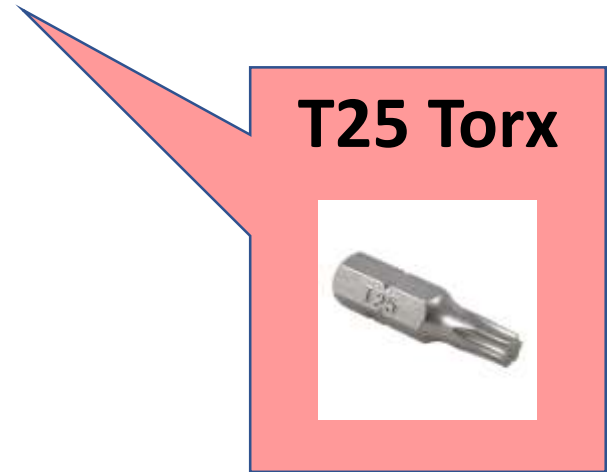


Drivers side shown – You will see three fasteners. You only need to remove two of the three. The larger fastener does NOT need to be removed. I believe these were T25 fasteners but they might have been T20. *Note – You might want to take a close up photo of the left and right tail light alignment that shows the gaps on all sides before removing. Use these pictures to reproduce the alignment when you reassemble the tail lights.





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.





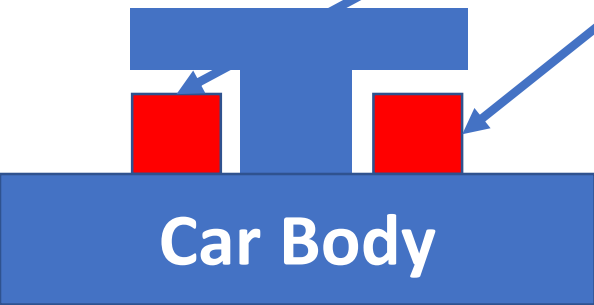
Just some additional views. Remove the fasteners and wait on removing the tail light **until you see the next two pages...**



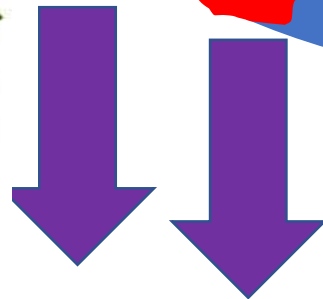
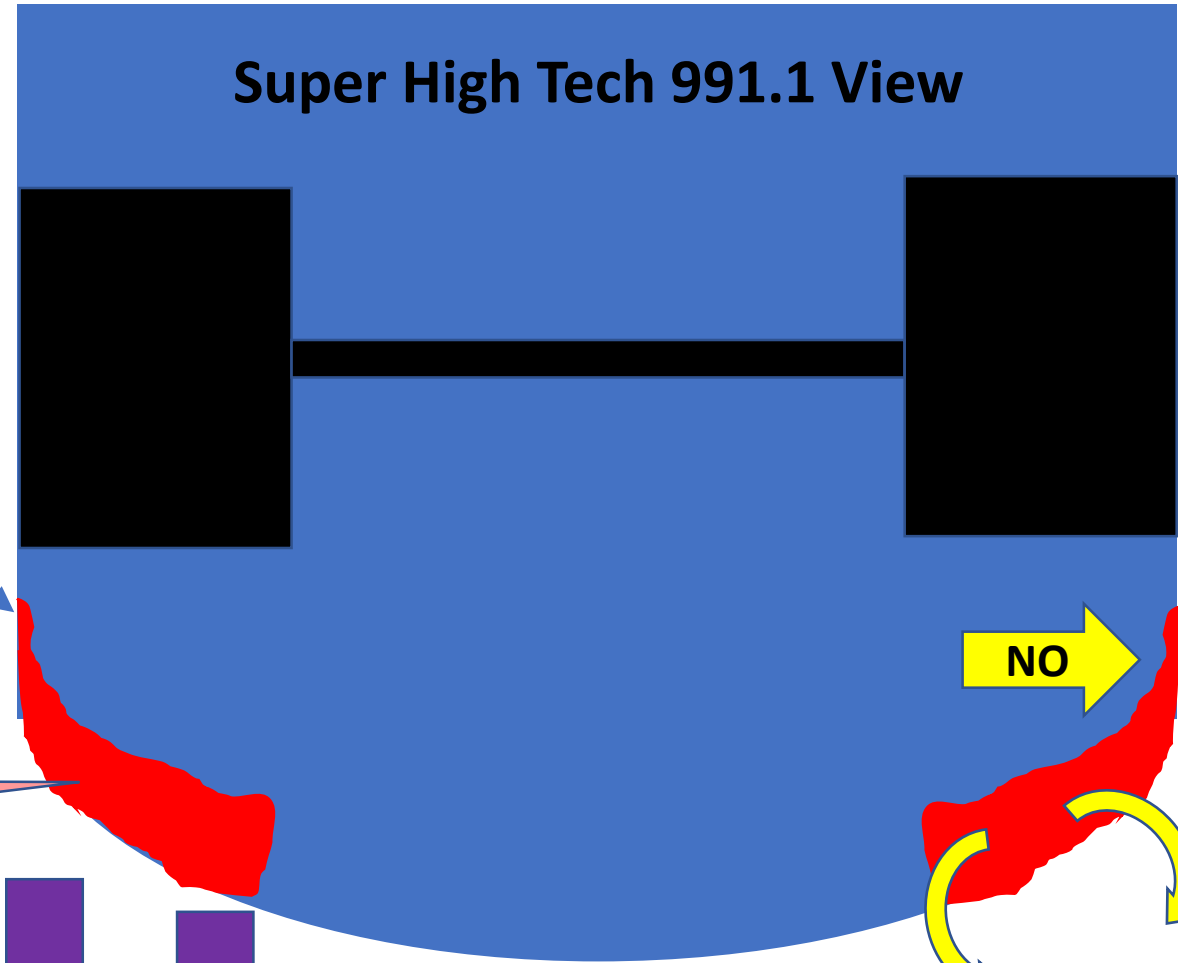


