

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

17 Windshield/headlight washer system components - removal and installation

1 The windshield washer reservoir is situated in the engine compartment. On models equipped with headlight washers the reservoir also supplies the headlight washer jets via an additional pump. **Note**: *On some models a second smaller reservoir is also incorporated into the washer system. This reservoir is designed to be filled with concentrated washer fluid for intensive cleaning (refer to your BMW dealer for details).*

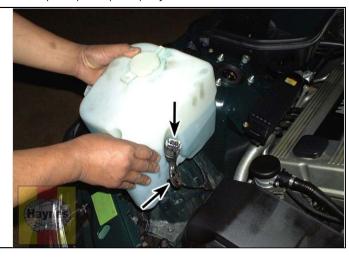
Washer system reservoir

- 2 Siphon the windshield washer fluid from the reservoir or be prepared for fluid spillage.
- 3 Disconnect the wiring connector from the washer pump. If you're *replacing* the reservoir, remove the pump from the reservoir (see Step 8) and put it aside. (If you're simply removing the reservoir to gain access to or service some other component, it's not necessary to remove the pump.)
- 4 Disconnect the wiring connector from the reservoir level switch (if equipped).
- 5 Remove the reservoir fastener and remove the reservoir (see illustrations) . Wash off any spilled fluid with cold water.

17.5a To detach the windshield washer fluid reservoir, unscrew this fastener (arrow) . . .



17.5b... and lift the reservoir straight up; if you need to move the reservoir farther than the distance allowed by the pump electrical harness and hose, unplug the connector and detach the hose (arrows) from the pump



6 Installation is the reverse of removal. Refill the reservoir and check for leakage.

Washer pump

7 Disconnect the wiring connector and washer hose from the pump (see illustration) .

17.7 Before removing the pump, disconnect the wiring connector and washer hose from the pump (arrows)



8 Carefully pry the pump out of the reservoir (see illustration) and recover its sealing grommet. Wash off any spilled fluid with cold water. Inspect the pump sealing grommet for signs of damage or deterioration and replace if necessary.

17.8 To remove the pump, carefully pry it out of the reservoir; be sure to inspect the grommet (arrow) for signs of damage or deterioration



9 Installation is the reverse of removal. Refill the reservoir and check the pump grommet for leaks.

Washer reservoir level switch

- 10 Empty the contents of the reservoir or be prepared for fluid spillage as the pump is removed.
- 11 Disconnect the wiring connector from the level switch and carefully ease the switch out from the reservoir. Recover the sealing grommet and wash off any spilled fluid with cold water.
- 12 Installation is the reverse of removal, using a new sealing grommet if the original one shows signs of damage or deterioration. Refill the reservoir and check for leaks.

Windshield washer jets

- 13 Open up the hood then remove the retaining clips and free the insulation panel from the area around the base of the washer jet.
- 14 Disconnect the washer hose(s) from the base of the jet. Where necessary, also disconnect the wiring connector from the jet.
- 15 Release the retaining clip and carefully ease the jet out from the hood, taking great care not to damage the paintwork.
- 16 On installation, securely connect the jet to the hose and clip it into position in the hood; where necessary also reconnect the wiring connector. Check the operation of the jet. If necessary adjust the nozzles using a pin, aiming one nozzle to a point slightly above the center of the swept area and the other to slightly below the center point to ensure complete coverage.

Headlight washer jets

17 To improve access, apply the parking brake then jack up the front of the vehicle and support it on axle

stands.

- 18 Remove the retaining screws and remove the small access cover from the bottom of the bumper.
- 19 Release the retaining clip and remove the brake duct from the bumper.
- 20 Pull the washer jet assembly off from the supply tube and recover the bushing from the supply tube.
- 21 Remove the retaining screws and release the washer jet supply tube from the body.
- 22 Loosen the retaining clip then disconnect the hose and remove the supply tube.
- 23 On installation, install the <u>bushing</u> and push the jet assembly firmly onto the supply tube. Position the supply tube so the jet is flush with the body panel and securely tighten its retaining screws.

Wash/wipe system control module

- 24 Remove the two retaining screws then unclip and remove the driver's side lower dash panel.
- 25 Unclip and remove the undercover to gain access to the module which is clipped in position above the pedals.
- 26 Release the retaining clips and lower the module out of position (see illustration) .

17.26 Removing the wash/wipe system control module



- 27 Release the retaining clip then disconnect the wiring connector(s) and remove the module from the vehicle.
- 28 Installation is the reverse of removal.

Heated washer jet thermostatic switch

- 29 The heated washer jet thermostatic switch is clipped into the right-hand front brake cooling duct. If necessary, to improve access, apply the parking brake then jack up the front of the vehicle and support it on axle stands.
- 30 Disconnect the wiring connector then unclip the sensor and remove it from the brake duct.
- 31 Installation is the reverse of removal ensuring that the switch is clipped securely into position.

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