



3.13 Shortened intervals for spark plug replacement

Shortened spark plug replacement intervals are necessary if fuel not compliant with DIN EN 228 are used.

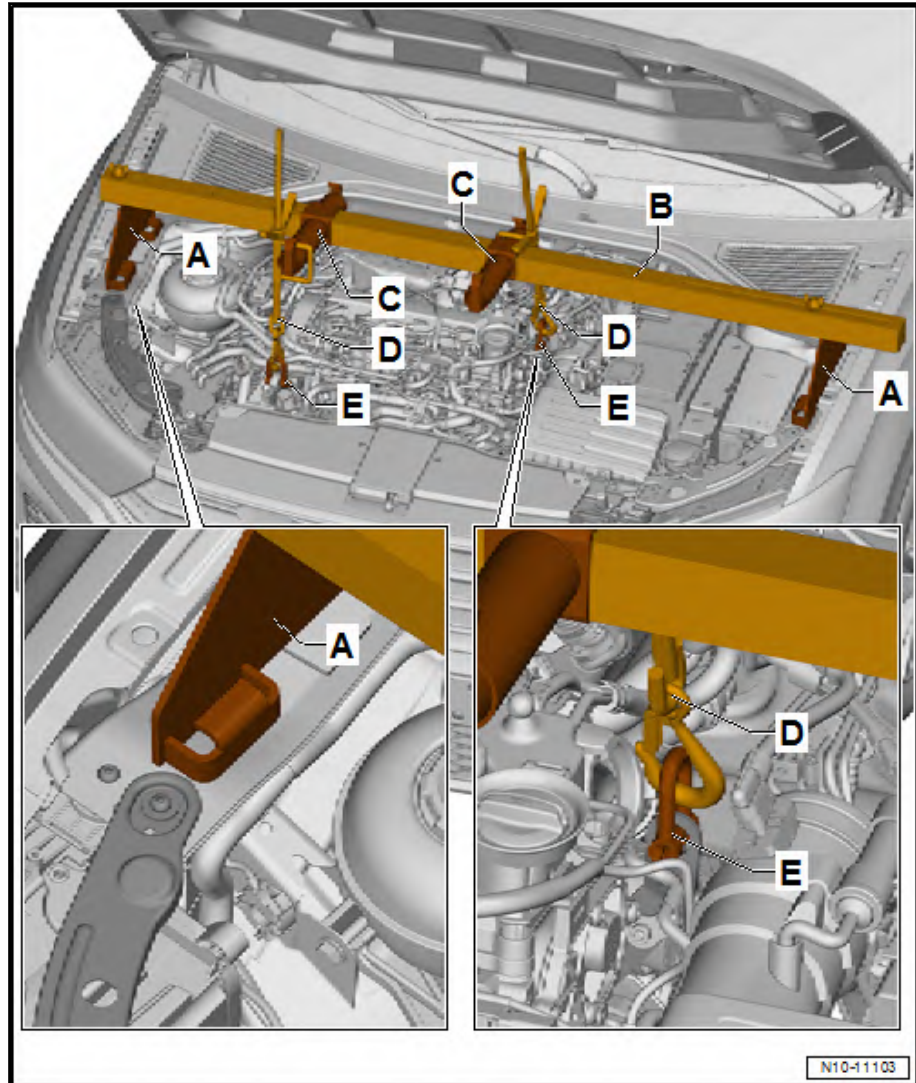
Examples in fuel inadequacies that can lead to shortened maintenance / exchange intervals:

- ◆ Petrol contaminated with diesel
- ◆ High sulphur content
- ◆ Poor boiling point / evaporation
- ◆ Metallic components / Octane Booster Additive
- ◆ Contaminants in petrol

Country	30,000 km / 2 years	20,000 km / 2 years	15,000 km / 1 year	10,000 km / 1 year
	Abu Dhabi	X		
Afghanistan	X			
Egypt	X			
Algeria				X
Angola				X
Equatorial Guinea				X
Armenia	X			
Azerbaijan	X			
Ethiopia				X
Bahamas	X			
Bahrain	X			
Bangladesh	X			
Belize			X	
Benin (Dahomey)				X
Bermudas	X			
Bhutan	X			
Bolivia	X			
Brunei	X			
Burkina Faso (Upper Volta)				X
Burundi				X
Chile	X			
China		X		
Costa Rica	X			
Democratic Republic of the Congo				X
Djibouti				X
Dominican Republic	X			
Dubai	X			
Ecuador	X			
El Salvador	X			
Ivory Coast				X
Eritrea				X
Fiji	X			



- A - Adapter -10-222A/8-
- B - Square tube of support bracket -10-222 A-
- C - Adapter -10 - 222 A /18-
- D - Adapter -10-222A/32-
- E - Shackle -10 - 222 A /12-



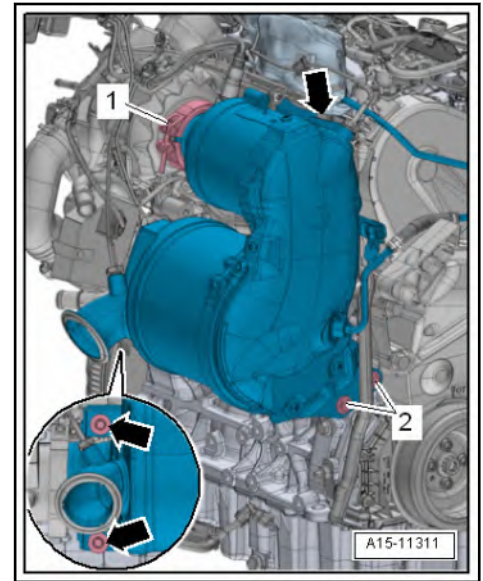
- Engage adapter -10-222A/32- -D- in adapter -10 - 222 A /18- on right on long side as shown.
- Engage adapter -10-222A/32- -D- in adapter -10 - 222 A /18- on left on short side as shown.
- Join both lifting eyes of engine to spindles with one shackle -10 - 222 A /12- each using adapters -10-222A/32-.
- Align support bracket.
- Tighten all threaded connections of support bracket.
- Tighten spindle slightly to take up weight of engine/gearbox assembly; do not lift.

