Workshop Manual
Audi A4 2015 ➤ , Audi A4 Avant 2015 ➤ ,
Audi A4 China 2016 ➤ , Audi A5 2016 ➤ ,
Audi A5 Cabriolet 2017 ➤

Fuel supply system									
Engine ID	DET A	DEU A	DE B	CZH A	DES A	DEC	CRT	CSW B	CVK B
	CVN A	CYM C	CYR B	CYR C	DET B	DBP A	CWN A	CWP B	DCP C
	CWG D	DEM A	DHD A	DDW A	DEC A	DEZ B	DEZ E	DCP E	DKN A
	DLVA	DLVB	DKU A	DKU B	DKW A	DKY A	DLH B		

Edition 10.2018



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

ത്ത

List of Workshop Manual Repair Groups

Repair Group

00 - Technical data

20 - Fuel supply system



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not

permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability

Technical information should always be available to the foremen and mechanics, because their careful and constant adherence to the instructions is essential to ensure vehicle road-worthiness and safety. In addition, the normal basic safety precautions for working on motor vehicles must, as a matter of course, be observed.

All rights reserved.

No reproduction without prior agreement from publisher.



Contents

hnical data	1
Safety precautions	1
Safety precautions when working on the fuel system	1
Safety precautions when working on vehicles with start/stop system	2
Safety precautions when using testers and measuring instruments during a road test	2
	2
	4
•	4
	4
Routing and attachment of pipes, hoses and wiring	5
l supply system	6
	6
	6
·	15
· · · · · · · · · · · · · · · · · · ·	
	30
	39
	50
authustu synussias. AUDI AG does not guarantee or accept any liability	53
e correctness of information in this document. Copyright by AUDI AG.	53
	59
	62
	64
-	
·	68
Removing and installing water separator	70
Accelerator mechanism	72
Exploded view - accelerator pedal module	72
Removing and installing accelerator pedal module with accelerator position sender G79 / G185	73
Fuel pump	74
Checking fuel system pressurisation pump G6	74
Removing and installing suction-jet pump	89
Removing and installing fuel pump control unit J538	90
	Safety precautions when working on the fuel system Safety precautions when working on vehicles with start/stop system Safety precautions when working on vehicles with start/stop system Safety precautions when working on the SCR system Repair instructions Rules for cleanliness Test conditions Contact corrosion Routing and attachment of pipes, hoses and wiring I supply system Fuel tank Exploded view - fuel tank Draining fuel tank Removing and installing fuel tank Removing and installing misfuelling prevention device Deactivating misfuelling prevention device Fuel delivery unit/fuel gauge senders Exploded view - fuel delivery unit/fuel gauge senders Removing and installing fuel delivery unit/fuel gauge sender Bleeding fuel line for metering pump rig Removing and installing fuel gauge sender G in part or in whole, is not au Plug-in connectors Auto A Gobern of guerante or accept any lability Disconnecting plug-in connectors Connection diagram - activated charcoal filter system Exploded view - activated charcoal filter system Removing and installing tank pressure sensor G400 Removing and installing and pressure sensor G400 Removing and installing tank pressure sensor G400 Removing and installing and pressure sensor G400 Removing and installing water separator Accelerator mechanism Exploded view - accelerator pedal module Removing and installing water separator Accelerator mechanism Exploded view - accelerator pedal module Removing and installing accelerator pedal module with accelerator position sender G79 / G185 Fuel pump Checking fuel system pressurisation pump G6 Removing and installing suction-jet pump



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

00 -Technical data

Safety precautions

(ARL006041; Edition 10.2018)

- <u>"1.1 Safety precautions when working on the fuel system", page</u>
- ⇒ "1.2 Safety precautions when working on vehicles with start/ stop system", page 2
- ⇒ "1.3 Safety precautions when using testers and measuring instruments during a road test", page 2
- ⇒ "1.4 Safety precautions when working on the SCR system", page 2

1.1 Safety precautions when working on the fuel system

Risk of injury - fuel system operates under high pressure

The fuel system is pressurised. There is a risk of injury as fuel may spray out.

Before opening the fuel system:

- Put on safety goggles.
- Put on protective gloves.
- Release pressure (wrap a clean cloth around connection and open connection carefully).



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not if the battery is connected, the door contact switch activates the fuel-pump when the driver's door is opened. Escaping fuel-may arantee or accept any liability ignite causing a fire correctness of information in this document. Copyright by AUDI AG.

Before opening the fuel system, disconnect power supply to fuel pump.

Perform the following steps before starting work on the fuel system:

- Fuel tank must be completely drained or only partially full. The amount of fuel which can be left in the fuel tank is indicated in the corresponding procedure description. Drain fuel tank if necessary <u>⇒ page 15</u>.
- Before commencing work, switch on exhaust extraction system and place an extraction hose close to the opening in the fuel tank to extract escaping petrol fumes.
- ◆ If no exhaust extraction system is available, a radial fan with a displacement of at least 15 m³/h can be used (the fan motor must be clear of the air stream).

1.2 Safety precautions when working on vehicles with start/stop system

Risk of injury - engine may start unexpectedly

The engine can start unexpectedly if the vehicle's start/stop system is activated. A message in the instrument cluster indicates whether the start/stop system is activated.

To deactivate the start/stop system, switch off the ignition.

1.3 Safety precautions when using testers and measuring instruments during a road test

Risk of injury if test equipment is not secured

If an accident occurs and the front passenger's airbag is triggered, test equipment which is not secured adequately may be catapulted through the vehicle with potentially serious consequences.

- Secure test equipment on the rear seat with a strap.

Or:

 Have a second mechanic operate test equipment on the rear seat.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1.4 Safety precautions when working on the SCR system

Risk of injury caused by reducing agent

Reducing agent can cause eye and skin irritation, damage to the respiratory tract and poisoning.

- Put on safety goggles.
- Put on protective gloves.
- Wear protective clothing.
- Ensure that there is sufficient fresh air. In enclosed spaces, switch on the exhaust extraction system.

Automatic drawing back of reducing agent

- After the ignition is switched off, the reducing agent is automatically drawn back into the reducing agent tank from the metering line leading to the injector for reducing agent N474-.
- Before performing work in this area, you must therefore wait until the reducing agent has been drawn back; this can take up to 10 minutes after the ignition has been switched off.
- It is also important to wait until the reducing agent has been drawn back (i.e. 10 minutes after the ignition is switched off) before disconnecting the battery

 Electrical system; Rep. gr. 27; Battery; Disconnecting and connecting battery.

Risk of damage caused by reducing agent

Reducing agent which has come into contact with trim or body components can crystallise after some time and damage the affected surfaces.



- Ensure that no reducing agent makes contact with parts of trim or body.
- Clean any surfaces which have come into contact with reducing agent immediately with water and a cloth.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

2 Repair instructions

⇒ "2.1 Rules for cleanliness", page 4

⇒ "2.2 Test conditions", page 4

⇒ "2.3 Contact corrosion", page 4

⇒ "2.4 Routing and attachment of pipes, hoses and wiring", page 5

2.1 Rules for cleanliness

Even small quantities of dirt can lead to defects. For this reason, please observe the following rules when working on the fuel supply system and injection system:

- Carefully clean connection points and the surrounding area with engine cleaner or brake cleaner and dry thoroughly before opening.
- Immediately seal open lines and connections with clean plugs, for example from engine bung set - VAS 6122-.
- Place removed parts on a clean surface and cover them. Use only lint-free cloths.
- Carefully cover or seal open components if repairs cannot be carried out immediately.
- Only install clean components; replacement parts should only be unpacked immediately prior to installation. Do not use parts that have not been stored in their packing (e.g. in tool boxes etc.).
- When the system is open, do not work with compressed air and do not move the vehicle.
- Protect unplugged electrical connectors against dirt and mois-purposes, in part or in whole, is not ture and make sure connections are dry when attaching.
 permitted unless authorised by AUDI AG. AUDI AG does not quarantee or accept any liability
- Make sure that no diesel fuel comes into contact with other components in the engine compartment. If necessary, clean ment. Copyright by AUDI AG. immediately.

2.2 Test conditions

- Battery in standby mode ⇒ Electrical system; Rep. gr. 27;
 Battery; Charging battery.
- Fuses for fuel pump/ fuel pump relay J17- / fuel pump control unit - J538- OK ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.
- Fuel pump relay J17- OK; checking ⇒ Vehicle diagnostic tester
- Fuel pump control unit J538- OK; checking ⇒ Vehicle diagnostic tester.
- Fuel tank at least ¹/₄ full.
- · Fuel filter OK.
- · Fuel lines OK (not obstructed or crushed).
- · Ignition switched off.

2.3 Contact corrosion

Contact corrosion can occur if unsuitable fasteners are used (e.g. bolts, nuts, washers, etc.).



For this reason, only fasteners with a special surface coating are fitted.

Additionally, all rubber and plastic parts and all adhesives are made of non-conductive materials.

Always install new parts if you are not sure whether used parts can be re-fitted ⇒ Electronic parts catalogue.

Please note:

- We recommend using only genuine replacement parts; these have been tested and are compatible with aluminium.
- We recommend using Audi Genuine Accessories.
- Damage caused by contact corrosion is not covered by war-

ranty. Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not

perm 2:4d unless a Routing and attachment of pipes, hoses accept any liability with respect to the and ewiring f information in this document. Copyright by AUDI AG.



Caution

Risk of damage to pipes/hoses/wiring.

- The original routing must be restored when installing any kind of pipes/hoses/wiring.
- Due to the restricted space in the engine compartment, it is important to ensure sufficient clearance from all moving or hot components.

20 – Fuel supply system

1 Fuel tank

- ⇒ "1.1 Exploded view fuel tank", page 6
- ⇒ "1.2 Draining fuel tank", page 15
- ⇒ "1.3 Removing and installing fuel tank", page 19
- ⇒ "1.4 Removing and installing misfuelling prevention device", page 30
- ⇒ "1.5 Deactivating misfuelling prevention device", page 33

1.1 Exploded view - fuel tank

- ⇒ "1.1.1 Exploded view fuel tank, TFSI vehicles with front-wheel drive, rest-of-world vehicles", page 6
- \Rightarrow "1.1.2 Exploded view fuel tank, TFSI vehicles with four-wheel drive, rest-of-world vehicles", page 8
- ⇒ "1.1.3 Exploded view fuel tank, TFSI vehicles with front/four-wheel drive, NAR vehicles", page 9
- ⇒ "1.1.4 Exploded view fuel tank, TDI vehicles with front-wheel drive, rest-of-world vehicles", page 11
- ⇒ "1.1.5 Exploded view fuel tank, TDI vehicles with four-wheel drive, rest-of-world vehicles", page 12
- \Rightarrow "1.1.6 Exploded view fuel tank, TDI vehicles with four-wheel drive, NAR vehicles", page 14

1.1.1 Exploded view - fuel tank, TFSI vehicles with front-wheel drive, rest-of-world vehicles



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1 - Bolt

□ 20 Nm

2 - Securing strap

□ Attached to fuel tank with fasteners

3 - Fuel line

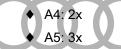
- □ To engine
- □ Do not kink
- Clipped onto fuel tank
- Disconnecting and connecting plug-in connectors ⇒ page 53

4 - Bolt

□ 20 Nm

5 - Bolt

Secures fuel filler neck and also serves as earth connection



□ 8 Nm

Protected by copyright. Copying for priva

Secured to tank flap unit Screw down until it en-

with respect toagescaudiblyss of inforr

7 - Breather line

- ☐ To activated charcoal filter
- Do not kink
- □ Disconnecting and connecting plug-in connectors ⇒ page 53

8 - Bush

9 - Rubber bush

10 - Bolt

□ 20 Nm

11 - Securing strap

□ Attached to fuel tank with fasteners

12 - Fuel tank

- ☐ Different versions available; for allocation refer to ⇒ Electronic parts catalogue
- ☐ Removing and installing ⇒ page 19

13 - Bolt

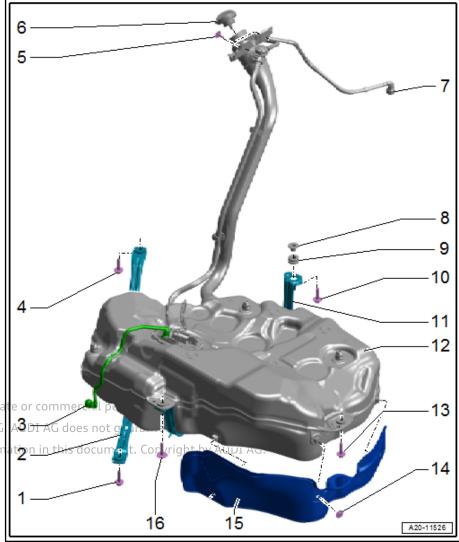
□ 20 Nm

14 - Speed nut

- For heat shield
- □ 3x
- □ 2 Nm

15 - Heat shield

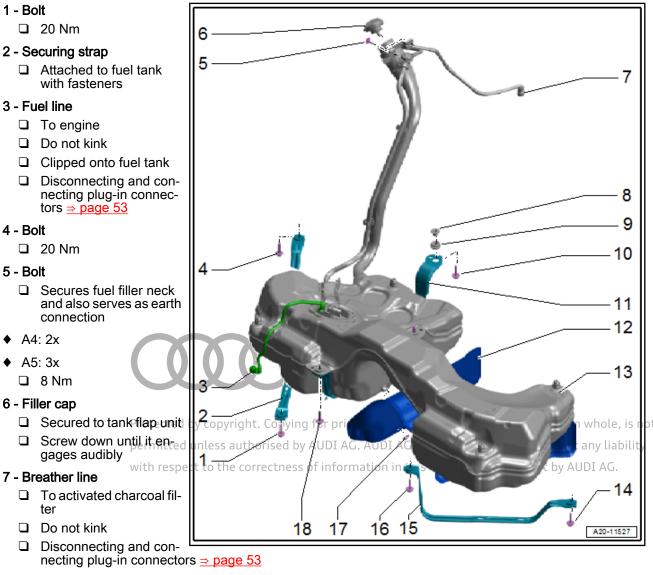
□ For fuel tank



16 - Bolt

□ 20 Nm

1.1.2 Exploded view - fuel tank, TFSI vehicles with four-wheel drive, rest-of-world vehicles



8 - Bush

9 - Rubber bush

10 - Bolt

□ 20 Nm

11 - Securing strap

Attached to fuel tank with fasteners

12 - Heat shield

For fuel tank

13 - Fuel tank

- ☐ Different versions available; for allocation refer to ⇒ Electronic parts catalogue
- ☐ Removing and installing ⇒ page 19

- 14 Bolt
 - □ 20 Nm

15 - Securing strap

- □ Attached to fuel tank with fasteners
- 16 Bolt
 - □ 20 Nm

17 - Speed nut

- For heat shield
- □ 5x
- □ 2 Nm

18 - Bolt

□ 20 Nm

1.1.3 Exploded view - fuel tank, TFSI vehicles with front/four-wheel drive, NAR vehicles

- 1 Bolt
 - □ 20 Nm

2 - Securing strap

- □ Attached to fuel tank with fasteners
- 3 Bolt
 - □ 20 Nm

4 - Fuel line

- ☐ To engine
- Do not kink
- ☐ Clipped onto fuel tank
- Disconnecting and connecting plug-in connectors ⇒ page 53

5 - Guard plate

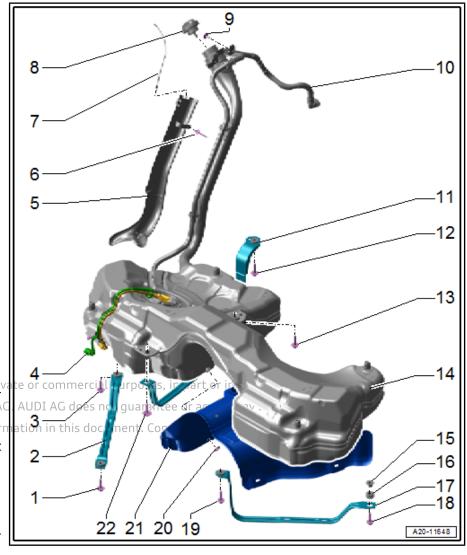
- □ For fuel filler neck
- 6 Rivet
 - □ 2x

7 - Earth connection

- ☐ For protective plate
- Protected by Copyright Copyring for private electrostatpermitted unliescharge - page 40 DI AC
- with re8peFillertcap:orrectness of inform
 - Secured to tank flap unit
 - Screw down until it engages audibly

9 - Bolt

- Secures fuel filler neck, serves as earth connection
- □ 2x
- □ 8 Nm



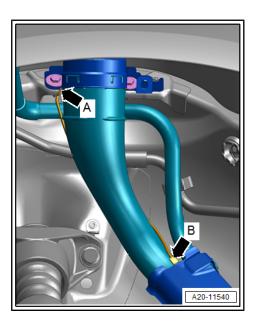
10 - Breather line
☐ To activated charcoal filter
☐ Do not kink
□ Disconnecting and connecting plug-in connectors ⇒ page 53
11 - Securing strap
 Attached to fuel tank with fasteners
12 - Bolt
□ 20 Nm
13 - Bolt
□ 20 Nm
14 - Fuel tank
□ Different versions available; for allocation refer to ⇒ Electronic parts catalogue
□ Removing and installing ⇒ page 19
15 - Bush
16 - Rubber bush
17 - Securing strap
☐ Attached to fuel tank with fasteners
18 - Bolt
□ 20 Nm
19 - Bolt
□ 20 Nm
20 - Speed nut
☐ For heat shield
□ 5x
Pot 2c Nm by copyright. Copying for private or commercial purposes, in part or in whole, is not
21 _{pe} Heat shieldess authorised by AUDI AG. AUDI AG does not guarantee or accept any liability
With respect to the correctness of information in this document. Copyright by AUDI AG.

