AnroT安若特®

SUPERCHARGERS

Sienna 2.5-VT supercharged



Important note

1. Before installing this turbocharger kit, please read the installation manual carefully, check the parts quickly and confirm that the kit is complete. If you find missing parts or damaged transportation, contact the dealer immediately.

2. This turbocharger kit is suitable for track use, do not use on ordinary roads, please comply with local traffic rules.

3. This turbocharger kit is only applicable to the vehicle in factory condition. If the vehicle is modified, please consult the dealer for technical support to ensure the smooth installation of the turbocharger kit.

4. This turbocharger kit is intended solely for power enhancement. For extreme off-road applications including track racing, desert driving, water crossing, and Gobi desert conditions, owners should implement original equipment modifications (OEM) for the turbocharger's air intake, engine lubrication, and cooling system. These modifications may include installing waterproof intake components, implementing dust-proof measures, and upgrading cooling systems in desert environments with extreme temperatures and prolonged high-load operation. Consultation with authorized dealers for technical support is strongly recommended to ensure proper engine performance.

5. The supercharged kit is specially designed for this model at the factory. After installation, any adjustment to the intake, exhaust or other engine parts may adversely affect the performance of the engine and may trigger the "Check Engine" light.

6. Correct installation of this supercharger kit requires general automotive mechanical knowledge and experience. If not, contact the dealer to arrange professional installation.

7. Run at least one tank of premium fuel (95# or higher) before installing the supercharger kit to prevent engine damage caused by detonation caused by running the supercharged engine with lower octane number fuel.

8. Before installing the supercharger kit, please first eliminate the original vehicle fault code. In order to avoid the vehicle in a fault protection state, affecting the engine computer work, and then affect your driving experience, or cause unnecessary damage to the engine.

9. Perform a basic engine check before installing the supercharger:

* Replace the air filter

* Replace the fuel filter according to mileage

* Use brand synthetic oil

* Change the oil filter

Check whether the three-way catalytic converter is blocked or damaged

Check the spark plugs

10. It is recommended to replace the original spark plug before the first use, and choose a spark plug with higher calorific value (one degree higher than the original, and choose a genuine one).

11. Before installing the supercharger kit, make sure the engine is cooled and protect the exterior of the vehicle as necessary.

12. It is recommended to clean the throttle valve to prevent engine idle vibration.

13. The water cooling circulation system of this product does not contain antifreeze, and users should choose the corresponding specification of antifreeze according to the use environment.

14. Installation of this turbocharger kit may invalidate the original 2 years/60,000 km warranty. If you continue to install it, you acknowledge that you are aware of this.

Safety precautions

Read the important safety precautions and warnings carefully before continuing installation!

Correct disassembly, installation methods and procedures are critical to the safety of the installer. Failure to follow these precautions and improper installation may result in personal injury or death.

Always wear safety glasses to protect your eyes

2. Turn the ignition switch to the OFF position and disconnect the battery to prevent accidental contact causing short circuit and battery damage

3. Always use the parking brake when working on the vehicle

4. Block the front and rear tire surfaces to prevent accidental movement of the vehicle

5. Only operate in well-ventilated areas and avoid contact with carbon monoxide

6. Do not smoke or use flammable materials near the fuel system

7. Keep hands and other objects away from radiator fan blades

8. When the engine is running, keep yourself and your clothes away from moving parts

9. Do not wear loose clothing or jewelry to avoid being caught by rotating or moving parts





1. Check that the original factory is operating normally. Use a standard decoder to read the OBD.
2. Open the engine compartment. Check the hardware around the engine. Check whether there are any faults in the original factory.





3. Protect the body. Lay down the leaf panel cloth. 4. Cover plate clip diagram
3. Protect the body. Lay down the leaf panel cloth. 4. Cover the panel clip diagram





5. Keep the clip in place. Remove the water tank cover plate. 6. Remove the front bumper fixing screws
5. Keep the clip in place. Remove the water tank cover plate 6. Remove the front bumper fixing screws





7. Remove the front and rear fixed clips of the bumper. 8. Remove the sealing strips on both sides
7. Remove the front and rear fixed clips of the bumper. 8. Remove the sealing strips on both sides





9. Remove the left and right leaf panel lining fasteners 10. Remove the plastic fasteners
9. Remove the left and right leaf panel lining fasteners 10. Remove the plastic fasteners



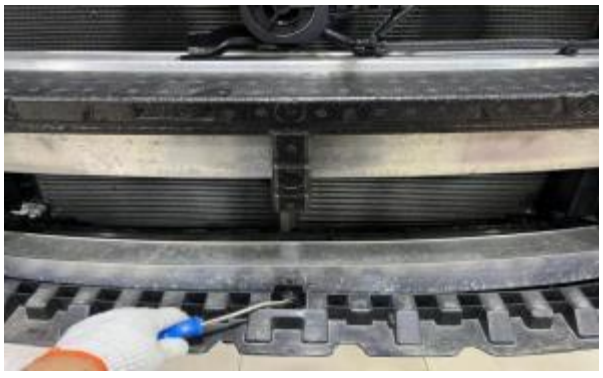


11. Lift the vehicle to remove the connecting screws of the bumper lower guard plate 12. Remove the fixing bolts.
11. Lift the vehicle to remove the connecting screws of the bumper lower guard plate 12. Remove the fixing bolts.





