



BMW S55 Stage 2 Injectors Install Instructions

201-0260



This installation is not recommended for a novice or the “new guy” in the shop. Use caution when installing, as not to damage any factory components or components included in this kit. If you are not experienced in working on cars we recommend taking this kit to your local performance shop for installation.

NOTE: Precision Raceworks, LLC holds no responsibility for any damage that occurs or laws that are broken in the installation or use of this kit. This kit is intended for off-road purposes only.

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Kit Contents

QTY	Description	QTY	Description
6	Stage 2 Direct Injectors		

Tools Necessary

QTY	Description	QTY	Description
1	Socket Wrench	1	10mm Socket
1	Torque Wrench—10 Nm to 56Nm capable	1	13mm Socket
1	Trim Tool	1	16mm Socket
1	Pick Tool	1	6mm Socket
1	T27 Torx	1	8mm Socket
1	Allen key 5mm	1	11mm Socket
1	18mm Wrench	1	Injector Removal Tool / Seal Compressor
1	14mm Crows Foot Wrench		Absorbant pads / lint free paper towels
	Dielectric Grease		Engine Oil

This section of the manual is intended to show the assembly of the **Precision Raceworks (description and part number here)** and final assembly. For instructions of the removal or installation of factory components, please refer to your service manual

1. Unpackage your kit and verify contents inside the box matches the list found on previous page
2. Lift Trunk floor cover and disconnect negative battery terminal with a 10mm socket



3. Use 10mm socket to remove the bolts holding the windshield wiper cowl. Remove the passenger and driver cowl.
4. Remove retainment cable from the rubber insulator between the wiper cowl and the engine



5. Remove retainment clips to remove the strut rubber cover on the driver and passenger side using a trim tool



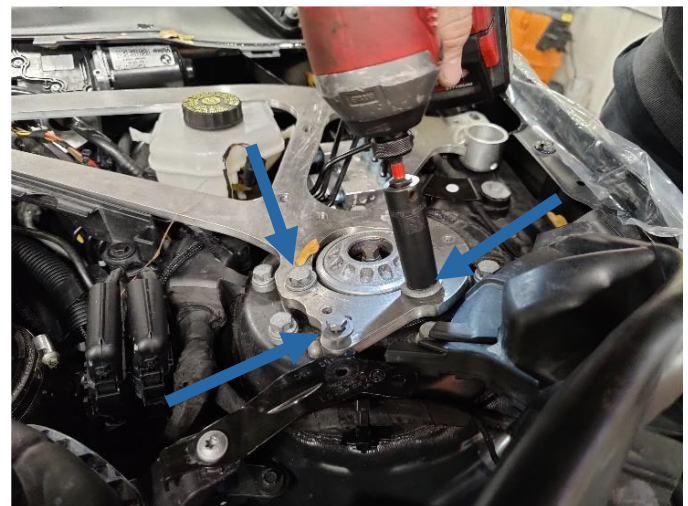
6. Remove retaining clips to remove the fender edge trim



7. Remove cross bar by removing the 7 bolts securing into the engine bay using a 13mm socket. (Torque Spec: 28Nm)



8. Remove Bolts from the driver and passenger side strut tower using a 13mm socket (**Torque Spec: 56 Nm**)



9. Remove bolts on each side of the strut bracket in the upper engine bay using a 16mm socket. **(Torque Spec: 56 Nm)**



10. Remove covers over the wiper cowl bracket bolts.



11. Remove wiper cowl bracket bolts using a 16mm socket.



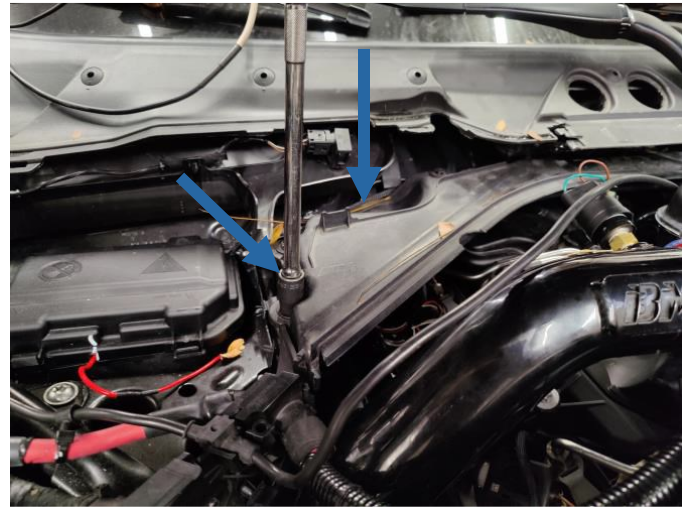
12. Remove the strut bracket from the engine bay