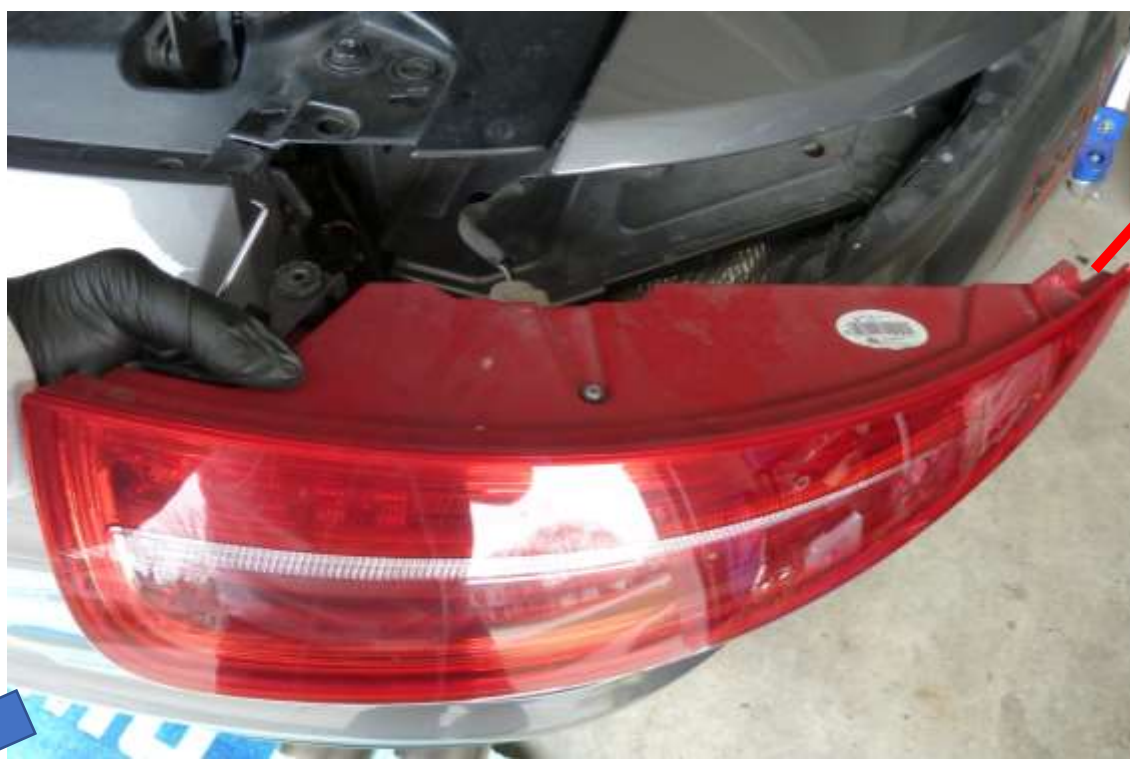
Hopefully you have removed the 2 fasteners on the left and right sides. Before you start removing the tail lights this is my warning. The picture shows the fragile tab on the tail light. My guess is if you are not gentle with the tail light removal you could break this off. So, be careful!





