

ALPHA



Performance Packages



PORSCHE 991.1 TURBO INTERCOOLER KIT
INSTALLATION INSTRUCTIONS

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A vehicle modified by the use of performance parts may not meet the legal requirements for use on public roads. Federal and state laws prohibit the removal, modification, or rendering inoperative of any part or element of design affecting emissions or safety on motor vehicles used for transporting persons or property on public streets or highways. Use or installation of performance parts may adversely affect the drivability and reliability of your vehicle, and may also affect or eliminate your insurance coverage, factory warranty, and/or new OEM part warranty. Performance parts are sold as-is without any warranty of any type. There is no warranty stated or implied due to the stresses placed on your vehicle by performance parts and our inability to monitor their use, tuning, or modification.

These instructions are provided as a guide only as there are many variables that cannot be accounted for concerning your particular vehicle, including but not limited to model year differences, model differences, the presence of non-OEM parts, and modifications that may already be or were previously installed. A basic knowledge of automotive parts and systems is helpful but a better understanding of the parts and systems on your particular vehicle may be required.

If you have any questions or issues at any time during the installation of your Alpha Performance product(s) please call us for technical assistance. The Alpha Performance tech line can be reached during business hours at 847-709-0530 for Alpha Performance products only.

Intercooler Kit Installation

1. Open the rear engine hatch and extend the rear wing. After the rear wing is extended, disconnect the battery.

1



2. Under the rear engine hatch, remove the panel covering the two engine vent fans. Carefully pull upwards while wiggling to release the pins from the grommets. The bottom grommets are actually attached to the fans so the fans may want to come with the panel. Carefully push the fans off the panel with a tool if this happens.

a. There is a plastic support ring in the top of the air duct seal. You can remove this plastic ring to aid in the removal of the panel.

2



3

3. Carefully remove the fans. Each fan is held in place by the same style of grommets. Pull upwards on the rear of the fan closest to you, then pull the fan away from the front of the car to release the front grommets.

3



4. Remove the corner panels. On the left side corner panel, remove the coolant tank cap. Remove the 10mm bolt from the right corner. Disconnect the hose from the oil fill then slide the panel upwards off its alignment bracket. For the right side corner cover, just carefully pull upwards while wiggling to release the panel pins from the grommets.

4



4

5. Remove the wing. To do so, slide the mount cover downwards by squeezing the center of the sides to release the tabs holding them in place. Once down, you will see a T30 Torx screw on each side. Carefully remove the screws while supporting the wing. Slide the wing forwards off the pivot pins and off. Once off, remove the cover making note of what side is while since they are different.

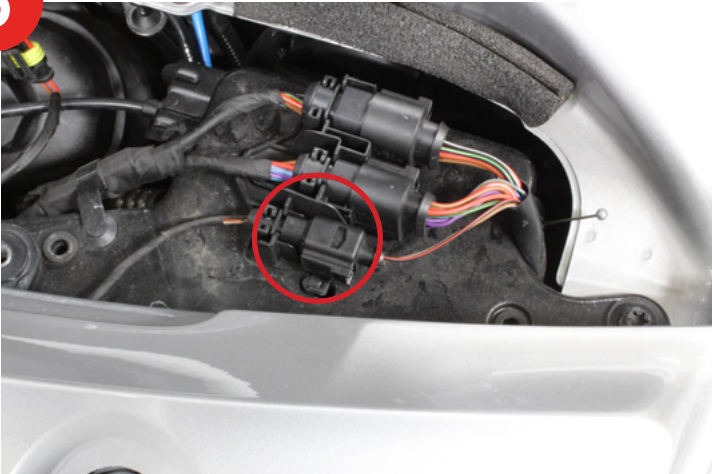
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5

6. Remove the wing mount panel. To do so, disconnect the small rear connector located under the right side corner panel. It is the connector closest to you and the rear of the car. Remove the two T30 Torx screws in front of the panel. Slide the entire panel towards the front of the car releasing it off the mounting tabs. Then lift the assembly up and out.

6



6

7. Remove both taillights. Remove the two T20 Torx screws on top of each taillight. Then slide the taillight towards the rear of the car releasing it off the mounting bracket behind the front corner. Then disconnect the connector behind the taillight.

7



8. Remove rear wheels and wheel well liners. The liners are held in place using T25 Torx screws and one 10mm plastic nut.

Note: Make note of the different style of screws in the next several steps. There is a T25 screw with a locking style serrated back side and a T30 screw with a collar using on bumper panels. These screws are easy to mix up.

