2014 Volkswagen CC
Quick Reference Specification Book
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GENERAL INFORMATION

Decimal and Metric Equivalents

Distance/Length

To calculate: mm x 0.03937 = in.

mm	in.	mm	in.	mm	in.	mm	in.
0.002	0.00008	0.01	0.0004	0.1	0.004	1	0.04
0.004	0.00016	0.02	0.0008	0.2	0.008	2	0.08
0.006	0.00024	0.03	0.0012	0.3	0.012	3	0.12
0.008	0.00031	0.04	0.0016	0.4	0.016	4	0.16
0.010	0.00039	0.05	0.0020	0.5	0.020	5	0.20
0.020	0.00079	0.06	0.0024	0.6	0.024	6	0.24
0.030	0.00118	0.07	0.0028	0.7	0.028	7	0.28
0.040	0.00157	0.08	0.0031	0.8	0.031	8	0.31
0.050	0.00197	0.09	0.0035	0.9	0.035	9	0.35
0.060	0.00236	0.10	0.0039	1.0	0.039	10	0.39
0.070	0.00276	0.20	0.0079	2.0	0.079	20	0.79
0.080	0.00315	0.30	0.0118	3.0	0.118	30	1.18
0.090	0.00354	0.40	0.0157	4.0	0.157	40	1.57
0.100	0.00394	0.50	0.0197	5.0	0.197	50	1.97
0.200	0.00787	0.60	0.0236	6.0	0.236	60	2.36
0.300	0.01181	0.70	0.0276	7.0	0.276	70	2.76
0.400	0.01575	0.80	0.0315	8.0	0.315	80	3.15
0.500	0.01969	0.90	0.0354	9.0	0.354	90	3.54
0.600	0.02362	1.00	0.0394	10.0	0.394	100	3.94
0.700	0.02756	2.00	0.0787	20.0	0.787		
0.800	0.03150	3.00	0.1181	30.0	1.181		
0.900	0.03543	4.00	0.1575	40.0	1.575		
1.000	0.03937	5.00	0.1969	50.0	1.969		
2.000	0.07874	6.00	0.2362	60.0	2.362		
3.000	0.11811	7.00	0.2756	70.0	2.756		
4.000	0.15748	8.00	0.3150	80.0	3.150		
5.000	0.19685	9.00	0.3543	90.0	3.543		
6.000	0.23622	10.00	0.3937	100.0	3.937		
7.000	0.27559	20.00	0.7874				
8.000	0.31496	30.00	1.1811				
9.000	0.35433	40.00	1.5748				
10.000	0.39370	50.00	1.9685				
20.000	0.78740	60.00	2.3622				
30.000	1.18110	70.00	2.7559				
40.000	1.57480	80.00	3.1496				
50.000	1.96850	90.00	3.5433				
60.000	2.36220	100.00	3.9370				
70.000	2.75591						
80.000	3.14961						
90.000	3.54331						
100.000	3.93701						

Tightening Torque

Nm-to-lb·ft (ft·lb)

To calculate: Nm x 0.738 = lb·ft

Nm	lb·ft (ft·lb)	Nm	lb·ft (ft·lb)	Nm	lb·ft (ft·lb)
10	7	55	41	100	74
11	8	56	41	105	77
12	9	57	42	110	81
13	10	58	43	115	85
14	10	59	44	120	89
15	11	60	44	125	92
16	12	61	45	130	96
17	13	62	46	135	100
18	13	63	46	140	103
19	14	64	47	145	107
20	15	65	48	150	111
21	15	66	49	155	114
22	16	67	49	160	118
23	17	68	50	165	122
24	18	69	51	170	125
25	18	70	52	175	129
26	19	71	52	180	133
27	20	72	53	185	136
28	21	73	54	190	140
29	21	74	55	195	144
30	22	75	55	200	148
31	23	76	56	205	151
32	24	77	57	210	155
33	24	78	58	215	159
34	25	79	58	220	162
35	26	80	59	225	166
36	27	81	60	230	170
37	27	82	60	235	173
38	28	83	61	240	177
39	29	84	62	245	181
40	30	85	63	250	184
41	30	86	63	260	192
42	31	87	64	270	199
43	32	88	65	280	207
44	32	89	66	290	214
45	33	90	66	300	221
46	34	91	67	310	229
47	35	92	68	320	236
48	35	93	69	330	243
49	36	94	69	340	251
50	37	95	70	350	258
51	38	96	71	360	266
52	38	97	72	370	273
53	39	98	72	380	280
54	40	99	73	390	288
55	41	100	74	400	295

Nm-to-lb·in (in·lb) kg·cm

To calculate: Nm x 8·85 = lb·in • Nm x 10.20 = kg·cm

Nm	lb·in (in·lb)	kg·cm	Nm	lb·in (in·lb)	kg·cm
1	9	10	26	230	265
2	18	20	27	239	275
3	27	31	28	248	286
4	35	41	29	257	296
5	44	51	30	266	306
6	53	61	31	274	316
7	62	71	32	283	326
8	71	82	33	292	337
9	80	92	34	301	347
10	89	102	35	310	357
11	97	112	36	319	367
12	106	122	37	327	377
13	115	133	38	336	387
14	124	143	39	345	398
15	133	153	40	354	408
16	142	163	41	363	418
17	150	173	42	372	428
18	159	184	43	381	438
19	168	194	44	389	449
20	177	204	45	398	459
21	186	214	46	407	469
22	195	224	47	416	479
23	204	235	48	425	489
24	212	245	49	434	500
25	221	255	50	443	510

N·cm-to-lb·in (in·lb) kg·cm

To calculate: N·cm x 0.089 = lb·in • N·cm x 0.102 = kg·cm

N·cm	lb·in (in·lb)	kg·cm	N·cm	lb·in (in·lb)	kg·cm
50	4	5	250	22	25
60	5	6	300	27	31
70	6	7	350	31	36
80	7	8	400	35	41
90	8	9	450	40	46
100	9	10	500	44	51
110	10	11	550	49	56
120	11	12	600	53	61
130	12	13	650	58	66
140	12	14	700	62	71
150	13	15	750	66	76
160	14	16	800	71	82
170	15	17	850	75	87
180	16	18	900	80	92
190	17	19	950	84	97
200	18	20	1000	89	102

kg·cm-to-lb·in (in·lb) N·cm

To calculate: kg·cm x 0.868 = lb·in • kg·cm x 9.81 = N·cm

kg·cm	lb·in (in·lb)	N·cm		kg·cm	lb·in (in·lb)	N·cm
5	4	49		110	95	1079
6	5	59		120	104	1177
7	6	69		130	113	1275
8	7	78		140	122	1373
9	8	88		150	130	1471
10	9	98		160	139	1569
20	17	196		170	148	1667
30	26	294		180	156	1765
40	35	392		190	165	1863
50	43	490		200	174	1961
60	52	588		210	182	2059
70	61	686		220	191	2157
80	69	785		230	200	2256
90	78	883		240	208	2354
100	87	981		250	217	2452

Warnings and Cautions

WARNINGS

- Some repairs may be beyond your capability. If you lack the skills, tools and equipment, or a suitable workplace for any procedure described in this manual, we suggest you leave such repairs to an authorized dealer service department or other qualified shop.
- Do not reuse any fasteners that have become worn or deformed during normal use. Many fasteners are designed to be used only once and become unreliable and may fail when used a second time. This includes, but is not limited to, nuts, bolts, washers, self-locking nuts or bolts, circlips and cotter pins. Always replace these fasteners with new parts.
- Never work under a lifted car unless it is solidly supported on stands designed for the purpose. Do not support a car on cinder blocks, hollow tiles or other props that may crumble under continuous load. Never work under a car that is supported solely by a jack. Never work under the car while the engine is running.
- If you are going to work under a car on the ground, make sure the ground is level. Block the wheels to keep the car from rolling. Disconnect the battery negative (-) terminal (ground strap) to prevent others from starting the car while you are under it.

- Never run the engine unless the work area is well ventilated. Carbon monoxide kills.
- Remove rings, bracelets and other jewelry so they cannot cause electrical shorts, get caught in running machinery, or be crushed by heavy parts.
- Tie back long hair. Do not wear a necktie, a scarf, loose clothing, or a necklace when you work near machine tools or running engines. If your hair, clothing, or jewelry were to get caught in the machinery, severe injury could result.
- Do not attempt to work on your car if you do not feel well. You increase the danger of injury to yourself and others if you are tired, upset, or have taken medication or any other substance that may keep you from being fully alert.
- Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the car. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel, vapors or oil.
- Use a suitable container to catch draining fuel, oil, or brake fluid. Do not use food or beverage containers that might mislead someone into drinking from them. Store flammable fluids away from fire hazards. Wipe up spills at once, but do not store oily rags which can ignite and burn spontaneously.
- Always observe good workshop practices. Wear goggles when you operate machine tools or work with battery acid. Wear gloves or other protective clothing whenever the job requires working with harmful substances.
- Greases, lubricants and other automotive chemicals contain toxic substances, many of which are absorbed directly through the skin. Read the manufacturer's instructions and warnings carefully. Use hand and eye protection. Avoid direct skin contact
- Disconnect the battery negative (-) terminal (ground strap) whenever you work on the fuel or electrical system. Do not smoke or work near heaters or other fire hazards. Keep an approved fire extinguisher handy.
- Friction materials (such as brake pads or shoes or clutch discs) contain asbestos fibers or other friction materials. Do not create dust by grinding, sanding, or cleaning with compressed air. Avoid breathing dust. Breathing any friction material dust can lead to serious diseases and may result in death.

(WARNINGS cont'd on next page)

WARNINGS *(cont'd)*

- Batteries give off explosive hydrogen gas during charging. Keep sparks, lighted matches and open flame away from the top of the battery. If hydrogen gas escaping from the cap vents is ignited, it ignites the gas trapped in the cells and causes the battery to explode.
- Connect and disconnect battery cables, jumper cables or a battery charger only with the ignition off. Do not disconnect the battery while the engine is running.
- Do not quick-charge the battery (for boost starting) for longer than one minute. Wait at least one minute before boosting the battery a second time.
- Do not allow battery charging voltage to exceed 16.5 volts. If the battery begins producing gas or boiling violently, reduce the charging rate. Boosting a sulfated battery at a high charging rate can cause an explosion.
- The A/C system is filled with chemical refrigerant, which is hazardous. The A/C system should be serviced only by trained technicians using approved refrigerant recovery/recycling equipment, trained in related safety precautions, and familiar with regulations governing the discharging and disposal of automotive chemical refrigerants.
- Do not expose any part of the A/C system to high temperatures such as open flame. Excessive heat increases system pressure and may cause the system to burst.
- Some aerosol tire inflators are highly flammable. Be extremely cautious when repairing a tire that may have been inflated using an aerosol tire inflator. Keep sparks, open flame or other sources of ignition away from the tire repair area. Inflate and deflate the tire at least four times before breaking the bead from the rim. Completely remove the tire from the rim before attempting any repair.
- Some cars are equipped with a Supplemental Restraint System (SRS) that automatically deploys airbags and pyrotechnic seat belt tensioners in the event of a frontal or side impact. These are explosive devices. Handled improperly or without adequate safeguards, they can be accidentally activated and cause serious injury.
- The ignition system produces high voltages that can be fatal. Avoid contact with exposed terminals and use extreme care when working on a car with the engine running or the ignition on.