13. Separate the radar wiring harness connector 14 Pull out the bumper fog lamp wiring harness. Remove the bumper
13. Separate the radar wiring harness connector 14 Pull out the bumper fog lamp wiring harness. Remove the bumper





15. Remove the front plastic bumper fixing clip. Remove the front plastic bumper. 16. Remove the front bumper fixing bolt
15. Remove the front plastic bumper fixing clip. Remove the front plastic bumper. 16. Remove the front bumper fixing bolt





17. Remove the bumper beam 18. Remove the horn, hood lock, alarm, and wiring harness
17. Remove the bumper beam 18. Remove the horn, hood lock, alarm, and wiring harness





19. Remove the left and right horns of the original car. Remove the lock buckle of the engine cover. 20. Remove the fixed bolts of the engine cover lock. Remove the support bracket
19. Remove the left and right horns of the original car. Remove the lock buckle of the engine cover. 20. Remove the fixed bolts of the engine cover lock. Remove the support bracket





21. Remove the passenger side tire 22. Remove the screws on the passenger side tire
21. Remove the passenger side tire 22. Remove the screws on the passenger side tire





23. Remove the crankshaft fender bolt 24. Remove the crankshaft wheel removal tool
23. Remove the crankshaft fender bolt 24. Remove the crankshaft wheel removal tool



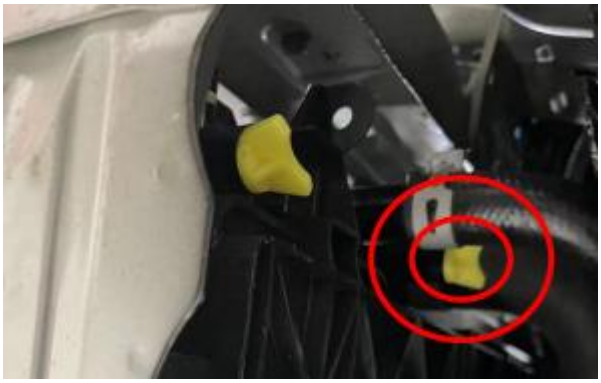


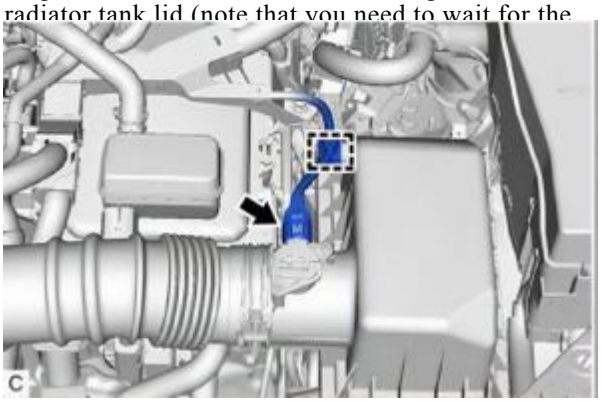
25. Loosen the crankshaft bolt counterclockwise according to the arrow. 26. Remove the modified crankshaft pulley and compare it 25. Loosen the crankshaft bolt counterclockwise according to the arrow. 26. Remove the modified crankshaft pulley and compare it



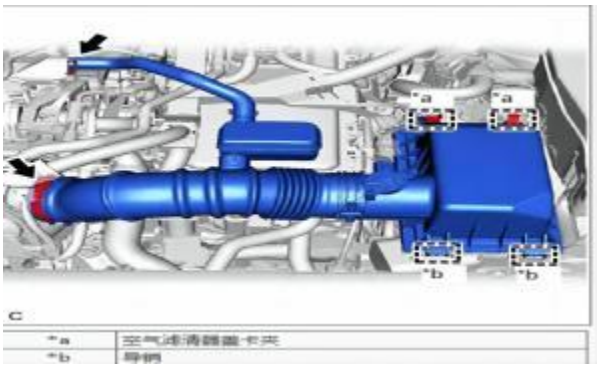


27. Prepare a clean antifreeze basin 28. Open the radiator tank lid (note that you need to wait for the antifreeze to cool before opening). 27. Prepare a clean antifreeze basin 28. Open the radiator tank lid (note that you need to wait for the





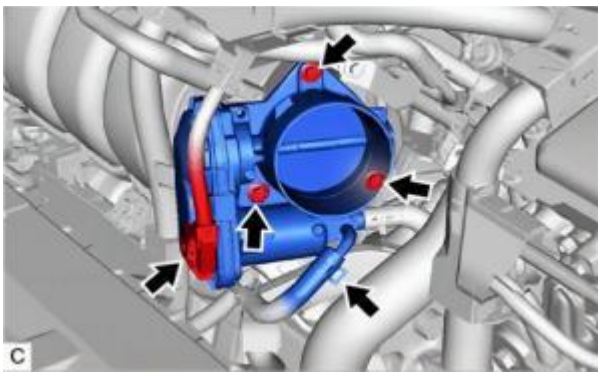
29. Open the drain plug of the water tank 30. Disconnect the connector of the mass air flow meter subassembly. Separate the wiring harness clamps 29. Open the drain plug of the water tank 30. Disconnect the connector of the mass air flow meter subassemblies. Remove the wiring harness clamps

