

#TL100084



4.0T DOWNPIPES/
INSTALLATION INSTRUCTIONS

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Notes:

These instructions were written for on a North American specification RS7, but other models, like the S6 and S8, are similar.

When disassembling the car, be sure to keep all fasteners so they can be reused. It is recommended that you get some kind of compartmented tray to organize the fasteners, such as a fishing tackle box or several large ice cube trays. Fasteners that are not reused for reinstallation are noted in the instructions. All directions used in this manual (right, left, front, etc.) are based on if you were sitting in the drivers seat of the car.

These instructions assume that you have basic mechanical skills and several varieties of the tools in order to install the kit. If you have any questions about the install, feel free to contact your APR representative.



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1) Secure the vehicle on a lift or jackstands.

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2) Remove the rubber weatherstripping in front of the rain tray by pulling the rubber towards the front of the car. Lift the front side of the rain tray, and then slide the rain tray forward to remove from the car. Remove the engine cover by lifting up on the four corners.



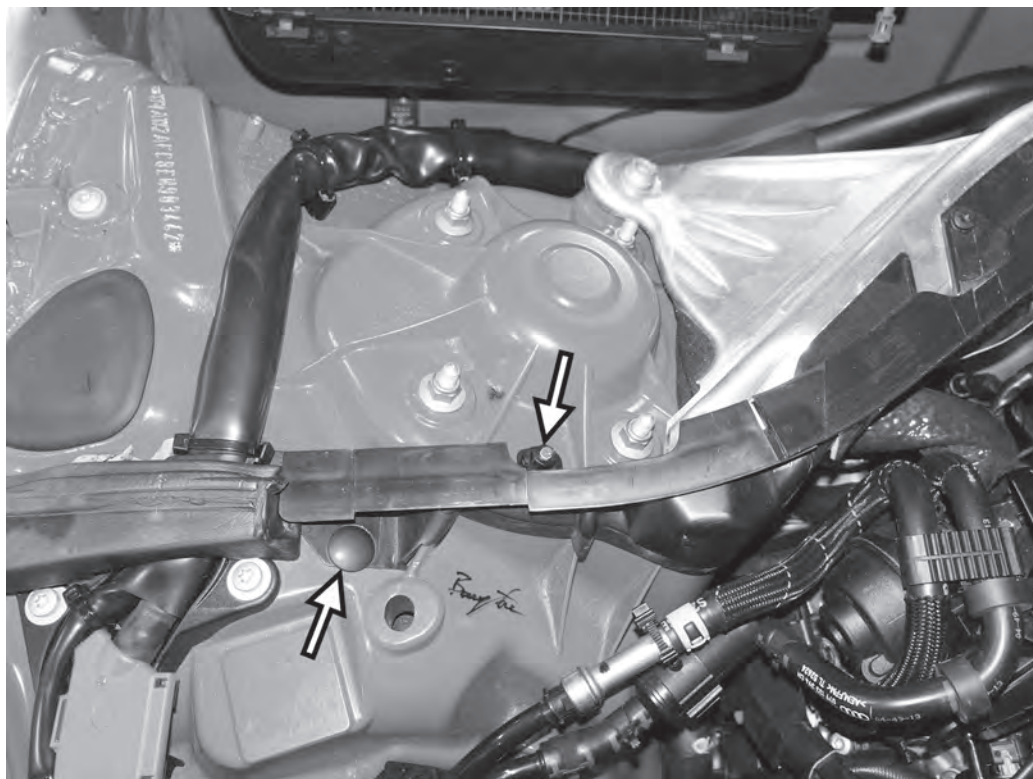
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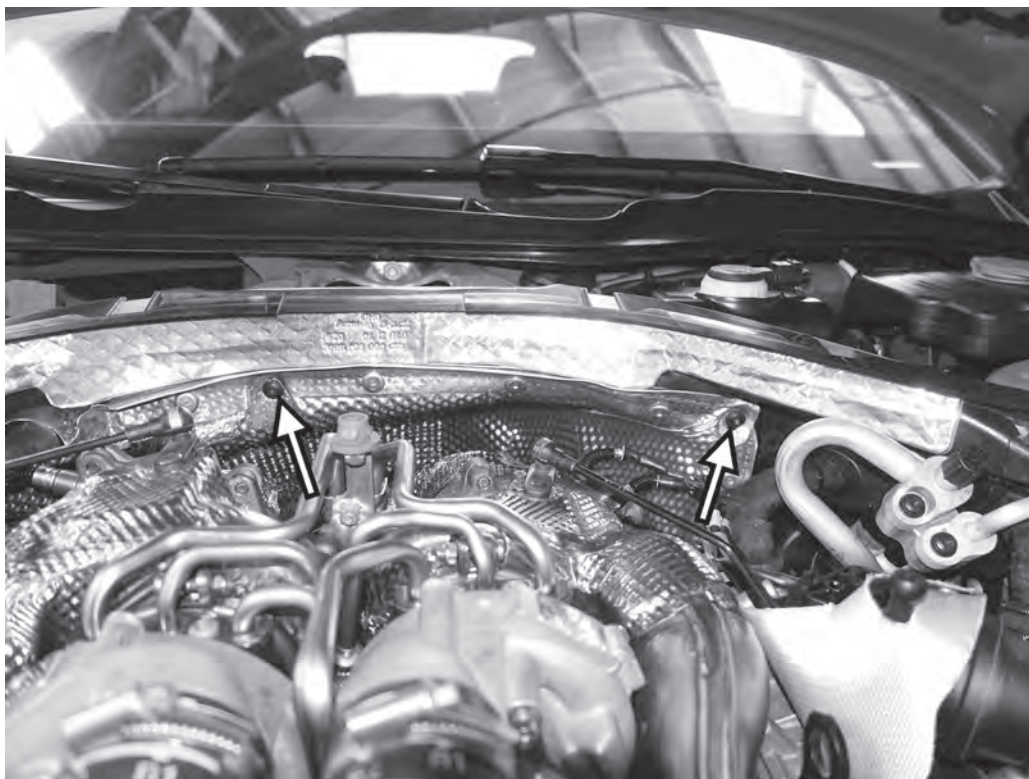
3) In the trunk, disconnect the 10mm nut securing the negative battery terminal, and remove the negative terminal from the battery.

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4) Remove the plastic pushclip and 10mm plastic nut holding the rain tray weatherstripping support. Remove the support from both sides of the bulkhead in front of the strut towers.

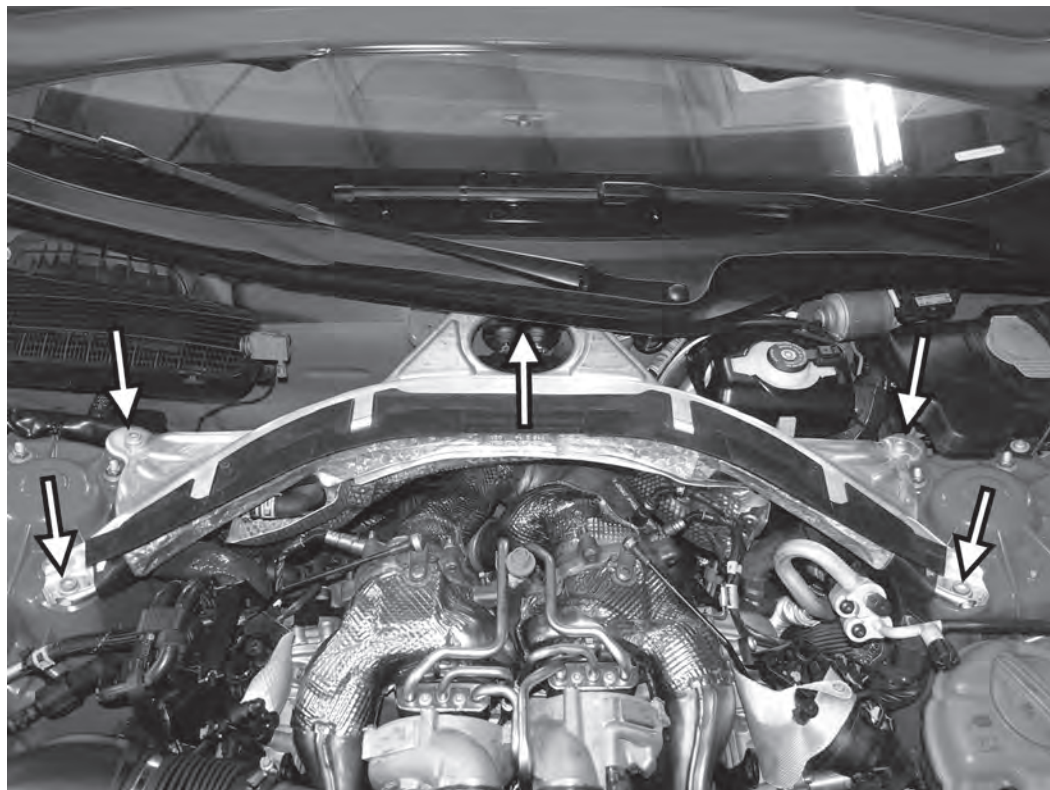


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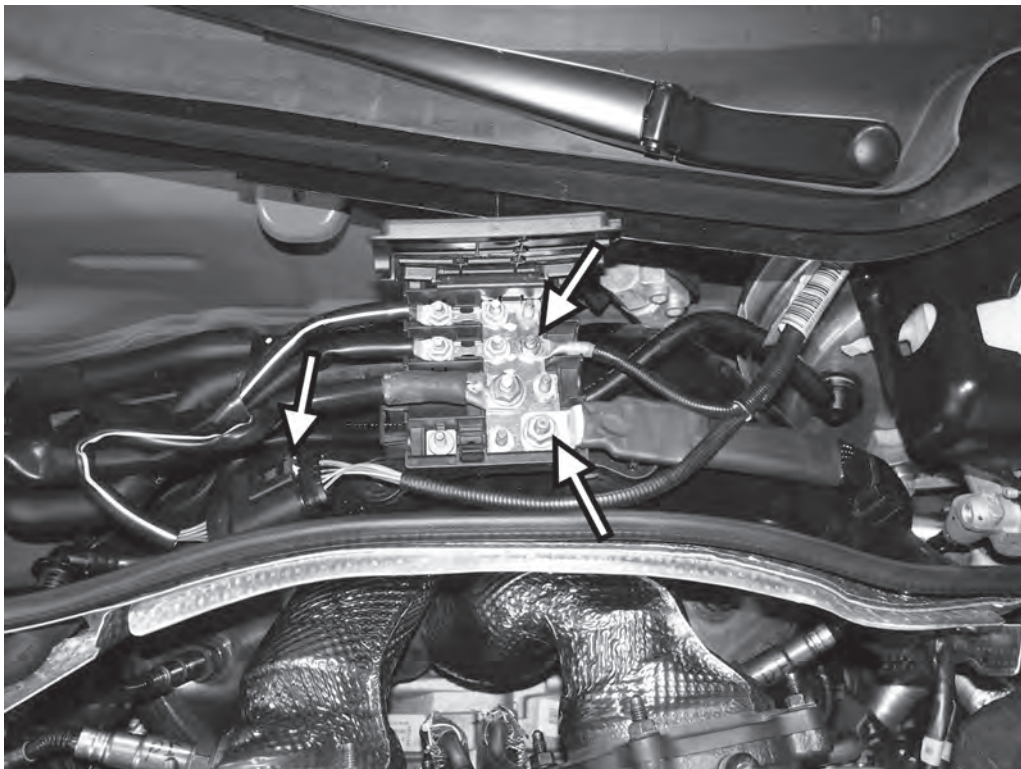


5) Remove the two T25 screws holding the bulkhead to the stamped strut tower brace.

6) Remove the five 10mm triple square screws holding the stamped strut tower brace in place. Remove any attached brackets, and then remove the strut brace from the car.

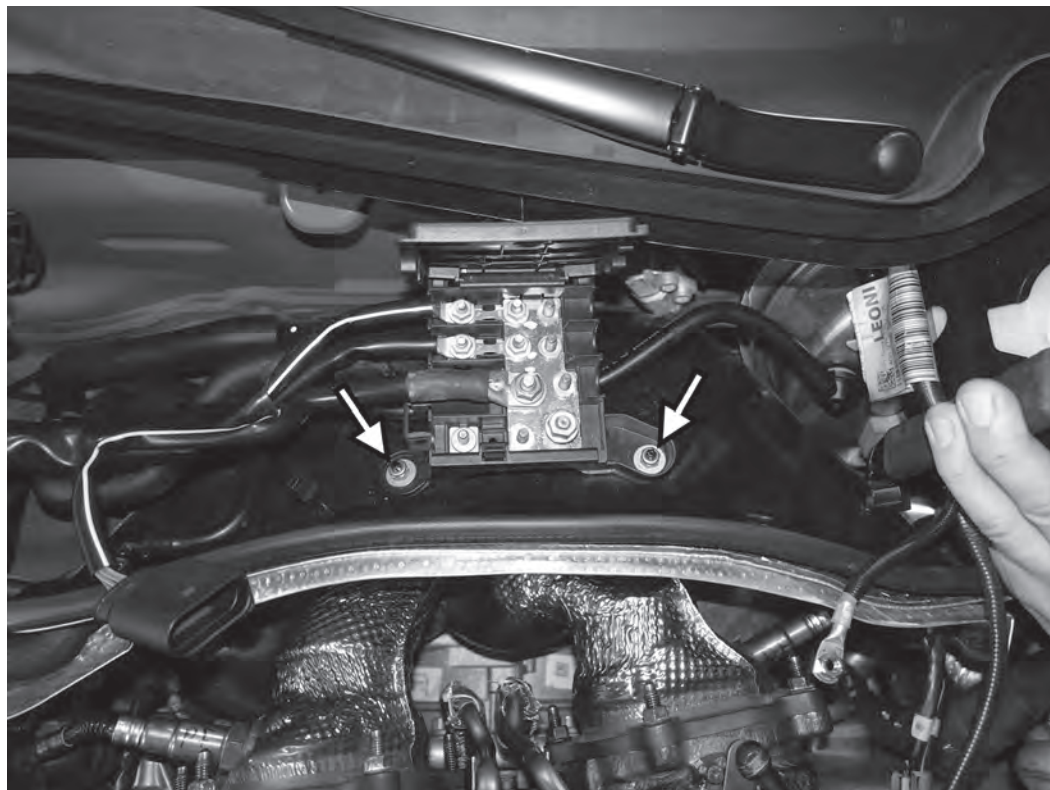


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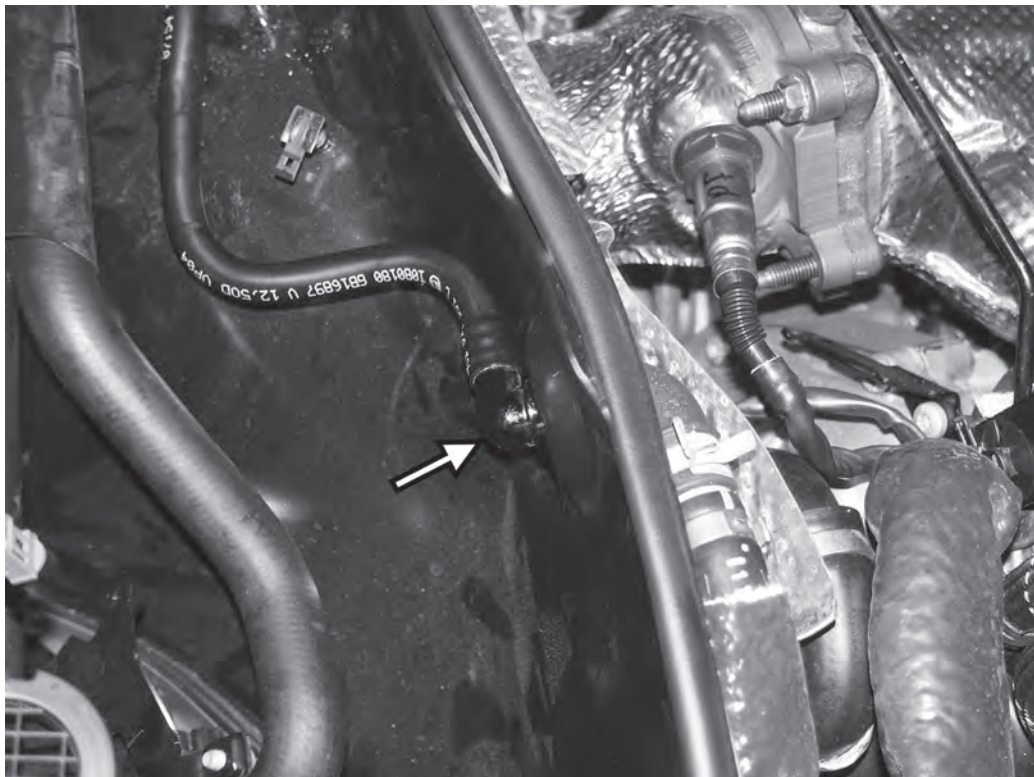


7) Open the electrical junction box that is attached to the top of the bulkhead. Disconnect the two ground connectors from the left side of the box, one is a 10mm, and the other is a 13mm. Lift the harnesses out of the way. Unclip the electrical connector that is just to the right of the junction box, and separate the harness from the bulkhead.