- Place jack stands only at locations specified by manufacturer. The vehicle lifting jack supplied with the vehicle is intended for tire changes only. Use a heavy duty floor jack to lift the vehicle before installing jack stands.
- Battery acid (electrolyte) can cause severe burns. Flush contact area with water, seek medical attention.
- Aerosol cleaners and solvents may contain hazardous or deadly vapors and are highly flammable. Use only in a well ventilated area. Do not use on hot surfaces (such as engines or brakes).
- Do not remove coolant reservoir or radiator cap with the engine hot. Burns and engine damage may occur.

CAUTIONS

- If you lack the skills, tools and equipment, or a suitable workshop for any procedure described in this manual, we suggest you leave such repairs to an authorized dealer or other qualified shop.
- Before starting a job, make certain that you have all the necessary tools and parts on hand. Read all the instructions thoroughly and do not attempt shortcuts. Use tools appropriate to the work and use only replacement parts meeting original specifications. Makeshift tools, parts and procedures will not make good repairs.
- Use pneumatic and electric tools only to loosen threaded parts and fasteners. Never use these tools to tighten fasteners, especially on light alloy parts. Always use a torque wrench to tighten fasteners to the tightening torque specification listed.
- Be mindful of the environment and ecology. Before you drain the crankcase, find out the proper way to dispose of the oil. Do not pour oil onto the ground, down a drain, or into a stream, pond or lake. Dispose of in accordance with Federal, State and Local laws.
- The control module for the Anti-lock Brake System (ABS) cannot withstand temperatures from a paint-drying booth or a heat lamp in excess of 95°C (203°F) and should not be subjected to temperatures exceeding 85°C (185°F) for more than two hours.
- Before doing any electrical welding on cars equipped with ABS, disconnect the battery negative (-) terminal (ground strap) and the ABS control module connector.
- Always make sure the ignition is off before disconnecting battery.

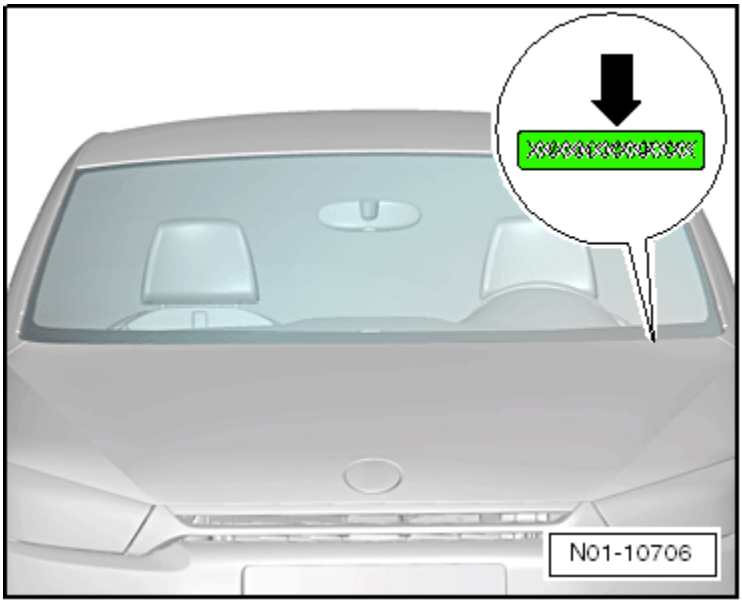
(CAUTIONS cont'd on next page)

CAUTIONS *(cont'd)*

- Label battery cables before disconnecting. On some models, battery cables are not color coded.
- Disconnecting the battery may erase fault code(s) stored in control module memory. Check for fault codes prior to disconnecting the battery cables.
- If a normal or rapid charger is used to charge the battery, disconnect the battery and remove it from the vehicle to avoid damaging paint and upholstery.
- Do not quick-charge the battery (for boost starting) for longer than one minute. Wait at least one minute before boosting the battery a second time.
- Connect and disconnect a battery charger only with the battery charger switched off.
- Sealed or "maintenance free" batteries should be slow-charged only, at an amperage rate that is approximately 10% of the battery's ampere-hour (Ah) rating.
- Do not allow battery charging voltage to exceed 16.5 volts. If the battery begins producing gas or boiling violently, reduce the charging rate. Boosting a sulfated battery at a high charging rate can cause an explosion.

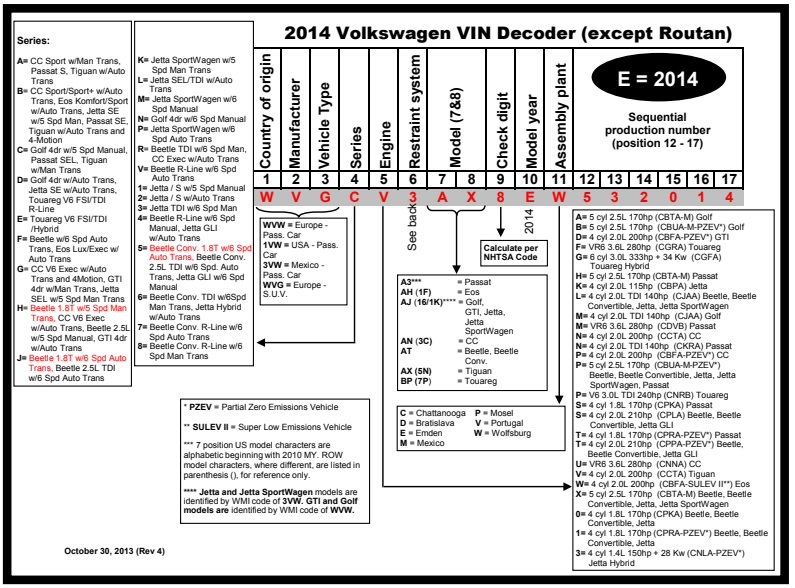
VEHICLE IDENTIFICATION

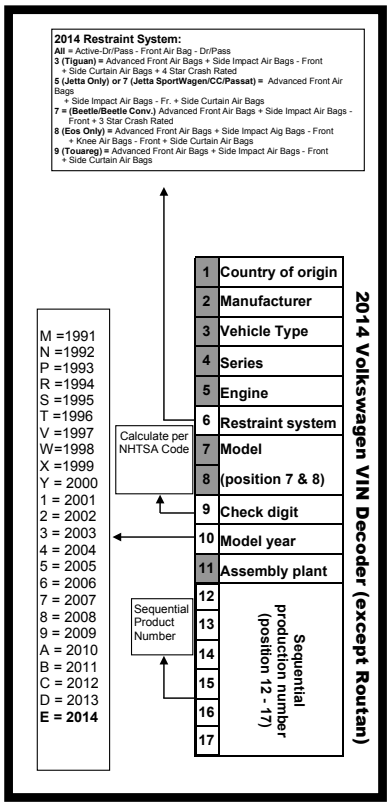
Vehicle Identification Number (VIN) Location



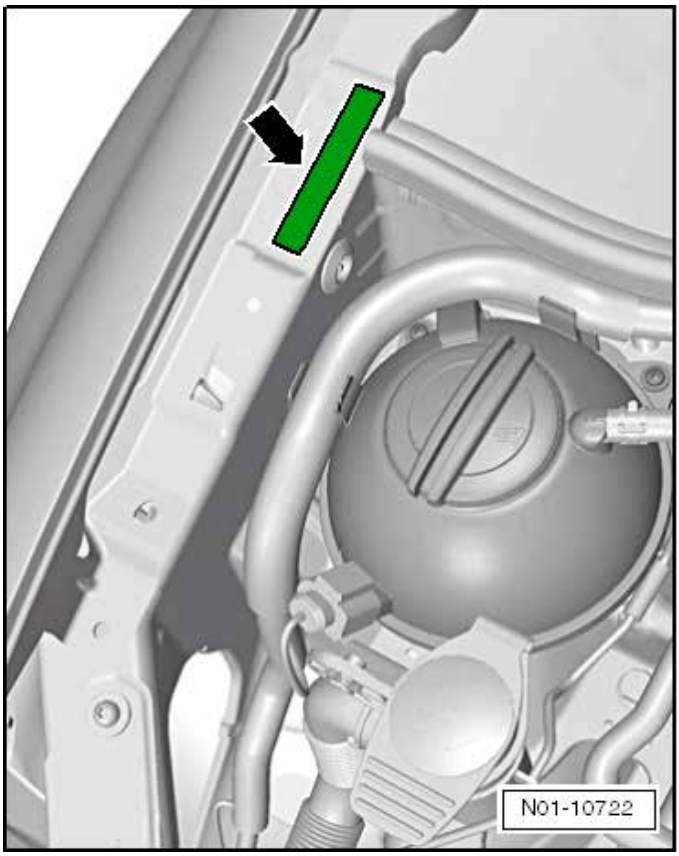
The VIN (➡) is on the left side of the vehicle in the area of the windshield wiper mount. It is visible from the outside. (Typical illustration shown).

