

Fuel delivery unit - 6-cyl. and 8-cyl. engine

Removing and installing fuel delivery unit

Special tools and workshop equipment required

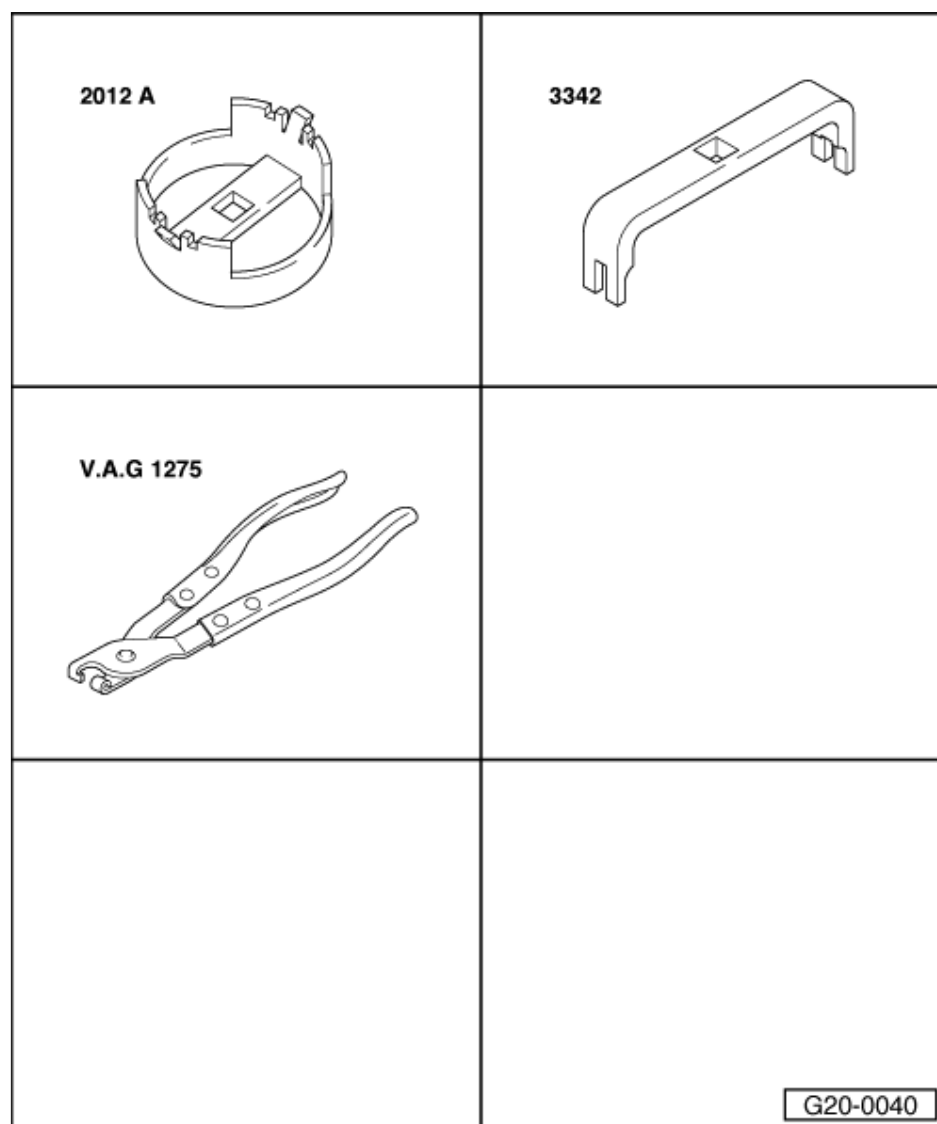
- ☐ Removal and assembly tool 2012 A
- ☐ Union nut tool 3342
- ☐ Hose clip pliers V.A.G 1275

Observe safety precautions=> Page [20-2](#).

Observe rules for cleanliness => Page [20-4](#).

Notes:

- ☐ Before beginning work, be sure to view video film No. 23 "Audi TV special from June 25, 1997, Repairing A8 fuel tank."
- ☐ A leak test must be performed after re-installing the fuel delivery unit => Page [20-68](#). This is necessary to ensure that the baffle housing is not leaking.
- ☐ If the baffle housing is not fuel-tight the engine will cut out due to fuel starvation when the tank is still 1/3 ... 1/4 full.
- ☐ The chambers of the fuel tank must be completely emptied before performing the leak test.



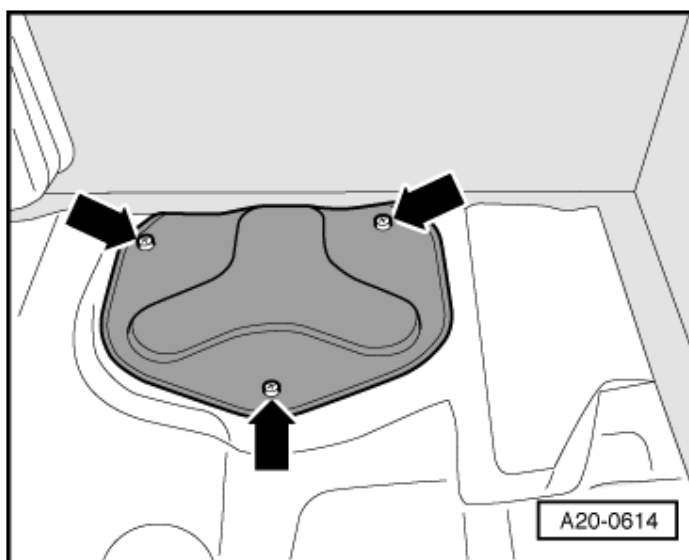
Removing

- Drain fuel tank completely.
Procedure => Page [20-12](#).

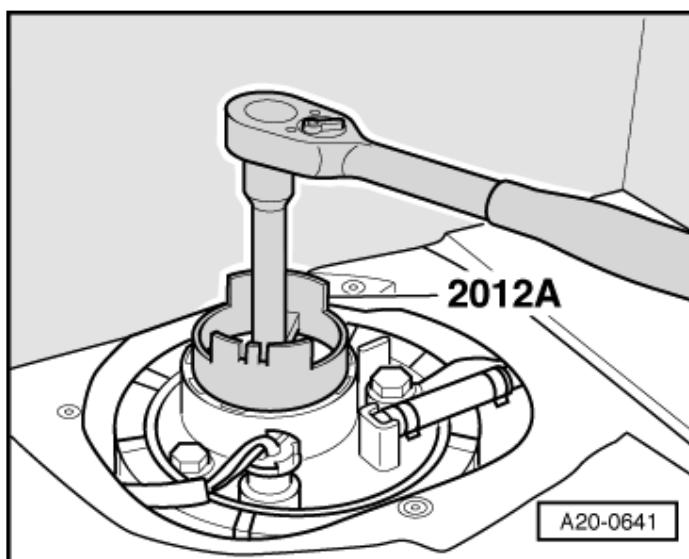
Caution!
On vehicles equipped with telematics the telematics control unit must be switched to service mode before the battery terminals are disconnected.=>Radio, telephone and

**navigation system;
Repair group 91**

- Obtain code on vehicles with coded radio/integrated radio and navigation system.
 - With the ignition switched off disconnect the battery earth strap.
 - For the removal and installation of the fuel delivery unit, remove the tools and spare wheel from the boot. This enables you to sit or kneel in the wheel well, which will allow for more exact insertion and removal of the fuel delivery unit.
- → Remove cover for fuel gauge sender and fuel delivery unit (right side) under floor covering in boot -arrows-.



