

**Haynes**
shows you how**BMW 3-Series 320i & 320xi (12-14), 325i, 325xi, 330i & 330xi (06) & 328i & 328xi (07-14) Haynes Online Manual**

9 Heater/ventilation components - removal and installation

Heater/air conditioning/ ventilation control unit

1 Disconnect the negative battery cable (see [Chapter 5](#)).

2 Using a plastic trim tool, carefully pry the control unit from the instrument panel, releasing the clip on each side of the unit (see [illustrations](#)) . Noting their installed positions, disconnect the electrical connectors as the unit is withdrawn.

9.2a Carefully pry the control unit from the instrument panel



9.2b Squeeze the clips and disconnect the electrical connectors



3 Carefully unclip the trim piece from the control unit.

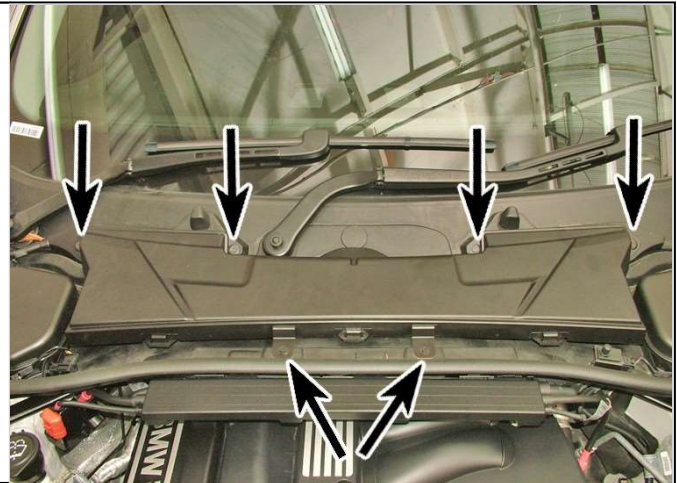
4 Installation is the reverse of removal. **Note:** *If a new control unit has been installed, it must be programmed using BMW test equipment at a BMW dealer or suitably-equipped specialist.*

Heater assembly

5 Have the air conditioning refrigerant discharged and recovered by an air conditioning shop.

6 Working at the rear of the engine compartment, remove the cabin air filter cover mounting bolts and cover (see illustration) . Slide the filter from the housing (see [Chapter 1](#)).

9.6 Remove the bolts and remove the cabin air filter cover



7 Release the catches and remove the left- and right-hand plastic covers from behind the strut tower on each side of the engine compartment. Unclip the wiring harness where applicable (see illustration) .

9.7 Release the clips and remove the plastic cover on each side



8 Depress the clips and pull the cable guide forwards from the cabin air filter lower housing (see illustration) .

9.8 Release the clips and slide the cable guide forwards



9 Release the catch and remove the mounting bolt on each side, then slide the cabin air filter lower housing forwards and maneuver it out (see illustrations) .

9.9a Rotate the temperature sensor and pull it from the bracket. On the passenger's side, disconnect the hood switch



9.9b Remove the bolt and release the clips on each side of the housing



9.9c Pull the cabin air filter lower housing forwards



Models with strut tower supports

10 Remove the plastic cap from the center of the cowl trim panel. Two different types of cap are used: one with a central slot, removed by rotating it 45 degrees counterclockwise, and one without a central slot, which is pried out (see illustration) . **Note:** *If the cap or seal are damaged, they must be replaced. Failure to do so may result in water leaks.*

