

D350-0001



DINAN

CHARGE PIPE; G2x/G4x/A9x; B58D

INSTALLATION

2022-2025	BMW G42 M240i & xDrive
2020-2024	BMW G20 M340i & xDrive
2021-2024	BMW G22 M440i & xDrive Coupe
2021-2024	BMW G23 M440i & xDrive Convertible
2022-2024	BMW G26 M440i & xDrive Gran Coupe
2020-2025	BMW G29 Z4 M40i
2020-2025	Toyota GR Supra 3.0

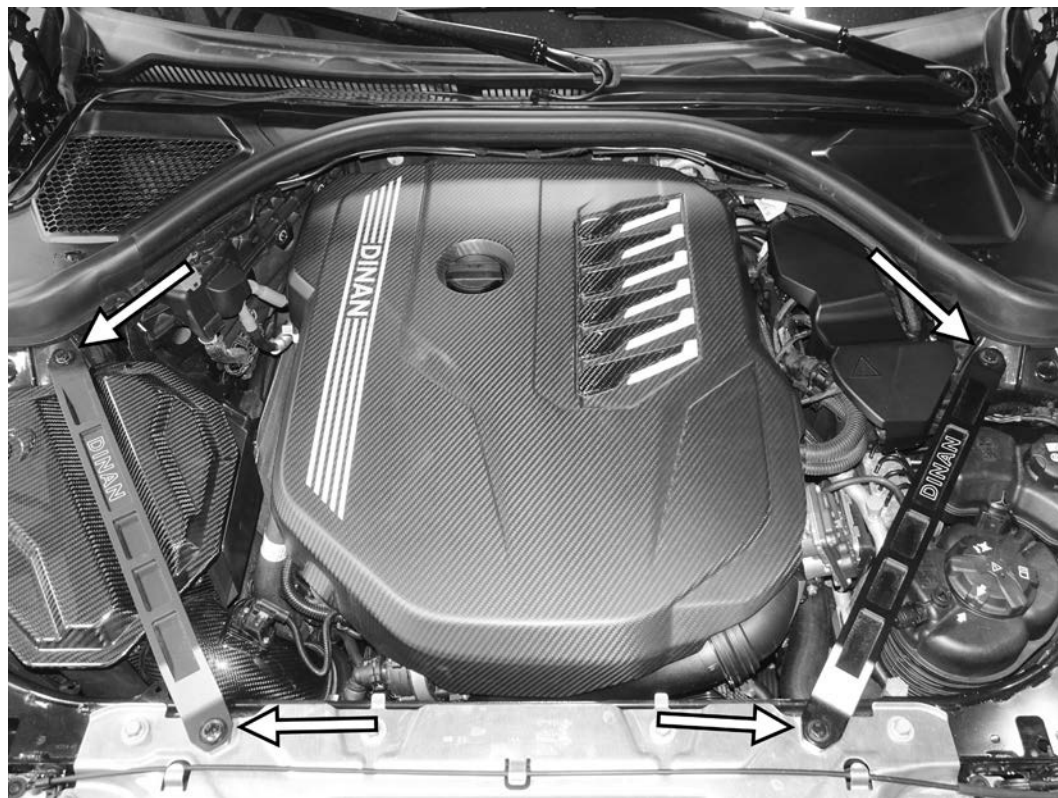
Notes:

These instructions were written on a North American specification 2022 G42 M240i, but other models 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. If a fastener is listed with an additional tightening sequence (such as an angle after a torque specification), it is a torque-to-yield fastener and is recommended to be replaced.

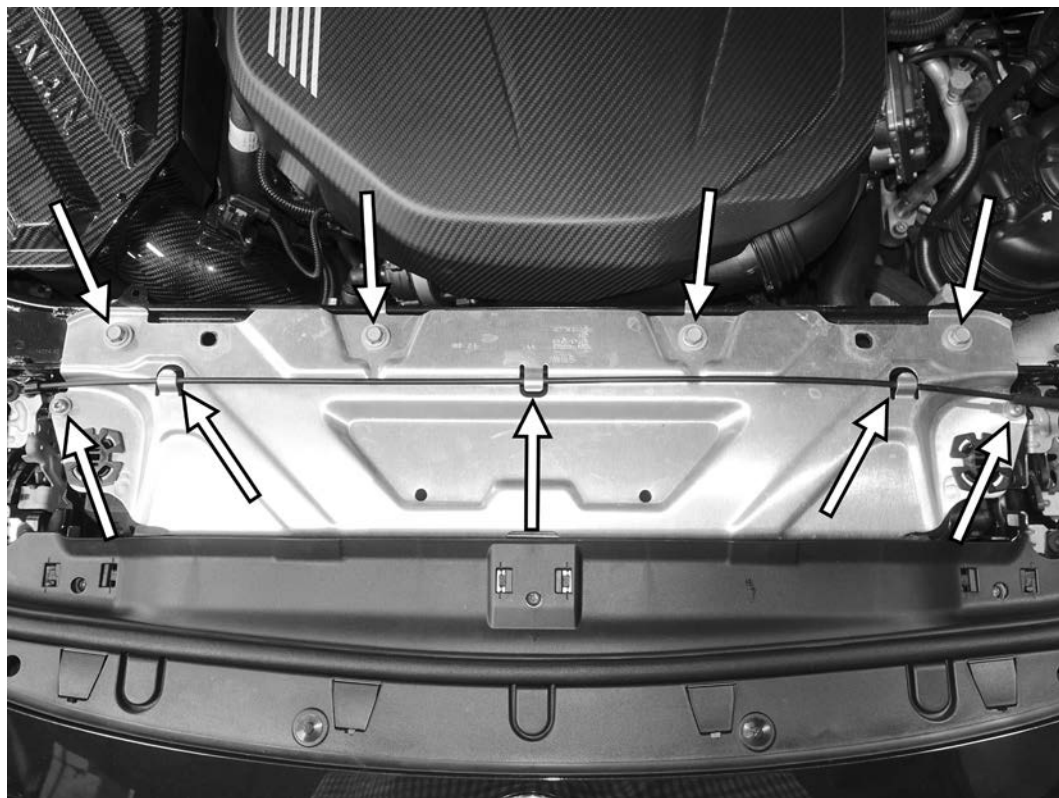
All directions used in this manual (right, left, front, etc.) are based on if you were sitting in the drivers seat of the car.

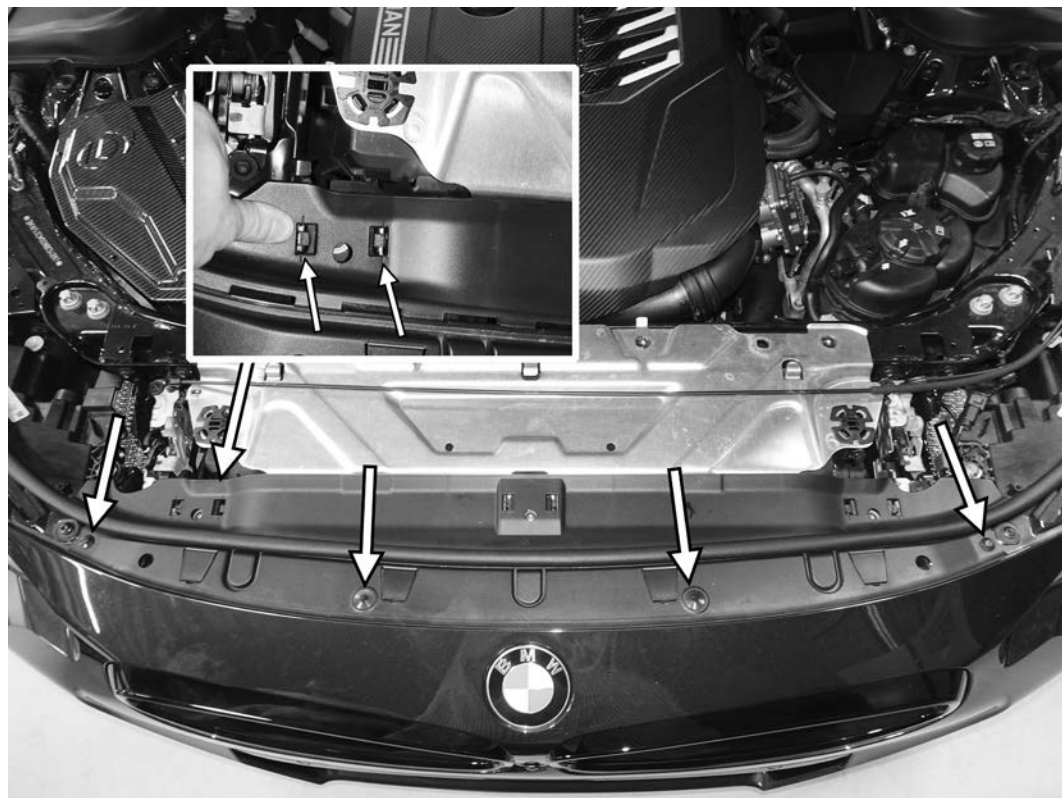
These instructions assume that you have basic mechanical skills and several varieties of basic hand tools in order to install the kit. If you have any questions about the install, feel free to contact your Dinan representative.