VIN Decoder


2014 Volkswagen VIN Decoder (except Routan)
Series:
A= CC Sport w/Man Trans, Passat S, Tiguan w/Auto Trans
B= CC Sport/Sport+ w/Auto Trans, Eos Komfort/Sport w/Auto Trans, Jetta SE w/5 Spd Man, Passat SE, Tiguan w/Auto Trans and 4-Motion
C= Golf 4dr w/5 Spd Manual, Passat SEL, Tiguan w/Man Trans
D= Golf 4dr w/Auto Trans, Jetta SE w/Auto Trans, Touareg V6 FSI/TDI R-Line
E= Touareg V6 FSI/TDI /Hybrid
F= Beetle w/6 Spd Auto Trans, Eos Lux/Exec w/ Auto Trans
G= CC V6 Exec w/Auto Trans and 4Motion, GTI 4dr w/Man Trans, Jetta SEL w/5 Spd Man Trans
H= Beetle 1.8T w/5 Spd Man Trans, CC V6 Exec w/Auto Trans, Beetle 2.5L w/5 Spd Manual, GTI 4dr w/Auto Trans
J= Beetle 1.8T w/6 Spd Auto Trans, Beetle 2.5L TDI w/6 Spd Auto Trans
K= Jetta SportWagen w/5 Spd Man Trans
L= Jetta SEL/TDI w/Auto Trans
M= Jetta SportWagen w/6 Spd Manual
N= Golf 4dr w/6 Spd Manual
P= Jetta SportWagen w/6 Spd Auto Trans
R= Beetle TDI w/6 Spd Man, CC Exec w/Auto Trans
V= Beetle R-Line w/6 Spd Auto Trans
1= Jetta / S w/5 Spd Manual
2= Jetta / S w/Auto Trans
3= Jetta TDI w/6 Spd Man
4= Beetle R-Line w/6 Spd Manual, Jetta GLI w/Auto Trans
5= Beetle Conv. 1.8T w/6 Spd Auto Trans, Beetle Conv. 2.5L TDI w/6 Spd. Auto Trans, Jetta GLI w/6 Spd Manual
6= Beetle Conv. TDI w/6Spd Man Trans, Jetta Hybrid w/Auto Trans
7= Beetle Conv. R-Line w/6 Spd Auto Trans
8= Beetle Conv. R-Line w/6 Spd Man Trans
Country of origin
Manufacturer
Vehicle Type
Series
Engine
Restraint system
Model (7&8)
Check digit
Model year
Assembly plant
E = 2014
Sequential production number (position 12 - 17)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
W V G C V 3 A X 8 E W 5 3 2 0 1 4
WVW = Europe - Pass. Car
1VW = USA - Pass. Car
3VW = Mexico - Pass. Car
WVG = Europe - S.U.V.
See back
2014
Calculate per NHTSA Code
A3*** = Passat
AH (1F) = Eos
AJ (16/1K)**** = Golf, GTI, Jetta, Jetta SportWagen
AN (3C) = CC
AT = Beetle, Beetle Conv.
AX (5N) = Tiguan
BP (7P) = Touareg
C = Chattanooga
D = Bratislava
E = Emden
M = Mexico
P = Mosel
V = Portugal
W = Wolfsburg
A= 5 cyl 2.5L 170hp (CBTA-M) Golf
B= 5 cyl 2.5L 170hp (CBUA-M-PZEV*) Golf
D= 4 cyl 2.0L 200hp (CBFA-PZEV*) GTI
F= VR6 3.6L 280hp (CGRA) Touareg
G= 6 cyl 3.0L 333hp + 34 Kw (CGFA) Touareg Hybrid
H= 5 cyl 2.5L 170hp (CBTA-M) Passat
K= 4 cyl 2.0L 115hp (CBPA) Jetta
L= 4 cyl 2.0L TDI 140hp (CJAA) Beetle, Beetle Convertible, Jetta, Jetta SportWagen
M= 4 cyl 2.0L TDI 140hp (CJAA) Golf
M= VR6 3.6L 280hp (CDVB) Passat
N= 4 cyl 2.0L 200hp (CCTA) CC
N= 4 cyl 2.0L TDI 140hp (CKRA) Passat
P= 4 cyl 2.0L 200hp (CBFA-PZEV*) CC
P= 5 cyl 2.5L 170hp (CBUA-M-PZEV*) Beetle, Beetle Convertible, Jetta, Jetta SportWagen, Passat
P= V6 3.0L TDI 240hp (CNRB) Touareg
S= 4 cyl 1.8L 170hp (CPKA) Passat
S= 4 cyl 2.0L 210hp (CPLA) Beetle, Beetle Convertible, Jetta GLI
T= 4 cyl 1.8L 170hp (CPRA-PZEV*) Passat
T= 4 cyl 2.0L 210hp (CPPA-PZEV*) Beetle, Beetle Convertible, Jetta GLI
U= VR6 3.6L 280hp (CNNA) CC
V= 4 cyl 2.0L 200hp (CCTA) Tiguan
W= 4 cyl 2.0L 200hp (CBFA-SULEV II**) Eos
X= 5 cyl 2.5L 170hp (CBTA-M) Beetle, Beetle Convertible, Jetta, Jetta SportWagen
0= 4 cyl 1.8L 170hp (CPKA) Beetle, Beetle Convertible, Jetta
1= 4 cyl 1.8L 170hp (CPRA-PZEV*) Beetle, Beetle Convertible, Jetta
3= 4 cyl 1.4L 150hp + 28 Kw (CNLA-PZEV*) Jetta Hybrid
* PZEV = Partial Zero Emissions Vehicle
** SULEV II = Super Low Emissions Vehicle
*** 7 position US model characters are alphabetic beginning with 2010 MY. ROW model characters, where different, are listed in parenthesis (), for reference only.
**** Jetta and Jetta SportWagen models are identified by WMI code of 3VW. GTI and Golf models are identified by WMI code of WVW.
October 30, 2013 (Rev 4)

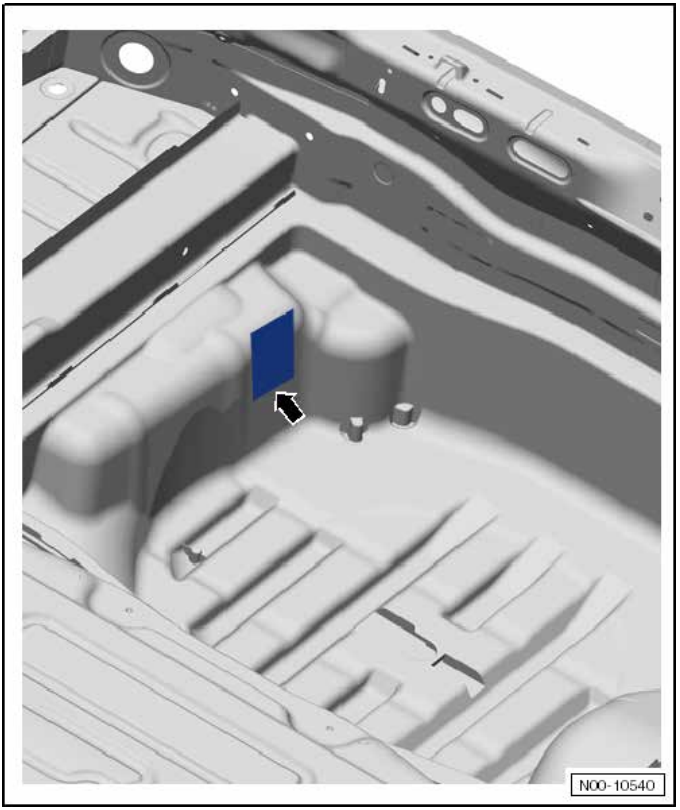

2014 Restraint System:
All = Active-Dr/Pass - Front Air Bag - Dr/Pass
3 (Tiguan) = Advanced Front Air Bags + Side Impact Air Bags - Front + Side Curtain Air Bags + 4 Star Crash Rated
5 (Jetta Only) or 7 (Jetta SportWagen/CC/Passat) = Advanced Front Air Bags + Side Impact Air Bags - Fr. + Side Curtain Air Bags
7 = (Beetle/Beetle Conv.) Advanced Front Air Bags + Side Impact Air Bags - Front + 3 Star Crash Rated
8 (Eos Only) = Advanced Front Air Bags + Side Impact Aig Bags - Front + Knee Air Bags - Front + Side Curtain Air Bags
9 (Touareg) = Advanced Front Air Bags + Side Impact Air Bags - Front + Side Curtain Air Bags
M =1991
N =1992
P =1993
R =1994
S =1995
T =1996
V =1997
W=1998
X =1999
Y = 2000
1 = 2001
2 = 2002
3 = 2003
4 = 2004
5 = 2005
6 = 2006
7 = 2007
8 = 2008
9 = 2009
A = 2010
B = 2011
C = 2012
D = 2013
E = 2014
Calculate per NHTSA Code
Sequential Product Number
1 Country of origin
2 Manufacturer
3 Vehicle Type
4 Series
5 Engine
6 Restraint system
7 Model
8 (position 7 & 8)
9 Check digit
10 Model year
11 Assembly plant
12 13 14 15 16 17 Sequential production number (position 12 - 17)
2014 Volkswagen VIN Decoder (except Routan)

VIN on Longitudinal Member Extension



The Vehicle Identification Number (VIN) (➡) is located above the right wheel housing on the fender mount upper longitudinal member.

Vehicle Data Label



Vehicle data plate (➡) is secured in the right spare wheel well in the direction of travel.

SALES CODES

Engine Codes

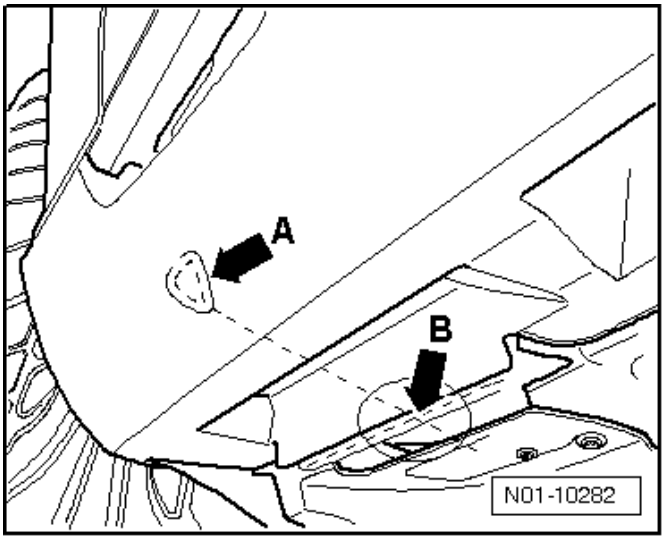
CBFA, CCTA	2.0L 4-cylinder
CNNA	3.6L 6-cylinder

Transmission Codes

02Q	6-speed manual
02E	6-speed Direct Shift Gearbox (DSG)
09M	6-speed automatic

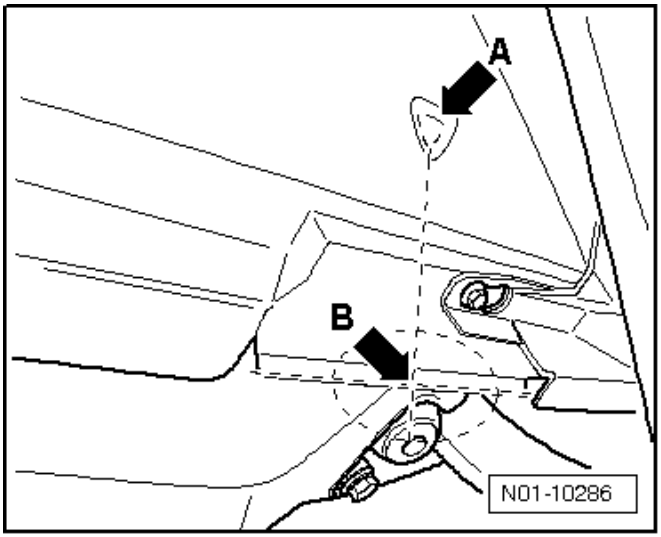
VEHICLE LIFTING

Hoist and Jack Mounting Points Front



Position the support plate in the area of the side member marking (A) on the vertical stiffener of the floor plate (B).

