1 Engine list

(VIGG000803; Edition 10.2015)

Petrol and diesel engines are listed separately.

The engine codes are listed in alphabetical order.

- Petrol engines ⇒ page 1
- Diesel engines ⇒ page 6
- Petrol/hybrid engine ⇒ page 6

Petrol engines

Engine code ⇒ page 62	AXX	BGP	BGQ
Capacity in litres	**2.0**	**2.5**	**2.5**
Number of cylinders	4	5	5
Valves per cylinder	4	4	4
Output/kW at rpm	147/5700	110/5200	110/5200
Torque/Nm at rpm	280/2000	228/4000	228/4000
Compression ratio	10.5	9.5	9.5
Injection/ignition	MPI Bosch Motronic T-FSI	MPI Bosch Motronic indirect inj.	MPI Bosch Motronic indirect inj.
RON unleaded, at least	95 also 91 RON, but with reduced power	91 also 87 RON, but with reduced power	91 also 87 RON, but with reduced power
Camshaft drive	Toothed belt	Timing chain	Timing chain

Petrol engines

Engine code ⇒ page 62	BLG	BLF	BLR
Capacity in litres	**1.4**	**1.6**	**2.0**
Number of cylinders	4	4	4
Valves per cylinder	4	4	4
Output/kW at rpm	125/6000	85/5800	110/6000
Torque/Nm at rpm	240/1750 ... 4500	155/4000	200/3500
Compression ratio	10.0	12.0	11.5
Injection/ignition	Motronic MED 9.5.10 TSI twincharger	Motronic MED 9.5.10 FSI	Motronic MED 9.5.10 FSI
RON unleaded, at least	95 also 91 RON, but with reduced power	98 also 95 RON, but with reduced power	95 also 91 RON, but with reduced power
Camshaft drive	Timing chain	Timing chain	Toothed belt

Petrol engines

Engine code ⇒ page 62	BMY	BLY	BSE
Capacity in litres	**1.4**	**2.0**	**1.6**
Number of cylinders	4	4	4

2.1.4 Service interval display

Introduction of extended servicing intervals (ESI)

To find out whether the extended service interval (ESI) is available for your country, contact your importer.

Flexible service interval display (only vehicles with a flexible service)

Calculation of service intervals:

- The service intervals on vehicles with a flexible service is calculated. Input values such as distance travelled, fuel consumption, oil temperature and loading on diesel particulate filter are evaluated by the control unit.
- The result of the evaluation is a measure of the deterioration of the oil due to thermal load.
- Oil deterioration is the decisive factor in determining the distance that can still be driven before the next service.

Note

For vehicles with a flexible service but which are serviced according to fixed service intervals, the service interval display must be recoded to "non-flexible" ⇒ page 224 .

Fixed service interval display (only vehicles with a fixed service)

Calculation of service intervals:

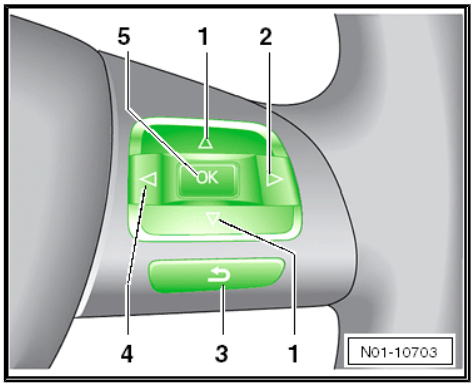
- The service interval for vehicles with a fixed service is calculated in fixed service intervals. This means that the mileage or time values have been previously determined and specified by Volkswagen.
- For normal operating conditions achieving these service intervals is technically assured.

– or “OK button” -5- in multifunction steering wheel to revert to normal display.

♦ The service initial warning is displayed 20 days before the next service is due.

♦ The remaining distance displayed is always rounded to the nearest 100 km or the remaining time rounded to full days.

Reading service information using rocker switch on windscreen wiper lever or via buttons in the multifunction steering wheel, up to ➢2013



Note

♦ *The current service information cannot be read until 500 km have been driven after the last service.*

♦ *Dashes will appear on display until that time.*

The current service information can always be read with ignition switched on, engine switched off and vehicle stationary.

– Select “Settings” menu using rocker switch on windscreen wiper lever or buttons in multifunction steering wheel.

– In submenu “Service”, mark menu option “Info” and press “OK” button in windscreen wiper lever or in multifunction steering wheel.

♦ On vehicles without text messages on the dash panel insert display, an overdue service is indicated by a minus sign in front of the mileage or day information.

♦ On vehicles with text messages on dash panel insert display, the following appears if service is overdue: “Service since --- km or --- days”.

Reading service information using rocker switch on windscreen wiper lever or via buttons in the multifunction steering wheel, as of 2014➢

Note

♦ *The current service information cannot be read until 500 km have been driven after the last service.*

♦ *Dashes will appear on display until that time.*

The current service information can be requested at any time with the ignition switched on, the engine turned off and the vehicle at a standstill.

– Select “Settings” menu using rocker switch on windscreen wiper lever or buttons in multifunction steering wheel.

– Select “Info” command in the “Service” submenu.

– Press “OK button” on windscreen wiper lever or in multi-function steering wheel.

♦ On vehicles without text messages on dash panel insert display, the following indications appear: “spanner symbol” and in the upper right corner of the dash panel insert display the number “1” is displayed for the oil change service.

– Press “OK button” on windscreen wiper lever or in multi-function steering wheel again.

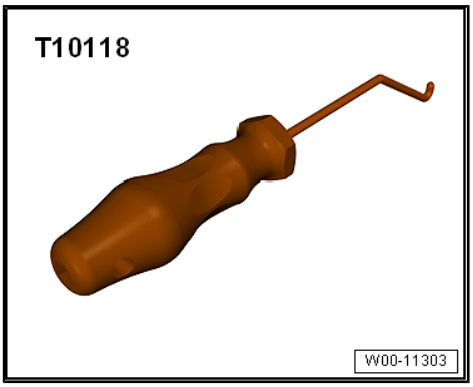
23 - Bolts

- ❑ Fuel rail to cylinder head
- ❑ 9 Nm

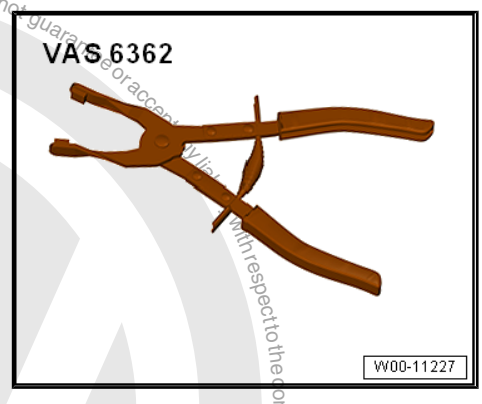
4.2 Removing and installing intake manifold

Special tools and workshop equipment required

- ♦ Assembly tool - T10118-



- ♦ Hose clip pliers - VAS 6362-



After intake manifold has been removed or renewed, intake manifold flap potentiometer - G336- must be adapted to engine control unit - J623- .