9.10 Remove the cap in the center of the cowl trim panel



11 Remove the bolt in the center of the cowl (see illustration) . Discard the bolt; a new one must be installed.

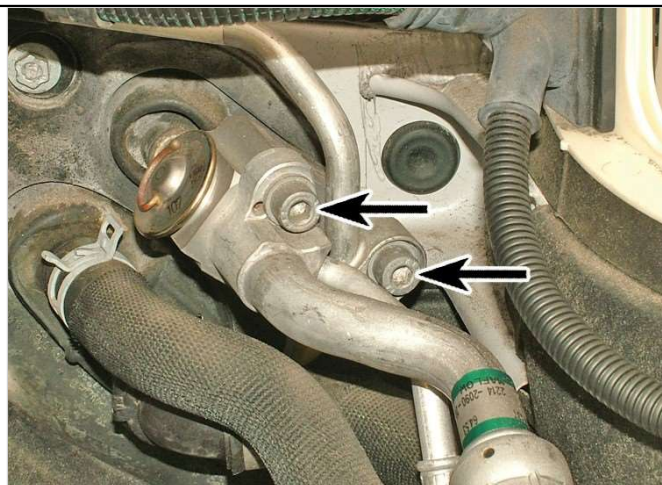
9.11 Remove the bolt in the center . . .

12 Remove the bolt at each outer end of the support, then hold the rubber grommet in place and slide the support outwards (see illustration) . Do not allow the grommets to fall. Discard the bolts; new ones must be installed.

9.12 . . . and the bolt at each end of the supports**All models**

13 Remove the mounting bolts and detach the refrigerant lines from the expansion valve at the firewall (see illustration) . Discard the line seals; new ones must be installed.

9.13 Refrigerant line retaining bolts



14 Remove the mounting bolts, then remove the expansion valve (see illustration) and the plate behind the valve.

9.14 Expansion valve retaining bolts



15 Remove the complete instrument panel (see [Chapter 11](#)).

16 Remove the plastic cap from the firewall, then remove the bolt (see illustration) .

9.16 Remove the cap and remove the bolt



17 Unclip the left- and right-hand footwell air ducts from the heater assembly.

18 Clamp both heater hoses as close to the firewall as possible to minimize coolant loss. Alternatively, drain the cooling system (see [Chapter 1](#)).

19 Disconnect the heater hoses at the firewall (see illustrations) . If possible, use compressed air applied to one of the heater core lines to evacuate coolant from the heater core.

9.19a Squeeze together the tabs and release the upper hose clamp . . .

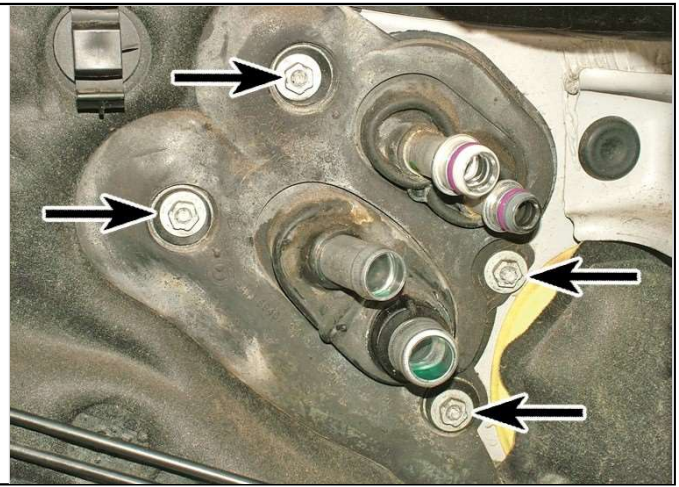


9.19b . . . pry out the wire clip and pull the lower hose from the line



20 Remove the fasteners securing the heater assembly in the area of the coolant hose connections, then carefully remove the sealing plate and gasket (see illustration) .

9.20 Remove the nuts, then remove the sealing plate and gasket



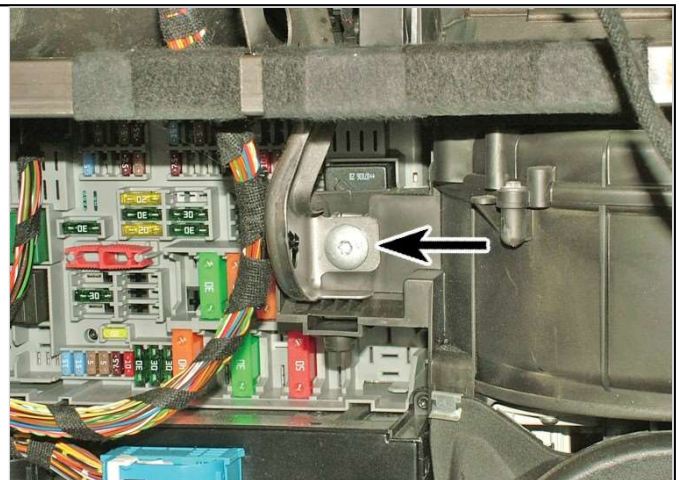
21 Noting their installed positions and routing, then unclip all wiring harnesses/cable ducts from the instrument panel crossmember.