Rear

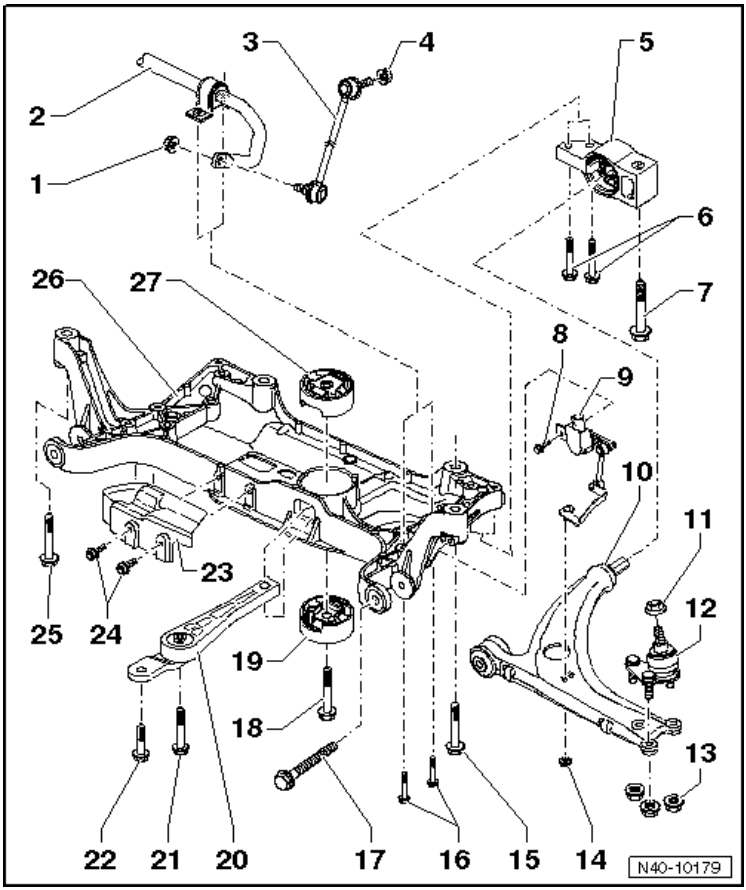


Position the support plate in the area of the side member marking (A) on the vertical stiffener of the floor plate (B).

SUSPENSION, WHEELS, STEERING

Front Suspension

Subframe, Stabilizer Bar and Lower Control Arm Overview



1 - Nut
- ☐ 65 Nm
- ☐ Always replace if removed

2 - Stabilizer Bar
- ☐ There are different versions.

3 - Coupling Rod

4 - Nut
- ☐ 65 Nm
- ☐ Always replace if removed

5 - Lower Control Arm Bracket

6 - Bolt

- ☐ 50 Nm + 90° turn
- ☐ M10 x 70
- ☐ Always replace

7 - Bolt

- ☐ 70 Nm + 180° turn
- ☐ M12 x 1.5 x 100
- ☐ Always replace

8 - Bolt

- ☐ 9 Nm
- ☐ M6 x 16

9 - Left Front Level Control System Sensor -G78-

10 - Control Arm

11 - Nut

- ☐ 60 Nm
- ☐ M12 x 1.5
- ☐ Always replace

12 - Ball Joint

13 - Nut

- ☐ Cast steel control arm: 60 Nm
- ☐ Steel and aluminum control arms: 100 Nm
- ☐ Always replace

14 - Nut

- ☐ 9 Nm

15 - Bolt

- ☐ M12 x 1.5 x 100: 70 Nm + 180° turn
- ☐ M12 x 1.5 x 110: 70 Nm + 90° turn
- ☐ Always replace

16 - Bolt

- ☐ 20 Nm + 90° turn
- ☐ M8 x 55
- ☐ Always replace

17 - Bolt

- ☐ 70 Nm + 180° turn
- ☐ M12 x 1.5 x 110
- ☐ Always replace

18 - Bolt

- ☐ 100 Nm + 90° turn
- ☐ M14 x 1.5 x 70
- ☐ Always replace

19 - Bonded Rubber Bushing for the Pendulum Support

20 - Pendulum Support

21 - Bolt

- ☐ M10 x 75: 50 Nm + 90° turn
- ☐ M12 x 1.5 x 85: 60 Nm + 90°turn
- ☐ Always replace

Subframe, Stabilizer Bar and Lower Control Arm Overview *(cont'd)*

22 - Bolt

- ☐ 50 Nm + 90° turn
- ☐ M10 x 35
- ☐ Always replace

23 - Heat Shield

24 - Bolt

- ☐ 6 Nm

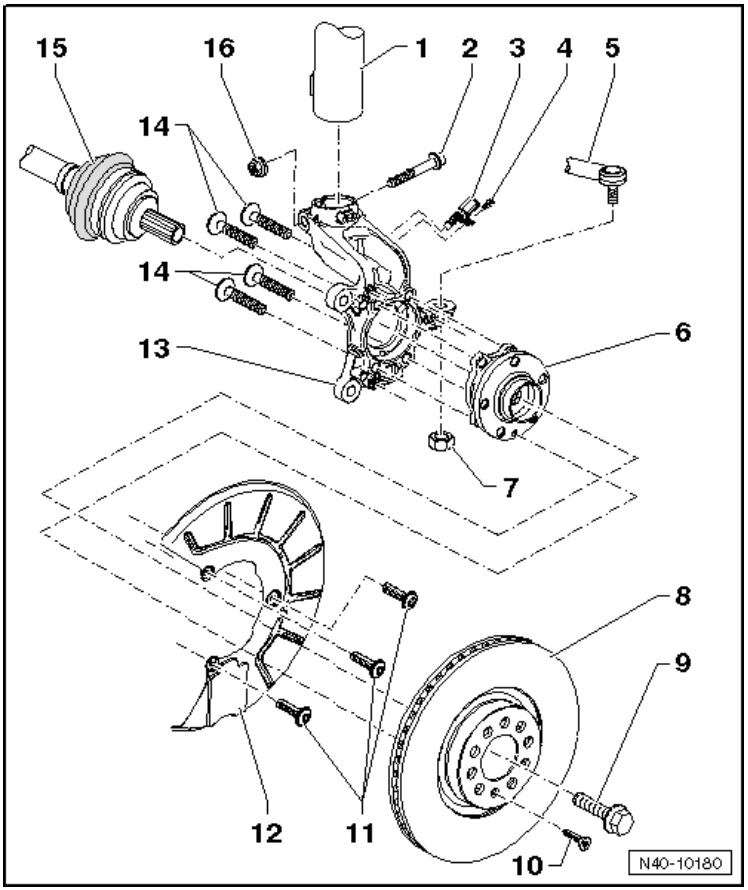
25 - Bolt

- ☐ 70 Nm + 180° turn
- ☐ M12 x 1.5 x 90
- ☐ Always replace

24 - Subframe

25 - Bonded Rubber Bushing for the Pendulum Support

Wheel Bearing Housing and Hub Overview



1 - Strut

2 - Bolt

- ☐ Always replace if removed

3 - Left Front ABS Wheel Speed Sensor -G47-/Right Front ABS Wheel Speed Sensor -G45-

4 - Bolt

- ☐ 8 Nm
- ☐ M6 x 16

5 - Tie Rod End

6 - Wheel Hub with Bearing

7 - Nut

- ☐ Tighten in three stages: tighten to 100 Nm, then loosen 180° (1/2) turn, and tighten again to 100 Nm.
- ☐ M12 x 1.5
- ☐ Always replace if removed

8 - Brake Rotor

9 - Bolt

- ☐ Twelve-point bolt with ribs is 70 Nm + l 90° turn
- ☐ Twelve-point bolt without ribs is 200 Nm + 180° turn
- ☐ Always replace if removed

10 - Bolt

- ☐ Tightening specification, refer to Brake System; Mechanical Components

11 - Bolt

- ☐ 12 Nm
- ☐ M6 x 12

12 - Cover Plate

13 - Wheel Bearing Housing

14 - Bolt

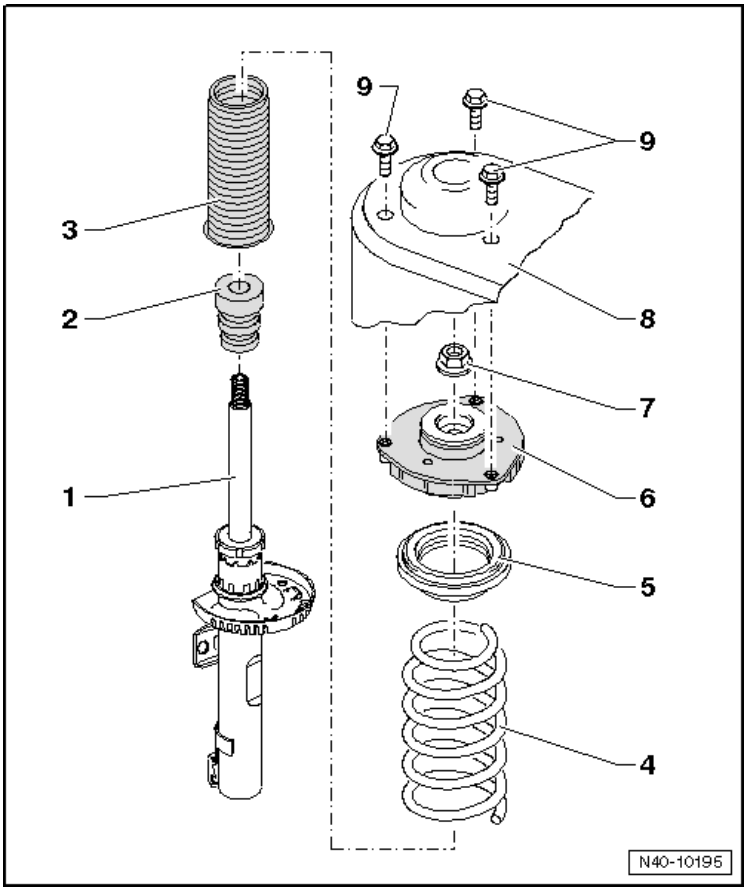
- ☐ 70 Nm + 90° turn
- ☐ M12 x 1.5 x 45
- ☐ Always replace

