



## *FMU filter replacement manual*



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## Safety guide lines

Please observe the following guide lines.

### Symbol

### Description



Risk off burn wounds because of freezing.  
Use protective clothing and wear gloves.



Risk of spilling. Use protective eye wear.



Work in a well ventilated area.



Flammable gas.  
Do not smoke, or open FMU near fire or sparks.

## List of required tools



Torque wrench 0-25 Nm with socket 13 & 14      Gas leakage detector



Pick hook



13 & 14 mm spanner

## List of required parts



FILTER FMU	1
O-RING 26.7X1.78	1
O-RING 7.5X1.5	1
O-RING 34.6X2.62	1
BONDED SEAL	2

Filter replacement set part number:  
190/010001/A

## Depressurization

### Safety instructions



Before the gas filter is accessible the FMU needs to be depressurized.  
Please follow these instructions carefully.

#### Steps to be taken:

Park the car in a well ventilated area and away from ignition sources such as welding and grinding sparks.

Remove the 10A system fuse.

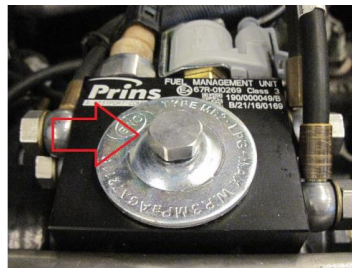


Clean the FMU thoroughly with a cloth, cleaning solvent and compressed air.

Undo the LPG supply bolt a few turns until the pressure is released, then remove the banjo bolt.  
(note the marking on the FMU side).

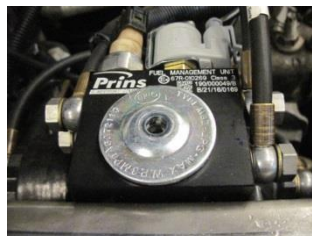


Undo the bolt a few turns; wait until the pressure is fully released before removing the lid.



## Filter unit disassembling

Remove the bolt and lid. Make sure that debris cannot enter the FMU once the filter cover is removed.



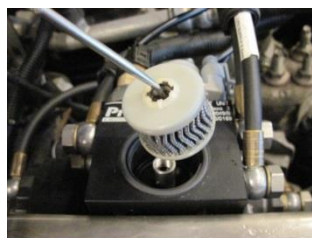
Remove the O-ring from the bolt.



Remove the filter with a pick hook or similar tool.



If necessary, apply a reasonable force to remove the filter from its seat.



Remove the O-ring on top of the FMU.



Remove the O-ring from the filter seat.

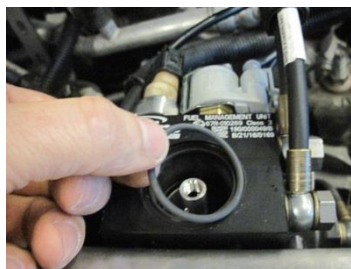


## Filter unit assembling

Fit the smallest O-ring to the bolt from the filter cover.



Fit the thick sized O-ring in the recessed groove.



Fit the thin sized O-ring around the filter.



Place the filter back in its position.



Place the filter back in its position.





Assemble the filter cover and tighten the bolt with **15 Nm** with a torque wrench.



Replace the bonded seals and tighten the banjo bolt with **10 Nm** with a torque wrench.



2x

Put back the 10A fuse in its position and turn on the ignition.



Check for gas leakage with appropriate equipment.



Idle the engine for 4-5 minutes & check the DLM system for trouble codes.

Prins AFC Software v2

Diagnostic	Basic	Advanced	Load-save	Info	Options	Help	Wizard
Monitor	Trouble Codes	OBD	S.O. Conditions	Actuator Test	Service		
Number	Description	Trip counter	Occurrence counter	Freeze frame	Active	Type	

## Registration:

The FMU filter replacement should be carried out according the service manual on our website (dealer area → manuals → Direct LiquiMax General → Filter maintenance).  
The filter replacement should be registered in the warranty portal according the steps below:

- Select the correct vehicle in the warranty portal and “Add warranty”

Installation date	License number	VIN number	Brand	Model	Type	Actions
Mar 16, 2017		WVWZZZ1KZAW210026	BMW	850	Direct LiquiMax Gen3	<a href="#">select</a>

- The first time there is no “old filter” that can be selected for replacement. It needs its first filter registration according the picture below.

Filter unit P/N\* : 190/01

Filter unit S/N\* : 190/010001/A REPLACEMENT KIT FILTER FMU



- Checklist:

### Checklist

Please make sure that you checked the following:

- 1 : ☒ Hoses + filling hoses checked.
- 2 : ☒ Fastening of components checked.
- 3 : ☒ Electrical connection + wiring checked.
- 4 : ☒ Checked for fuel leakage.
- 5 : ☒ Checked for trouble codes (petrol/diesel and LPG) and LPG / CNG pressure
- 6 : ☒ Checked for exhaust emissions.
- 7 : ☒ Fuel container checked for fastening and corrosion.
- 8 : ☒ Replace filter FMU.
- 9 : ☒ Check for software or firmware update.
- 10 : ☒ Reset pump power adaption values (recommended after software update or repair).
- 11 : ☒ Add a bottle (325ml) Prins InjectorCare to petrol tank.

### Additional information

Maintenance date\* :

Additional information : 

This is the first maintenance of the DLM system. no customer complains. Car runs perfectly

- A second, third or later filter replacement looks according the picture below.

### Replace filters

Select the filter set which has been replaced (suggestion list).  
Register the new filter set in the orange box that appears.

Filter unit : [replace](#) P/N: 190/010001/A REPLACEMENT KIT FILTER FMU  
S/N: A/10/171234

Select the new filter set. Type the first character(s) of the name to get a suggestion list.

P/N :

S/N :

### Checklist

Please make sure that you checked the following:

- Maintenance schedule:

	<5.000 km or within 6 months	50.000 km or after 2 years	100.000 km or after 2 years	150.000 km or after 2 years	200.000 km or after 2 years
Checklist executed services:	Dealer stamp	Dealer stamp	Dealer stamp	Dealer stamp	Dealer stamp
Hoses + filling hose checked					
Fastening of components checked					
Electrical connection + wiring checked					
Checked for fuel leakage					
Checked for trouble codes (petrol and LPG) + system pressure					
Checked exhaust emissions					
Replace filter FMU (only Gen3)					
	Mileage: Date:	Mileage: Date:	Mileage: Date:	Mileage: Date:	Mileage: Date:

**Remark 1:**

When maintenance is not carried out and registered in the warranty portal according our maintenance instructions, loss of warranty can be the result.

**Remark 2:**

Always observe the safety instructions before working on the DLM system.

**Remark 3:**

Please be aware that after the filter replacement, an error code (code 138 or 200) *can* be set. To reduce this possibility, the car should run on idle for the first 4-5 minutes after the filter replacement.

**Remark 4:**

The service hours function can be enabled in the software (default not enabled). In case the service hours function is enabled, please reset the counter, after the filter replacement/maintenance.

