



Automotive filtration

FITTING INSTRUCTIONS FOR FILTERS



OE supplier to the top car makers.

so/GEFI GROUP

FITTING INSTRUCTIONS FOR FILTERS



1. SPIN-ON OIL FILTER	2
2. OIL FILTER ELEMENT	4
3. SPIN-ON FUEL FILTER	7
4. FUEL FILTER CARTRIDGE	8
5. FUEL FILTER COMPLETE	10
6. FUEL FILTER	11
7. AIR FILTER	12
8. CABIN FILTER	14

CHAPTER 1:

SPIN-ON OIL FILTER



1.1 OBSERVE THE FOLLOWING POINTS

Should any object fall inside the filter throw filter away. The object can directly go inside the engine with catastrophic consequences.

Before starting the operation if the outside temperatures is low, start and run the engine for 5-10 minutes and then stop it. The oil flow will be better when it is hot.

- a) Switch off the engine.
- b) Check if it is the correct application for the vehicle, using our electronic catalogue.
- c) Open the oil filler cap to facilitate the oil flow.
- d) Remove the engine under cover to have access to the sump drain plug.
- e) Lay the oil pan to collect the used oil.
- f) Open the sump drain plug and drain the engine oil (Pic. 1).

Pic. 1



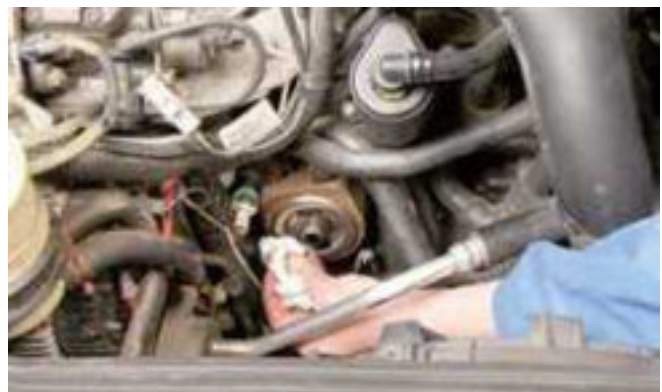
- g) Remove the old filter (strap or turn-key can be used to aid removal) (Pic. 2).

Pic. 2



- h) Clean the supporting surface that will receive the new filter (in order to eliminate impurities that could cause leaks) (Pic. 3).

Pic. 3



- i) Lubricate the seal of the new filter with clean oil (it helps proper positioning of seal)(Pic.4).

Pic. 4



- j) Offer new oil filter to the thread and turn slowly by hand to engage thread and then fully hand tighten according to recommendation.
- k) Screw the sump drain plug in after changing the seal (Pic. 5).

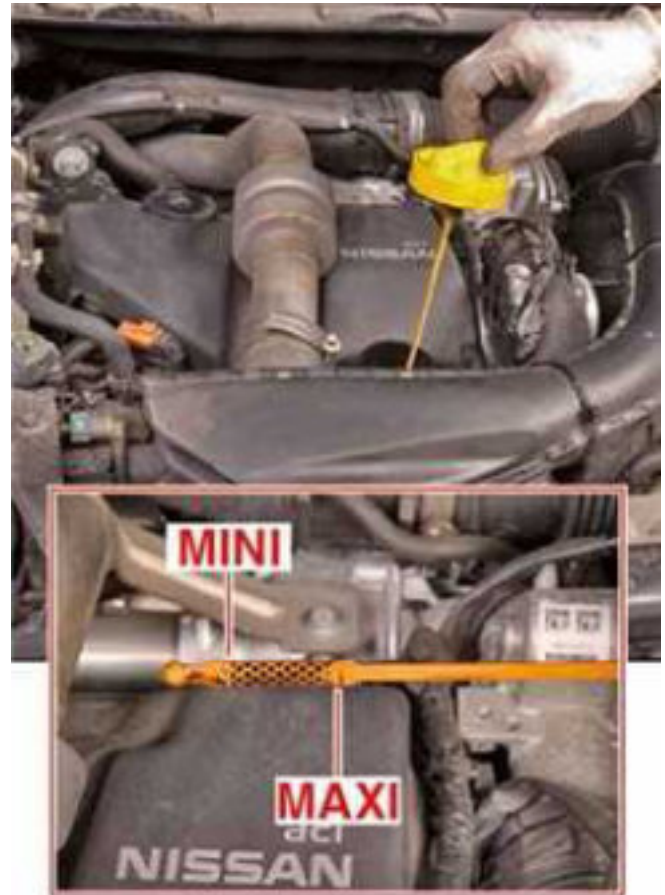
Pic. 5



- l) Pour in the required amount of new oil (consult hand book for correct amount).
- m) Do not use additives (they can destroy filter media with catastrophic consequences).
- n) Start the engine at idle speed in order to build oil pressure, stop the engine when oil light goes out.

- o) Check that the oil level is correct by removing the dip stick wipe with clean cloth then reinsert, remove to give clear visual check (Pic. 6).