Routing of earth connection

22 - Bolt

□ 20 Nm

- Route earth connection as shown in illustration.
- Make sure that the following connectors are securely seated:
- Connector -arrow A- must be seated securely on metal ring and connector -arrow B- on guard plate of fuel filler neck.



1.1.4 Exploded view - fuel tank, TDI vehicles with front-wheel drive, rest-of-world vehicles

1 - Bolt □ 20 Nm Protected by co cial purposes, in part or in whole, is not t garantee or accept any liability 2 - Securing strapermitted unles <u>a</u>uthorised by **7** e correctness of infor ☐ Attached to fuel tanket to at. Copyright by AUDI AG. with fasteners 3 - Fuel supply line □ To fuel filter ☐ Clipped onto fuel tank ☐ Do not kink Disconnecting and connecting plug-in connectors ⇒ page 53 9 4 - Fuel return line From engine 10 Do not kink ☐ Clipped onto fuel tank Disconnecting and connecting plug-in connec-12 tors ⇒ page 53 13 5 - Bolt □ 20 Nm 6 - Bolt Secures fuel filler neck 14 and also serves as earth connection ♦ A4: 2x 15 ♦ A5: 3x □ 8 Nm 16

- 7 Misfuelling prevention device
 - □ Removing and installing ⇒ page 30

8 - Filler cap

- ☐ Screw down until it engages audibly
- Secured to tank flap unit

9 - Bush

10 - Rubber bush

11 - Bolt

□ 20 Nm

12 - Securing strap

Attached to fuel tank with fasteners

13 - Fuel tank

- ☐ Different versions available; for allocation refer to ⇒ Electronic parts catalogue
- □ Removing and installing ⇒ page 24

14 - Bolt

□ 20 Nm

15	- S	pee	d r	nut
----	-----	-----	-----	-----

- For heat shield
- □ 3x
- □ 2 Nm

16 - Heat shield

□ For fuel tank

17 - Bolt

□ 20 Nm

1.1.5 Exploded view - fuel tank, TDI vehicles with four-wheel drive, rest-of-world vehicles

1 - Bolt Protected by copy

■ 20 Nm permitted unless

2 - Securing straph respect to the

Attached to fuel tank with fasteners

3 - Fuel supply line

- □ To fuel filter
- ☐ Clipped onto fuel tank
- Do not kink
- ☐ Disconnecting and connecting plug-in connectors ⇒ page 53

4 - Fuel return line

- □ From engine
- □ Do not kink
- ☐ Clipped onto fuel tank
- Disconnecting and connecting plug-in connectors ⇒ page 53

5 - Bolt

□ 20 Nm

6 - Bolt

- Secures fuel filler neck and also serves as earth connection
- ♦ A4: 2x
- ♦ A5: 3x
 - □ 8 Nm

7 - Misfuelling prevention device

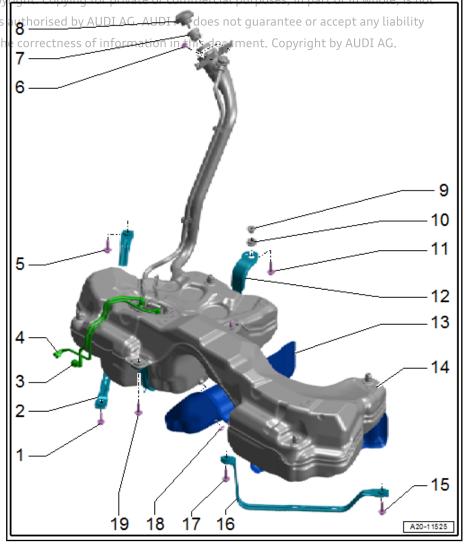
□ Removing and installing ⇒ page 30

8 - Filler cap

- ☐ Screw down until it engages audibly
- □ Secured to tank flap unit

9 - Bush

□ 1x

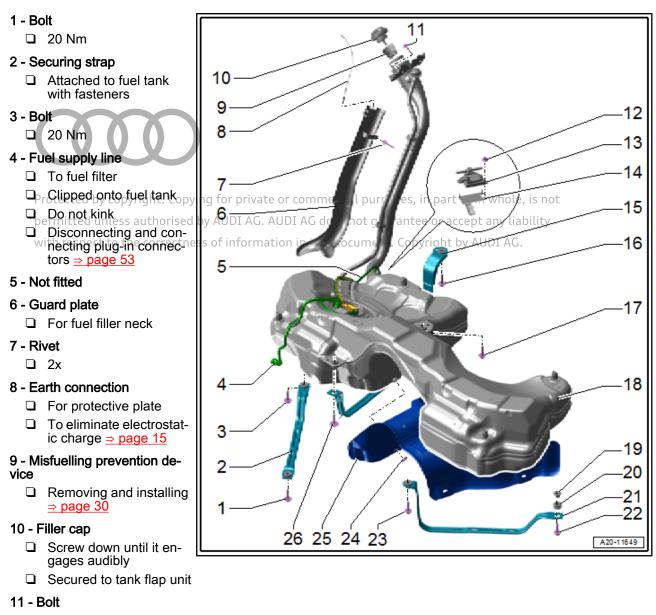


10 - Rubber bush
□ 1x
11 - Bolt
□ 20 Nm
12 - Securing strap
 Attached to fuel tank with fasteners
13 - Heat shield
☐ For fuel tank
14 - Fuel tank
☐ Different versions available; for allocation refer to ⇒ Electronic parts catalogue
□ Removing and installing ⇒ page 24
15 - Bolt
□ 20 Nm
16 - Securing strap
 Attached to fuel tank with fasteners
17 - Bolt
□ 20 Nm
18 - Speed nut
☐ For heat shield
□ 5x
□ 2 Nm
19 - Bolt
□ 20 Nm



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

1.1.6 Exploded view - fuel tank, TDI vehicles with four-wheel drive, NAR vehicles



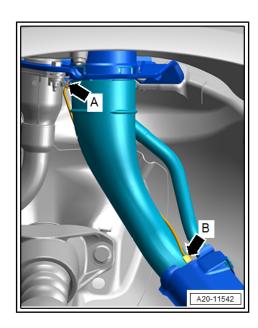
- Secure fuel filler neck, serve as earth connection
- □ 2x
- □ 8 Nm
- 12 Not fitted
- 13 Not fitted
- 14 Not fitted
- 15 Securing strap
 - Attached to fuel tank with fasteners
- 16 Bolt
 - □ 20 Nm
- 17 Bolt
 - □ 20 Nm
- 18 Fuel tank
 - ☐ Different versions available; for allocation refer to ⇒ Electronic parts catalogue



- □ Removing and installing ⇒ page 24
- 19 Bush
- 20 Rubber bush
- 21 Securing strap
 - □ Attached to fuel tank with fasteners
- 22 Bolt
 - □ 20 Nm
- 23 Bolt
 - □ 20 Nm
- 24 Speed nut
 - ☐ For heat shieldy copyright. Copying for private or commercial purposes, in part or in whole, is not
 - □ 5x permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability
 - □ 2 Nmith respect to the correctness of information in this document. Copyright by AUDI AG.
- 25 Heat shield
 - □ For fuel tank
- 26 Bolt
 - □ 20 Nm

Routing of earth connection

- Route earth connection as shown in illustration.
- Make sure that the following connectors are securely seated:
- Connector -arrow A- must be seated securely on metal ring and connector -arrow B- on guard plate of fuel filler neck.



1.2 **Draining fuel tank**

⇒ "1.2.1 Draining fuel tank - vehicles with TFSI engine", <u>page 15</u>

⇒ "1.2.2 Draining fuel tank if more than 3/4 full - vehicles with TDI engine", page 17

⇒ "1.2.3 Draining fuel tank if less than 3/4 full - all vehicles", page

1.2.1 Draining fuel tank - vehicles with TFSI engine

Special tools and workshop equipment required

◆ Fuel extractor - VAS 5190A-



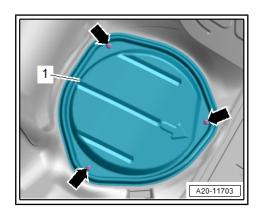
Protected by copyright. Copying for private or commercial purposes, in part or in permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept by IIII with respect to the correctness of information in this document. Copyright by AUDI AG.



◆ Adapter for fuel extraction - VAS 5190 /4-

Procedure

- Observe safety precautions ⇒ page 1.
- Observe rules for cleanliness ⇒ page 4.
- Remove filler cap for fuel filler neck.
- Move front seats all the way up and forwards.
- Remove seat bench/individual seats ⇒ General body repairs, interior; Rep. gr. 72; Rear seats; Removing and installing seat bench/individual seats.
- Remove bolts -arrows- and detach cover -1- for flange.



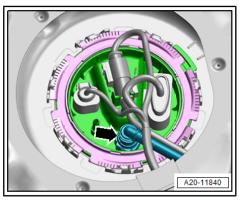


WARNING

The fuel system is pressurised.

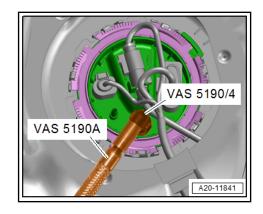
Risk of injury as fuel may spray out.

- Put on safety goggles.
- · Put on protective gloves.
- Release pressure (wrap a clean cloth around connection and open connection carefully).
- Disconnect fuel line -arrow- from flange. Disconnecting plugin connectors ⇒ page 53





- Connect extraction hose to supply connection on flange with adapter for fuel extraction VAS 5190 /4- .
- Extract fuel from fuel tank with fuel extractor VAS 5190A- (via supply connection on flange).



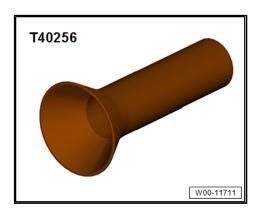
Draining fuel tank if more than 3/4 full -1.2.2 vehicles with TDI engine

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not **Special tools and workshop equipment required**permitted unless authorised by AUDI AG. AUDI AG does not guarant<u>ee or accept any liability</u>

Fuel extractor - VAS 5190A-with respect to the correctness of information in this document. Copyright \$ 5190 A.G.



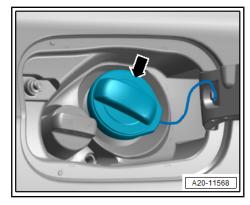
♦ Funnel - T40256- or emergency refuelling funnel



Procedure

- Observe safety precautions ⇒ page 1.
- Observe rules for cleanliness ⇒ page 4.
- Open tank flap.
- Clean area around fuel filler neck.

Remove filler cap -arrow- for fuel filler neck.





Note

- ♦ Shaft end -1- and tapered adapter -2- of fuel extractor -VAS 5190A- are not used.
- ♦ Slide shaft end -1- slightly towards rear on hoses.
- Use insulating tape to mark the extraction hose -arrow- at a distance of -a- from the end of the hose.
- All vehicles except for A5 Cabriolet: distance -a- = 990 mm.
- A5 Cabriolet: distance -a- = 970 mm.
- Insert funnel T40256- -item 3- in fuel filler neck as far as stop.
- Push extraction hose from -VAS 5190A- into fuel tank until marking on hose -arrow- is level with edge of filler neck.



Note

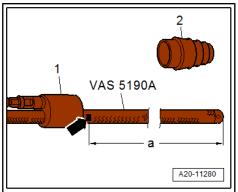
A flap -1- is located at the bottom of the filler neck -2- in the fuel tank; it must not be damaged by the extraction hose from -VAS 5190A- . Therefore, only push the hose in as far as the tape marking -arrow-.

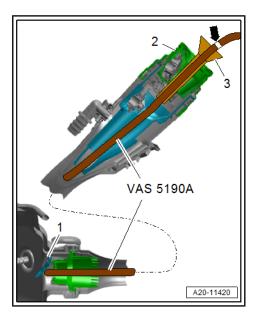
- Push extraction hose from -VAS 5190A- into fuel tank until marking on hose -arrow- is level with edge of filler neck with funnel -3-.
- Extract fuel from tank via fuel filler neck.
- Pull out extraction hose carefully.



Note

When no more fuel is extracted, the fuel tank has been drained enough for the flange to be opened safely.



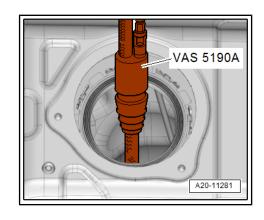




Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability

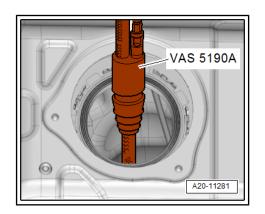


- Open flange 2.2.2 Removing and installing fuel delivery unit/fuel gauge <u>sender - TDI vehicles", page 45</u> .
- Pull flange slightly out of opening in fuel tank.
- Insert extraction hose of -VAS 5190A- into fuel tank.
- Using fuel extractor VAS 5190A-, extract fuel through opening.
- Four-wheel drive vehicles: Extract fuel from both fuel tank chambers through opening using fuel extractor - VAS 5190A-.



1.2.3 Draining fuel tank if less than 3/4 full - all vehicles

- Open flange "2.2 Removing and installing fuel delivery unit/fuel gauge sender", page 39
- Pull flange slightly out of opening in fuel tank.
- Insert extraction hose of -VAS 5190A- into fuel tank.
- Using fuel extractor VAS 5190A-, extract fuel through opening.
- Four-wheel drive vehicles: Extract fuel from both fuel tank chambers through opening using fuel extractor - VAS 5190A-.



1.3 Removing and installing fuel tank

⇒ "1.3.1 Removing fuel tank - vehicles with TFSI engine", <u>page 19</u>

⇒ "1.3.2 Removing fuel tank - vehicles with TDI engine", page 24

⇒ "1.3.3 Installing fuel tank - all vehicles", page 28

1.3.1 Removing fuel tank - vehicles with TFSI engine

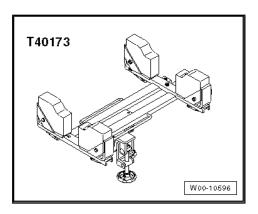
Special tools and workshop equipment required

♦ Engine and gearbox jack - VAS 6931-

Protected by copyright. Copying for private or commercial purposes, in part or in W permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept ag with respect to the correctness of information in this document. Copyright b



Gearbox support - T40173-



Removing

- Observe safety precautions ⇒ page 1.
- Observe rules for cleanliness ⇒ page 4.



Caution

When disconnecting the battery there is a risk of irreparable damage to electronic components.

- ♦ Observe notes on procedure for disconnecting the battery.
- Disconnect earth wire from battery terminal ⇒ Electrical system; Rep. gr. 27; Battery; Disconnecting and connecting battery.



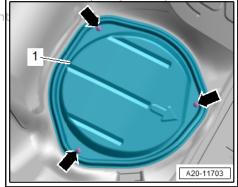
WARNING

Risk of accident caused by weight of fuel tank

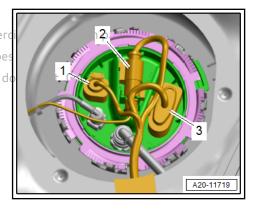
- ♦ Fuel tank must be empty when it is removed.
- Drain fuel tank ⇒ page 15
- Remove seat bench/individual seats ⇒ General body repairs, interior; Rep. gr. 72; Rear seats; Removing and installing seat purposes, in part or in whole, is not bench/individual seats.
- permitted unless authorised by AUDI AG, AUDI AG does not guarantee or accept any liabilit

 Remove bolts -arrows- and detach cover -1- for flange.



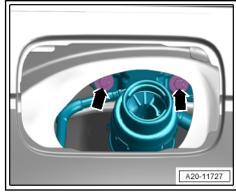


- Release retainer catches and unplug electrical connectors -1 and 3- on flangected by copyright. Copying for private or commer
- Depending on country/equipment version. Release retainer AG doe catch and unplug electrical connector -2-.
- with respect to the correctness of information in this d Remove rear wheel housing liner (right-side) \Rightarrow General body repairs, exterior; Rep. gr. 66; Wheel housing liners; Removing and installing wheel housing liner (rear).
- Remove tank flap unit ⇒ General body repairs, exterior; Rep. gr. 55; Tank flap unit; Removing and installing tank flap unit.