Removing

– Disconnect battery at battery negative terminal ⇒ Electrical system; Rep. gr. 27 ; Battery; Disconnecting and connecting battery .

– Remove engine cover panel ⇒ page 38 .

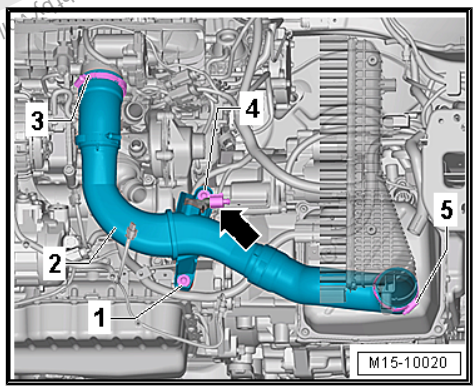
– Remove air filter housing -3- ⇒ page 239 .

– Remove radiator cowl ⇒ page 203 .

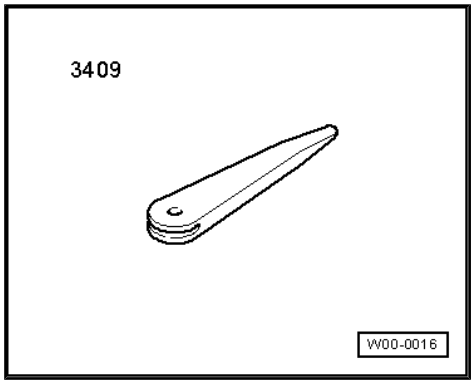
– Loosen hose clamps -3- and -5-.

– Disconnect connector for charge pressure sender - G31- -arrow-.

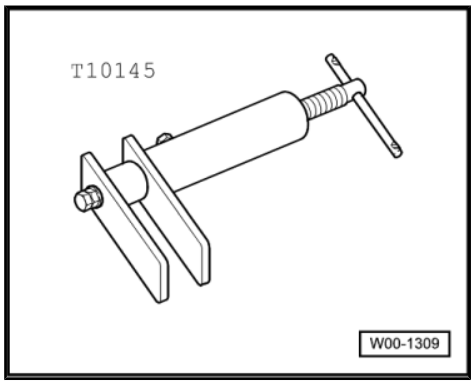
– Unscrew bolts -1- and -4-, and remove air pipe downwards.



- Removal wedge - 3409-



- Piston resetting appliance - T 10145-

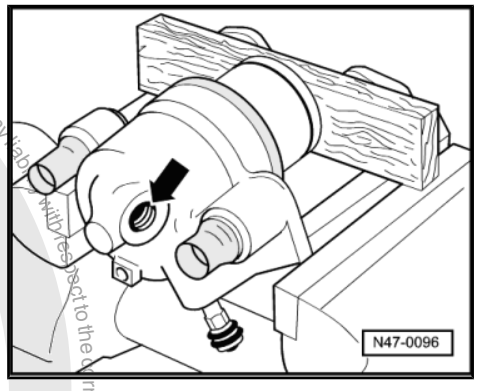


Carry out the following work:

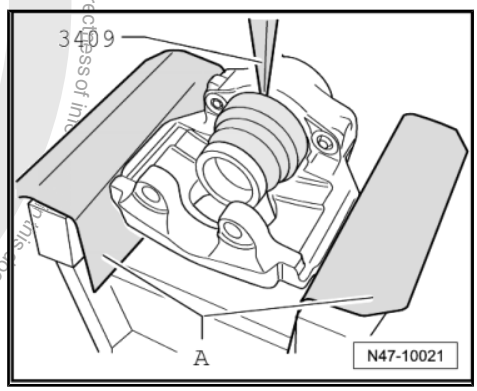
Removing

– Press piston out of brake caliper using compressed air.

Place a piece of wood in the recess to prevent damage to the piston.



– Lever off protective cap from brake caliper using removal wedge - 3409- .



Caution

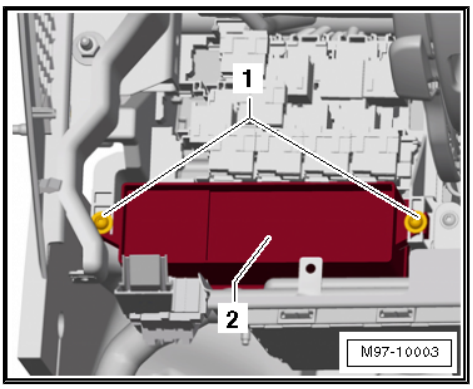
- *When removing and installing components that are visible (switches/covers/trims), mask off areas in which tools (removal wedge - VAS 3409- / screwdriver) are used to lever out those components using commercially available masking tape.*

Removing

– Disconnect battery - A- ⇒ page 7 .

– Remove dash panel end cover on driver side ⇒ General body repairs, interior; Rep. gr. 68 ; Compartments/covers; Removing and installing left dash panel end cover on driver side .

– Remove bolts -1- and take fuse holder -2- out downwards.



Installing

Installation is carried out in the reverse order. When installing observe the following:

– Tighten threaded connections to specified torque.

– Reconnect battery - A- ⇒ page 7 .

Specified torques

- ⇒ “1.1 Fitting locations overview - relay carriers, fuse holders, electronics boxes”, page 321

1.4.2 Removing and installing onboard supply control unit - J519-

The relay carrier on the onboard supply control unit - J519- is bolted to the central tube of the dash panel and cannot be removed unless the dash panel is removed first.

The individual relay headers cannot be removed unless the relay carrier is removed first.