12. Remove the strut bracket from the engine bay



13. Remove the bolts holding the lower section of the wiper cowl using a 10mm socket. Remove it from the engine bay.



14. Drain coolant from the intercooler to prevent any coolant leaking once the intercooler is removed.



15. Remove the hose clamp bolts using an 8mm socket to disconnect the charge tubes from the intercooler.



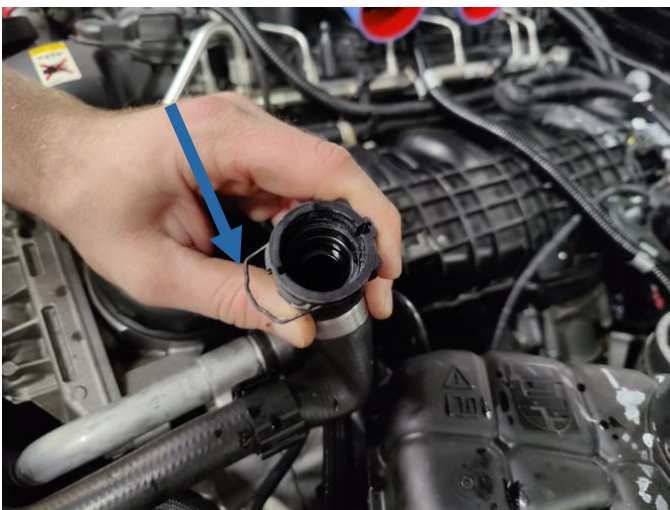
16. Remove the hose clamps on the charge tube from the intercooler to the throttle body using a 6mm socket



17. Remove the manifold absolute pressure sensor at the back of the intercooler.



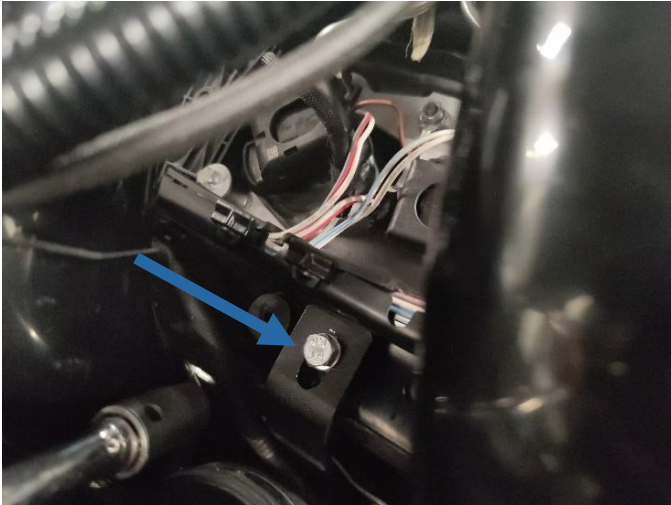
18. Remove the coolant lines at the front of the intercooler. Use a pick tool to pull the latch out of the fitting to free it from the intercooler.



19. Remove the hose clamp connecting the charge tube to the airbox using a 6mm socket.



20. Remove the bolt holding the charge tube bracket to the engine using a 10mm socket.



21. Remove the charge tube leading from the airbox to the engine block.



22. Remove the bolt holding the front charge tube on the passenger side of the engine to the engine block using a T27 Torx. It is the charge tube leading to the intercooler. **(Torque Spec: 10Nm)**



23. Use an Allen 5 to remove the back charge tube on passenger side at the engine **(Torque Spec: 10 Nm)**



24. Remove the electrical wires that are retained parallel to the fuel rail.



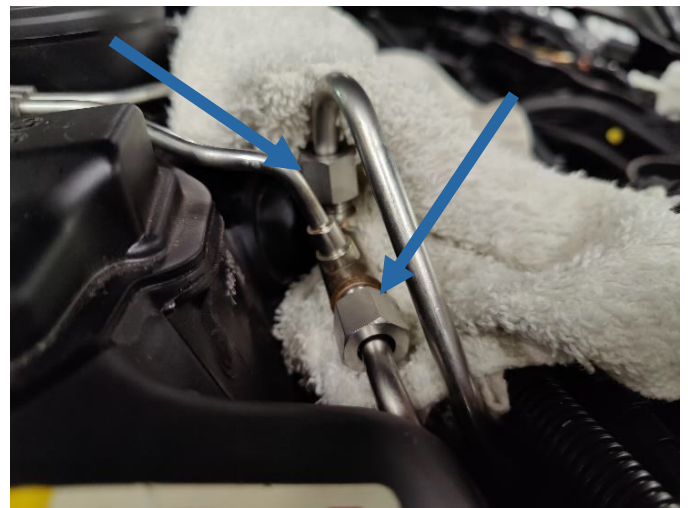
25. Once the wires are free, remove the connector for the variable vanos lift control valve and pull it away from the fuel rail.