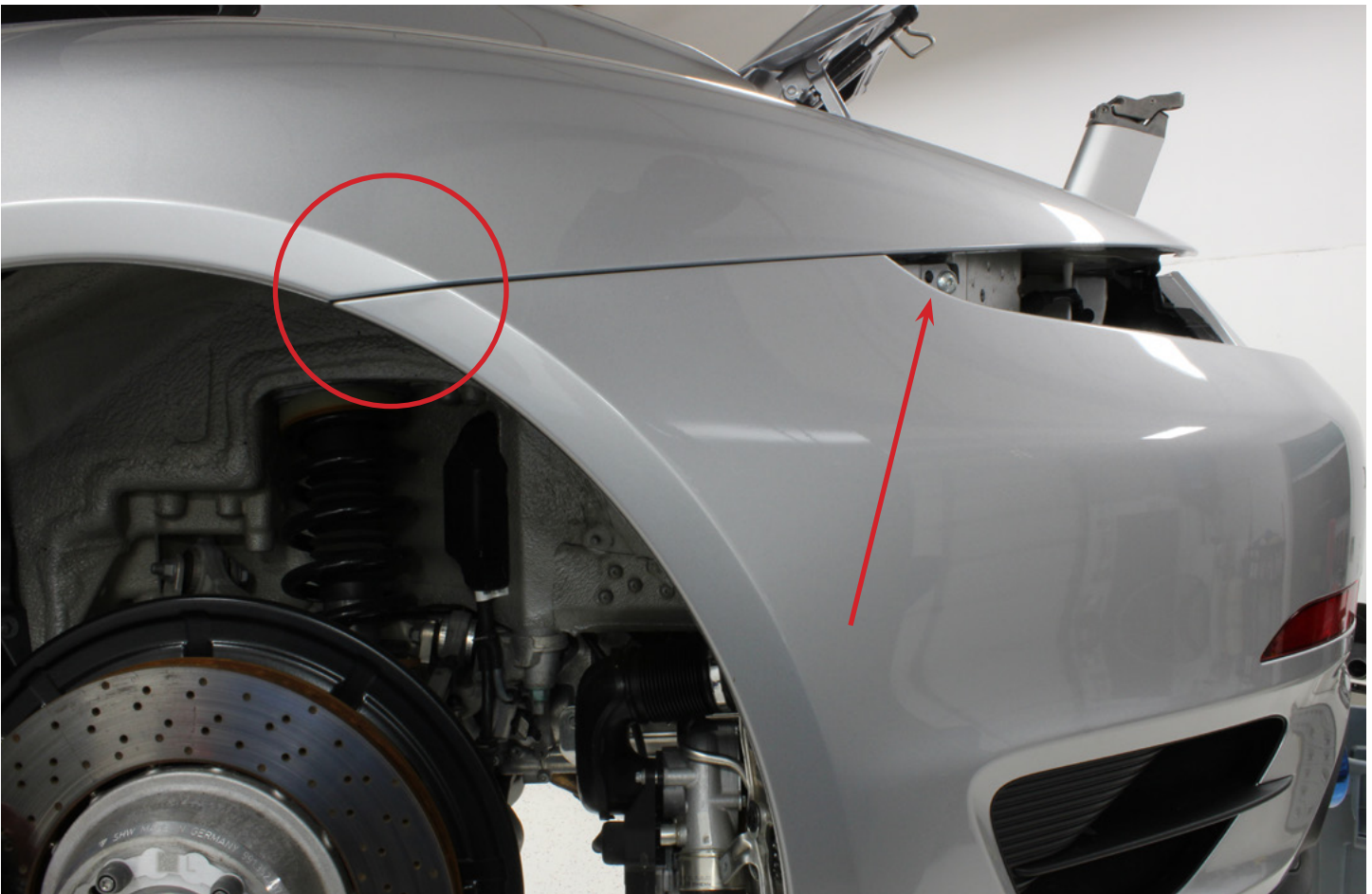
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7

9. Remove the series of T30 Torx screws for the rear bumper cover. There are four on the top by the wing mount, six under the rear of the bumper by the exhaust, one at the corner of each side on the cover, and one on each side just under the front corner of the taillight.

9



8

10. Disconnect the connector behind the left rear taillight area. It is attached to the back side of the bumper.

10



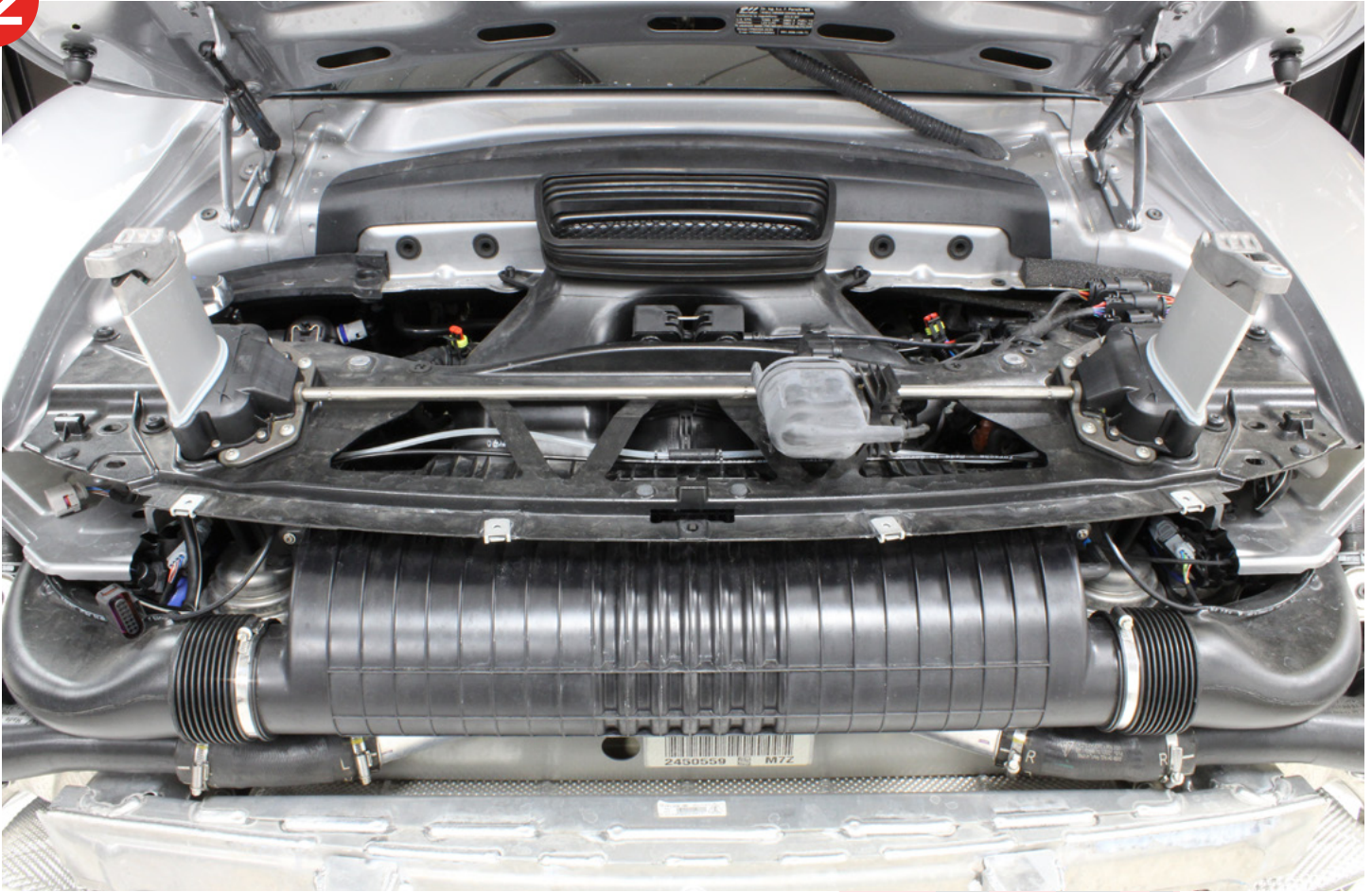
11. Disconnect the two connectors located behind the right side taillight. They are contained in a plastic holder.

