

**Haynes**
shows you how

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

3 Emission control systems - component replacement

Note:

Emission components are usually covered by a warranty that lasts longer than the bumper-to-bumper warranty (depending also on the state in which the vehicle was first sold). Be sure to consult with a BMW dealership before pursuing any repairs on the emission or fuel controls.

Crankcase emission control

1 The components of this system require no routine attention, other than to check that the hoses are clear and undamaged at regular intervals.

Charcoal canister replacement

Note:

The canister on M56 engine models is stainless steel and uses line fittings. The canister is covered under the emissions warranty for 15 years/150,000 miles - see Chapter 4 for more details.

2 The canister is located under the rear of the vehicle. Jack up the rear and support it securely on jackstands.

3 Remove the screws/expansion rivet, and remove the cover and long plastic panel (if equipped) at the right-hand side of the spare wheel well (see illustration) .

3.3 Pry out the expansion rivet and remove the panel



4 Disconnect the hoses (or lines) from the canister. If the hoses are secured by plastic locking clips, squeeze the sides of the clips to release them from the connection on the canister. On M56 engine models, use a flare nut wrench to remove the lines from the canister. Note the hose locations to ensure correct installation (see illustrations).

3.4a Squeeze together the sides of the locking collars to disconnect the hoses



3.4b Use a flare-nut wrench to disconnect the lines from the canister on M56 engine models



5 Unscrew the securing screws, and withdraw the canister/bracket assembly.

6 Installation is a reversal of removal, but ensure that the hoses are correctly reconnected as noted before removal, and make sure that the hose securing clips are correctly engaged.

Purge solenoid valve replacement

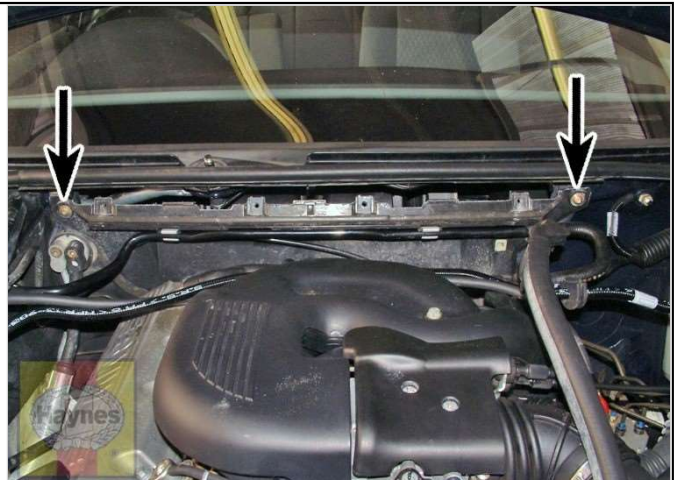
7 The valve is located under the intake manifold. To allow sufficient clearance, remove the heater/ventilation inlet air ducting from the rear of the engine compartment as follows.

- A. Rotate the three fasteners 90° counterclockwise and remove the cabin filter cover from the rear of the engine compartment. Pull the filter forward and remove it.
- B. Undo the four retaining clips and thread the cable out of the ducting (see illustration).
- C. Unscrew the four screws and pull the filter housing forwards and remove it.
- D. Undo the two screws and remove the inlet ducting upwards and out of the engine compartment (see illustration).

3.7a Unclip the cable ducting

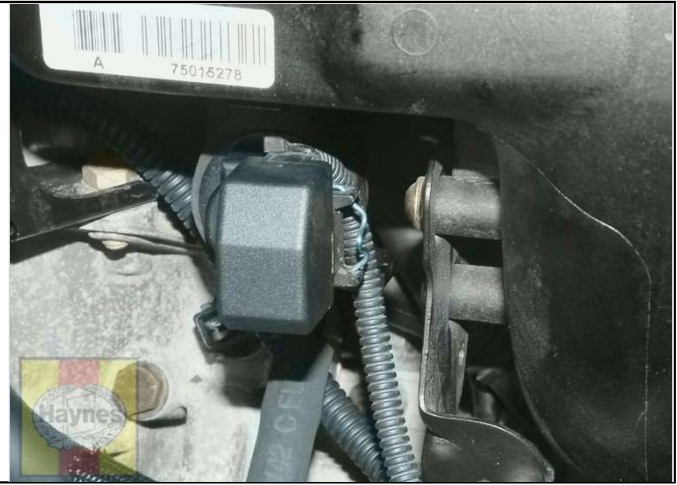


3.7b Unscrew the two Torx screws and remove the inlet housing



8 Reach under the manifold, and disconnect the valve wiring connector (see illustration) .

3.8 Disconnect the purge solenoid valve wiring connector



9 Depress the locking catch and disconnect the hose from the underside of the valve.

10 Disconnect the remaining hose and pull the valve from the rubber holder.

11 Installation is a reversal of removal.

Catalytic converter replacement

12 The catalytic converters are integral with the exhaust manifolds. In order to replace them, it is necessary to replace the manifolds (see [Chapter 4](#)).

Secondary air injection system

Air injection valve

13 The air injection valve is located above the exhaust manifold on the right-side of the cylinder head. Squeeze together the sides of the locking collar, and disconnect the pump-to-valve hose fitting.

14 Unscrew the two retaining nuts and remove the valve from the cylinder head (see illustration) . Recover the gaskets.

3.14 Unscrew the two nuts and remove the secondary air injection valve (M52TU engine shown, others similar)



15 Installation is the reversal of removal, tightening the retaining nuts securely.

Air pump

16 The air pump is located on the right-hand inner fender. Loosen the clamp and disconnect the hose from the pump.

17 Unscrew the fasteners and remove the pump (see illustration) . Disconnect the wiring connector as the pump is removed. **Note:** *The M56 engine models are equipped with a MAF sensor in the duct leading to the pump from its air filter .*

3.17 Secondary air injection pump and fasteners (M52TU engine shown, others are similar)



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