Removing

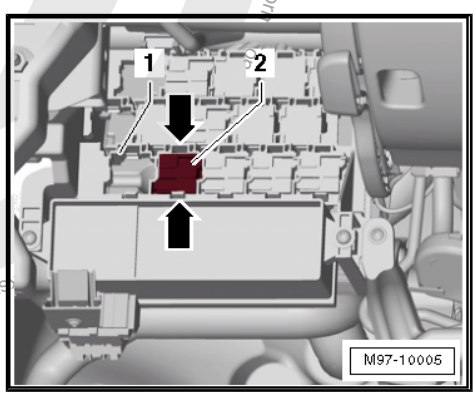
– Switch off ignition and all electrical consumers, and remove ignition key.

– Remove dash panel end cover on driver side ⇒ General body repairs, interior; Rep. gr. 68 ; Compartments/covers; Removing and installing left dash panel end cover on driver side .

– Pull relays out of relay carrier.

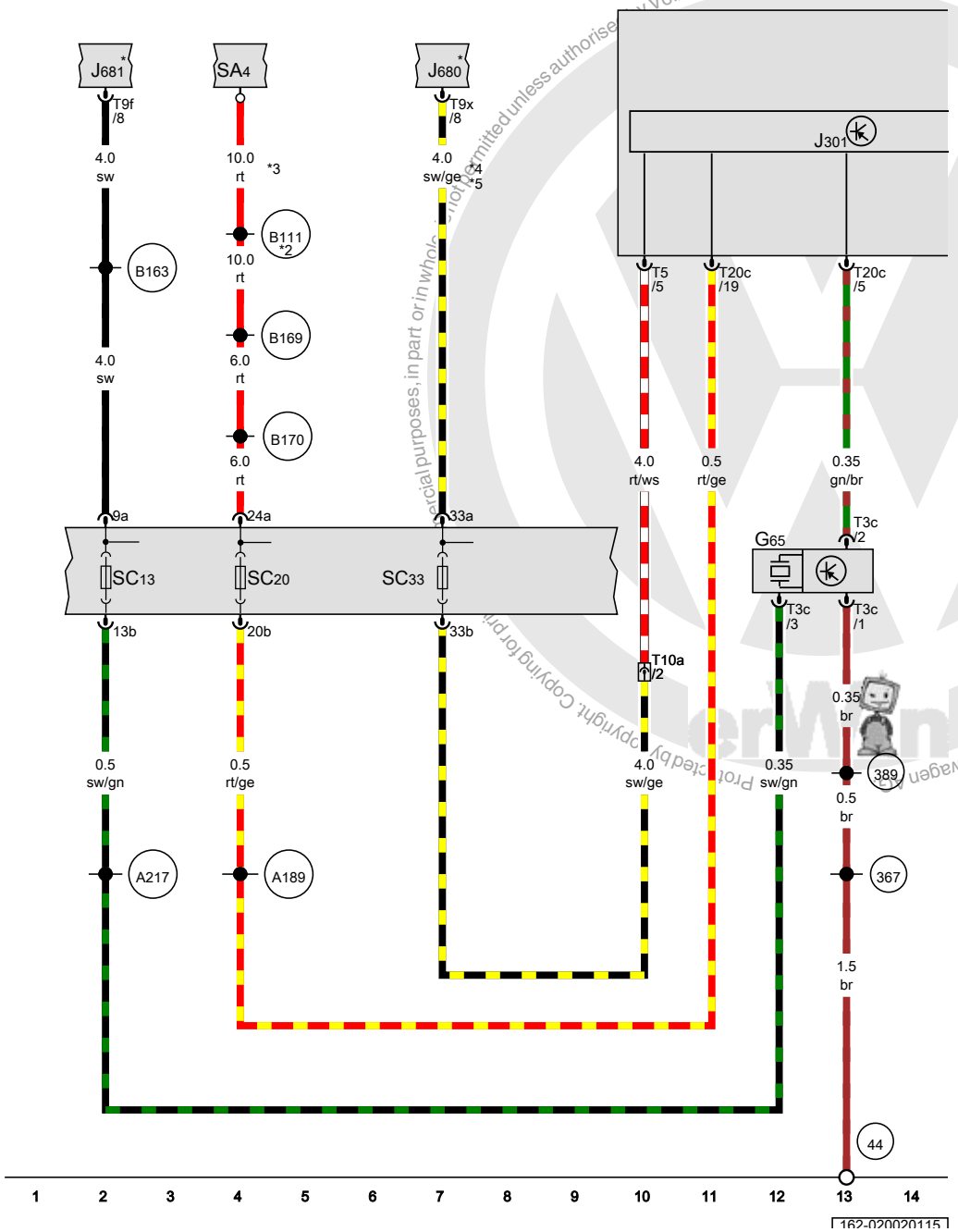
The number of relays depends on the vehicle equipment level.

– Unclip locking lugs -arrows- outwards and then push connectors -2- through relay carrier -1-.