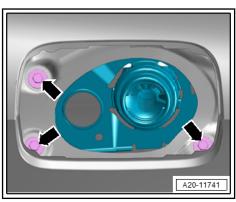
A4:

Remove bolts -arrows- for fuel filler neck.



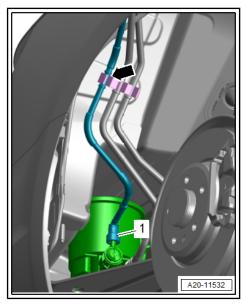
A5:

Remove bolts -arrows- for fuel filler neck.



All rest-of-world vehicles:

- Disconnect breather line -1- at activated charcoal filter. Disconnecting plug-in connectors ⇒ page 53
- Disengage breather line from bracket -arrow- and move it clear.

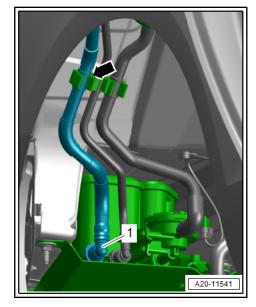


NAR vehicles:

- Disconnect breather line -1- at activated charcoal filter. Disconnecting plug-in connectors ⇒ page 53
- Disengage breather line from bracket -arrow- and move it clear.

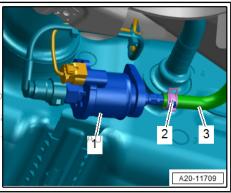
All vehicles (continued):

- Remove underbody trim panels (rear) ⇒ General body repairs, exterior; Rep. gr. 66; Underbody trim; Removing and installing underbody trim.
- Remove rear section of exhaust system ⇒ Rep. gr. 26; Exhaust pipes/silencers; Removing and installing silencers.



Rest-of-world vehicles/equipment version: Release clamp -2- and detach fuel hose -3- from metering pump -1-.

> Protected by copyright. Copying for private or commercial pur permitted unless authorised by AUDI AG. AUDI AG does not gu with respect to the correctness of information in this docume





Note

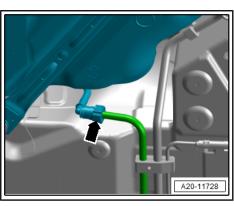
Lay a cloth under the connection to catch escaping fuel.



WARNING

The fuel system is pressurised. Risk of injury as fuel may spray out.

- Put on safety goggles.
- Put on protective gloves.
- Release pressure (wrap a clean cloth around connection and open connection carefully).
- Disconnect fuel line -arrow-. Disconnecting plug-in connectors ⇒ page 53



Front-wheel drive rest-of-world vehicles:

Fit gearbox support - T40173- on engine and gearbox jack -VAS 6931- and position it so it supports fuel tank, as shown.



Protected by copyright. Copying for private or commercial purpose

WARNING authorised by AUDI AG. AUDI AG does not guara th respect to the correctness of information in this docum

Risk of accident caused by weight of fuel tank

- ◆ Fuel tank must be empty when it is removed.
- Remove bolts -1 ... 5-.



Note

For illustration purposes the fuel tank is shown without engine and gearbox jack.

Lower fuel tank with engine and gearbox jack - VAS 6931-.



Note

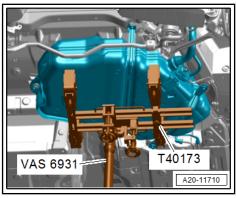
When guiding out the fuel tank, make sure there is sufficient clearance for the fuel filler neck.

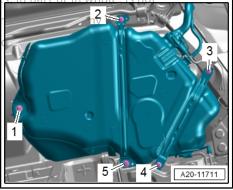
Four-wheel drive vehicles:

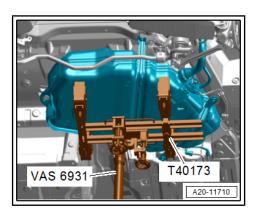
- Depending on equipment version: Remove diagonal struts ⇒ General body repairs, exterior; Rep. gr. 66; Underbody trim; Removing and installing diagonal struts.
- Remove propshaft ⇒ Rep. gr. 39; Propshaft; Removing and installing propshaft.

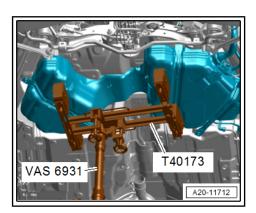
Front/four-wheel drive NAR vehicles and rest-of-world four-wheel drive vehicles:

Fit gearbox support - T40173- on engine and gearbox jack -VAS 6931- and position it so it supports fuel tank, as shown.











WARNING

Risk of accident caused by weight of fuel tank

- ♦ Fuel tank must be empty when it is removed.
- Remove bolts -1 ... 7-.



Note

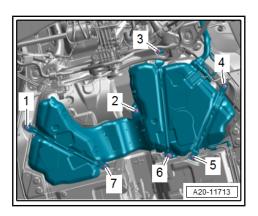
For illustration purposes the fuel tank is shown without engine and gearbox jack.

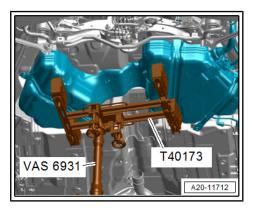
Lower fuel tank with engine and gearbox jack - VAS 6931- .



Note

When guiding out the fuel tank, make sure there is sufficient clearance for the fuel filler neck.





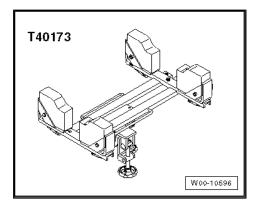
1.3.2 Removing fuel tank - vehicles with TDI engine

Special tools and/workshop/equipment required nmercial purposes, in part or in whole, is not

Perigine and gearbox jack by AS 6931 AUDI AG does not guarantee of with respect to the correctness of information in this document. Copyrig



Gearbox support - T40173-



Removing

- Observe safety precautions ⇒ page 1.
- Observe rules for cleanliness <u>⇒ page 4</u>.
- Switch off ignition.



WARNING

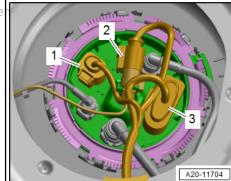
Risk of accident caused by weight of fuel tank

- ♦ Fuel tank must be empty when it is removed.
- Drain fuel tank <u>⇒ page 15</u>.
- Remove seat bench/individual seats ⇒ General body repairs, interior; Rep. gr. 72; Rear seats; Removing and installing seat bench/individual seats.
- Remove bolts -arrows- and detach cover -1- for flange.



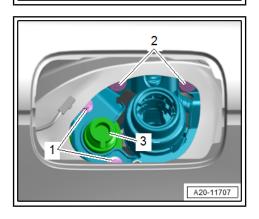
Protected by copyright. Copying for private or commercial pu permitted unless authorised by AUDI AG. AUDI AG does not g

- Release retainer catches and unplug electrical connectors docume -1 and 3- on flange.
- Rest-of-world vehicles/equipment version: Release retainer catch and unplug electrical connector -2-.
- Remove rear wheel housing liner (right-side) ⇒ General body repairs, exterior; Rep. gr. 66; Wheel housing liners; Removing and installing wheel housing liner (rear).
- Remove tank flap unit ⇒ General body repairs, exterior; Rep. gr. 55; Tank flap unit; Removing and installing tank flap unit.



A4:

- Remove bolts -1- and filler neck for reducing agent -3- on fuel filler neck ⇒ Rep. gr. 26; SCR (selective catalytic reduction) system; Exploded view - reducing agent tank .
- Remove bolts -2- for fuel filler neck.



A5:

- Remove bolts -arrows A- for fuel filler neck.
- Unscrew bolts -arrows B- and remove filler neck for reducing agent -1- on fuel filler neck ⇒ Rep. gr. 26; SCR (selective catalytic reduction) system; Exploded view - reducing agent tank.

All vehicles (continued):



Note

Seal off opening of fuel filler neck with a clean plug to prevent dirt from entering.

- Disengage fuel filler neck on mounting.
- Remove underbody trim panels (rear) ⇒ General body repairs, exterior; Rep. gr. 66; Underbody trim; Removing and installing underbody trim.
- Remove rear section of exhaust system ⇒ Rep. gr. 26 ; Exhaust pipes/silencers; Removing and installing silencers .
- Rest-of-world vehicles/equipment version: Release clamp
 -2- and detach fuel hose -3- from metering pump -1-.



WARNING

The fuel system is pressurised.

Risk of injury as fuel may spray out.

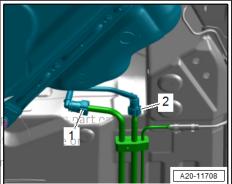
- · Put on safety goggles.
- · Put on protective gloves.
- Release pressure (wrap a clean cloth around connection and open connection carefully).
- 2 3 A20-11709

A20-11742

Disconnect fuel lines -1 and 2-. Disconnecting plug-in connectors ⇒ page 53

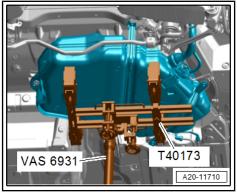


Protected by copyright. Copying for private or commercial permitted unless authorised by AUDI AG. AUDI AG does now with respect to the correctness of information in this docu



Front-wheel drive vehicles:

Fit gearbox support - T40173- on engine and gearbox jack -VAS 6931- and position it so it supports fuel tank, as shown in illustration.





WARNING

Risk of accident caused by weight of fuel tank

- ◆ Fuel tank must be empty when it is removed.
- Remove bolts -1 ... 5-.



Note

For illustration purposes the fuel tank is shown without engine and gearbox jack.

Lower fuel tank with engine and gearbox jack or VAS 6931-commerce



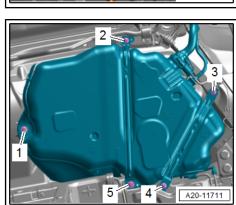
Note

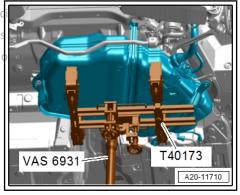
permitted unless authorised by AUDI AG. AUDI AG doe with respect to the correctness of information in this d

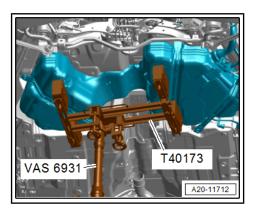
When guiding out the fuel tank, make sure there is sufficient clearance for the fuel filler neck.

Four-wheel drive vehicles:

- Depending on equipment version: Remove diagonal struts ⇒ General body repairs, exterior; Rep. gr. 66; Underbody trim; Removing and installing diagonal struts.
- Remove propshaft ⇒ Rep. gr. 39; Propshaft; Removing and installing propshaft.
- Fit gearbox support T40173- on engine and gearbox jack -VAS 6931- and position it so it supports fuel tank, as shown in illustration.









WARNING

Risk of accident caused by weight of fuel tank

- ◆ Fuel tank must be empty when it is removed.
- Remove bolts -1 ... 7-.



Note

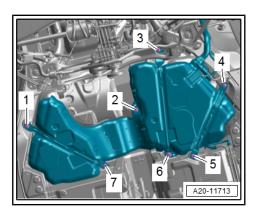
For illustration purposes the fuel tank is shown without engine and gearbox jack.

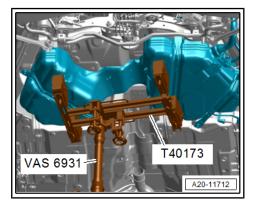
Lower fuel tank with engine and gearbox jack - VAS 6931-.



Note

When guiding out the fuel tank, make sure there is sufficient clearance for the fuel filler neck.





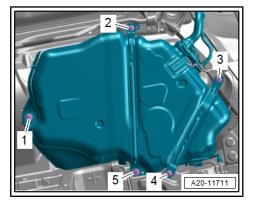
1.3.3 Installing fuel tank - all vehicles

Installation is carried out in reverse order; note the following:

- Fuel lines and wiring harness for fuel delivery unit must be clipped in at fuel tank.
- Position fuel tank and securing straps on underside of vehicle using engine and gearbox jack - VAS 6931- .
- When installing fuel tank, make sure that fuel filler neck is correctly inserted into opening on body.

Front-wheel drive vehicles:

Tighten bolts -1 ... 5- for securing straps and fuel tank.





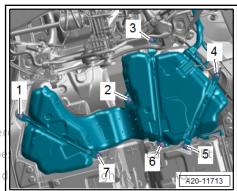
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



Four-wheel drive vehicles:

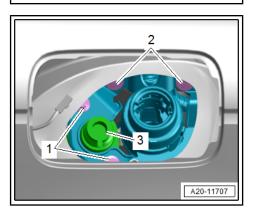
- Tighten bolts -1 ... 7- for securing straps and fuel tank.
- Install propshaft ⇒ Rep. gr. 39; Propshaft; Removing and installing propshaft.

Protected by copyright. Copying for private or comme permitted unless authorised by AUDI AG. AUDI AG doo with respect to the correctness of information in this



All A4 models:

- Engage fuel filler neck on mounting.
- TDI vehicles: Install filler neck for reducing agent -3- ⇒ Rep. gr. 26; SCR (selective catalytic reduction) system; Exploded view - reducing agent tank .
- Tighten bolts -1, 2-.



All A5 models:

- TDI vehicles: Install filler neck for reducing agent -1- ⇒ Rep. gr. 26; SCR (selective catalytic reduction) system; Exploded view - reducing agent tank .
- Tighten bolts -arrows A and B-.

All vehicles (continued):



WARNING

Safety risk due to electrostatic discharge.

- After installation, use an ohmmeter to check the electrical connection between the threaded ring on the fuel filler neck and a bare metal part on the body.
- **Specification:** approx of Qnt. Copying for private or commercial purposes, in part or in whole, is not

permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability

- Install tank flap unit ⇒ General body repairs; exterior; Rep. grocument. Copyright by AUDI AG. 55; Tank flap unit; Removing and installing tank flap unit.
- TFSI vehicles: Connect battery and perform steps required after re-connecting battery ⇒ Electrical system; Rep. gr. 27; Battery; Disconnecting and connecting battery.
- After installing a new or completely drained fuel tank, the tank must be filled with at least 5 litres of fuel before starting the engine.



Note

The fuel pump must not be allowed to run in an empty fuel tank.

Rest-of-world vehicles/equipment version: Bleed fuel line leading to metering pump for auxiliary heater <u>⇒ page 50</u>.

Tightening torques

- ⇒ "1.1 Exploded view fuel tank", page 6
- ⇒ "2.1 Exploded view fuel delivery unit/fuel gauge senders",
- ⇒ Rep. gr. 26; Exhaust pipes/silencers; Exploded view silencers
- ⇒ Rep. gr. 26; SCR (selective catalytic reduction) system; Exploded view - reducing agent tank
- ⇒ General body repairs, exterior; Rep. gr. 66; Wheel housing liners: Exploded view - wheel housing liner (rear)
- ⇒ General body repairs, exterior; Rep. gr. 66; Underbody trim; Exploded view - underbody trim

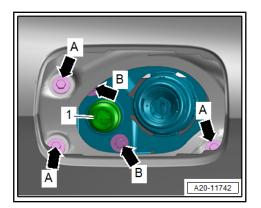
1.4 Removing and installing misfuelling prevention device



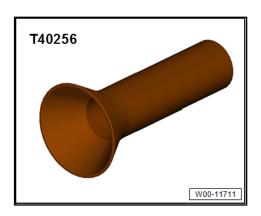
Note

This procedure applies to TDI vehicles only.

Special tools and workshop equipment required



◆ Funnel - T40256- or emergency refuelling funnel



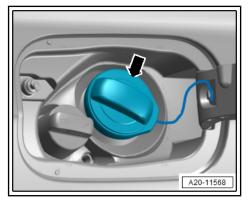
◆ Circlip pliers

Removing

Observe safety precautions ⇒ page 1.

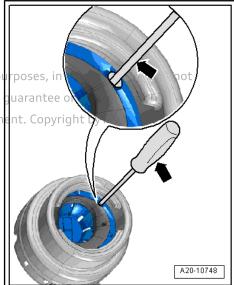
Observe rules for cleanliness ⇒ page 4.

- Open tank flap.
- Clean area around fuel filler neck.
- Remove filler cap -arrow- for fuel filler neck.



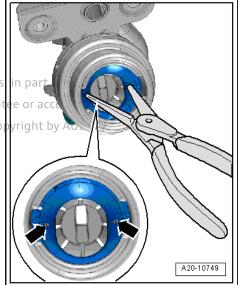
Release retaining tab for locking ring using Torx screwdriver -arrow-.