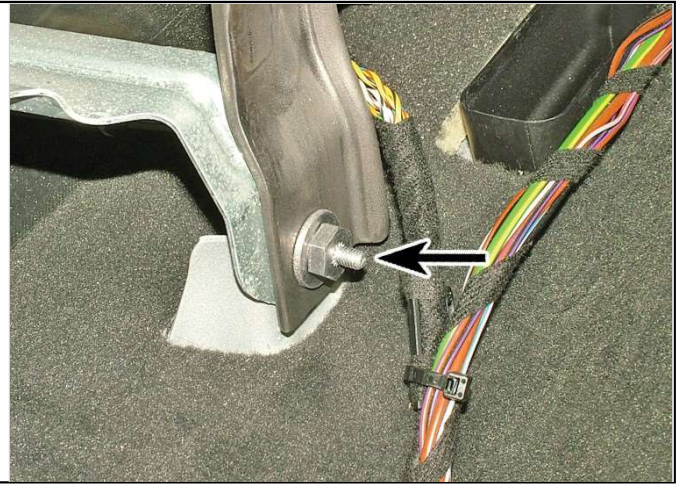
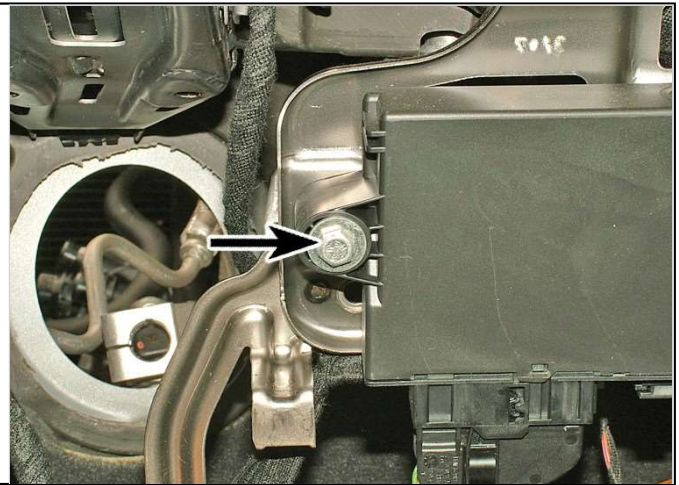
22 Remove the various nuts and bolts and, with the help of an assistant, maneuver the instrument panel crossmember from the passenger cabin (see illustrations) . **Caution:** *The instrument panel crossmember has a lot of sharp edges - it would be a good idea to wear gloves.*

9.22a The instrument panel crossmember is secured by two nuts at each end . . .



9.22b . . . a bolt beside the fusebox . . .

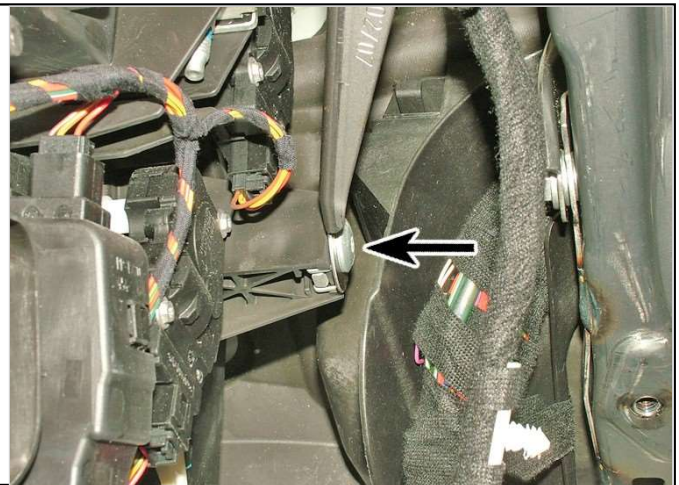


9.22c . . . a bolt at the floor tunnel . . .**9.22d . . . a bolt above the pedals . . .****9.22e . . . the bolts in the center . . .**