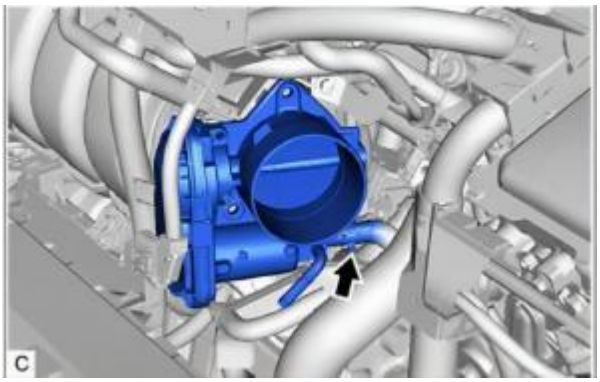




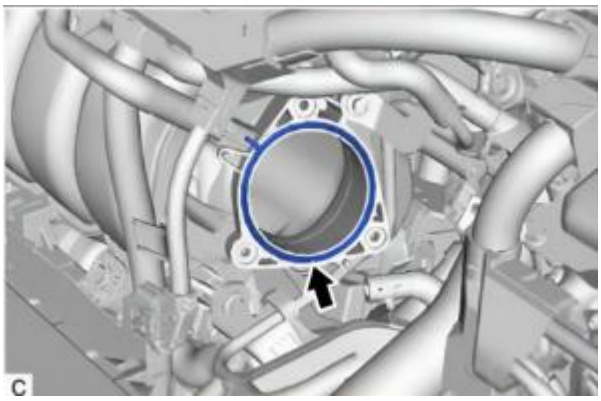
31. The sliding clip is separated from the cylinder head exhaust pipe. Remove 2
Air filter clamp. Loosen the throttle clamp.
Remove the air filter hose and air filter cover

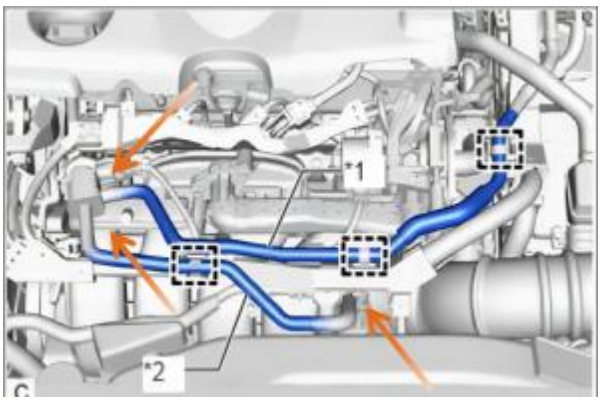
32. Remove the air filter hose and air filter cover.





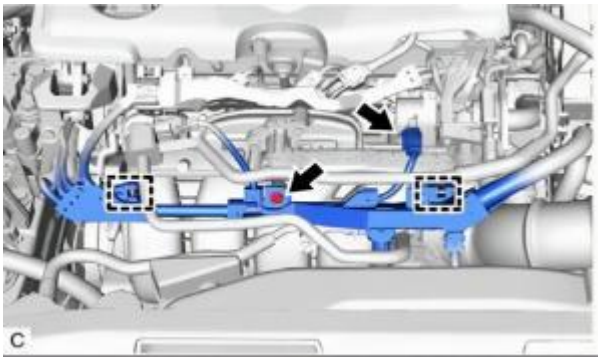
33. Use the 8mm socket to remove the three bolts. Disconnect the throttle connection. 34. Slide the clip to disconnect the water pipe and wiring harness on the other side of the throttle. The slide clip disconnects the throttle water pipe from the throttle

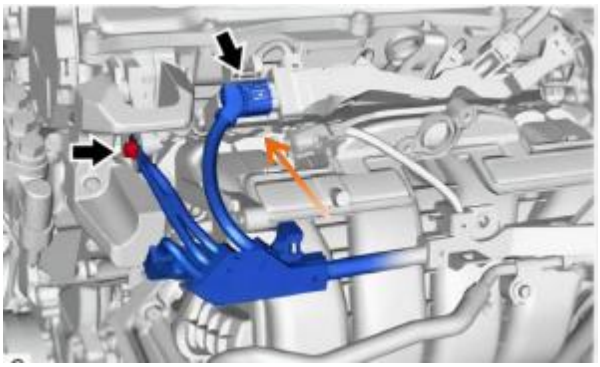




35. Remove the seal from the intake manifold. 36. Separate the three hoses and disconnect the slot at the frame. Remove the No.2 fuel evaporation pipe

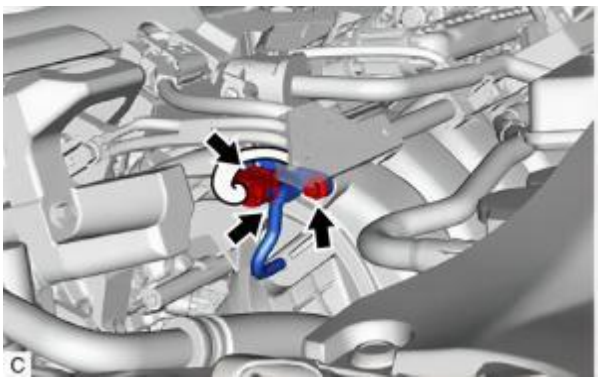
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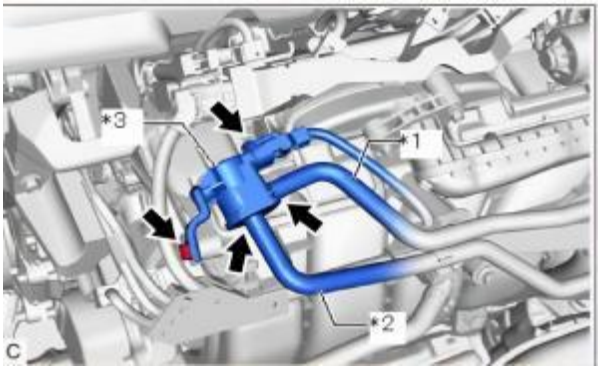