> Protected by copyright. Copying for private or commercial purposes, in permitted unless authorised by AUDI AG. AUDI AG does not guarantee of with respect to the correctness of information in this docum

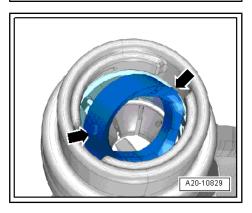


- Insert circlip pliers in both holes -arrows- in locking ring.
- Turn locking ring approx. 25° anti-clockwise.

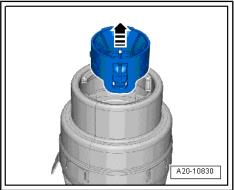
Protected by copyright. Copying for private or commercial purposes permitted unless authorised by AUDI AG. AUDI AG does not guarant with respect to the correctness of information in this document. Cor



Tilt locking ring inside fuel filler neck and take it out through slots -arrows- for filler cap.



Pull misfuelling prevention device out of fuel filler neck -arrow- (use circlip pliers if necessary).



Installing

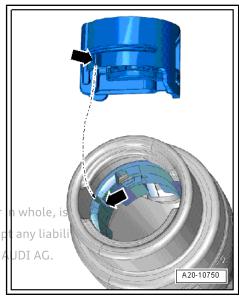
Installation is carried out in reverse order; note the following:

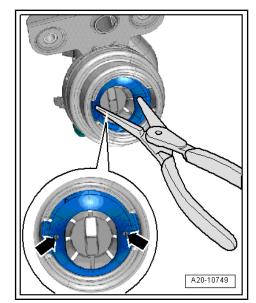
- Insert misfuelling prevention device in fuel filler neck.
- The lug on the misfuelling prevention device must engage in the groove on the filler neck -arrows-.

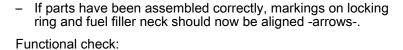


Protected by copyright. Copying for private or commercial purposes, in part or permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept with respect to the correctness of information in this document. Copyright by A

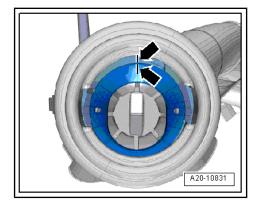
- Fit locking ring using circlip pliers (turn 25° clockwise).







- It must not be possible to open locking flap of misfuelling prevention device without release tool -T40256- .
- It must be possible to insert release tool -T40256- into fuel filler neck as far as stop.



1.5 Deactivating misfuelling prevention device



Note

This procedure applies to TDI vehicles only.

Procedure

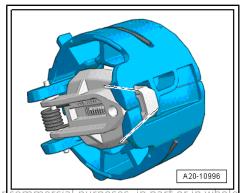
- Remove misfuelling prevention device ⇒ page 30.
- Cut off retaining tabs at markings, as shown in illustration.



Note

It must be possible to open locking flap of misfuelling prevention device smoothly.

Install misfuelling prevention device ⇒ page 30.



Protected by copyright. Copying for private or permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



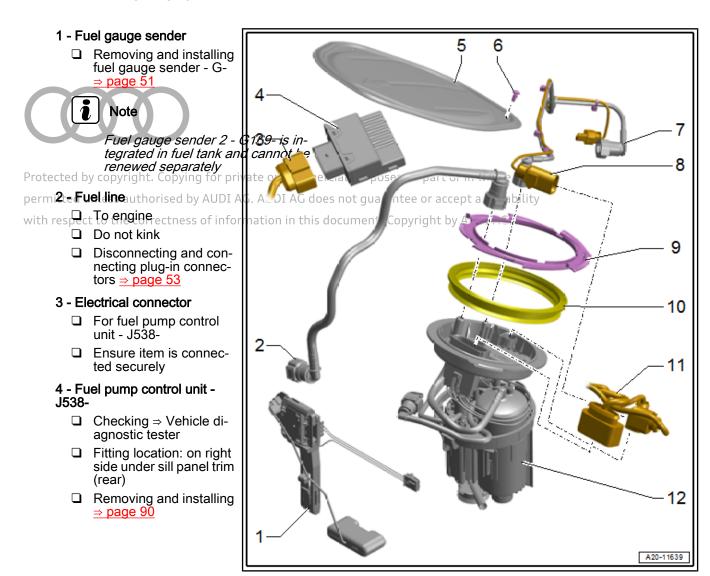
2 Fuel delivery unit/fuel gauge senders

- ⇒ "2.1 Exploded view fuel delivery unit/fuel gauge senders", page 35
- ⇒ "2.2 Removing and installing fuel delivery unit/fuel gauge sender", page 39
- ⇒ "2.3 Bleeding fuel line for metering pump", page 50
- ⇒ "2.4 Removing and installing fuel gauge sender G ", page 51

2.1 Exploded view - fuel delivery unit/fuel gauge senders

- ⇒ "2.1.1 Exploded view fuel delivery unit/fuel gauge senders, TFSI vehicles, rest-of-world", page 35
- ⇒ "2.1.2 Exploded view fuel delivery unit/fuel gauge senders, TFSI vehicles, NAR", page 37
- ⇒ "2.1.3 Exploded view fuel delivery unit/fuel gauge sender, all TDI vehicles", page 38

Exploded view - fuel delivery unit/fuel gauge senders, TFSI vehicles, rest-2.1.1 of-world



Audi A4 2015 \succ , Audi A4 Avant 2015 \succ , Audi A4 China 2016 \succ , Audi A5 Fuel supply system - Edition 10.2018

5 - Co	over for flange
6 - Bo	olt
	3x
	1.5 Nm
7 - Fu	el line to metering pump for auxiliary heater
	Depending on vehicle equipment
	Clipped onto fuel tank
	Do not kink
	Disconnecting and connecting plug-in connectors <u>⇒ page 53</u>
8 - El	ectrical connector
	To metering pump for auxiliary heater
	Ensure item is connected securely
9 - Lo	cking ring
	Loosen and tighten with key - T10202-
	110 Nm
10 - S	Geal rotected by copyright. Copying for private or commercial purposes, in part or in whole, is not
	Repew after removing or ised by AUDI AG. AUDI AG does not guarantee or accept any liability
	Install dry with respect to the correctness of information in this document. Copyright by AUDI AG.
11 - V	Viring harness
	For fuel system pressurisation pump - G6- , fuel gauge sender - G- and fuel gauge sender 2 - G169-
	Ensure item is connected securely
12 - F	uel delivery unit
	With fuel system pressurisation pump - G6-
	With integrated fuel filter; fuel filter cannot be renewed separately
	Checking fuel pump (electrical test) ⇒ Vehicle diagnostic tester
	Removing and installing <u>⇒ page 39</u>
	Disconnecting and connecting plug-in connectors <u>⇒ page 53</u>
	After installing, make sure that fuel tank contains at least 5 litres of fuel

2.1.2 Exploded view - fuel delivery unit/fuel gauge senders, TFSI vehicles, NAR

1 - Fuel gauge sender □ Removing and installing fuel gauge sender - G-⇒ page 51 Note 169- is in-Fuel gauge sender 2 tegrated in fuel tank and cannot be renewed separately 2 - Electrical connector □ To control unit for fuel tank leak detection Ensure item is connected securely 3 - Fuel line To engine 3 Do not kink Disconnecting and connecting plug-in connec-10 4 - Fuel pump control unit -J538-□ Checking ⇒ Vehicle diagnostic tester ☐ Fitting location: on right side under sill panel trim (rear) Removing and installing ⇒ page 90 5 - Electrical connector t. Copying for private or commercial purposes, in page 15 - Electrical connector to the commercial purposes of the commercial purpose of the commercial purposes of the commercial purpose of the commercial purposes of the commercial purpose whole, is not For fuel pump control A20-11865 unit - J538ditiensure item is connected securely ation in this document. Copyright by AUDI AG.

6 - Cover for flange

7 - Bolt

□ 3x

□ 1.5 Nm

8 - Locking ring

☐ Loosen and tighten with key - T10202-

□ 110 Nm

9 - Seal

☐ Renew after removing

☐ Install dry

10 - Fuel delivery unit

☐ With fuel system pressurisation pump - G6-

☐ With integrated fuel filter; fuel filter cannot be renewed separately

☐ Checking fuel pump (electrical test) ⇒ Vehicle diagnostic tester

□ Removing and installing ⇒ page 39

☐ Disconnecting and connecting plug-in connectors ⇒ page 53

☐ After installing, make sure that fuel tank contains at least 5 litres of fuel

2.1.3 Exploded view - fuel delivery unit/fuel gauge sender, all TDI vehicles

1-Euclegauge sender. Copying peni Removing and installing IDI AG. AUDI AC rantee or accept any liability fuel gauge sender - Gwith resprage 5the correctness of information in th Note 169- is̀. Fuel gauge sender 2 tegrated in fuel tank an renewed separately 2 - Fuel supply line □ To fuel filter Clipped onto fuel tank 10 Do not kink Disconnecting and connecting plug-in connectors <u>⇒ page 53</u> 11 3 - Fuel return line 12 □ From engine Clipped onto fuel tank Do not kink Disconnecting and connecting plug-in connectors ⇒ page 53 4 - Electrical connector ☐ For fuel pump control 13 unit - J538-☐ Ensure item is connected securely 5 - Fuel pump control unit -J538-A20-11528 □ Checking ⇒ Vehicle diagnostic tester ☐ Fitting location: on right side under sill panel trim (rear)

6 - Cover for flange

7 - Bolt

- □ 3x
- ☐ 1.5 Nm

8 - Fuel line to metering pump for auxiliary heater

☐ Removing and installing <u>⇒ page 90</u>

- □ Depending on country/equipment version
- □ Clipped onto fuel tank
- Do not kink
- □ Disconnecting and connecting plug-in connectors ⇒ page 53

9 - Electrical connector

- ☐ Depending on country/equipment version
- To metering pump for auxiliary heater



	Ensure item is connected securely
10 - L	ocking ring
	Loosen and tighten with key - T10202-
	110 Nm
11 - 8	Seal
	Renew after removing
	Install dry
12 - V	Viring harness
	For fuel system pressurisation pump - G6-, fuel gauge sender - G- and fuel gauge sender 2 - G169-
	Ensure item is connected securely
13 - F	Fuel delivery unit
	With fuel system pressurisation pump - G6-
	Checking fuel pump (electrical test) ⇒ Vehicle diagnostic tester
	Removing and installing <u>⇒ page 45</u>
	Disconnecting and connecting plug-in connectors <u>⇒ page 53</u>
	After installing, make sure that fuel tank contains at least 5 litres of fuel

2.2 Removing and installing fuel delivery unit/fuel gauge sender

⇒ "2.2.1 Removing and installing fuel delivery unit/fuel gauge sender - TFSI vehicles", page 39

⇒ "2.2.2 Removing and installing fuel delivery unit/fuel gauge sender - TDI vehicles", page 45

2.2.1 Removing and installing fuel delivery unit/fuel gauge sender - TFSI vehicles

Special tools and workshop equipment required

♦ Key - T10202-

Protected by copyright. Copying for private or commercial p permitted unless authorised by AUDI AG. AUDI AG does not guarantee or with respect to the correctness of information in this document. Copyrig



Removing

- Observe safety precautions ⇒ page 1.
- Observe rules for cleanliness ⇒ page 4.

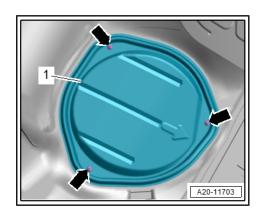




WARNING

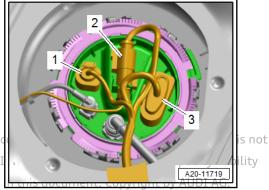
Danger! Fuel may escape.

- The fuel tank must not be more than 1/4 full when removing the fuel delivery unit, otherwise a large amount of fuel will escape.
- Drain fuel tank if necessary ⇒ page 15.
- Disconnect earth wire from battery terminal ⇒ Electrical system; Rep. gr. 27; Battery; Disconnecting and connecting battery .
- Move front seats all the way up and forwards.
- Remove seat bench/individual seats ⇒ General body repairs, interior; Rep. gr. 72; Rear seats; Removing and installing seat bench/individual seats.
- Remove bolts -arrows- and detach cover -1- for flange.



- Release retainer catches and unplug electrical connectors -1 and 3- on flange.
- Depending on country/equipment version: Release retainer catch and unplug electrical connector -2-.







Rest-of-world vehicles/equipment version: Disconnect fuel line -1- leading to metering pump for auxiliary heater at flange. Disconnecting plug-in connectors ⇒ page 53

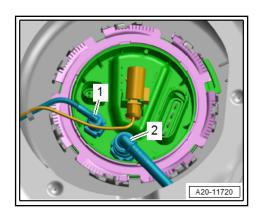


WARNING

The fuel system is pressurised.

Risk of injury as fuel may spray out.

- · Put on safety goggles.
- Put on protective gloves.
- Release pressure (wrap a clean cloth around connection and open connection carefully).
- Disconnect fuel line -2- from flange. Disconnecting plug-in connectors <u>⇒ page 53</u>

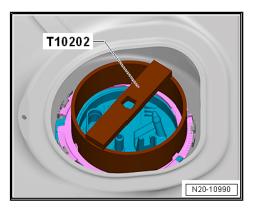


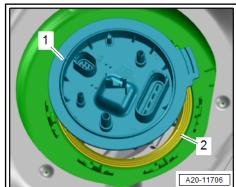


WARNING

Danger! Fuel may escape.

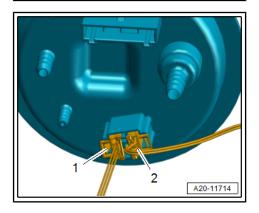
- The fuel tank must not be more than 1/4 full when removing the fuel delivery unit, otherwise a large amount of fuel will escape.
- Remove locking ring using key T10202- .
- Pull flange -1- slightly out of opening in fuel tank and detach seal -2-.
- Carefully pull flange with fuel lines out of opening in fuel tank.





- Release retainer catches and unplug electrical connectors on flange.
- For fuel gauge sender 2 G169- (not fitted on all vehicle versions)
- For fuel gauge sender G-

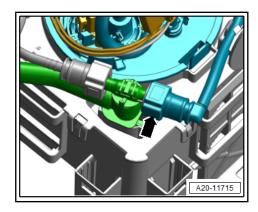




Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not quarantee or accept any liability

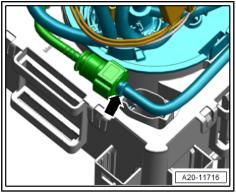
Front-wheel drive vehicles:

 Reach into opening in fuel tank and disconnect supply line -arrow- for suction-jet pump. Disconnecting plug-in connectors
 ⇒ page 53



Four-wheel drive vehicles:

 Reach into opening in fuel tank and disconnect supply line -arrow- for suction-jet pump. Disconnecting plug-in connectors
 ⇒ page 53



All vehicles (continued):

 Reach through opening in fuel tank, press catches -2, 3- in direction of -arrows- one after the other and at the same time release fuel delivery unit -1-.

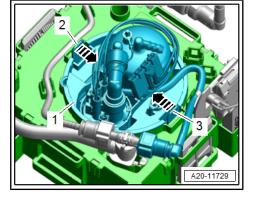


WARNING

Safety risk from escaping fuel: the fuel delivery unit is still filled.

• Use a cloth to catch escaping fuel.

Carefully pull fuel delivery unit out of opening in fuel tank.





Note

The fuel delivery unit is shown without fuel lines for greater clarity.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

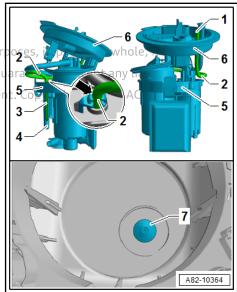
Installing

Installation is carried out in reverse order; note the following:

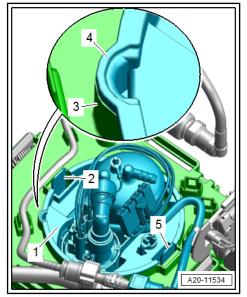
Protected by copyright. Copying for private or commercial pur

Note ermitted unless authorised by AUDI AG. AUDI AG does not go

- with respect to the correctness of information in this docume *Renew seal after removing.*
- Make sure that fuel delivery unit is seated securely.
- Country/equipment version with auxiliary heater: Make sure that suction pipe -2- (for extracting fuel) for auxiliary/supplementary heater is correctly inserted and engaged -arrow- in guide on fuel delivery unit -5-.

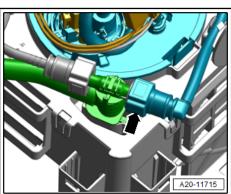


- Carefully insert fuel delivery unit in fuel tank.
- Reach through opening in fuel tank and bring fuel delivery unit into installation position.
- Lug -4- on fuel delivery unit must be seated in groove in baffle housing -3-.
- Press fuel delivery unit -1- downwards into catches on baffle housing so that it clicks into place.
- Press fuel delivery unit down again and then pull to check that catches -2 and 5- are correctly engaged.