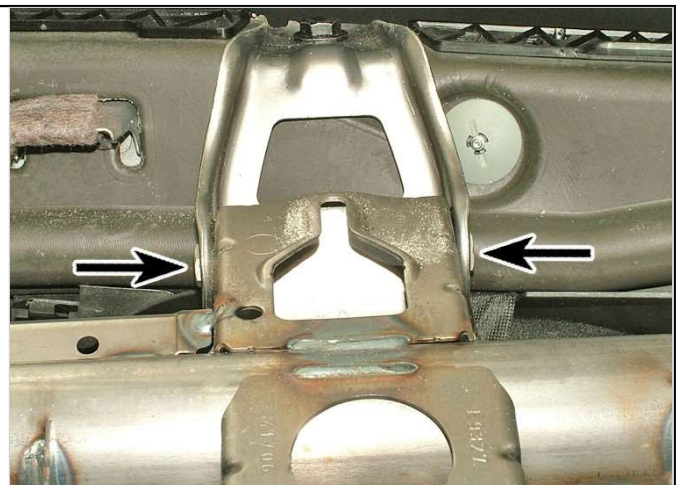
**9.22f . . . a bolt in the engine compartment
above the steering column hole . . .**



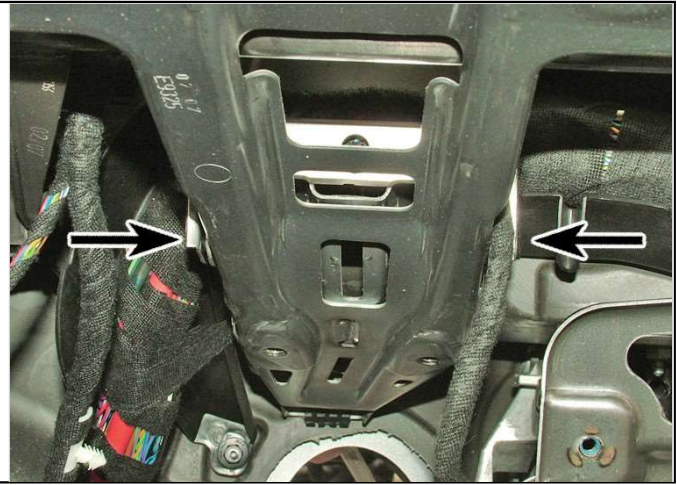
**9.22g . . . a bolt on the right-hand side of
the heater housing . . .**



**9.22h . . . the bolts above the
crossmember on the driver's side . . .**

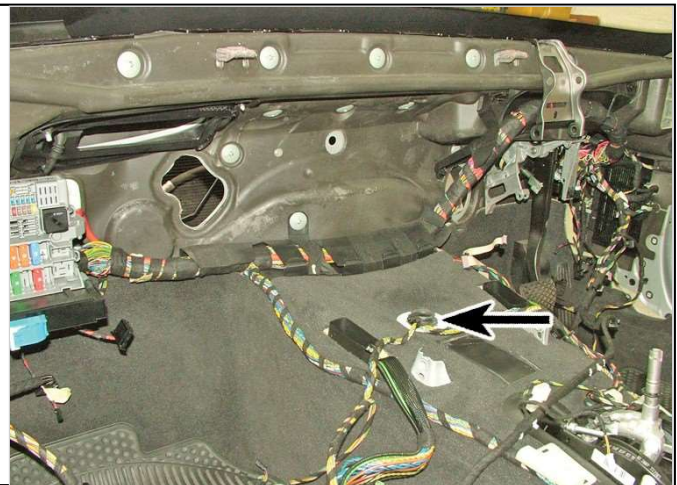


9.22i . . . and one on each side of the bracket above the steering column



23 Remove the heater assembly from the passenger's side. Note the evaporator drain grommet in the floor; make sure it is clear of dirt or debris (see illustration) .