8) Remove the two 10mm nuts holding the junction box to the bulkhead. Disconnect any harness connections to the bulkhead and flip the junction box out of the way.

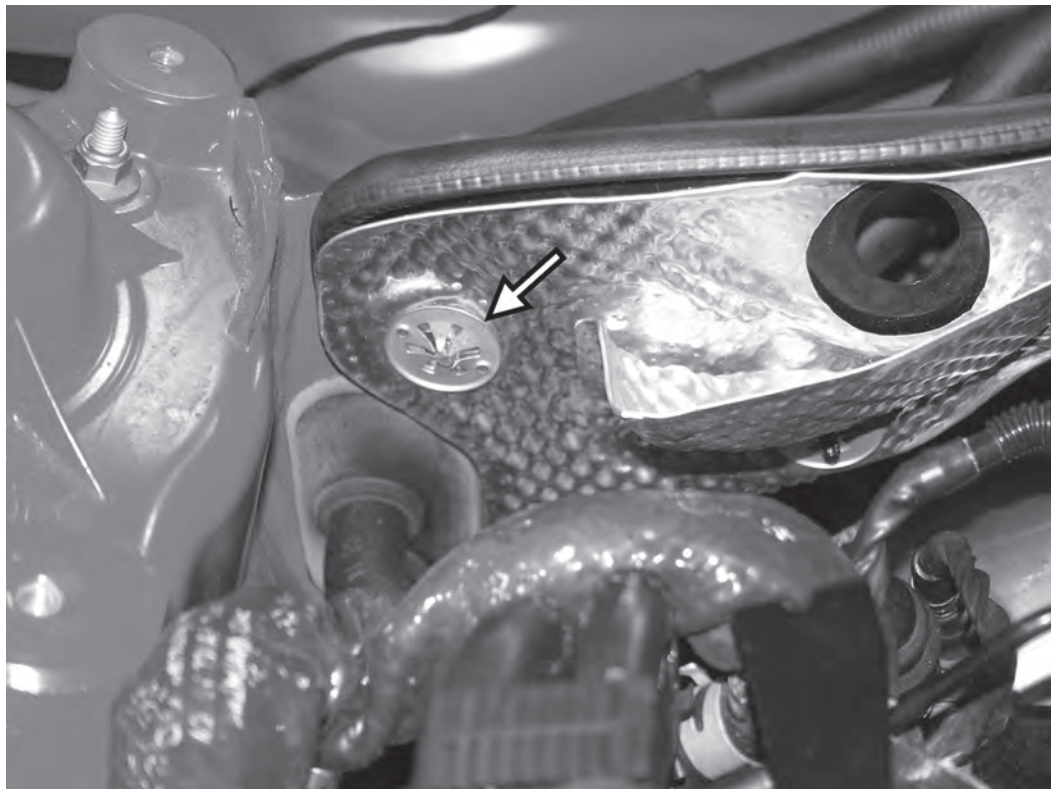


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9) Remove the plastic brake booster vacuum line from the rubber connection on the back side of the bulkhead. Once removed, pull the rubber fitting out of the front of the bulkhead.

10) From the front right side of the bulkhead, remove the metal clip on top of the threaded stud.

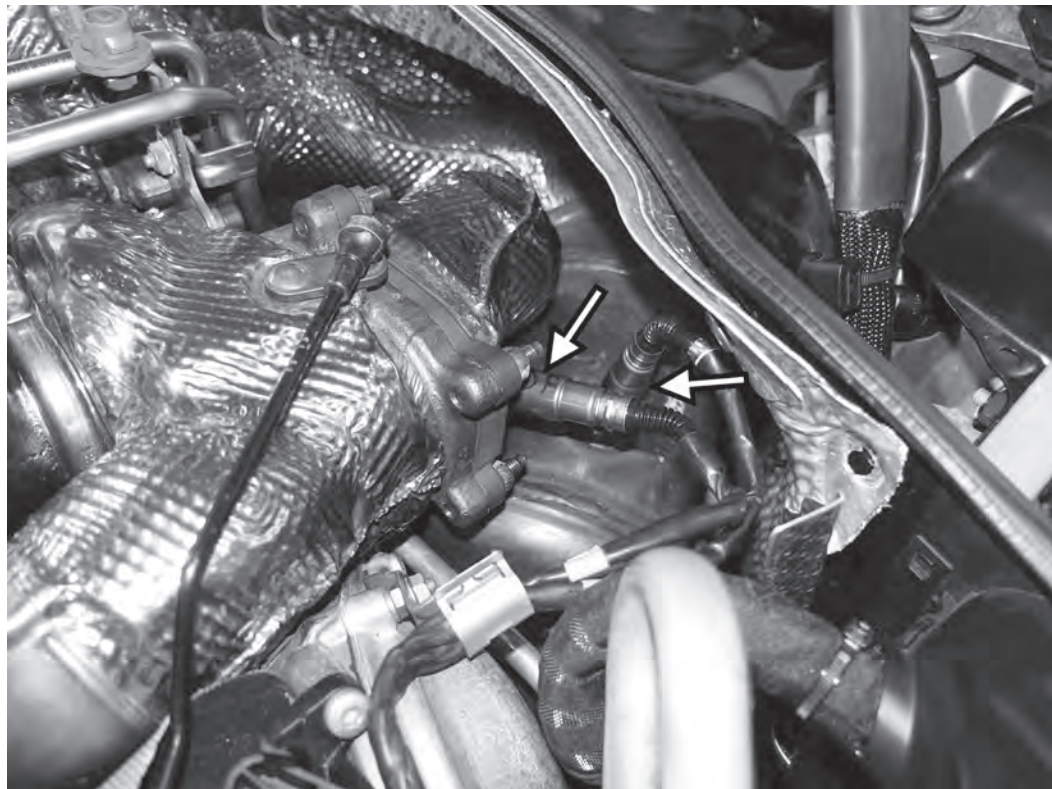


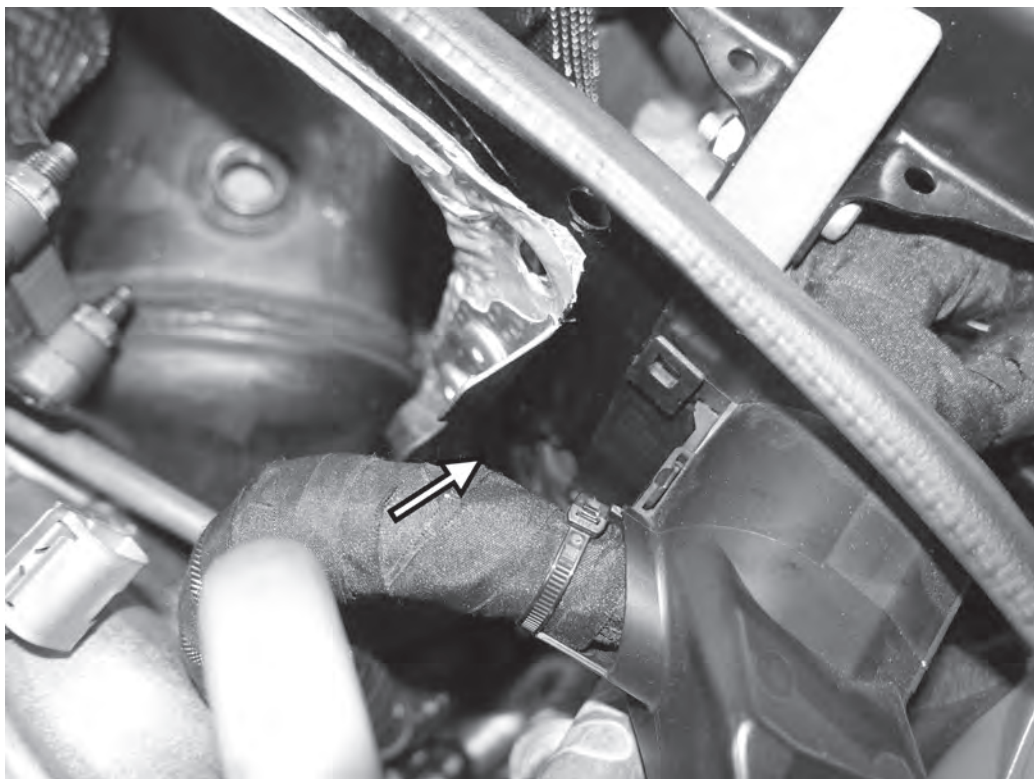
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11) Carefully pull the heatshielding forward from the right side of the bulkhead to reveal the 10mm nut underneath. Remove this nut.

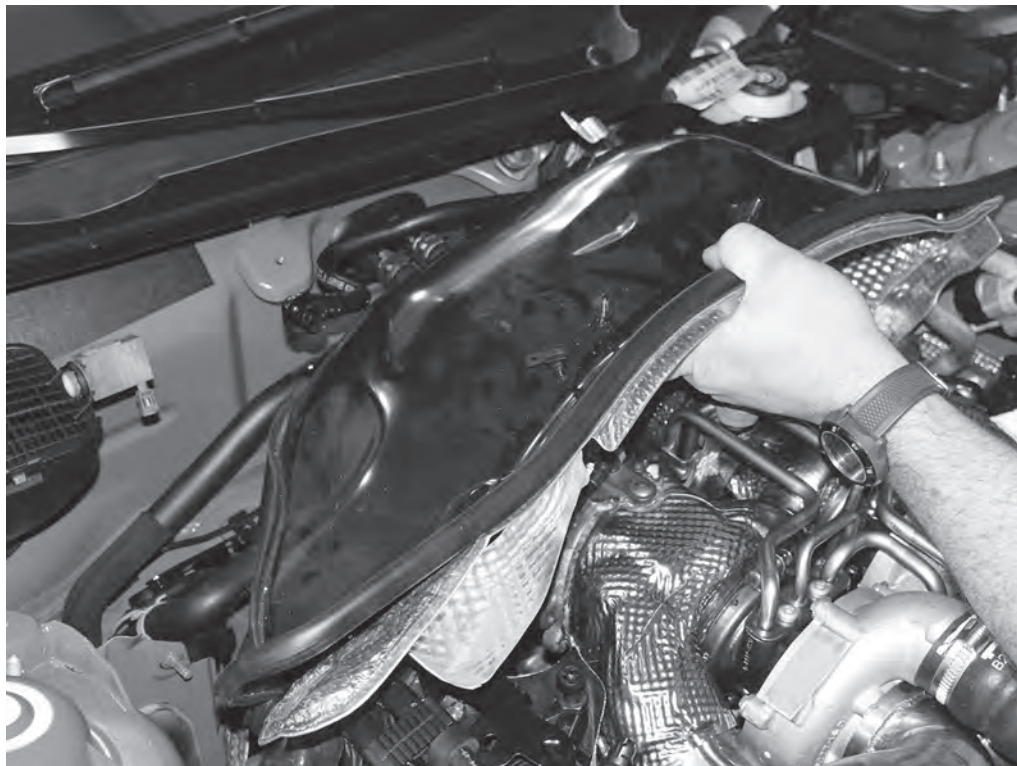
12) After noting which of the two left side oxygen sensors are which, remove the two oxygen sensors from the left side with a 22mm wrench or oxygen sensor socket.



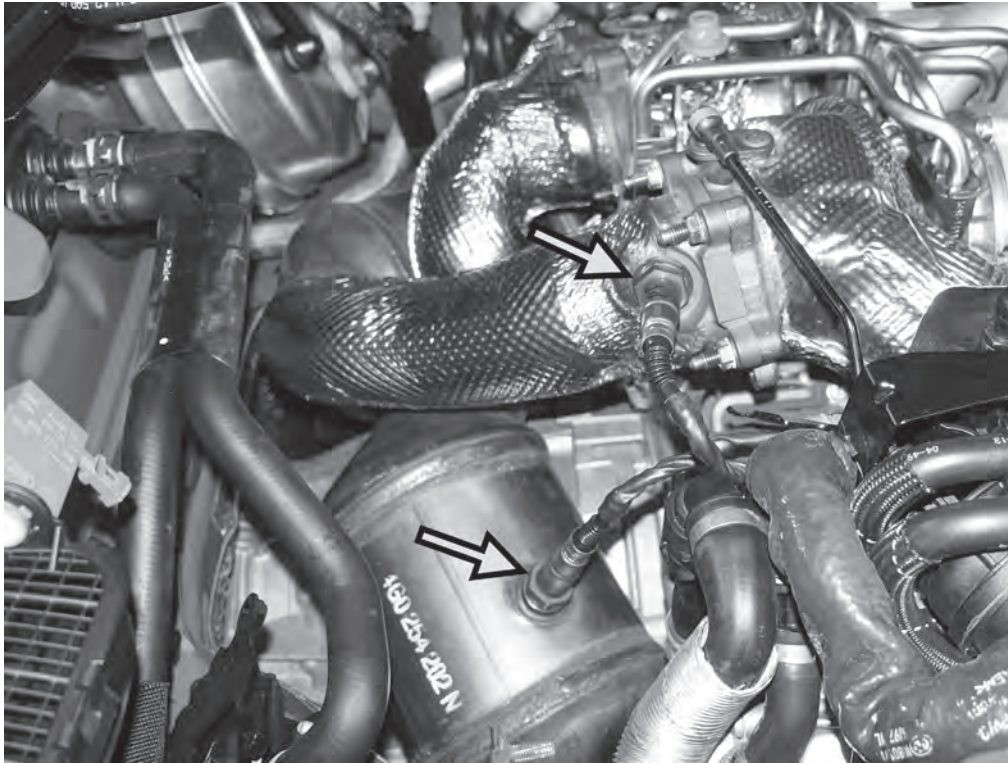


13) Carefully pull the heatshielding forward from the left side of the bulkhead to reveal the T25 screw underneath. Remove this screw.

14) After noting how the bulkhead seals to the firewall, pull the bulkhead slightly forward and then lift up to remove it from the car.

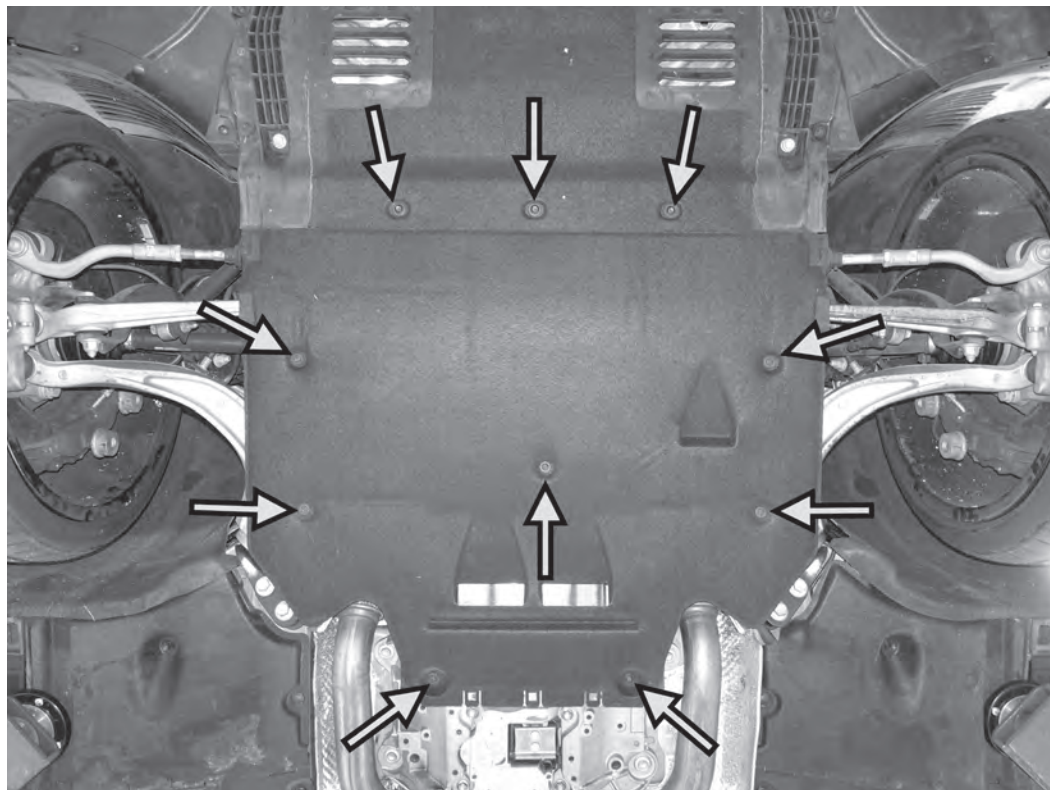


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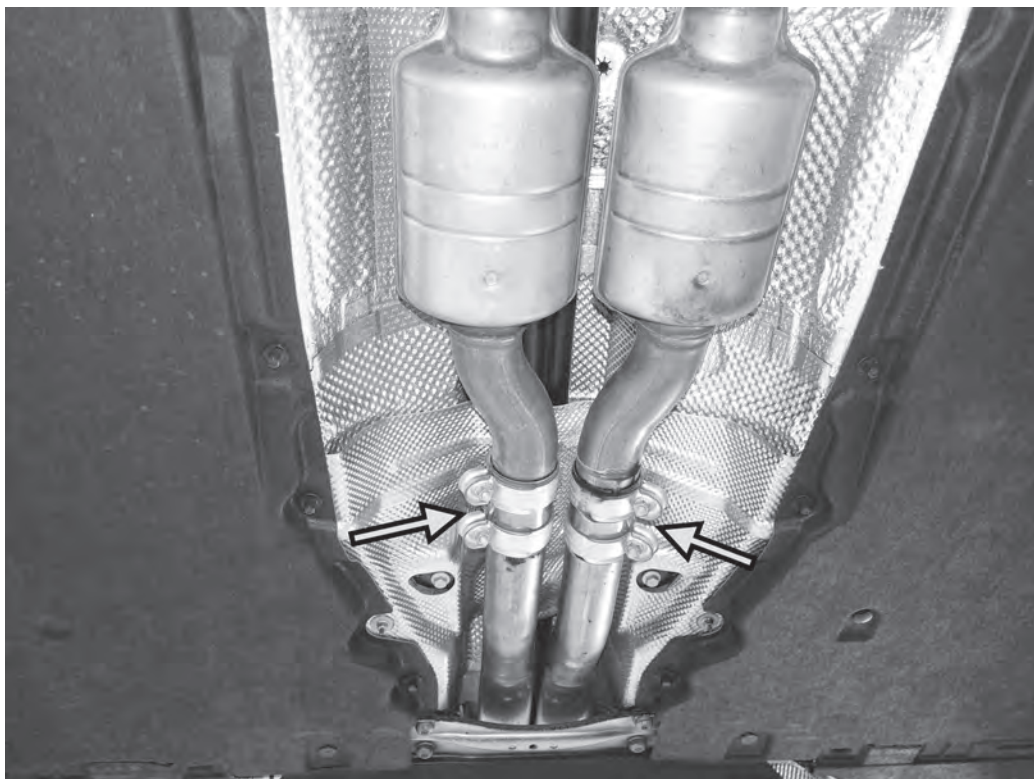


15) After noting the placement of the two right side oxygen sensors, remove both sensors from the car with a 22mm wrench or oxygen sensor socket.