15 - Drive Axle

16 - Bolt

- ☐ 70 Nm + 90° turn
- ☐ M12 x 1.5 x 80
- ☐ Always replace

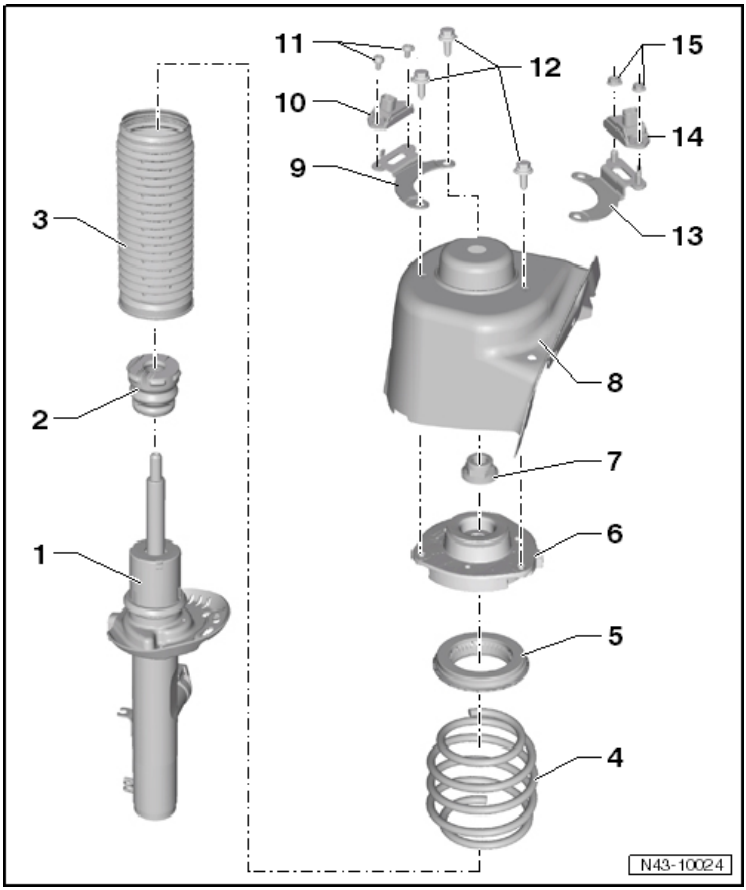
Strut Overview



1 - Shock Absorbere
2 - Rubber Stop
3 - Boot
4 - Coil Spring
5 - Ball Bearing
6 - Strut Mounting
7 - Nut
- ☐ 60 Nm
- ☐ M14 x 1.5
- ☐ Always replace if removed

8 - Vehicle Body (Strut Tower)
9 - Bolt
- ☐ 5 Nm + an additional 90° (1/4) turn
- ☐ M8 x 26
- ☐ Always replace if removed

Strut Overview, with Adaptive Chassis DCC



1 - Shock Absorber with Left Front Damping Adjustment Valve -N336-
2 - Rubber Stop
3 - Boot
4 - Coil Spring
5 - Ball Bearing
6 - Strut Bearing
7 - Nut
- ☐ 60 Nm
- ☐ M14 x 1.5
- ☐ Always replace if removed

8 - Vehicle Body (Strut Tower)
9 - Bracket
10 - Left Front Body Acceleration Sensor -G341-
11 - Bolt
- ☐ 5 Nm

12 - Bolt

- ☐ 15 Nm + 90° turn
- ☐ M8 x 26
- ☐ Always replace if removed

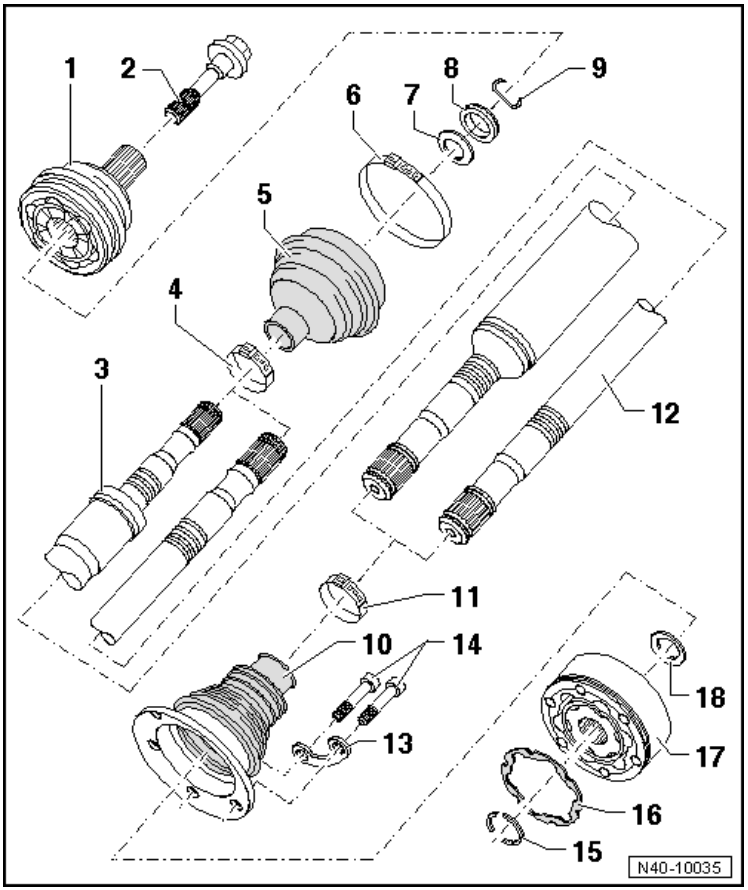
13 - Bracket

14 - Right Front Body Acceleration Sensor -G342-

15 - Nut

- ☐ 5 Nm
- ☐ Always replace if removed

Drive Axle Overview, with CV Joint VL 100



1 - Outer Constant Velocity (CV) Joint

2 - Bolt

- ☐ Twelve point bolt with ribs is 70 Nm + 90° turn
- ☐ Twelve point bolt without ribs is 200 Nm + 180° turn
- ☐ Always replace if removed

3 - Right Axle Shaft

4 - Clamp

- ☐ Always replace if removed

5 - Outer CV Joint Boot

6 - Clamp

- ☐ Always replace if removed

7 - Concave Washer

8 - Thrust Ring

9 - Lock Ring

- ☐ Always replace if removed

10 - Inner CV Joint Boot

11 - Clamp

- ☐ Always replace if removed

12 - Left Axle Shaft

13 - Locking Plate

- ☐ Always replace if removed

14 - Bolt

- ☐ First, tighten to 10 Nm in a diagonal sequence, then tighten to specification in a diagonal sequence.
- ☐ M8 bolt = 40 Nm
- ☐ M10 bolt = 70 Nm
- ☐ After disassembly, always replace bolts

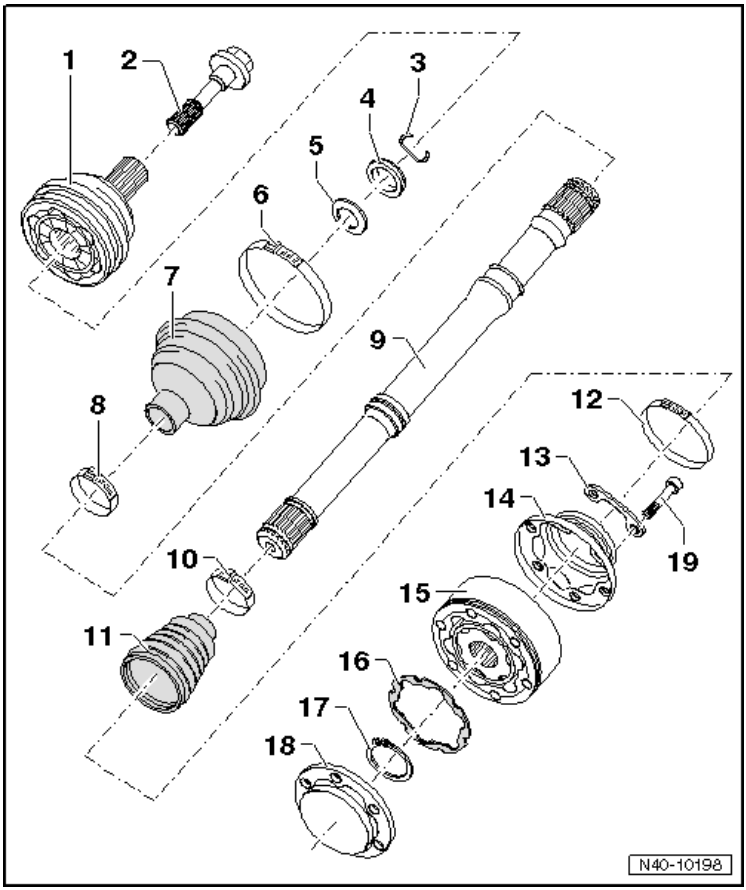
15 - Lock Ring

16 - Sealing Cap

17 - Inner CV Joint

18 - Plate Spring

Drive Axle Overview, with CV Joint VL 107



1 - Outer Constant Velocity (CV) Joint

2 - Bolt

- ☐ Twelve point bolt with ribs is 70 Nm + 90° turn
- ☐ Twelve point bolt without ribs is 200 Nm + 180° turn
- ☐ Always replace if removed

3 - Lock Ring

- ☐ Always replace if removed

4 - Thrust Ring

5 - Concave Washer

6 - Clamp

- ☐ Always replace if removed

7 - Outer CV Joint Boot

8 - Clamp

- ☐ Always replace if removed

9 - Axle Shaft

10 - Clamp

- ☐ Always replace if removed

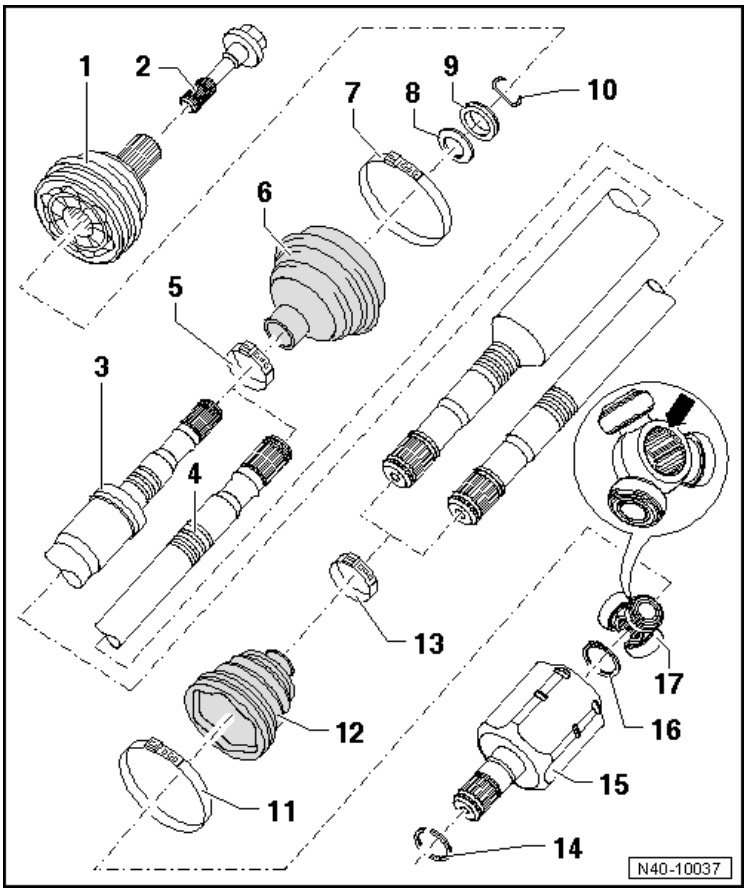
11 - Inner CV Joint Boot
12 - Clamp
- ☐ Always replace if removed

13 - Locking Plate
- ☐ Always replace if removed

14 - Cover
15 - Inner CV Joint
16 - Gasket
17 - Locking Ring
18 - Cover
- ☐ Always replace if removed

19 - Bolt
- ☐ First, tighten diagonally to 10 Nm, then tighten diagonally again to specification.
- ☐ M8 bolt = 40 Nm
- ☐ M10 bolt = 70 Nm
- ☐ After disassembly, always replace the bolts.