Installing

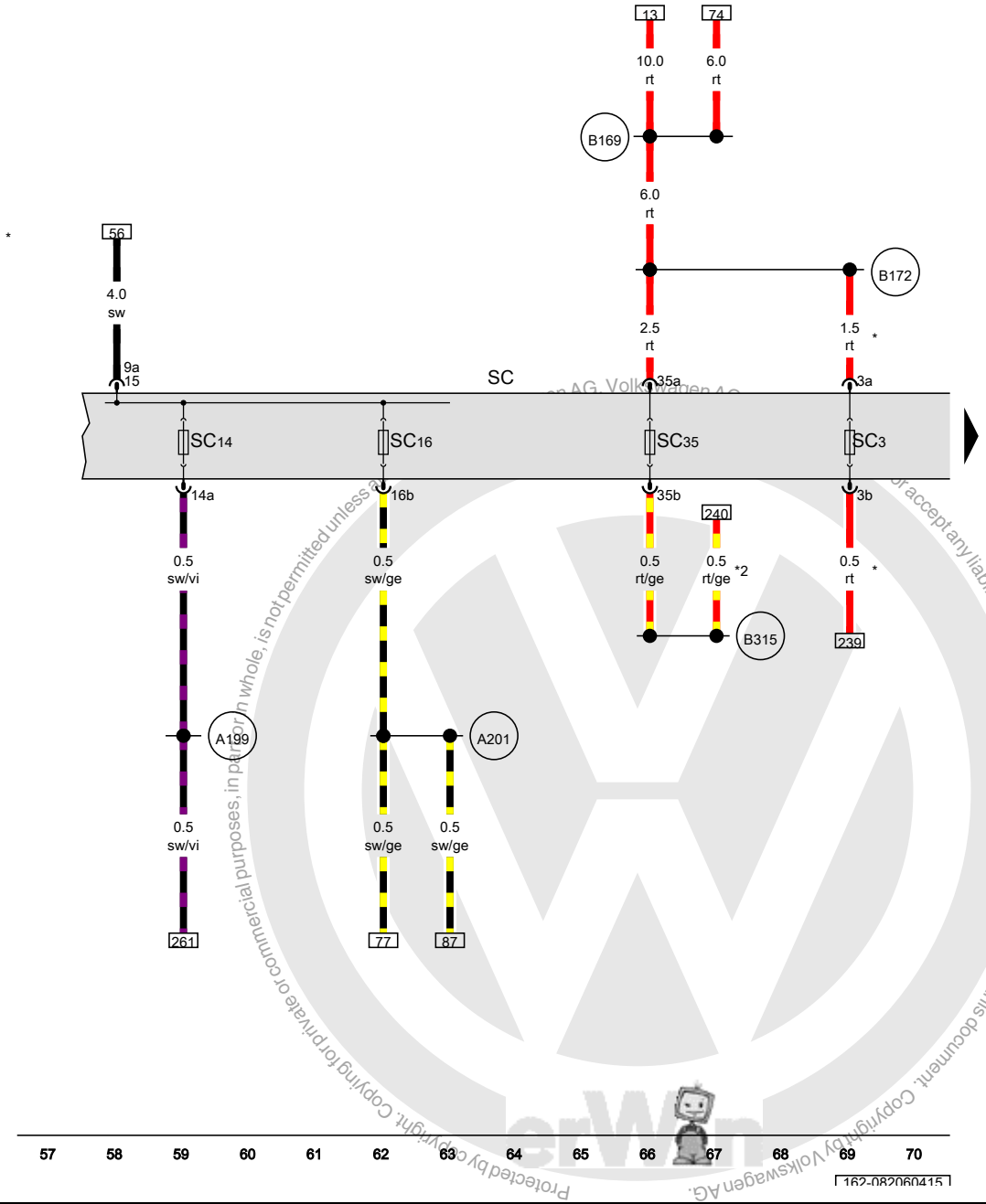
Installation is carried out in the reverse sequence.



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

High-pressure sender, Air conditioning system control unit

G65	High-pressure sender
J301	Air conditioning system control unit
J680	Terminal 75 voltage supply relay 1
J681	Terminal 15 voltage supply relay 2
SA4	Fuse 4 in fuse holder A
SC13	Fuse 13 on fuse holder C
SC20	Fuse 20 on fuse holder C
SC33	Fuse 33 on fuse holder C
T3c	3-pin connector
T5	5-pin connector
T9f	9-pin connector
T9x	9-pin connector
T10a	10-pin connector, on heater unit
T20c	20-pin connector
44	Earth point, lower part of left A-pillar
367	Earth connection 2, in main wiring harness
389	Earth connection 24, in main wiring harness
A189	Positive connection 5 (30a) in dash panel wiring harness
A217	Positive connection 8 (15a) in dash panel wiring harness
B111	Positive connection 1 (30a), in interior wiring harness
B163	Positive connection 1 (15), in interior wiring harness
B169	Positive connection 1 (30), in interior wiring harness
B170	Positive connection 2 (30), in interior wiring harness
*	see applicable current flow diagram for basic equipment
*2	Gradually discontinued
*3	Cross-section 16.0 possible
*4	Wiring colour depends on equipment
*5	Cross-section 6.0 possible



Fuse holder C

SC	Fuse holder C
SC3	Fuse 3 on fuse holder C
SC14	Fuse 14 on fuse holder C
SC16	Fuse 16 on fuse holder C
SC35	Fuse 35 on fuse holder C
A199	Positive connection 4 (15a) in dash panel wiring harness
A201	Positive connection 6 (15a) in dash panel wiring harness
B169	Positive connection 1 (30), in interior wiring harness
B172	Positive connection 4 (30), in interior wiring harness
B315	Positive connection 1 (30a) in main wiring harness
*	gradual introduction
*2	Gradually discontinued

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

1 - Navigation connection Japan

- ❑ Not assigned

2 - Aerial connection

- ❑ DAB
- ❑ Aerial systems ⇒ page 18 .

3 - Multi-pin connector 1, 8-pin, loudspeaker outputs

- ❑ Pin assignment ⇒ page 99 .

4 - Multi-pin connector 2, 8-pin, CAN bus, voltage supply

- ❑ Pin assignment ⇒ page 100 .

5 - Multi-pin connector 3, 12-pin, telephone

- ❑ Pin assignment ⇒ page 100 .

6 - Multi-pin connector 4, 12-pin, connection for external audio sources - R199- , multimedia system control unit - J650-

- ❑ Pin assignment ⇒ page 100 .

7 - Multi-pin connector 5, 26-pin, for video and LF input

- ❑ Pin assignment ⇒ page 101 .