16) Remove the three T30 screws from the front of the middle underbody belly pan. Remove the seven quarter turn fasteners on the middle belly pan and remove the belly pan from the car.

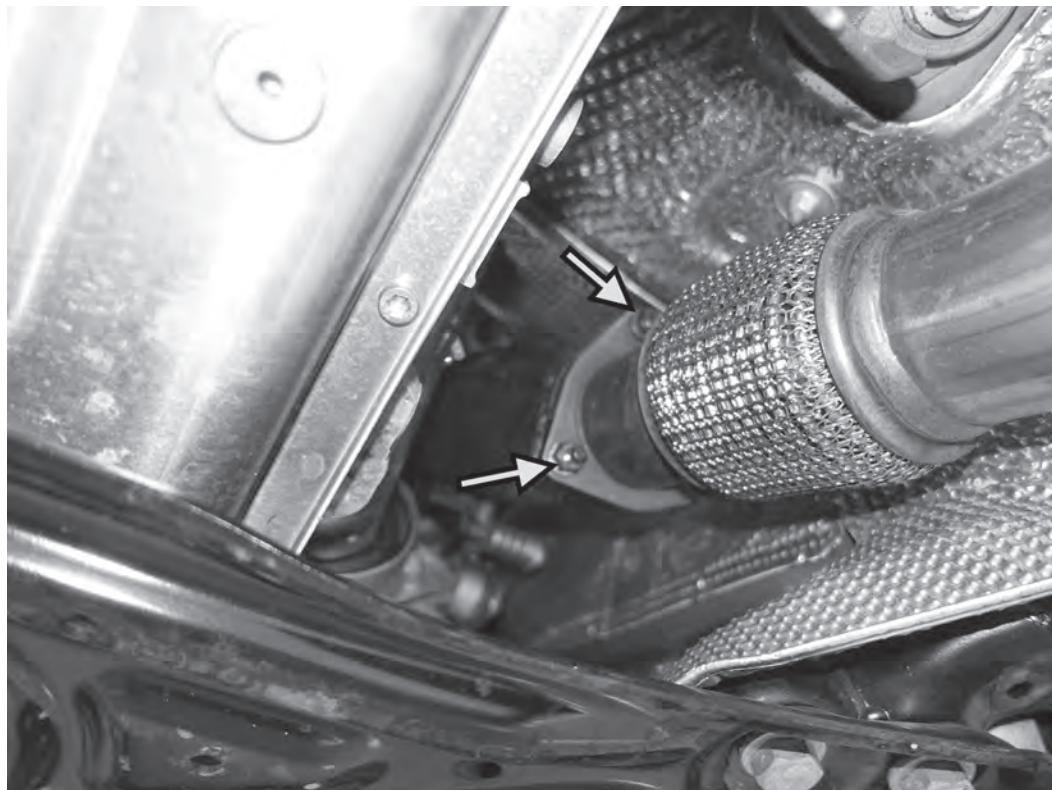


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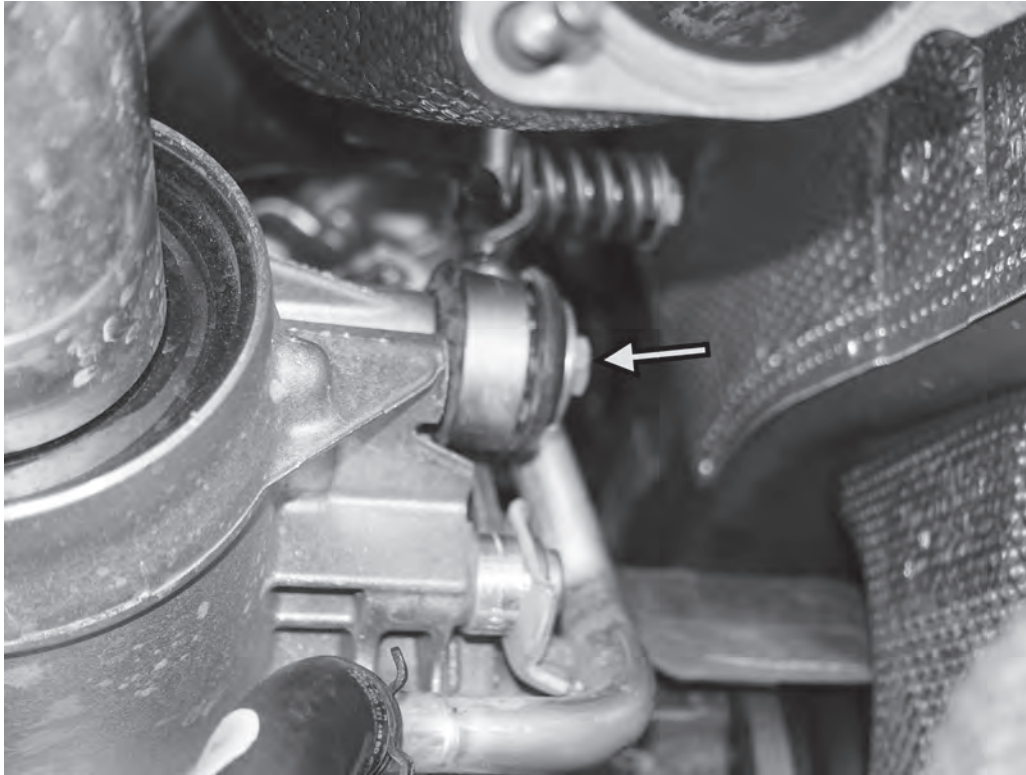


17) Loosen and slide back the two 13mm exhaust sleeve clamps from both the left and right factory mid-pipes.

18) Remove the six (three on each side) 12mm nuts holding the midpipes to the factory downpipes, and remove the midpipes from the car.

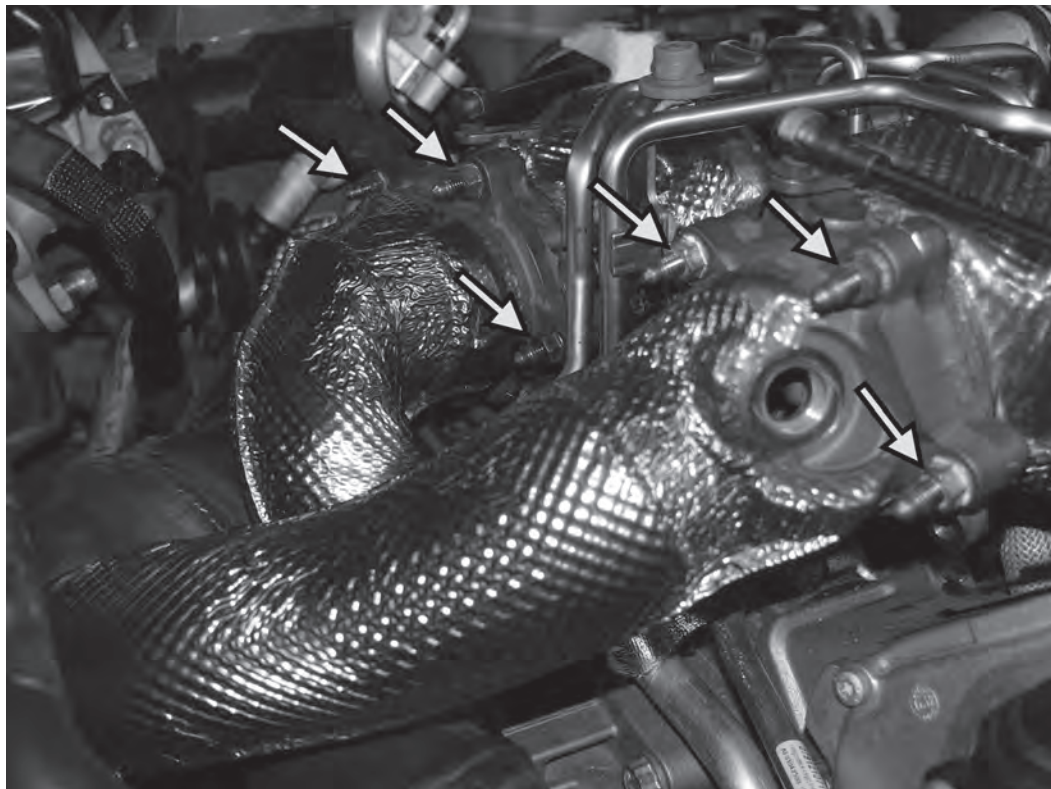


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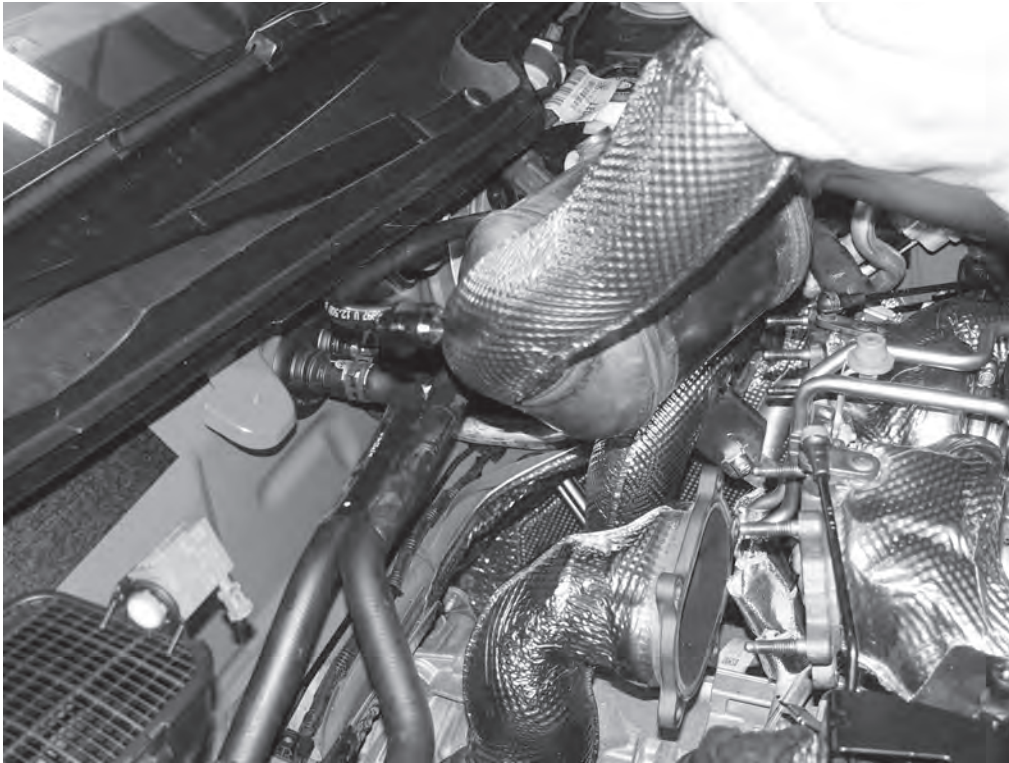


19) Remove the 13mm bolt holding the downpipe brackets to the transmission. Remove this bolt from both downpipes.

20) Remove the ten 12mm nuts holding both downpipes to both turbos.

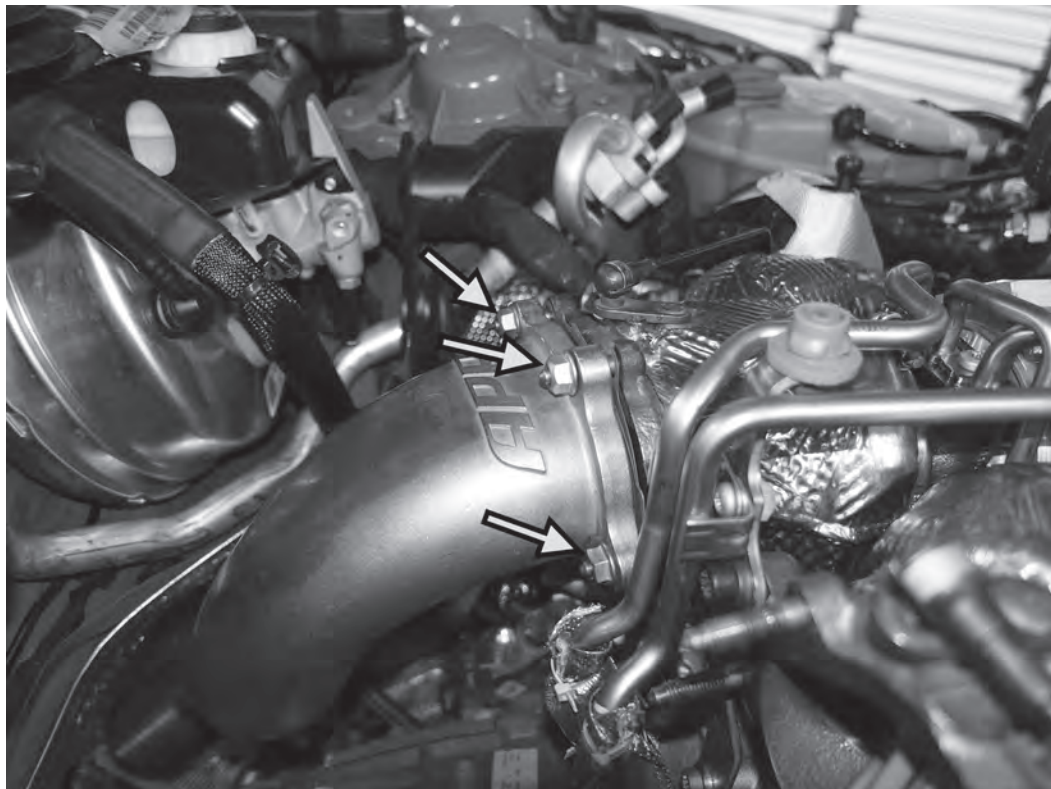


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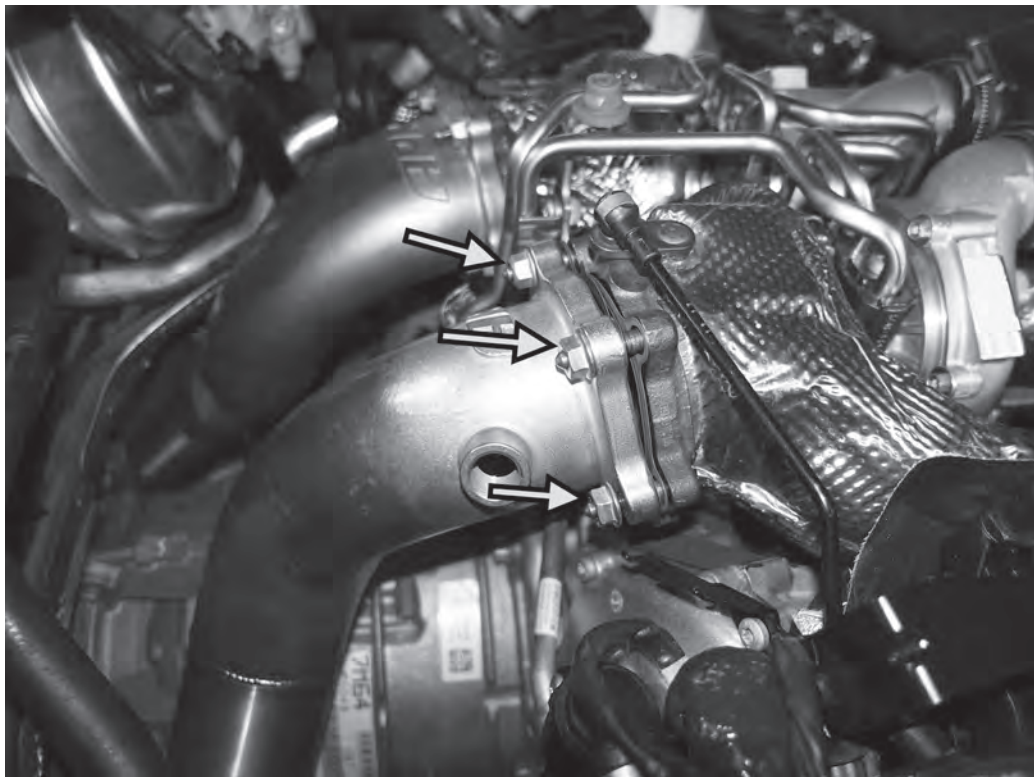


21) Carefully manipulate both downpipes to remove them from the car. It is usually easier to lower the right downpipe, and then bring the left one out first.

