

**B9 2.9T/3.0T Fuel Pump Piston Upgrade****034 MOTOR SPORT**

034Motorsport's Fuel Pump Piston Upgrade is a relatively easy way to yield up to 50% flow increase over the factory HPFP. With a DLC coated piston and cylinder, these high-precision machined internals allow for reduced friction and increased performance, and will meet the demands of E85 optimized tunes

Installation Spiciness Rating: MILD



Installation of your 034Motorsport Fuel Pump Piston Upgrade is a straightforward process that will take approximately 30 minutes to complete.

**Supplied Parts:**

- Fuel pump piston
- Fuel pump sleeve
- Fuel pump spring retainer
- Fuel pump lock collars

**Tools Needed:**

- 27mm Wrench
- 21mm Wrench
- 17mm Wrench
- 14mm Wrench
- 10mm Triple-square Bit
- T30 Torx Bit
- Small Pick/Screwdriver
- Pliers
- Trim Removal tool
- Miscellaneous tools for work holding

About This Guide

This Install Guide documents the installation process on a B9.5 Audi S4. There may be minor differences depending on specific vehicle, market, options, etc.

#### Getting Started

Confirm you have received all the parts included with your purchase by reading the complete guide, if there are missing components, please contact:  
[customerservice@034motorsport.com](mailto:customerservice@034motorsport.com)

#### Install Steps

##### **Step 1**

Open the hood of your car.



##### **Step 2**

Remove the engine cover by pulling it up.



##### **Step 3**

Unbutton the heat jacket from the fuel lines.



##### **Step 4**

Lay down several rags to soak up any lost fuel.



**Step 5**

Using a set of pliers, loosen and move the fuel line hose clamps. There are two.

**Step 6**

Using a small pick, unclip the pressure sensor connector and separate them.

**Step 7**

Using a 21mm and 17mm wrench, loosen the fuel fitting at the front of the housing. Disconnect the hard line.



**Step 8**

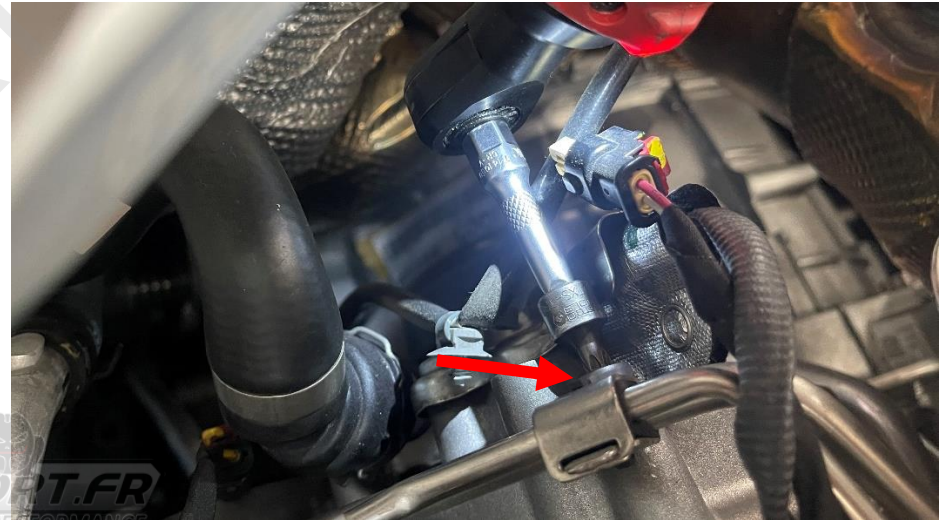
Using a 27mm wrench, remove the pressure sensor fitting at the back of the housing.

**Step 9**

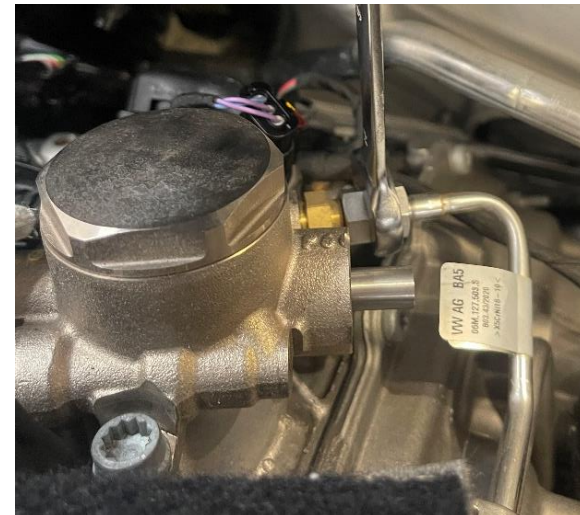
Using a trim removal tool, separate the harness clip from the engine.