9.23 Evaporator drain grommet



24 Installation is the reverse of removal, noting the following points:

- A. Tighten all fasteners to their specified torque, where given.
- B. Replace all seals and gaskets.
- C. Have the refrigerant recharged by the shop that recovered it.
- D. Fill the cooling system (see [Chapter 1](#)).

Heater core

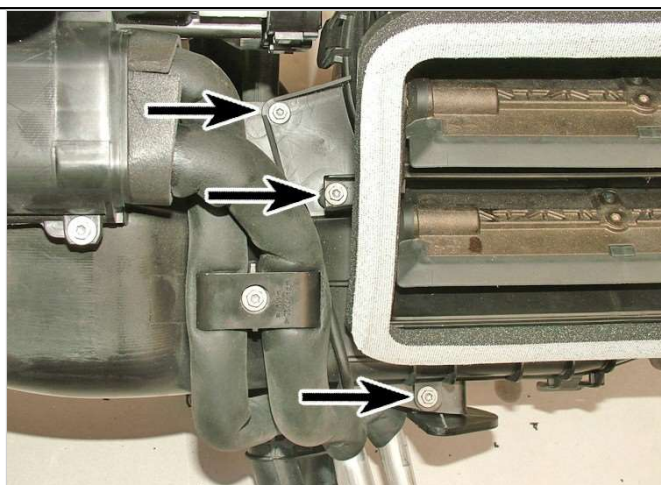
25 Remove the heater assembly as described previously in this Section.

26 Peel off the rubber grommet around the lines, and remove the screw securing the mounting plate around the lines (see illustrations) .

9.26a Peel off the grommet . . .**9.26b . . . and remove the plate retaining screw**

27 Disconnect the electrical connector from the air recirculation servo motor on the top of the heater blower motor housing, and release the wiring harness from the retaining clips.

28 Remove the mounting bolts and slide the heater blower motor housing upwards from the main heater housing (see illustrations).

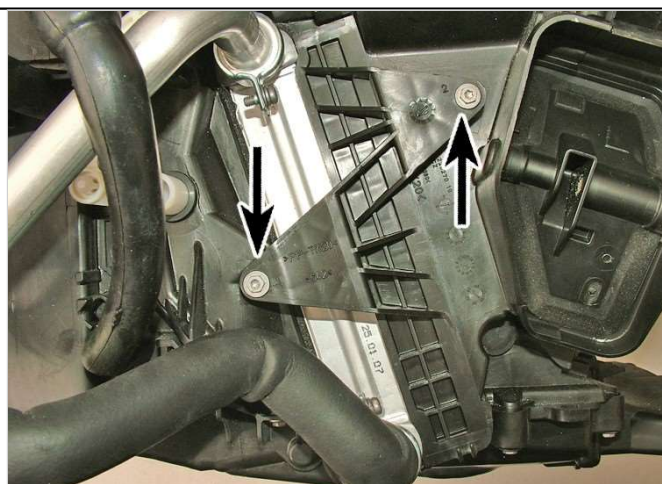
9.28a Remove the mounting bolts . . .

9.28b . . . and slide the blower motor housing upwards



29 Remove the core cover bolts and the cover (see illustration) .

9.29 Core cover bolts



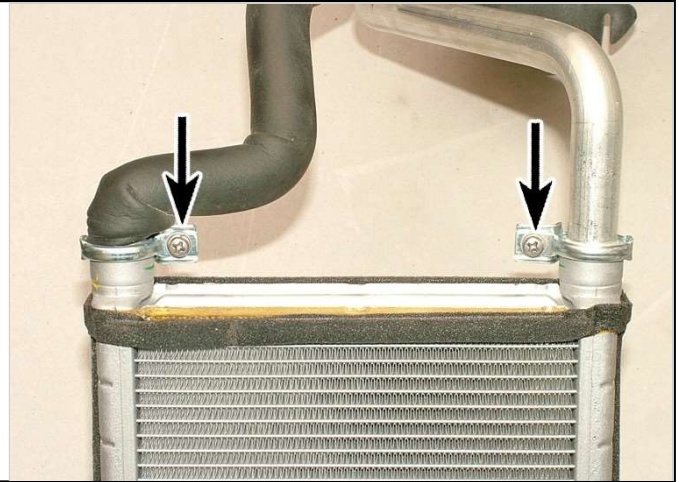
30 Remove the fasteners securing the air conditioning evaporator line clamps, then slide the core and lines from the heater assembly (see illustration) . Be prepared for coolant spillage.