37. Disconnect the EGR valve harness connector. Remove the fixing bolts. Separate 2 38. Remove the wire harness tie bolts. Separate the fuel injector harness connector and remove the engine harness

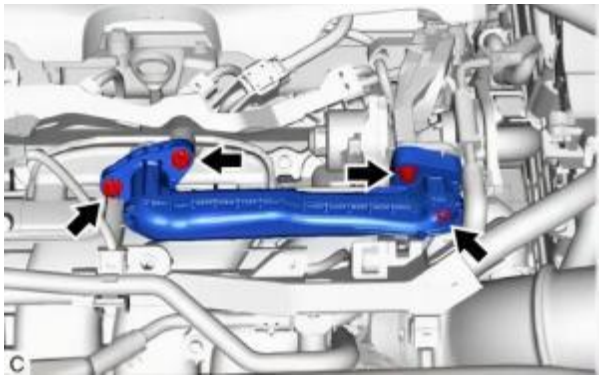
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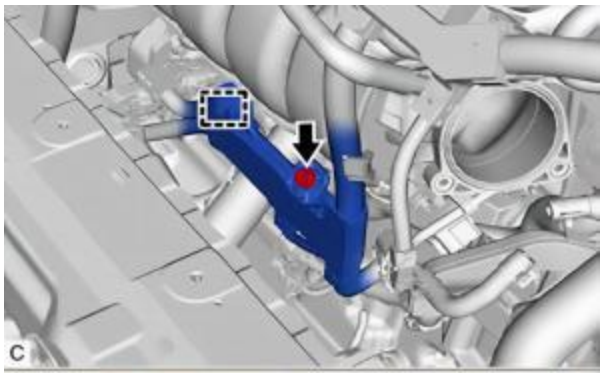




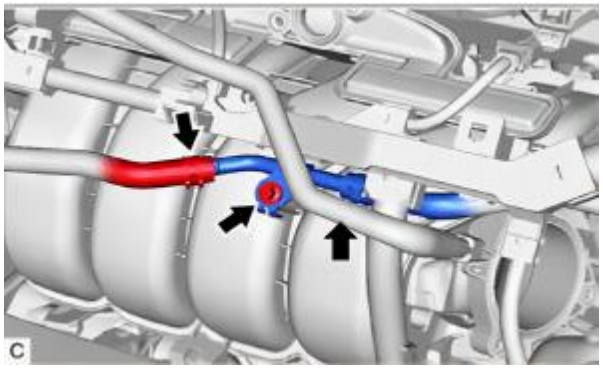
39. Remove the intake pressure sensor harness connector. Disconnect the vacuum hose. Remove the pressure sensor

40. Disconnect the carbon tank solenoid valve wiring harness. Remove the securing bolts and separate them from the intake manifold

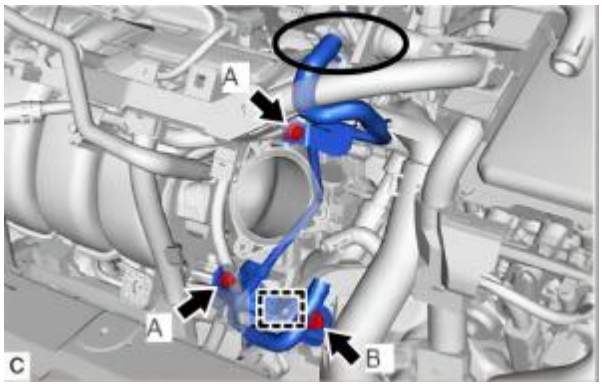




4 1. Remove the four mounting bolts from the intake manifold to separate the EGR pipe. 42. Remove the bolts. Separate the engine harness from the intake manifold



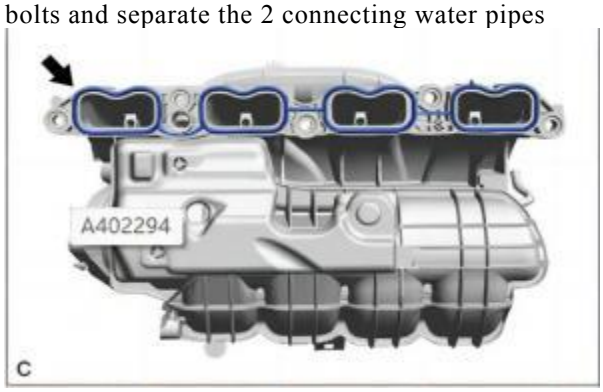
43. The sliding clip is disconnected from the water pipe. Remove the fixing bolt with an 8mm sleeve



44. Remove the wire harness clamp at the separation box. Use an 8mm socket to remove 2 bolts and separate the 2 connecting water pipes