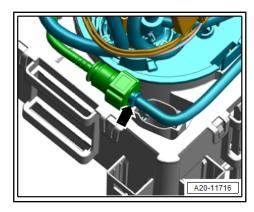
Front-wheel drive vehicles:

Reach through opening in fuel tank and connect supply line -arrow- for suction-jet pump so it engages audibly. Connecting plug-in connectors ⇒ page 53



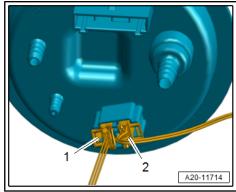
Four-wheel drive vehicles:

Reach through opening in fuel tank and connect supply line -arrow- for suction-jet pump so it engages audibly. Connecting plug-in connectors ⇒ page 53



All vehicles (continued):

- Plug in electrical connectors on flange and make sure they are securely engaged.
- For fuel gauge sender 2 G169- (not fitted on all vehicle versions)
- 2 For fuel gauge sender G-



Install new seal -1- for flange (seal must be installed dry).

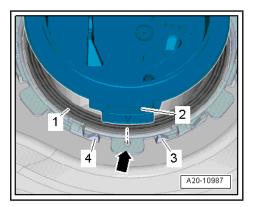


Caution

Risk of leaks

- The seal must not be pinched or damaged when installing the flange.
- Fit flange in correct installation position.
- Lug -2- on flange must point towards hole -arrow- on locking ring and must be between tabs -3 and 4- on fuel tank.





Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- Press flange on firmly, fit locking ring and secure using key -T10202- .
- Connect fuel lines, making sure they engage audibly.
- Plug in electrical connectors and make sure they are securely engaged.
- After installing fuel delivery unit, make sure that fuel tank contains at least 5 litres of fuel.



Note

The fuel pump must not be allowed to run in an empty fuel tank.

- Install seat bench/individual seats ⇒ General body repairs, interior; Rep. gr. 72; Rear seats; Removing and installing seat bench/individual seats.
- Connect battery and perform steps required after re-connecting battery ⇒ Electrical system; Rep. gr. 27; Battery; Disconnecting and connecting battery.
- Rest-of-world vehicles/equipment version: Bleed fuel line leading to metering pump for auxiliary heater <u>⇒ page 50</u>.

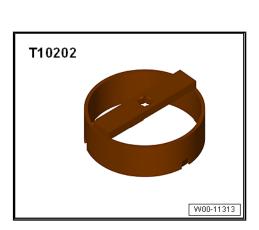
Tightening torques

⇒ "2.1 Exploded view - fuel delivery unit/fuel gauge senders", <u>page 35</u>

2.2.2 Removing and installing fuel delivery unit/fuel gauge sender - TDI vehicles

Special tools and workshop equipment required

♦ Key - T10202-



Removing

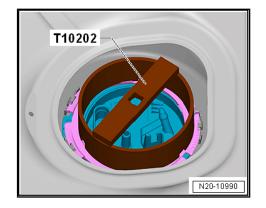
- Observe safety precautions ⇒ page 1.
- Observe rules for cleanliness ⇒ page 4.



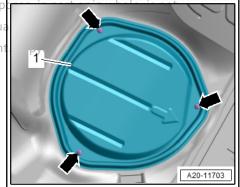
WARNING

Danger! Fuel may escape.

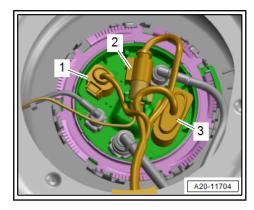
- The fuel tank must not be more than 1/4 full when removing the fuel delivery unit, otherwise a large amount of fuel will escape.
- Drain fuel tank if necessary necess permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability



- Move front seats all the way up and forwards.
- Remove seat bench/individual seats ⇒ General body repairs, interior; Rep. gr. 72; Rear seats; Removing and installing seat bench/individual seats.
- Remove botts darrows and detach covered valor flangemercial purp permitted unless authorised by AUDI AG. AUDI AG does not gua with respect to the correctness of information in this document



- Release retainer catches and unplug electrical connectors -1 and 3- on flange.
- Rest-of-world vehicles/equipment version: Release retainer catch and unplug electrical connector -2-.



Rest-of-world vehicles/equipment version: Disconnect fuel line -1- leading to metering pump. Disconnecting plug-in connectors <u>⇒ page 53</u>

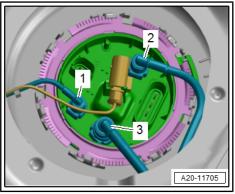


WARNING

The fuel system is pressurised.

Risk of injury as fuel may spray out.

- Put on safety goggles.
- Put on protective gloves.
- Release pressure (wrap a clean cloth around connection and open connection carefully).
- Disconnect fuel lines -2 and 3-. Disconnecting plug-in connectors ⇒ page 53







WARNING

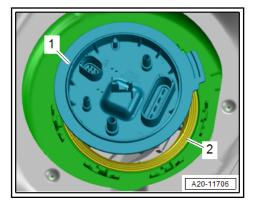
Danger! Fuel may escape.

The fuel tank must not be more than 1/4 full when removing the fuel delivery unit, otherwise a large amount of fuel will escaped unless authorised by AUDI AG. AUDI AG does no

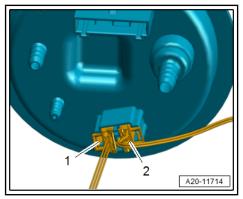
with respect to the correctness of information in this document

- Remove locking ring using key T10202- .
- Pull flange -1- slightly out of opening in fuel tank and detach seal -2-.
- Carefully pull flange with fuel lines out of opening in fuel tank.



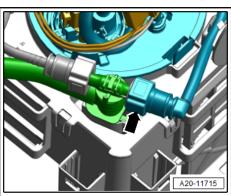


- Release retainer catches and unplug electrical connectors on flange.
- For fuel gauge sender G-
- For fuel gauge sender 2 G169- (not fitted on all vehicle versions)



Front-wheel drive vehicles:

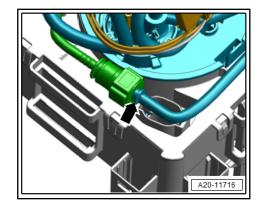
Reach into opening in fuel tank and disconnect supply line -arrow- for suction-jet pump. Disconnecting plug-in connectors ⇒ page 53



Four-wheel drive vehicles:

 Reach into opening in fuel tank and disconnect supply line -arrow- for suction-jet pump. Disconnecting plug-in connectors
 ⇒ page 53





All vehicles (continued): rotected by copyright. Copying for private or con

Reach through opening in fuel tank, press catches the Audit Audit



WARNING

Safety risk from escaping fuel: the fuel delivery unit is still filled.

• Use a cloth to catch escaping fuel.

Carefully pull fuel delivery unit out of opening in fuel tank.



Note

The fuel delivery unit is shown without fuel lines for greater clarity.

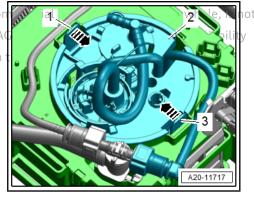
Installing

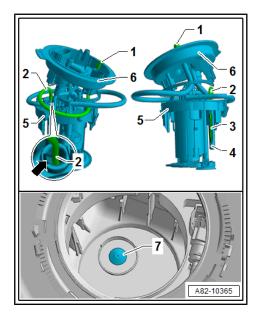
Installation is carried out in reverse order; note the following:



Note

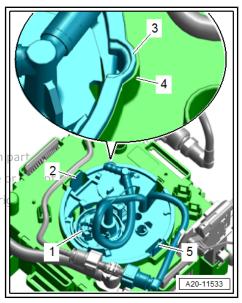
- ♦ Renew seal after removing.
- ♦ Make sure that fuel delivery unit is seated securely.
- Country/equipment version with auxiliary heater: Make sure that suction pipe -2- (for extracting fuel) for auxiliary/supplementary heater is correctly inserted and engaged -arrow- in guide on fuel delivery unit -5-.





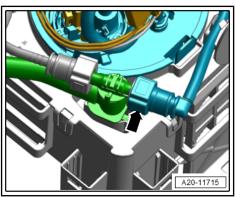


- Carefully insert fuel delivery unit in fuel tank.
- Reach through opening in fuel tank and bring fuel delivery unit into installation position.
- Lug -3- on fuel delivery unit must be seated in groove in baffle housing -4-.
- Press fuel delivery unit -1- downwards into catches on baffle housing so that it clicks into place.
- Press fuel delivery unit down again and then pull to check that Pcatches 12 and 5 gare correctly engaged or commercial purposes, in permitted unless authorised by AUDI AG. AUDI AG does not guarantee with respect to the correctness of information in this document. Copy



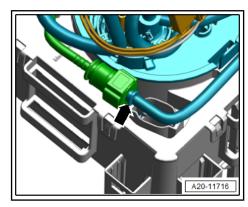
Front-wheel drive vehicles:

Reach through opening in fuel tank and connect supply line -arrow- for suction-jet pump so it engages audibly. Connecting plug-in connectors ⇒ page 53



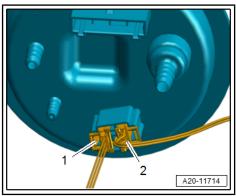
Four-wheel drive vehicles:

Reach through opening in fuel tank and connect supply line -arrow- for suction-jet pump so it engages audibly. Connecting plug-in connectors ⇒ page 53



All vehicles (continued):

- Plug in electrical connectors on flange and make sure they are securely engaged.
- For fuel gauge sender G-
- For fuel gauge sender 2 G169- (not fitted on all vehicle versions)



Install new seal -1- for flange (seal must be installed dry).



Caution

Risk of leaks

The seal must not be pinched of damaged when installing the flange, permitted unless authorised by AUDI AG. AUDI AG do

with respect to the correctness of information in this docu

- Fit flange in correct installation position.
- Lug -2- on flange must point towards hole -arrow- on locking ring and must be between tabs -3 and 4- on fuel tank.
- Press flange on firmly, fit locking ring and secure using key -T10202- .
- Connect fuel lines, making sure they engage audibly.
- Plug in electrical connectors and make sure they are securely engaged.
- After installing fuel delivery unit, make sure that fuel tank contains at least 5 litres of fuel.



Note

The fuel pump must not be allowed to run in an empty fuel tank.

- Install seat bench/individual seats ⇒ General body repairs, interior; Rep. gr. 72; Rear seats; Removing and installing seat bench/individual seats.
- Rest-of-world vehicles/equipment version: Bleed fuel line leading to metering pump for auxiliary heater ⇒ page 50.

Tightening torques

⇒ "2.1 Exploded view - fuel delivery unit/fuel gauge senders", page 35

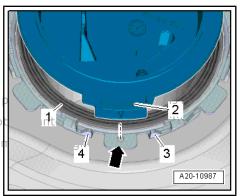
2.3 Bleeding fuel line for metering pump



Note

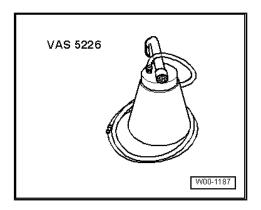
On equipment versions with auxiliary heater, it is important to bleed the fuel supply line leading to the metering pump after working on the fuel delivery unit.

Special tools and workshop equipment required

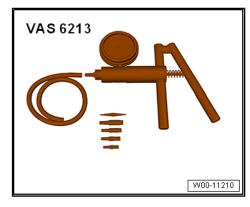




Diesel extractor - VAS 5226-

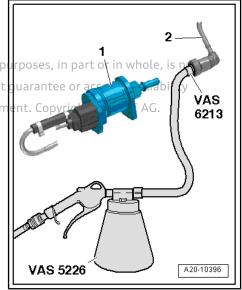


♦ Hand vacuum pump - VAS 6213-



Procedure

- Auxiliary heater switched off
- Connect diesel extractor VAS 5226- to compressed air sup-Protected by copyright. Copying for private or commercial p ply.
- Detach fuel supply line-2-from fuel tank at metering pumpoes not with respect to the correctness of information in this docur
- Connect diesel extractor VAS 5226- to fuel supply line with adapter from hand vacuum pump - VAS 6213- and bleed fuel supply line by operating extractor briefly.
- Re-attach fuel supply line to metering pump.
- Switch auxiliary heating on and run at full load for approx. 10 minutes.



2.4 Removing and installing fuel gauge sender - G-

Removing

- Observe safety precautions ⇒ page 1.
- Observe rules for cleanliness ⇒ page 4.
- Remove fuel delivery unit ⇒ page 39.

- Reach into opening in fuel tank, release catch -2- -arrow Aand at the same time pull fuel gauge sender - G- -item 1- off mounting on baffle housing -arrow B-.
- Carefully take out fuel gauge sender G- through opening in fuel tank.



Note

When taking out the fuel gauge sender, make sure you do not bend the float arm.

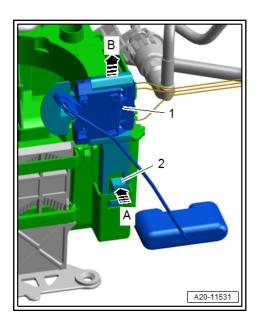
Installing

Installation is carried out in reverse order; note the following:



Note

When inserting the fuel gauge sender, make sure you do not bend the float arm.



- Carefully guide fuel gauge sender G- through opening and Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not into fuel tank.
- $\textbf{Insert fuel gauge sender} \\ \textbf{$^{\text{Lintor}}$ mounting on baffile h ousing DI AG does not guarantee or accept any liability} \\$ and press downwards until it clicks into place and press downwards until it clicks into place and press downwards until it clicks into place.
- Install fuel delivery unit ⇒ page 39.

3 Plug-in connectors

⇒ "3.1 Disconnecting plug-in connectors", page 53

3.1 Disconnecting plug-in connectors

Observe rules for cleanliness ⇒ page 4.

Allocation of plug-in connectors



Note

The plug-in connectors for the fuel lines, vacuum lines, and breather lines are colour coded. There is either a coloured marking on the plug-in connector, or the release tab is the corresponding colour ⇒ page 53.

Colour coding

Plug-in connector	Colour coding on plug-in connector
Fuel supply line	Black
Fuel return line	Blue
Breather	White-beige
Vacuum	Green



WARNING

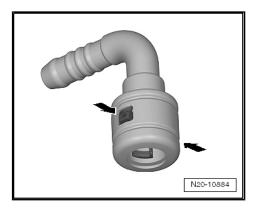
The fuel system is pressurised. Risk of injury as fuel may spray out.

- · Put on safety goggles.
- **Put on protective gloves.**Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not
- Release pressure (wrap a clean cloth around connection and open connection carefully).

not guarantee or accept any liability tument. Copyright by AUDI AG.

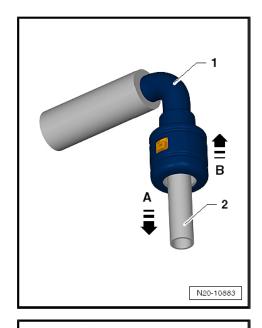
Version 1

◆ Plug-in connector with release tabs -arrows- on both sides



Disconnecting

- Press plug-in connector -1- in direction of -arrow A-.
- Press in and hold release tabs.
- Unplug plug-in connector -1- from fuel line -2- in direction of -arrow B-.
- When installing observe colour coding ⇒ page 53.
- · Plug-in connectors should engage audibly when connecting.
- Check that plug-in connector is securely seated by pulling at it



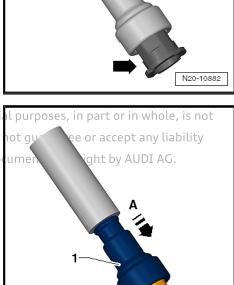
Version 2

♦ Plug-in connector with pull release -arrow-



Disconnecting Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not

- Press plug-in-connector n1esin-direction of varrow AG, AUDI AG does not que
- Pull the pull release catch 2hin direction of farrow Bition in this do
- Unplug plug-in connector -1- from fuel line -3- in direction of -arrow B-.
- When installing observe colour coding ⇒ page 53.
- · Plug-in connectors should engage audibly when connecting.
- Check that plug-in connector is securely seated by pulling at it.