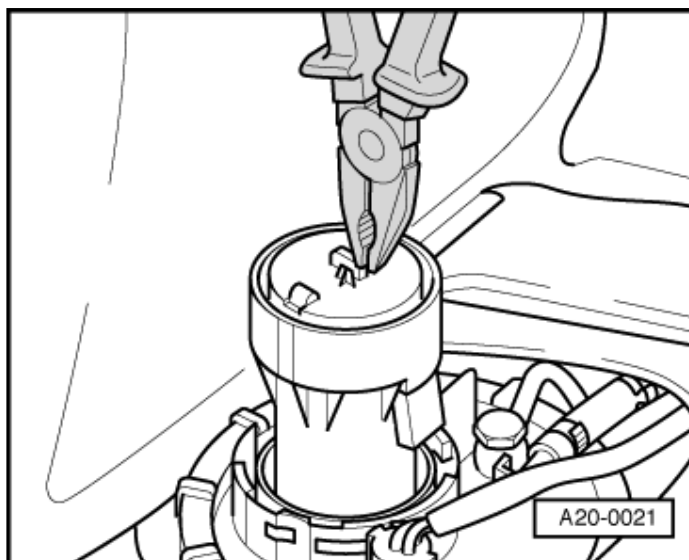
- → Using special tool 2012 A, release flange for fuel gauge sender by turning it clockwise, detach flange and take out the spring below it.



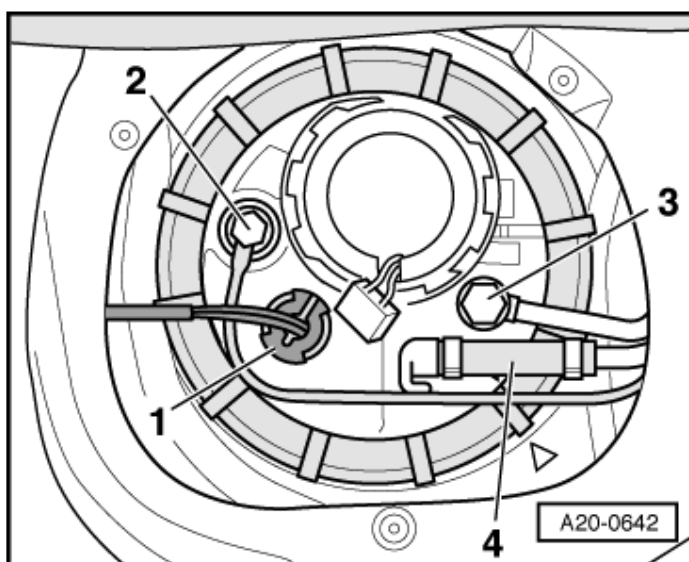
- → Using pliers, carefully lift fuel gauge sender slightly.
- Hold sender with your hand and unplug connector -arrow-.
- Pull out fuel gauge sender partially and wait until the fuel has completely drained from the sender back into the fuel tank.
- Pull out fuel gauge sender completely.
- Secure plug connector to prevent it dropping back into fuel tank.

Notes:

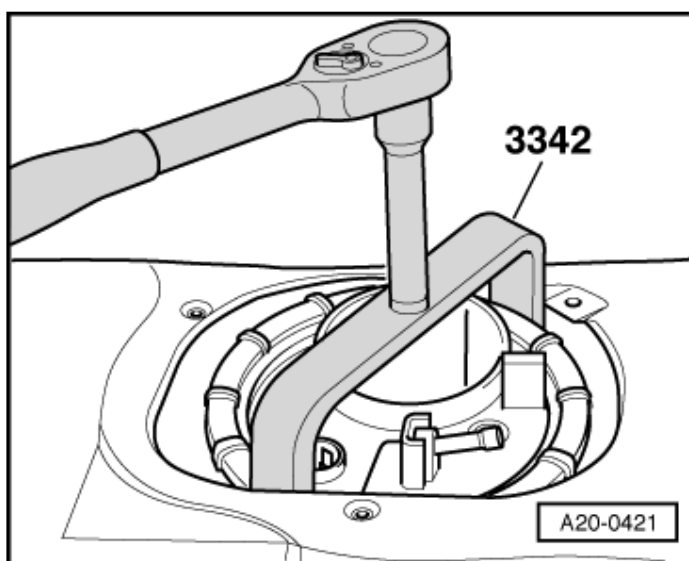
- If the top cover on the sender should come loose when pulling it out, the housing of the sender must be removed separately.
- If the top cover comes loose, the sender must be renewed.



- → Unplug electrical connector -1-.
- If fitted, unscrew banjo bolt -2- for supply pipe to auxiliary heater.
- Unscrew banjo bolt -3- for fuel supply pipe.
- Disconnect fuel return pipe -4-.



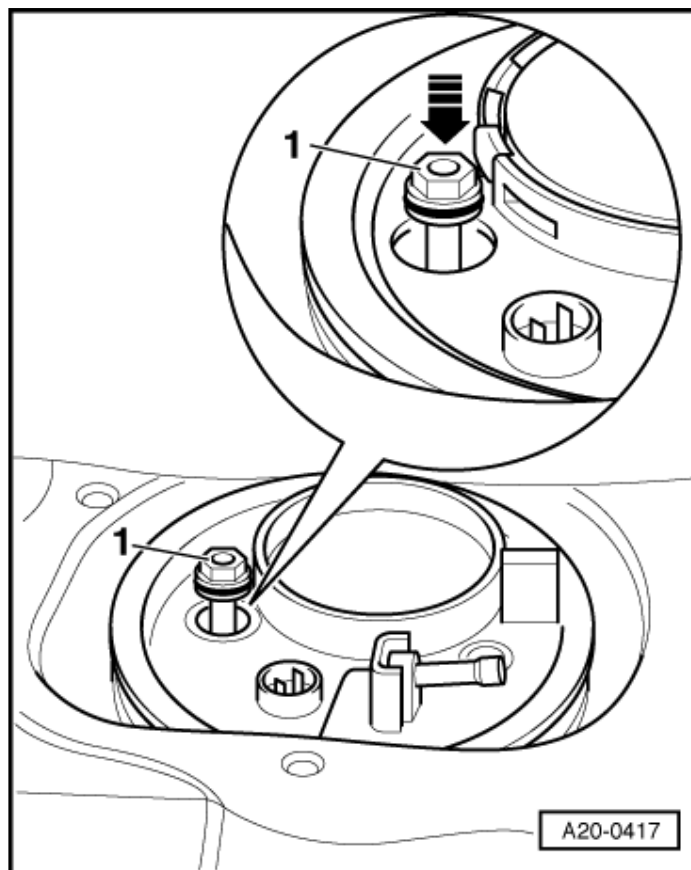
- → Unscrew and remove union nut with special tool 3342.