Tail light





**FRAGILE
PORTION**

**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.**



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

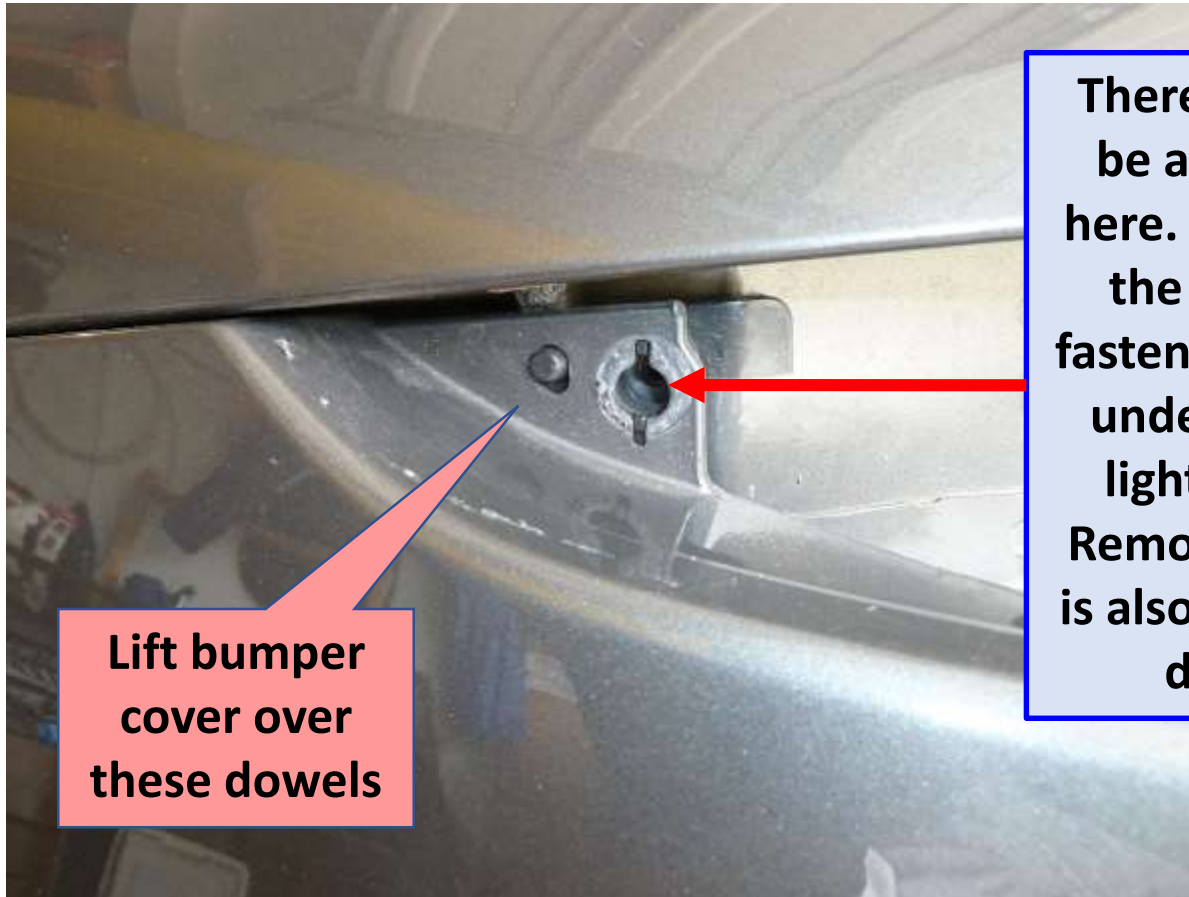


* Compliments of Zoiks - Rev 02 - April 2019 *