11



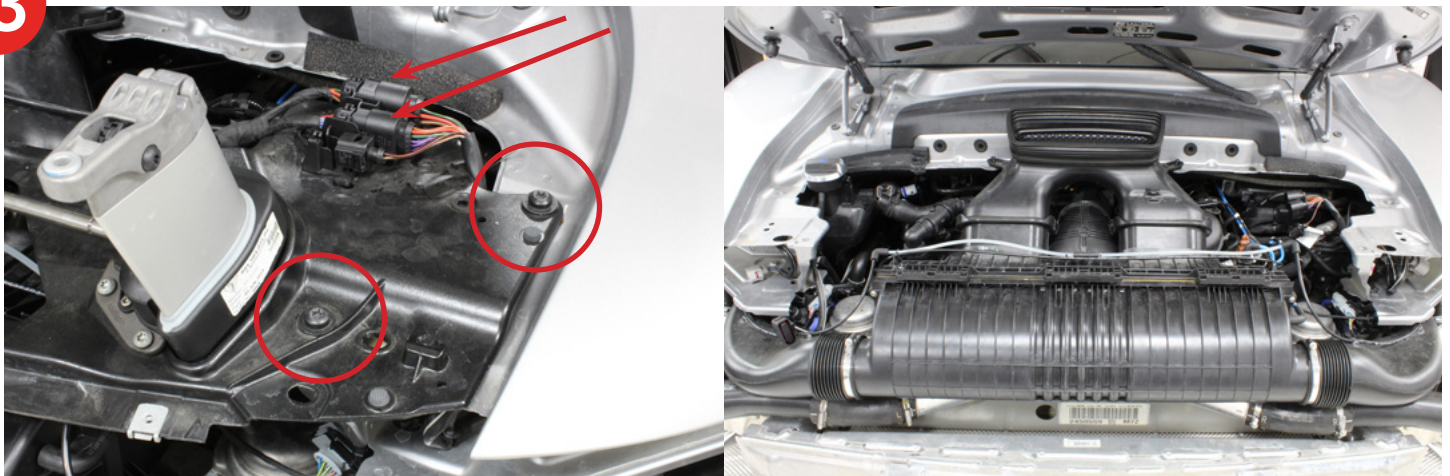
12. Carefully remove the bumper.

12



13. Remove the wing motor plate. Disconnect the two remaining electrical connectors that were under the right corner panel. Remove the four (two on each side) T45 mounting bolts to remove the wing motor plate.

13

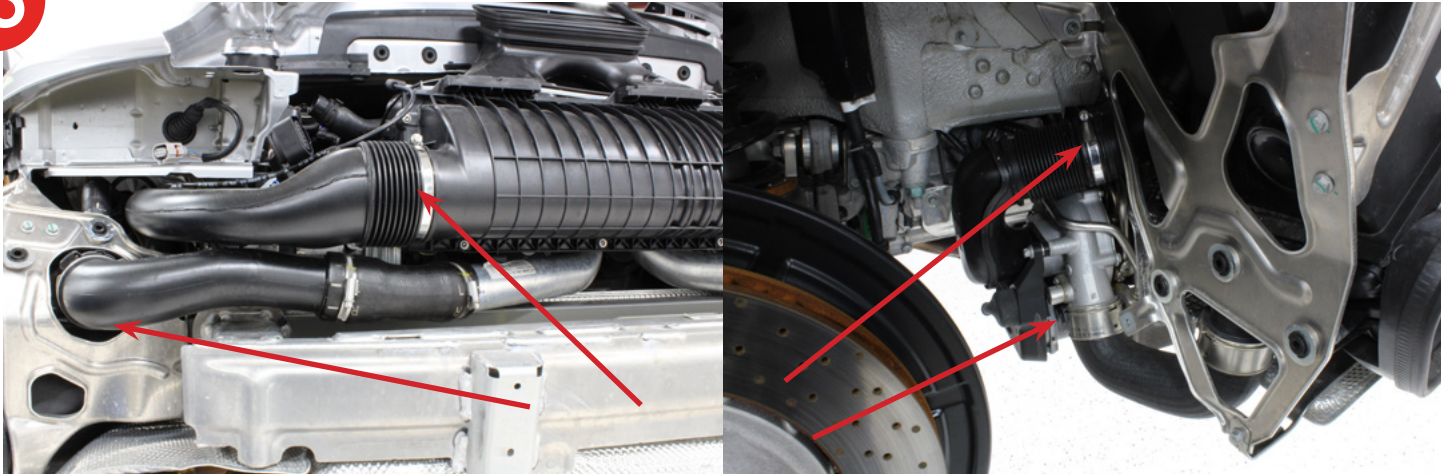


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14. The next several steps will be to remove and replace the intercooler. The process will be performed on the left side in the instructions. The same process will be repeated on the right side.