9.30 Slide the core from the housing



31 If necessary, loosen the clamp bolts and detach the lines from the core (see illustration) . Discard the sealing rings; new ones must be installed.

9.31 Loosen the line clamp bolts



32 Installation is the reverse of removal, noting the following points:

- A. Use new sealing rings between the lines and the core.
- B. When installing the core, the outlet connection (slightly larger - marked with a black dot) must be at the top.
- C. Refill the cooling system (see [Chapter 1](#)).

Heater blower motor

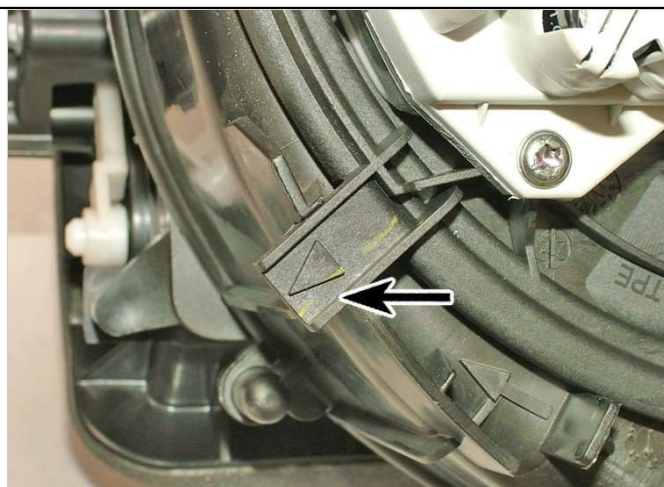
33 Remove the mounting bolts, and slide the trim panel under the passenger's glove box downwards and rearwards (see illustration) . Disconnect the footwell light as the panel is withdrawn.

9.33 Panel retaining bolts



34 Disconnect the blower motor electrical connector.

35 Lift the retaining clip slightly, rotate the blower motor counterclockwise and slide it from the housing (see illustrations) .

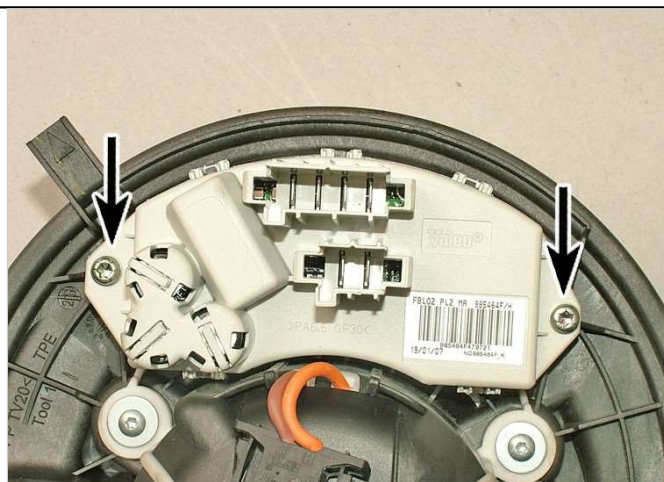
9.35a Lift the retaining clip . . .**9.35b . . . then rotate the blower motor counterclockwise and remove it**

36 Installation is the reverse of removal, making sure the motor is correctly clipped into the housing.

Heater blower motor resistor

37 Remove the heater blower motor (see Steps 33 through 35).

38 Remove the mounting fasteners and the resistor (see illustration) .

9.38 Blower motor resistor screws

39 Installation is the reverse of removal, making sure the motor is correctly clipped into the housing.

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