**Step 10**

Using a T30 Torx, remove the hardware from the hard line bracket.

**Step 11**

Using a 14mm wrench, loosen the hard line from the back of the housing.

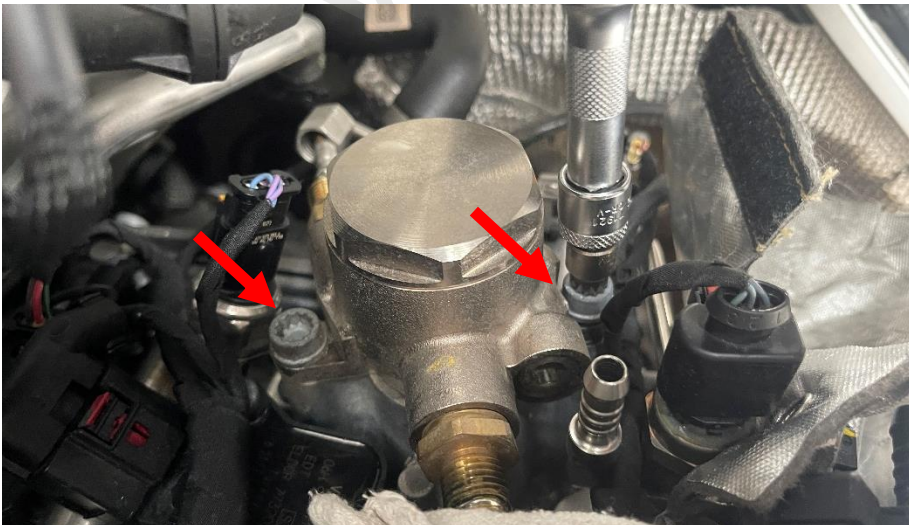


**Step 12**

The rear fuel hard line is now free from the fuel pump housing.

**Step 13**

Using an M10 triple-square, remove the hardware securing the fuel pump housing to the engine.

**Step 14**

Remove the fuel pump housing.

**Step 15**

Put the pump in a vice.

**Step 16**

Using the 034 fuel pump tool, remove the locking collar from the housing.



#### Step 17

Extract the spring assembly from the housing.



#### Step 18

Remove the piston sleeve from the spring assembly.



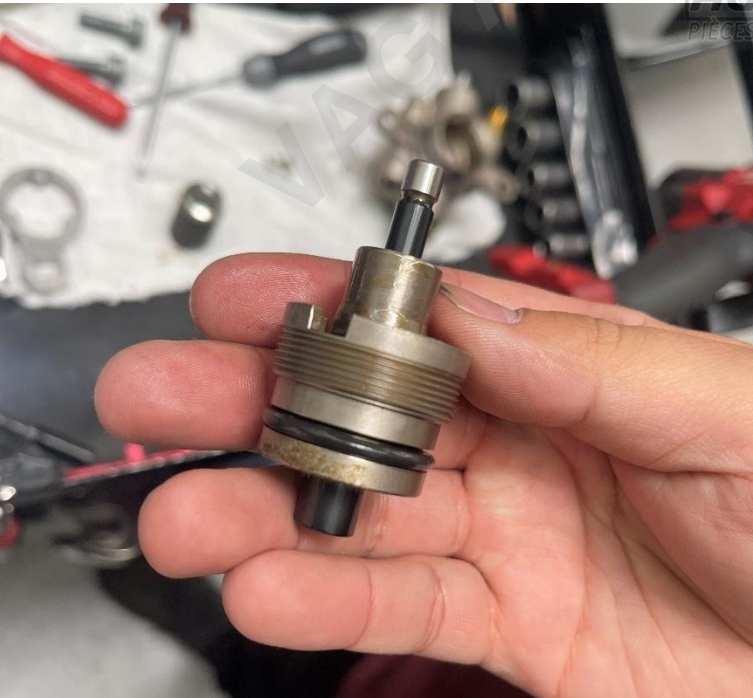
#### Step 19

We now must break the press fit of the spring retainer. We used a 19mm socket and a 4mm Allen bit. Position the Allen bit to contact the piston head only. Compress the assembly in a vise until you hear the retaining clip break free from the piston. **Wear eye protection and be careful!**



#### Step 20

Extract the old piston from the assembly and install the 034 piston.



#### Step 21

Transfer the spring from the stock piston to the new assembly.