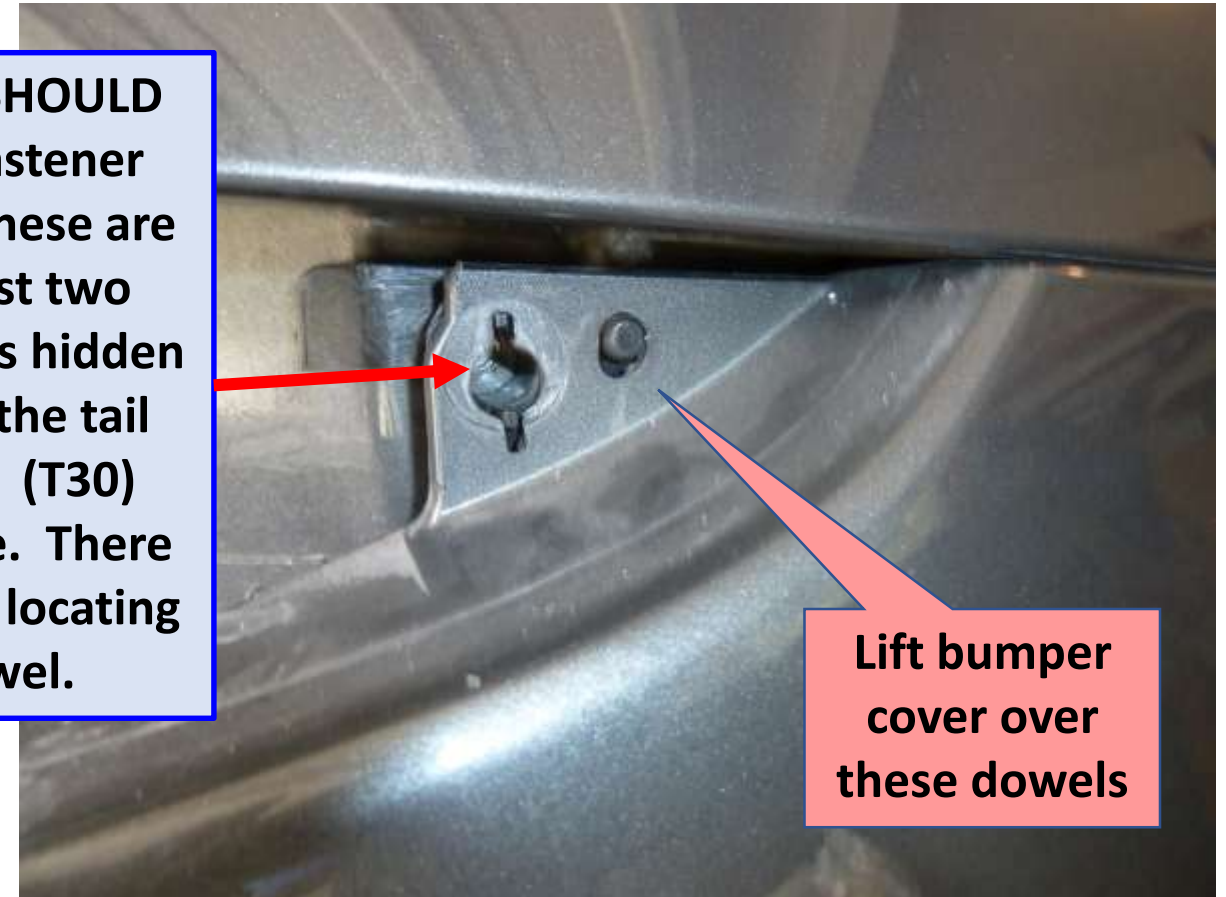


Drivers Side

Passengers Side



There SHOULD be a fastener here. These are the last two fasteners hidden under the tail lights. (T30) Remove. There is also a locating dowel.