2.5.3 Supporting engine in installation position, Polo

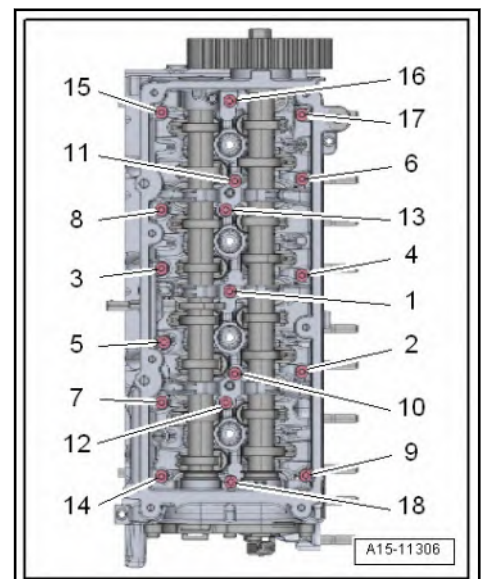
Special tools and workshop equipment required



Continued for all vehicles:



- Loosen bolt -1- and remove screw-type clip.
- Loosen bolts -2- and remove bolts -arrows-.
- Push catalytic converter with particulate filter or emission control module slightly towards the rear.
- Loosen bolts for camshaft housing in the sequence -18 to 1-.



- Unscrew bolts, carefully release camshaft housing from bonded joint and remove it.



Removing



Note

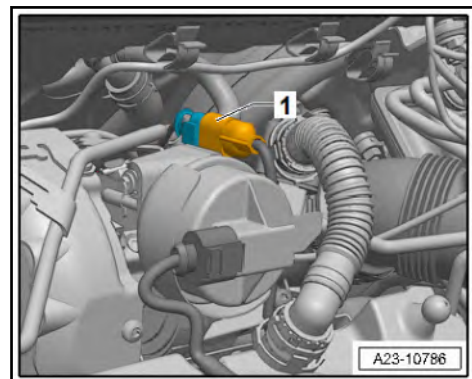
- ◆ *Attach all heat-shielding sleeves in the same places when installing.*
- ◆ *After new components have been installed (engine, cylinder head, camshaft housing or turbocharger), the oil pressure control must be set to max. pressure for approx. 1000 km. This will compensate for the increased friction during run-in of new components, and a better transport of wear-related particles is guaranteed. To do this, connect vehicle diagnostic tester, switch on ignition, and select the following menu options:*
- ◆ `Diagnosis-capable systems`
- ◆ `0001 - Engine electronics, functions`
- ◆ `0001 - Adaption`
- ◆ `Oil pressure control/activate run-in function`
- Observe rules for cleanliness ⇒ [page 9](#) .
- Remove engine cover panel ⇒ [page 68](#) .

Vehicles with battery in engine compartment:

- Remove battery tray ⇒ Electrical system; Rep. gr. 27; Battery; Removing and installing battery tray.

Continued for all vehicles:

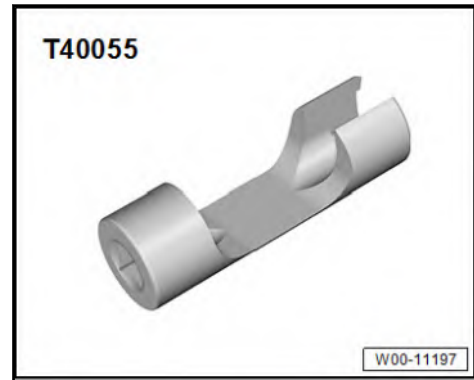
- Remove air filter ⇒ [page 488](#) .
- Remove connection from turbocharger ⇒ [page 424](#) .
- Remove air pipe ⇒ [page 432](#) .
- Remove front exhaust pipe ⇒ [page 565](#) .
- Detach pressure differential sender -G505- and exhaust gas pressure sensor 1 -G450- from cylinder head ⇒ [page 518](#) .
- Lay bracket with pressure differential senders to one side.
- Remove connector -1- from retainer.



- Release electrical connector and pull off.
- Lay wiring harness to one side.
- Release and detach connector -2- from charge pressure control solenoid valve -N75- -1-.



