

**Haynes**
shows you how

BMW 3-Series and Z4 (99-05) Includes 2006 325ci/330ci Coupe and Convertible models Haynes Online Manual.

3 Engine oil and filter replacement

05:00

Caution:

This video is for familiarization purposes only. Read below for specific information on your vehicle.

Note:

These vehicles are equipped with an oil life indicator system that illuminates a light or message on the instrument panel when the system deems it necessary to change the oil. A number of factors are taken into consideration to determine when the oil should be considered worn out. Generally, this system will allow the vehicle to accumulate more miles between oil changes than the traditional 3000-mile interval, but we believe that frequent oil changes are cheap insurance and will prolong engine life. If you do decide not to change your oil every 3000 miles and rely on the oil life indicator instead, make sure you don't exceed 15,000 miles before the oil is changed, regardless of what the oil life indicator shows.

1 Frequent oil and filter changes are the most important preventative maintenance work which can be undertaken by the home mechanic. As engine oil ages, it becomes diluted and contaminated, which leads to premature engine wear.

2 Before starting this procedure, gather together all the necessary tools and materials. Also make sure you have plenty of clean rags and newspapers handy, to mop up any spills. Ideally, the engine oil should be warm, as it will drain better, and more built-up sludge will be removed with it. Take care, however, not to touch the exhaust or any other hot parts of the engine when working under the car. To avoid any possibility of scalding, and to protect yourself from possible skin irritants and other harmful contaminants in used engine oils, it is advisable to wear gloves. Access to the underside of the car will be improved if it can be raised on a lift, driven onto ramps, or jacked up and supported on axle stands (see *Jacking and towing*). Whichever method is used, make sure the car remains level. On vehicles equipped with a front reinforcement plate between the front suspension lower control arms, access to the oil drain plug is through a removable cover in the plate (see illustration).

3.2 Access to the drain plug is through a removable cover in the reinforcement plate



3 Working in the engine compartment, locate the oil filter housing at the front of the engine in front of the intake manifold.

4 Place a rag around the bottom of the housing to absorb any spilt oil.

5 Remove the oil filter housing cover using an oil filter wrench or equivalent (see illustrations) . Remove the cover and lift the filter cartridge out.

3.5a Use an oil filter removal tool . . .



3.5b . . . or a strap wrench to remove the cover from the oil filter housing

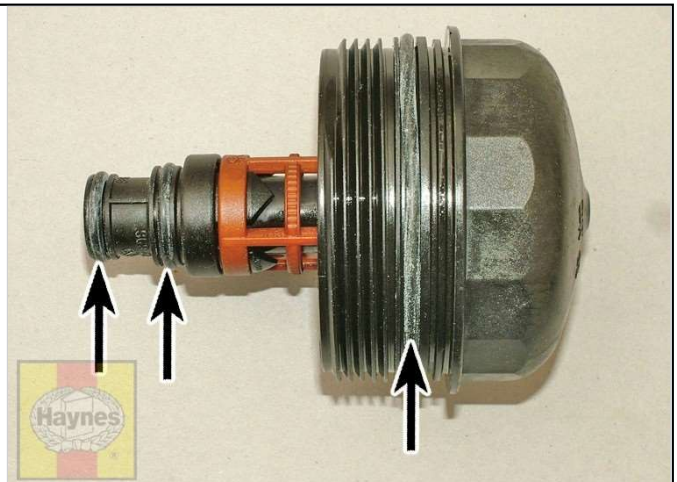


6 Remove the O-rings from the cover.

7 Using a clean rag, wipe the mating faces of the housing and cover.

8 Install new O-rings to the cover (see illustration).

3.8 Install new O-rings to the cover



9 Place the new filter cartridge into the housing.

10 Apply a small amount of clean engine oil to the O-rings, install the cover and tighten it to the torque listed in [this Chapter's Specifications](#).

11 Working under the car, loosen the oil drain plug about half a turn. Position the drain pan under the drain plug and then remove the plug completely. **Note:** *It is very helpful to use gloves and keep pressure on the drain plug until it has cleared all of the threads of the oil pan and then remove it quickly.*

12 Recover the drain plug gasket (washer).

13 Allow some time for the old oil to drain. It may be necessary to reposition the drain pan as the oil flow slows to a trickle.

14 After all the oil has drained, wipe off the drain plug with a clean rag. Check the gasket condition, and replace it if necessary. Clean the area around the drain plug opening, then install and tighten the plug to the torque listed in this Chapter's Specifications (see illustration) .

3.14 Check the condition of the oil drain plug gasket



15 Remove the old oil and all tools from under the car and then lower the car to the ground (if applicable).

16 Remove the dipstick and then unscrew the oil filler cap. Fill the engine, using the correct grade and type of oil listed in this Chapter's Specifications . A funnel may help to reduce spillage. Pour in half the specified quantity of oil first, then wait a few minutes for the oil to fall to the oil pan. Continue adding oil a small quantity at a time until the level is up to the lower mark on the dipstick. Finally, bring the level up to the upper mark on the dipstick. Insert the dipstick, and install the filler cap.

17 Start the engine and run it for a few minutes. Check for leaks around the oil filter cover and the oil drain plug. The oil warning light should go off after a few seconds.

18 Turn off the engine, and wait a few minutes for the oil to settle in the oil pan once more. With the new oil circulated and the filter completely full, recheck the level on the dipstick and add more oil as necessary.

Caution: *Be careful not to overfill the engine with oil. Having too much oil in the engine could cause considerable damage .*

19 Dispose of the used filter and engine oil safely. Check on the Internet or with your local auto parts store, disposal facility or environmental agency to find where used oil is accepted for recycling. After the oil has cooled, it can be drained into containers (capped plastic jugs, topped bottles, milk cartons, etc.) for safe transport to an appropriate disposal site. DO NOT dispose of the oil any other way!