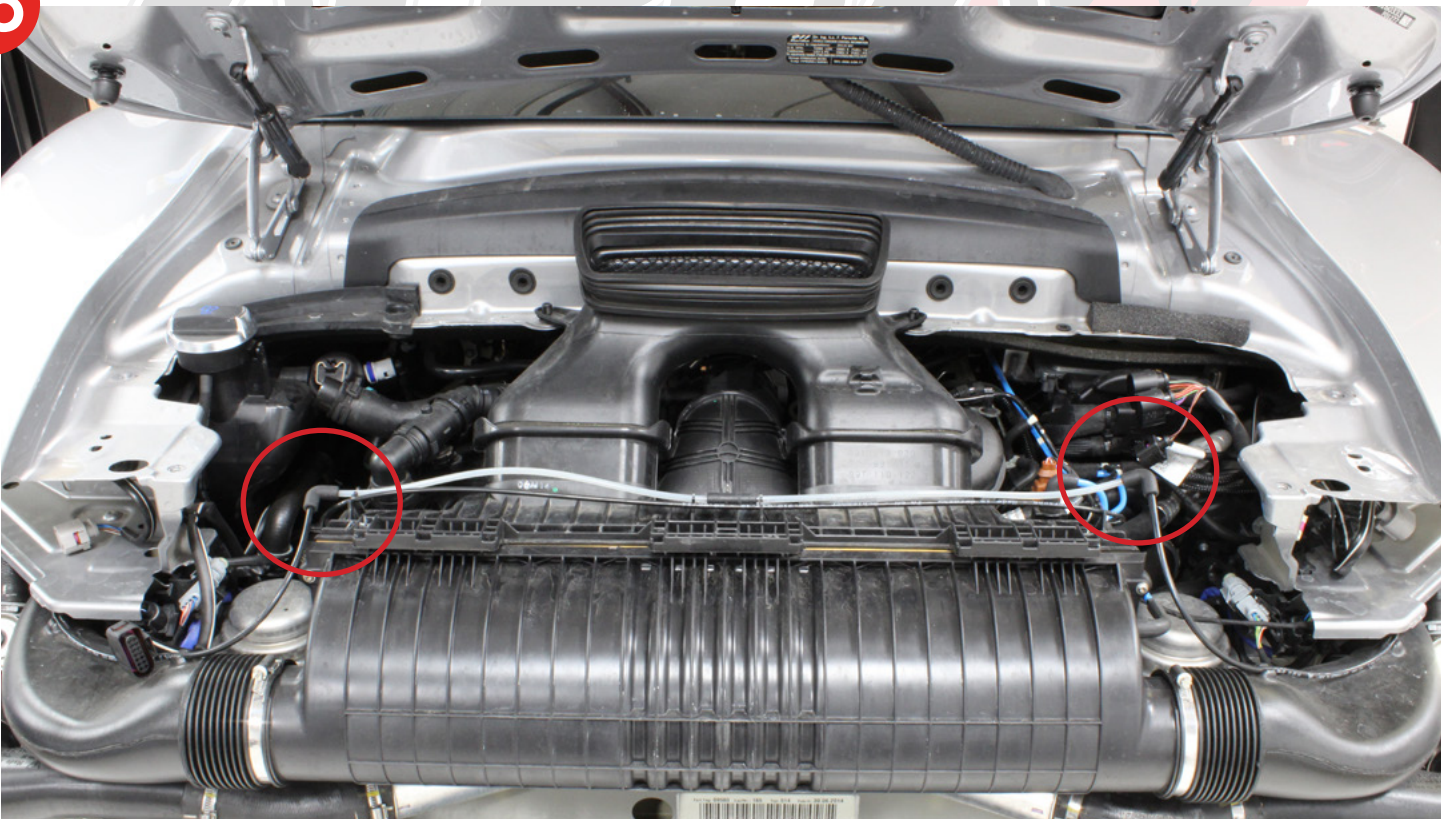
15. Disconnect the air box inlet, intercooler outlet, turbo compressor outlet, and turbo compressor inlet.

15



16. Disconnect the bypass valve hose by separating the black 90 degree elbow from the white tube.

16



17. Remove the hardware holding the intercooler frame in place. There will be one T25 Torx screw holding the heat shield to the rear of the frame, two 14mm stamped metal nuts holding a heat shield to the bottom of the frame, four 10mm nuts and two 10mm bolts holding the frame to the car.