N20-10885



N20-10897

Version 3

♦ Plug-in connector with release tab at front -arrow-Disconnecting

- Press release tab -arrow- and disconnect plug-in connectors.
- When installing observe colour coding \Rightarrow page 53.
- Plug-in connectors should engage audibly when connecting.
- Check that plug-in connector is securely seated by pulling at

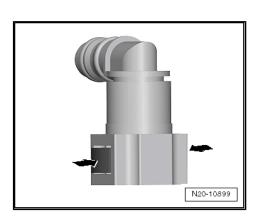
N20-10898

Version 4

- ◆ Plug-in connector with release tab -arrows- on both sides Disconnecting
- Press plug-in connector in direction of -arrow A-.
- Press release tabs -arrows- and disconnect plug-in connector.
- When installing observe colour coding ⇒ page 53.
- Plug-in connectors should engage audibly when connecting.
- Check that plug-in connector is securely seated by pulling at

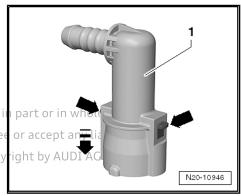


- ♦ Plug-in connector with release tabs -arrows- on both sides Disconnecting
- Press release tabs -arrows- and disconnect plug-in connector.
- When installing observe colour coding \Rightarrow page 53.
- Plug-in connectors should engage audibly when connecting.
- Check that plug-in connector is securely seated by pulling at



Version 6

- ♦ Plug-in connector with release tabs -arrows- on both sides Disconnecting
- Press and hold plug-in connector -1- in direction of -arrow -.
- Press release tabs -arrows- and disconnect plug-in connector.
- When installing observe colour coding ⇒ page 53
- Plug-in connectors should engage audibly when connecting.
- Check that plug-in connector is securely seated by pulling at



Version 7

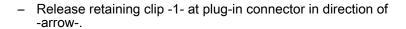
- ◆ Plug-in connector -1- with release tabs -2- on both sides Disconnecting
- Press and hold plug-in connector -1- in direction of -arrow A-.
- Press release tabs -2- in direction of -arrow B- and unplug plug-in connector -1-.
- When installing observe colour coding <u>⇒ page 53</u>.
- · Plug-in connectors should engage audibly when connecting.
- Check that plug-in connector is securely seated by pulling at it.

Version 8

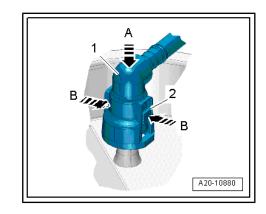
 Straight plug-in connector with release tabs on both sides and with retaining clip -1- and cable tie -2-

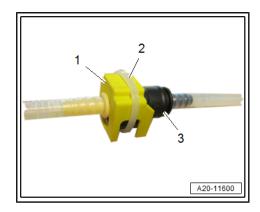
Disconnecting

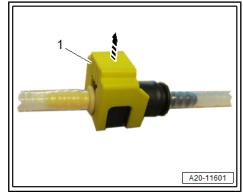
Cut through cable tie for retaining clip and plug-in connector
 -3-.

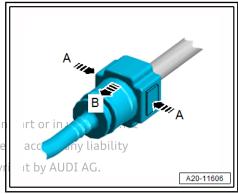


- Press in and hold release tabs -arrows A-.
- Detach plug-in connector in direction of -arrow B-.
- When installing observe colour coding ⇒ page 53.
- Plug-in connectors should engage audibly when connecting.
- Check that plug-in connector is securely seated by pulling at
 it.
 Protected by copyright. Copying for private or commercial purposes, ir
 permitted unless authorised by AUDI AG. AUDI AG does not guarantee
 with respect to the correctness of information in this document. Copying



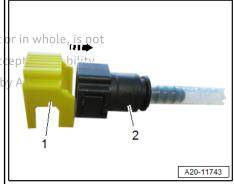




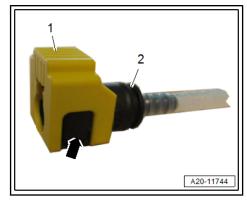


Slide retaining clip -1- onto plug-in connector -2- -arrow-.

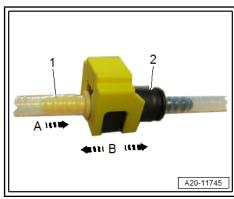
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or act with respect to the correctness of information in this document. Copyright by



- Retaining clip -1- should be seated on plug-in connector as shown in illustration.
- Release tabs -arrow- on plug-in connector -2- should be accessible through openings in retaining clip.



- Fit fuel line -1- onto plug-in connector -2- -arrow A-.
- Check that plug-in connector is securely seated by pulling at it -arrows B-.

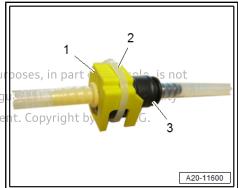


Press retaining clip -1- down -arrow- to secure plug-in connector.



Secure retaining clip -1- on plug-in connector -3- with cable tie

Protected by copyright. Copying for private or commercial purposes, in part permitted unless authorised by AUDI AG. AUDI AG does not g with respect to the correctness of information in this docume



4 Activated charcoal filter system

- ⇒ "4.1 Connection diagram activated charcoal filter system",
- ⇒ "4.2 Exploded view activated charcoal filter system", page 62
- ⇒ "4.3 Removing and installing activated charcoal filter", page 64
- ⇒ "4.4 Removing and installing tank pressure sensor G400", page
- ⇒ "4.5 Removing and installing control unit for fuel tank leak detection J909 ", page 67
- ⇒ "4.6 Checking fuel system for leaks", page 67
- 4.1 Connection diagram - activated charcoal filter system
- "4.1.1 Connection diagram activated charcoal filter system, rest-of-world vehicles", page 59
- *4.1.2 Connection diagram activated charcoal filter system, NAR vehicles", page 61
- 4.1.1-1 ded by Connection diagram activated charcoal filter system, rest-of-world vehipermitted unlclesuthorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

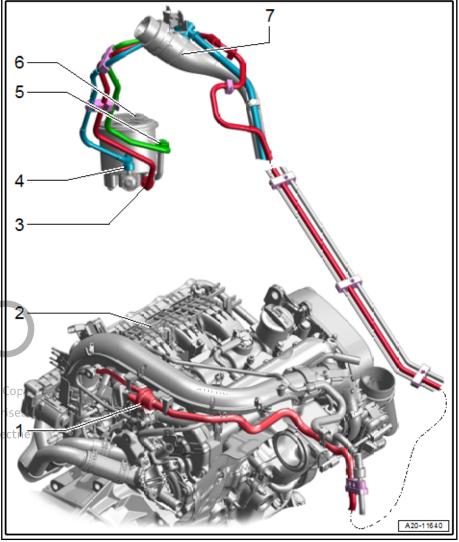


This connection plan applies to TFSI vehicles only.

- 1 Activated charcoal filter solenoid valve 1 - N80-
- 2 Engine
- 3 Breather line
 - ☐ To activated charcoal filter solenoid valve 1 -N80-
- 4 Breather line
 - □ From fuel tank
- 5 Vent line
 - Open to atmosphere at rear right of vehicle below wheel housing liner
- 6 Activated charcoal filter
- 7 Fuel filler neck



Protected by copyright. permitted unless autho with respect to the corre





4.1.2 Connection diagram - activated charcoal filter system, NAR vehicles

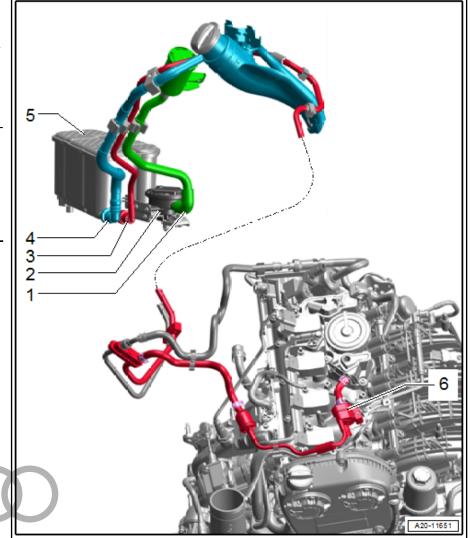


Note

This connection plan applies to TFSI vehicles only.

1 - Vent line

- Open to atmosphere at rear right of vehicle below wheel housing liner
- 2 Tank pressure sensor G400-
- 3 Breather line
 - To activated charcoal filter solenoid valve 1 -N80-
- 4 Breather line
 - □ From fuel tank
- 5 Activated charcoal filter
- 6 Activated charcoal filter solenoid valve 1 - N80-



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

4.2 Exploded view - activated charcoal filter system

⇒ "4.2.1 Exploded view - activated charcoal filter system, rest-of-world vehicles", page 62

⇒ "4.2.2 Exploded view - activated charcoal filter system, NAR vehicles", page 63

4.2.1 Exploded view - activated charcoal filter system, rest-of-world vehicles



Note

This exploded view applies to TFSI vehicles only.

1 - Bolt

□ 3x

□ 8 Nm

2 - Nut

□ 2x

□ 20 Nm

3 - Activated charcoal filter

☐ Fitting location: rear right

□ Removing and installing page 64

4 - Breather line

with the correctness of the corr

Disconnecting and connecting plug-in connectors ⇒ page 53

5 - Vent line

- Open to atmosphere at rear right of vehicle below wheel housing liner
- Disconnecting and connecting plug-in connectors ⇒ page 53

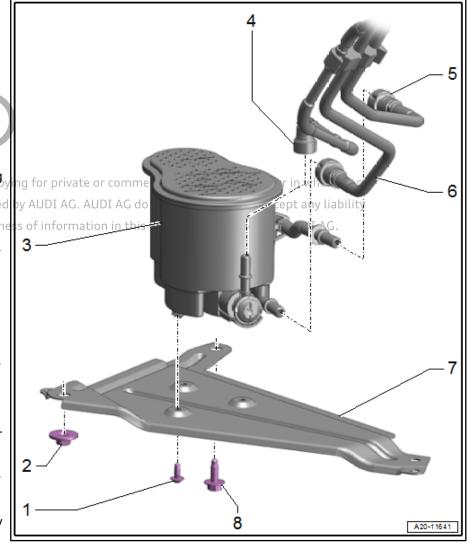
6 - Breather line

- ☐ To activated charcoal filter solenoid valve 1 N80-
- ☐ Disconnecting and connecting plug-in connectors ⇒ page 53
- Clipped onto underbody

7 - Bracket

8 - Bolt

□ 20 Nm



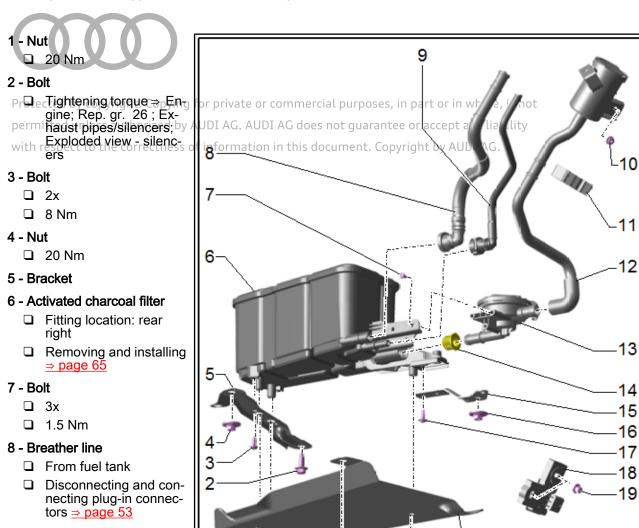


4.2.2 Exploded view - activated charcoal filter system, NAR vehicles



Note

This exploded view applies to TFSI vehicles only.



- 9 Breather line
 - To activated charcoal filter solenoid valve 1 -N80-
 - ☐ Disconnecting and connecting plug-in connectors ⇒ page 53
 - Clipped onto underbody

10 - Nut

□ 5 Nm

11 - Bracket

12 - Vent line

- Open to atmosphere at rear right of vehicle below wheel housing liner
- ☐ Disconnecting and connecting plug-in connectors <u>⇒ page 53</u>

13 - Tank pressure sensor - G400-

□ Removing and installing ⇒ page 66

A20-11650

21 20

14	-	Seal
15	-	Bracket

16 - Nut

□ 20 Nm

17 - Bolt

□ 2x

□ 8 Nm

18 - Control unit for fuel tank leak detection - J909-

☐ Fitting location: on fuel tank (front right)

□ Removing and installing ⇒ page 67

19 - Nut

□ 2x

□ 2 Nm

20 - Heat shield

21 - Bolt

□ 3x

□ 8 Nm

4.3 Removing and installing activated charcoal filter

⇒ "4.3.1 Removing and installing activated charcoal filter - restof-world vehicles", page 64

⇒ "4.3.2 Removing and installing activated charcoal filter - NAR vehicles", page 65

4.3.1 Removing and installing activated charcoal filter - rest-of-world vehicles

Removing

- Observe safety precautions ⇒ page 1.
- Observe rules for cleanliness ⇒ page 4.
- Remove rear wheel housing liner (right-side) ⇒ General body repairs, exterior; Rep. gr. 66; Wheel housing liners; Removing and installing wheel housing liner (rear).
- Disconnect vent and breather lines -2, 3, 4-. Disconnecting plug-in connectors ⇒ page 53
- If accessible, unscrew bolts -arrows- and detach activated charcoal filter -1-.



A20-11535

Protected by copyright. Copying for private or commercial purp permitted unless authorised by AUDI AG. AUDI AG does not gu:

with respect to the correctness of information in this document. Copyright by AUDI AG.



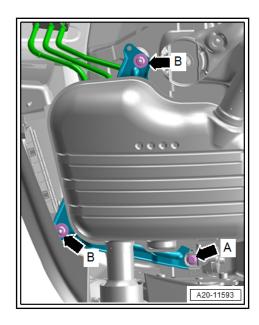
Otherwise, unscrew bolt/nuts -arrows A, B- and take out bracket with activated charcoal filter towards front.

Installing

Installation is carried out in reverse sequence.

Tightening torques

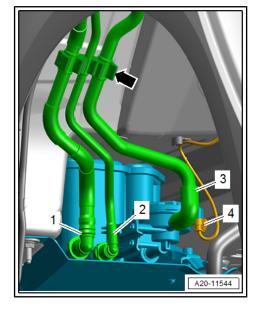
- ⇒ "4.2.1 Exploded view activated charcoal filter system, restof-world vehicles", page 62
- ⇒ General body repairs, exterior; Rep. gr. 66; Wheel housing liners; Exploded view - wheel housing liner (rear)



4.3.2 Removing and installing activated charcoal filter - NAR vehicles

Removing

- Observe safety precautions <u>⇒ page 1</u>.
- Observe rules for cleanliness ⇒ page 4.
- Remove rear wheel housing liner (right-side) ⇒ General body repairs, exterior; Rep. gr. 66; Wheel housing liners; Removing and installing wheel housing liner (rear).
- Disconnect vent and breather lines -1, 2, 3-. Disconnecting plug-in connectors ⇒ page 53
- Disengage vent and breather lines on bracket -arrow- and move them clear.
- Release retainer catch and unplug electrical connector -4-.





Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not quarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- Remove bolt -arrow A- and nuts -arrows B-.
- Take out activated charcoal filter towards front.

Installing

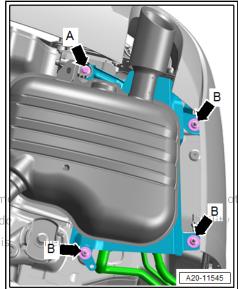
Installation is carried out in reverse sequence.

Tightening torques

- ⇒ "4.2.2 Exploded view activated charcoal filter system, NAR vehicles", page 63
- ⇒ General body repairs, exterior; Rep. gr. 66; Wheel housing liners; Exploded view - wheel housing liner (rear)
- ⇒ Engine; Rep. gr., 26; Exhaust pipes/silencers; Exploded view - silencers

permitted unless authorised by AUDI AG. AUDI AG

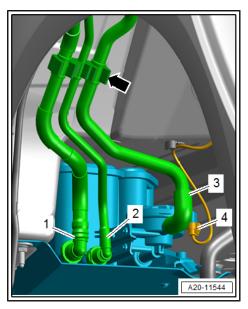
with respect to the correctness of information in th



4.4 Removing and installing tank pressure sensor - G400-

Removing

- Observe safety precautions <u>⇒ page 1</u>.
- Observe rules for cleanliness ⇒ page 4.
- Remove rear wheel housing liner (right-side) ⇒ General body repairs, exterior; Rep. gr. 66; Wheel housing liners; Removing and installing wheel housing liner (rear).
- Disconnect vent and breather lines -1, 2, 3-. Disconnecting plug-in connectors ⇒ page 53
- Disengage vent and breather lines on bracket -arrow- and move them clear.
- Release retainer catch and unplug electrical connector -4-.



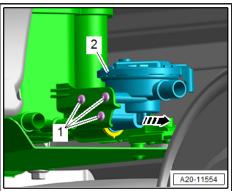
- Remove bolts -1-.
- Remove tank pressure sensor -2- from activated charcoal filter in direction of -arrow-.

Installing

Installation is carried out in reverse sequence.

Tightening torques

- ⇒ "4.2.2 Exploded view activated charcoal filter system, NAR
- ⇒ General body repairs, exterior; Rep. gr. 66; Wheel housing liners; Exploded view - wheel housing liner (rear)





4.5 Removing and installing control unit for fuel tank leak detection - J909-

Removing

- Remove underbody trim (rear right) ⇒ General body repairs, exterior; Rep. gr. 66; Underbody trim; Removing and installing underbody trim.
- Release retainer catch and unplug electrical connector -2-.
- Remove nuts -arrows- and disengage control unit for fuel tank leak detection -1- on fuel tank.