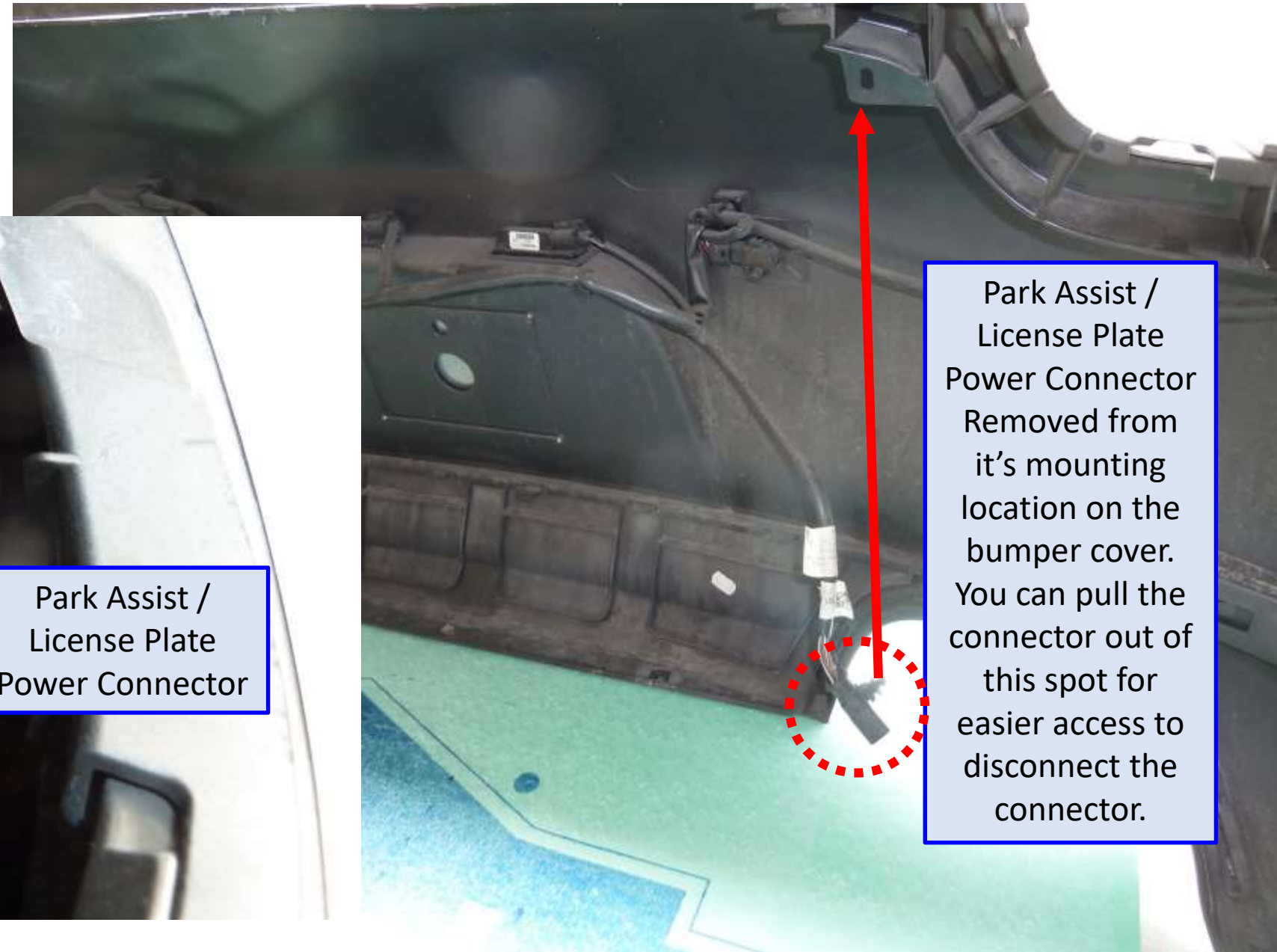




Congratulations! You've now reached the point of removing the bumper cover...except, if you have park assist sensors you will need to remove the connector as you remove the bumper cover. I've marked the approximate location of the connector that has to be disconnected. Look for it as you slowly remove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