17



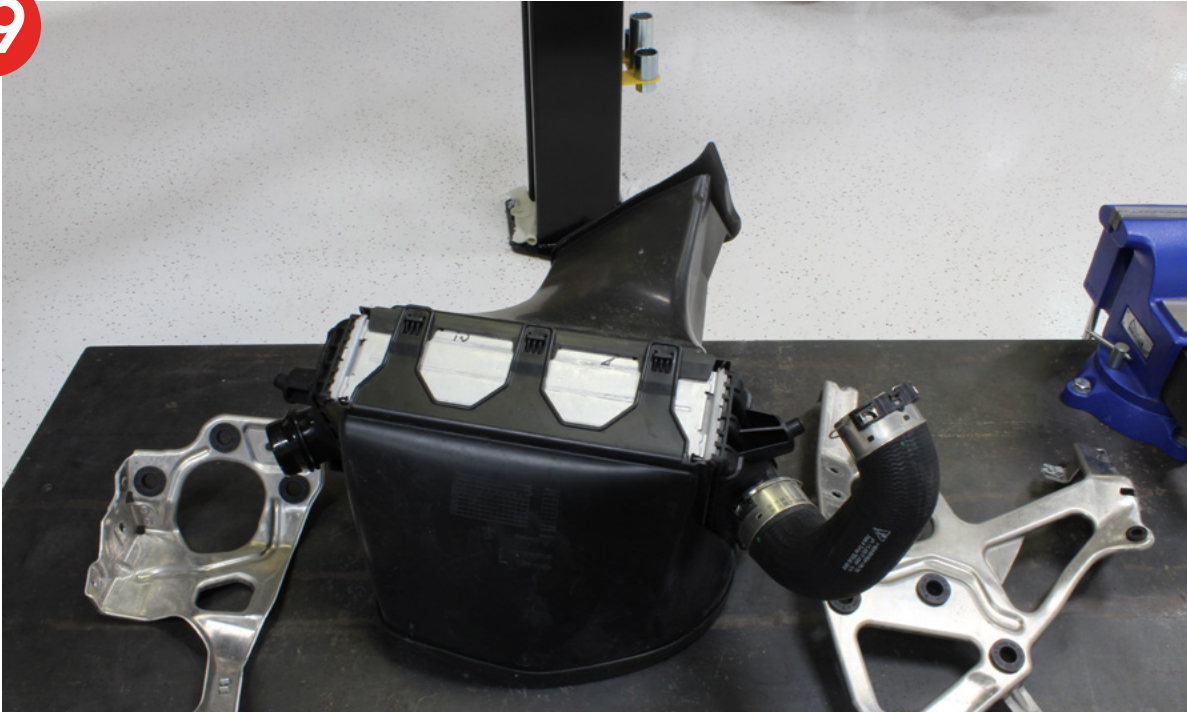
18. Remove the intake from the frame. Disconnect the bypass valve hose from the intercooler.

18



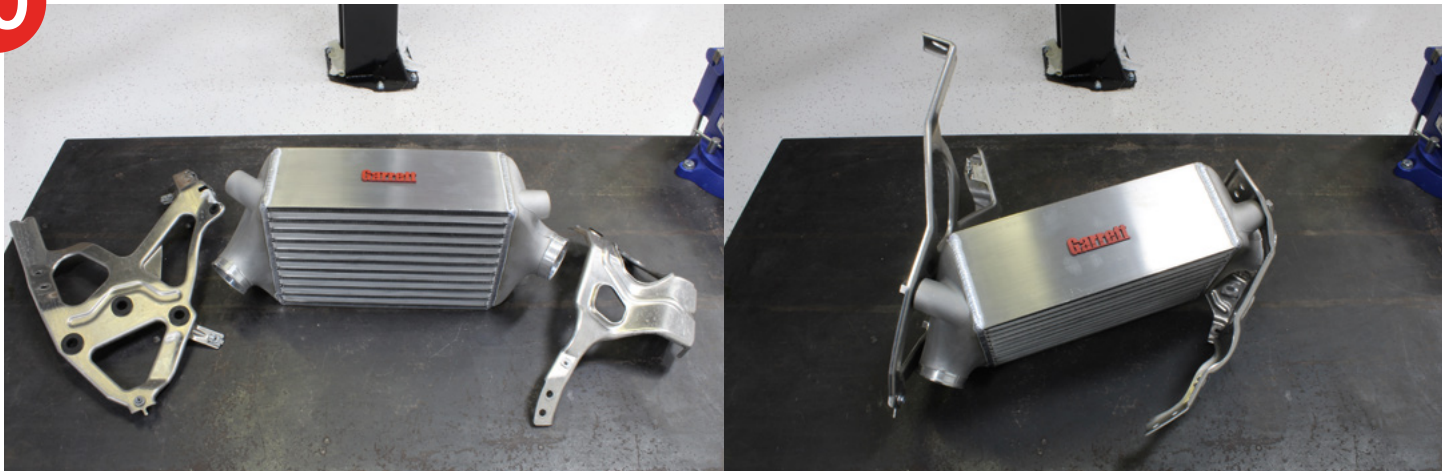
19. Disassemble the frame making notes of how it was assembled. Start by removing the upper and lower cross beams. Remove the E clips and washers holding the frame to the factory intercooler and remove it. The E clip and washers will not be reused, however, the grommets in the frame will be so make sure they are reinstalled if they come out with the intercooler.

19



20. Remove the wing motor plate. Disconnect the two remaining electrical connectors that were under the right corner panel. Remove the four (two on each side) T45 mounting bolts to remove the wing motor plate.

20



13

21. Set the lower carbon duct into place on the bottom of the intercooler. Note the location of the duct where it sit across the weld area. Cut and apply foam stripping to this area. Reinstall the duct and install the lower frame bracket. The duct will be loose and will move around so take care when moving the assembly around.

21



22. Set the upper carbon duct into place on the top of the intercooler. Note the location of the duct where it sit across the weld area. Cut and apply foam stripping to this area.

22



14

23. Set the lower carbon duct into place on the bottom of the intercooler. Note the location of the duct where it sit across the weld area. Cut and apply foam stripping to this area. Reinstall the duct and install the lower frame bracket. The duct will be loose and will move around so take care when moving the assembly around.

23



24. Before reinstalling the intake duct, you will need to cut off the mounting stud by the top in the picture shown. After trimming, reinstall the intake duct.