Installing

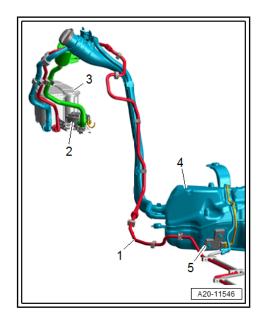
Installation is carried out in reverse sequence.

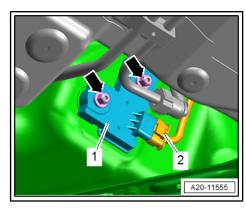
Tightening torques

- \Rightarrow "4.2.2 Exploded view activated charcoal filter system, NAR upposes, in part or in whole, is not vehicles", page 63
- permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability General body repairs, exterior; Rep. gr. 66; Underbody trim; Exploded view hunderbody trim information in this document. Copyright by AUDI AG.

4.6 Checking fuel system for leaks

- The tank leak diagnostic system makes use of the fact that a partial vacuum is formed inside the fuel system when fuel in the tank cools down.
- ♦ The tank pressure sensor G400--item 2- registers the degree of vacuum in the breather line of the activated charcoal filter -3-. The control unit for fuel tank leak detection - J909--item 5- is located directly on the wall of the fuel tank and is thus able to register the temperature in the tank -4-. The system is judged to be leak-tight when a vacuum of 2.5 mbar is measured. If no vacuum is formed, there is a leak in the fuel system. In this case a fault will be stored in the event memory of the engine control unit.
- 1 Breather line to engine





5 Fuel filter

- ⇒ "5.1 Exploded view fuel filter", page 68
- ⇒ "5.2 Removing and installing water separator", page 70

5.1 Exploded view - fuel filter



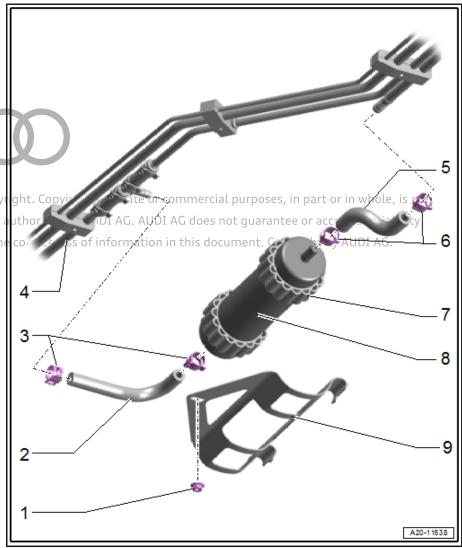
Note

This exploded view applies to TDI vehicles only.

- ⇒ "5.1.1 Exploded view fuel filter", page 68
- ⇒ "5.1.2 Exploded view water separator", page 69

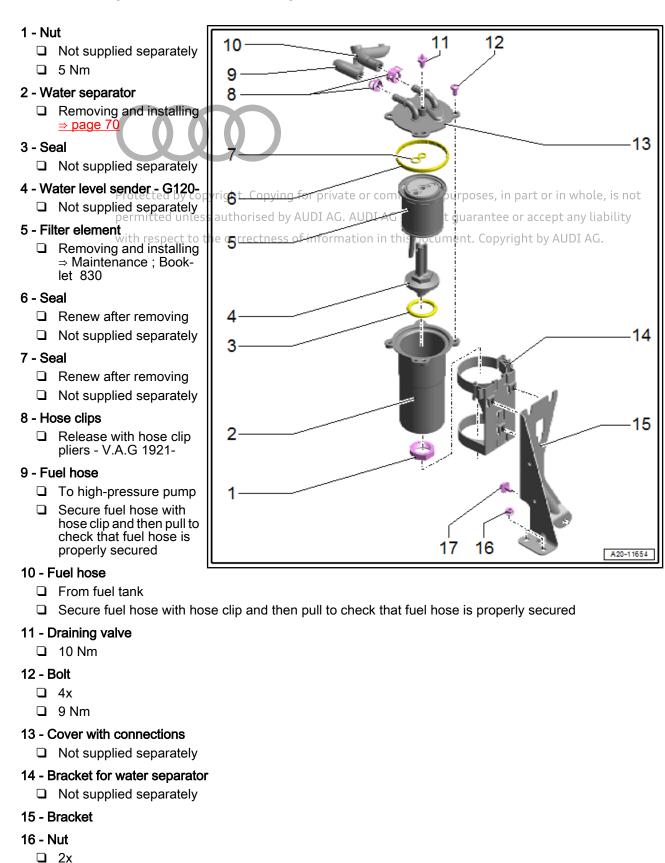
5.1.1 Exploded view - fuel filter

- 1 Nut
 - □ 8 Nm
- 2 Fuel hose
- 3 Spring-type clips
- 4 Fuel supply line
 - □ From fuel tank
 - Clipped onto underbody
- 5 Fuel hose
- 6 Spring-type clips
- 7 Rubber bush otected by copy
 - ☐ For fuel fitter itted unless
- 8 Fuel filter with respect to the
 - ☐ Flow direction is marked by arrows
 - Do not interchange connections
 - Removing and installing
 ⇒ Maintenance ; Booklet 830
 - ☐ Fitting location: on underbody (right-side as seen in direction of travel)
- 9 Bracket
 - □ For fuel filter



5.1.2 Exploded view - water separator

□ 8 Nm



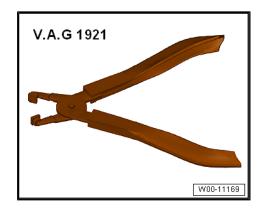
17 - Bolt

□ 8 Nm

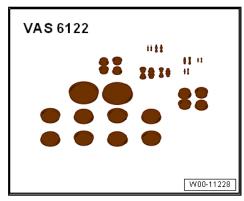
5.2 Removing and installing water separator

Special tools and workshop equipment required

♦ Hose clip pliers - V.A.G 1921-



♦ Engine bung set - VAS 6122-

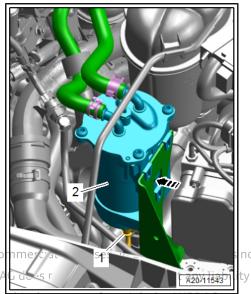


Removing

- Observe safety precautions <u>⇒ page 1</u>.
- Observe rules for cleanliness ⇒ page 4.
- Release retainer catch and unplug electrical connector -1-.
- Release fastener -arrow- and detach water separator -2- upwards from bracket.



Protected by copyright. Copying for private or co permitted unless authorised by AUDI AG. AUDI A with respect to the correctness of information in this document.



- Detach bracket -3- from water separator -1-.
- Release hose clips with hose clip pliers V.A.G 1921- and detach fuel hoses -2-.
- Seal off open fuel hoses and connections with plugs (thoroughly cleaned) from engine bung set - VAS 6122-.

Installing

Installation is carried out in reverse order; note the following:



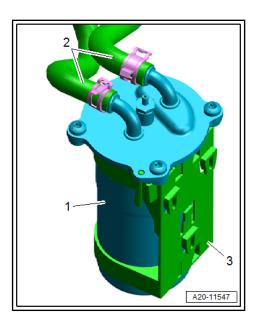
Note

Secure all hose connections with correct type of hose clips (as original equipment) ⇒ Electronic parts catalogue .

Bleed fuel system ⇒ Engine; Rep. gr. 23; Injection system; Filling/bleeding fuel system .

Tightening torques

◆ ⇒ "5.1.2 Exploded view - water separator", page 69





6 Accelerator mechanism

⇒ "6.1 Exploded view - accelerator pedal module", page 72

⇒ "6.2 Removing and installing accelerator pedal module with accelerator position sender G79 / G185 ", page 73

6.1 Exploded view - accelerator pedal module

1 - Accelerator pedal module

☐ With:

- Accelerator position sender - G79-
- Accelerator position sender 2 - G185-
- Depending on equipment version: active accelerator pedal motor - V592-
 - Checking ⇒ Vehicle diagnostic tester
 - Removing and installing
 - Adaption may be reed by quired after renewing, depending on engine/ un gearbox combination ect
 - Perform adaption if this menu item is shown under "Functions" in the engine electronics tree ⇒ Vehicle diagnostic tester

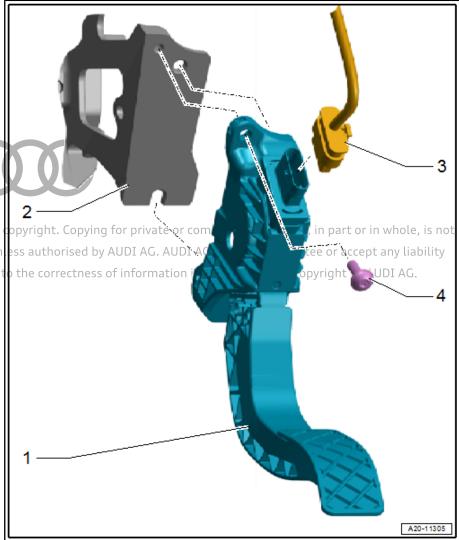
2 - Pedal bracket

3 - Electrical connector

Ensure item is connected securely

4 - Bolt

□ 8 Nm





6.2 Removing and installing accelerator pedal module with accelerator position sender -G79- / -G185-

Removing

- Remove dash panel cover (driver side) ⇒ General body repairs, interior; Rep. gr. 68; Storage compartments/covers/trim panels; Removing and installing dash panel cover (driver side).
- Press release tab and unplug electrical connector -2-.
- Remove bolt -1-.
- Disengage accelerator pedal module -3- from bottom of pedal bracket and detach.

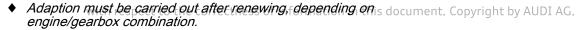
Installing

Installation is carried out in reverse order; note the following:

Attach accelerator pedal module to bottom of pedal bracket, insert centring pin and tighten bolt.



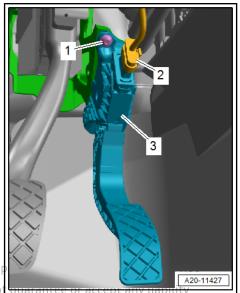
Protected by copyright. Copying for private or commercial permitted unless authorised by AUDI AG. AUDI AG does not



Perform adaption if this menu item is shown under "Functions" in the engine electronics tree ⇒ Vehicle diagnostic tester.

Tightening torques

- ⇒ "6.1 Exploded view accelerator pedal module", page 72
- ⇒ General body repairs, interior; Rep. gr. 68; Storage compartments/covers/trim panels; Exploded view - dash panel cover (driver side)



Fuel pump

⇒ "7-1 Checking fuel system pressurisation pump G6." purposes, in part or in whole, is not

permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability > "7.2 Removing and installing suction-jet pump", page 89

with respect to the correctness of information in this document. Copyright by AUDI AG. ⇒ "7.3 Removing and installing fuel pump control unit J538", page

7.1 Checking fuel system pressurisation pump - G6-

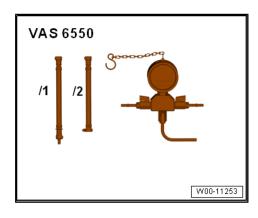
⇒ "7.1.1 Checking fuel system pressurisation pump G6 - vehicles with TFSI engine", page 74

⇒ "7.1.2 Checking fuel system pressurisation pump G6 - vehicles with TDI engine", page 80

7.1.1 Checking fuel system pressurisation pump - G6- - vehicles with TFSI engine

Special tools and workshop equipment required

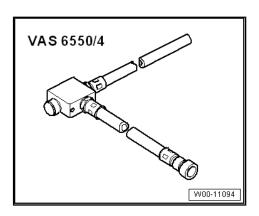
♦ Pressure tester - VAS 6550- with hoses - VAS 6550/2-



Adapter set - VAS 6550/3-



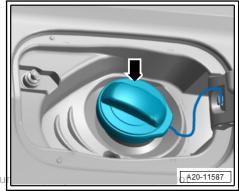
Pressure control valve - VAS 6550/4-



- ♦ Vehicle diagnostic tester
- ◆ Fuel-resistant measuring container

A - Checking fuel delivery rate

- Observe test conditions ⇒ page 4.
- Open tank flap.
- Remove filler cap -arrow- for fuel filler neck.
- Remove engine cover panel ⇒ Engine; Rep. gr. 10; Engine cover panel; Removing and installing engine cover panel.



Protected by copyright. Copying for private or commercial pu

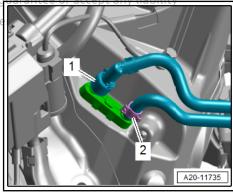
1.4 ltr./3.0 ltr. TFSI vehicles:



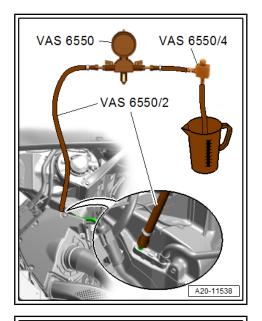
WARNING

The fuel system operates at high pressure - risk of injuries!

- To reduce the pressure in the fuel system, wrap a clean cloth around the connection and loosen the connection carefully.
- Disconnect fuel hose -1-. Disconnect plug-in connectors ⇒ page 53 .



- Connect pressure tester VAS 6550- to fuel supply line with hose - VAS 6550/2- .
- Attach pressure control valve VAS 6550/4- and hold end of hose into fuel-resistant measuring container.



1.8 ltr./2.0 ltr. TFSI vehicles:



WARNING

The fuel system is pressurised. Risk of injury as fuel may spray out.

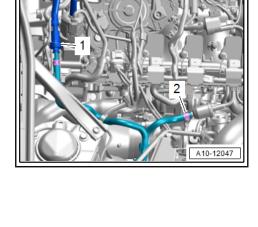
- Put on safety goggles.
- Put on protective gloves.
- Release pressure (wrap a clean cloth around connection and open connection carefully).

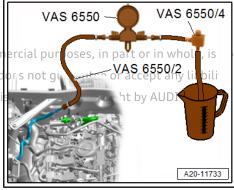


Connect pressure tester - VAS 6550- to fuel supply hose using hose - VAS 6550/2-

Attach pressure control valve - VAS 6550/4- and hold end of hose into fuel-resistant measuring container, ing for private or comm

> permitted unless authorised by AUDI AG. AUDI AG with respect to the correctness of information in th







All vehicles (continued):

Switch on pressure tester - VAS 6550- -item 1- by pressing On/Off button.



Note

To measure the fuel delivery rate, pressure must first be built up in the fuel line; the fuel pump must then operate against this pressure during the measurement. This pressure can be built up using the pressure control valve - VAS 6550/4- as follows:

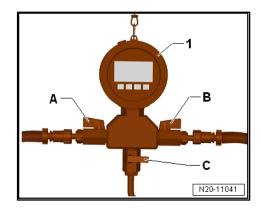
- Open cut-off valves -A and B-.
- Levers must point in direction of flow.



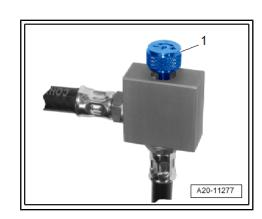
Caution

Risk of fuel escaping.

- ♦ Cut-off valve -C- must be closed.
- The lever should point perpendicular to direction of flow.
- Connect vehicle diagnostic tester.
- Switch on ignition.
- ♦ Select 0001 Engine electronics.
- Select Basic setting in menu item Control unit self-diagnosis.
- ♦ Select Empty fuel tank from the list.
- Press Start.
- The fuel pump starts running.



- Build up pressure in fuel system by turning adjuster screw -1- on pressure control valve - VAS 6550/4- until correct pressure is reached.
- Specification: 4.5 bar
- From this point on, do not turn adjuster screw -1-.
- Press Stop.
- Drain measuring container.
- For measurement, press Start again and let fuel pump run for 15 seconds.
- Press Stop after 15 seconds.
- Check amount of fuel delivered in measuring container.
- Specification (4-cylinder engines): minimum delivery rate 400 cm³/15 sec.
- Specification (6-cylinder engines): minimum delivery rate 600 cm³/15 sec.



If the minimum delivery rate is attained:

Copying for private or commercial purposes, in part or in whole, is not Fuel delivery unit with fuel filter, fuel pressure regulator and

Fuel delivery unit with fuel filter, fuel pressure regulator and AUDI AG does not guarantee or accept any liability fuel supply line OK.

If minimum delivery rate is not achieved, check for the following this document. Copyright by AUDI AG. causes:

- Fuel delivery unit with integrated fuel filter defective.
- Fuel pressure regulator in fuel delivery unit defective.
- Fuel supply line crushed.



Note

To find the precise cause of the fault, a pressure test must be performed on the fuel supply line as described below.