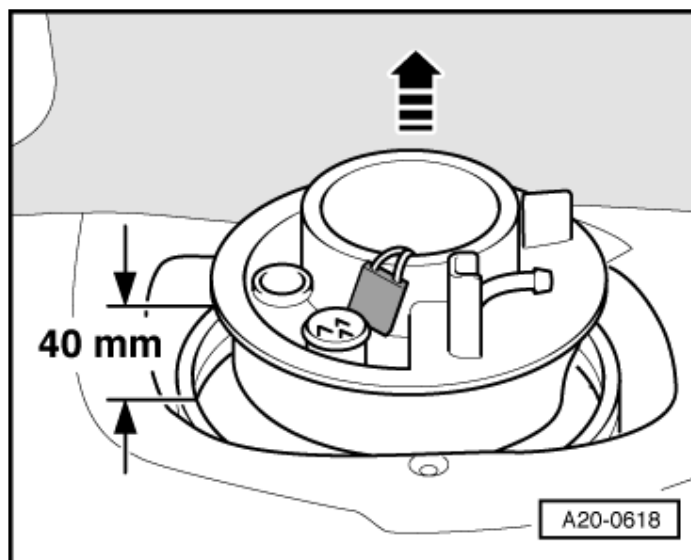
- → Unscrew securing bolt -1- several turns, but do not remove.
- Press securing bolt down firmly -arrow- to separate fuel delivery unit from adapter

plate in fuel tank (can be felt).

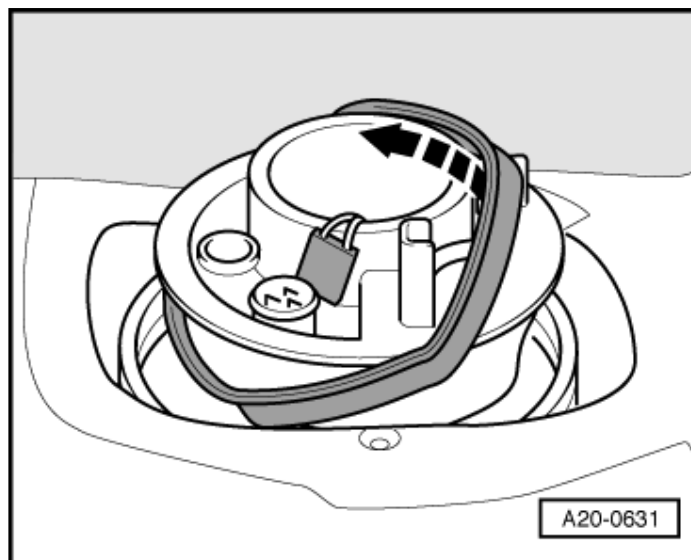
- Unscrew securing bolt completely and pull out.



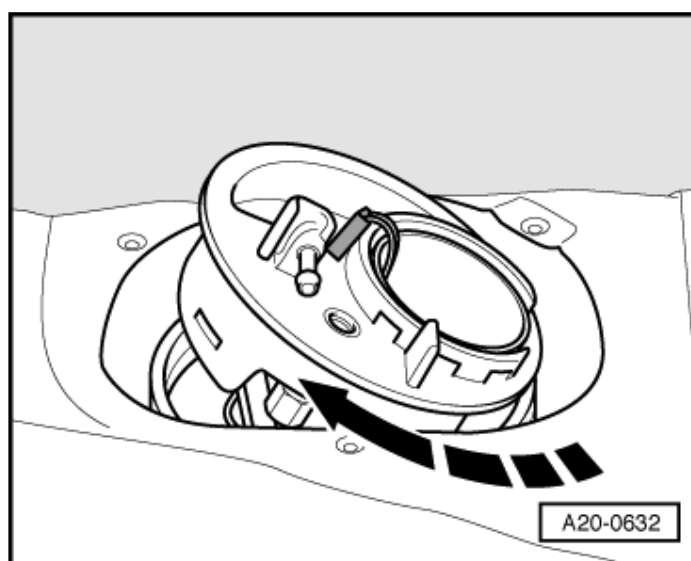
- → Pull the fuel delivery unit upwards approx. 40 mm while slightly turning side to side.



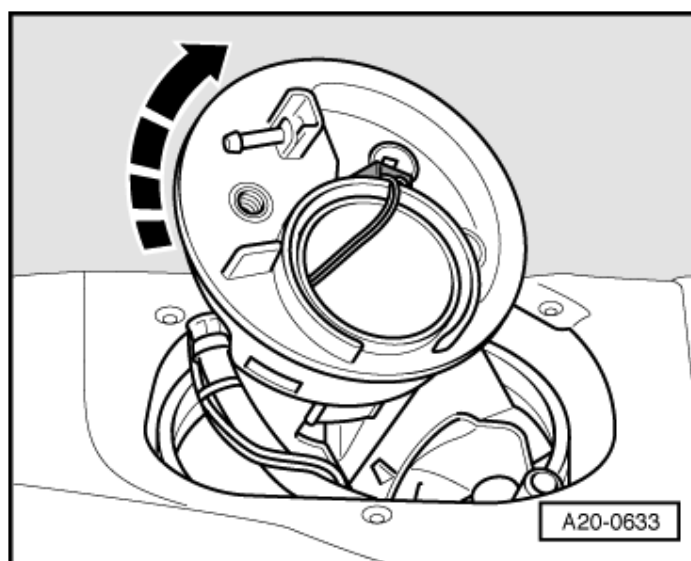
- → Remove flange seal from edge of opening.



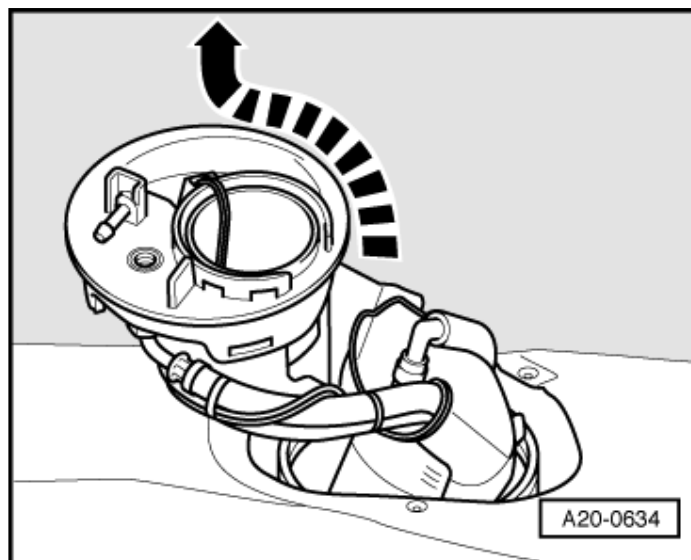
- → Turn fuel delivery unit clockwise approx. 45°.
- Flange will swing upwards



- → Turn fuel delivery unit clockwise 45° more while pulling upwards.