◆ Socket -T40055-



◆ Lambda probe open ring spanner set -3337-

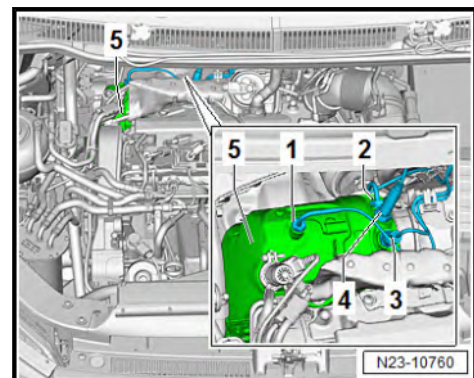


Removing



Note

- ◆ *Attach cable ties in all the same places when installing.*
- ◆ *When removing, the wire must not be disconnected because otherwise no troubleshooting is possible.*
- Remove engine cover panel ⇒ [page 68](#) .
- Mark alignment of angled shaft of exhaust gas temperature sender 3 -G495- to ease reinstallation.
- Release and pull off connector ⇒ [page 451](#) .
- Remove connector from bracket.
- Lay wiring harness to one side.
- Unscrew exhaust gas temperature sender 3 -G495- -1-.



- To do this, use a suitable tool from the list of tools.

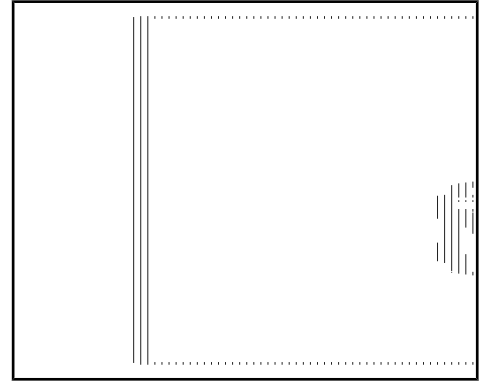


Checking 1st and 2nd gear synchro-ring, outer ring and inner ring together for wear

For »1st« and »2nd« gear, synchromesh is always measured with all rings involved. Measurement of individual rings is discontinued.

- Press synchro-ring, outer ring and inner ring onto cone of synchromeshed gear and measure gap -a- at 3 points offset by 120° using a feeler gauge.
- Make a note of average value.

Gap "a"	Installation dimension	Wear limit
1st and 2nd gears	1.1 - 1.8 mm	0.5 mm

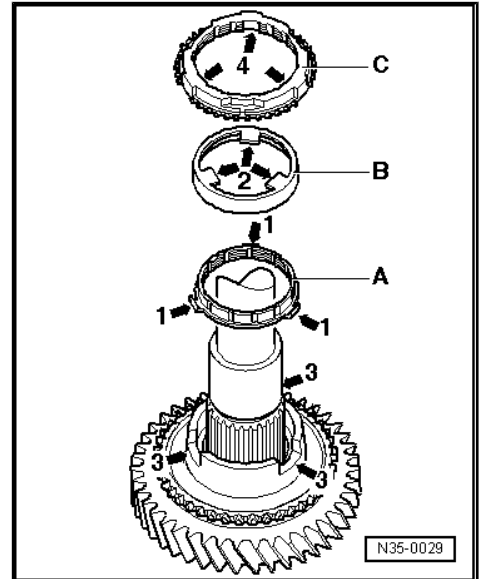


Note

Always renew inner ring, outer ring and synchro-ring together.

Installation position of outer ring, inner ring and synchro-ring for 2nd gear

- Place inner ring -A- on 2nd gear synchromeshed gear.
- Angled lugs -arrow 1- face outer ring -B-.
- Fit outer ring -B-.
- Lugs -arrow 2- engage in notches -arrow 3- of synchromeshed gear.
- Fit synchro-ring -C-.
- Notches -arrow 4- engage in lugs -arrow 1- of inner race -A-.



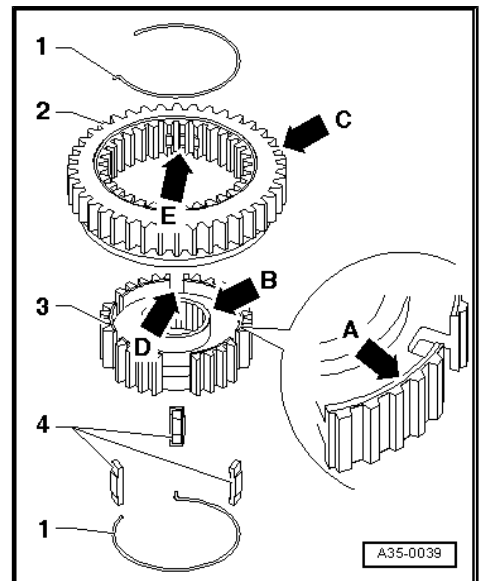
Dismantling and assembling locking collar and synchro-hub for 1st and 2nd gears

- 1 - Spring
- 2 - Sliding sleeve
- 3 - Synchro-hub
- 4 - Locking piece
- Slide locking collar over synchro-hub.

Installation position:

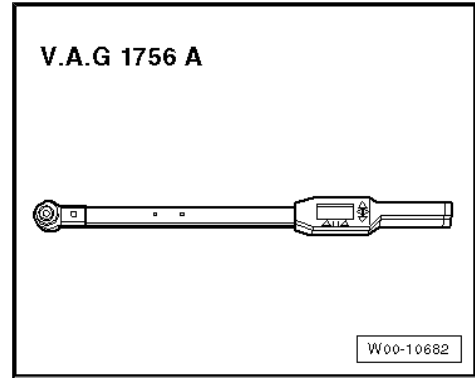
After assembly, the groove on the face -arrow A- and the higher shoulder -arrow B- of synchro-hub face outer splines of the locking collar -arrow C-.

Deepest recesses -arrow D- for locking pieces in synchro-hub must align with recesses -arrow E- in locking collar.