#### Step 22

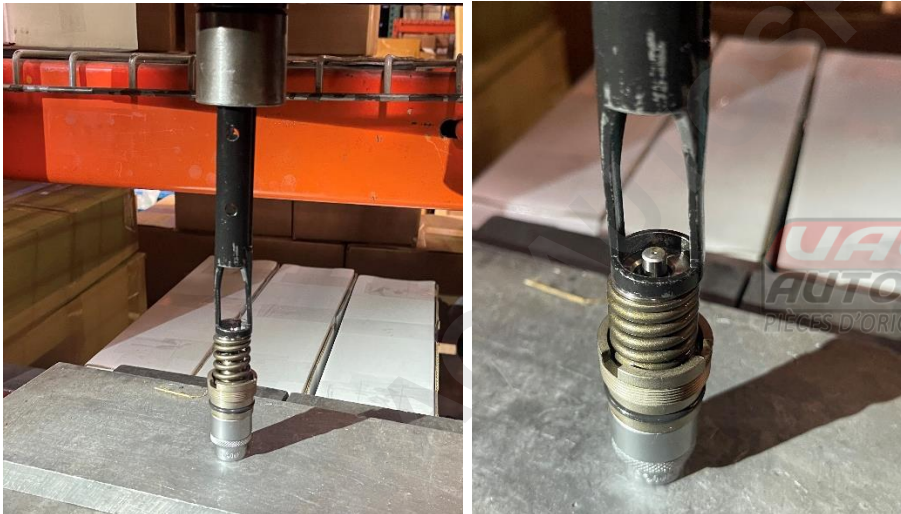
Place the 034 spring retaining washer over the spring.



**Step 23**

And now things get interesting; To install the retaining clips, you must compress the spring enough to slide them in. We used a valve seat tool, a 19mm socket, and a hydraulic press.

\*Make sure that the piston does not compress with the spring. Use a small screwdriver to lift the piston as well as to orient the retaining clips.\*

**Step 24**

Use a few drops of oil to re-lubricate the o-ring on the pump assembly.

**Step 25**

Install the 034 piston sleeve.

**Step 26**

Put assembly back into pump body. There is no true torque spec, tighten as tight as it was when you took it apart, using the 034 fuel pump tool.



#### Step 27

Reinstall the complete housing assembly into car.  
Torque to **20+5Nm**.



#### Step 28

Using an M10 triple-square, reinstall the hardware securing the fuel pump housing to the engine.



#### Step 29

Using a 14mm wrench, tighten the hard line from the back of the housing.



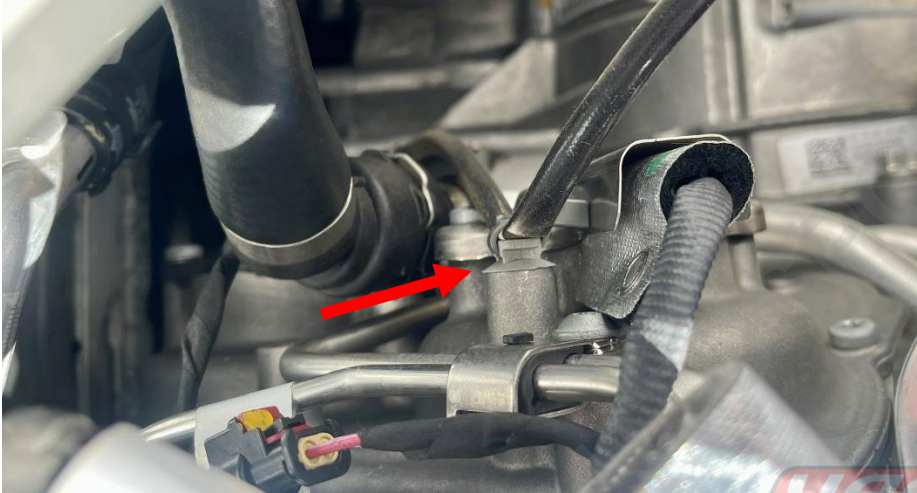
#### Step 30

Using a T30 Torx, reinstall the hardware for the hard fuel line bracket.



**Step 31**

Reinstall the harness push clip.

**Step 32**

Using a 27mm wrench, reinstall the pressure sensor fitting at the back of the housing.

**Step 33**

Using a 21mm and 17mm wrench, tighten the fuel fitting at the front of the housing.

**Step 34**

Reinstall the pressure sensor connector.



**Step 35**

Using a set of pliers, loosen and move the fuel line hose clamps. There are two.

**Step 36**

Button up the heat jacket for the fuel lines.

**Step 37**

Reinstall the engine cover.



**Step 38**

You're done! Enjoy the added performance of your new fuel pump piston upgrade.