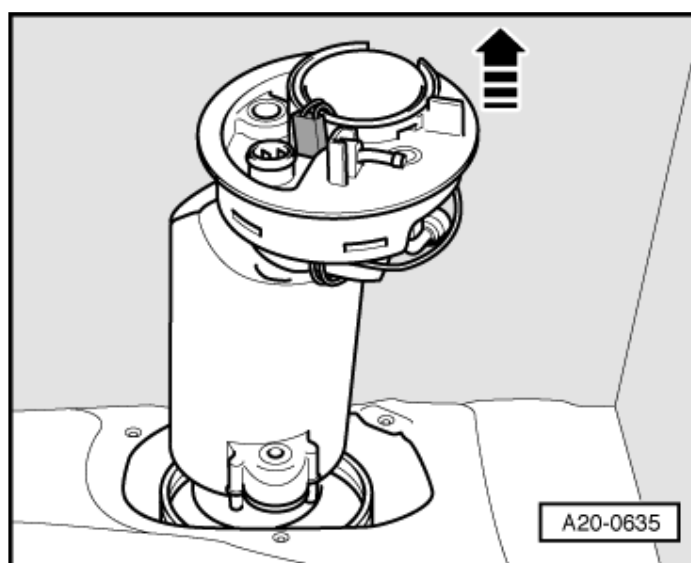
- → Now turn fuel delivery unit anti-clockwise 45° while pulling upwards...



- → ... and when finally in this position pull it out of the fuel tank.
- When removing fuel delivery unit from boot, hold a cloth under unit to catch any leaking fuel.
- Drain fuel delivery unit in a suitable container.

Note:

Following regulations for disposal of fuel.



Installing

- The fuel tank must be empty => Notes, Page [20-47](#).

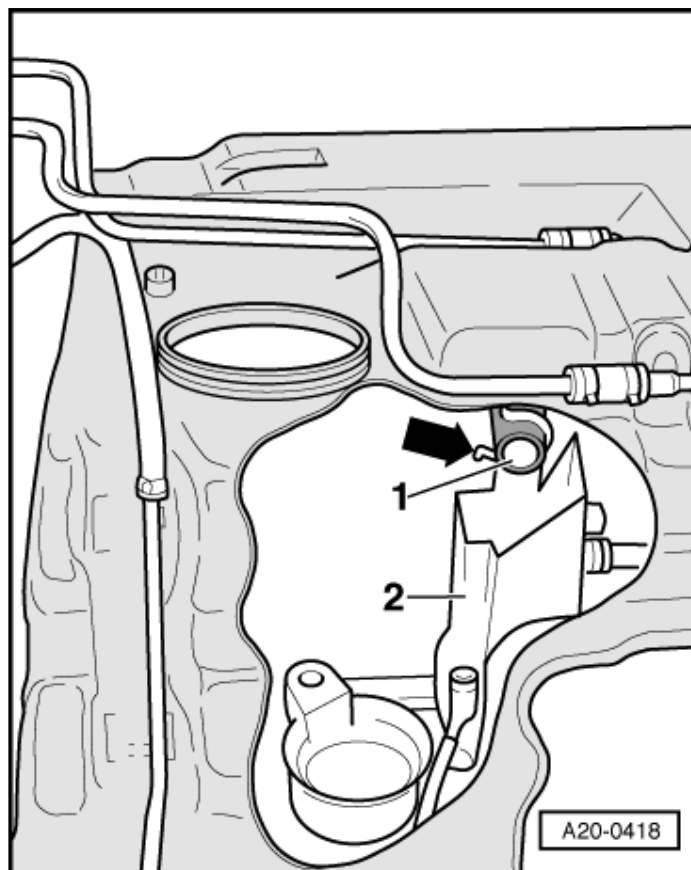
Install in reverse sequence; note the following points:

- → Before installing, check whether filler pipe -1- is clipped onto pipe retainer -arrow- on adapter plate -2-.

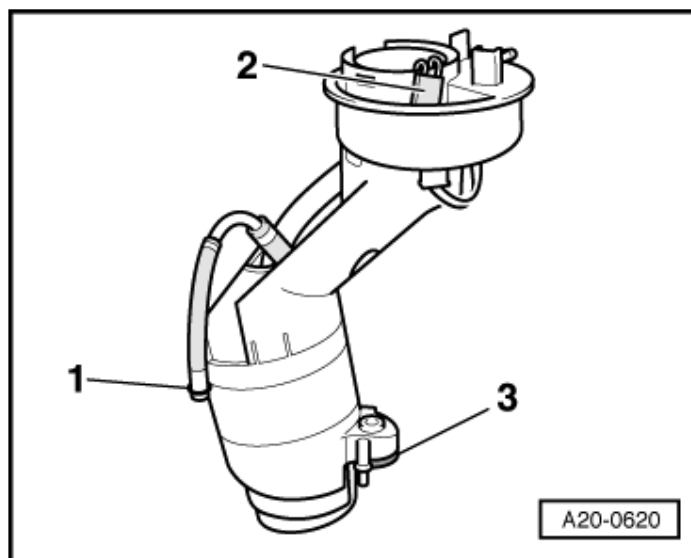
Notes:

- ☐ The cut-away shows the fuel tank from the front.
- ☐ A battery lamp and mirror can be used to check whether the filler pipe is clipped in properly.
- ☐ If the adapter plate and filler pipe are not clipped together it will not be possible to install the fuel delivery unit properly, and the adapter plate can be damaged when installing.

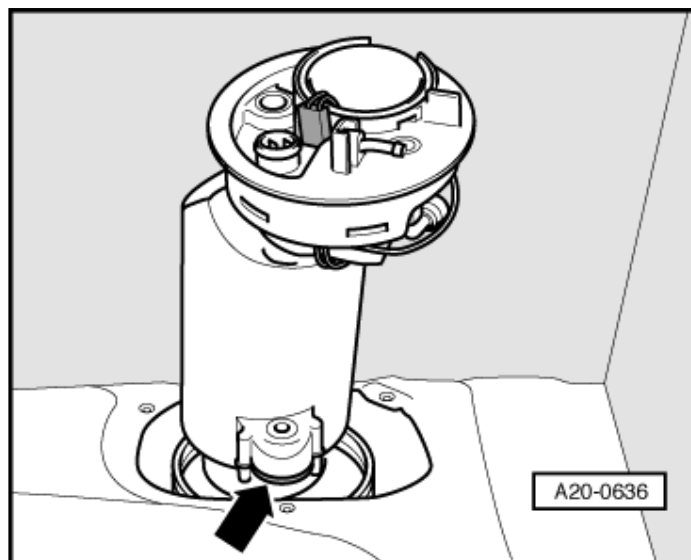
- Before inserting fuel delivery unit, visually inspect baffle housing, lower section of baffle housing, and pipe connections for suction jet pumps.



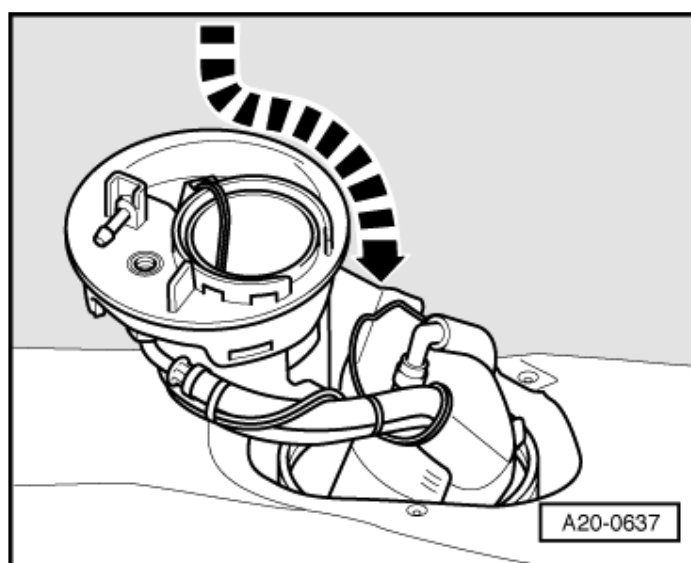
- → Renew O-ring -1- and sealing plug -3- and check their fitting location carefully.
- Secure wiring with connector -2- for fuel gauge sender, as illustrated. The connector is not accessible once delivery unit is installed.



