

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

## 7 Fuel pump/fuel level sensors - removal and installation

### Removal

1 There are two level senders installed in the fuel tank - one on each side. The pump is integral with the right-hand side sender, and at the time of writing, the pump and sender can only be replaced as an assembly. Check with a BMW dealer or parts specialist.

### Right-hand fuel level sender and fuel pump

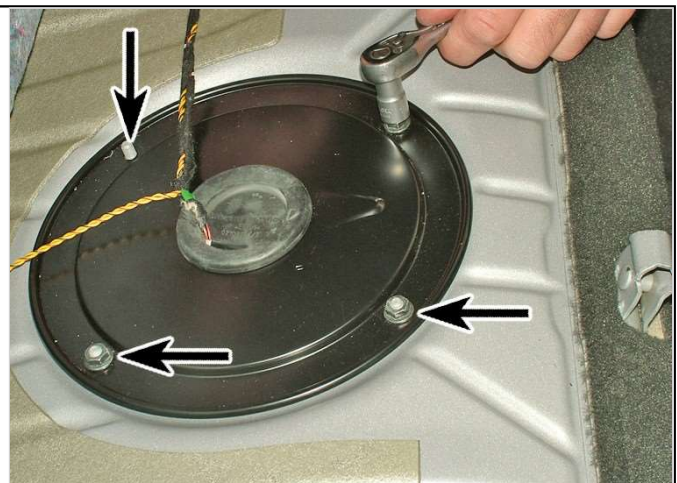
2 Before removing the fuel level sender and fuel pump assembly, all fuel should be drained from the tank. Since a fuel tank drain plug is not provided, it is preferable to carry out the removal operation when the tank is nearly empty.

3 Remove the rear seat cushion (see [Chapter 11](#) ).

4 Fold back the insulation material to expose the access cover.

5 Remove the mounting nuts, and remove the access cover from the floor (see illustration) .

#### 7.5 Remove the access cover mounting nuts

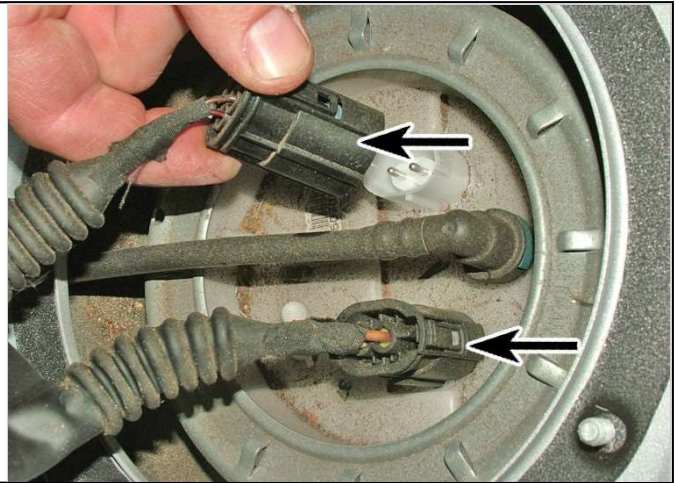


6 Through the access hole, disconnect the electrical connectors, then depress the release button and disconnect the vent hose from the fuel level sensor and fuel pump cover (see illustrations) . Be prepared with a

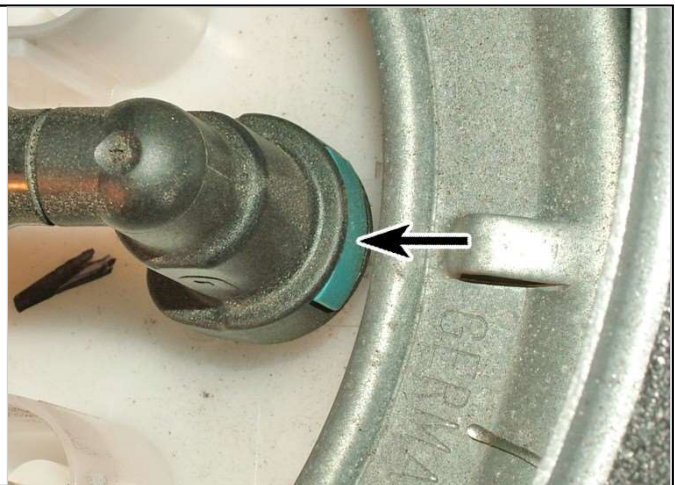
container to collect fuel spillage.

