



# 2000-2006 BMW M3 Oil & Filter Change

Change the oil and oil filter on your E46 M3.

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## INTRODUCTION

Regular oil and filter changes are essential maintenance for the E46 M3's high-performance S54 engine. The service indicator on the dash will tell you when it's time for an oil service, although some folks choose to do it more frequently (such as every 7,500 or 10,000 miles).

Be sure to use the correct oil. BMW recommends Castrol TWS 10W-60, which you can purchase online or at your BMW dealer.

Photos for this guide are used with the kind permission of contributor JeST at [EuroAddiction.net](http://EuroAddiction.net).

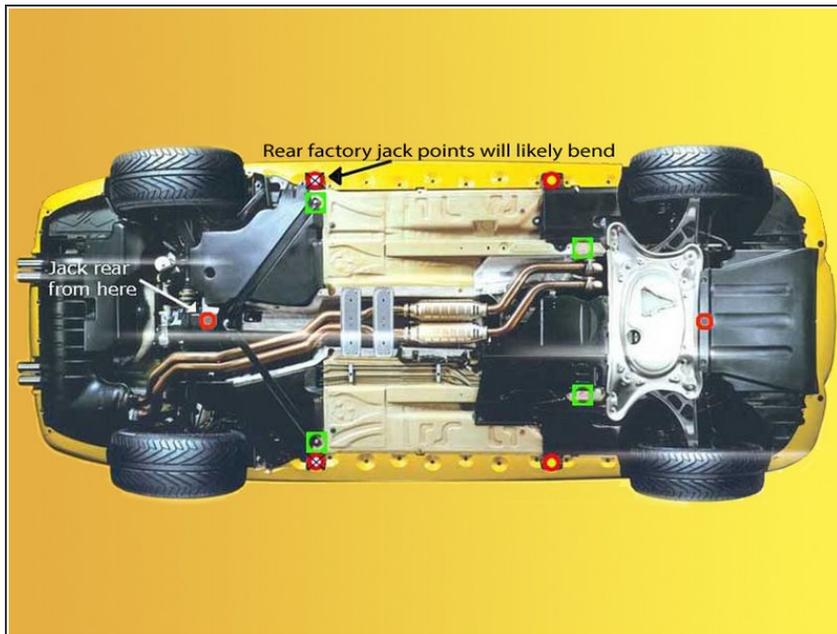
### TOOLS:

- [Hydraulic Floor Jack](#) (1)
  - [Jack Stands](#) (1)
  - [Socket Wrench](#) (1)
  - [Torque Wrench](#) (1)
  - [13mm Socket](#) (1)
  - [Flathead 3/32" or 2.5 mm Screwdriver](#) (1)
  - [Macro Bit Set](#) (1)
- 6mm Allen Wrench

### PARTS:

- [Engine Oil - Quart](#) (6)  
Castrol TWS 10W-60
- [Oil Filter](#) (1)  
MAHLE Original OX 187D

## Step 1 — 2000-2006 BMW M3 Oil & Filter Change



**⚠** Raise and support the car using ramps or jack stands. Never work under a car supported only by a jack.

- The E46 M3 has four factory jack points (two per side), but you can also jack up the car using these two center points (one in front and one in the rear). Then you can easily place jack stands under the lift pads on the sideskirts/rocker panels.

**i** Use this image for reference, but note that your exhaust configuration may look different. The car pictured is a Euro-spec M3 with cats in section I, whereas US-spec M3s have cats only in the headers.

## Step 2



- Open the hood to access the engine bay.
- ⓘ Note the oil filler cap (the large black plastic cap on the left) and the oil filter housing (the metal cylinder with the star pattern top on the lower right).

## Step 3



- Disconnect the throttle position sensor (simply pinch the clip and pull).

## Step 4



- Remove the oil filler cap by unscrewing it counter-clockwise.

## Step 5



- Use a 13 mm socket to loosen the oil filter housing bolt.
- Remove the bolt and set it aside. Some oil will drip, so have a shop rag or towel ready.

## Step 6



- Beneath the car, remove the small round plastic cover that hides the oil drain plug (it's located in the middle of the aluminum underpanel, near the front center jack point).
- Use a 6 mm hex/Allen socket to loosen the oil drain bolt, but don't remove it completely.
- Position your oil drain pan below the bolt so that it will catch the used oil as it flows out.
- Remove the bolt and allow the oil to drain.