22) Install the left APR downpipe with the new supplied gasket, and secure with the new 12mm nuts. Torque the nuts to 23Nm (204 in-lb).



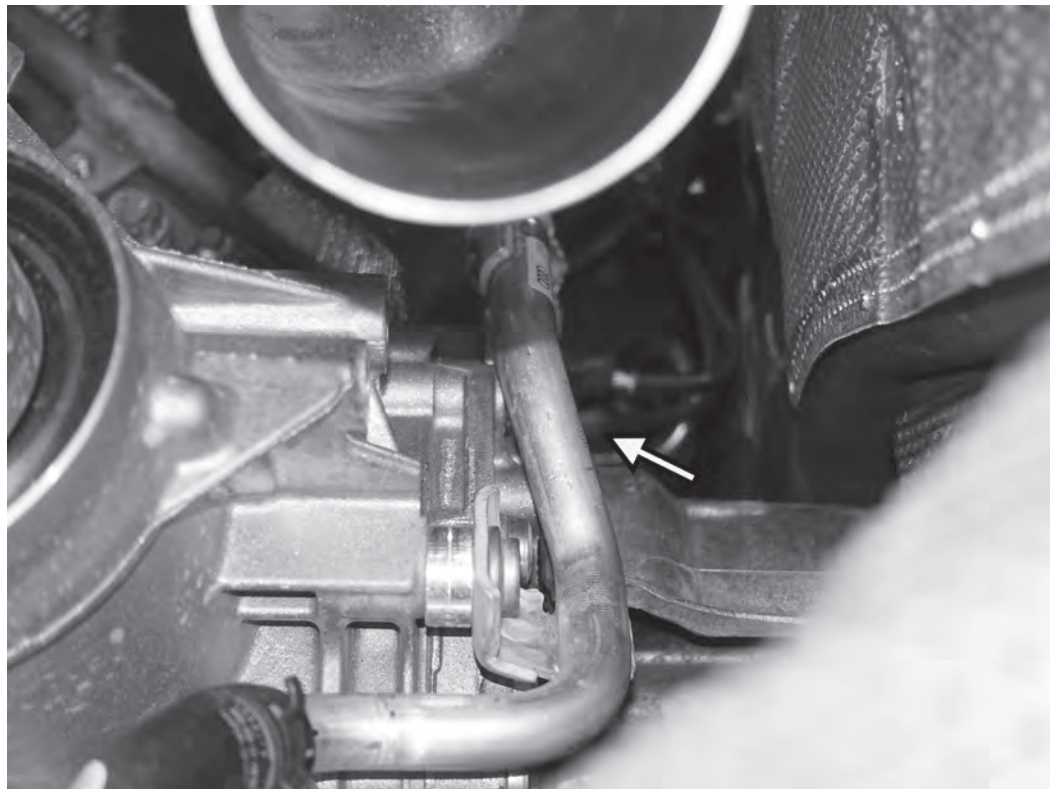
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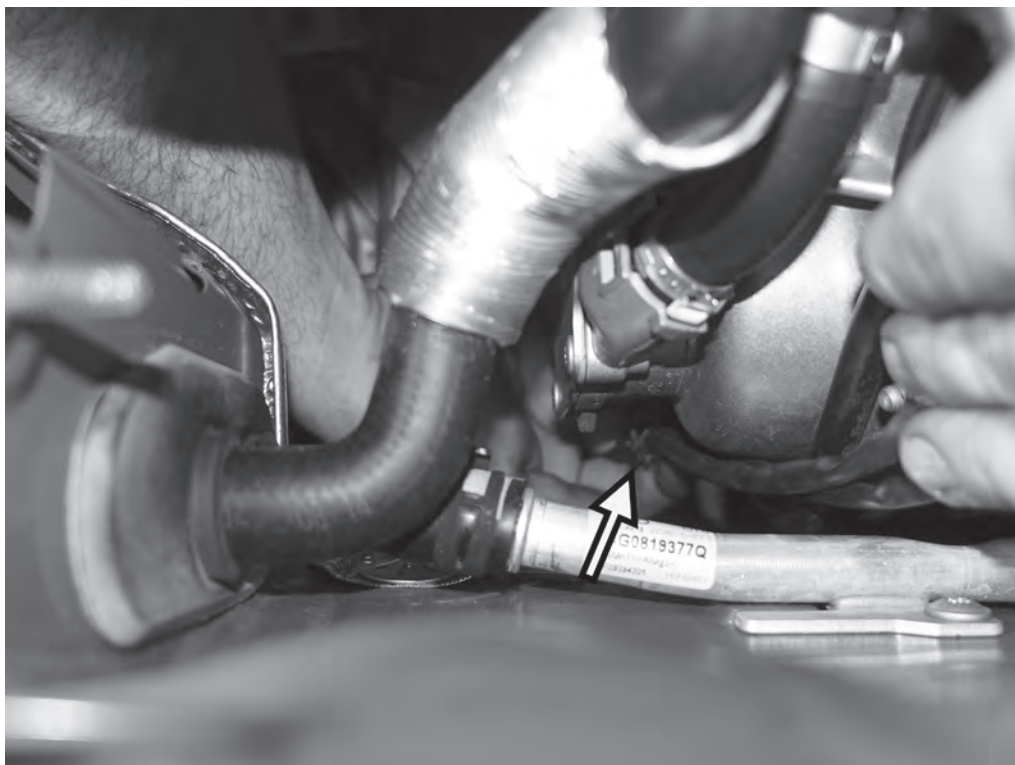
23) Install the right APR downpipe with the new supplied gasket, and secure with the new 12mm nuts. Torque the nuts to 23Nm (204 in-lb).

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24) Trace the harness from what was the right rear oxygen sensor. This is technically the left engine bank secondary oxygen sensor, but after the catalyst with the stock downpipes, it is on the right side. The harness has a brown connector just under the rear of the right cylinder bank, as seen here from underneath. The rear sensor is the front of the two brown connectors. Unplug the sensor.

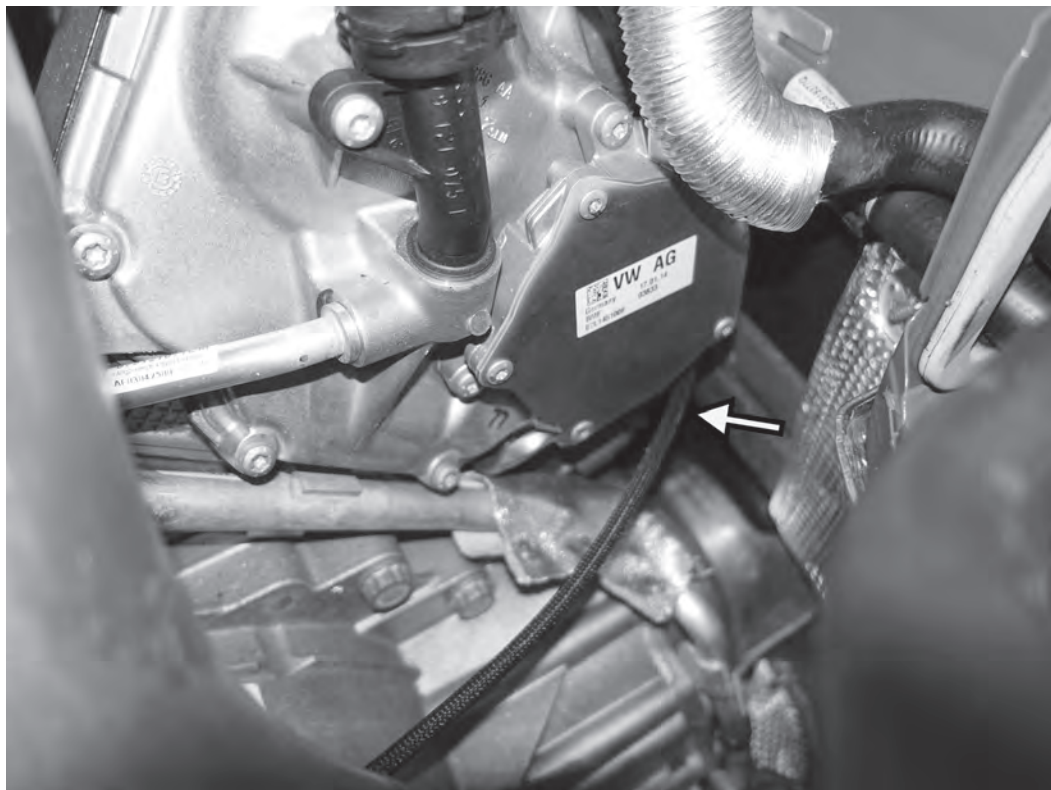


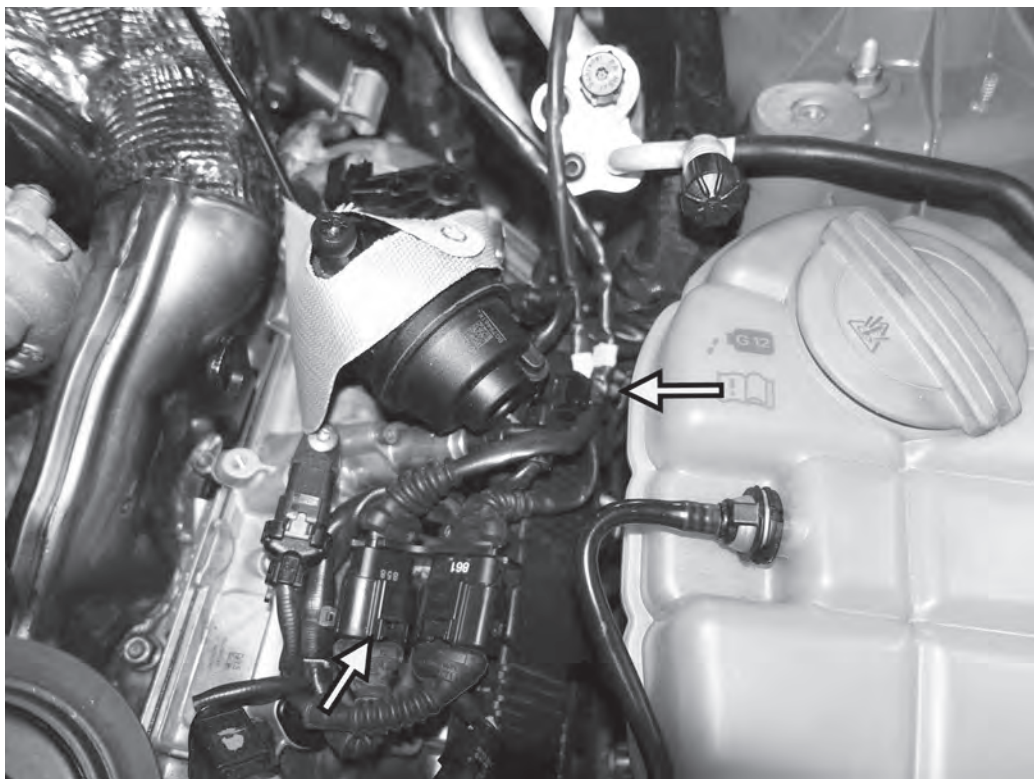
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25) Both right oxygen sensor harnesses are connected in a clip, separate the rear harness from the clip and remove from the car.

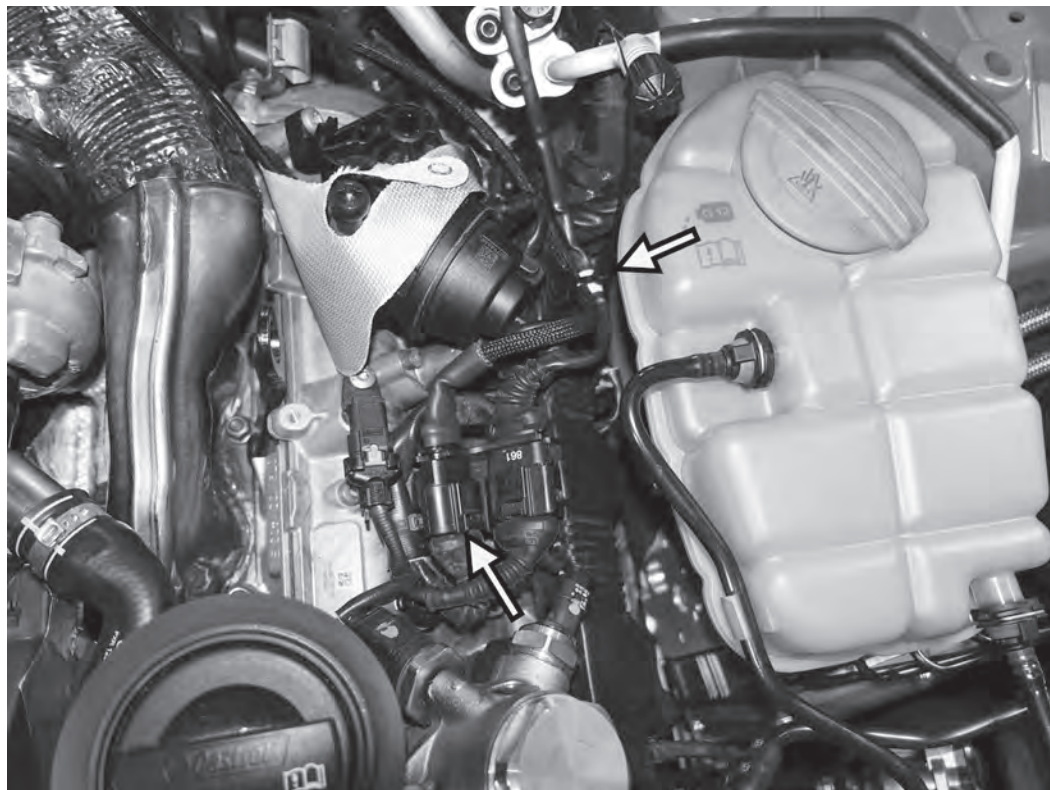
26) Connect the shorter APR harness with the brown connectors to the connection that the right rear oxygen sensor was connected to. Loosely route the APR harness to the left side of the car, over the transmission.