### 7.6a Disconnect the electrical connectors .

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### 7.6b . . . then depress the release button and disconnect the vent hose



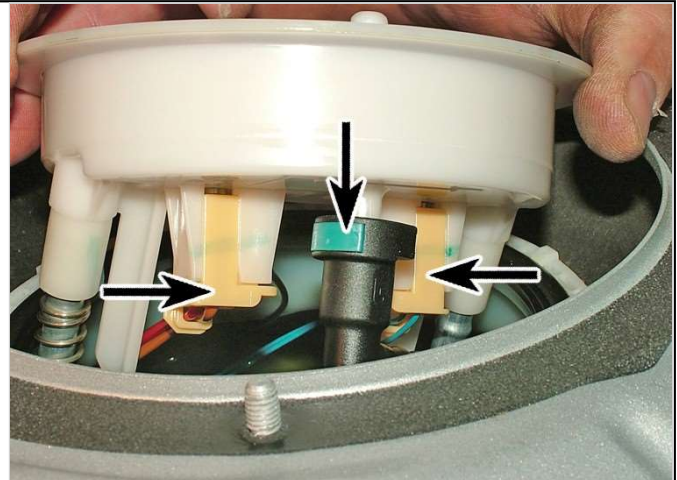
7 Unscrew the fuel level sender and fuel pump assembly locking ring and remove it from the tank. Although a BMW tool (No 16 1 020) is available for this task, it can be accomplished using a large pair of pliers to push on two opposite raised ribs on the locking ring. Alternatively, a home-made tool can be fabricated to engage with the raised ribs of the locking ring. Turn the ring counterclockwise until it can be unscrewed by hand. Make an alignment mark between the collar and the tank to aid reassembly (see illustration) .

### 7.7 Using a homemade tool to unscrew the locking ring



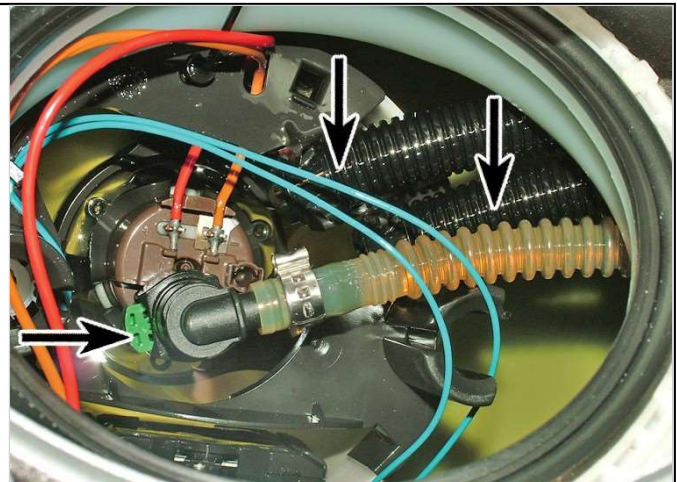
8 Carefully lift the fuel level sender and fuel pump assembly cover from the tank. Disconnect the vent hose and wiring plugs from the base of the cover. Note how the rods in the base of the cover are mounted in the assembly (see illustration) . Do not detach the black plastic wire connection between the cover and the pump unit - it's essential to stop the pump unit floating away during reassembly.

**7.8 Disconnect the electrical connectors and vent hose**



9 Noting their installed locations, disconnect the hoses from the assembly (see illustration) .

**7.9 Press in the button, disconnect the main hose, then unclip the remaining hoses**



10 Carefully maneuver the pump/ sensor unit from the tank. Take great care not to bend/damage the float arm as the unit is withdrawn.

11 If required, the level sensor can be unclipped from the pump assembly (see illustration) . On full deflection, the sender resistance should read 993 ohms, and on zero deflection, the resistance should read 51 ohms.



### 7.11 Release the clips and slide the level sensor upwards



## Left-hand fuel level sender

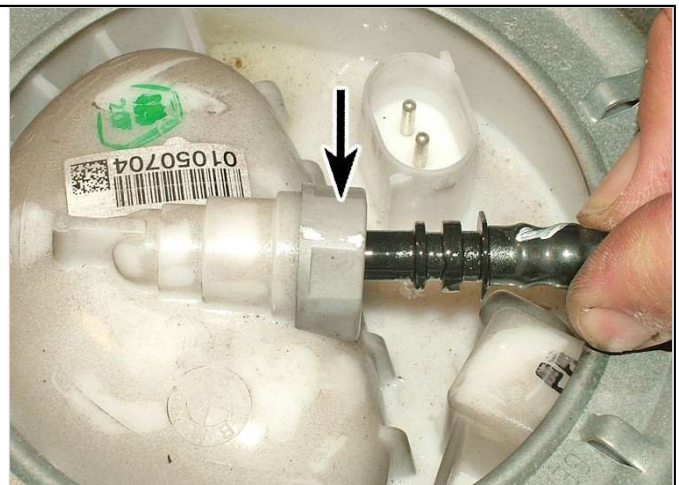
12 Remove the right-hand fuel level sensor and fuel pump (see Steps 2 through 11).

13 Fold back the insulation material to expose the access cover.

14 Remove the access cover mounting nuts and the cover from the floor (see illustration 7.5) .

15 Disconnect the wiring plug from the sensor unit cover, then pull the locking collar away and disconnect the fuel supply pipe (see illustration) .