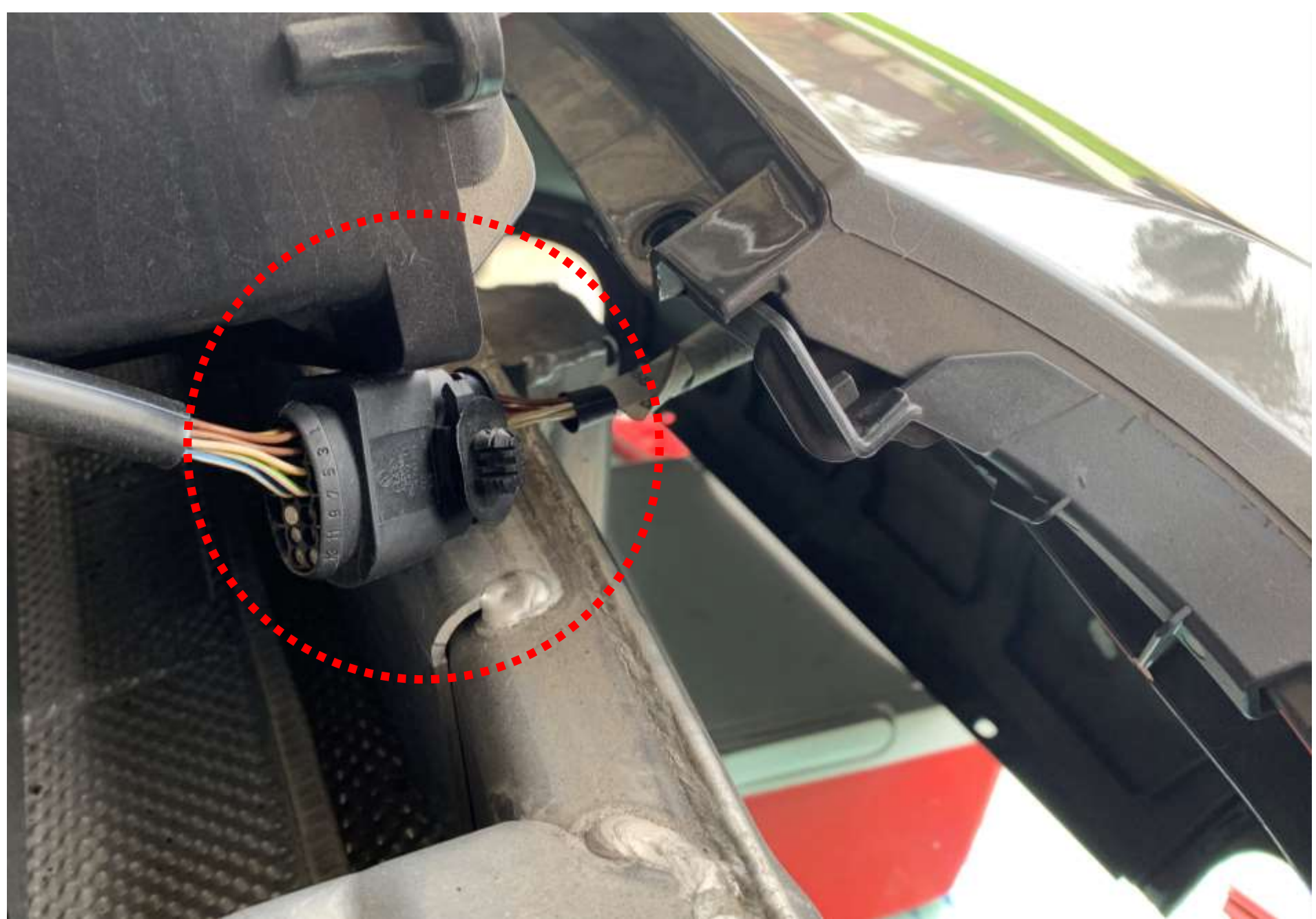
Approximate location of the wire harness connector for the rear park assist sensors and license plate power. As you remove the bumper cover be careful not to strain the connect and harness. The next page provides some views to help you access it.