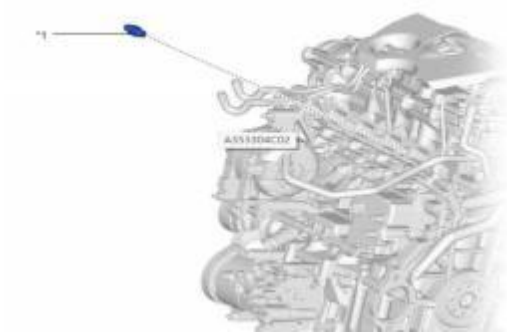
45. Remove 5 fixed bolts from the cylinder head. Remove the intake manifold



46. Remove the gasket from the intake manifold



47. Remove the balance block fixing bolt and remove the fixed block



48 Remove PVC valve



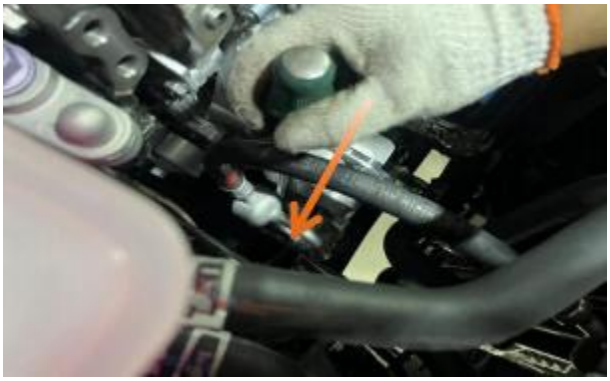


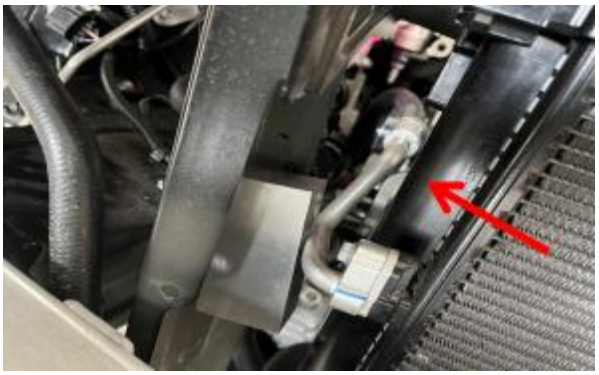
49. Seal the air intake to prevent foreign matter from entering. Secure the separation harness 50. Remove the harness connector bracket and remove the bracket screw





51. Remove the oil pressure sensor wiring harness fixing clip. 52. Reinstall the connector using the original bolts 51. Remove the oil pressure sensor wiring harness fixing clip. 52. Reinstall the connector using the original bolts





53. Use a one-character screwdriver to swing in the direction of the arrow. 54. Find an aluminum block and place it on the air conditioning pipe to swing in the direction of the arrow 53. Use a one-character screwdriver to swing in the direction of the arrow. 54. Find an aluminum block and place it on the air conditioning pipe to swing in the direction of the arrow





55. Disassemble the connecting water cooling hose 56. Remove the replacement water pipe in the kit and cut it to 340mm 55. Disassemble the connecting water cooling hose 56. Remove the replacement water pipe in the kit and cut it to 340mm





57.撬 open the wire harness clip cover 58. Separate the lower wire harness cover 57.

撬 open the wire harness clip cover 58. Separate the lower wire harness cover

Chapter 2--Installation of VT supercharger body





1. Remove the tensioner in the kit. 2. Two m8x1.25x20 fixing bolts 2. Install the turbocharger belt tensioner
1. Remove the tensioner in the kit. 2. Two m8x1.25x20 fixing bolts 2. Install the turbocharger belt tensioner





3. Remove the crankshaft pulley in the kit 4. Install the crankshaft pulley
3. Remove the crankshaft pulley in the kit 4. Install the crankshaft pulley





5. Use a clamp to move the bracket. 6. Apply a little thread glue
5. Use a clamp to move the bracket. 6. Apply a little thread glue



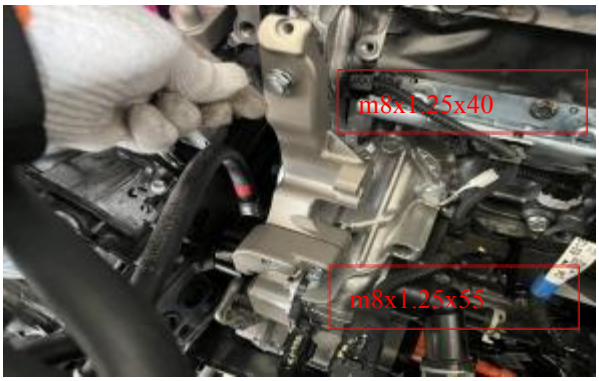


7. Tighten the crankshaft pulley bolt 8. Remove the idler bracket and generator belt transition wheel
7. Tighten the crankshaft pulley bolt 8. Remove the idler bracket and generator belt transition wheel





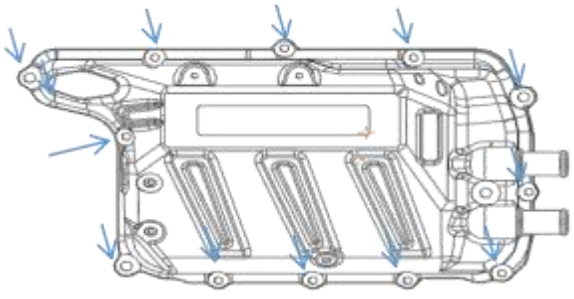
9. Assemble the idler bracket and turbocharger support bracket 10. Note: Check whether the locating pin is in place during connection
9. Assemble the idler bracket and turbocharger support bracket 10. Note: Check whether the locating pin is in place during connection





