



## CARE AND MAINTENANCE

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## Care and maintenance

Your brand new BMW is certainly a fine sight. How long it continues to appear so attractive depends on the care with which you look after it.

**Wash the car** away from direct sunlight and when the engine compartment lid has cooled, to avoid formation of patches.

Road dust and dirt contain chemicals which may in the long run damage your car paintwork. For this reason any car – especially a new one – should be washed as often as possible.

Tar stains, dead insects and paintwork damage caused by stones should be removed or touched-up without delay, or else the paint may discolour or patches of rust may appear.

Clean the car interior with a brush and pan or vacuum cleaner.

Soften dirt on the paintwork with a fine spray of water, then rinse away.

Do not spray water into the ventilation inlet and outlet grilles.

After rinsing down, wash the upper part of the body, beginning with the roof, with water, which is never more than lukewarm, using a sponge or special glove. Rinse the sponge or glove in clean water at frequent intervals.

Cleans the lower parts of the body and wheels last of all, and if possible keep a separate sponge for these areas.

After washing down, spray thoroughly once again and dry with a clean washleather to prevent water droplets from forming patches.

If cleaning the car with water alone is insufficient, use a branded car shampoo in the concentration recommended by the makers. Rinse down afterwards with a generous stream of water. Excessive use of car shampoos will remove fatty substances from the paint, which will become brittle, thus necessitating treatment with a branded paint preservative.

Your car paintwork needs polishing or preserving when water no longer forms round droplets on the surface.

Use only branded car care products in accordance with the instruction supplied.

**Minor paint blemishes** can be touched up with a BMW paint spray aerosol or BMW touch-up stick. The colour you need is marked on an adhesive label close to the maker's plate in the engine compartment.

No mineral oils, spray or other preservative substances should be allowed to reach the wheel cylinder piston sealing sleeves or the discs themselves.

Clean **chromium plated or polished components** with water or soap and water.

**Tar stains** should never be scraped off with a knife or hard object. Use a commercially available tar remover. When cleaning the **inside surface of the windows**, we recommend water diluted 1 : 1 with vinegar.

**Rubber components** should be treated only with pure water or glycerin.

Clean the **wiper blades** with soapy water. Renew the blades at least once a year.

**Stains on cloth upholstery** can be removed with an ordinary stain remover, but do not let any such product come in contact with real or artificial leather.

**Artificial leather** should only be wiped down with a damp cloth and dried immediately afterwards.

**Safety belts** should not be removed from the car and should only be cleaned with a weak soap and water solution; they should on no account be drycleaned, as this may destroy the fabric. Automatic retracting belts should only be rolled up when dry. Dirt on the belt straps impedes rolling up and thus adversely affects safety.

When you took delivery of your car you received a Service Booklet made out in your name and for your own particular vehicle. After the free **pre-delivery** check, your BMW Service Station removed the corresponding section from the booklet and made an entry to confirm that the work had been properly carried out. The same procedure will be followed when it is time for the first BMW Inspection at approx. 600 miles (1 000 km).

Your BMW Service Station will then attach a self-adhesive label to the driver's door post (**Fig.**) as a reminder when the next service is due.

This and all other BMW oil-change service or inspection work must be confirmed by entries in the appropriate spaces of the Service Booklet.

Please ensure that the entries are correct; in the event of a warranty claim this evidence will be needed, and you will in any case be glad of proof at a later date that the car has been properly cared for.

We recommend that the prescribed BMW service should be carried out **regularly** by a BMW Service Station. This is the only way to guarantee that all operations are based on the latest factory recommendations. A list of workshops in the worldwide BMW network of authorized dealers and Service Station is supplied with the car so that you can be sure of reliable attention for your car wherever you may travel.

In the interests of the reliability and extended operating life of your car we recommend that **at least two BMW Inspections per year** should be carried out, even if the distance covered is less than the prescribed figure.



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## 1st BMW Programtest

after 600 miles or 1 000 km

1. Change oil in engine and oil filter, while engine is warm. Renew oil filter.
2. Change oil in gearbox while warm (not applicable to automatic transmission).
3. Change oil in final drive while warm.
4. Rear half-shaft sliding joints: check for leaks.
5. Check bellows at the steering for leaks.
6. Check coolant hoses for leaks, tighten hose clips, check coolant level and concentration and top up if necessary.
7. Examine brake lines and connections for leaks, damage or distortion. Check level and brake fluid in reservoir and top up if necessary.
8. Check line and hose connections of the aux. air valve for tightness. Retension hose clamps.
9. Check fuel distribution line for tightness. Tighten the scewed caps on the injection lines.
10. Apply grease to the bearing points and moving parts of the throttle butterfly linkage.

Free Inspection of the Emission Control System after 600 miles includes:

Examine engine as instructed with a BMW Programtester

Check and adjust Emission Control System

Check CO-Output

Tighten hose clamps and screws on the throttle butterfly manifold, intake pipe, air-container and mixture control unit

Check fuel cap, tank and connections of tightness

Check bolts and nuts on exhaust manifold or thermal reactor and cylinder head bolts to the required torque levels (Look at page 82)

Check clearance of valves and adjust if necessary

11. Check V-belt tension and correct if necessary.
12. Tighten all engine bolts and nuts to required torque specifications. Check nuts on rubber engine mountings (left and right).
13. Tighten following nuts and bolts (see specifications for tightening torques): front axle, steering, track rods, gearbox, driveshafts, rear axle, exhaust system, brakes and wheel nuts.
14. Tighten all bolts and nuts on front and rear compartment lids, hinges, catches, door locks and handles.
15. Check steering in straight-ahead position for absence of play and adjust if necessary.
16. Check footbrake bleed and adjust if necessary.
17. Check handbrake and adjust if necessary.
18. Check front wheel bearing play and adjust if necessary.
19. Check the track of the front wheels and adjust if necessary.
20. Check tire pressures and adjust if necessary.
21. Check lighting system, instrument readings, horn controls and mirror.
22. Check headlamp settings and correct if necessary.
23. Final inspection of all items effecting road safety (brakes, steering, clutch or automatic transmission).