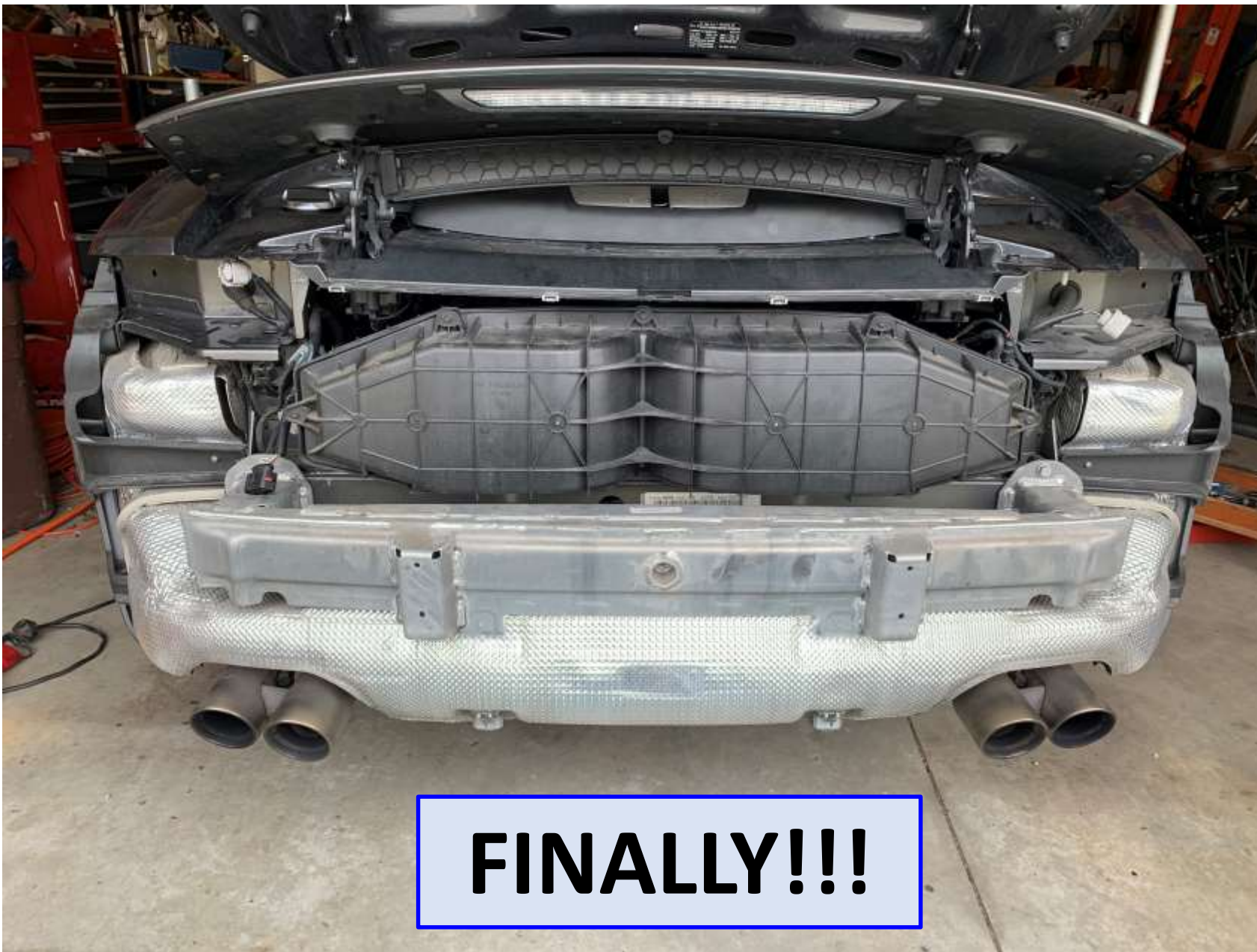




**Park Assist and
License Plate
Power Connector
after the fir tree
is pulled from
the bumper
cover**



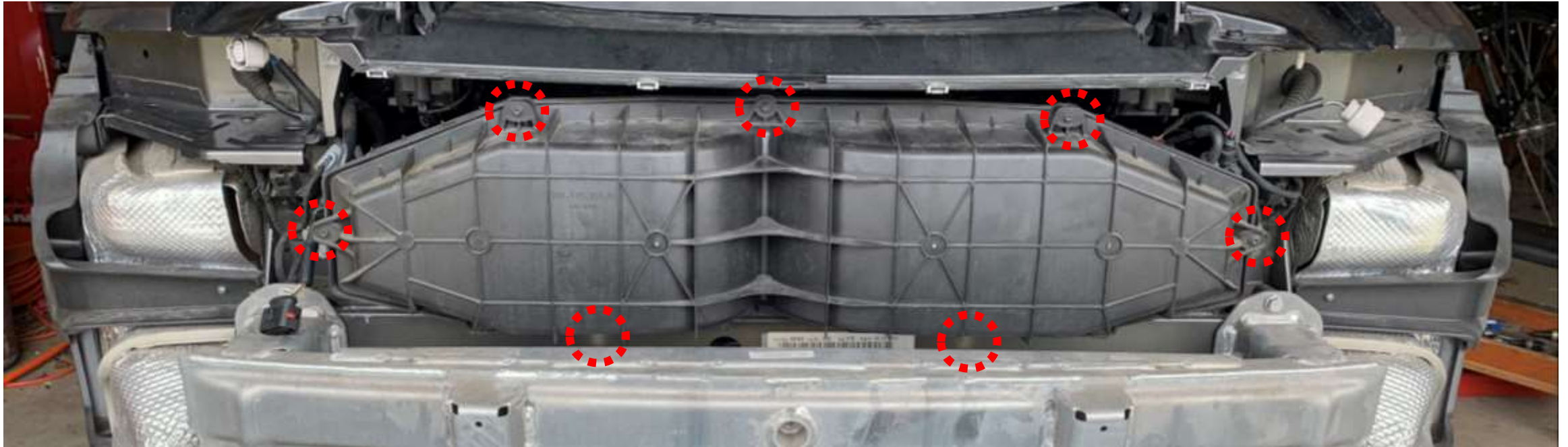




* Compliments of Zoiks - Rev 02 - April 2019 *



Clean all external surfaces of contaminates prior to removing the housing cover. Remove fasteners from the top and sides.