1) If equipped, remove the four 13mm screws and nuts holding the strut braces and remove the braces from the car. You will have to lift the front of the car to get the nuts inside the wheel wells on the bottom side of the strut towers.

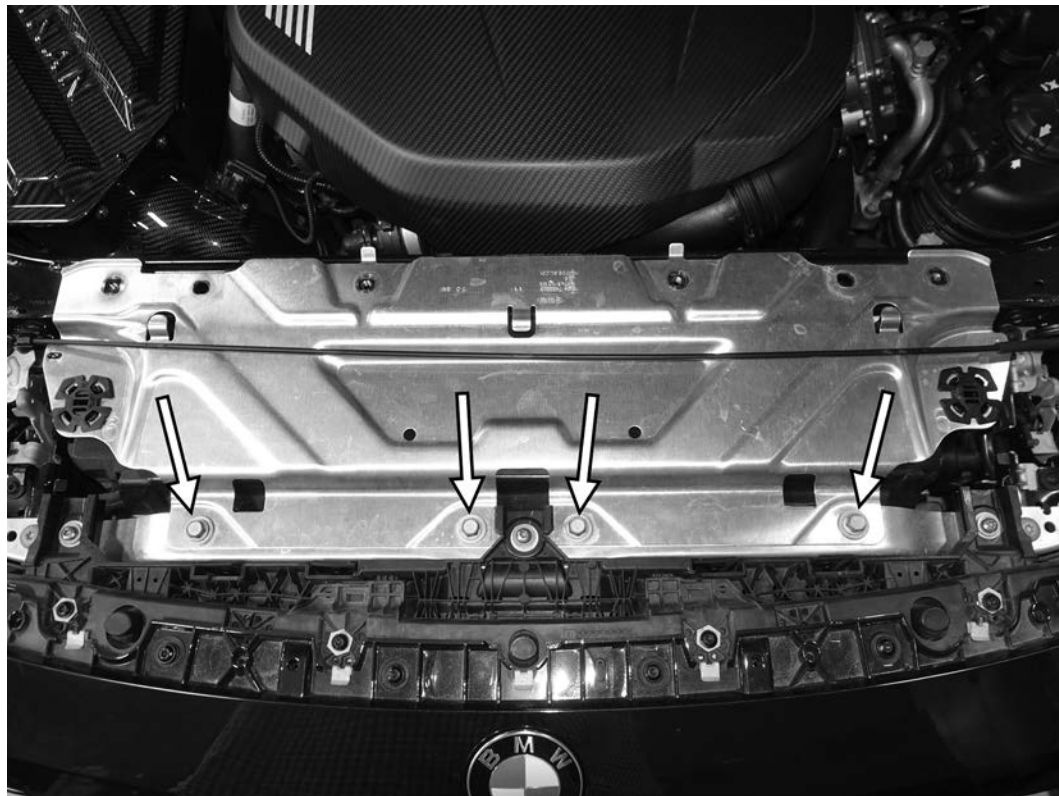
2) Remove the four 13mm screws from the metal upper cover over the radiators. Remove the two T30 screws on both sides of the upper cover. Finally, separate the right hood latch cable from the clips on the upper cover.

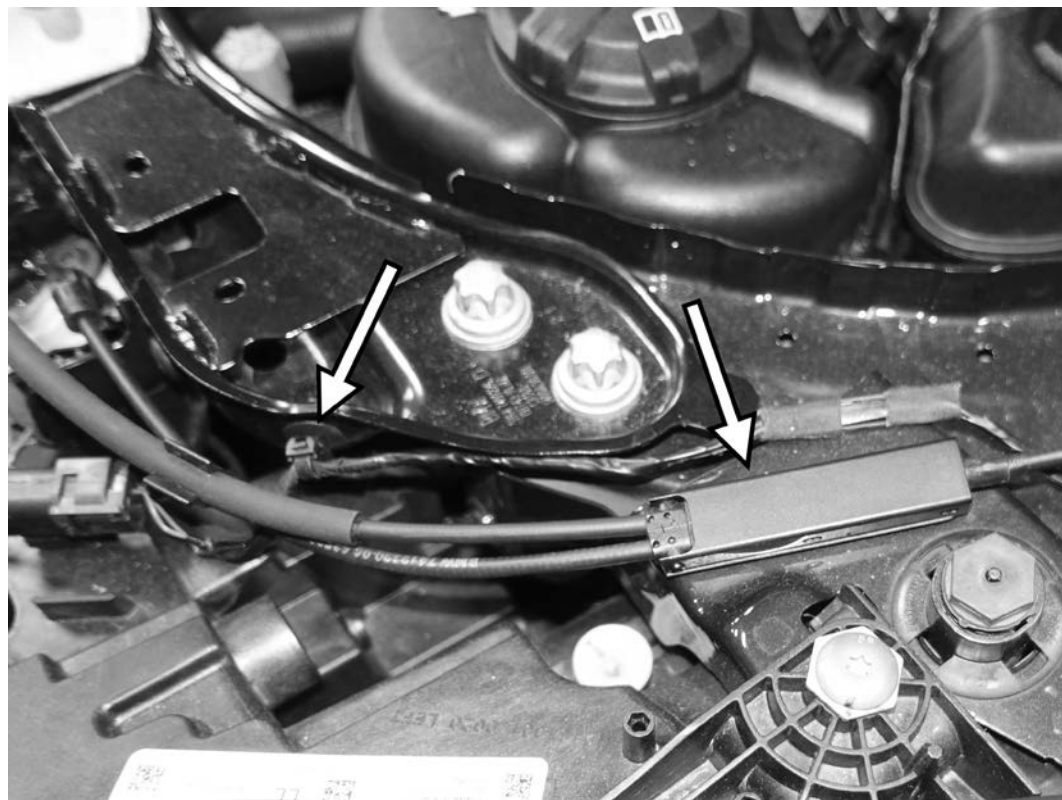




3) Remove four pushpin style connectors from the front of the plastic upper cover just above the metal upper cover. Separate the hood seal from the plastic cover and remove it from the car. Slide the plastic cover back and off of the clips shown in the slots on the cover, and remove the cover from the car.