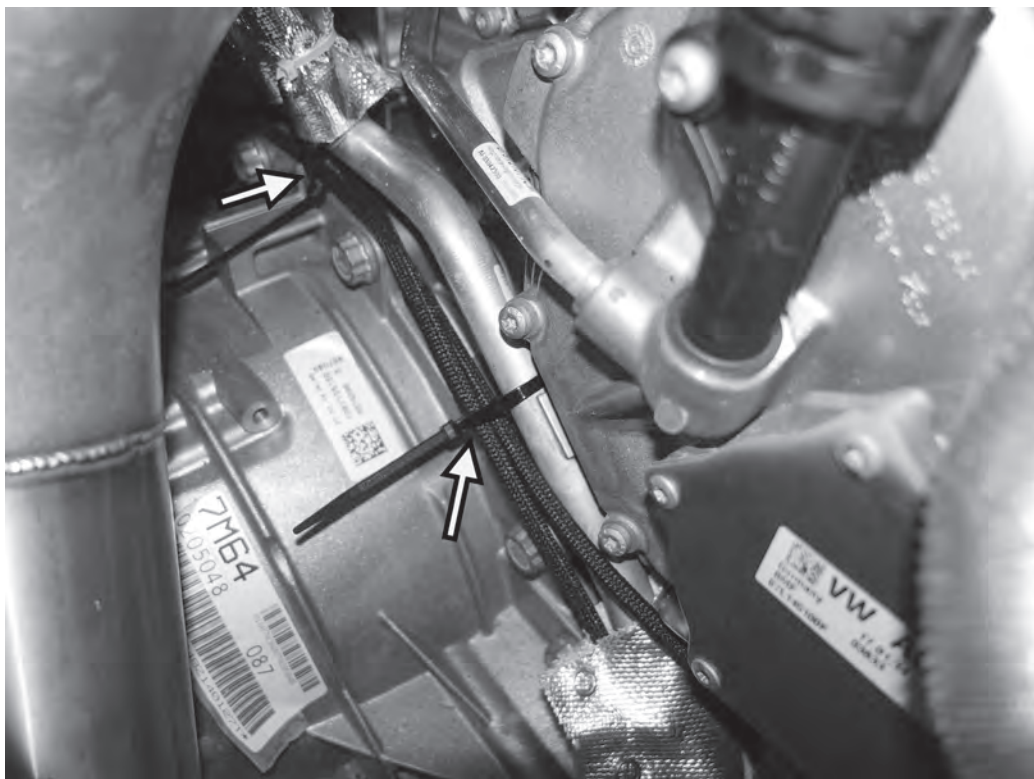




27) Trace the harness from what was the left rear oxygen sensor. This is technically the right engine bank secondary oxygen sensor, but after the catalyst with the stock downpipes, it is on the left side. The harness has a black connector on top of the left cylinder bank. The rear sensor is to the right of the two black connectors. Unplug the sensor, cut the cable tie connector holding the harness, and remove the sensor from the car.

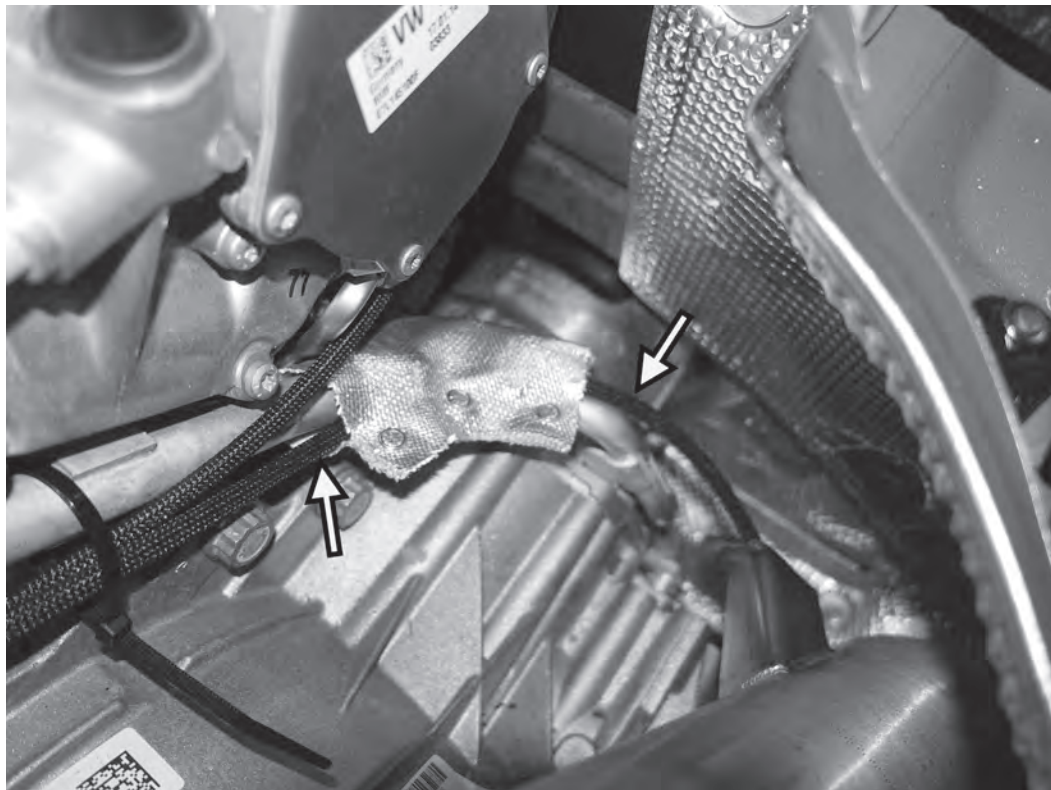
28) Install the longer APR extension harness with the black connectors to the connection that the left rear oxygen sensor was connected to. Replace the cable tie in the harness clip that was previously cut, and secure the cable. Loosely route the APR harness down and to the right side of the car, over the transmission.



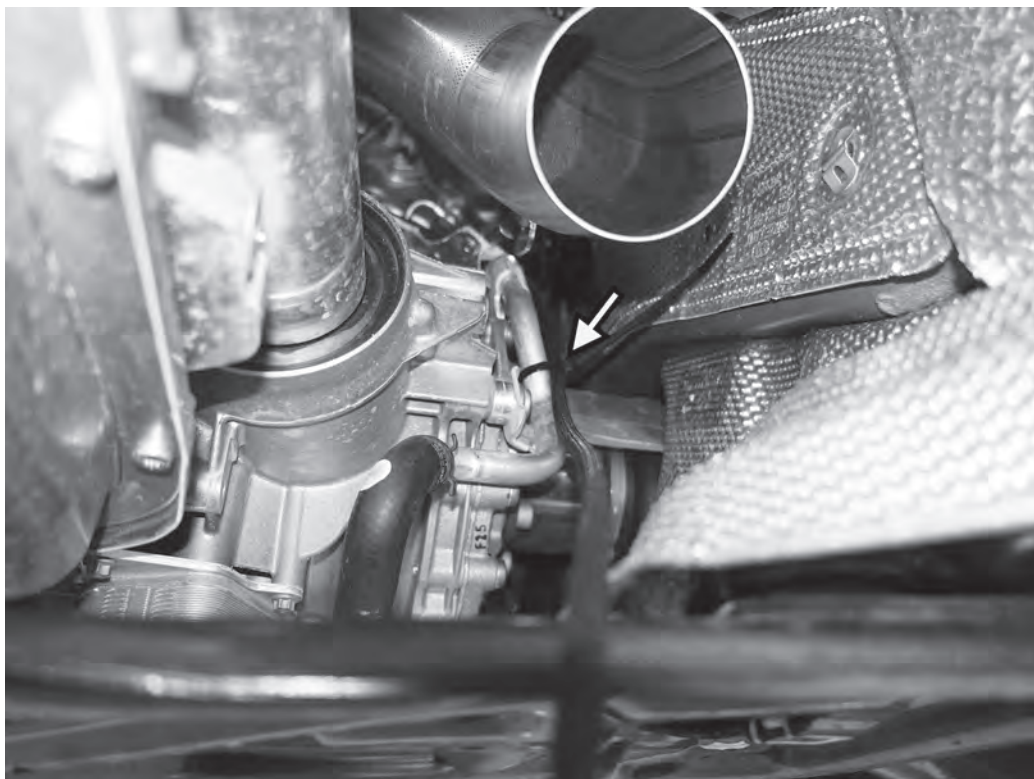


29) Secure both APR extension harnesses (the left one going to the right and the right one going to the left) to the coolant pipe that runs over the top of the transmission.

30) Unsnap the cloth heat shield on the right side of the top of the transmission, and route the left APR extension harness down along the coolant pipe. Secure the APR harness to the coolant pipe by reconnecting the cloth heat shield.

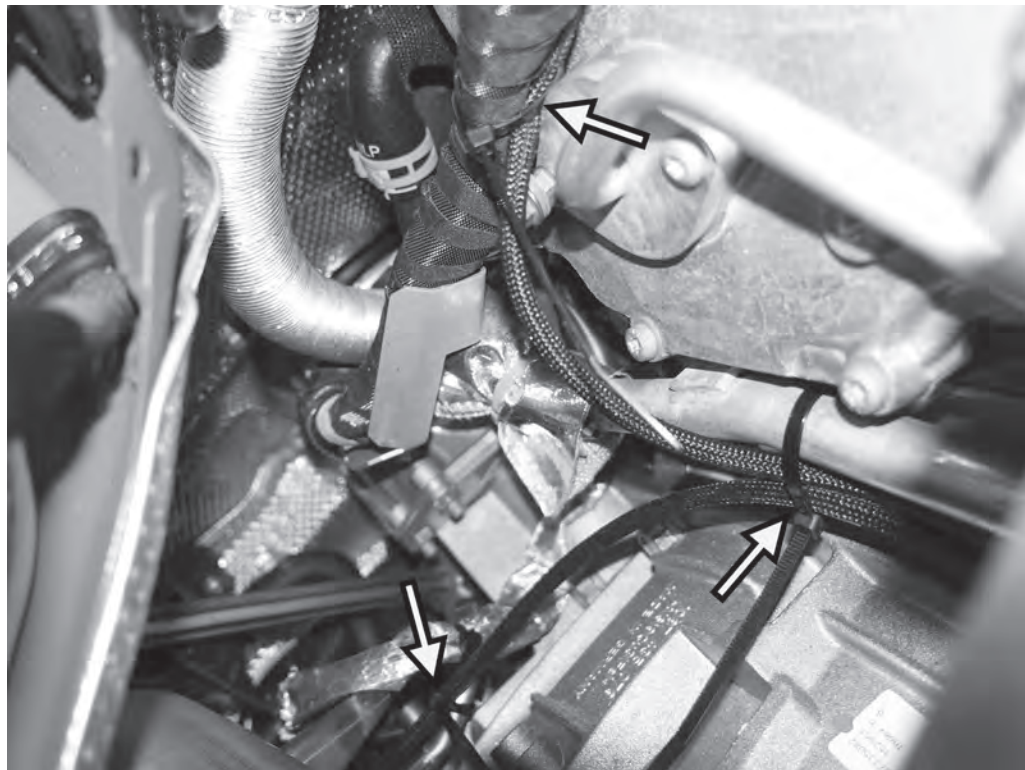


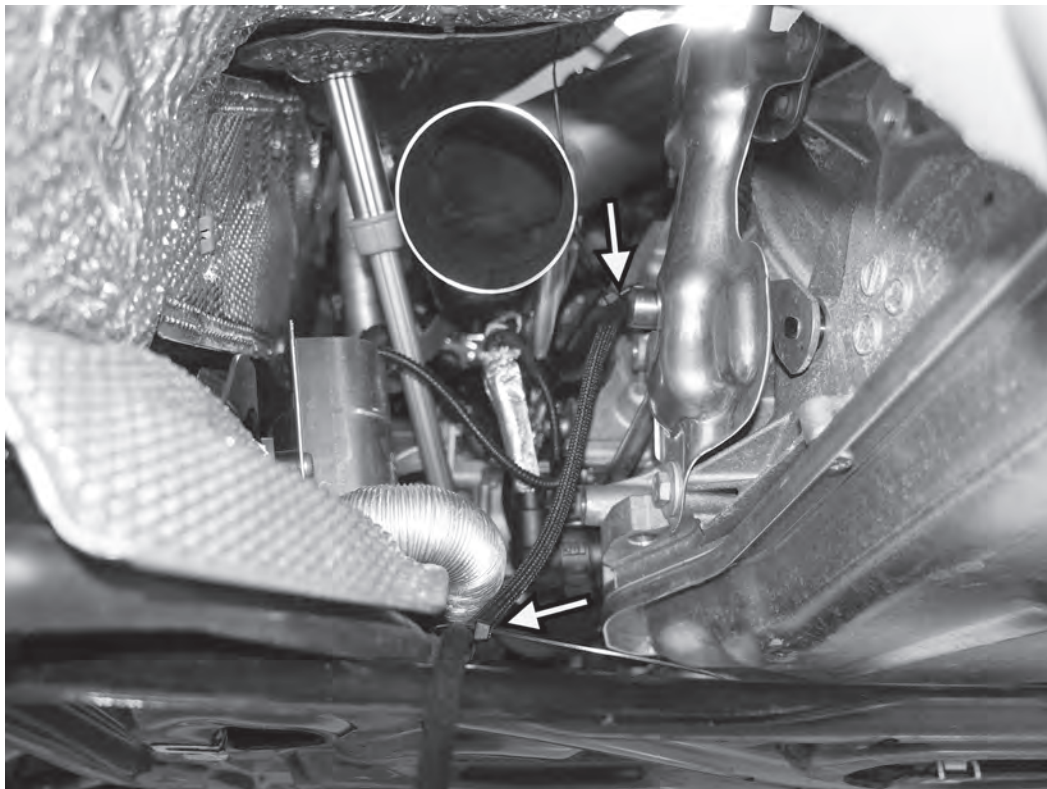
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31) Continue to route the left APR harness down the right side of the transmission to the back of the sub-frame, securing the harness with cable ties.

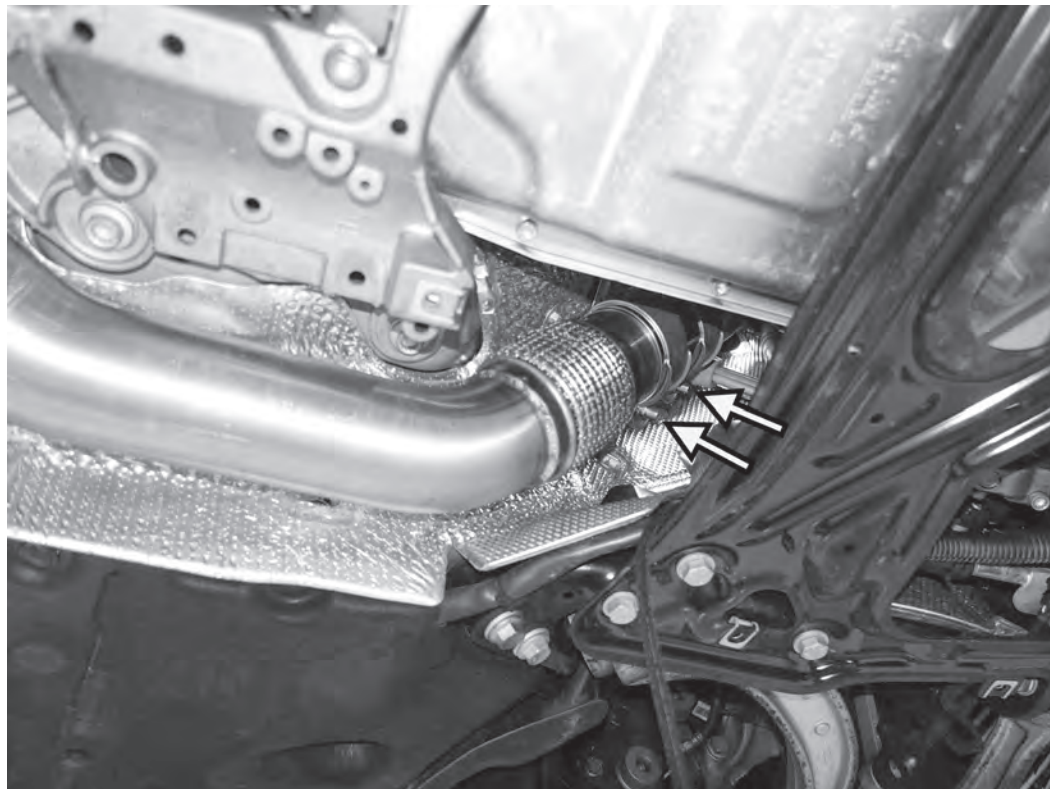
32) On the left side on top of the transmission, secure the left APR harness to the large factory harness on the back of the left cylinder head. Secure the right extension harness to the pipe on the left side of the transmission.



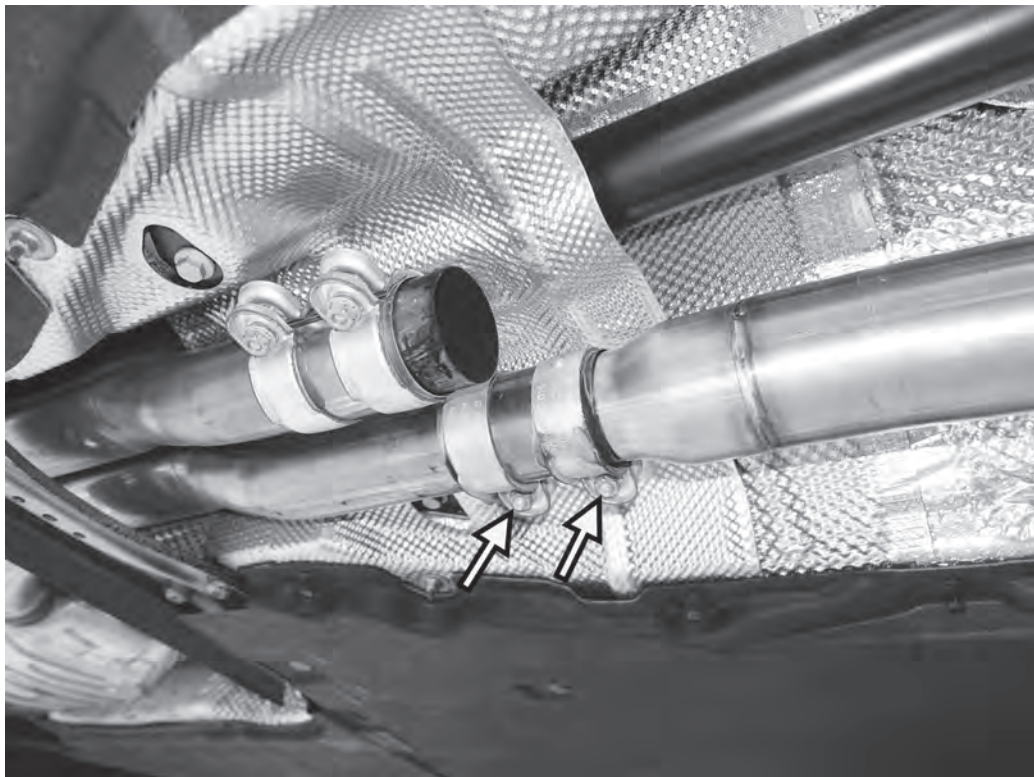


33) Continue to route the right APR harness down the left side of the transmission to the back of the sub-frame, securing the harness with cable ties.