### 7.15 Pull the locking collar away and disconnect the pipe

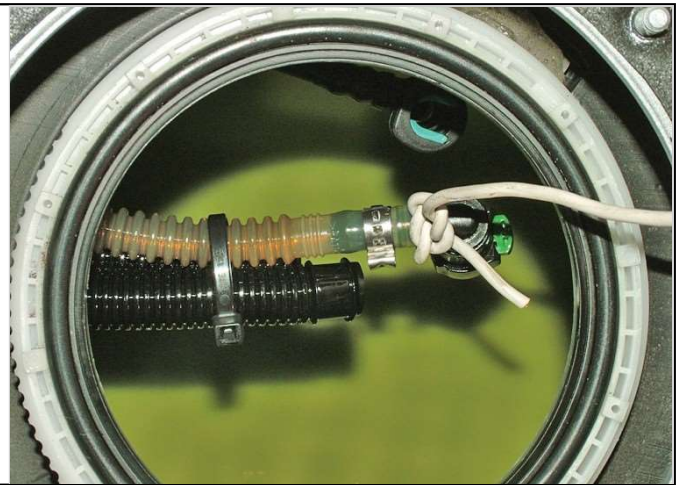


16 Unscrew the fuel level sender locking ring and remove it from the tank. Although a BMW tool (No 16 1 020) is available for this task, it can be accomplished using a large pair of grips to push on two opposite raised ribs on the locking ring. Alternatively, a home-made tool can be fabricated to engage with the raised ribs of the locking ring. Make an alignment mark to reference the ring to the tank before rotating the ring. Rotate the locking ring counterclockwise until it can be unscrewed by hand (see illustration 7.7) .

17 Tie a length of string or wire around the disconnected hoses accessible through the right-hand tank access hole, as these hoses will be removed with the left-hand fuel level sender (see illustration) . The idea is to pull

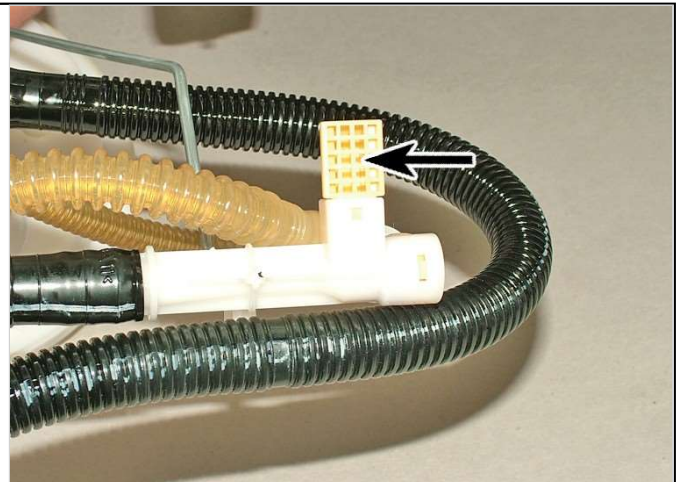
the string or wire into the tank as the sender is removed, then leave it in place to facilitate installation.

**7.17 Tie string or wire around the hoses, then attach string to the main transfer hose to aid replacement**



18 Carefully lift the sender from the tank, and remove it (see illustration) . Untie the string or wire and leave it in place.

**7.18 The fuel pick-up pipe incorporates a coarse filter**

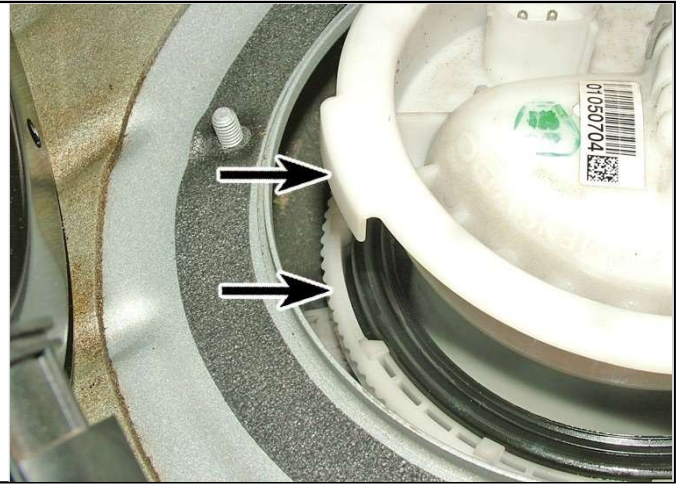


## Installation

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

- A. Use a new sealing ring.
- B. To allow the unit to pass through the aperture in the fuel tank, press the float arm against the fuel pick-up strainer.
- C. When the unit is installed, the locating lug on the unit must engage with the corresponding slot in the fuel tank collar ( see illustration).
- D. The locating rods of the right-hand sender unit cover must align with the corresponding holes in the pump/sender assembly.
- E. The locking ring must be tightened until the notch on the ring aligns with the mark on the tank.

**7.19 The lug must engage with the slot on the tank collar**



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