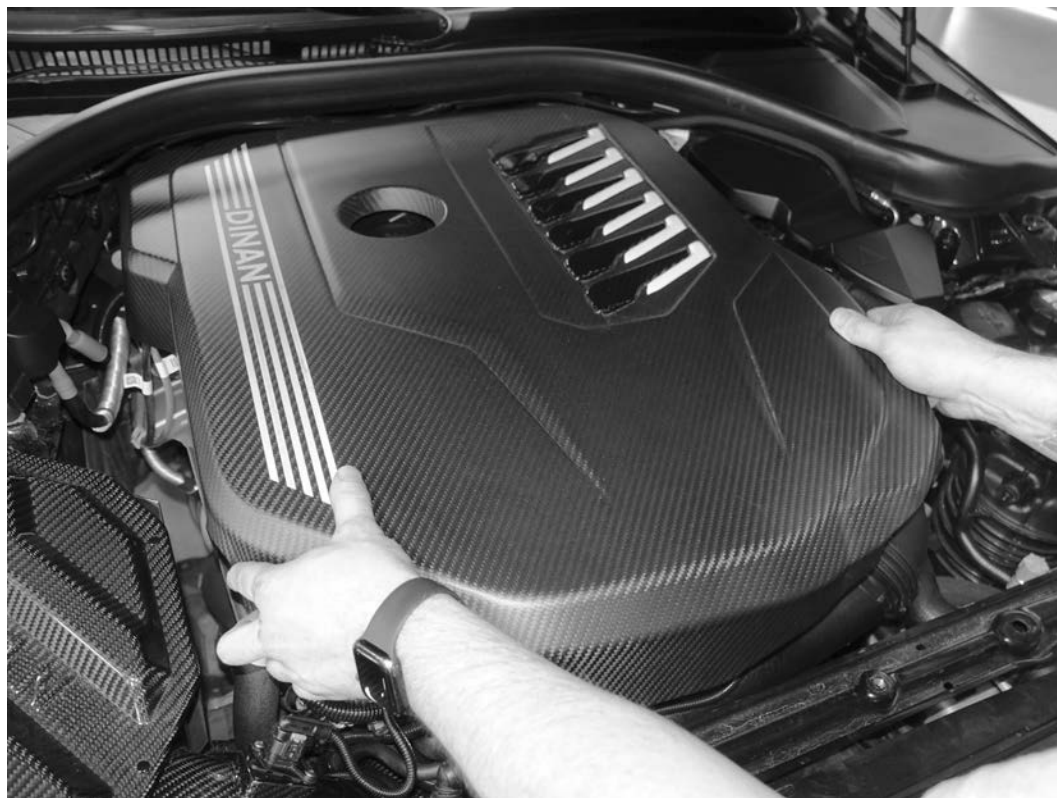
4) Remove the remaining four 13mm screws holding the metal upper cover that were exposed when the plastic cover was removed.





5) Separate the right hood latch cable from the clip on the left side near the upper metal cover. Pry the hood latch splitter from its mounting location on the left side. Remove the clip on the wiring harness that is attached to the front crossbrace.

6) Lift up all corners of the engine cover, and remove the engine cover from the car.

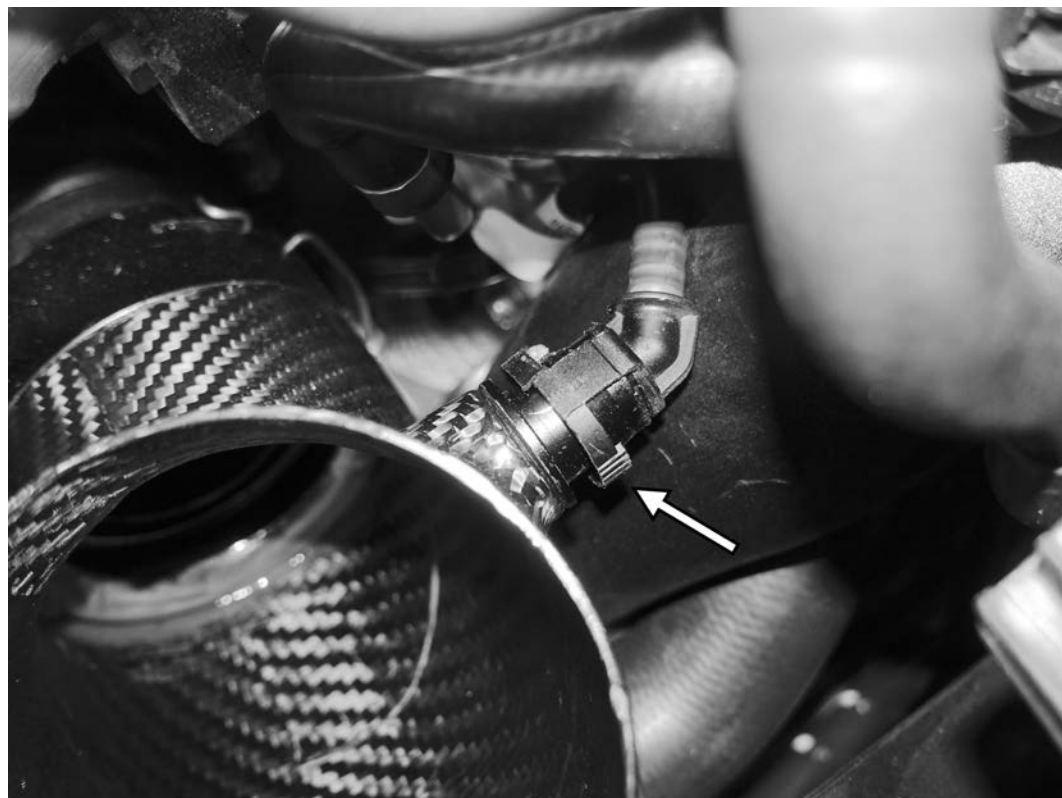




7) From the front crossbrace, remove the four E18 external torx screws from the top of the crossbrace. Remove the four T30 screws going into the front of the crossbrace. Separate the wiring harness clip located on top of the crossbrace, just to the right of center. Lift up and remove the crossbrace from the car.

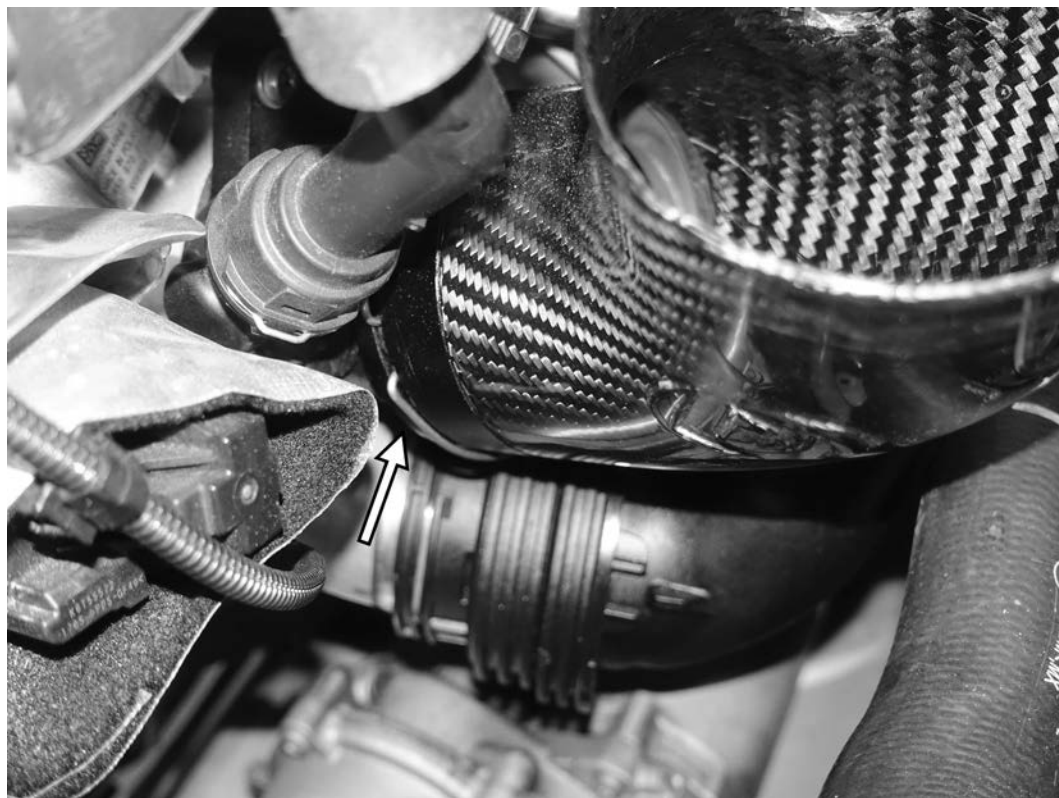
8) Lift up on the grey locking tab on the MAF sensor, and the press on the tab to disconnect the electrical connector to the sensor. Loosen the lower 7mm hose clamp holding the bottom side of the coupler between the airbox outlet to the turbo inlet tube. Lift the entire airbox assembly with the coupler attached up and out of the car.