11. Install the turbocharger support bracket bolt 12. Tighten the fixing bolt. Pay attention to whether the original vehicle locating pin is installed at the bottom
11. Install the turbocharger support bracket bolt 12. Tighten the fixing bolt. Pay attention to whether the original vehicle locating pin is installed at the bottom





13. Remove the turbocharger body 14. Remove the turbocharger water cooling top cover
13. Remove the turbocharger body 14. Remove the turbocharger water cooling top cover





15. Disassemble as shown in Figure 16. Install the turbocharger intake manifold seal
15. Disassemble as shown in Figure 16. Install the turbocharger intake manifold seal



Check the PVC check valve below. Check whether the installation seal is in place



18. Install the throttle seal



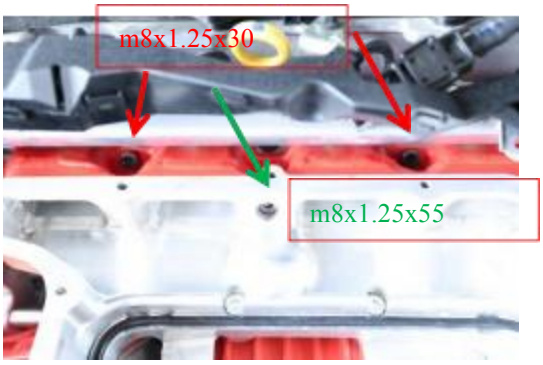


19. Remove the intake port protective tape. Check for any foreign matter in. 20. Install the exhaust one-way valve (note the direction of the one-way valve)
19. Remove the intake port protective tape. Check for any foreign matter in. 20. Install the exhaust one-way valve (note the direction of the one-way valve)





21. Loosen the fuel injector rail bolts. Remove the nozzle tube protection clip 22. The left and right bolts of the intake manifold use the original vehicle bolts
21. Loosen the fuel injector rail bolts. Remove the nozzle tube protection clip. 22. The left and right bolts of the intake manifold use the original bolts





23. Install the turbocharger intake pipe fixing bolt 24. Install the turbocharger support bolt
23. Install the turbocharger intake pipe fixing bolt 24. Install the turbocharger support bolt





25. Remove the EGR connecting pipe 26. Install the turbocharger connector and tighten the clamp
25. Remove the EGR connecting pipe 26. Install the turbocharger connector and tighten the clamp





27. Remove the EGR port flange 28. Install the EGR flange and tighten the clamp 27.
Remove the EGR port flange 28. Install the EGR flange and tighten the clamp





29. Turn the wire harness clip joint. 30. Install the air intake water cooler top cover. Restore the bracket position from the previous step
29. Turn the wire harness clip joint. 30. Install the air intake water cooler top cover. Restore the bracket position from the previous step



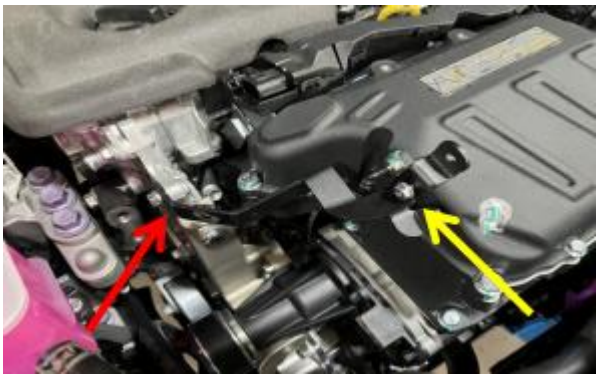


31. Turn back the fixing bolt according to the original position 32. Turn back the fuel injector rail bolt
31. Turn back the fixing bolt to the original position 32. Turn back the fuel injector rail bolt





33. Swing the rail harness fixing bracket to return the oil rail harness shell 34. Remove the sleeve tube to wrap the harness
33. Swing the rail harness fixing bracket to return the oil rail harness shell 34. Remove the sleeve tube to wrap the harness





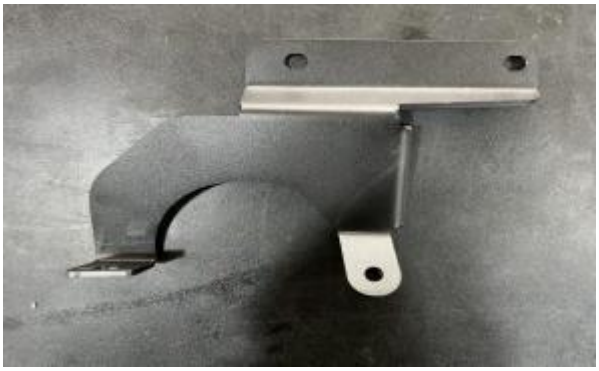
34. Install at the yellow arrow m6x1.0x15. Red arrow original bolt 36. Install intake pressure sensor (m6x1.0x15)





37. Connect the pressure sensor to the turbocharger. 38. Install the restored fuel injector pressure sensor harness. Tap the harness
37. Connect the pressure sensor to the turbocharger. 38. Install the

restored fuel injector pressure sensor harness. Tap the harness





39. Remove the turbocharger lower harness bracket 40. Install the harness bracket 39.
Remove the turbocharger lower harness bracket 40. Install the harness bracket