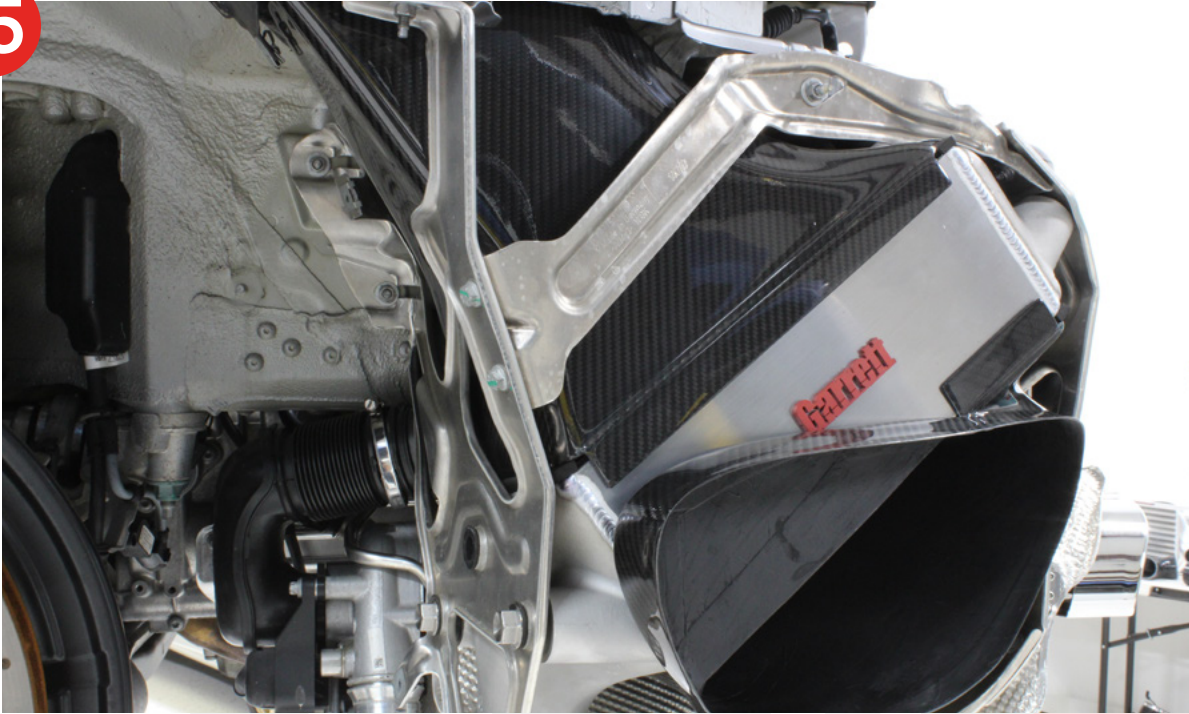
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15

25. Reinstall the intercooler and frame back onto the vehicle. Make sure the intake duct is free and clear before reattaching.

25



26. Locate the billet turbo outlet adapter. The factory retaining clip will be removed from the original coupler and installed onto the billet adapter. Carefully remove the plastic clip retainer from the coupler by sliding it towards the end of the coupler. Remove the clip. Reinstall it onto the billet adapter. Make sure the clip sits correctly on the adapter. You may have to bend the clip slightly to make sure it will engage the compressor outlet correctly.

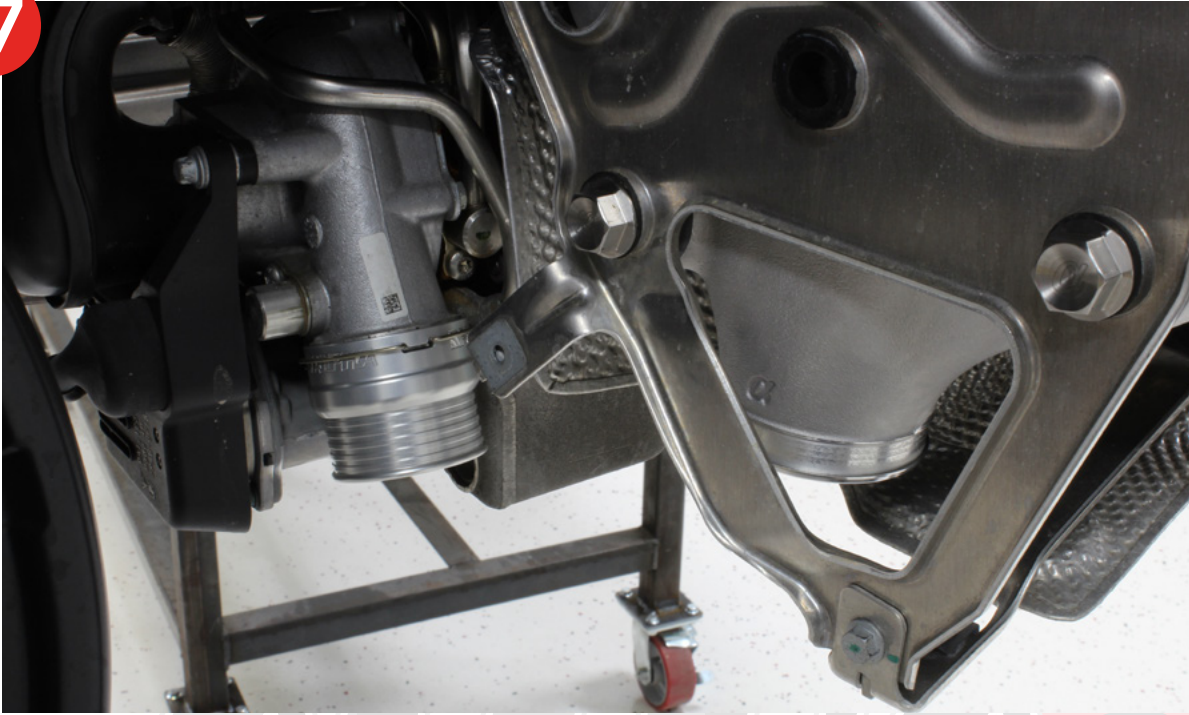
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16