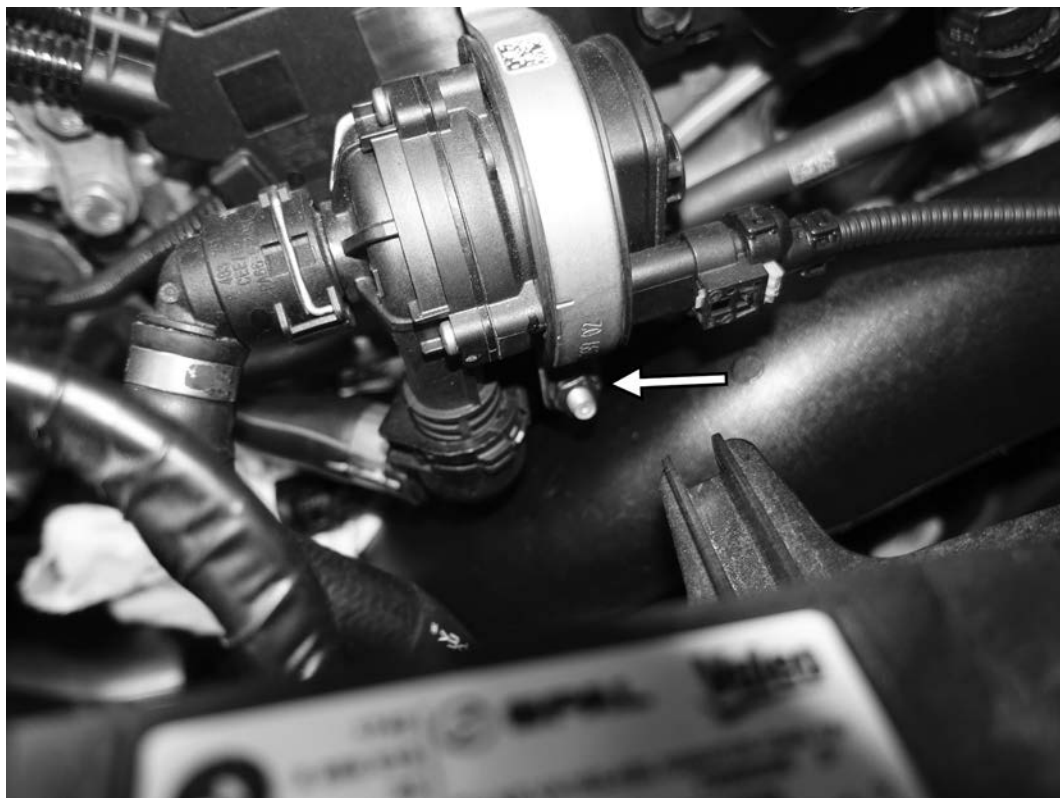




9) On the left side of the turbo inlet tube, squeeze and disconnect the fitting from the turbo inlet tube.

10) On the bottom side of the turbo inlet tube, pull the metal clip holding the tube in place down and out from the connection, disconnecting the turbo inlet tube from the turbo. Remove the turbo inlet tube from the car.

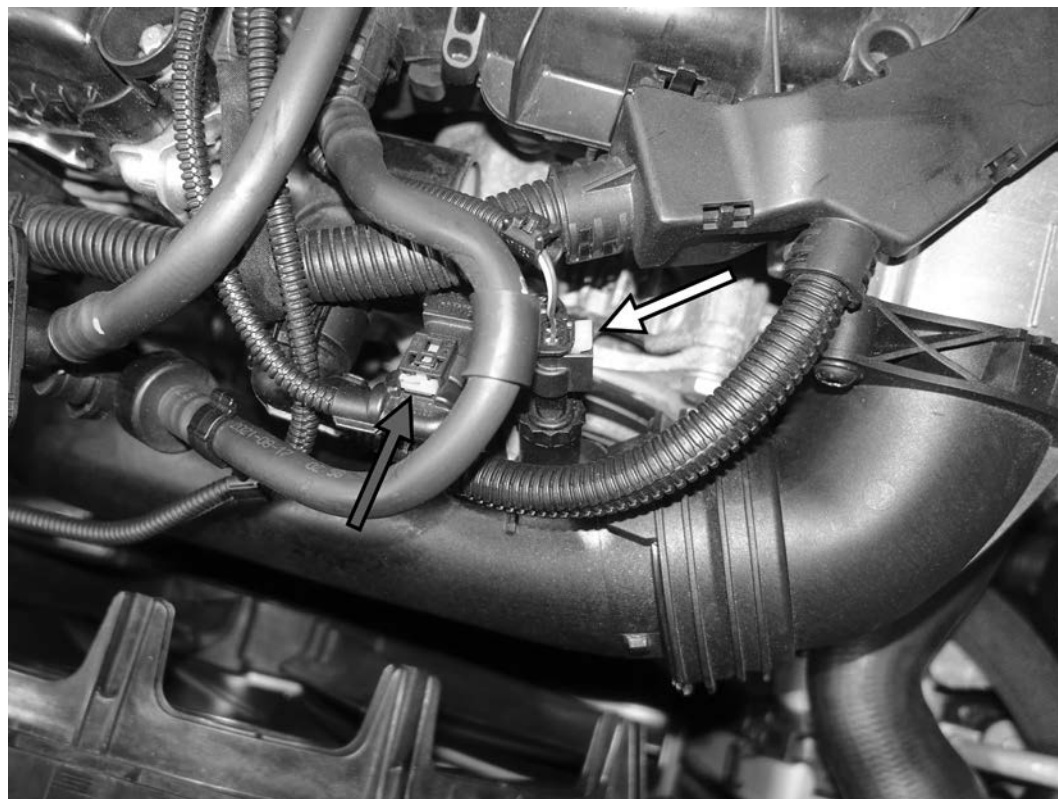




11) On the front side of the auxillary coolant pump, remove the 10mm nut from the bottom of the mounting strap. Lift the strap up from the threaded post, and remove it. Then, separate the pump from the mounting bracket.

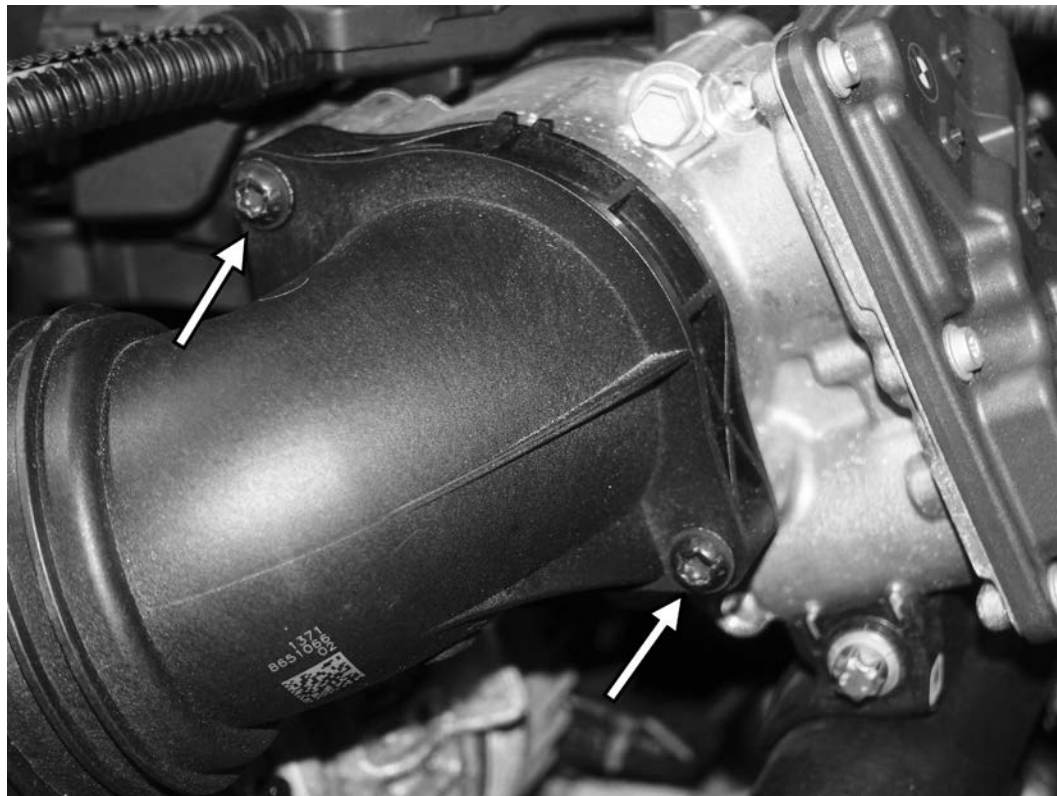
12) On the bracket holding the coolant pump, remove the 10mm nut and ground strap on the right side of the bracket, then remove the 10mm threaded stud the nut was attached to. Then, remove the 10mm screw from the left side of the bracket and remove the bracket from the car.





