



## FUEL PUMP UPGRADE KIT INSTALLATION INSTRUCTIONS

PART NUMBER R420-0001

APPLICATION:	2014-16	F22 228i & xDrive coupe
	2015-16	F23 228i & xDrive convertible
	2012-16	F30 328i & xDrive sedan
	2014-16	F31 328i xDrive wagon
	2014-16	F34 328i xDrive Gran Turismo
	2014-16	F32 428i & xDrive coupe
	2014-16	F33 428i & xDrive convertible
	2015-16	F36 428i & xDrive Gran Coupe
	2014-16	F22 M235i & xDrive coupe
	2015-16	F23 M235i & xDrive convertible
	2012-15	F30 335i & xDrive sedan
	2014-15	F34 335i xDrive Gran Turismo
	2014-16	F32 435i & xDrive coupe
	2014-16	F32 435i & xDrive convertible
	2015-16	F36 435i & xDrive Gran Coupe

Congratulations for being selective enough to use a Dinan Fuel Pump Upgrade Kit. We have spent many hours developing this kit to assure that you will receive maximum performance and durability with minimum difficulty in installation. Please take the time to read these instructions and call us if you have any difficulties during the installation.

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### PARTS LIST

Qty	Part #	Description
1	D423-0011	Internal Hose Assembly #1
1	D423-0012	Internal Hose Assembly #2
1	16 11 7 188 567	O-ring
1	16 11 7 428 463	O-ring
1	D670-0238	Hose Clamp; M12 stainless
1	D670-0239	Hose Clamp; M14 stainless

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## INSTALLATION:

1. Remove the fuel pump per BMW recommended procedure.
2. The fuel pump assembly has two sections:
  - the top section with the fuel filter
  - the bottom cup which contains the fuel pump
3. Drain all of the fuel from the assembly.
4. Remove the single plug for the fuel sender wires from the top of the assembly with the fuel filter (see Figure 1).



5. Remove the E-clip from under the leg with the spring (see Figure 2). Do not lose the clip.



6. Pull the upper filter section of the assembly upwards until the 2 legs are free of the lower pump section. Do not lose the spring (see Figures 3 and 4).



7. Around the top of the pump section of the assembly are 4 tabs that secure the top into place. Pop these tabs up one at a time until you can lift the top off of the fuel cup. The pump will come out with the top (see Figures 5 and 6).



8. With the top removed, drill a 1/2" hole in the top at the location shown in Figure 7.

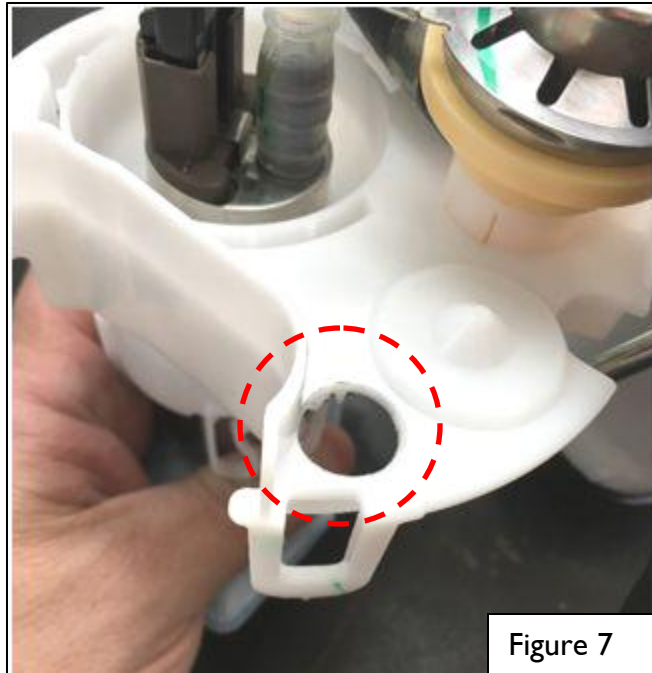


Figure 7

9. Inside the fuel cup there is a tan-colored plastic tee. Pull this part out and carefully remove the O-ring. This O-ring will be reused. The plastic tee will be discarded (see Figures 8 and 9).