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



Fastener locations



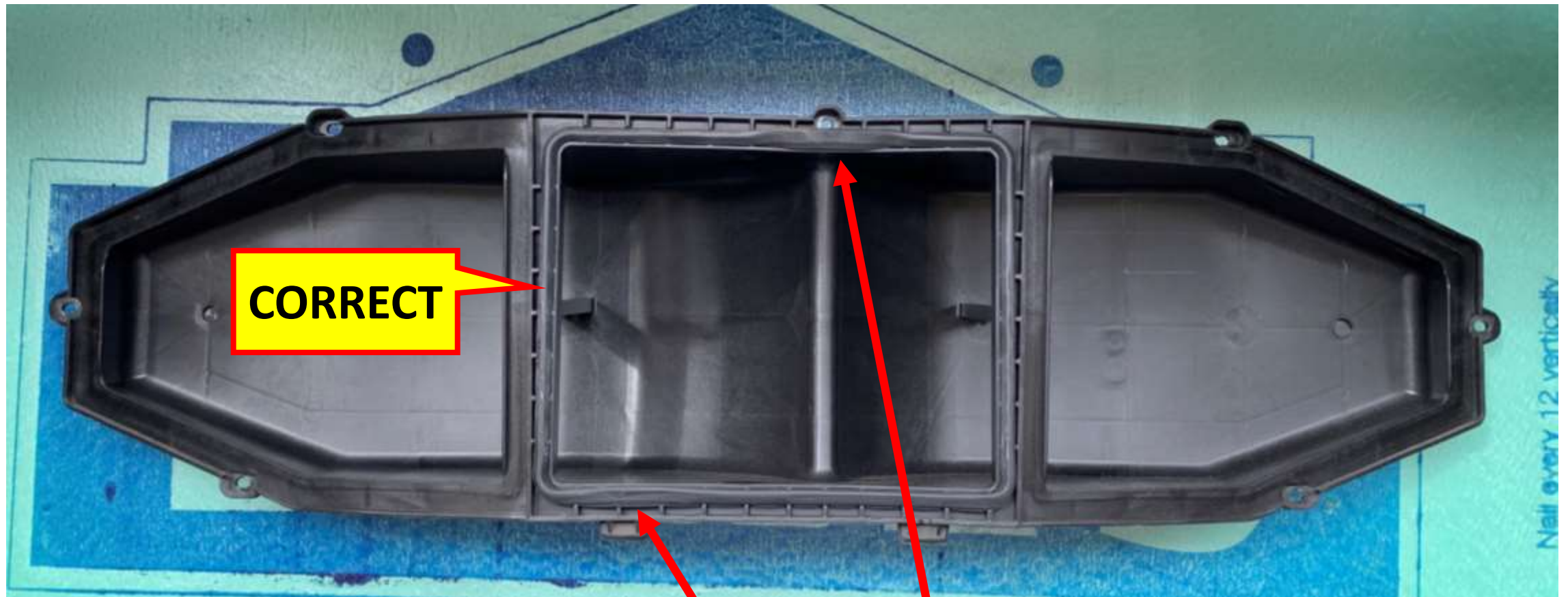
**Clean all surfaces thoroughly prior to installing new air filters.
The internals of my air filtration housing was spotless.**



Fastener locations



**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.





- 1. 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.**





Putting the Car Back Together

1. Clip the park assist sensor and license plate light power connector fir tree back into the bumper cover if applicable. This is the harness that stays connected to the bumper cover.
2. Lift the bumper cover up, and as you approach the car, grab the park assist sensor connector on the drivers side and plug into the connector on the bumper cover.
3. Gently adjust the bumper cover until the alignment dowels pop into place so that it holds the bumper cover in place.
4. My advice, immediately reinstall the T30 fasteners next to the alignment dowels before you forget. I'm willing to bet the previous mechanic forgot these fasteners and didn't notice until the whole car was put back together. Then decided just to leave it alone.
5. Install all T30 fasteners along the top, rear bottom, left and right side bottoms, and around the left and right wheel wells.
6. Install the tail lights by connecting them to the wire harness and then making any adjustments needed for the proper gap. Be careful with the fragile tab that slides around the retention post towards the front of the car. I didn't need any adjustments. Tighten the fasteners.
7. Install the plastic covers over the left and right tail light retention fasteners.
8. Wipe off all of those finger prints, lower the rear spoiler, and relax. You are all done!



All done. Good job!