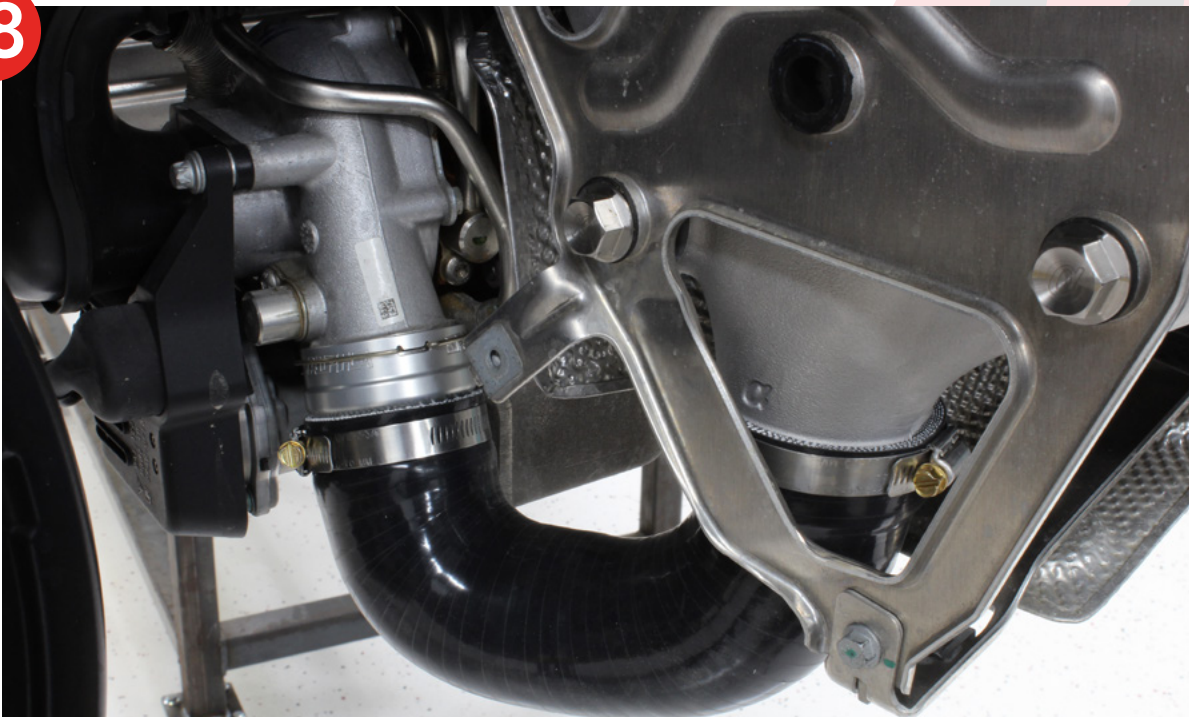
27. Make sure the compressor outlet is clean. Apply a little grease or silicone spray to the seal in the adapter and to the compressor outlet. Install the adapter on the compressor outlet making sure the retaining ring positively locks into place.

27



28. Install the new Alpha silicone coupler using a supplied #36 and #44 hose clamp.

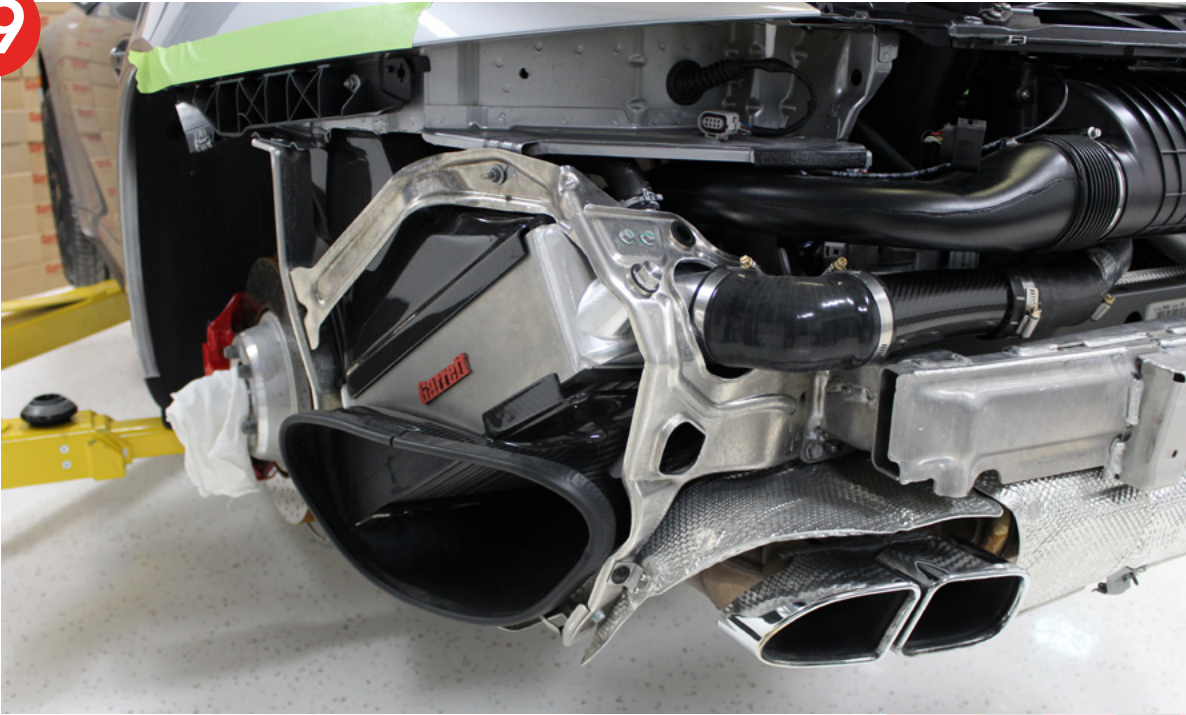
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17

29. Locate the small 90 degree silicone and carbon jump tubes. The carbon jumper tubes are slightly different side to side however, will work regardless of what side they are on. Based on over all fitment, choose the best course for install. Either way, install them so the slight bend clears the frame rail as that is what it design for. Use the remaining four #36 and #44 hose clamps to install the silicone and carbon jumper tube using the factory coupler on the Y-pipe. Hose clamps were provided to eliminate the factory clamps as they are known to fail after repeated use.