13) Disconnect the wiring harnesses from the pressure sensor and temperature sensor.

14) Remove the two T30 screws holding the factory charge pipe to the throttle body, and separate the pipe from the throttle body.





15) On the factory charge pipe, remove the metal clip holding it to the turbo outlet. Separate the charge pipe from the turbo outlet.

16) Separate the coolant hose from the clip on the front of the factory charge pipe.





17) Disconnect the electrical connector on the right side of the back of the fan shroud.

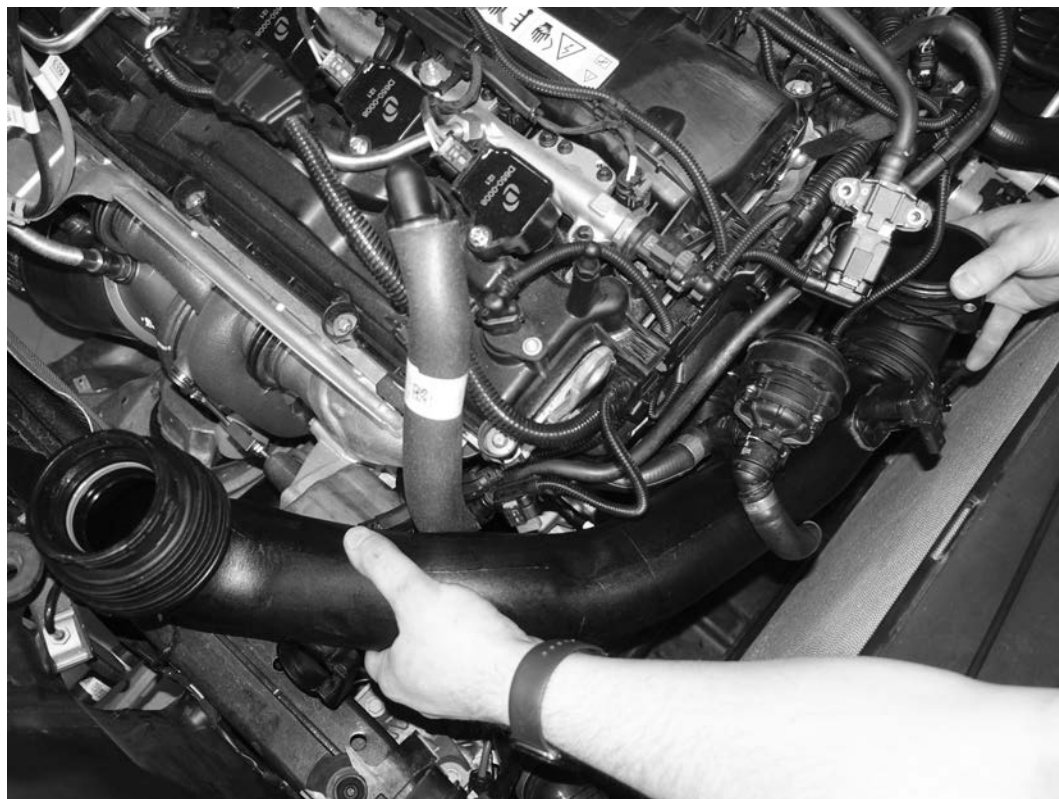
18) Remove the two T30 screws (one on each side - right side shown) on the back of the top corners of the fan shroud.

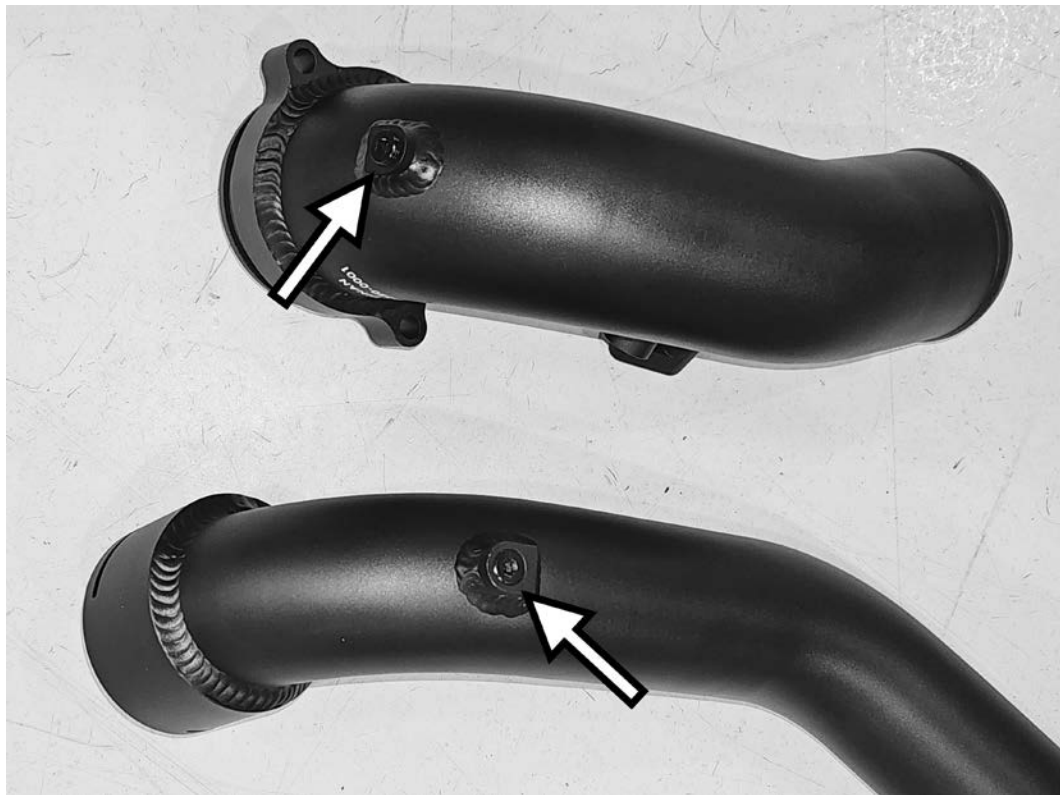




19) Push back on the plastic tabs (right side shown) that hold the fan shroud assembly in place, while lifting on the fan shroud. Remove the fan shroud assembly up and out of the car.

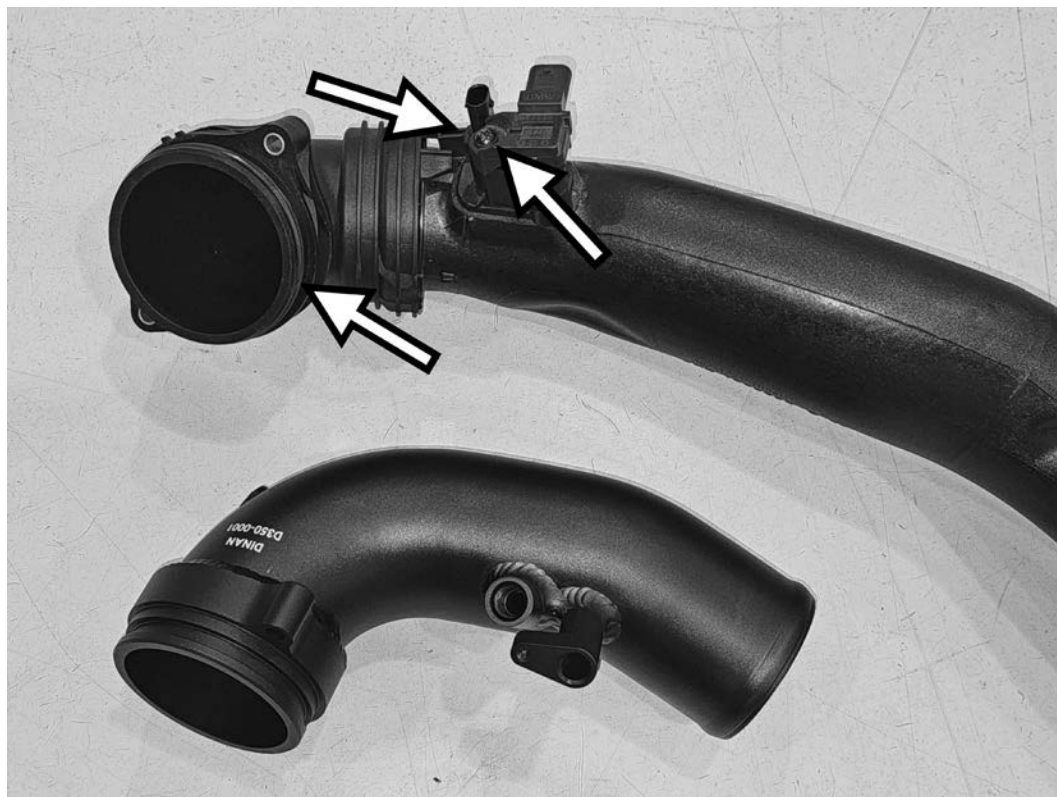
20) Carefully manipulate and remove the factory charge pipe out from the car. Be careful not to damage the back side of the radiator.