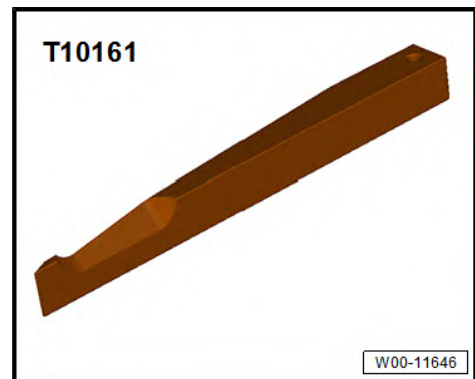




- ◆ Torque angle wrench - V.A.G 1756 A-



- ◆ Wedge - T10161- for drive shaft inserted in gearbox



Removing

- Loosen bolt -arrow- securing drive shaft on wheel side
⇒ [page 67](#) .

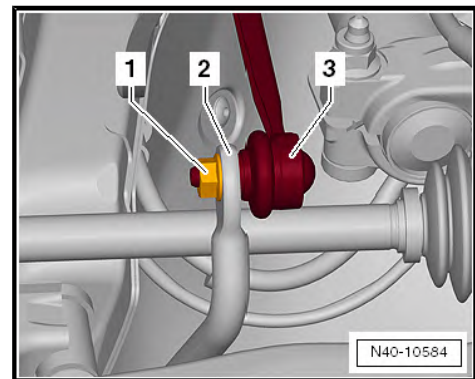
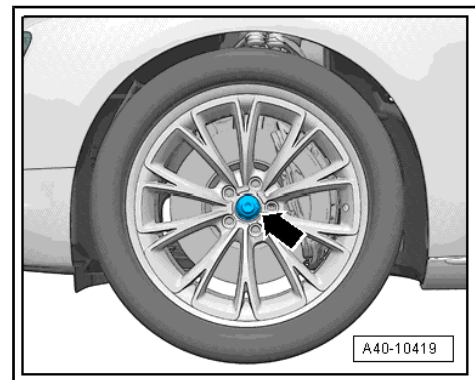


NOTICE

Wheel bearings must not be subjected to load after bolt securing drive shaft to wheel hub has been loosened.

Danger of damage to wheel bearing from weight of vehicle.

- Install an outer joint instead of the drive shaft.
- Tighten outer joint to 120 Nm.
- Remove wheel.
- Remove heat shield for drive shaft ⇒ [page 76](#) .
- Unscrew hexagon nut -1- from coupling rod -3-.
- Pull coupling rod -3- out of anti-roll bar -2-.





57 – Front doors, door components, central locking

1 Door

- ⇒ [“1.1 Assembly overview - door”, page 91](#)
- ⇒ [“1.2 Removing and installing inner door seal”, page 93](#)
- ⇒ [“1.3 Removing and installing door”, page 95](#)
- ⇒ [“1.4 Adjusting door”, page 98](#)
- ⇒ [“1.5 Adjusting striker pin”, page 101](#)
- ⇒ [“1.6 Removing and installing door arrester”, page 103](#)

1.1 Assembly overview - door



Note

- ◆ The illustrations show the left-hand side. The procedure for the right-hand side is basically the same.
- ◆ After renewal of A-pillar, the specified torque for bolts -2 and 5- as well as for -14 and 17- changes.

1 - Rear door

- Removing and installing
⇒ [page 95](#)
- Adjusting ⇒ [page 98](#)

2 - Bolt

- Loosening once to adjust the door is permitted. Always renew otherwise.
- 50 Nm



- ◆ After renewal of A-pillar, specified torque changes.
- ◆ Specified tightening torque after renewal of A-pillar: 2

3 - Door hinge

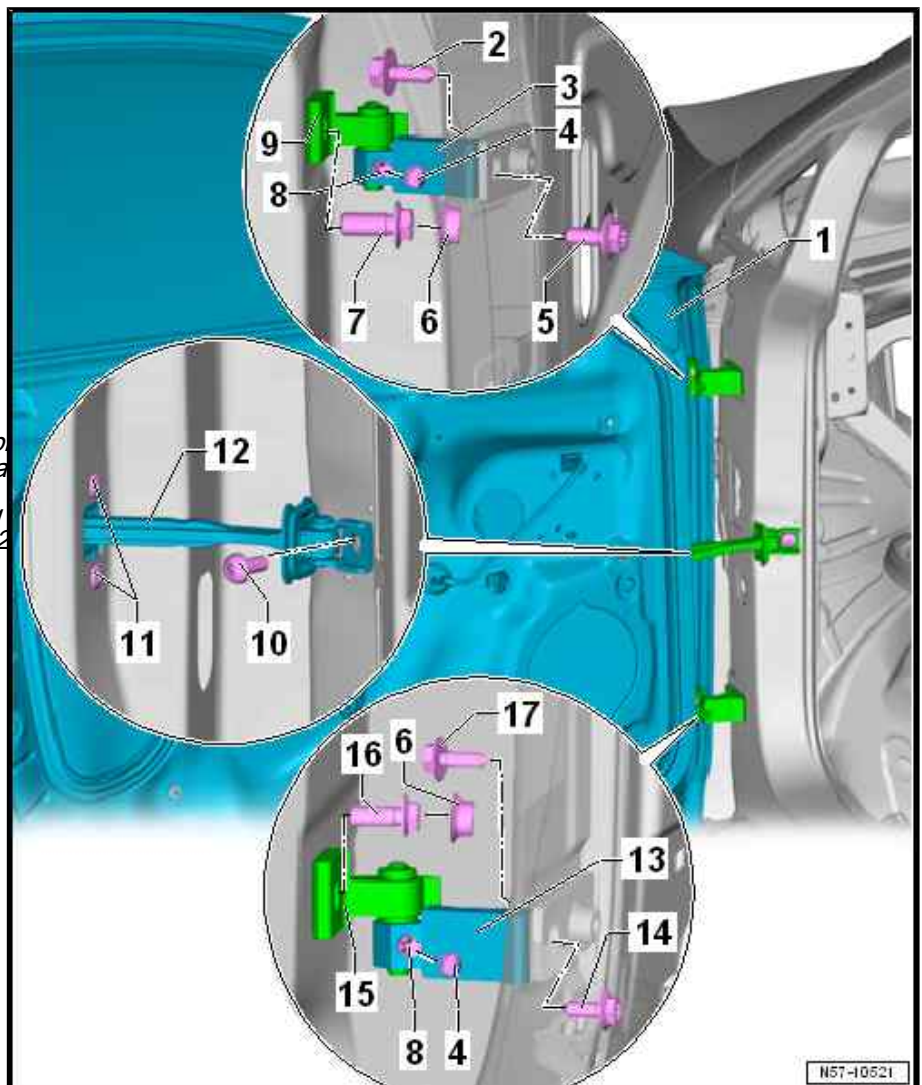
- Hinge is split into two. Upper and lower sections can be renewed individually if necessary.
- Lower part is secured to hinge upper part with bolt -8-.