8 - Aerial connection GPS aerial - R50-

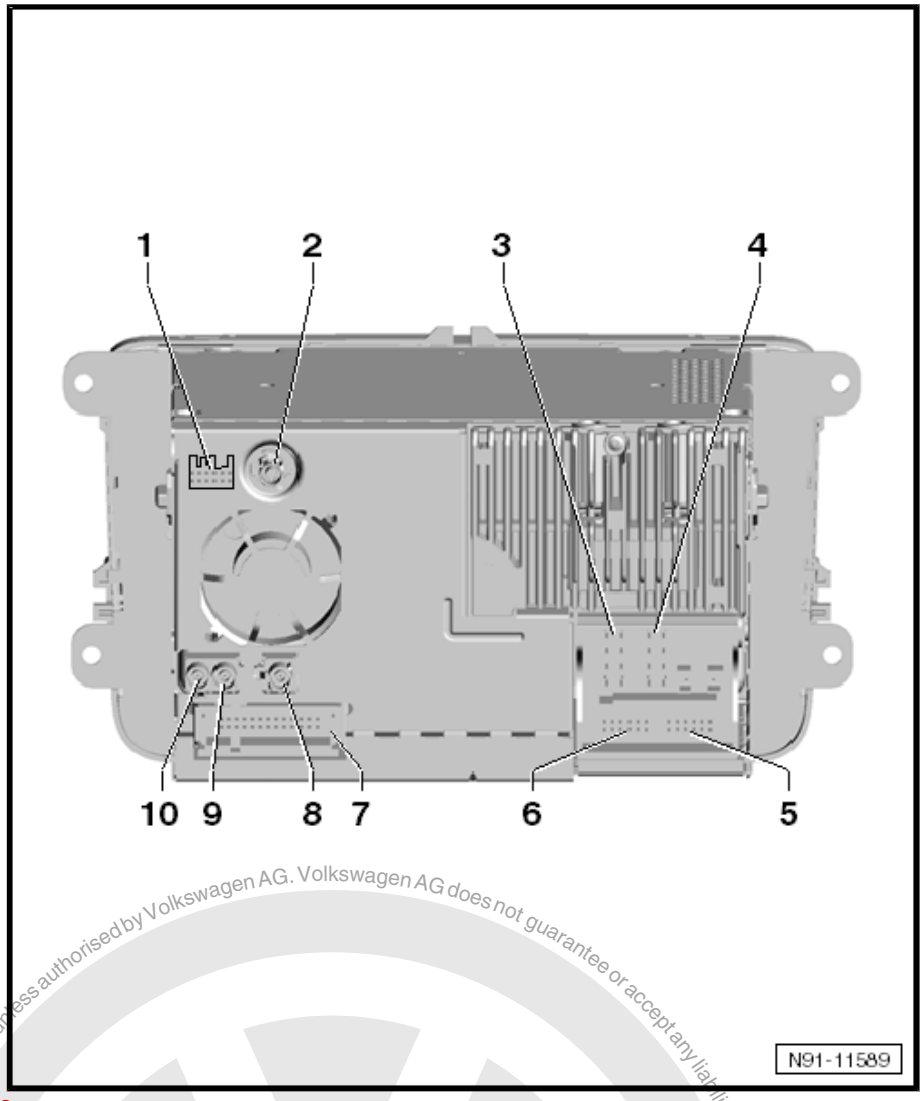
- ❑ GPS
- ❑ Aerial systems ⇒ page 18 .

9 - Aerial connection

- ❑ FM2
- ❑ Aerial systems ⇒ page 18 .

10 - Aerial connection

- ❑ AM/FM
- ❑ Aerial systems ⇒ page 18 .



Multi-pin connector 1, 8-pin, loudspeaker outputs

1 - Rear right loudspeaker (+)

2 - Front right loudspeaker (+)

3 - Front left loudspeaker (+)

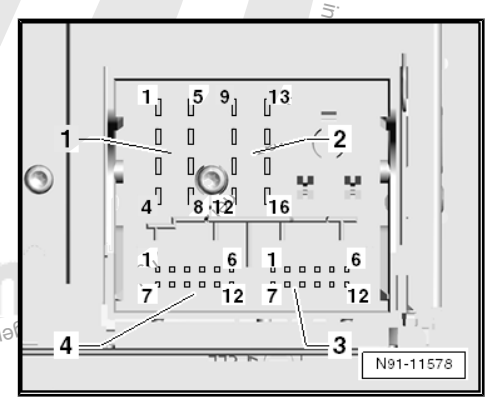
4 - Rear left loudspeaker (+)

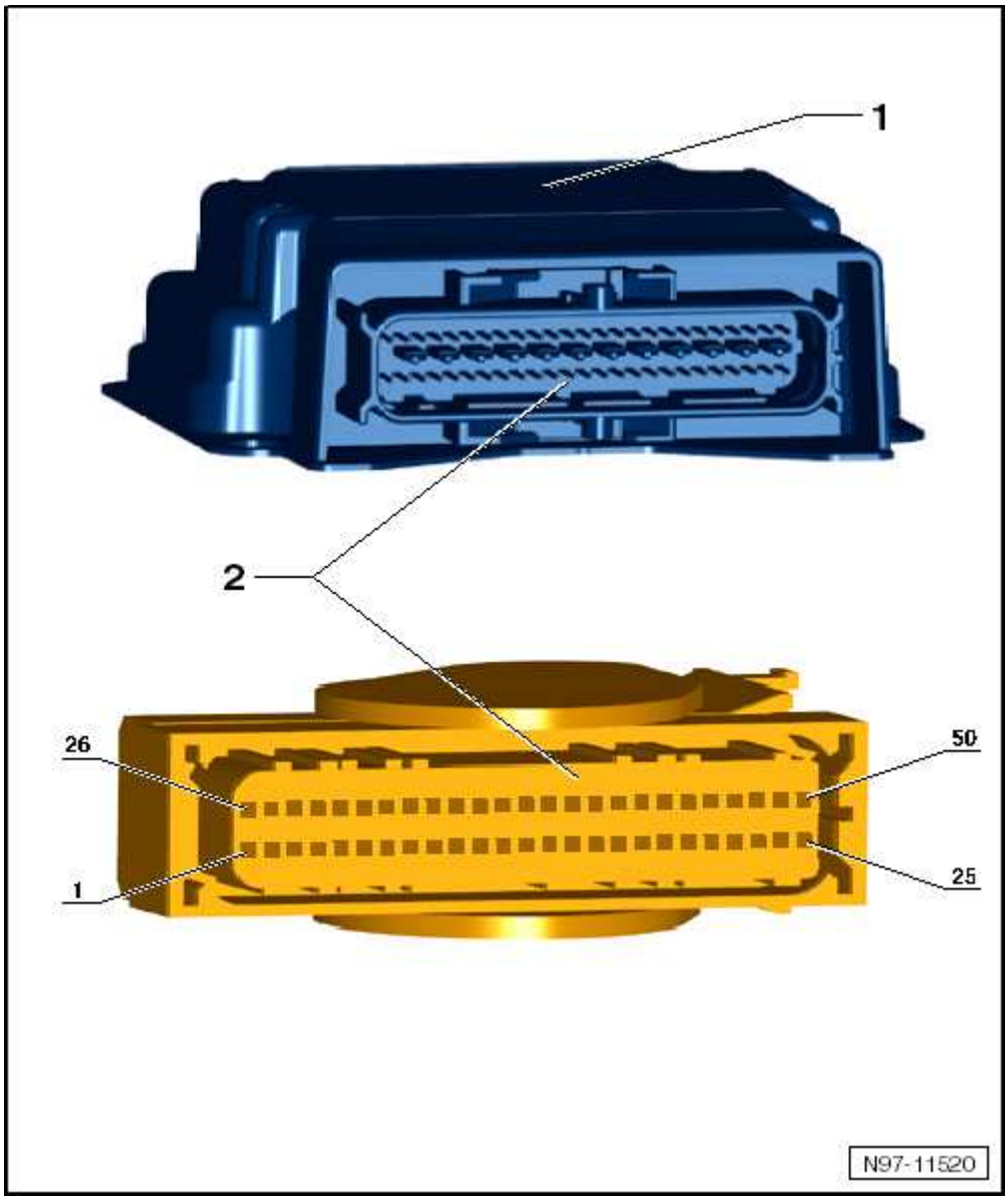
5 - Rear right loudspeaker (-)