21) On the Dinan intake pipes, install the two plugs in the threaded holes. Wrap both plugs with teflon tape or use a thread sealant (not a thread locker) on the threads of the plugs. The plugs should be torqued to 1Nm (9 in-lbs).

22) From the factory charge pipe, transfer the seal at the throttle body over to the Dinan charge pipe. Lubricate the seal with a lithium based grease. Remove the T25 screw from the MAP sensor and swap the sensor to the Dinan charge pipe, tightening it to 1.8Nm (16 in-lbs). Finally use a 12 point deep socket to remove the temperature sensor from the factory charge pipe. Install it in the Dinan charge pipe and tighten to 1.8Nm (16 in-lbs).

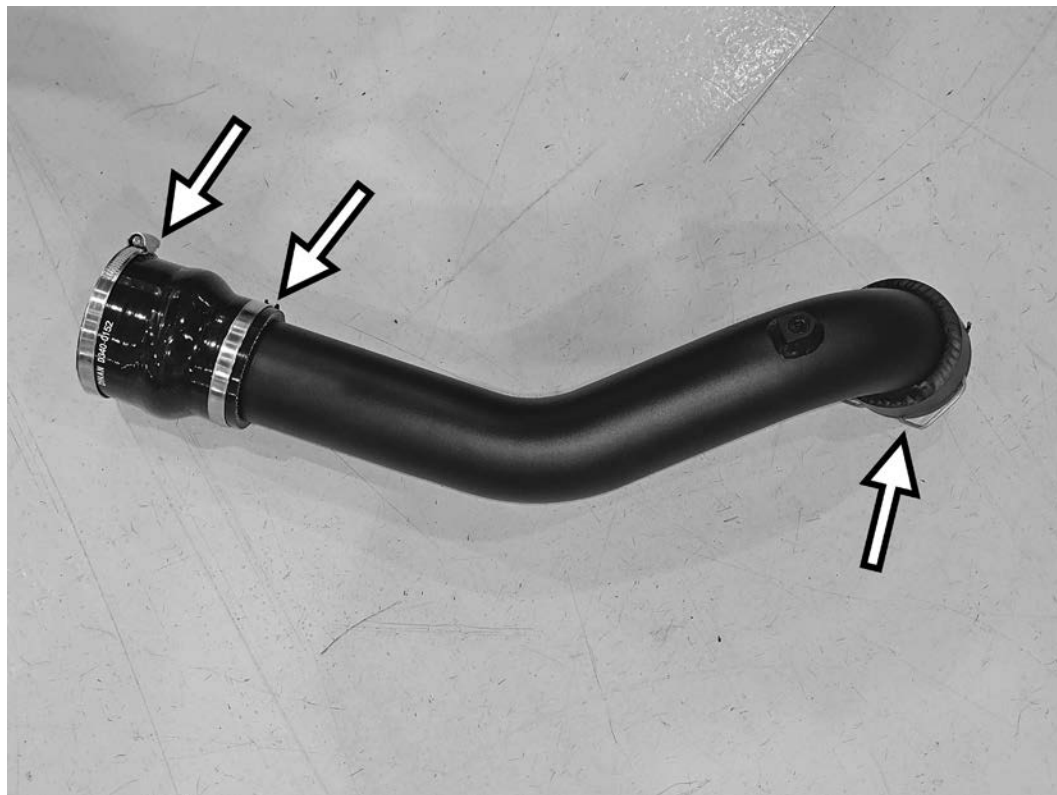


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23) From the inside of the lower end of the factory charge pipe, remove the seal inside and transfer it to the inside of the Dinan lower charge pipe. Lubricate this seal with a lithium based grease.

24) Install the metal clip from the factory charge pipe into the slots on the Dinan lower charge pipe. Install the coupler as shown with the supplied hose clamps.