4 - Cover

- For bolt -8-
- Not installed in all markets

5 - Bolt

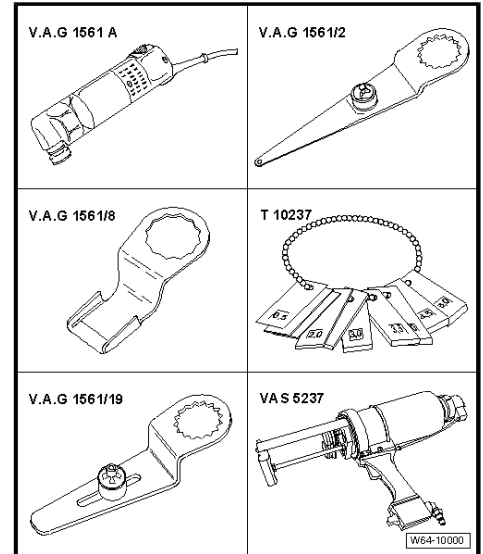
- Installed from inside vehicle.



N57-10521



◆ Double cartridge gun - VAS 5237-



Removing

- Remove A-pillar upper trims on left and right ⇒ General body repairs, interior; Rep. gr. 70 ; Trims, interior; Removing and installing A-pillar trim .
- Remove left and right sun visors ⇒ General body repairs, interior; Rep. gr. 68 ; Equipment; Removing and installing sun visor .
- Remove interior mirror ⇒ General body repairs, interior; Rep. gr. 68 ; Interior mirror; Removing and installing interior mirror .
- If present, remove rain and light detection sensor ⇒ Electrical system; Rep. gr. 92 ; Windscreen wiper system; Removing and installing rain and light detection sensor .
- If present, remove front camera ⇒ Electrical system; Rep. gr. 96 ; Front camera for driver assist systems; Removing and installing front camera for driver assist systems
- Lower moulded headliner in area of windscreen ⇒ General body repairs, interior; Rep. gr. 70 ; Roof trims; Removing and installing moulded headliner .
- Moulded headliner can now be lowered sufficiently to allow windscreen to be cut out without damage occurring to moulded headliner.
- Removing plenum chamber cover ⇒ [page 20](#) .



- ◆ All components (e.g. cover, speakers, door trim) must be correctly fitted.
- ◆ The door trim retaining clips seal the system. If necessary, renew retaining clips.

1.7 Additional safety instructions for repair work on seat occupied recognition for front passenger airbag deactivation - country-specific

- ◆ Basic settings of seat occupied recognition control unit must be performed after each repair to front passenger seat or rear bench seat ⇒ Vehicle diagnostic tester.
- ◆ The mat of the seat recognition sensor must not be kinked.
- ◆ A leaky mat must be renewed (repair kit).
- ◆ The pressure hose of the mat must not be kinked.
- ◆ Note: The components of the seat recognition (repair kit) must not fall on hard surfaces. Avoid contact with grease and hazard of being damaged by pointed/sharp objects.
- ◆ The mat and all other covers must have no folds/creases.
- ◆ During installation, care must be taken to install seat padding and seat cover in correct installation position.
- ◆ Renew all upholstery clips or other clips and ensure they are positioned correctly on the seat.
- ◆ The basic setting of the system is only possible between temperatures of 0°C and +40°C for the airbags 8.R and 9.*. For airbag 10.* the basic setting of the system is only possible between temperatures of 5°C and 35°C.
- ◆ Ensure that no object is on the seat before and/or during the basic settings.
- ◆ The use of additional items on the seat, such as cushions or similar, impairs the functioning of the seat occupied recognition system and can therefore prevent the airbag system from functioning correctly.