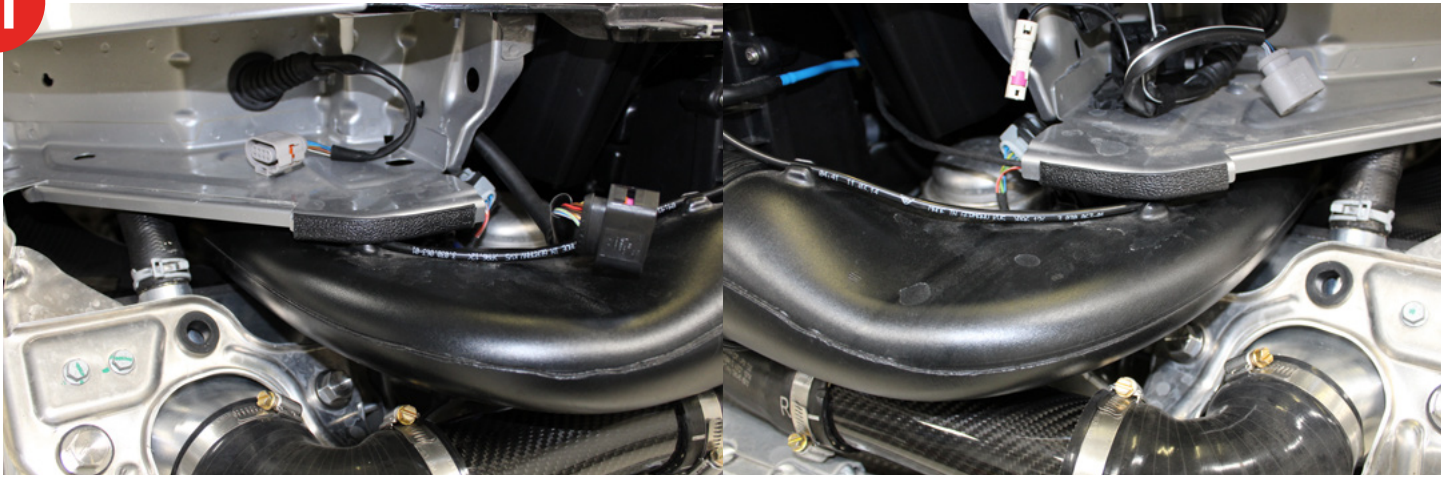
29



30. Repeat steps 15 – 29 for the right side intercooler assembly.

31. There are two 4” lengths of panel edging supplied. Install the edging shown just above the intake duct. The new larger intercooler pushes the intake up slightly so the stripping is installed here to prevent any damage to the bypass hose. Install this on both sides.

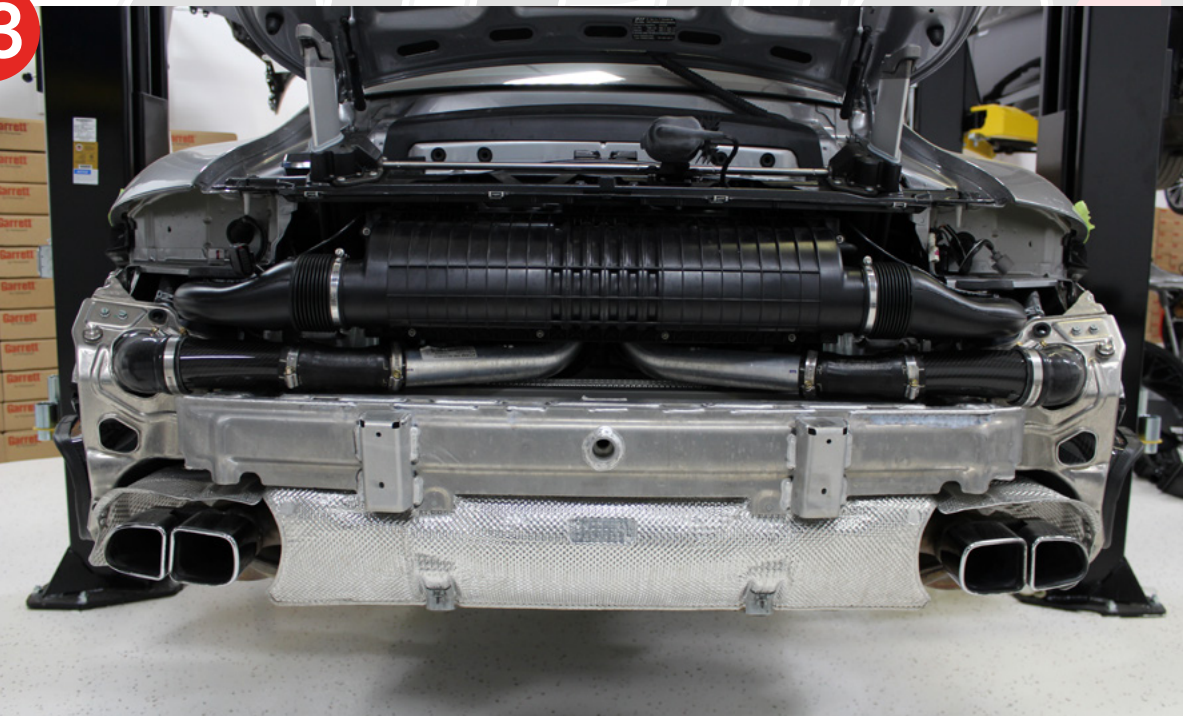
31



32. Reconnect the bypass hose supply lines disconnected in step # 16.

33. Double check all your connections before reinstalling the rear bumper wing and supporting components.

33



34. Before reinstalling the wheel well liners, slight trimming will be needed. Remove the small lip at the bottom of the liner. This small lip interferes with the compressor outlet silicone.

34



35. Reinstall the wheel well liners and wheels.