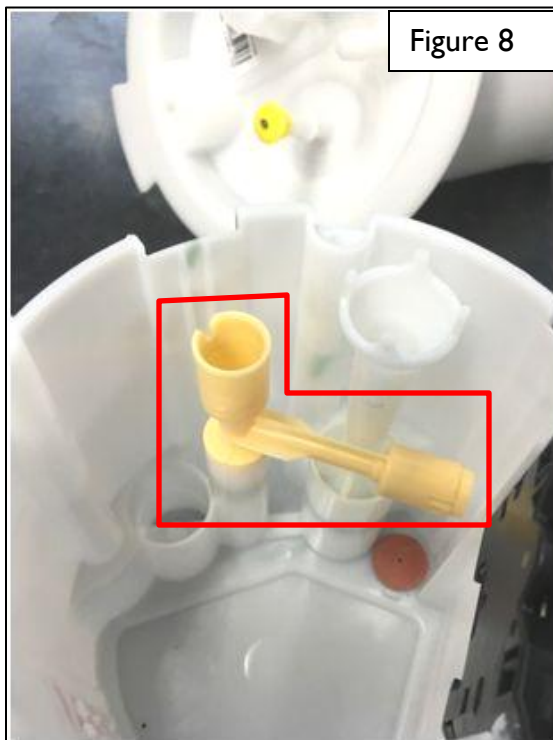


Figure 8

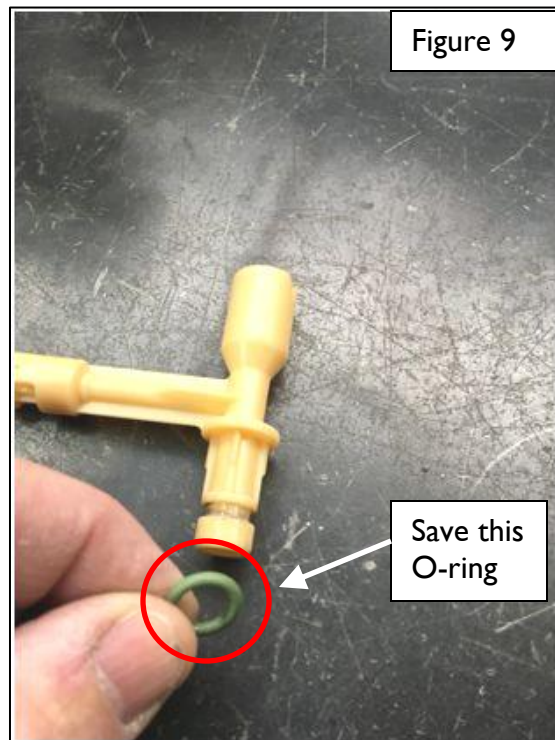


Figure 9

Save this  
O-ring

10. Transfer the O-ring to the groove on the Dinan Internal Hose Assembly #1, as shown on Figures 10 and 11.

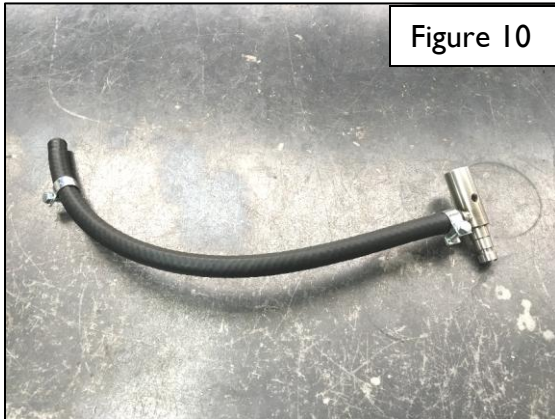


Figure 10

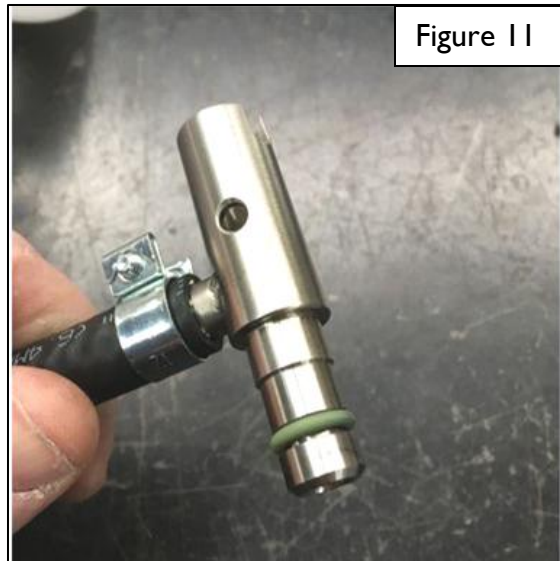


Figure 11

11. Install the Dinan tee to the end of the regulator in the lid as shown. There is a slot in the tee that aligns with a tab on the regulator. As you install it, also feed the other end of the hose through the 1/2" hole you drilled. See Figures 12 and 13.



Figure 12

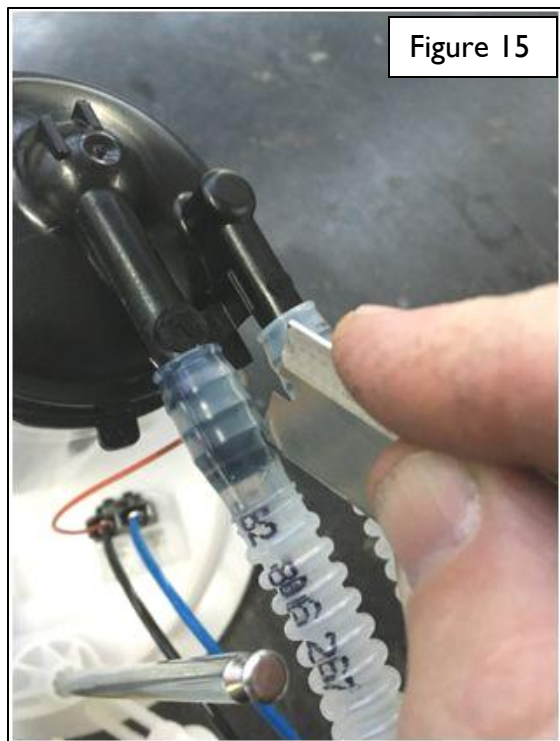


Figure 13

12. Reinstall the top of the cup. Be sure you get the end of the tee with the O-ring on it lined up with the hole that the old tan plastic tee was in.
13. Before you snap all the clips back down, be sure you have not pinched the wires for the fuel level sender (see Figure 14).



14. Identify the stock fuel line that runs between the center of the fuel filter and pressure regulator. This line will be removed.
  - Carefully cut a slit in the line where it is slipped over the hose barb (see Figure 15).
  - Do not damage the hose barb -- only cut deep enough to split the line!
  - Repeat at the other end and remove the line.



15. After removing the stock fuel line, reinstall the fuel filter half of the assembly onto the lower cup section using the spring and attaching it with the small E-clip (see Figure 16).



16. Locate the Dinan Internal Hose Assembly #2. This line and tee assembly replaces the fuel line you just cut off. Attach the short hose of the tee to the fuel filter with the tee pointing upwards (see Figures 17 and 18).



17. Attach the other long end to the fuel pressure regulator (see Figure 19).



18. Attach the hose that you ran out of the hole in the top of the cup to the end of the tee (see Figure 20).





19. Tighten all the hose clamps and be sure all the wire plugs are connected and seated.  
The final assembly will look like Figures 21 and 22.



20. Reinstall fuel pump into vehicle per BMW recommended procedure.

21. Happy Motoring!