1.8 Measures for seat occupied recognition for front passenger airbag deactivation following an accident - country-specific

- ◆ When an airbag or belt tensioner was triggered, basic settings of seat occupied recognition control unit must always be performed ⇒ Vehicle diagnostic tester.
- ◆ If the seat rails and/or bench seat are replaced due to deformation after an accident, the seat occupied recognition system must be replaced by the "seat occupied recognition repair kit". After that, perform "basic settings" of seat occupied recognition control unit ⇒ Vehicle diagnostic tester.

1.9 Renewing pyrotechnic, electrical and mechanical components of the restraint system after an accident

Special tools and workshop equipment required

- ◆ Vehicle diagnostic tester



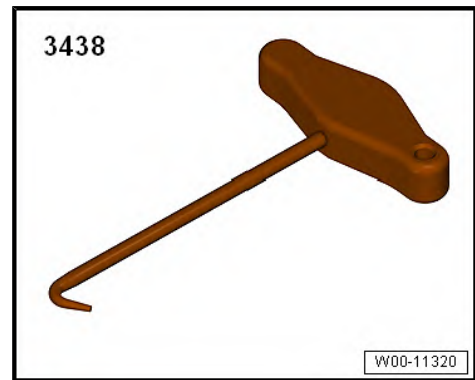
1.7 Separating cover and padding on seat pan

Special tools and workshop equipment required

- ◆ Upholstery pliers - VAG 1634B-



- ◆ Hook - 3438-



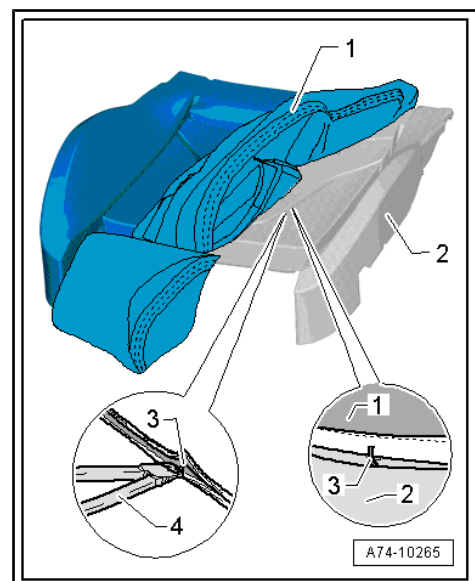
Removing

- Pull retaining tab -3- of seat cover -1- in -direction of arrow- off seat padding -2-.
- Take cover -1- off padding -2-.
- Cut through upholstery clips -3- using pliers -4-.

Installing

Install in reverse order, noting the following:

- Renew all upholstery clips and secure in original position when installing.





3.5 Checking high-pressure safety valve on air conditioner compressor

Checking

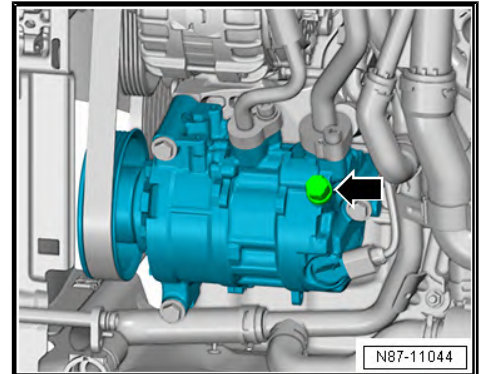
- ◆ Function: protects refrigerant circuit against excessive pressures.

CAUTION

Risk of freezing injury caused by refrigerant. The high-pressure safety valve releases refrigerant when the engine is running and the pressure in the refrigerant circuit is too high.

There is a risk of injury on hands and other parts of the body due to freezing.

- Wear protective gloves.
- Wear protective goggles.
- Switch off engine.



High-pressure safety valve on Denso air conditioner compressor

- ◆ The high-pressure safety valve -arrow- has been activated when refrigerant oil is found in the immediate vicinity.
- ◆ In this case, entrust a suitable workshop to perform the work ⇒ [“4.8 Working on refrigerant circuit”, page 11](#) .

i Note

On air conditioner compressors from other manufacturers the high-pressure safety valve is located in a similar position.

3.6 Removing and installing pulley

⇒ [“3.6.1 Removing and installing Denso belt pulley”, page 79](#)

⇒ [“3.6.2 Removing and installing belt pulley, air conditioner compressor with air conditioning system magnetic clutch N25”, page 81](#)

3.6.1 Removing and installing Denso belt pulley

i Note

- ◆ *The pulley is sensitive to impact and should therefore be handled with extreme care.*
- ◆ *If the belt pulley overload protection has deployed, check freedom of movement of air conditioner compressor before renewing belt pulley. If air conditioner compressor does not rotate freely, it must be renewed.*
- ◆ *If the drive plate overload protection device has been triggered, the pulley can rotate with the outer section of the drive plate without the air conditioner compressor shaft and the hexagon flats attached to the drive plate (inner section of drive plate) also rotating.*

Special tools and workshop equipment required

- ◆ Commercially available oil filter strap wrench



1 - Information electronics control unit 1 - J794-

- Only on Composition Media, Discover Media: in glove compartment
- On Composition Colour, in conjunction with display unit for front information display and operating unit control unit - J685- , in centre of dash panel
- Removing and installing, Composition Colour ⇒ [page 25](#)
- Removing and installing, Composition Media, Discover Media ⇒ [page 7](#)

2 - Telephone microphone - R38-

- In front interior light - WX1-
- Removing and installing ⇒ [page 29](#)

3 - LTE aerial 1 - R297-

- In roof aerial - RX5-
- Only vehicles without emergency call system
- Removing and installing ⇒ [page 22](#)