34) Slide the supplied APR exhaust sleeve clamp on the APR downpipe, making sure you can access the two 13mm tightening bolts. With an assistant, place the midpipe in the car, so that it sits about 3/4" away from the downpipe. Slide the APR sleeve clamp down over the downpipe and loosely tighten in place.



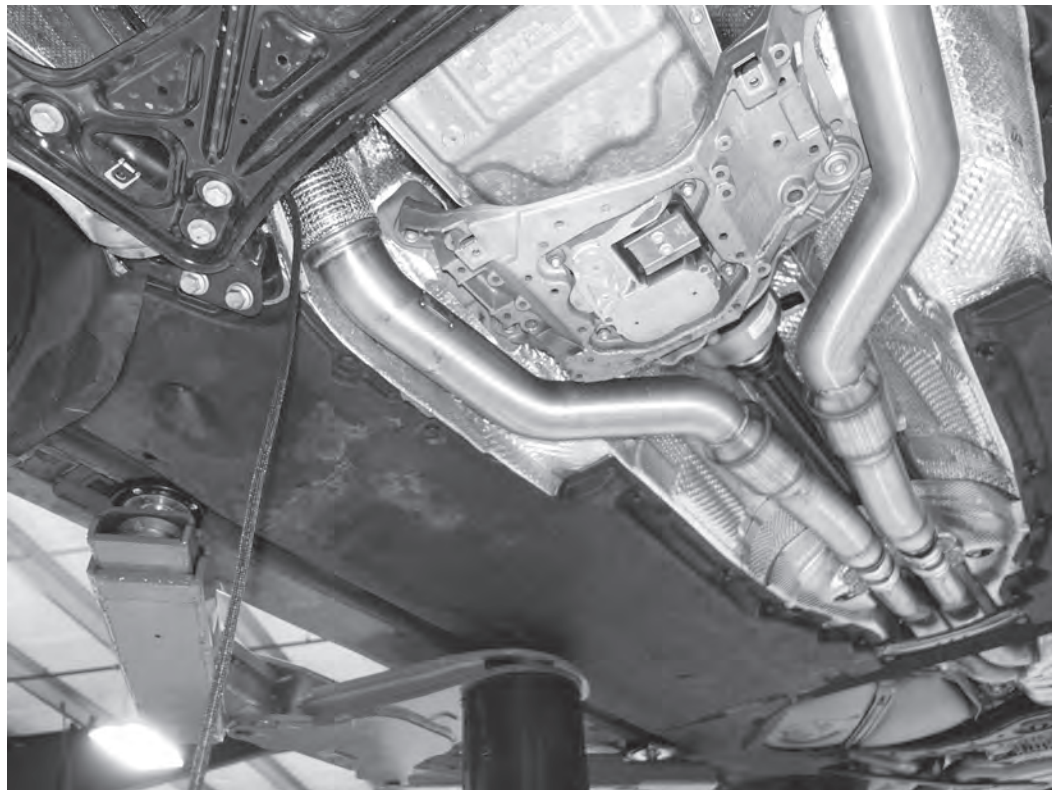
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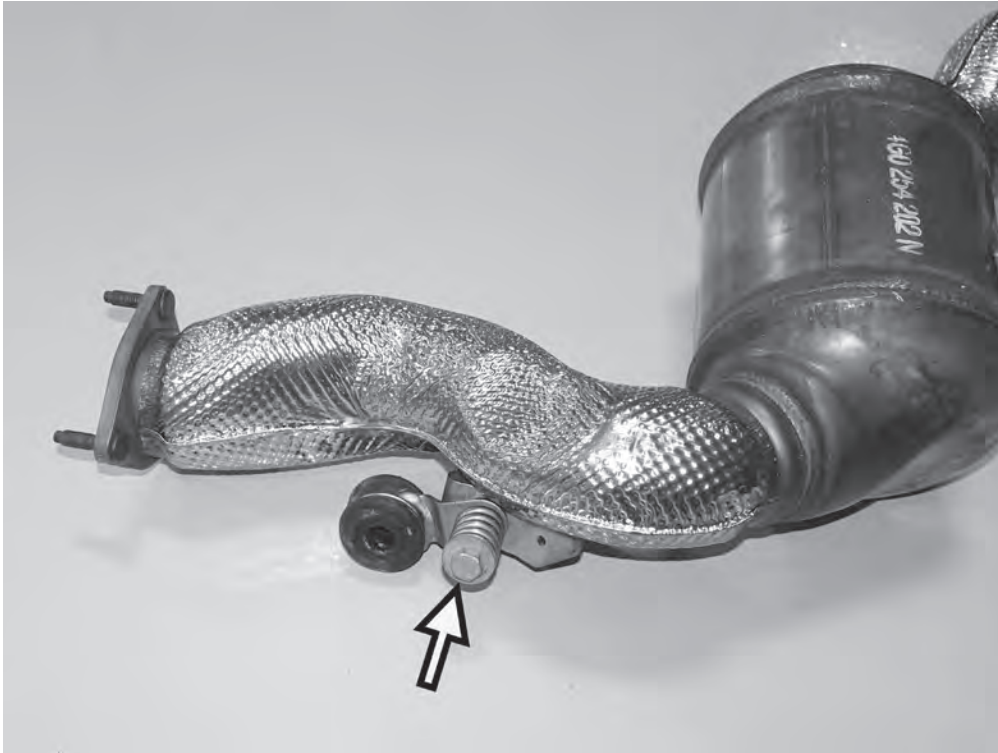
35) Place the rear of the midpipe into the stock catback system, and slide the stock sleeve clamp over the end of the APR downpipe. Loosely tighten the sleeve clamp in place.

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36) Install the left APR midpipe in the car, and loosely secure with the two sleeve clamps.

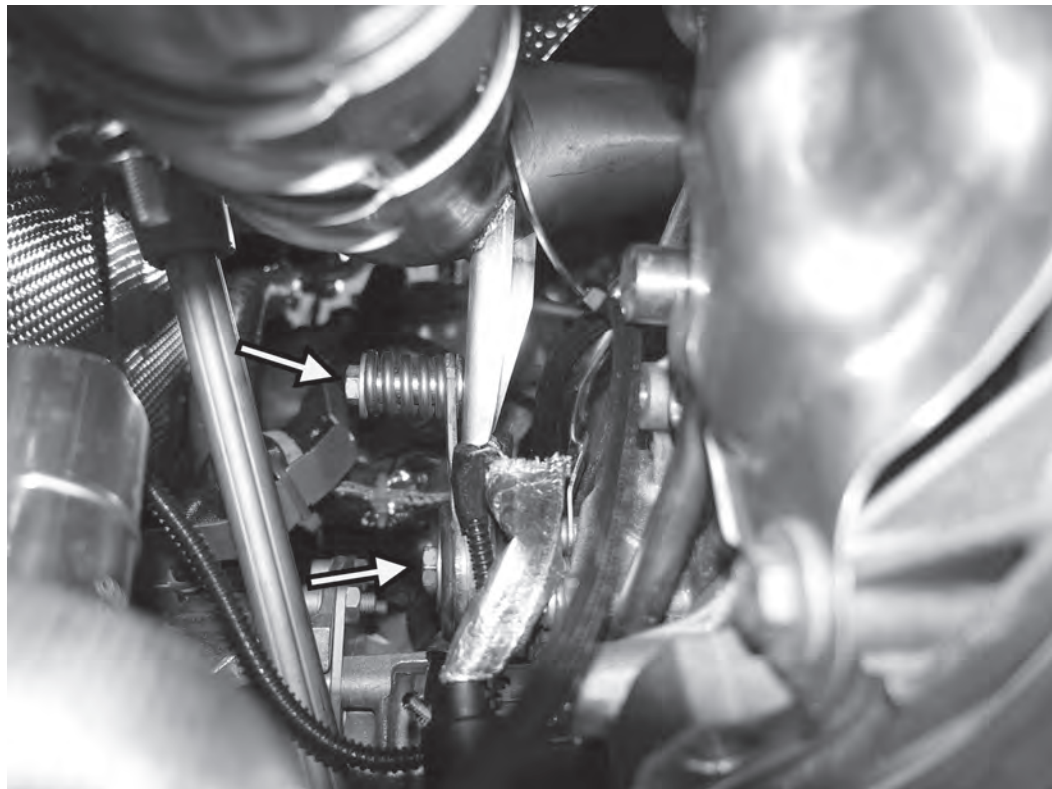


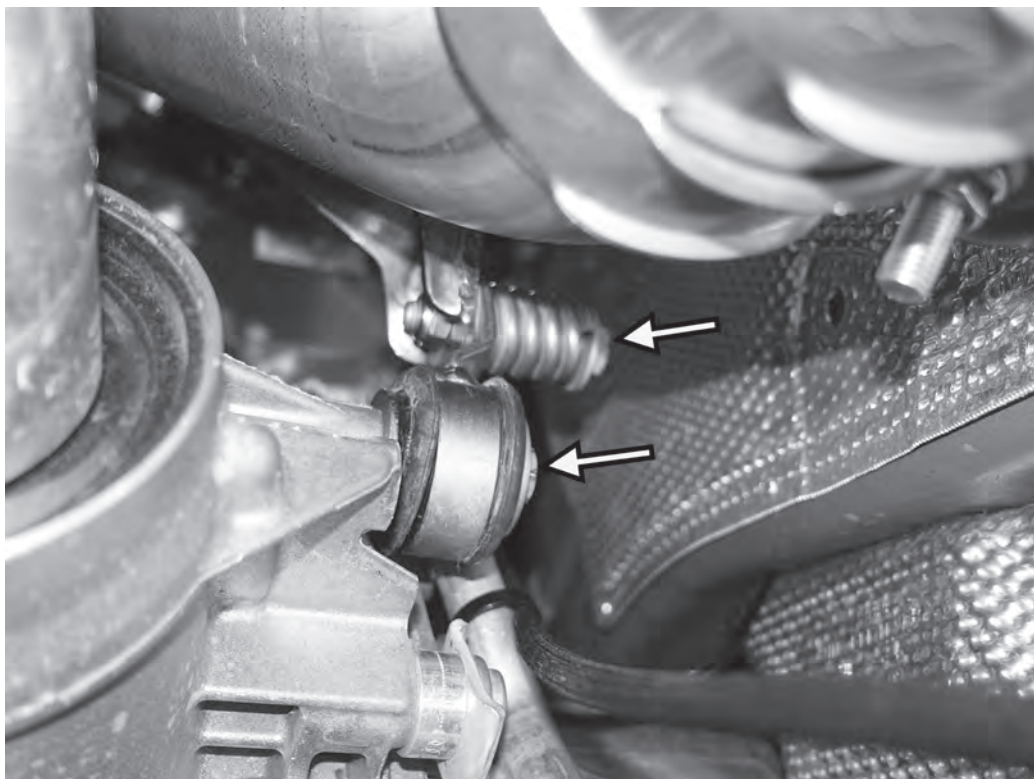
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37) Remove the 13mm bolts holding the spring clamp and bracket to both downpipe brackets. Note that the right bracket is shaped differently from the flat, left bracket.

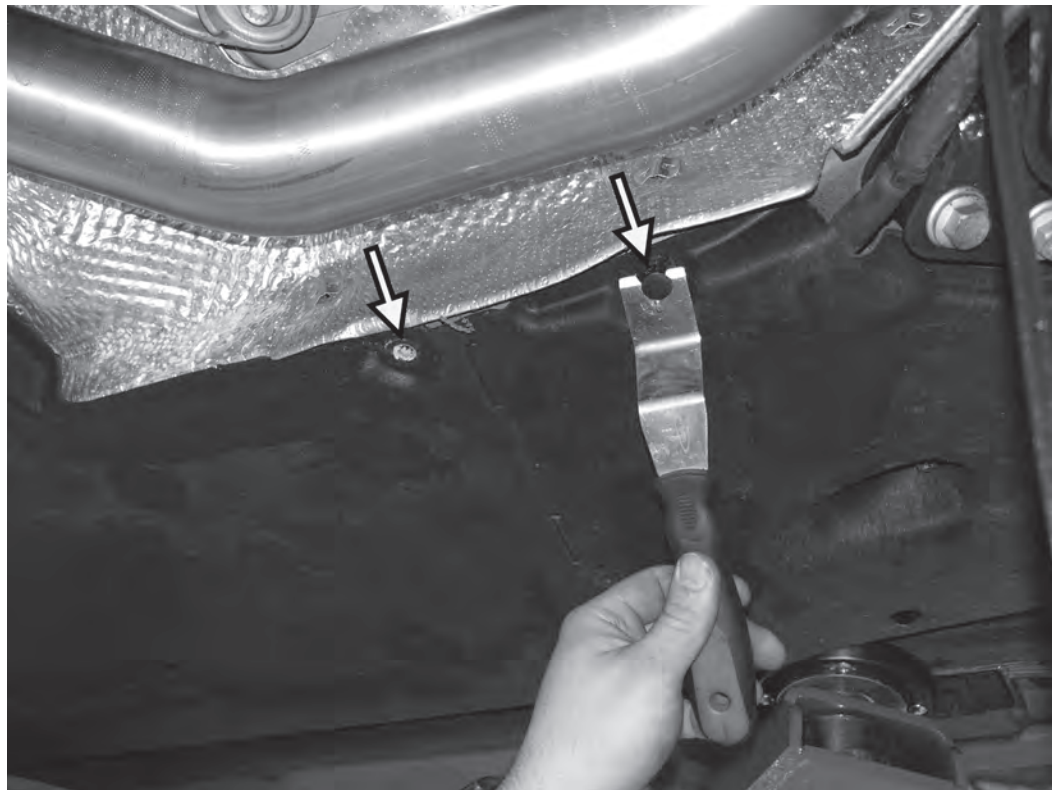
38) Install the flat, left downpipe bracket to the left side of the transmission with the original 13mm bolts. Connect the spring and spring bolt to the APR downpipe bracket using the supplied 13mm locknut. Torque both of these bolts to 23Nm (204 in-lb).



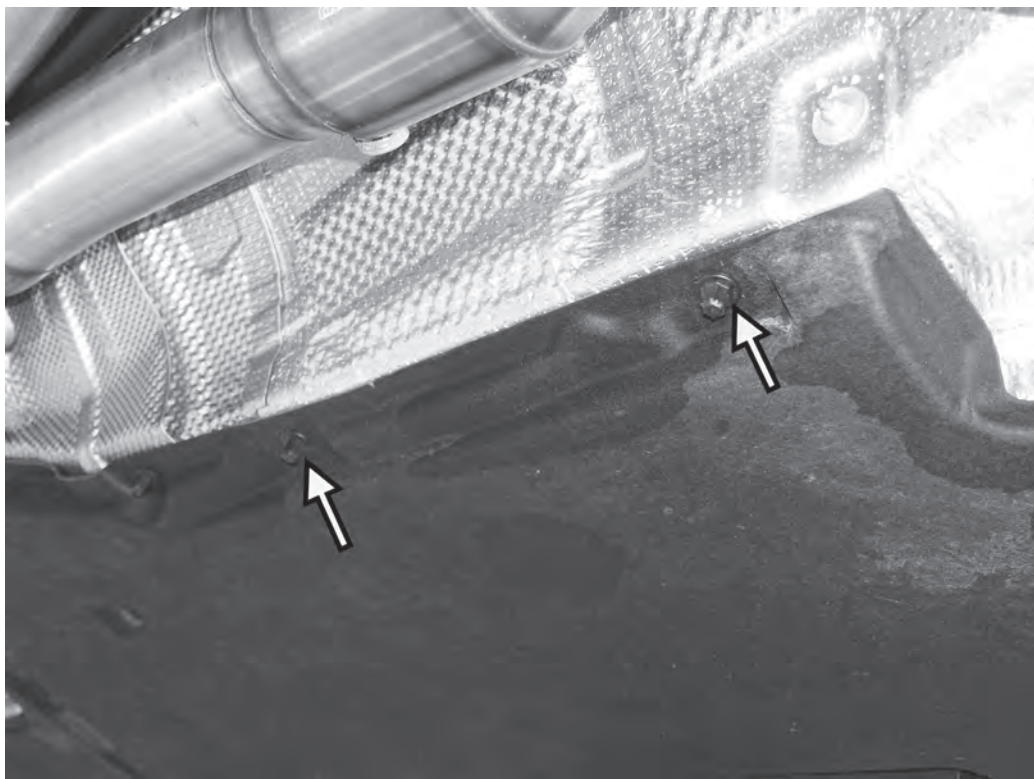


39) Install the right downpipe bracket to the right side of the transmission with the original 13mm bolts. Connect the spring and spring bolt to the APR downpipe bracket using the supplied 13mm locknut. Torque both of these bolts to 23Nm (204 in-lb). The four sleeve clamps on the mid-pipes can now all be firmly tightened.