Drive Axle Overview, with Triple Roller Joint AAR2600i



1 - Outer Constant Velocity (CV) Joint

2 - Bolt

- ☐ Twelve point bolt with ribs is 70 Nm + 90° turn
- ☐ Twelve point bolt without ribs is 200 Nm + 180° turn
- ☐ Always replace if removed

3 - Right Axle Shaft

4 - Left Axle Shaft

5 - Clamp

- ☐ Always replace if removed

6 - Outer CV Joint Boot

7 - Clamp

- ☐ Always replace if removed

8 - Concave Washer

9 - Thrust Ring

10 - Circlip

- ☐ Always replace if removed

11 - Clamp

- ☐ Always replace if removed

12 - Inner CV Joint Boot

13 - Clamp

- ☐ Always replace if removed

14 - Circlip

- ☐ Always replace if removed

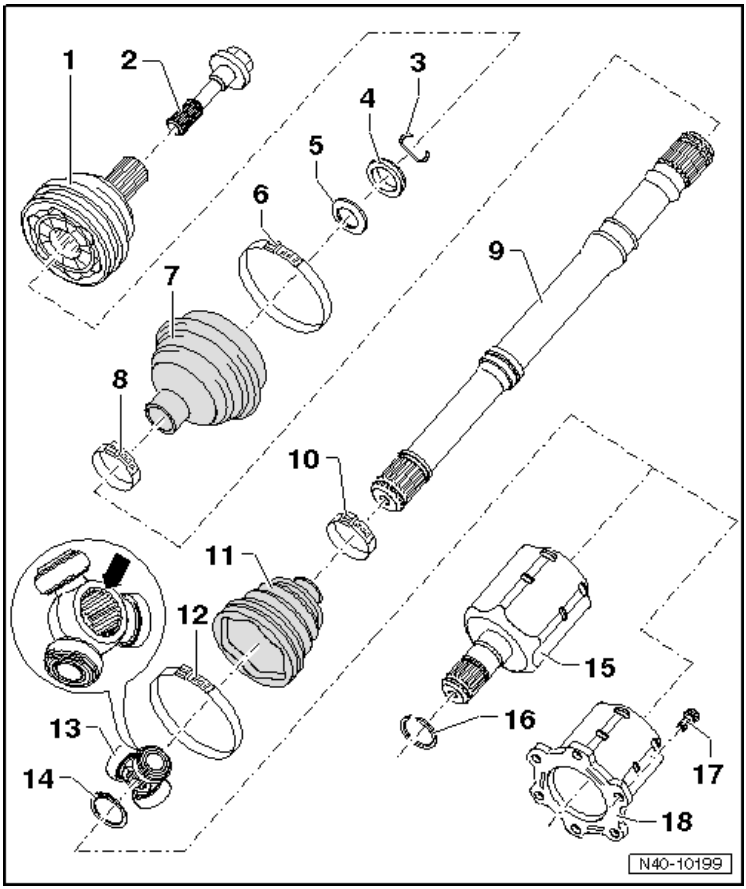
15 - CV Joint

16 - Lock Ring

- ☐ Always replace if removed

17 - Triple Roller Star with Rollers

Drive Axle Overview, with Triple Roller Joint AAR3300i, Mounted in Transmission or Bolted to Flange Shaft



1 - Outer Constant Velocity (CV) Joint

2 - Bolt

- ☐ Twelve point bolt with ribs is 70 Nm + 90° turn
- ☐ Twelve point bolt without ribs is 200 Nm + 180° turn
- ☐ Always replace if removed

3 - Lock Ring

- ☐ Always replace if removed

4 - Thrust Ring

5 - Concave Washer

6 - Clamp

- ☐ Always replace if removed

7 - Outer CV Joint Boot

8 - Clamp

- ☐ Always replace if removed

9 - Axle Shaft
10 - Clamp
- ☐ Always replace if removed

11 - Inner CV Joint Boot
12 - Clamp
- ☐ Always replace if removed

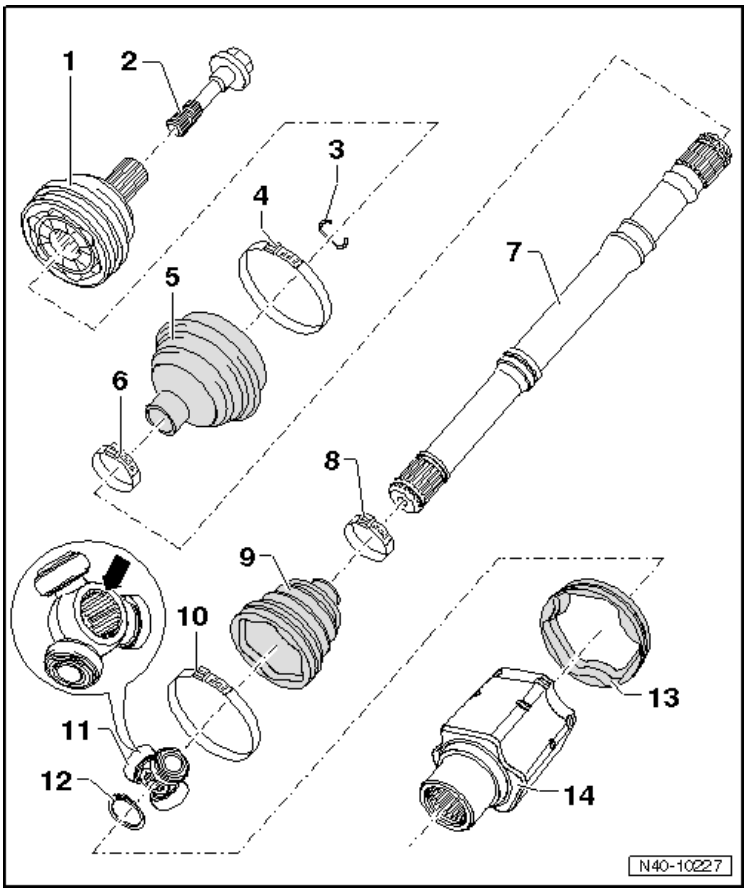
13 - Triple Roller Star with Rollers
14 - Lock Ring
- ☐ Always replace if removed

15 - CV Joint
16 - Circlip
- ☐ Always replace if removed

17 - Bolt
- ☐ First, tighten to 10 Nm in a diagonal sequence, then tighten to (M10 bolt) 70 Nm in a diagonal sequence

18 - Joint Piece

Drive Axle Overview, with Triple Roller Joint AAR3300i, Mounted on Stub Shaft



1 - Outer Constant Velocity (CV) Joint

2 - Bolt

- ☐ Twelve point bolt with ribs is 70 Nm + 90° turn
- ☐ Twelve point bolt without ribs is 200 Nm + 180° turn
- ☐ Always replace if removed

3 - Lock Ring

- ☐ Always replace if removed

4 - Clamp

- ☐ Always replace if removed

5 - Outer CV Joint Boot

6 - Clamp

- ☐ Always replace if removed

7 - Axle Shaft

8 - Clamp

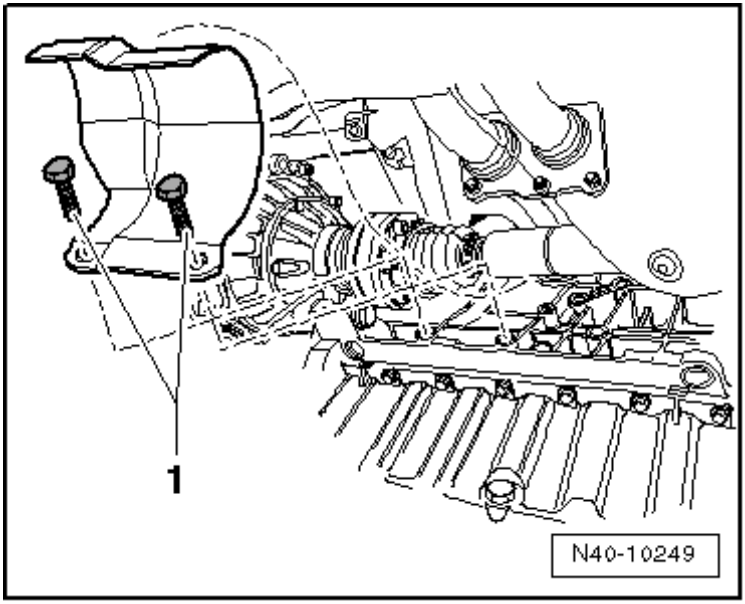
- ☐ Always replace if removed

9 - Inner CV Joint Boot
10 - Clamp
- ☐ Always replace if removed

11 - Triple Roller Star with Rollers
12 - Lock Ring
- ☐ Always replace if removed

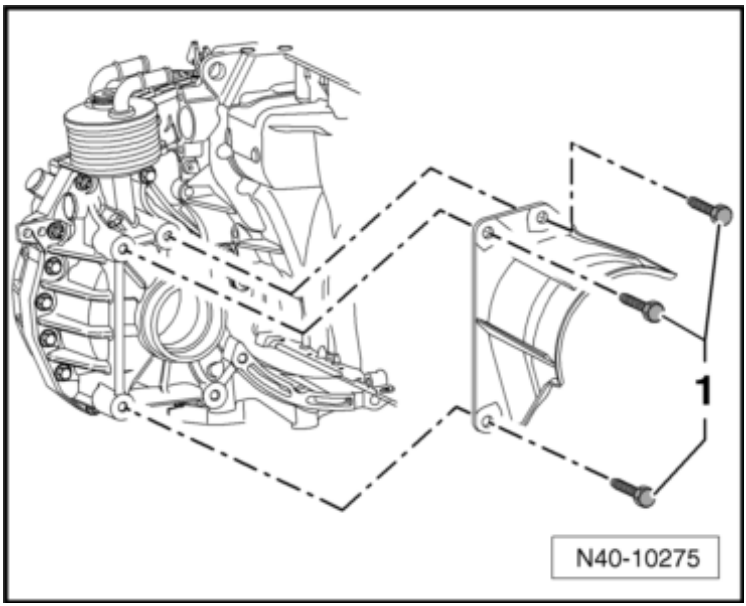
13 - Adapter
14 - Joint Piece

Drive Axle Heat Shield Tightening Specifications Front Wheel Drive (FWD)