26. Disconnect pressure sensor on the back of the fuel rail.



27. Loosen the compression nuts for both high-pressure fuel lines that feed into the fuel rail using a 18mm wrench. Use a rag or absorbent towel to catch any fuel that may exit the lines. **(Torque Spec: 30 Nm)**



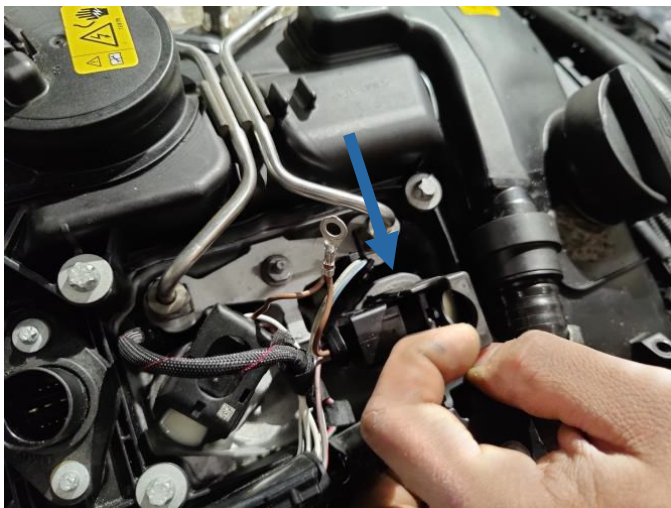
28. Pull the wire loom holders off the rail by pulling them back and then down.



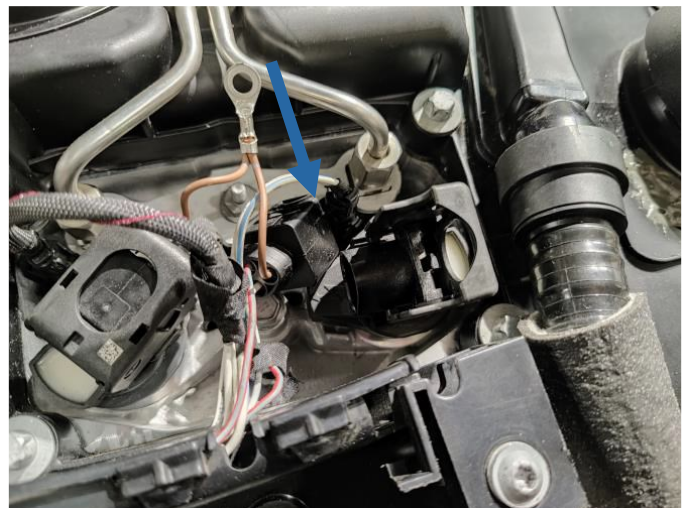
29. Use an 8mm socket to remove the bolt holding the electrical wires for the injectors in place



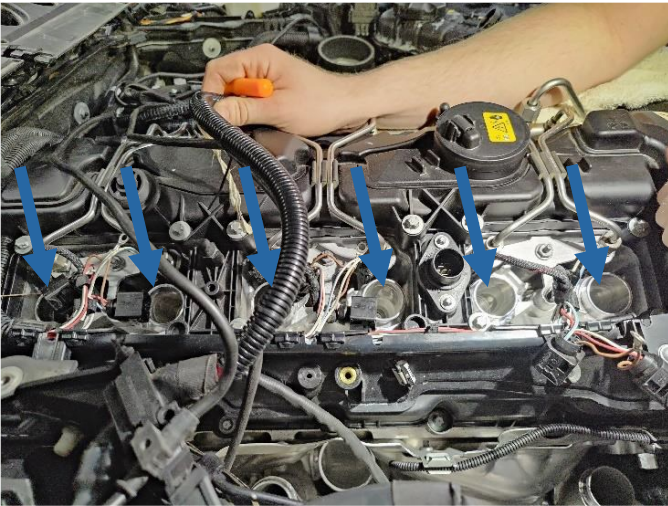
30. Pull the latch up on the injector coil packs.



31. Remove the connector for each coil pack.



32. Pull the coil packs out by hand.



33. Use a pick tool to pull the tab on the injector solenoid connectors. As this is done pull the connectors out to disconnect them.