40) Remove the four (two on each side) pin clips holding the underbody panels next to the APR midpipes.

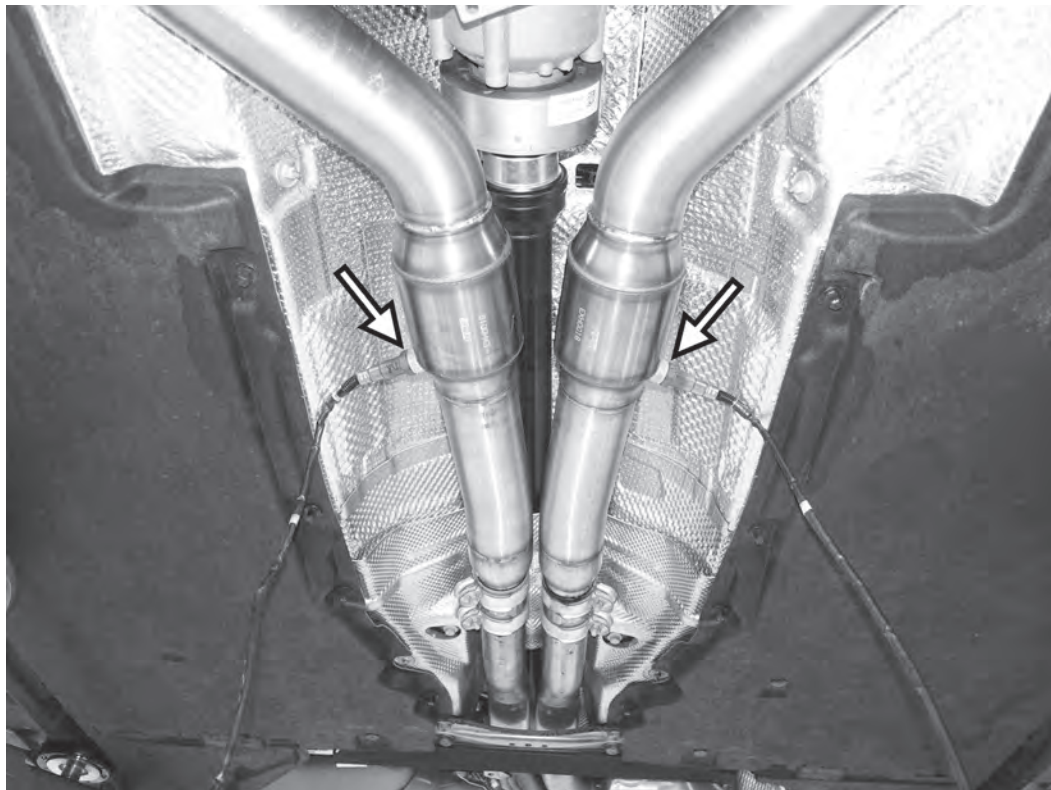


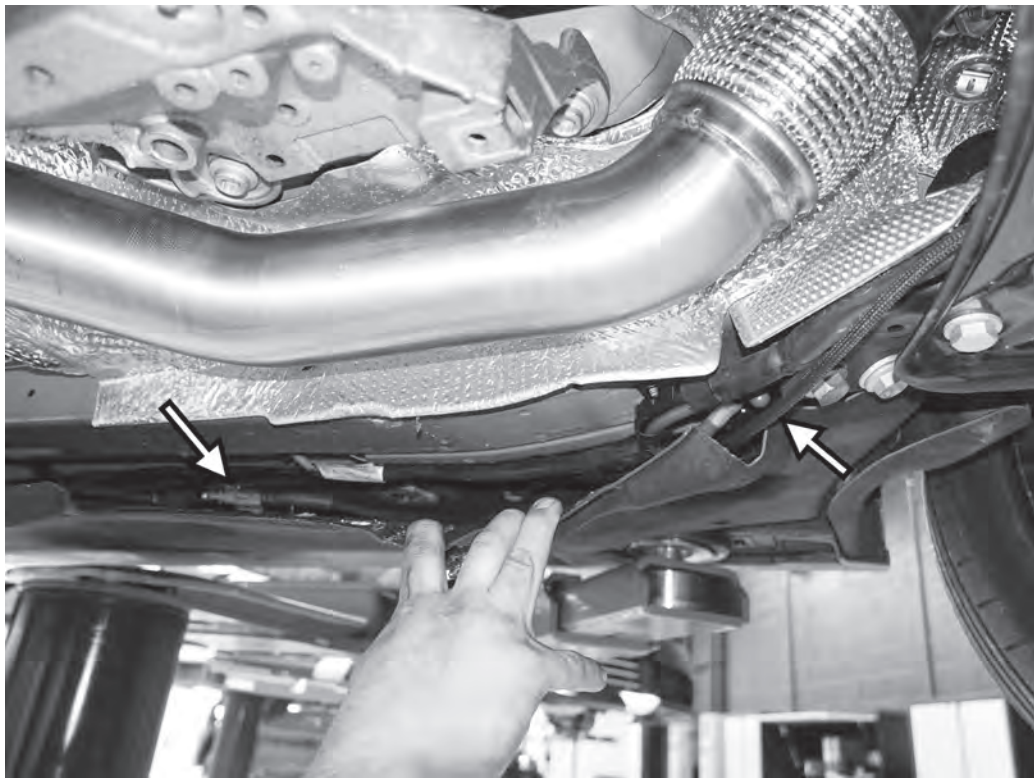
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41) Remove the four (two on each side) 10mm plastic nuts holding the underbody panels in place.

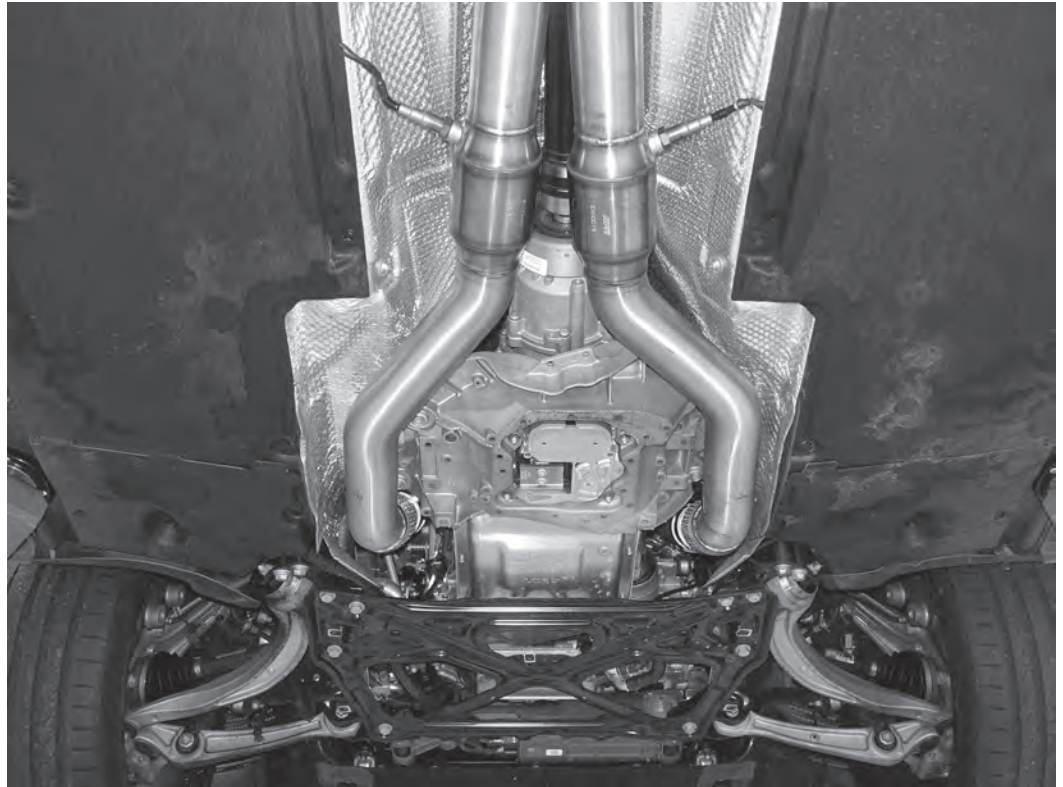
42) Install the two removed oxygen sensors in the APR midpipes. Recall that the sensor with the brown connector should now be on the left, and the sensor with the black connector should be on the right. Connect the appropriate APR extension harness into each oxygen sensor harness.



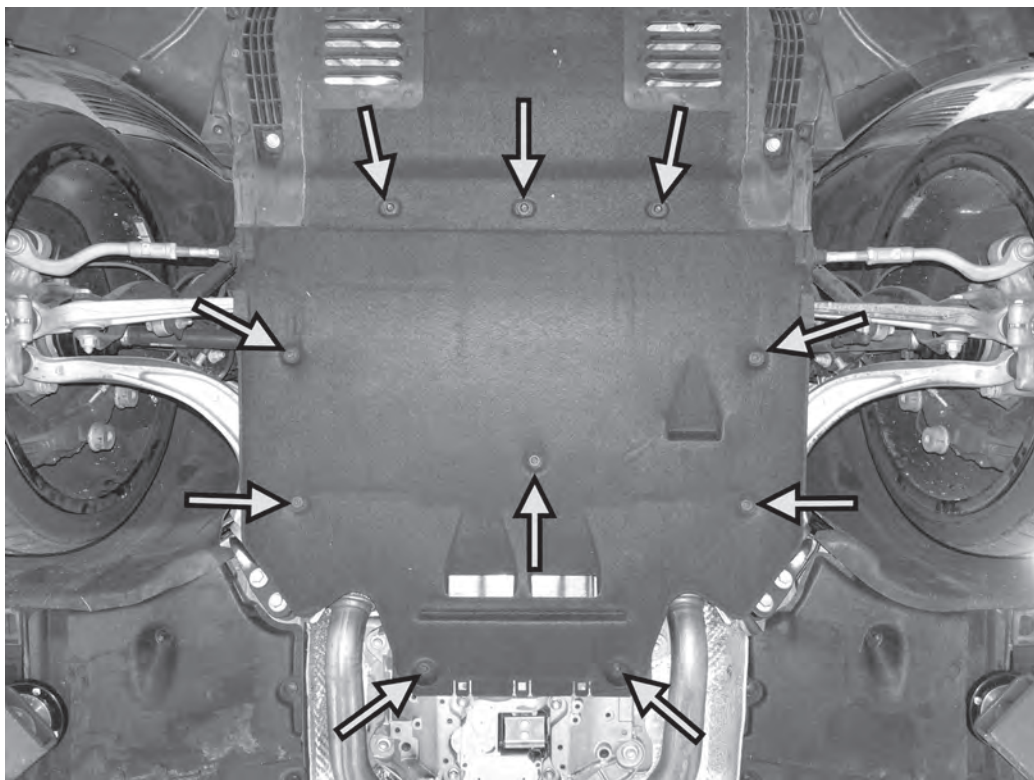


43) Pull down the underbody panels and route the oxygen sensor harnesses with the extensions on the outside of the frame rail, where other harnesses and hoses are routed.

44) Tighten the four 10mm nuts on the underbody panels, and reinstall the four pin clips.

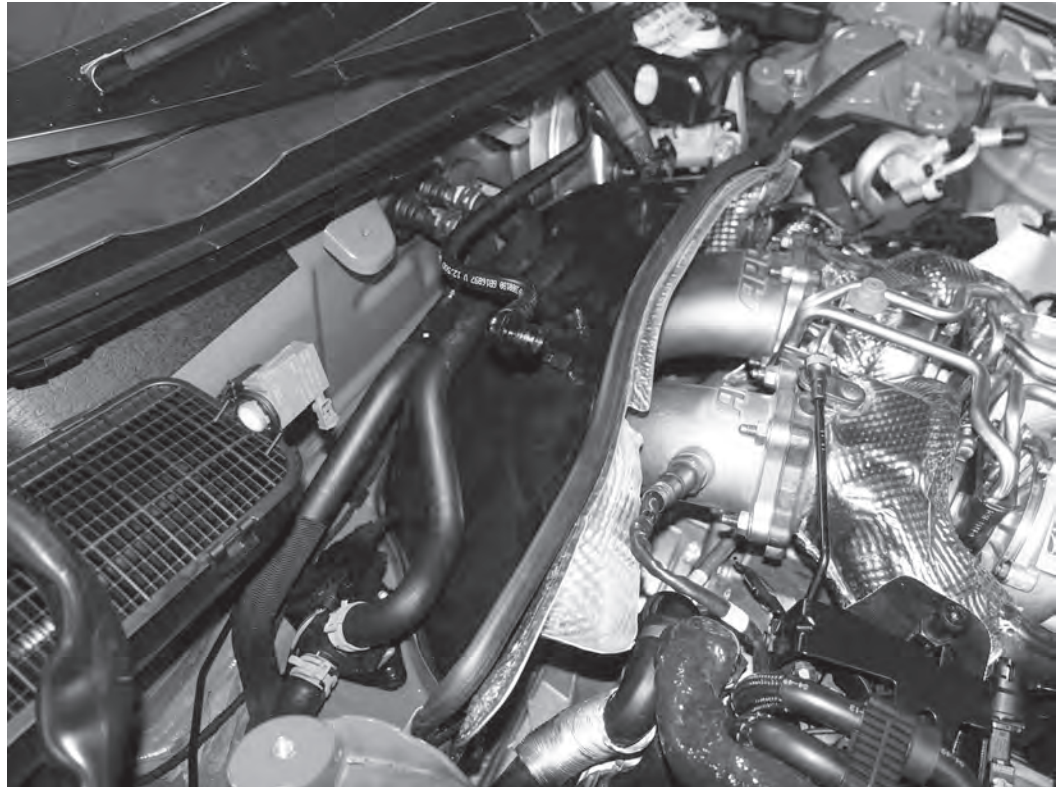


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45) Install the middle underbody belly pan on the car with the three front T30 screws. Install the seven quarter turn fasteners on the middle belly pan.

46) Place the bulkhead back in the car, ensuring the bottom of the bulkhead sits in its original location, sealing the firewall.