6 - Front right loudspeaker (-)

7 - Front left loudspeaker (-)

8 - Rear left loudspeaker (-)





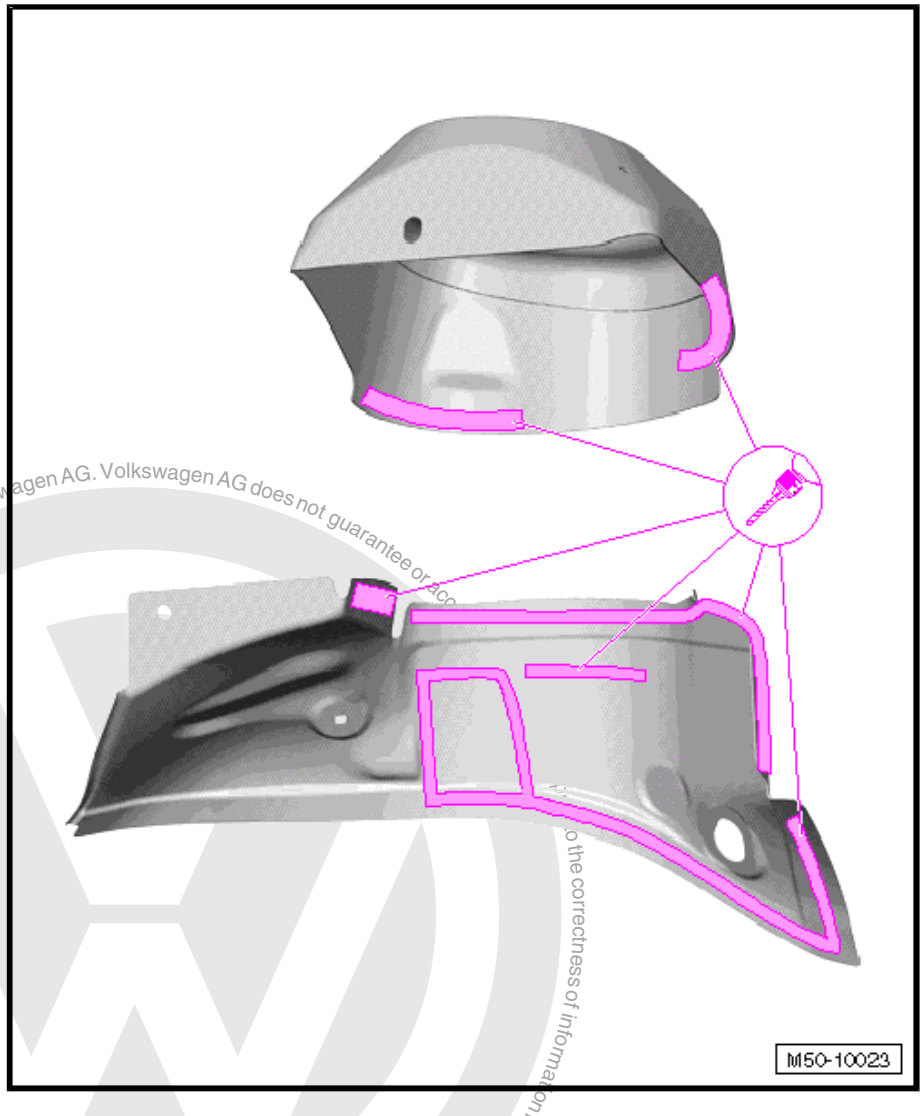
1 - Airbag control unit -J234-

Connector:

2 - 50-pin connector -T50- on wiring harness

Back to overview → Chapter

Connector assignment:



– Drill holes for SG plug weld seam (8 mm ∅).