4 - Two-way signal amplifier for mobile telephone/data services - J984-

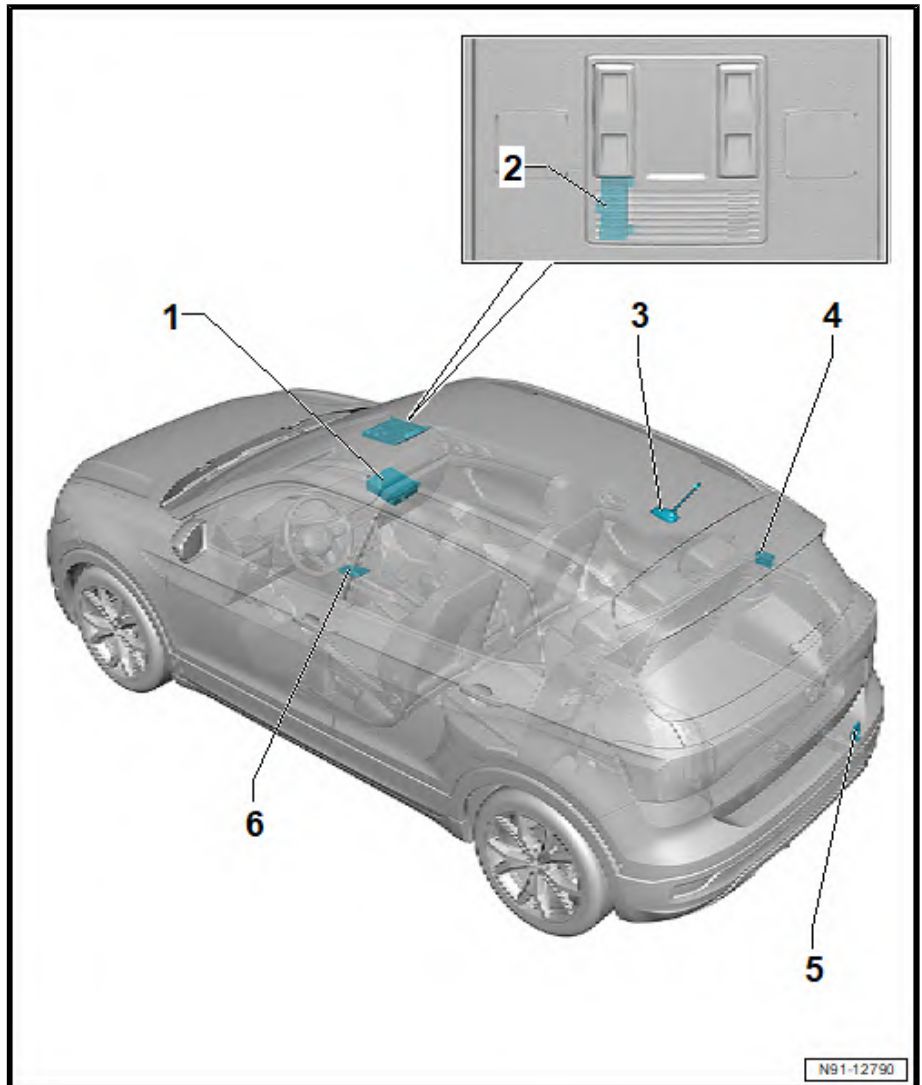
- On right C-pillar behind wheel housing trim
- Removing and installing ⇒ [page 30](#)

5 - LTE aerial 1 - R297-

- Under rear right bumper cover
- Only vehicles with emergency call system
- Removing and installing ⇒ [page 23](#)