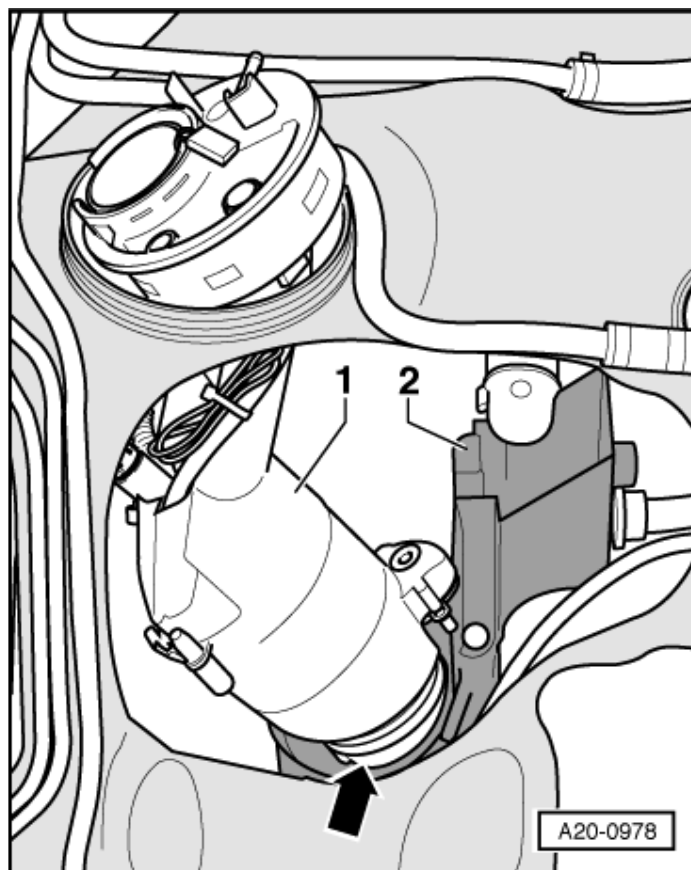
- Install fuel delivery unit first without flange seal:
- → Hold fuel delivery unit in starting position as shown:
 - The sealing plug -arrow- faces opposite the direction of travel.



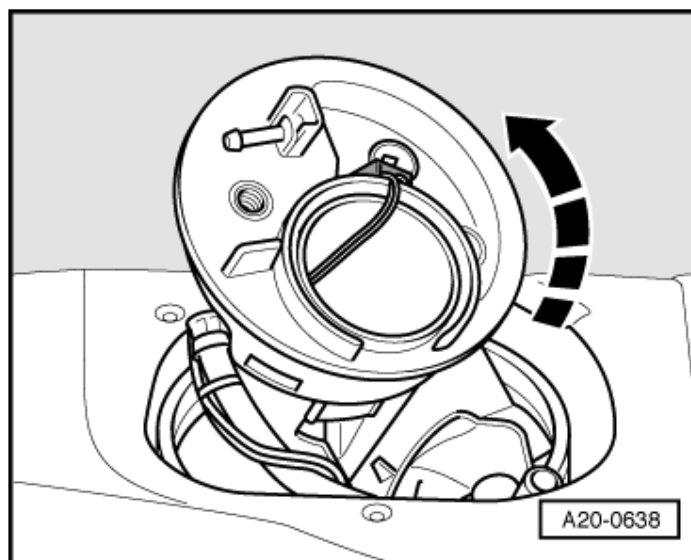
- → Place fuel delivery unit in fuel tank and turn clockwise approx. 90°.



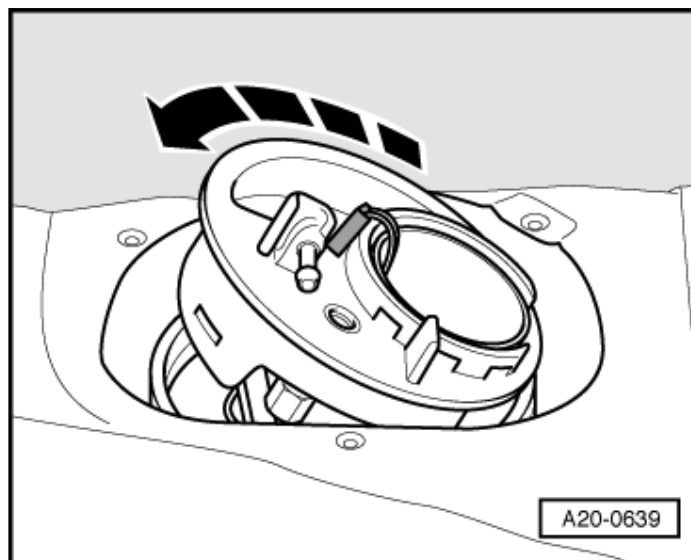
- → Tip flange of fuel delivery unit -1- as shown in illustration so that the lower section of the delivery unit swings as far as possible to the left.
 - In this position the fuel delivery unit can be placed into the well -arrow- of the adapter plate -2- inside the fuel tank.



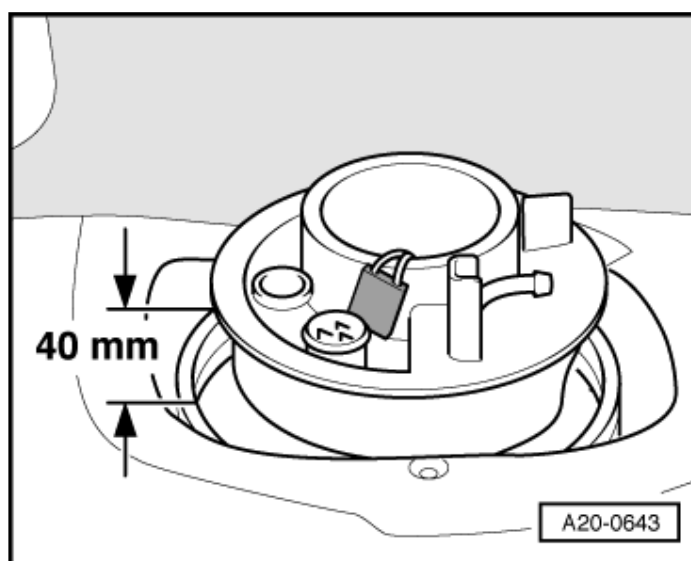
- → Now turn fuel delivery unit anti-clockwise 45°, which will lower the delivery unit into the fuel tank.