41. Separate the carbon tank solenoid valve from the bracket 42. Install the carbon tank solenoid valve
41. Separate the carbon tank solenoid valve from the bracket 42. Install the carbon tank solenoid valve





43. Remove the carbon tank and connect the hose 44. Install the connecting hose 43.
Remove the carbon tank and connect the hose 44. Install the connecting hose





45. Install another connecting hose 46. Lift the original car and the loose water pipe clip
45. Install another connecting hose 46. Lift the original car and the loose water pipe clip



47. Return the hot water pipe to the original car



48. Remove the original electronic throttle valve





49. Install the throttle to the intake port of the turbocharger 50. Connect the throttle drain water pipe
49. Install the throttle to the intake port of the turbocharger 50. Connect the throttle drain water pipe



51 Press the sliding clamp to separate the connecting cooling hose 52. **52.**





53. Install the radiator iron pipe to connect the water tank 54. Install the radiator iron pipe to connect the engine side water pipe **53. Install the radiator iron pipe to connect the water tank 54. Install the radiator iron pipe to connect the engine side water pipe**





55. Divide the intake air box into 3 accessories. 56. Install the intake air box connecting throttle silicone hose. Use a clamp to tighten the clamp 70-90

55. Divide the intake air box into 3 accessories. 56. Install the intake air box connecting throttle silicone hose. Use a clamp to tighten the clamp 70-90

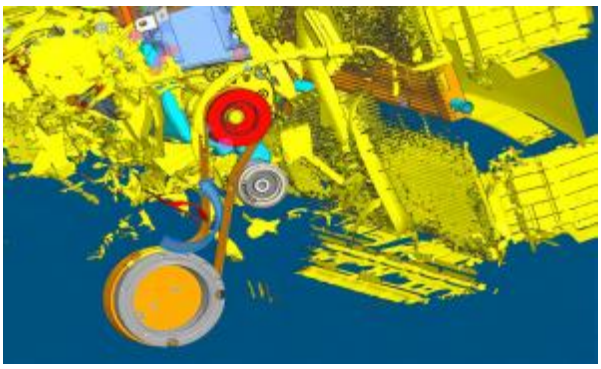




57. Insert the air flow sensor connector. 58. Install the exhaust resonance chamber and connect it to the exhaust pipe. Tighten the clamp at the arrow

57. Insert the air flow sensor connector. 58. Install the exhaust resonance chamber and connect it to the exhaust pipe. Tighten the clamp at the arrow

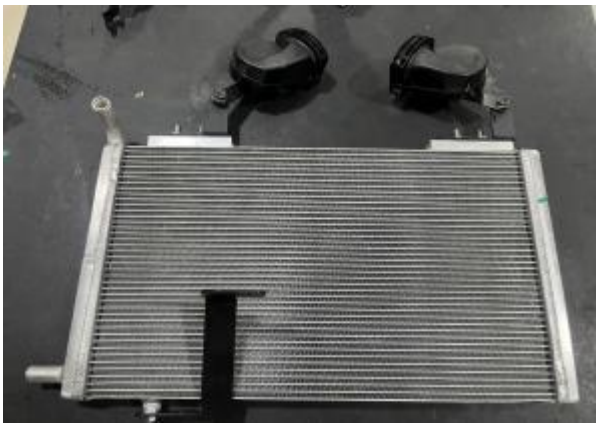




59. Remove the turbocharger belt from the kit. 60. Move the belt tensioner to install the turbocharger belt

59. Remove the turbocharger belt from the kit 60. Move the belt tensioner to install the turbocharger belt

Chapter 3-Installation of VT supercharger cooling system





1. Remove the hot water tank and the fixed bracket 2. Install the fixed point on





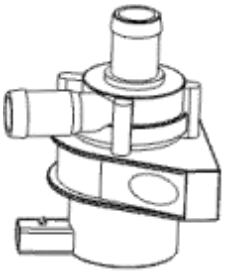
3. Install the water tank fixing bolts. The horn should also be installed at the same time. Cover lock 4. Restore the fixed bracket of the cover lock
Stent restoration





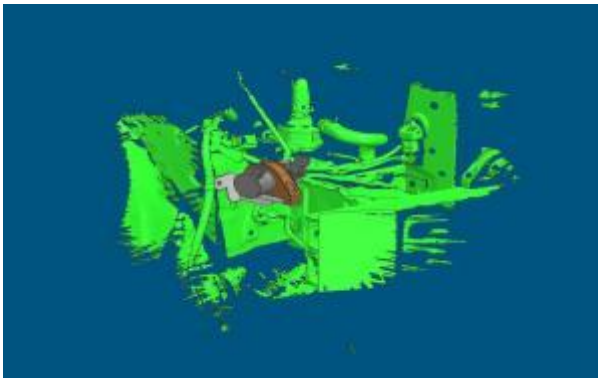
5. Restore the hood lock and fix it. Note to restore the original screw marks. 6. Restore the wiring harness connector 5. Restore the hood lock and fix it. Note to restore the original screw marks. 6. Restore the wiring harness connector







7. Restore the hood lock mechanism protective cover 8. Remove the electronic water pump-water pump fixing bracket 7. Restore the hood lock mechanism protective cover 8. Remove the electronic water pump-water pump fixing bracket