6 - Storage compartment with interface for mobile telephone - R265-

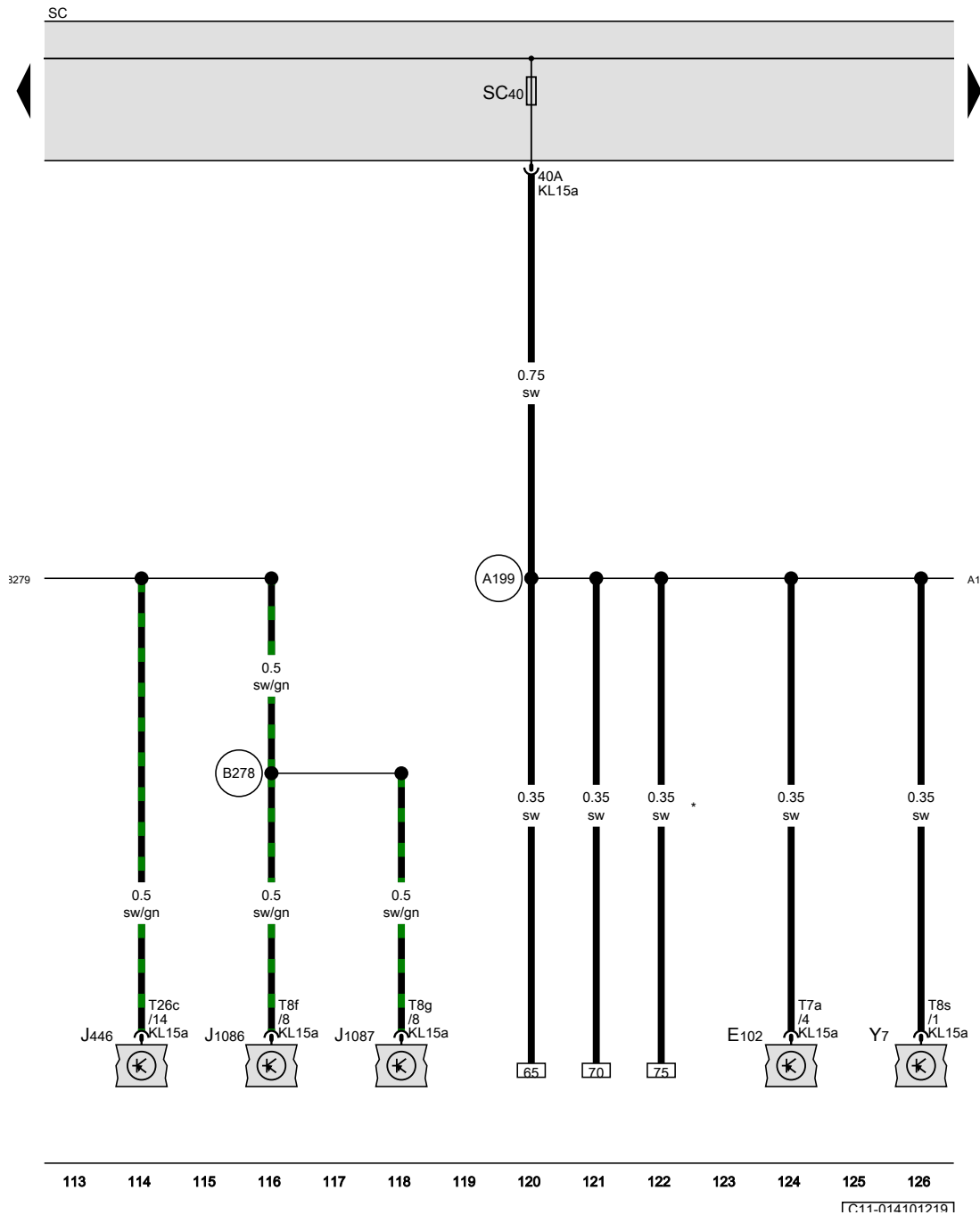
- In the front centre console storage compartment
- Removing and installing ⇒ [page 31](#)



5.3 Removing and installing telephone microphone - R38-

The telephone microphone - R38- is located at the front interior light - WX1- .

On vehicles equipped with an emergency call module, the telephone microphone - R38- is connected to the emergency call module control unit and communication unit - J949- and is »connected through« to the control unit 1 for information electronics - J794- .



Headlight range control regulator, Parking aid control unit, Blind Spot Monitor control unit, Blind Spot Monitor control unit 2, Fuse holder C, Automatic anti-dazzle interior mirror

- E102 Headlight range control regulator
- J446 Parking aid control unit
- J1086 Blind Spot Monitor control unit
- J1087 Blind Spot Monitor control unit 2
- SC Fuse holder C
- SC40 Fuse 40 on fuse holder C
- T7a 7-pin connector, black
- T8f 8-pin connector, black
- T8g 8-pin connector, black
- T8s 8-pin connector, black
- T26c 26-pin connector, black
- Y7 Automatic anti-dazzle interior mirror

- A199 Positive connection 4 (15a) in dash panel wiring harness
- B278 Positive connection 2 (15a) in main wiring harness
- B279 Positive connection 3 (15a) in main wiring harness
- * For models with no multifunction steering wheel

- ws = white
- sw = black
- ro = red
- rt = red
- br = brown
- gn = green
- bl = blue
- gr = grey
- li = purple
- vi = purple
- ge = yellow
- or = orange
- rs = pink

[C:11-014101219]



⚠ CAUTION

Risk of accident caused by high weight of silencers.

– Seek help from a second a mechanic for the following work.

- Place engine and gearbox jack under silencer.
- Support silencer with engine and gearbox jack .
- Unbolt silencer brackets -3-.
- To do this, unscrew bolts -4-.
- Detach exhaust hanger -7- from rear axle.
- Release clamping sleeve -1-, and slide it forwards.
- Remove complete silencer.

Remove silencers individually:

- Remove rear tunnel cross-piece to allow for removing front silencer -2- ⇒ General body repairs, exterior; Rep. gr. 66 ; Underbody cladding .
- If necessary, separate silencer at corresponding separating point -arrows- ⇒ ["1.3 Separating exhaust pipes from silencers", page 413](#) .
- After silencers have been separated, loosen corresponding clamps ⇒ [Item 1 \(page 389\)](#) .
- When removing front silencer, loosen front clamp -1- and push it towards front.
- Support silencer to be removed with engine and gearbox jack .
- Unbolt any required exhaust hangers -3- for silencer to be removed.
- To do this, unscrew corresponding bolts -4-.
- Detach exhaust hanger -7- at rear axle to allow for removing centre silencer -5-.
- Remove silencer.

Installing

Install in reverse order of removal, observing the following:

Installing

Install in reverse order of removal, observing the following:

- Align holes of front bracket with the two markings in securing strap of fuel tank.
- Align holes of rear brackets so that they are parallel with longitudinal member.
- Align exhaust system free of stress ⇒ ["1.4 Aligning exhaust system free of stress", page 414](#) .

Specified torques

- ♦ ⇒ ["1.1 Assembly overview - silencers", page 388](#)
- ♦ ⇒ ["2.1 Assembly overview - emission control", page 418](#)
- ♦ ⇒ General body repairs, exterior; Rep. gr. 66 ; Underbody cladding