**Note:** If desired, rebalance all four road wheels (to be invoiced separately).

## Oil Service

every 6000 miles or 10 000 km, beginning at 6500 miles or 10 000 km

1. Change oil in engine and filter while at normal operating temperature. Renew oil filter element.
2. Check coolant level and top up if required.
3. Check battery acid level and add distilled water if required.
4. Check fuel cap, tank and connections of tightness.
5. Check level of brake fluid in equalizing reservoir.
6. Check tire pressure and adjust if necessary.
7. Top up the screenwasher reservoir.
8. Check and adjust idle speed and CO.
9. Check lighting, instrument readings, horns, controls and rear view mirrors.
10. Final inspection of items affecting road safety (brakes, steering, clutch or automatic transmission).

## BMW Programtest

every 12 500 miles or 20 000 km, beginning at 12 500 miles or 20 000 km.

1. Renew spark plugs.
  2. Renew contact breaker points and condenser. Apply a wedge-shaped area of Bosch Ft 1 v 4 grease to the distributor hammer slide.
  3. Change oil in engine and filter while at normal operating temperature. Renew filter element.
  4. Check oil level in gearbox and top up if required.
  5. Check oil level in final drive and top up if necessary.
  6. Halfshafts: check bellows for leaks.
  7. Check coolant hoses for leaks, tighten hose clips. Check coolant level and concentration and top up if necessary.
  8. Check battery acid level and top up if required with distilled water.
  9. Check brake fluid level in reservoir and top up if required.
- Note:** Change brakefluid at least once a year.
10. Check hose clamps and screws on throttle manifold, intake pipe, air container and air flow-meter.
  11. Tighten hose and line connections of the aux. air valve.

12. Check V-belt tensions and correct if required.
13. Apply grease to the bearing points and moving parts of the throttle linkage.
14. Check fuel distribution line and injection valves of tightness. Replace main fuel filter.
15. Tighten nuts on thermal reactor or exhaust manifold (see specifications for tightening torques in the workshop manual). Visual inspection of rubber engine mountings left and right.
16. Check valve clearances and adjust if required.
17. Intake air silencer: renew filter element. Reduce this interval for renewing the element in dusty conditions.
18. Halfshafts and propellor shaft; Ceck condition of joints and rubber disc coupling.
19. Disc brakes: Check total thickness of pads and linings and examine surface condition of discs. Renew pads if required.
20. Tighten nuts and bolts as follows (see Specifications for tightening torques): steering box mounting, brake caliper mountings, wheel nuts.
21. Front wheel bearings: check play, adjust and grease if required.

22. Check steering for absence of play and adjust if necessary. Check condition of track rod and front axle joints.
23. Check tire pressures and correct if required. Check condition of tires. If wear is uneven, optional optical alignment and correction of wheel positioning (invoiced separately).
24. Check brake lines and connections for leaks, damage or distortion. Check hand-brake cable for freedom of movement. Adjust handbrake.
25. Check condition, position and mounting of exhaust system and examine for leaks.
26. Tighten bolts and nuts on door locks and handles.
27. Oil door and front lid hinges, grease front and rear lid locks, door lock catches and handles. Check operation of these components.
28. Check the following items:  
lighting equipment (headlights\*, auxiliary driving lights\*, parking rear, reversing, license plate, interior, glove box, engine and luggage compartment lights), warning equipment (turn indicators, hazard warning flashers, brake lights, horns, headlight flasher), instrument and inscription lighting, control lighting, windshield wipers and washers (blades and pump, including headlight cleaning system if installed), fluid reservoir level and anti-freeze concentration, jet positions (windshield) and heater blower.

30. Check condition and operation of seat belts.
31. Examine engine as instructed with a BMW Programtester. Check engine idling and CO, adjust if necessary.
32. Check Evaporative Control System. Clean air filter ring in carbone canister, check fuel cap, tank and connections of tightness.
33. Check the EGR-valve (shut-off diaphragm and working diaphragm) and inspect function of pressure transmitter. Test air pump and diverter valve and check hose connections of tightness.
34. Final inspection of items affecting road safety (brakes, steering, clutch or automatic transmission, headlamp beam settings).

**Note:** If desired, interchange all four road wheels as instructed and rebalance.

\* Check operation only, not settings

**Every 25 000 miles or 40 000 km:** Make visual check of thermal reactor (California model). After inspection or renewing, open contact in service-interval switch to reset the mileage recorder on zero.

Replace distributor cap and rotor. Check that vacuum hoses of the Emission-Control-System have tight connections and are routed free of kinks and be without cracks.

Replace EGR filter. Open contact in service interval switch (mileage recorder).

Change gearbox oil only while at normal operating temperature.

**Every 37 500 miles or 60 000 km:** Clean mesh filter of the induction unit in the fuel tank. Tighten the bolts and nuts (keep to correct torque values shown in the workshop manual) of the rubber engine mountings, and intake manifold. Check clutch driving plate for wear.