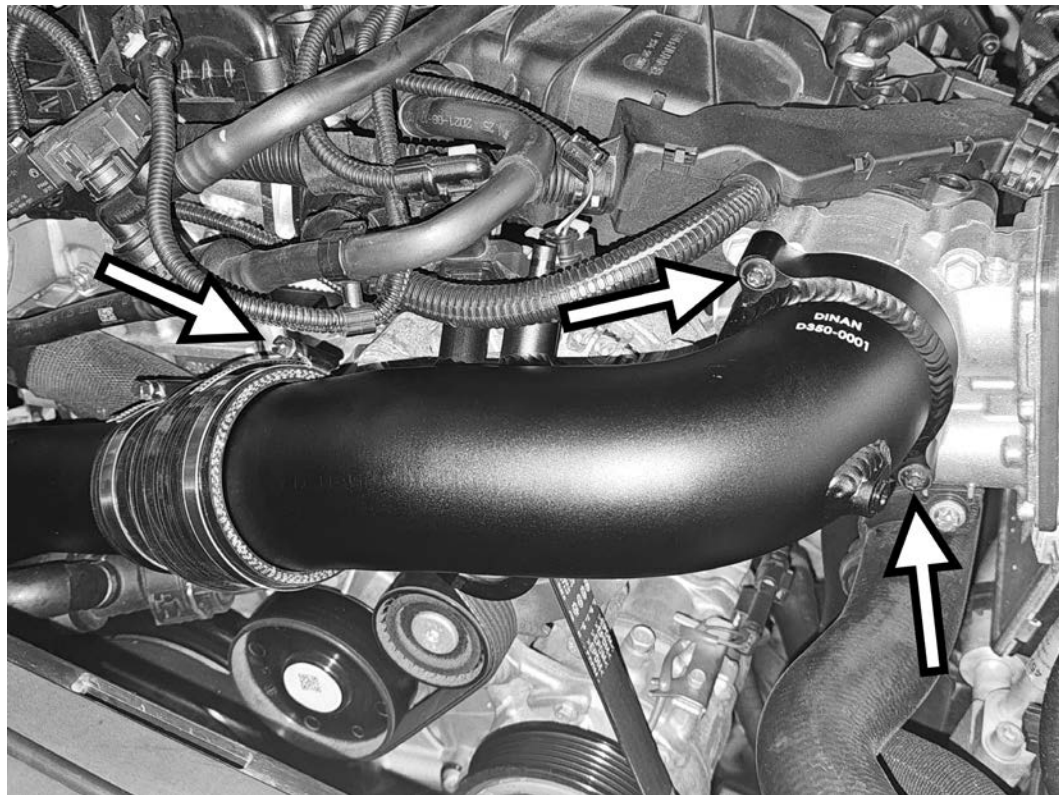


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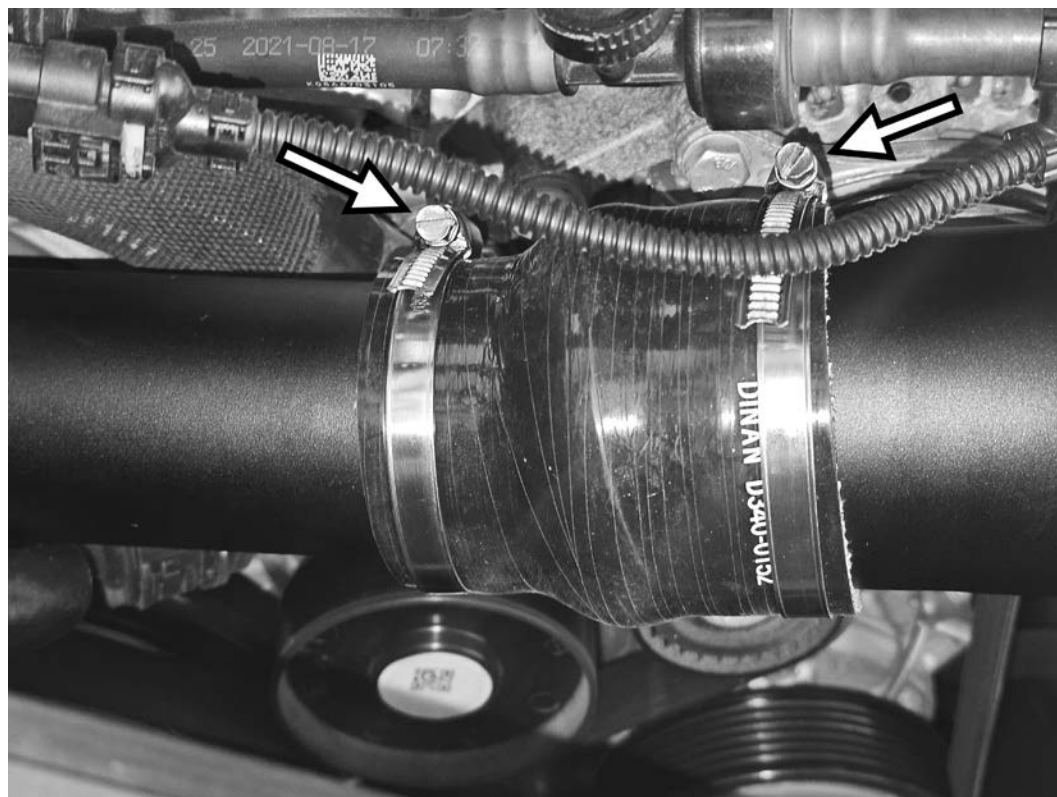


25) Install the Dinan lower charge pipe onto the car. Make sure the pipe goes underneath the coolant pump as the factory charge pipe did. Push the Dinan lower charge pipe onto the turbo outlet until the clip clicks into place on the turbo.

26) Install the Dinan upper charge pipe with the larger hose clamp into the coupler on the lower charge pipe. Connect the upper charge pipe to the throttle body, and tighten with the two factory T30 screws to 8Nm (71 in-lbs).

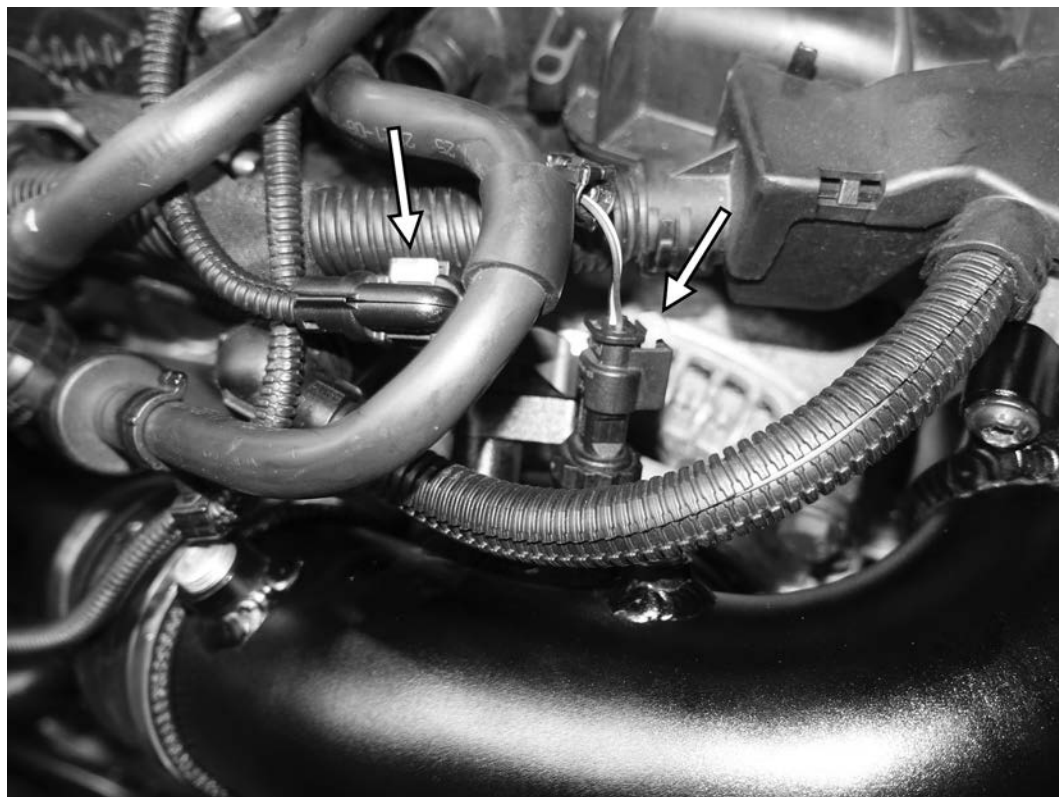


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27) Check the clearance between the turbo inlet pipe and the charge pipe by the turbo, then tighten the two 7mm hose clamps on the coupler between the upper and lower charge pipes to 3Nm (27 in-lbs).

28) Reconnect the electrical connectors to the MAP sensor and the temperature sensor on the upper charge pipe.





29) Reinstall the coolant pump bracket to the front of the engine with the 10mm screw and 10mm threaded stud. Tighten the stud to 10Nm (89 in-lbs). Put the ground connection back on before installing the 10mm nut, and then tighten that nut and the 10mm screw on the other side of the bracket to 8Nm (71 in-lbs).

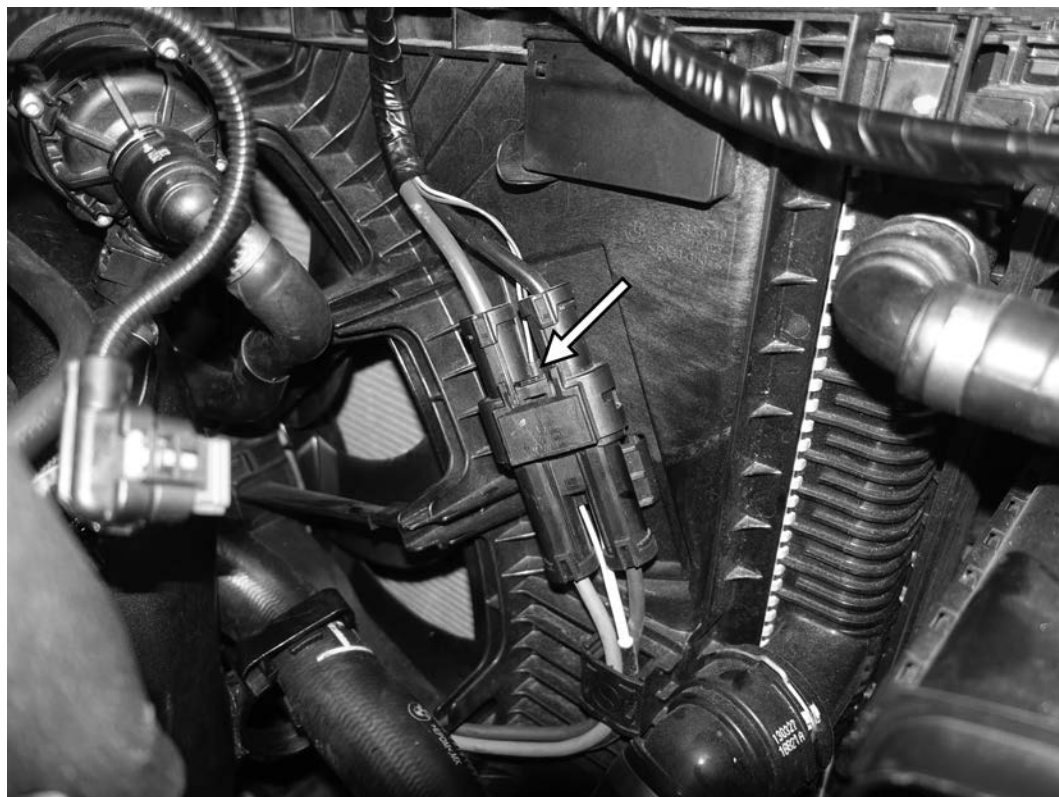
30) Reinstall the coolant pump to the bracket. Install the strap that holds the pump in place along with the 10mm nut. Tighten the nut to 8Nm (71 in-lbs).