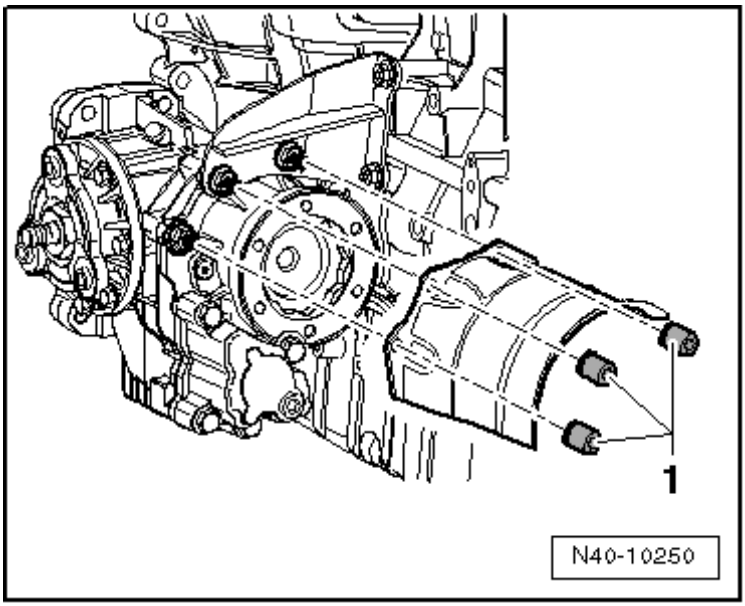
Component	Nm
Bolt -1-	25

Drive Axle Heat Shield Tightening Specifications
FWD with Automatic Transmission



Component	Nm
Bolt -1-	40

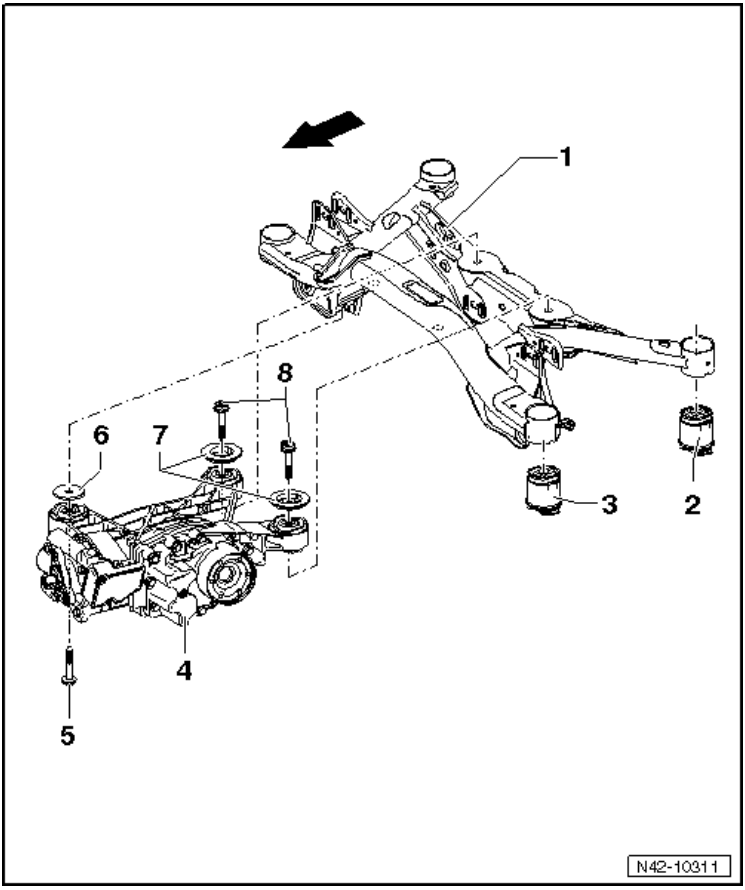
Drive Axle Heat Shield Tightening Specifications All Wheel Drive (AWD)



Component	Nm
Nuts -1-	20 Nm Pre-tighten all nuts to 10 Nm first

Rear Suspension

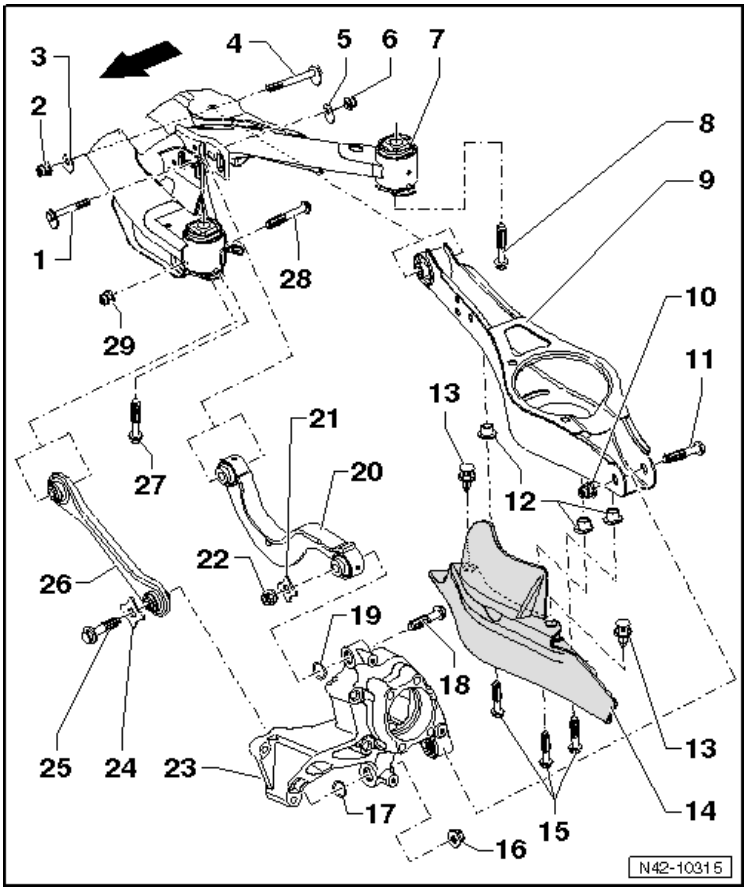
Subframe Overview



1 - Subframe
2 - Rear Bonded Rubber Bushing
3 - Front Bonded Rubber Bushing
4 - Rear Final Drive
5 - Bolt
- ☐ 60 Nm + 90° turn
- ☐ M12 x 105
- ☐ Always replace if removed

6 - Washer
7 - Washer
8 - Bolt
- ☐ 60 Nm + 90° turn
- ☐ M12 x 105
- ☐ Always replace if removed

Track Control Arm and Tie Rod Overview



1 - Eccentric Bolt

2 - Nut

- ☐ 95 Nm
- ☐ M12 x 1.5
- ☐ When adjusting, can be loosened and tightened up to 5 times.
- ☐ Always replace if removed

3 - Eccentric Washer

4 - Eccentric Bolt

5 - Eccentric Washer

6 - Nut

- ☐ 95 Nm
- ☐ M12 x 1.5
- ☐ When adjusting, can be loosened and tightened up to 5 times.
- ☐ Always replace if removed

7 - Subframe

8 - Bolt
- ☐ 90 Nm + 90° turn
- ☐ M12 x 1.5 x 125
- ☐ Always replace if removed

9 - Lower Track Control Arm

10 - Nut
- ☐ 90 Nm + 90° turn
- ☐ Always replace if removed

11 - Bolt
- ☐ M12 x 1.5 x 75
- ☐ Always replace if removed

12 - Threaded Rivet
- ☐ M6

13 - Expanding Rivet

14 - Stone Guard

15 - Bolt
- ☐ 8 Nm
- ☐ M6 x 12

16 - Nut
- ☐ Always replace if removed

17 - Washer

18 - Bolt
- ☐ 150 Nm + 90° turn
- ☐ M14 x 1.5 x 115
- ☐ Always replace if removed

19 - Washer

20 - Upper Track Control Arm

21 - Washer

22 - Nut
- ☐ Always replace if removed

23 - Wheel Bearing Housing

24 - Washer

25 - Bolt
- ☐ 150 Nm + 90° turn
- ☐ M14 x 1.5 x 115
- ☐ Always replace if removed

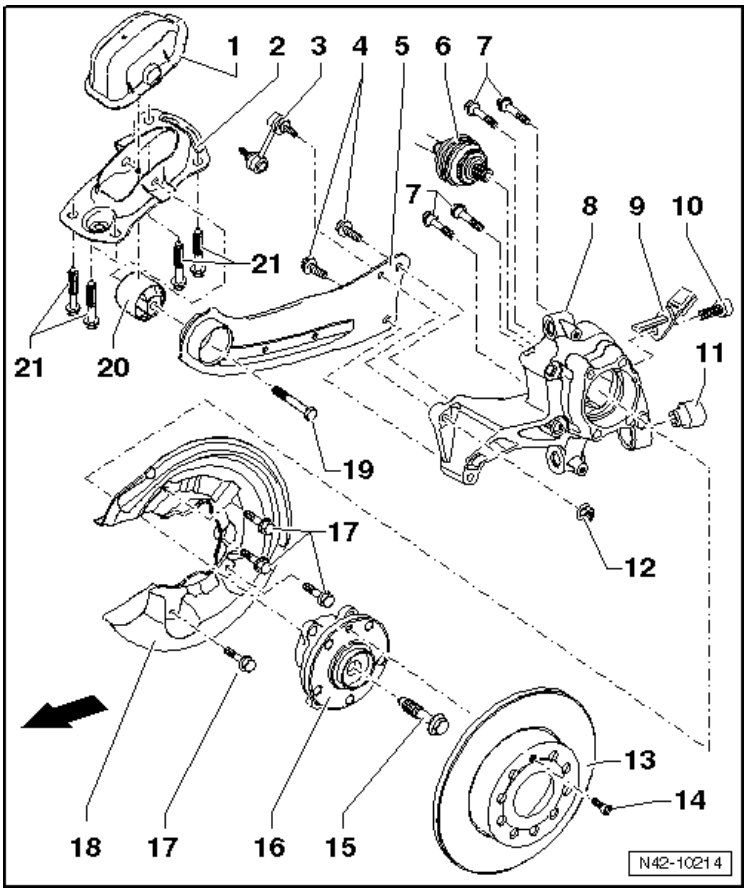
26 - Tie Rod

27 - Bolt
- ☐ 90 Nm + 90° turn
- ☐ M12 x 1.5 x 125
- ☐ Always replace if removed

28 - Bolt
- ☐ M12 x 1.5 x 95
- ☐ Always replace if removed

29 - Nut
- ☐ 90 Nm + 90° turn
- ☐ Always replace if removed

Wheel Bearing Housing, Wheel Hub with Bearing and Trailing Arm Overview



1 - Cap for Bracket
2 - Bracket
3 - Coupling Rod
4 - Bolt
- ☐ 90 Nm + 90° turn
- ☐ Always replace if removed

5 - Trailing Arm
6 - Drive Axle
7 - Bolt
- ☐ 70 Nm + 90° turn
- ☐ M14 x 1.5 x 45
- ☐ Always replace if removed