B - Pressure test on fuel supply line

- Leave measuring equipment connected in the same way as for measuring the fuel delivery rate.
- Vehicle diagnostic tester still connected.
- Switch on pressure tester VAS 6550- -item 1- by pressing On/Off button.
- Open cut-off valves -A and B-.
- Levers must point in direction of flow.



Caution

Risk of fuel escaping.

- ◆ Cut-off valve -C- must be closed.
- The lever should point perpendicular to direction of flow.
- Press Start on vehicle diagnostic tester display to start the fuel pump.
- When fuel emerging is free of bubbles, close cut-off valve -B- to allow fueltpressure to build up/ing for private or commercial purposes, in part or in whole, is not
- The lever should point perpendicular to direction of flow. G does not guarantee or accept any liability
- $\textbf{Read fuel pressure testers.} \ \sqrt[4]{AS} \ 6550 \ \text{ion in this document. Copyright by AUDI AG.}$
- Specification: 6.0...8.0 bar.
- Press Stop.

If specification is attained although fuel delivery rate was not OK:

Fuel filter in fuel delivery unit blocked or fuel supply line crush-

If specification is not attained:

Fuel delivery unit or fuel pressure regulator in fuel tank defec-

C - Checking residual pressure

- Check system for leaks and check residual pressure by watching drop in pressure on pressure tester - VAS 6550-:
- After 10 minutes pressure should still be at least 3 bar.

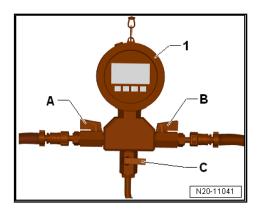
If the residual pressure drops below 3 bar:

- Check fuel lines and their connections for leaks.
- Non-return valve in fuel pump is leaking: Renew fuel delivery unit <u>⇒ page 45</u>.

Assembling

Assembly is performed in reverse sequence; note the following:

The ignition must be switched off.

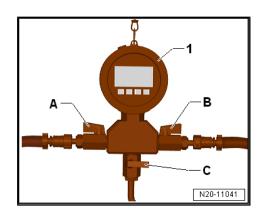




Note

Before removing the pressure tester -1-, release the fuel pressure by opening the cut-off valves -B, C- and allowing fuel to drain off into a measuring container.

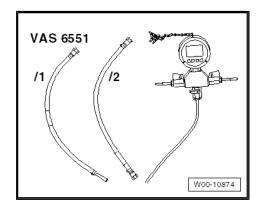
- Detach pressure tester VAS 6550- together with connection cables.
- Connect fuel supply line, making sure it engages audibly.
- Press fuel supply line in again and then pull to check that plugin connector is correctly engaged.



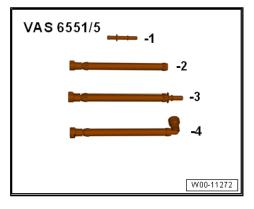
7.1.2 Checking fuel system pressurisation pump - G6- - vehicles with TDI engine

Special tools and workshop equipment required

♦ Pressure tester (diesel) - VAS 6551- with hose - VAS 6551/2-



♦ Adapter set - VAS 6551/5-



◆ Pressure control valve pVAS 655 1/6 ng for private or commercial purpermitted unless authorised by AUDI AG. AUDI AG does not go with respect to the correctness of information in this documents.



◆ Adapter set - VAS 6551/7-



- Vehicle diagnostic tester
- Fuel-resistant measuring container

A - Checking fuel delivery rate

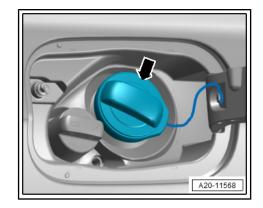
- Observe test conditions ⇒ page 4.
- Open tank flap.
- Remove filler cap -arrow- for fuel filler neck.
- Remove engine cover panel ⇒ Engine; Rep. gr. 10; Engine cover panel; Removing and installing engine cover panel.



WARNING

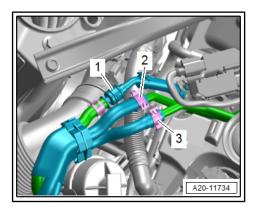
The fuel system is pressurised.

- Risk of injury as fuel may spray out.
- Put on safety goggles. Put on protective gloves.
- Release pressure (wrap a clean cloth around connection and open connection carefully).

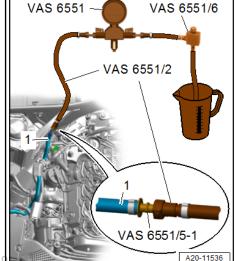


2.0 ltr. TDI vehicles:

Release hose clip -2- and detach fuel supply hose from fuel supply line to high-pressure pump.



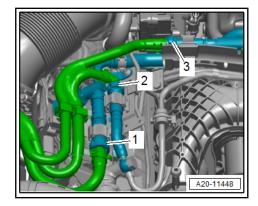
- Attach connection fitting VAS 6551/5-1- to fuel supply hose -1-, secure with hose clip and attach connection lead - VAS 6551/2-.
- Attach connecting line VAS 6551- to pressure tester (diesel) - VAS 6551/2- .
- Attach pressure control valve VAS 6551/6- and hold end of hose into fuel-resistant measuring container.



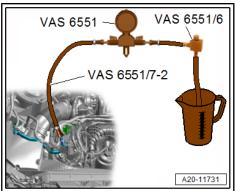


3.0 ltr. TDI vehicles:

- Disconnect fuel supply hose -1- leading to high-pressure pump. Disconnecting plug-in connectors ⇒ page 53



- Connect pressure tester (diesel) VAS 6551- to fuel supply hose with connecting line VAS 6551/7-2- .
- Attach pressure control valve VAS 6551/6- and hold end of hose into fuel-resistant measuring container.





All vehicles (continued):

Prote Switch on priesture tester (diesente VAS 6551 citem 12069s, in part or in whole, is not permi**pressing on off button** AUDI AG. AUDI AG does not guarantee or accept any liabili

spect to the correctness of information in this document. Copyright



To measure the fuel delivery rate, pressure must first be built up in the fuel supply line; the fuel pump must then operate against this pressure during the measurement. This pressure can be built up using the pressure control valve - VAS 6551/6- as follows:

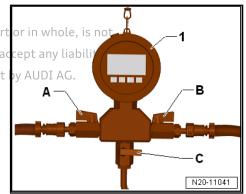
- Open cut-off valves -A and B-.
- Levers must point in direction of flow.



Caution

Risk of fuel escaping.

- ◆ Cut-off valve -C- must be closed.
- The lever should point perpendicular to direction of flow.
- Connect vehicle diagnostic tester.
- Switch on ignition.
- Select and start Diagnosis.
- Choose Select own test and select following options one after the other:
- Drive train
- Select engine code and engine
- 0001 Self-diagnosis compatible systems
- Engine electronics 0001
- 0001 Engine electronics, functions
- 0001 Activate fuel pump
- Carry out test
- Start fuel pump and let it run for 15 seconds.



- Build up pressure in fuel system by turning adjuster screw -1- on pressure control valve - VAS 6551/6- until correct pressure is reached.
- Specification: 4.5 bar



Note

If 15 seconds are not long enough to reach the correct pressure, repeat the procedure.

- From this point on, do not turn adjuster screw -1-.
- Drain measuring container.
- Start fuel pump and let it run for 15 seconds.
- Check amount of fuel delivered in measuring container.
- Specification (4-cylinder engines): minimum delivery rate 750 cm³/15 sec.
- Specification (6-cylinder engines): minimum delivery rate 1000 cm³/15 sec.

If the minimum delivery rate is attained:

- Fuel supply line, fuel filter and fuel pump are OK
- However, there may be a fault in the return line. For Fault Finding, perform "Pressure test for entire system" \Rightarrow page 86; \Rightarrow page 86.

If minimum delivery rate is not achieved, check for the following causes:

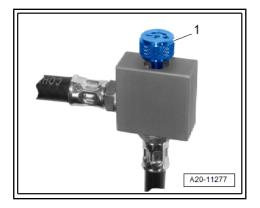
- Fuel pump or fuel pressure regulator in fuel tank faulty.
- Fuel line crushed.
- Fuel filter is blocked.



Note

To find the precise cause of the fault, a pressure test must be performed on the fuel supply line as described below.





B - Pressure test on fuel supply line

- Leave measuring equipment connected in the same way as for measuring the fuel delivery rate.
- Vehicle diagnostic tester still connected.
- Switch on pressure tester (diesel) VAS 6551- -item 1- by pressing On/Off button.
- Open cut-off valve -A-.
- Lever must point in direction of flow.



Caution

Risk of fuel escaping.

- ◆ Cut-off valves -B and C- must be closed.
- The levers should point perpendicular to direction of flow.
- Start fuel pump and let it run for 15 seconds.
- Read fuel pressure off pressure tester (diesel) VAS 6551-.
- Specification: 6.0...8.0 bar.

If specification is attained although fuel delivery rate was not OK:

- ◆ Fuel supply line crushed.
- Fuel filter is blocked.

If specification is not attained:

Fuel pump or fuel pressure regulator in fuel tank faulty.

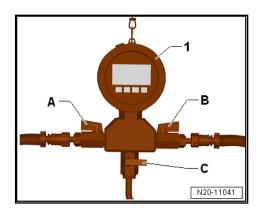


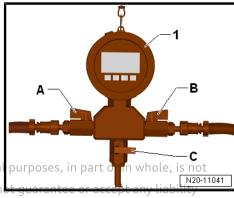
Note

- To detect any faults in the fuel return line or in the relief valve of the high-pressure pump, a pressure test must be performed on the entire system as described below.
- Before disconnecting the measuring equipment, release the fuel pressure by opening the cut-off valves -B and C- and allowing fuel to drain off into a measuring container.

Protected by copyright. Copying for private or commercial purposes, in part of permitted unless authorised by AUDI AG. AUDI AG does n

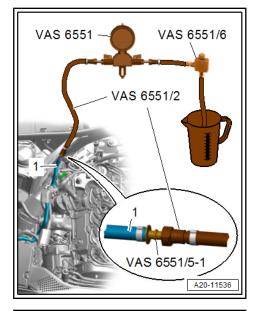
with respect to the correctness of information in this document. Copyright by AUDI AG.





C - Pressure test for entire system, 2.0 ltr. TDI vehicles

- Detach pressure control valve VAS 6551/6- and remove together with measuring container.
- Fuel delivery rate and pressure test on fuel supply line OK
- Connection fitting VAS 6551/5-1- and connecting line VAS 6551/2- connected to fuel supply hose and to pressure tester (diesel) - VAS 6551-.
- Vehicle diagnostic tester is connected.

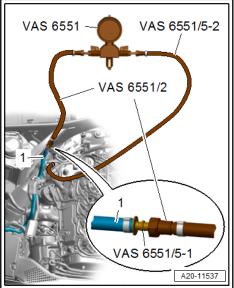


Connect connecting line - VAS 6551/5-2- to fuel supply line leading to high-pressure pump and to pressure tester (diesel) - VAS 6551- .



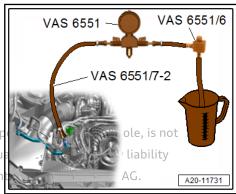
Note

In this way the pressure tester (diesel) - VAS 6551- is connected into the fuel supply line.



C - Pressure test for entire system, 3.0 ltr. TDI vehicles

- Detach pressure control valve VAS 6551/6- and remove together with measuring container.
- Fuel delivery rate and pressure test on fuel supply line OK
- Connecting line VAS 6551/7-2- connected to fuel supply hose and to pressure tester (diesel) - VAS 6551-.
- Vehicle diagnostic tester is connected or private or commercial pur permitted unless authorised by AUDI AG. AUDI AG does not gu with respect to the correctness of information in this documer



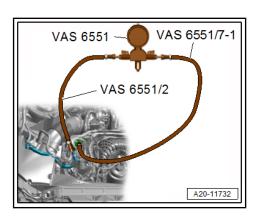


Connect connecting line - VAS 6551/7-1- to fuel supply hose leading to high-pressure pump and to pressure tester (diesel) - VAS 6551- .



Note

In this way the pressure tester (diesel) - VAS 6551- is connected into the fuel supply line.





All vehicles (continued):

- Switch on pressure tester (diesel) VAS 6551- -item 1- by pressing on/off button.
- Open cut-off valves -A and B-.
- · Levers must point in direction of flow.



Caution

Risk of fuel escaping.

- ◆ Cut-off valve -C- must be closed.
- The lever should point perpendicular to direction of flow.
- Connect vehicle diagnostic tester .
- Switch on ignition.
- Select and start Diagnosis.
- Choose <u>Select own test</u> and select following options one after the other:
- ♦ Drive train
- ♦ Select engine code and engine
- ♦ 0001 Self-diagnosis compatible systems
- ♦ 0001 Engine electronics
- ♦ 0001 Engine electronics, functions
- ♦ 0001 Activate fuel pump
- ♦ Carry out test
- Start fuel pump and let it run for 15 seconds.
- Read fuel pressure off pressure tester (diesel) VAS 6551-.
- Specification: 3.8 ... 5.8 bar.

If the indicated value is below the specification, although the fuel delivery rate was OK:

♦ Relief valve in high-pressure pump not OK

If the specification is exceeded:

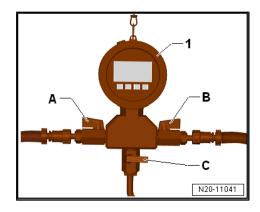
♦ Fuel return line blocked or crushed.

Assembling

Assembly is performed in reverse sequence; note the following:

· The ignition must be switched off.





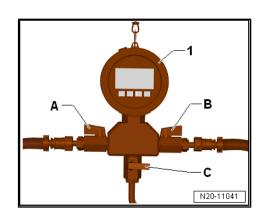




Note

Before removing the pressure tester -1-, release the fuel pressure by opening the cut-off valves -B, C- and allowing fuel to drain off into a measuring container.

- Detach pressure tester (diesel) VAS 6551- together with connecting lines.
- Secure fuel supply line with hose clip and then pull to check that fuel supply line is properly secured.
- Install engine cover panel ⇒ Engine; Rep. gr. 10; Engine cover panel; Removing and installing engine cover panel.



7.2 Removing and installing suction-jet pump

On vehicles with four-wheel drive the fuel tank is divided into a left and a right chamber. A so-called suction-jet pump -3- is used for delivering the fuel from the left fuel tank chamber to the baffle housing -1- of the fuel delivery unit -2- on the right.

Suction-jet pump: operation

The suction-jet pump operates according to the principle of fluid entrainment. The stream of fuel from the electric fuel pump is passed through a nozzle in the suction-jet pump, and is thus accelerated. The accelerated stream of fuel draws off the surrounding fuel and delivers it to the baffle housing of the fuel delivery unit.

Faults caused by defective suction-jet pump



Caution

The engine can stop due to fuel starvation if the suction-jet pump is defective.

If the suction-jet pump is defective, the engine can stop due to fuel starvation when the tank is still 1/4 full.

If the suction-jet pump is not working, up to 15 litres of fuel (up to approx. ¹/₄ of capacity) may remain in the left chamber of the tank where it cannot be drawn into the fuel delivery unit.

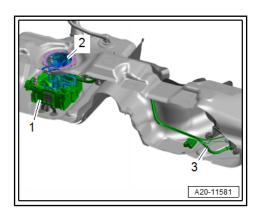
If the engine stops due to fuel starvation with the fuel tank up to about 1/4 full, check if the fuel system pressurisation pump DGG does not guarantee or accept any liability is $OK \Rightarrow page 74_{with respect to the correctness of information in this document. Copyright by AUDI AG.$

If fuel pump is OK, but suction-jet pump is not working:

- Add approx. 5 litres of fuel.
- Start engine.

If engine now starts:

Renew fuel tank ⇒ page 19; suction-jet pump cannot be renewed separately.



7.3 Removing and installing fuel pump control unit - J538-

Removing

- Observe safety precautions <u>⇒ page 1</u>.
- Observe rules for cleanliness ⇒ page 4.

Cabriolet:

- Remove side trim (rear right) ⇒ General body repairs, interior; Rep. gr. 70; Passenger compartment trim panels; Exploded view - side trim .
- If installed, remove rear right subwoofer R240- ⇒ Communication; Rep. gr. 91; Sound system; Overview of fitting locations - sound system .

All vehicles:

- Remove seat bench/individual seats ⇒ General body repairs, interior; Rep. gr. 72; Rear seats; Removing and installing seat bench/individual seats.
- Release catches -arrows- with a screwdriver and detach fuel pump control unit - J538- -item 1- from bracket.
- Pull fuel pump control unit out under sill panel trim/side trim.
- Release retainer catch and unplug electrical connector -2- for fuel pump control unit - J538- .

Installing

Installation is carried out in reverse order; note the following:

Install seat bench/individual seats > General body repairs, interior; Rep. gr. 72; Rear seats; Removing and installing seat bench/individual seats.

Protected by copyright. Copying for private or comm

permitted unless authorised by AUDI AG. AUDI AG does not quarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.