3.1 Tools

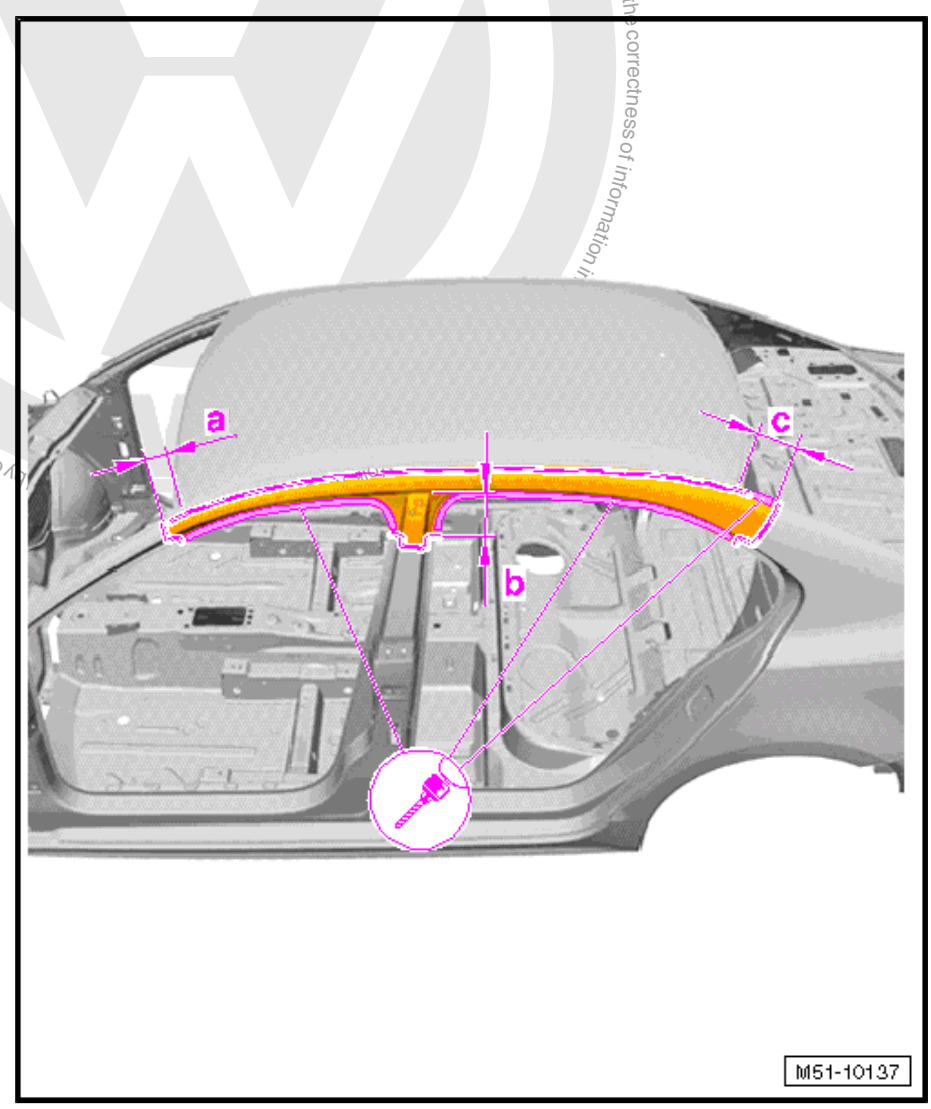
Note

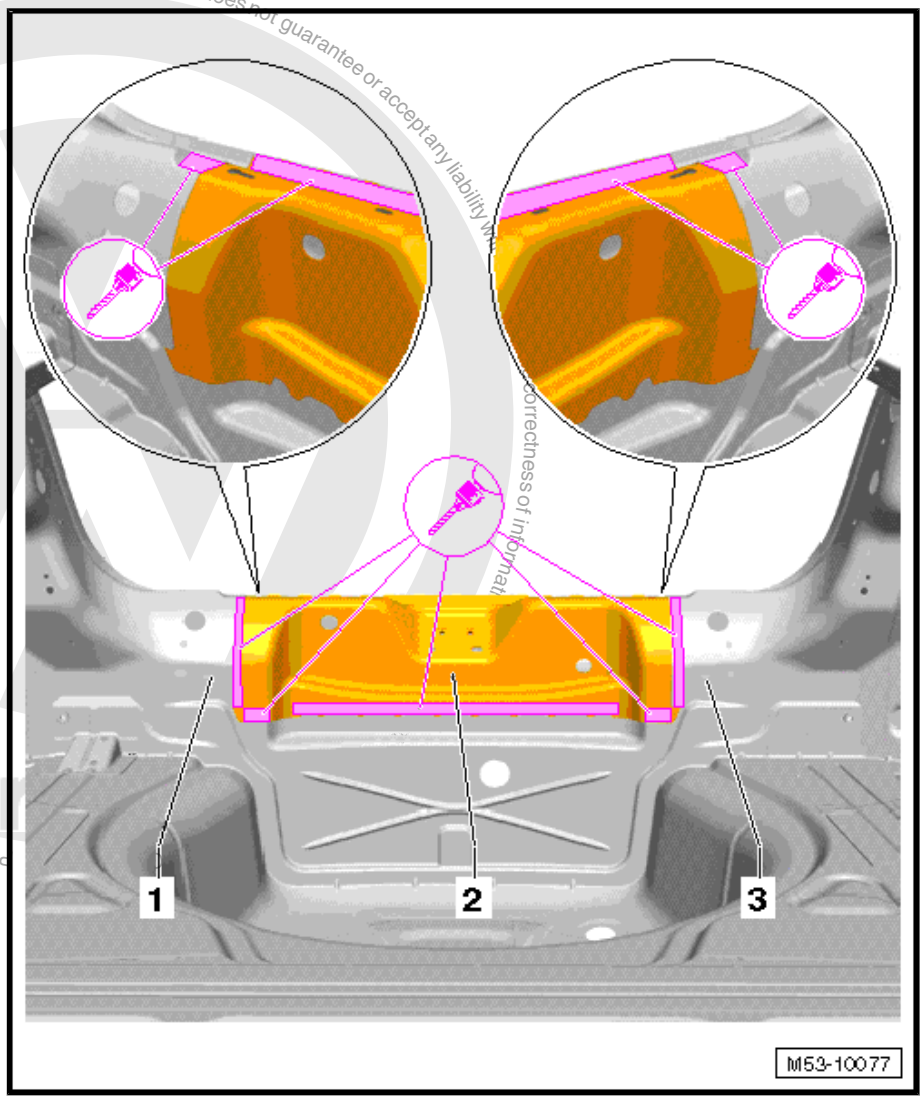
- *The use of different types and different thicknesses of steel requires that only the welding units (inverters) authorised by Volkswagen AG may be used to carry out repairs properly.*
- *The welding units (inverters) and body tools authorised by Volkswagen AG can be found in ⇒ ServiceNet, Workshop equipment, EH catalogue, Workshop equipment, Body and paintwork .*

3.2 Removing

Note

- *Do not damage underlying panels when cutting out.*
- *If the B-pillar reinforcement is damaged, it must always be renewed.*
- *For safety reasons »crash safety«, it is not permissible to reweld the B-pillar reinforcement.*





– Separate original joint.
– Slightly bend up lower corners of connecting parts -1 and 3- and remove lock carrier -2-.