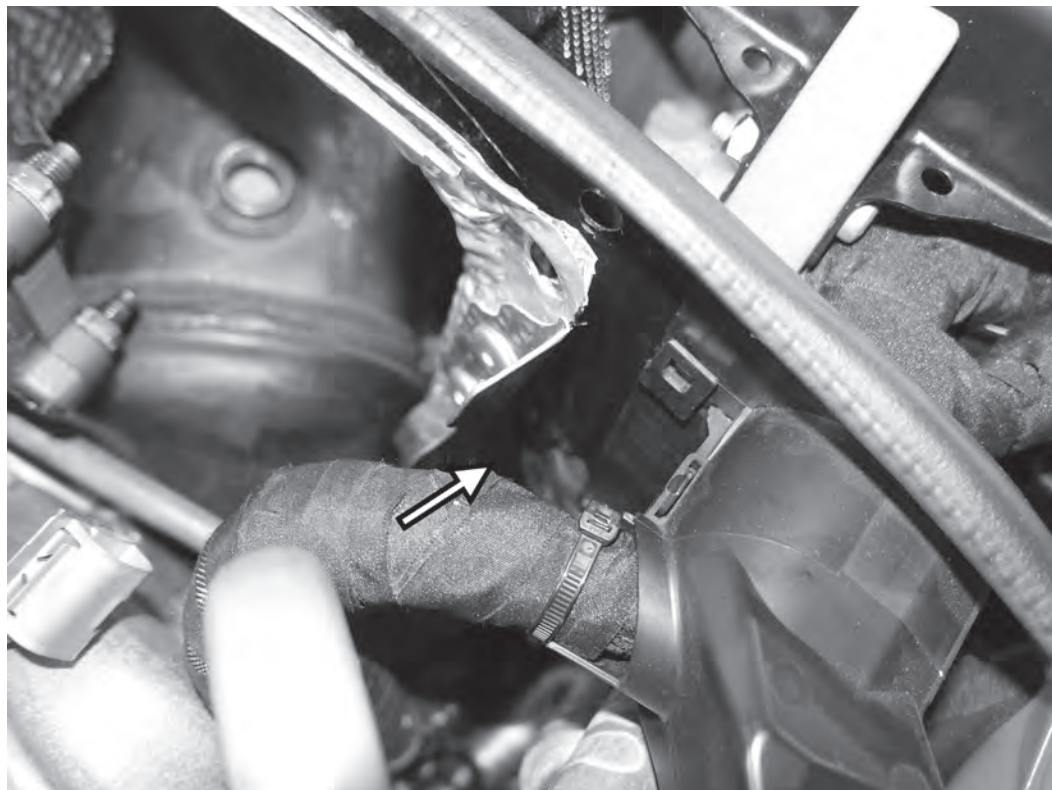


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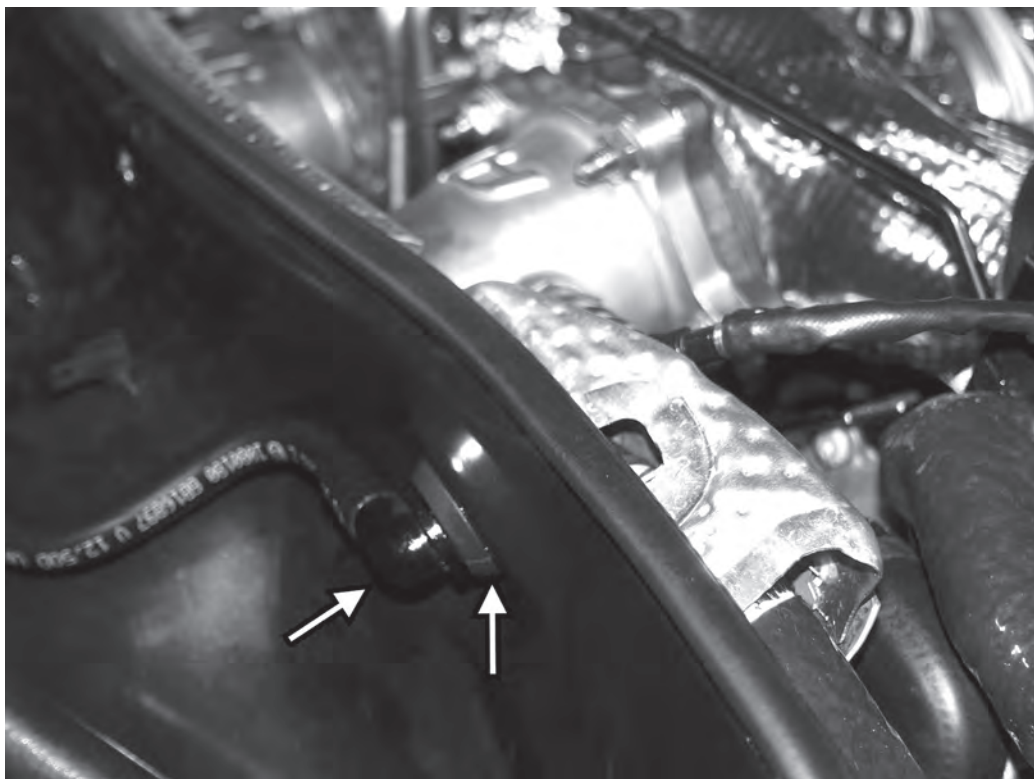


47) Secure the bulkhead with the 10mm nut located under the right side of the front bulkhead heat shield. Once installed, bend the heat shield back and reinstall the metal clip over the threaded stud.

48) Reinstall the T25 screw under the heat shielding on the right side of the bulkhead.

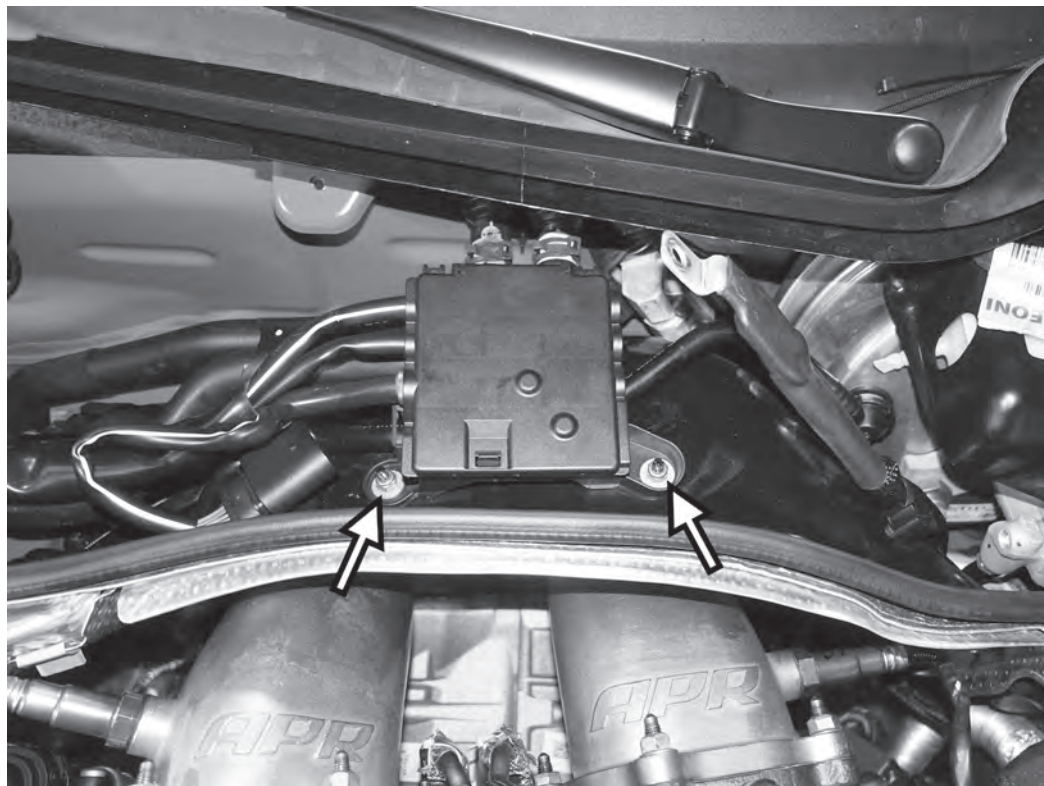


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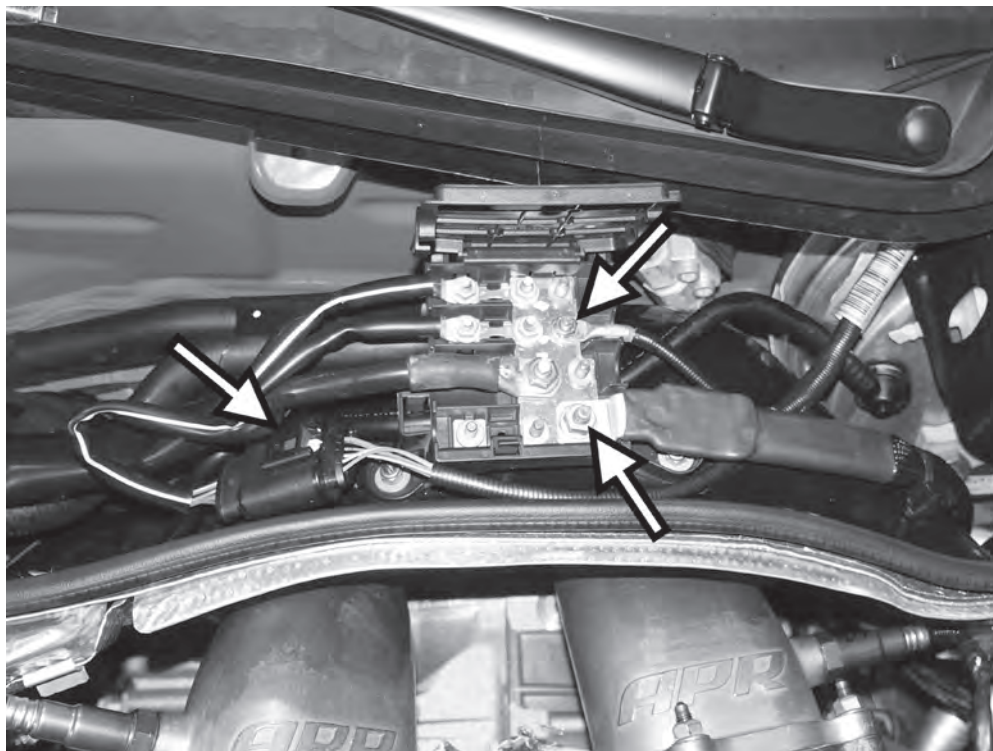


49) Reinstall the rubber fitting from the vacuum line in the front of the bulkhead. Once installed, push the plastic barbed fitting to the brake booster line into the rubber fitting from the back side of the bulkhead.

50) Install the two 10mm nuts holding the electrical junction box to the top of the bulkhead. Reclip any harnesses to the bulkhead.

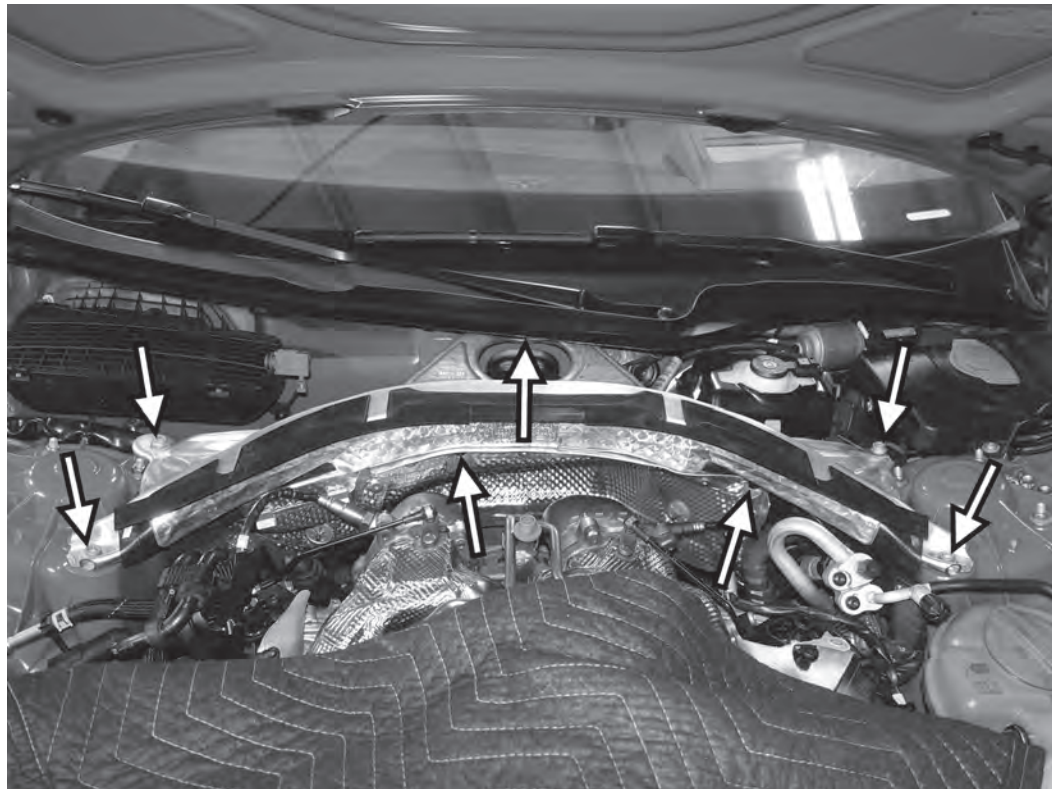


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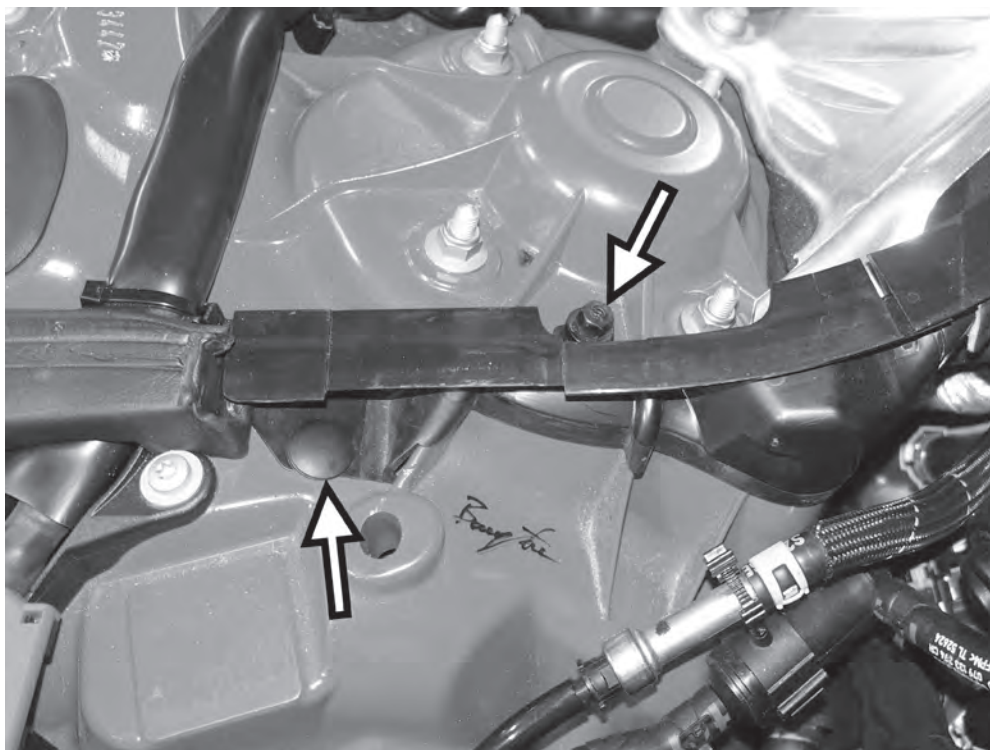


51) Reconnect the two ground straps to the junction box. Secure with the original 10mm and 13mm nuts. Reconnect the wiring harness to the electrical connector to the right of the junction box.

52) Reinstall the stamped strut tower brace. Reinstall any attached brackets, and secure to the car with the five 10mm triple square bolts. Torque these bolts to 20Nm (177 in-lbs). Finally, install the two T25 screws holding the bulkhead to the strut brace.

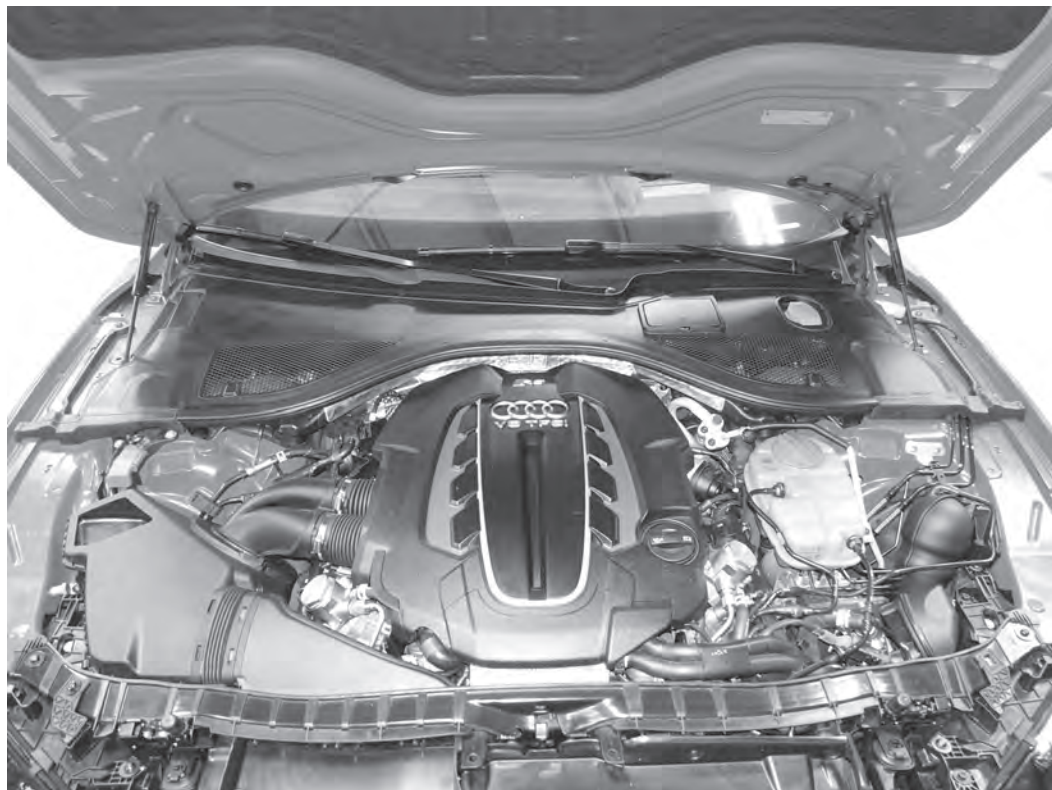


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53) Install the rain tray weatherstripping supports on both sides of the bulkhead. Secure with the the plastic pushclip and 10mm plastic nut.

54) Reinstall the rain tray and weatherstripping, and reinstall the engine cover.



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55) Reinstall the negative battery terminal, and secure with the 10mm nut.

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INSTALLATION INSTRUCTIONS