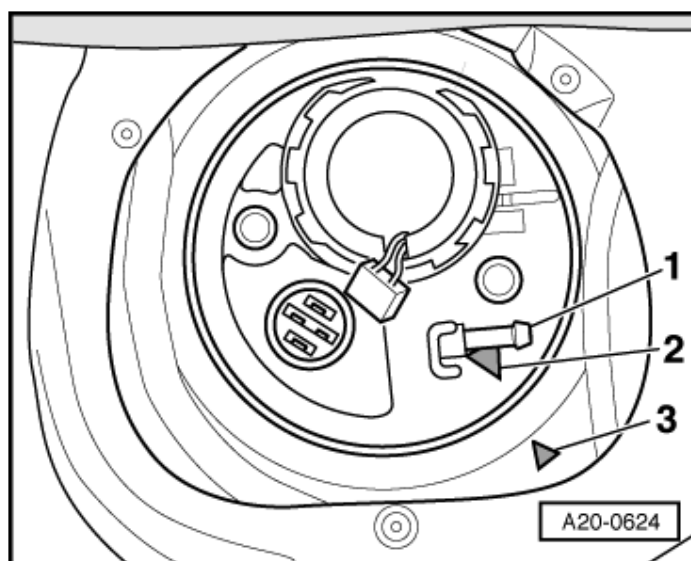
- → Turn the fuel delivery unit anti-clockwise 45° further to its fitting position.



- → Hold flange in fitting position approx. 40 mm over opening.



- → Check the fitting position:
 - Hose connection -1- faces to right
 - -Arrow 2- and -arrow 3- face each other



- → Press fuel delivery unit downwards.
 - The output pipe from the fuel delivery unit to the suction jet pumps will then be pressed down into the funnel on the adapter plate -arrows-.

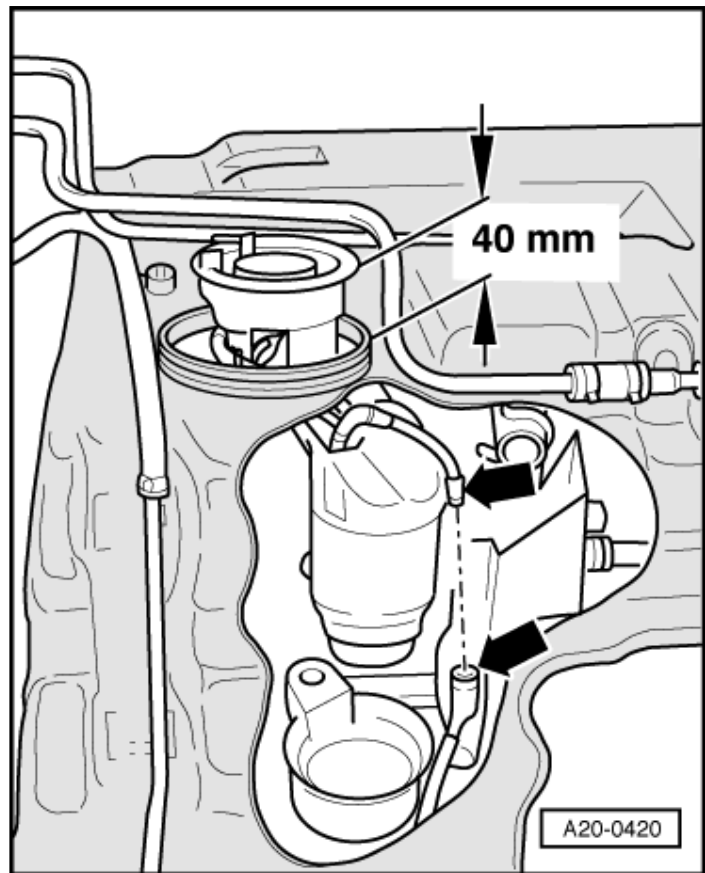
Notes:

- If the output pipe from the fuel delivery unit to the suction jet pumps is not pressed down into the funnel on the adapter plate, the suction jet pumps will not work and the fuel delivery unit will not seal against the adapter plate.
- If the baffle housing is not fuel-tight or the suction jet pumps are not working, the engine will cut out due to fuel starvation when the tank is still 1/3 ... 1/4 full.

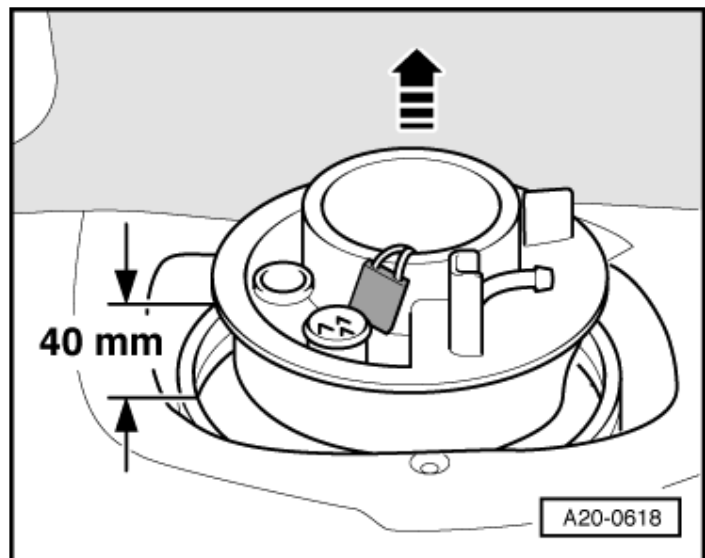
Warning

Proper installation is only guaranteed if the following criteria are fulfilled:

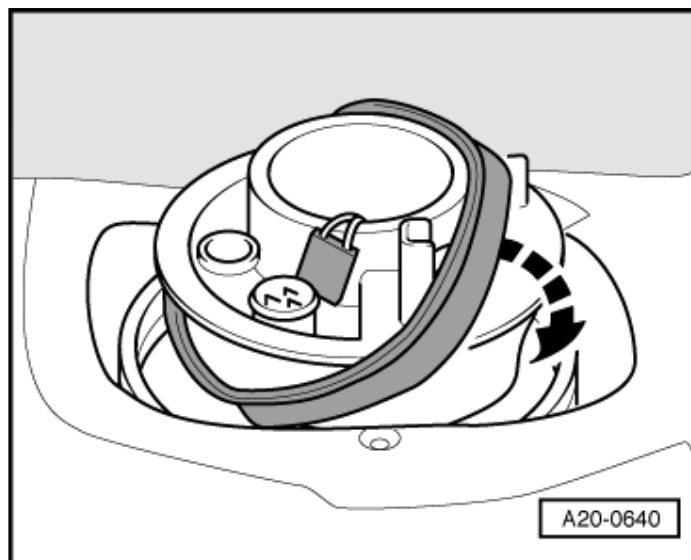
- **The flange of fuel delivery unit must sit level and not on edge of opening in fuel tank.**
- **The retaining bolt must easily be inserted into the bolt hole on adapter plate without catching, and it should be easily screwed into threaded bolt hole without snagging.**



- → After checking the installation, lift out fuel delivery unit approx. 40 mm.



