

**Haynes**  
*shows you how*

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

## 17 Windshield/headlight washer system components - removal and installation

### Caution:

These vehicles are equipped with the Central Body Electronic (ZKE-V) system. Each individual system is linked to a centralized control module that allows efficient and accurate troubleshooting. This control module governs the windshield wipers and washers, the central locking and anti-theft system, the power windows, the interior lights, the alarm system and the electronic consumer sleep mode. In the event of a malfunction with this system, have the vehicle diagnosed by a dealer service department or other qualified automotive repair facility, as special test equipment is required.

### Front washer system reservoir

- 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.
- 2 Empty the contents of the reservoir or be prepared for fluid spillage.
- 3 Release the heat shield retaining clip, and disconnect the wiring connector(s) from the washer pump(s). Carefully rotate the pump(s) clockwise and pull them up from the reservoir and position them clear. Inspect the pump sealing grommet(s) for signs of damage or deterioration and replace if necessary.
- 4 Disconnect the wiring connector from the reservoir level switch.
- 5 Loosen and remove the reservoir fastener and lift the reservoir upwards and out of position. Wash off any spilt fluid with cold water.
- 6 Installation is the reverse of removal. Ensure the locating lugs on the base of the reservoir engage correctly with the corresponding slots in the inner fender. Refill the reservoir and check for leakage.

### Windshield and headlight washer pumps

- 7 Empty the contents of the reservoir or be prepared for fluid spillage.

8 Release the heat shield retaining clip, and disconnect the wiring connector(s) from the washer pump(s). Carefully rotate the pump(s) clockwise and pull them up from the reservoir. Inspect the pump sealing grommet(s) for signs of damage or deterioration and replace if necessary (see illustration) .

### 17.8 Disconnect the washer pump wiring connector and remove the heat shield



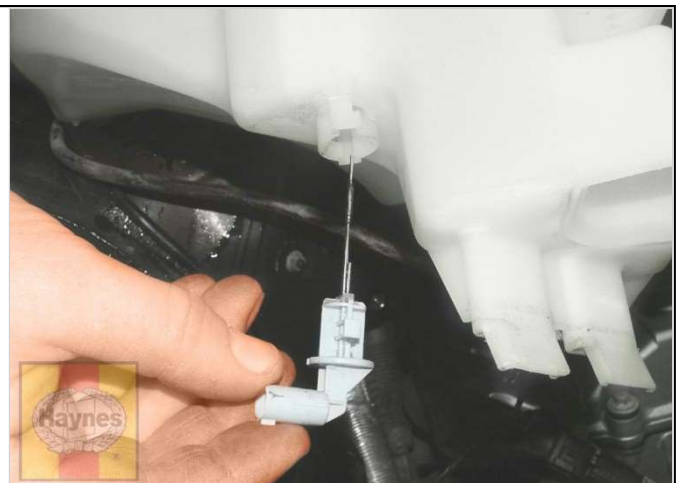
9 Installation is the reverse of removal, using a new sealing grommet if the original one shows signs of damage or deterioration. Refill the reservoir and check the pump grommet for leaks.