Pic. 6



- p) Check for leaks with engine running.

1.2 SAFETY AND ENVIRONMENT

- Recommend to wear glasses and gloves for your protection.
- In case car is lifted with jack, use jack stands too.
- Used filters and used oil must not be thrown away. They should be disposed of correctly in authorized re-cycling centers, or through other authorized disposal agents.



CHAPTER 2:

OIL FILTERELEMENT



2.1 OBSERVE THE FOLLOWING POINTS

Before starting the operation, if the outside temperatures are low, start the engine for 5-10 minutes and then stop. The oil flows better when hot.

- a) Switch off the engine.
- b) Check if it is the correct application for the vehicle, using our electronic catalogue.
- c) Remove the engine cover (if needed) (Pic. 1).

Pic. 1



- d) Open the cover of the oil filter module and the oil filler cap to facilitate the oil flow (Pic.2).

Pic. 2



- e) Remove the engine under cover to have access to the housing cap.
- f) Place the oil pan to collect the used oil.
- g) Open the sump drain plug and drain the engine oil (Pic. 3).

Pic. 3



- h) Remove the old filter sticking to recommendation (Pic. 4a and 4b).

Pic. 4a - 4b



- i) Identify the positioning of seals (Pic. 5).

Pic. 5



- j) Clean module and the cover that will receive the new filter.
k) Lubricate new seals with clean oil (it helps proper positioning of seals). Change the seals by hand without using tools (they can damage either seals or their seats, causing leaks).

- l) Install the new filter and tighten up the cover of the oil filter module according to recommendation (Pic. 6).

Pic. 6



- m) Screw the sump drain plug in after changing the seal (Pic. 7).

Pic. 7



- n) Pour in the required amount of new oil (consult hand book for correct amount).
o) Do not use additives (they can destroy filter media with catastrophic consequences).
p) Start the engine at idle speed in order to build oil pressure, stop the engine when oil light goes out.

- q) Check that the oil level is correct by removing the dip stick wipe with clean cloth then reinsert, remove to give clear visual check (Pic. 8).

Pic. 8



- r) Check for leaks with engine running.

2.2 SECURITY AND ENVIRONNEMENT

- Recommend to wear glasses and gloves for your protection.
- In case car is lifted with jack, use jack stands too.
- Used filters and used oil must not be thrown away. They should be disposed of correctly in authorized re-cycling centers, or through other authorized disposal agents.



CHAPTER 3:

SPIN-ON FUEL FILTER



3.1 OBSERVE THE FOLLOWING POINTS

Should any object fall inside the filter throw filter away. The object can directly go inside the engine with catastrophic consequences.

- Switch off the engine.
- Check if it is the correct application for the vehicle, using our electronic catalogue.
- Remove the engine cover (if needed) (Pic. 1).

Pic. 1



- Remove the old filter (strap or turn-key can be used to aid removal) (Pic. 2).

Pic. 2



- Clean the supporting surface that will receive the new filter (in order to eliminate impurities that could cause leaks).
- Lubricate the seal of the new filter with clean oil (it helps proper positioning of seals).
- Fill the filter with fuel.
- Offer new fuel filter to the thread and turn slowly by hand to engage thread and then fully hand tighten according to recommendation.
- Prime the fuel system with the hand pump or switch on the ignition if electric pump is available.
- Air purge if necessary.
- Check for leaks with engine running.

3.2 SAFETY AND ENVIRONMENT

- Recommend to wear glasses and gloves for your protection.
- In case car is lifted with jack, use jack stands too.
- Used filters must not be thrown away. They should be disposed of correctly in authorized re-cycling centers, or through other authorized disposal agents.



CHAPTER 4:

FUEL FILTER CARTRIDGE



4.1 OBSERVE THE FOLLOWING POINTS

- a) Switch off the engine.
- b) Check if it is the correct application for the vehicle, using our electronic catalogue.
- c) Remove the engine cover (if needed) (Pic. 1).

Pic. 1



- d) If necessary, disconnect the hoses and identify connections. Check the flow of fuel (Pic. 2).

Pic. 2



- e) Open the cover of the fuel filter module (Pic. 3a and 3b).

Pic. 3a



Pic. 3b



- f) Remove the old filter (Pic.4).

Pic. 4



- g) Identify the positioning of the seals.
h) Clean module and the cover that will receive the new filter.
i) Lubricate new seals (it helps proper positioning of seals). Change the seals by hand without using tools (they can damage either seals or their seats, causing leaks) (Pic. 5).

Pic. 5



- j) Install the new filter and tighten up the cover of the oil filter module according to recommendation (Pic.6).

Pic. 6



- k) Reconnect the hoses correctly (if quick connectors used check the "click" when connecting: "click" sound is the proof that connector is properly inserted).
l) Prime the fuel system with the hand pump or switch on the ignition if electric pump is available (Pic. 7).

Pic. 7



- m) Check for leaks with engine running.