31) Reinstall the fan shroud onto the back of the radiator the same way that it was removed. Push the shroud down until it clicks into the two plastic tabs on both top corners of the shroud. Install the two T30 screws on both upper corners and tighten them to 7Nm (62 in-lbs).

32) Reconnect the wiring harness to the electrical connector on the back of the fan shroud.





33) Reinstall the turbo inlet tube onto the inlet of the turbocharger. Make sure to connect the push on fitting on the left side of the tube until it clicks. Make sure the metal clip clicks onto the front of the turbo to secure it in place.

34) Reinstall the airbox onto its three rubber mounting points while guiding the coupler on the airbox outlet onto the turbo inlet tube. Adjust and tighten the 7mm hose clamps to 3Nm (27 in-lbs). Reattach the electrical connector to the MAF sensor, locking the tab in place.



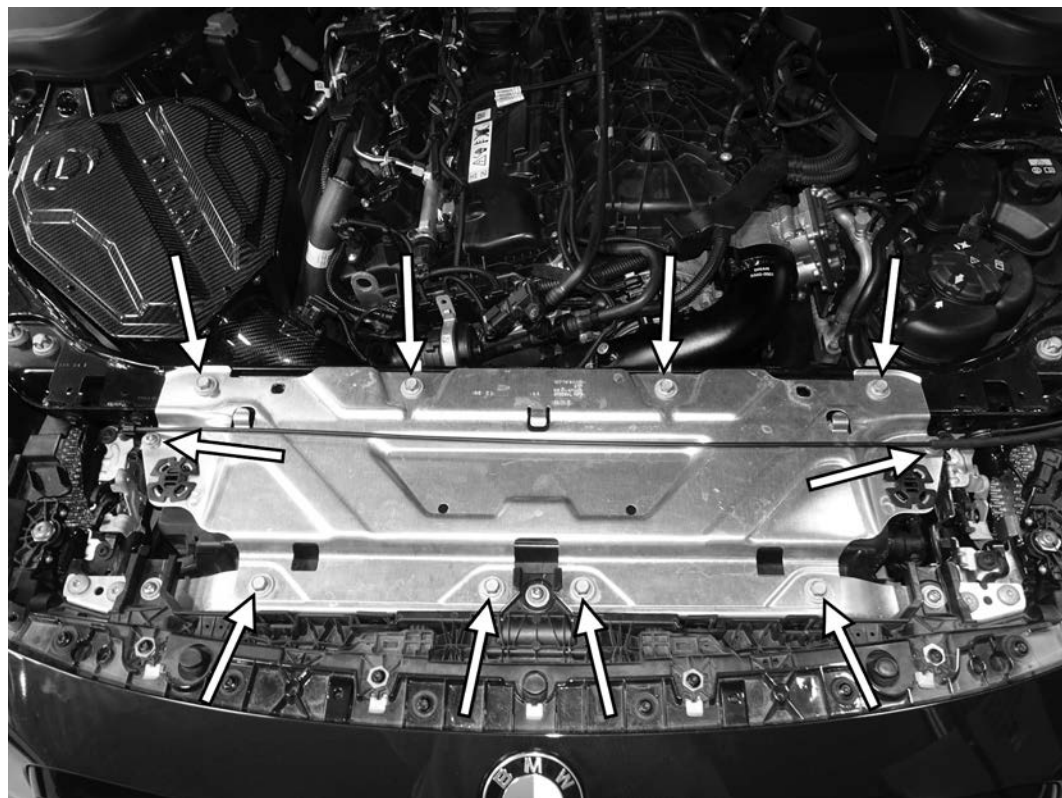


35) Reinstall the crossbrace on the car with the four E16 external torx screws and four T30 screws. The factory recommends replacing the four E16 screws. Tighten the E16 screws to 56Nm (41 ft-lbs) and then tighten them an additional 90°. Tighten the four T30 screws to 11.8Nm (104 in-lbs).

36) Reattach the two clips onto the crossbrace. The one shown on the left side of the cross brace, as well as the clip to the fan shroud wiring harness, just to the right of center of the crossbrace.

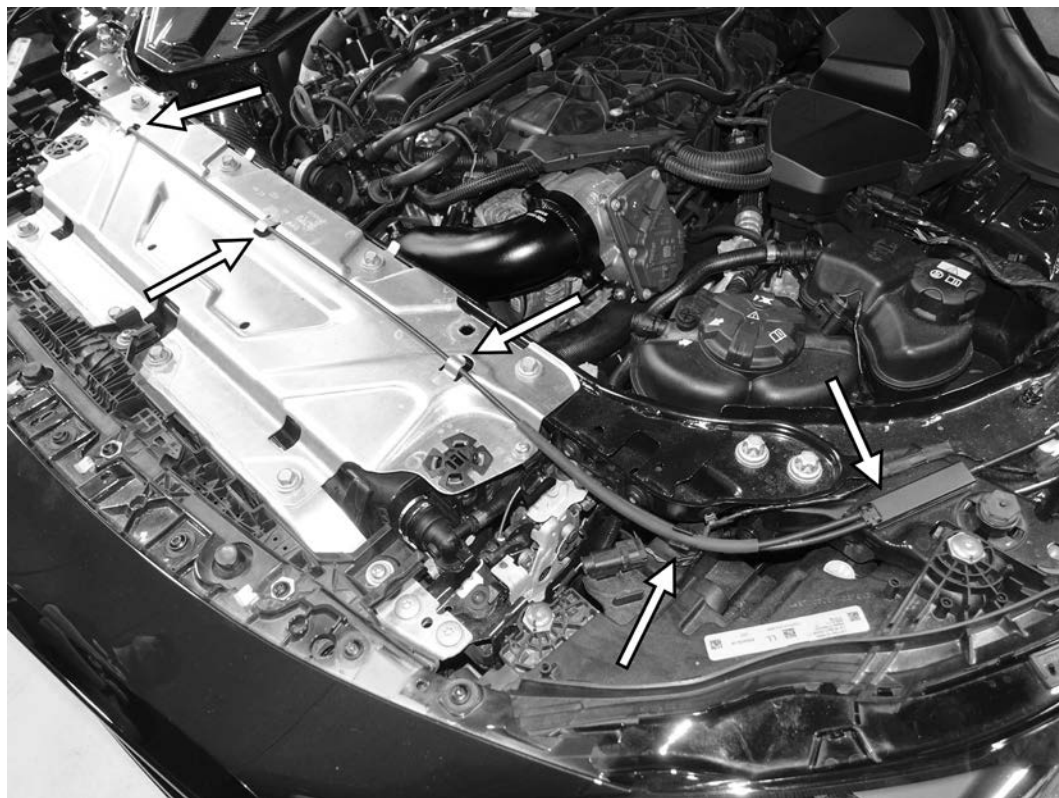


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37) Reinstall the metal upper cover above the radiator. Secure the cover with the eight 13mm screws and two T30 screws. Tighten the 13mm screws to 28Nm. Tighten the two T30 screws to 11.8Nm (104 in-lbs).

38) Reconnect the hood latch cable. Mount the hood cable splitter back to the frame rail and reconnect the clip just to the right of that. Reattach the cable to the three mounting points on the metal upper cover.





39) Reinstall the plastic cover above the metal upper cover by sliding the plastic cover forward from the back. Make sure the tabs on the cover go into the slots on the car. Once the plastic cover is in place, reinstall the four pushpin style connectors along the front of the cover.

40) Reinstall the hood seal along the front of the hood area.



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41) If equipped, reinstall the strut tower braces with the four 13mm nuts, four washers and four 13mm screws. The longer screws go through the strut tower. Tighten the hardware to 40Nm (30 ft-lbs). Reinstall the engine cover.

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