## Front washer reservoir level switch

10 Remove the reservoir as described earlier in this Section.

11 Rotate the level switch counterclockwise and remove it from the reservoir (see illustration) .

### 17.11 Rotate the level switch counterclockwise and remove it from the reservoir

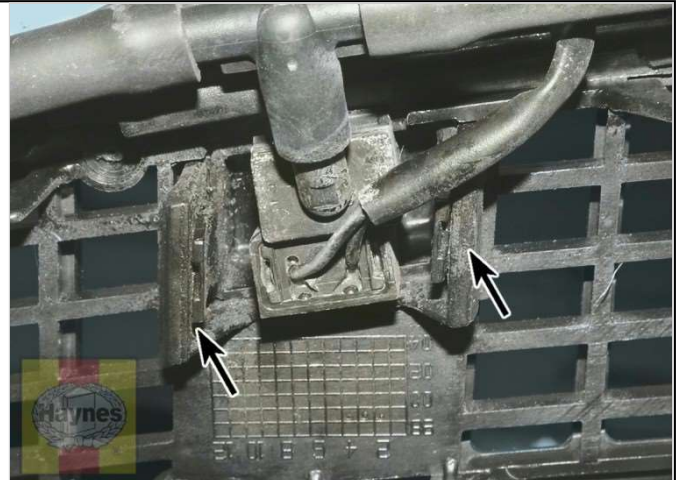


12 Installation is the reverse of removal, using a new sealing grommet if the original one shows signs of damage or deterioration. Refill the reservoir and check for leaks.

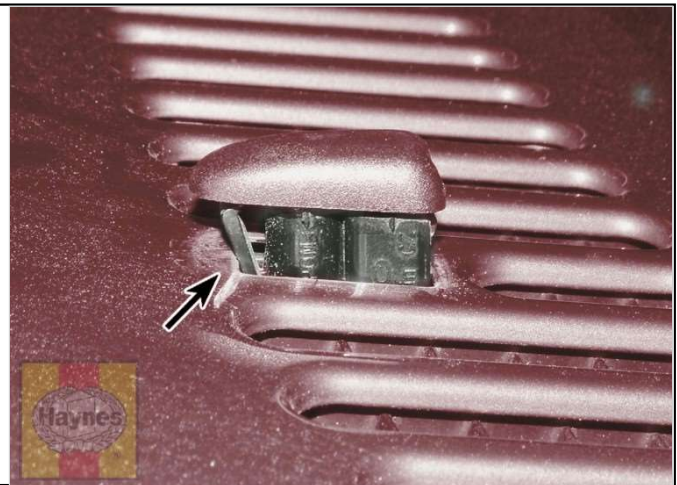
## Windshield washer jets

13 On early models, squeeze together the retaining clips and carefully ease the jet out from the hood, taking great care not to damage the paint. On later models disconnect the washer hose(s) and wiring connectors then, working under the hood, push the rear edge of the washer assembly forward and up, press in the clip at the front edge and remove the washer from the hood (see illustrations) .

**17.13a On some models, squeeze the retaining clips and pull the jet down from the hood . . .**



**17.13b . . . while on others, push up the rear edge of the jet, and depress the clip at the front, then pull the jet up from the hood**



14 Disconnect the washer hose(s) from the base of the jet. Where necessary, also disconnect the wiring connector from the jet.

15 On installing early models, securely connect the jet to the hose and clip it into position in the hood; where necessary also reconnect the wiring connector. On later models, push the jet into place and reconnect the hose(s) and wiring connectors. 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

16 Using a wooden or plastic lever, carefully pry out the washer jet cover from below the headlight, and pull it out to its stop.

17 With a sharp tug, separate the jet assembly from the washer tube (see illustration) . Be prepared for fluid spillage.

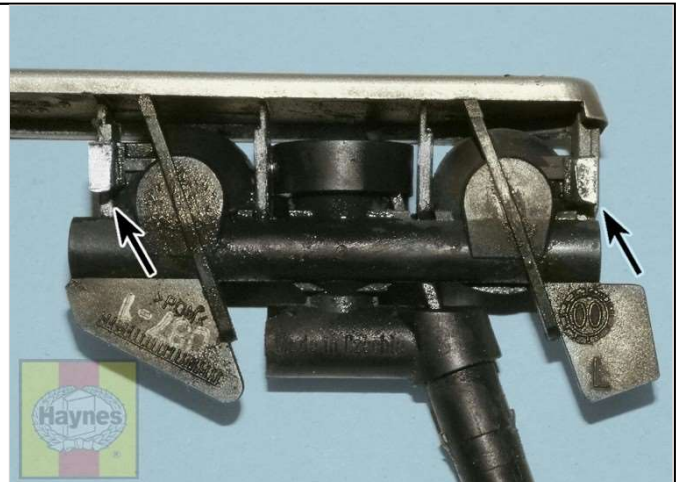
**17.17 With a sharp tug, separate the washer jet from the tube**