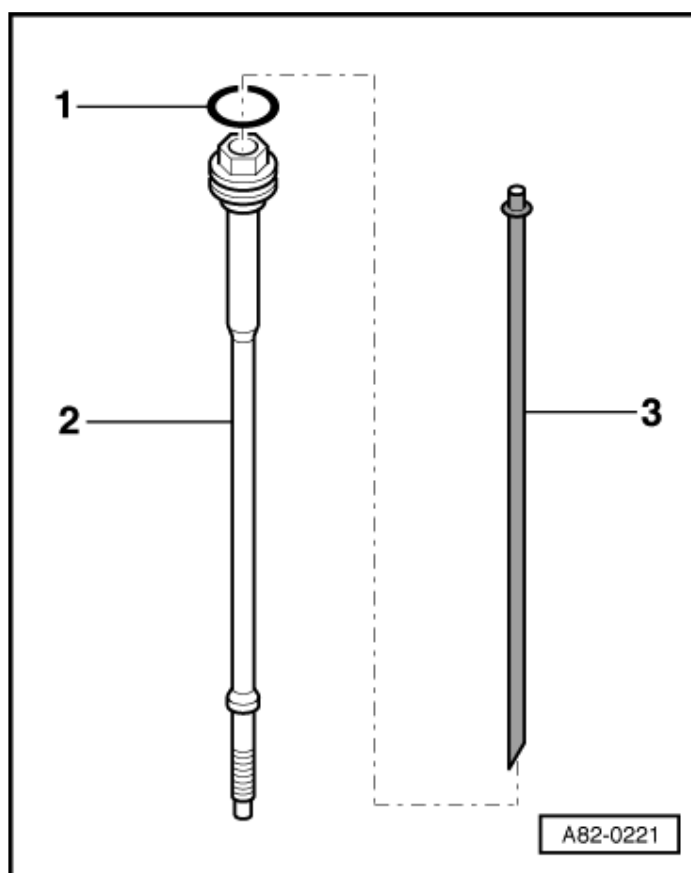
- → Fit new flange seal on rim of opening in fuel tank.
- Insert the fuel delivery unit again.



- Fit new O-ring -1- on securing bolt -2-.

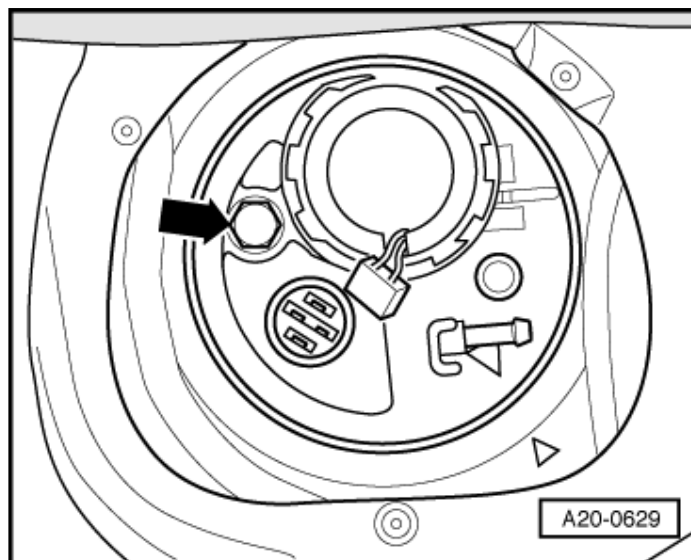
Vehicles with auxiliary heater:

- Be sure that the reduced diameter sleeve -3- is inserted in the tubular bolt.

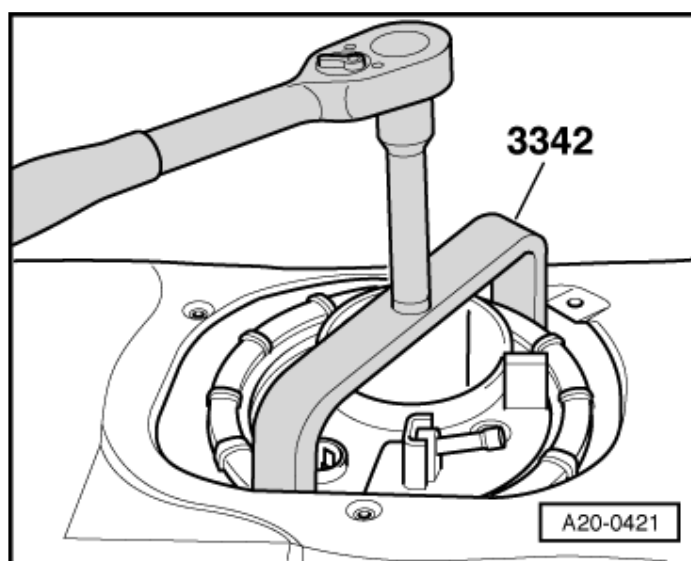


All models

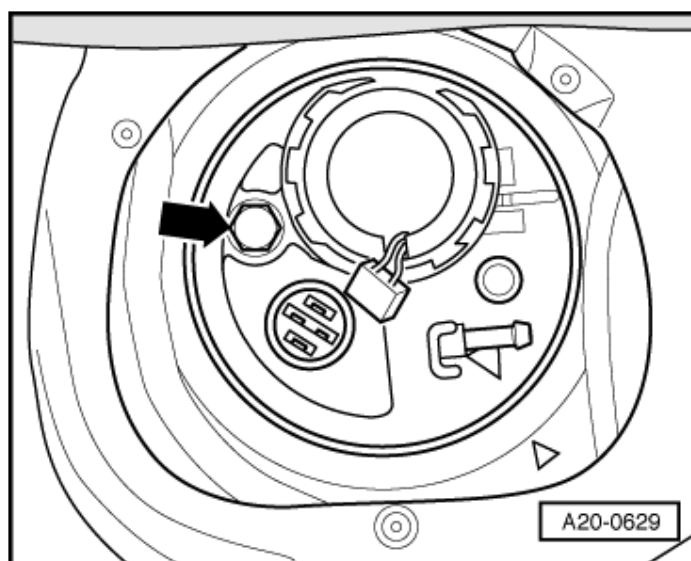
- Tighten securing bolt -arrow- finger-tight to start with.



- → Fit locking ring and tighten to 70 Nm using special tool 3342.



- → Tighten securing bolt -arrow- to 20 Nm.



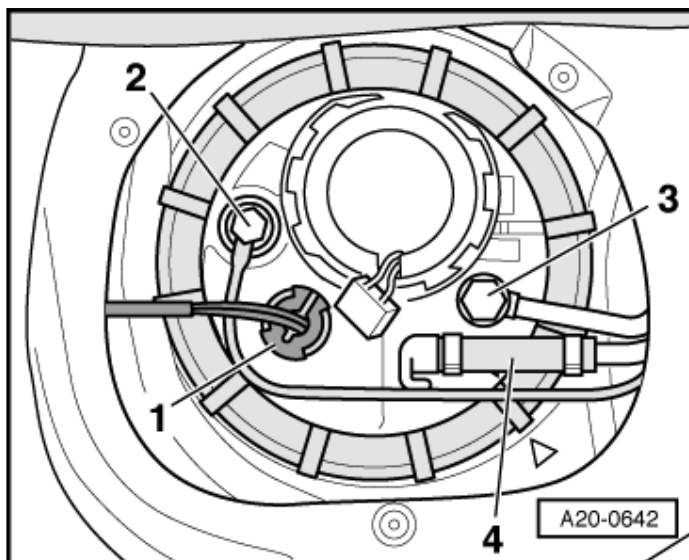
- Replace ring seals for banjo bolts.
- → Tighten banjo bolt -3- for fuel supply pipe to 23 Nm.