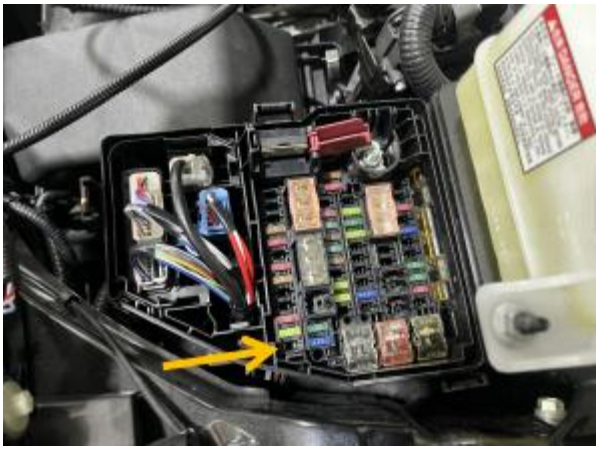


9. Pay attention to the direction and position of the electronic water pump when installing it. 10. Remove the connector harness of the electronic water pump 9. Install the electronic water pump and pay attention to the direction and position of the water pump. 10. Remove the connector harness of the electronic water pump



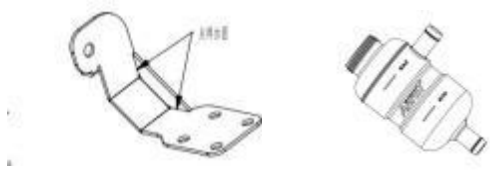


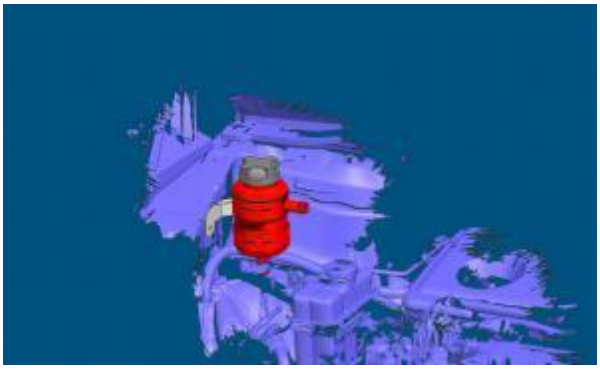
11. Install the pump harness and fasten it with a cable tie. 12. Open the fuse box cover on the main driver's cabin side 11. Install the pump harness and fasten it with a cable tie. 12. Open the fuse box cover on the main driver's cabin side





13. Find the fuse at the arrow. The fuse is removed in the picture. 14. Install the pump pickup base. Cover the top cover of the fuse box 13. Find the fuse at the arrow. The fuse is removed in the picture. 14. Install the pump pickup base. Cover the top cover of the fuse box





15. Remove the water pot bracket accessories 16. Install the radiator water pot to the passenger cabin side.
15. Remove the water pot bracket accessories 16. Install the radiator water pot to the passenger cabin side.





17. Install the radiator hose of the aluminum pipe (this water pipe is now 18. The turbocharger is connected to the aluminum pipe for general pipeline)



19. The inlet of the radiator tank is connected to the turbocharger



20. The red arrow connects to the tank drain. The green arrow connects to the kettle drain



21. Open the kettle lid and add antifreeze according to the local weather. 176. Start the vehicle and check the antifreeze. (Turn the key ACC back and forth to drain the coolant

Maintenance guidelines

1. After the turbocharger is installed, start the engine and let it idle. Check whether there is leakage at the air intake and tighten any loose parts. (Note: Keep away from moving parts) Turn off the engine and check the coolant level in the radiator after the engine has cooled down.

2. After the turbocharger is installed, check whether all belts on the pulleys are properly aligned during engine operation. If the belts are found to be moving left and right, contact a professional technician to determine whether the installation sequence is correct.

3. After the turbocharger is installed, check whether there is any abnormal sound or vibration in the first few kilometers of the test drive vehicle.

4. Under the condition of supercharging, the turbocharger has increased noise compared with the original state of the vehicle, which is a normal phenomenon.

5. Under the condition of pressurization, the temperature under the engine cover increases, resulting in a large temperature difference. The loosening of the clamp is a normal phenomenon. Check all clamps regularly and replace them when necessary.

6. Check the wear and aging of the turbocharger drive belt during each maintenance cycle. If there are any signs of premature wear, replace it in time. If there is abnormal wear and it occurs again, there may be a misalignment problem. Check the alignment of the pulley or have a professional evaluate the problem.

7. Add 95# or above unleaded gasoline and stick to using 95# or above gasoline later to get the best power experience

8. When maintaining, try to choose the original air filter, and avoid using the air filter with poor filtration performance, because the product or vehicle will be damaged by the inhalation of debris.

9. The removed original car parts should be properly kept, which will be beneficial to your later car inspection and other problems.

10. If the vehicle has an accident and needs to be repaired in a large area, contact the dealer for partial technical guidance.

Warm reminder: although the power is strong, please drive legally, safely and civilly

National after-sales service network

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Working hours: 9:00-18:00, rest on statutory holidays

Sichuan Chengdu Service Center

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Address: No.115 Hengfu Road, Yuexiu District, Guangzhou

Working hours: 9:00-18:00, rest on statutory holidays

If you encounter any problems in the use, please contact the product distributor or contact us through the following ways
Service hotline: 4000-456-418 or 0512-66077298 (Monday to Saturday 9:00-18:00, legal holidays)
Email: www.vtracing@126.com