**18 Where applicable disconnect the jet heater wiring connector.**

**19 If required, the trim can be separated from the jet by releasing the retaining clips on each side of the jet (see illustration) .**

**17.19 Release the retaining clips and separate the jet from the trim**



**20 On installation, pull out the washer tube and push the jet into place. Where applicable, reconnect the wiring connector. Adjustment of the jets requires use of BMW tool 00 9 100.**

## **Wash/wipe control module**

**21 The wash/wipe system is controlled by the central body electronics (ZKE V) control module, known as the General Module (GM V), which is located behind the passenger side glove box. To access the control unit, remove the glove box as described in [Chapter 11, Section 27](#).**

**22 Disconnect the module wiring connectors. Some connectors have locking levers, and some have sliding locking elements (see illustrations) .**



**17.22a Some control module wiring connectors have locking levers . . .**



**17.22b . . . while others have sliding locking elements**



**23 Release the retaining clip then remove the ECM from the vehicle (see illustration) .**

**17.23 Release the retaining clip and slide the General Control Module from position**



**24 Installation is the reverse of removal.**

## **Rear window washer reservoir**

**25 Remove the right-hand side luggage compartment trim panel as described in [Chapter 11, Section 27](#) .**

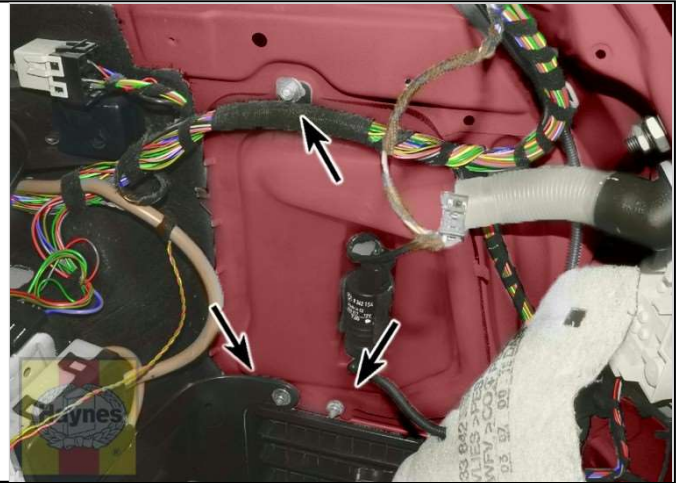
26 Empty the contents of the reservoir or be prepared for fluid spillage.

27 Disconnect the pump wiring connector.

28 Carefully detach the reservoir filler tube and pump delivery tube.

29 Remove the top mounting nut, and loosen the lower mounting nuts (see illustration) . Remove the reservoir.

### 17.29 Rear washer reservoir nuts - Sport Wagon models



30 Installation is the reverse of removal.

## Rear window washer pump

31 Remove the right-hand side luggage compartment trim panel as described in [Chapter 11, Section 27](#) .

32 Empty the contents of the reservoir or be prepared for fluid spillage.

33 Disconnect the pump wiring connector.

34 Disconnect the pump delivery tube, and carefully pull the pump up and out of the reservoir (see illustration) .

### 17.34 Rear washer pump - Sport Wagon models



35 Installation is the reverse of removal.

### Rear window washer jet

36 The washer jet is a push-fit into the end of the washer tube fitting. Using a plastic or wooden lever, carefully pry the washer jet from the rubber fitting at the top of the window (see illustration) .

### 17.36 The rear washer jet is a push-fit into the tailgate



37 Installation is the reverse of removal. Aim the jet to an area 4-inches (100 mm) from the top, and 12-inches (300 mm) from the edge of the window.

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