Vehicles with auxiliary heater:

- Tighten banjo bolt -2- for fuel supply pipe to auxiliary heater to 13 Nm.

All models

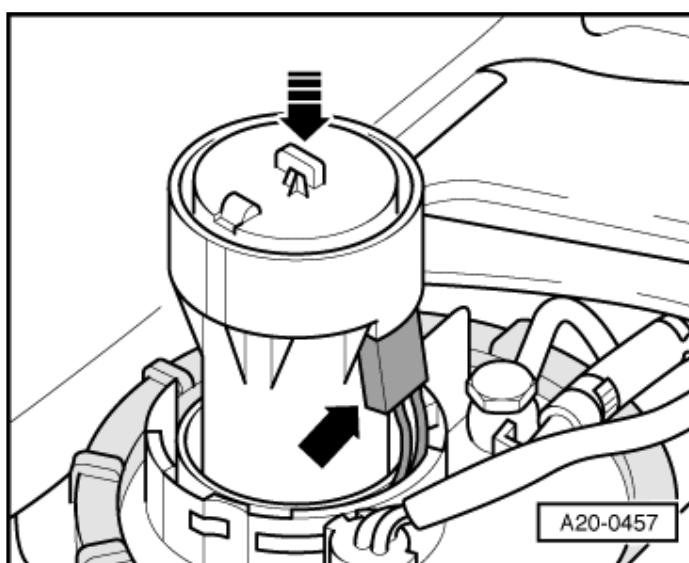
- Connect fuel return hose -4- and secure with new hose clamp with aid of hose clip pliers V.A.G 1275.
- Plug in connector -1-.



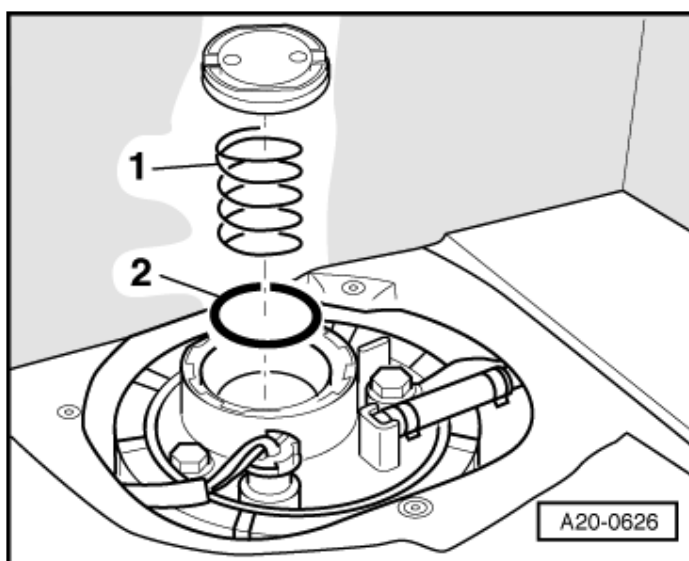
- → Insert fuel gauge sender.
- Reconnect electrical connector -arrow- when sliding fuel gauge sender back into tank.

Note:

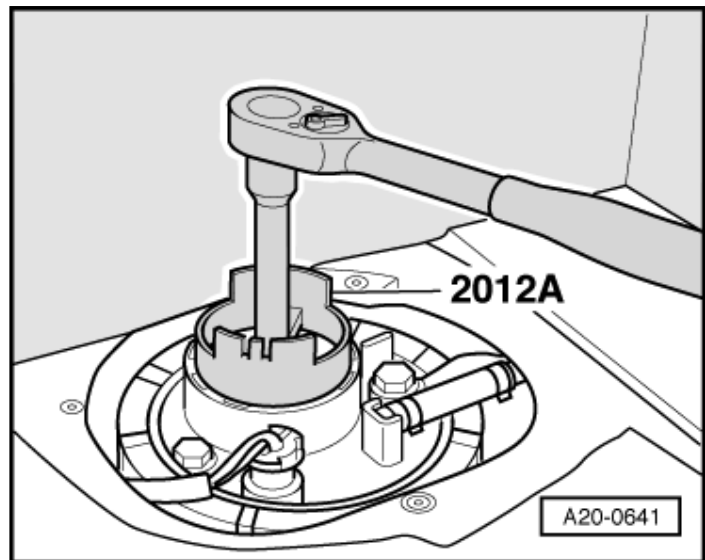
The fuel gauge sender -G can only be inserted in a certain position; turn if necessary.



- → Renew O-ring -2- on fuel gauge sender.
- Fit spring -1-.



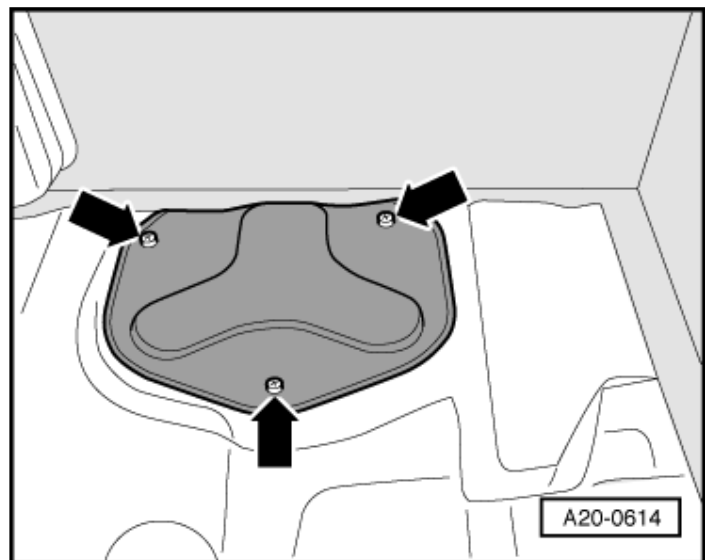
- → Using special tool 2012 A, carefully tighten flange for fuel gauge sender by turning it anti-clockwise as far as it will go.



- → Install cover for fuel gauge sender and fuel delivery unit (right side) under floor covering in boot -arrows-.
- Check fuel delivery unit for leaks => Page [20-68](#).

Notes:

- ☐ A leak test must be performed after re-installing the fuel delivery unit => Page [20-68](#). This is necessary to ensure that the baffle housing is not leaking.
- ☐ If the baffle housing is not fuel-tight the engine will cut out due to fuel starvation when the tank is still 1/3 ... 1/4 full.
- ☐ When the battery is reconnected, re-activate electrical equipment (radio, combined radio/navigation system, clock, electric windows) as described in the Owner's Manual.
- ☐ De-activate service mode in telematics control unit.



=> [Radio, telephone and navigation system; Repair group 91](#)

- ☐ Further procedures after reconnecting the voltage supply:

=> [Motronic injection and ignition system; Repair group 24](#)

Leak test

Test requirement:

- Fuel tank drained.
- Put in 5 litres of fuel.
- Take the vehicle for a test drive of at least 10 km (take spare canister of fuel).
- Leave vehicle standing overnight (or at least 12 hours).

If the engine starts readily after the vehicle has been standing for this period, this means the fuel delivery unit is not leaking.

- Fill up tank and take the vehicle for a final test drive.

If the engine does not start:

- Check whether fuel delivery unit has been installed properly => Page [20-56](#).