4.2 SECURITY AND ENVIRONNEMENT

- Recommend to wear glasses and gloves for your protection.
- In case car is lifted with jack, use jack stands too.
- Used filters must not be thrown away. They should be disposed of correctly in authorized re-cycling centers, or through other authorized disposal agents.



CHAPTER 5:

FUEL FILTER COMPLETE



5.1 OBSERVE THE FOLLOWING POINTS

- a) Switch off the engine.
- b) Check if it is the correct application for the vehicle, use our electronic catalogue.
- c) Remove the engine cover (if needed) (Pic. 1).

Pic. 1



- d) Disconnect hoses and identify connections. Check the flow of fuel (Pic.2).

Pic. 2



- e) If fitted, unclip the water sensor connector.
- f) Remove the old module.

- g) Identify the positioning of the seals.
- h) Correctly position the new module (remove the protective caps at the last moment in order to avoid to contaminate filter).
- i) Lubricate new seals (it helps proper positioning of seals), change and position the seals by hand without using tools (they can damage either seals or their seats, causing leaks).
- j) Reconnect the hoses correctly (if quick connector used, check the "click" when connecting: "click" sound is the proof that connector is properly inserted).
- k) On some modules, the seat of the water sensor can be obstructed: it will automatically be opened when the water sensor is completely tightened up.
- l) Prime the fuel system with the hand pump or switch on the ignition if electric pump.
- m) Air purge if necessary.
- n) Check for leaks with engine running.

5.2 SAFETY AND ENVIRONMENT

- Recommend to wear glasses and gloves for your protection.
- In case car is lifted with jack, use jack stands too.
- Used filters must not be thrown away. They should be disposed of correctly in authorized re-cycling centers, or through other authorized disposal agents.



CHAPTER 6:

FUEL FILTER



6.1 OBSERVE THE FOLLOWING POINT

- Switch off the engine.
- Check if it is the correct application for the vehicle, using our electronic catalogue.
- Remove the engine cover (if needed) (Pic. 1).

Pic. 1



- Disconnect hoses and identify connections (Pic. 2).

Pic. 2



- Remove the old filter (Pic. 3).

- If necessary, identify the positioning of the seals and washers.



Pic. 3

- Correctly position the new filter checking the fuel direction by an arrow on the filter (remove the protective caps at the last moment in order to avoid to contaminate filter).
- Reposition seals after lubricating (it helps proper positioning of seals) by hand without using tools (they can damage either seals or their seats, causing leaks) and washers.
- Reconnect the hoses correctly (if quick connector used check the "click" when connecting: "click" sound is the proof that connector is properly inserted).
- Check for leaks with engine running.

6.2 SECURITY & ENVIRONNEMENT

- Recommend to wear glasses and gloves for your protection.
- In case car is lifted with jack, use jack stands too.
- Used filters must not be thrown away. They should be disposed of correctly in authorized re-cycling centers, or through other authorized disposal agents.



CHAPTER 7:

AIR FILTER



7.1 OBSERVE THE FOLLOWING POINTS

- a) Switch off the engine.
- b) Check if it is the correct application for the vehicle, using our electronic catalogue.
- c) Remove the engine cover (if needed) (Pic. 1).

Pic. 1



- d) Remove the air duct if necessary (Pic. 2).

Pic. 2



- e) Open air filter box.

f) Remove the old filter (Pic.3).

Pic. 3



g) Clean the air filter box and its cover (using a clean damp cloth), so that the new filter is fitted in a clean environment. While filter box is open pay extreme attention that no objects fall inside it: they can directly go inside the engine with catastrophic consequences).

h) Install the new filter (Pic.4).

Pic. 4



i) Check it is in the correct positioning.

j) Close the air filter housing cover.

k) Reinsert the air duct (if it has been removed).

7.2 SECURITY & ENVIRONNEMENT

- Recommend to wear glasses and gloves for your protection.
- Used filters must not be thrown away. They should be disposed of correctly in authorized re-cycling centers, or through other authorized disposal agents.



CHAPTER 8:

CABIN FILTER



8.1 OBSERVE THE FOLLOWING POINTS

- Switch off the engine.
- Check if it is the correct application for the vehicle, using our electronic catalogue.
- The cabin filters may be located in several places in the engine compartment, under the glove box, under the wipers or near the accelerator pedal. Consult hand book for correct location (Pic. 1, 2 and 3).
- Open the cabin filter housing.
- Remove the old filter from the housing.
- Clean the interior filter housing (using a clean damp cloth) so that the new filter is fitted in a clean environment.
- Correctly position the new cabin filter checking the flow direction by an arrow on the filter.
- Check it is in the correct position.
- Close the cabin filter housing.

8.2 SECURITY & ENVIRONNEMENT

- Recommend to wear glasses and gloves for your protection.



Pic.1 - Cabin filter located behind the glove box



Pic.2 - Cabin filter located behind in the engine bay, under the windshield



Pic.3 - Cabin filter located near the pedals

Note

