

Installation Instructions

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Part Number: 10.127.100K

Description: VW 2.0T FSI & MazdaSpeed, HI-Volume Fuel Pump

TOOLS REQUIRED:

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| 1. 18mm. 6 point Socket (long) | 7. T-25 Safety Torx (the kind with a hole in the middle) |
| 2. Ratchet | 8. 32mm. Open end Box Wrench |
| 3. 17mm. Open end Box Wrench | 9. Bench Vise |
| 4. Non-Chlorinated Contact cleaner | 10. Compressed air |
| 5. Small amount of fresh gasoline
(~6-8oz. Is plenty) | 11. 3-4 drops of clean engine oil |
| 6. Tooth brush | 12. Safety Glasses or Goggles |

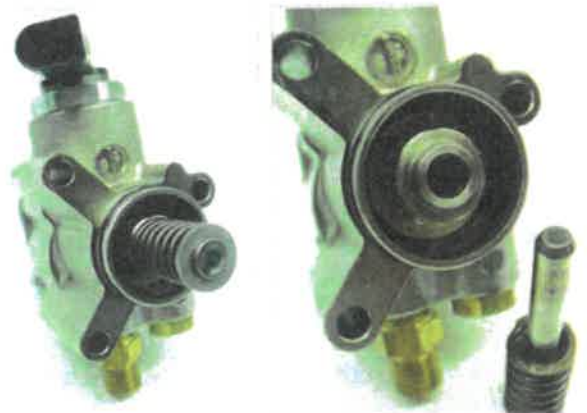
Warning:

Before you begin to work on removing the fuel pump from the vehicle, clean a spot on the work bench to work on the pump. Lint free cloths are a good way to keep major debris from contaminating the pump. Remember cleanliness is of utmost importance while rebuilding the High-pressure rail pump. Once you have an adequate work area on the bench, clean your Bench vise with the Non-Chlorinated Contact cleaner. Only after the vise and work area are clean, should you begin working on your fuel pump.

To remove pump from engine, Autotech recommends you follow a workshop manual.

Procedure:

1. With the fuel pump removed from the engine, place the pump body in a bench vise with the piston return spring facing up. Pull up on the retainer and return spring, and remove them from the pump body.
2. Place the return spring and piston on your clean workspace. Once these items are removed from the pump, a Stainless nut will be revealed. Use your 18mm. socket to loosen and remove the Stainless nut (it's actually the seal holder too!), and place it on your clean workspace.
3. Inside the Seal Holder, is the OEM cylinder that can be put aside, along with the OEM piston. The only part you will be re-using from the mechanical side of your High Pressure Rail Pump is the Stainless Seal Holder.
4. Continue to dis-assemble your pump by removing the pressure relief valve with your 32mm. Open end Box Wrench.
5. Carefully remove the valve, and the metal disk below it in the fuel pump housing. Save these for later re-assembly on your clean workspace. Be careful with the small disk it is actually 3 pieces.



6. Next remove the fuel line fittings using the closed end of your 17mm. Open end Box Wrench. Place these on your clean workspace too.

7. The last item that needs to be removed from your fuel pump body is the cover picture to the right. To remove this cover loosen the two bolts with a T25 Safety Torx. Keep this on your clean workspace.

8. Now you should be left with an empty fuel pump housing. Put on your Safety Glasses before continuing the rebuild process. Carefully clean the outside of the housing by spraying with Non-Chlorinated Contact Cleaner, and gently rubbing with the bristles of a tooth brush. Once the outside of the housing is clean, begin spraying the Contact cleaner inside the passages. After you have sprayed a decent amount of cleaner into the pump, use your compressed air to blow any contaminants, and the residual cleaner out of the internal passages. Next, blow the whole housing dry. Repeat the cleaning process, both inside and out, and again, blow it clean with the compressed air. Place the empty Fuel Pump body on your clean workspace. Clean the fuel line fittings in the same manor you just did with the pump housing. Lastly, clean the Stainless seal holder (don't use anything but contact cleaner and air). Clean your bench vise again before continuing.

9. Re-install the Pump bleed cover, and the Pressure relief valve. Before the relief valve can be re-installed, you need to put the small disk (See pic. to the right) you removed from beneath it back into the housing. Lube O-ring with a small amount of clean engine oil.

10. The plug for the wiring should be positioned like the picture shown to the right. Re-install the fuel line fittings into the housing, being careful to put them in correctly.

11. Now that parts are clean, time to install Autotech Pump.

12. Now you should lube the seal in the Stainless seal holder with a couple (read 1 or 2) drops of clean engine oil on the end of one of your fingers. Begin assembly of the piston by dipping into gasoline, then inserting the small end of the Autotech Fuel Pump Piston into the threaded end of the seal holder, and through the seal.

13. Be-gentle, it's not difficult. Install the Autotech Fuel Pump Sleeve in the Stainless seal holder, and around the new piston with the shiny larger diameter side in. Be careful to line-up the sleeve with the piston, there's not much clearance so the alignment is critical. **DO NOT FORCE THE SLEEVE OVER THE PISTON, ONCE IT IS ALIGNED CORRECTLY, IT WILL SLIDE SMOOTHLY OVER IT!!!**

14. Next, lube the o-ring with clean engine oil. Insert this assembly into the pump housing, and finger tighten the seal holder. Before going any further, clean the 18mm. socket with the contact cleaner and compressed air. Be careful to completely clean it. Tighten seal holder with CLEAN 18mm. socket.

15. The spring can now be cleaned and re-installed over the new pump piston (A little effort is required to snap the spring over the lip of the seal holder. Slide the new Titanium spring retainer over the stem of the piston. Now you can insert the two small billet steel spring retainer keepers into the retainer, and around the valve . FYI, the smallest end of the keeper goes into the retainer first. Now push the end of the PISTON (don't push on retainer) into the pump with your thumb to set the keepers in place.



Warning:
BEFORE STARTING THE CAR, PLEASE PRIME THE NEW PUMP BY HOLDING THE DRIVER'S DOOR OPEN UNTIL THE ELECTRIC FUEL PUMP UNDER THE REAR SEAT STOPS. Repeat one more time. If you hear air being pushed through repeat one more time.