



Haynes
shows you how

BMW 3-Series (92-98) & Z3 (96-98) Haynes Online Manual

5 Radiator - removal, inspection and installation

Warning:

Wait until the engine is completely cool before beginning this procedure.

Note:

If leakage is the reason for wanting to remove the radiator, bear in mind that minor leaks can be often be cured using a radiator sealant with the radiator installed.

Removal

- 1 Disconnect the battery negative lead. **Caution:** *If the radio in your vehicle is equipped with an anti-theft system, make sure you have the correct activation code before disconnecting the battery.*
- 2 Drain the cooling system (see [Chapter 1](#)).
- 3 Remove the cooling fan shroud (see steps 1 through 3 in [Section 4](#)).
- 4 Loosen the retaining clamp and disconnect the upper and lower hoses from the radiator.
- 5 On models equipped with air conditioning, disconnect the wiring connector from the auxiliary cooling fan temperature switch which is screwed into the end of the radiator.
- 6 On models where the expansion tank is incorporated in the radiator, disconnect the wiring connector from the coolant level sensor which is fitted to the base of the expansion tank.
- 7 Where necessary, loosen the retaining clamp and disconnect the expansion tank hose from the base of the radiator.
- 8 On models with automatic transmission where the oil cooler is incorporated into the side on the radiator, loosen the union nuts and disconnect the cooler pipes from the end of the radiator. Be prepared for some fluid loss and plug the pipe ends to minimize fluid loss and prevent entry of dirt into the hydraulic system. Discard the sealing rings fitted to the pipe unions; new ones should be used on installation.

9 On all models, using a flat-bladed screwdriver, release the upper retaining clamps and lift the radiator upwards and out of position (see illustrations) . Recover the mounting rubbers from the front of the body.

5.9a Insert a flat-bladed screwdriver into the upper retaining clip . . .



5.9b . . . then release the clip by levering the screwdriver carefully in the direction of the arrow



5.9c Lifting the radiator out of position



Inspection

10 If the radiator has been removed due to suspected blockage, reverse flush it (see [Chapter 1](#)). Clean dirt and debris from the radiator fins, using a soft brush. Be careful, as the fins are easily damaged, and are sharp.

11 If necessary, a radiator specialist can perform a “flow test” on the radiator, to establish whether an internal blockage exists.

12 A leaking radiator must be referred to a specialist for permanent repair. Do not attempt to weld or solder a leaking radiator, as damage may result.

13 In an emergency, minor leaks from the radiator can be cured by using a suitable radiator sealant in accordance with the manufacturers instructions with the radiator installed.

14 If the radiator is to be sent for repair or renewed, remove the cooling fan switch/level sensor (where fitted).

15 Inspect the radiator lower mounting rubbers for signs of damage or deterioration and replace if necessary.

16 On models where the expansion tank is incorporated into the radiator, if necessary, undo the retaining screws and remove the tank retaining plate from the top of the radiator. Remove the tank and recover its upper and lower sealing rings. Fit new sealing rings to the tank and locate it in the radiator. Install the retaining plate and securely tighten its retaining screws.

Installation

17 Installation is the reverse of removal, noting the following points.

- A. Ensure that the lower mounting rubbers are correctly located in the body then lower the radiator into position, engage it with the mountings and secure it in position with the retaining clamps (see illustration).
- B. On automatic transmission models, fit new sealing rings to the oil cooler pipe unions and securely tighten the union nuts. On completion check the transmission fluid level (see [Chapter 1](#)).
- C. Ensure that the fan cowl is correctly located with the lugs on the radiator and secure it in position with the clamps.
- D. Reconnect the hoses and securely tighten the retaining clamps.
- E. On completion, reconnect the battery and refill the cooling system (see [Chapter 1](#)).

5.17 On installation, ensure the retaining clip is correctly engaged with the radiator (arrow) and clip it in position