16 - Bolt
- ❑ Qty. 2
- ❑ Specified torque: 9 Nm

17 - Door retaining strap
- ❑ Removing and installing ⇒ page 90

18 - Window slot inner seal
- ❑ Removing and installing ⇒ page 106

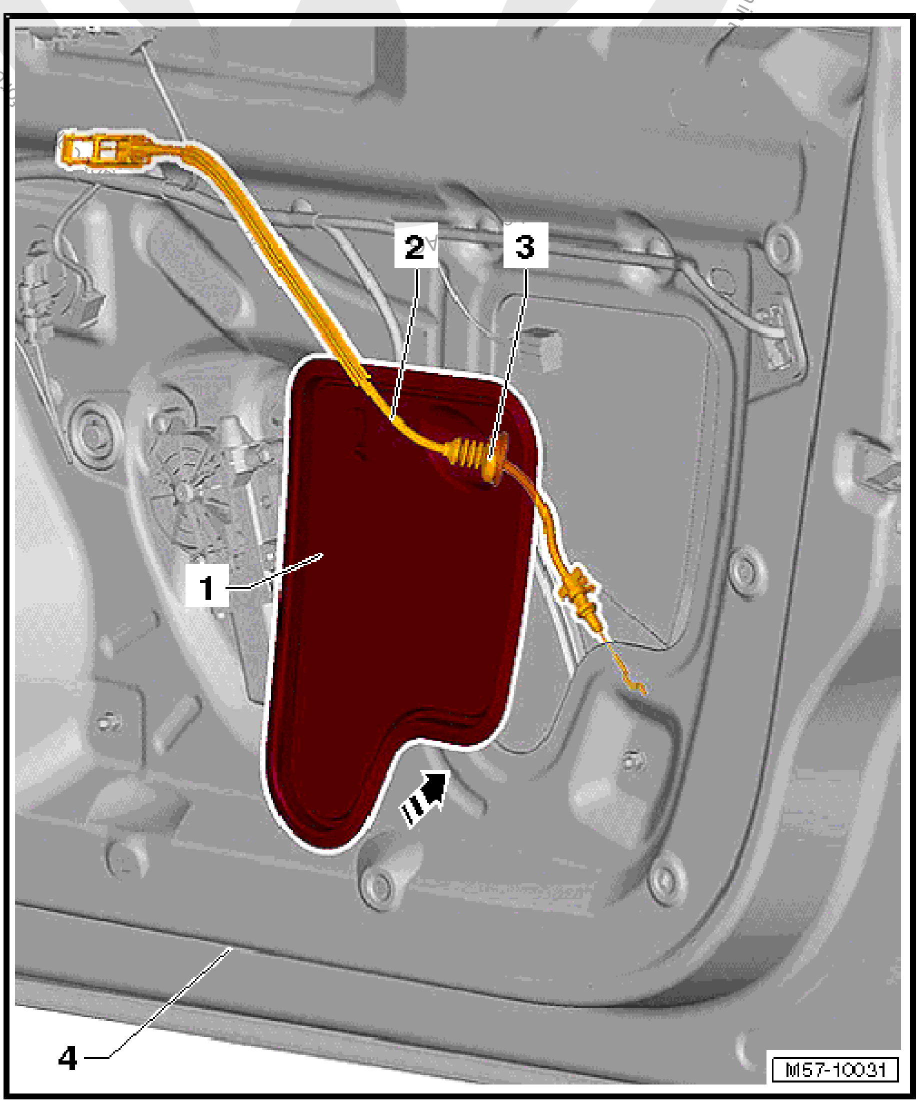
19 - Door window
- ❑ Removing and installing ⇒ page 206

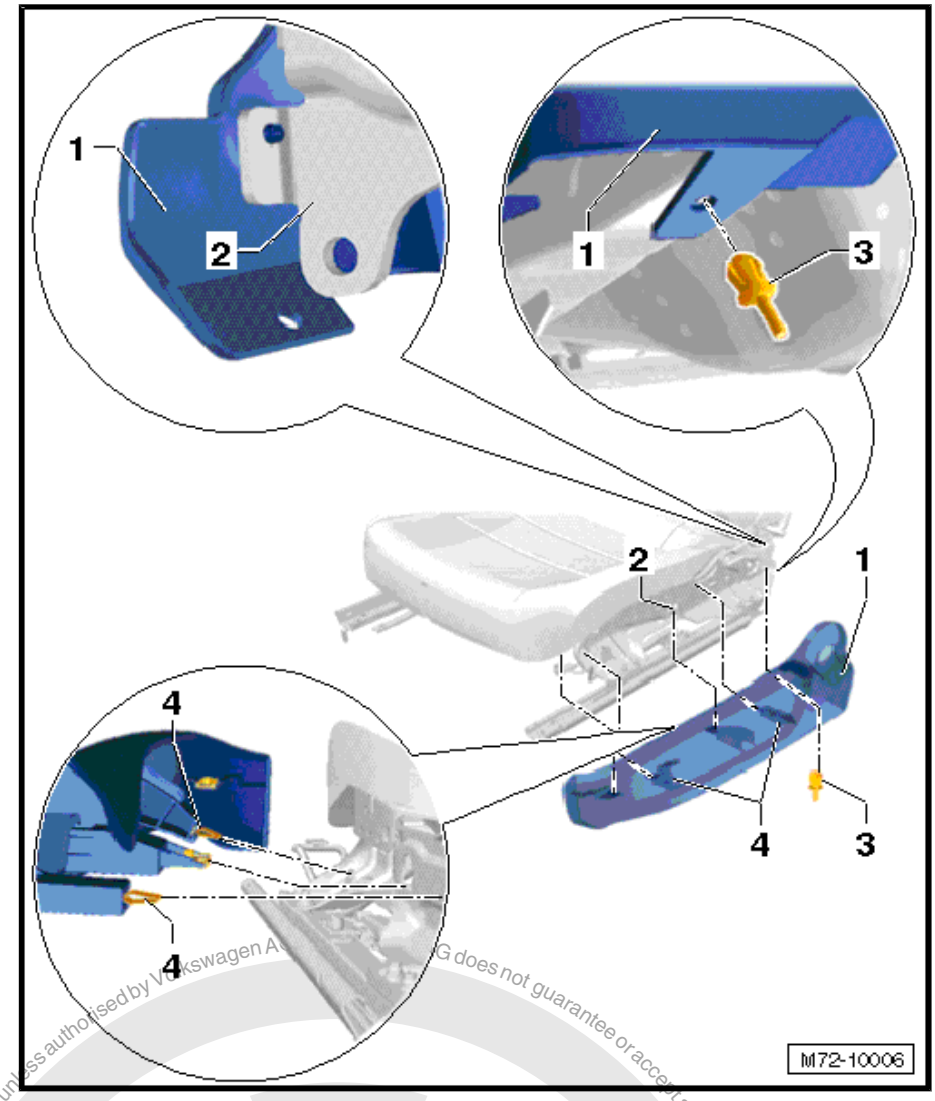
2.3 Removing and installing door cover

Note

The removal and installation sequence is only for the right cover. Removal and installation of the left door cover is analogous.

2.3.1 Removing





Installing

– Install in reverse order of removal.

Note

Before installing, check all fasteners for damage and renew if necessary.

1.8 Removing and installing left trim on seat with manual height adjustment

Note

Removal and installation is described for the left seat. Apply the same instructions for removal and installation of the right seat as appropriate.

Special tools and workshop equipment required