34. Loosen the compression nuts that lead from the fuel rail to each individual injector with a 14mm crow foot wrench (Torque Spec: 23 Nm)



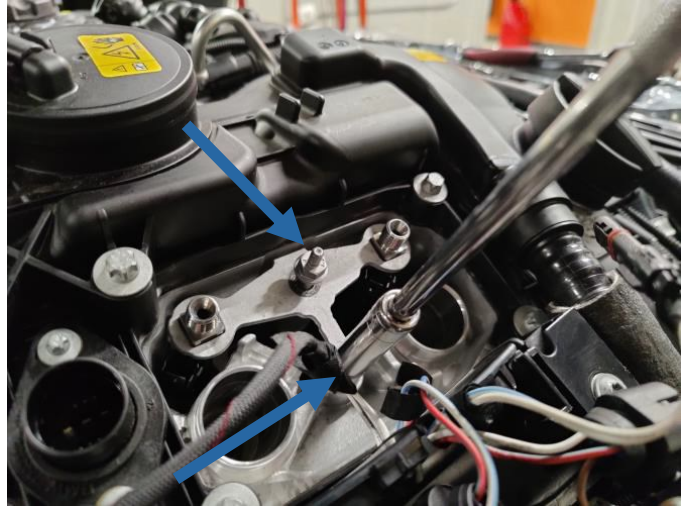
35. Remove the bolts holding the rail in place using a 11mm socket. (Torque Spec: 13 Nm)



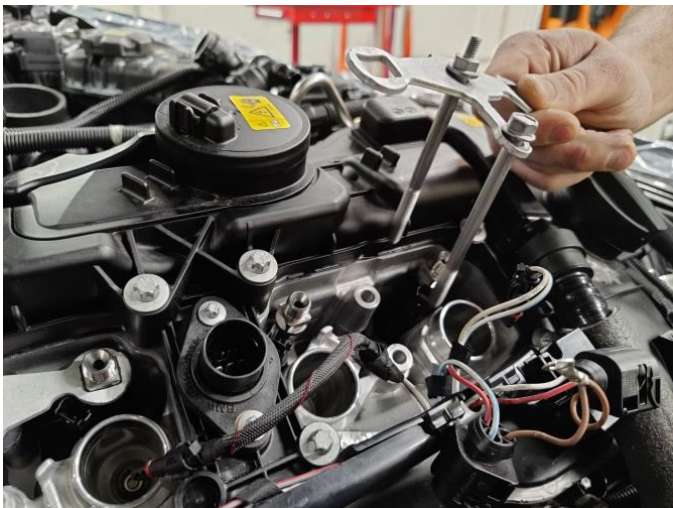
36. Remove the fuel rail from the engine bay.



37. Remove the bolts holding the injector bracket over the injector using a 10mm socket. **(Torque Spec: 13 Nm)**



38. Pull the brackets off the injectors.



39. Grab the threads on the top of the injector and pull it out of its seated position. (If you are unable to pull the injector out by hand, you may use an injector removal tool—please follow instructions associated with that tool)



40. Place the injectors on an absorbent mat in a clean space.



41. Place engine oil onto the stem of the injectors by using your finger to spread the oil across the stem.



42. Place the compression toll over the stem, twisting clockwise as you press. **Stop with injector fully inserted for 15 seconds.** Afterwards remove the injector while twisting clockwise.



43. Install each injector within **20 seconds** of pulling the compression toll off the stem of the injector. Place your new injector with the connector facing to the left of the coil pack socket. There is space for the solenoid connector in its seating location. This will make it easier to seat correctly.



44. Press the injector bracket over the two injectors with the bolts for the bracket also in the correct slots. The square openings in the injector bracket should be over the injectors.



Installation of Hardware is COMPLETE!

45. Once the injectors have been installed, reassembly of the vehicle can begin. Repeat all steps in reverse order starting with step 37. Follow all torque specs that are included in each step where applicable. If torque spec is not included, assume a snug fit with a wrench or socket.

First Start-Up

1. Be sure to remove all installation tools and loose items from the engine compartment. Be sure to re-assemble all parts and components according to OE specifications.
2. Key cycle the vehicle into the "Accessory On" position (do not go to Ignition position). The low-pressure fuel pump will activate and the low side will pressurize. Check around the HPFP and fuel rail for leaks and address if any found.
3. Key cycle to ignition and let the car attempt several start cycles. This is to remove the air from the lines and charge the system. If it starts, then move to the next step. If the car does not start, check the fuel rail, lines and HPFP for leaks.
4. Attempt to start the car again. Engine should start up and idle. If not, repeat steps 2-4.
5. Let the car idle for a few minutes. Check for leaks.
6. Apply a tune!

Note: a fault code may appear at the first key cycle due to the long ignition time or the low pressure in the fuel rail. Both are due to the air in the fuel system. This code should self-clear after the OEM defined quantity of key cycles.

NOTE: After driving the car and letting it cool, the next day check for fuel leaks again. Re-tighten fittings if needed.

For additional technical & software support please contact:

Email: support@precisionraceworks.com

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