## Step 7



- **i** The oil filter kit comes with a replacement washer (sealing ring) for the drain bolt.
- With the bolt removed, discard the old washer and replace it with the new one.
- Reinstall the drain plug and torque it to 18 ft lbs.
- Reinstall the plastic cover hiding the drain plug.

## Step 8



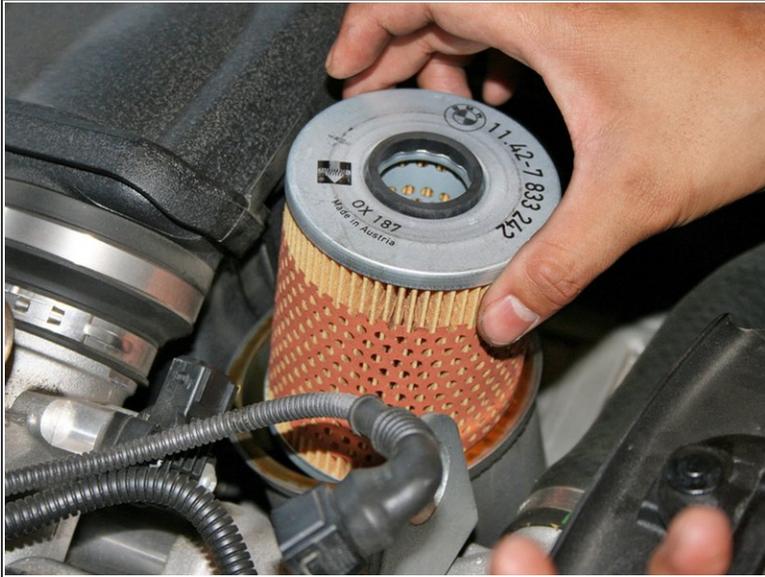
- Replace the rubber O-ring on the oil filter housing cap.
- Give the new O-ring a light coating of fresh oil.

## Step 9



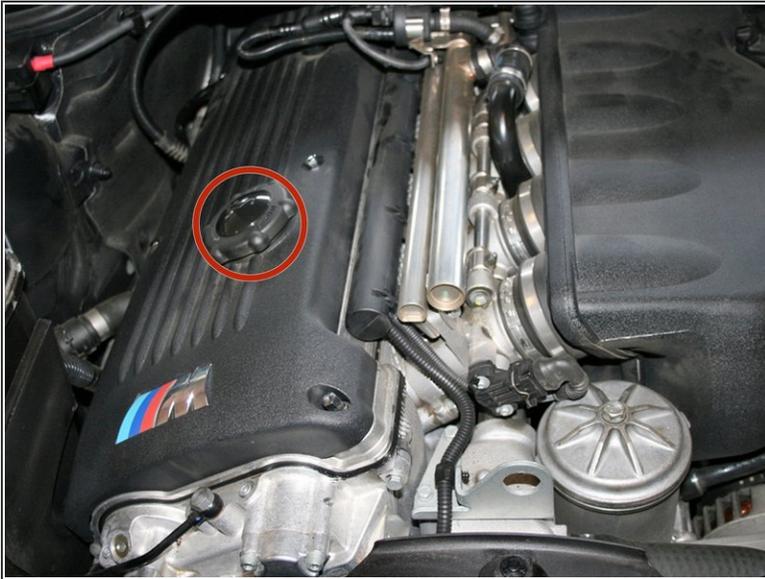
- Replace the washer at the top of the oil filter housing bolt.
- Replace the small rubber O-ring at the tip of the oil filter housing bolt.
  - You may need a pry tool to remove the old O-ring.

## Step 10



- Replace the oil filter.
- Put the cap back on the oil filter housing, and torque the bolt down to 24 ft lbs.

## Step 11



- Using a funnel, pour about 5.75 liters of fresh oil into the oil fill hole.
  - Check the oil level and top up as needed. (The car should be level to the ground for an accurate reading.)
  - Close the oil filler cap.
  - Plug in the throttle position sensor.
  - Close the hood and lower the car. Re-check the oil level after a short drive and top up as needed.
- ⚠ Dispose of the old oil, filter, and any contaminated rags responsibly by taking them to a household hazardous waste facility. Many auto parts stores will also accept your used oil for disposal.