8 - Wheel Bearing Housing
9 - Right Rear ABS Wheel Speed Sensor -G44-/Left Rear ABS Wheel Speed Sensor -G46-

10 - Bolt
- ☐ 8 Nm
- ☐ M6 x 16

11 - Bonded Rubber Bushing

12 - Nut
- ☐ 45 Nm
- ☐ Always replace if removed

13 - Brake Rotor

14 - Bolt
- ☐ 4 Nm

15 - Bolt
- ☐ Twelve point bolt with ribs is 70 Nm + 90° turn
- ☐ Twelve point bolt without ribs is 200 Nm + 180° turn
- ☐ Always replace if removed

16 - Wheel Hub with Bearing

17 - Bolt
- ☐ 12 Nm
- ☐ M6 x 12

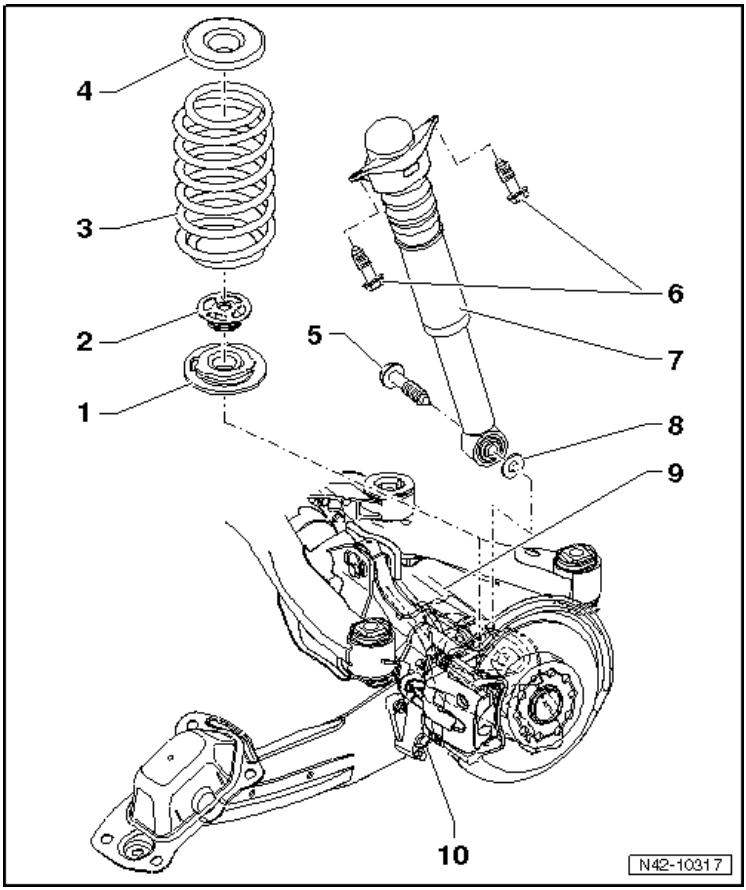
18 - Cover Plate

19 - Bolt
- ☐ 90 Nm + 90° turn
- ☐ M12 x 1.5 x 80
- ☐ Always replace if removed

20 - Bonded Rubber Bushing

21 - Bolt
- ☐ 50 Nm + 90° turn
- ☐ M10 x 35
- ☐ Always replace if removed

Shock Absorber and Coil Spring Overview

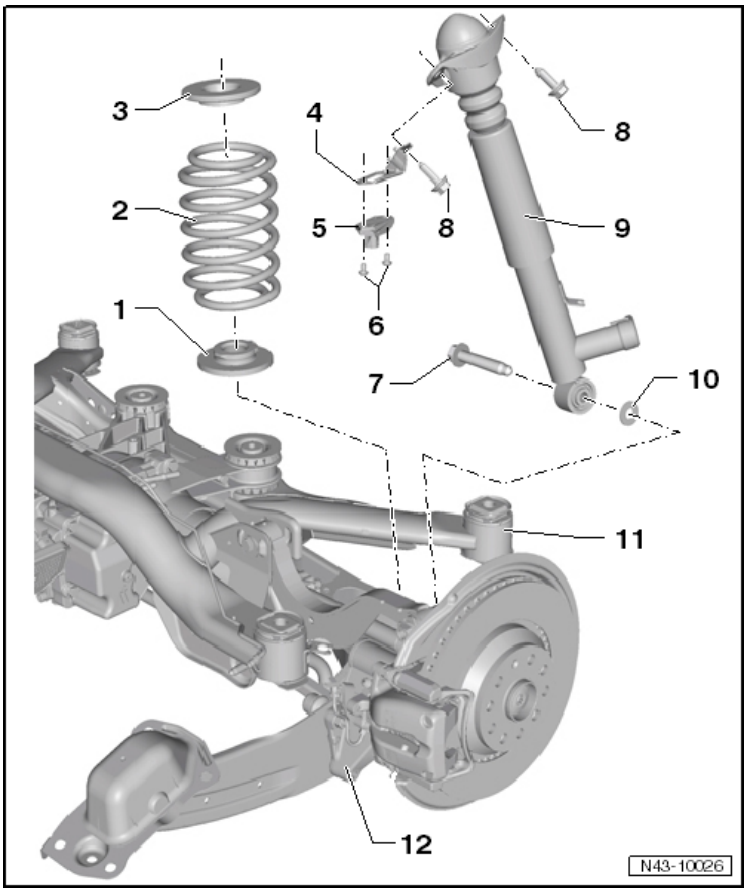


1 - Low Spring Plate
2 - Assembly Aid
3 - Coil Spring
4 - Upper Spring Plate
5 - Bolt
- ☐ 180 Nm
- ☐ M14 x 1.5 x 70

6 - Bolt
- ☐ 50 Nm + 90° turn
- ☐ M10 x 35
- ☐ Always replace if removed

7 - Shock Absorber
8 - Washer
9 - Lower Track Control Arm
10 - Wheel Bearing Housing

Shock Absorber and Coil Spring Overview, with Adaptive Chassis DCC



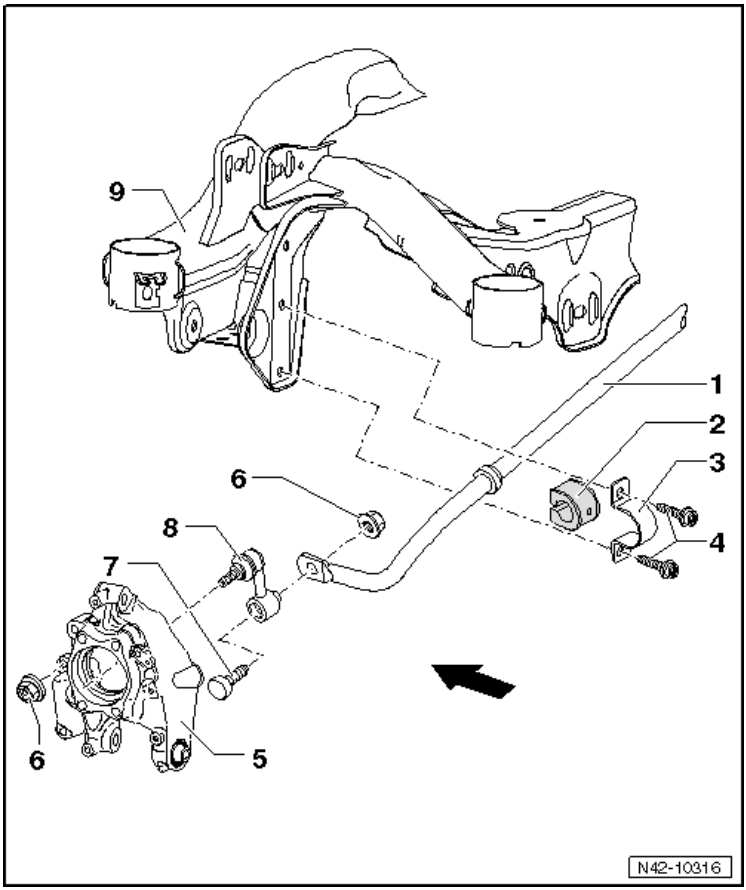
1 - Low Spring Plate
2 - Coil Spring
3 - Upper Spring Plate
4 - Bracket
5 - Rear Body Acceleration Sensor -G343-
6 - Bolt
- ☐ 5 Nm
- ☐ Always replace if removed

7 - Bolt
- ☐ 180 Nm
- ☐ M14 x 1.5 x 70

8 - Bolt
- ☐ 50 Nm + 90° turn
- ☐ M10 x 35
- ☐ Always replace if removed

9 - Shock Absorbert
10 - Washer
11 - Lower Track Control Arm
12 - Wheel Bearing Housing

Stabilizer Bar



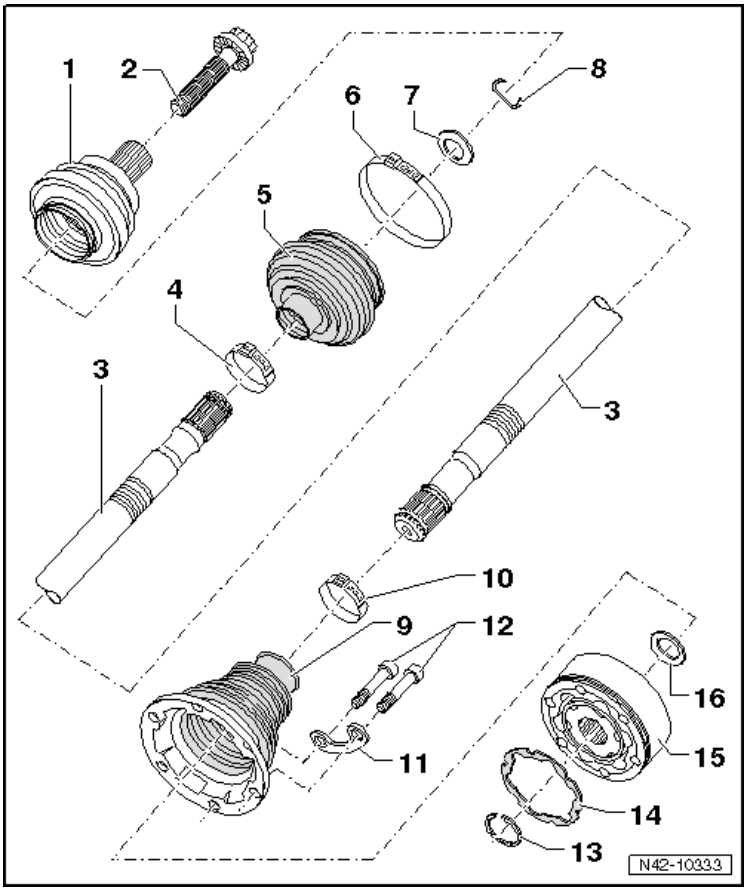
1 - Stabilizer Bar
2 - Rubber Isolator
3 - Clamp
4 - Bolt
- ☐ 25 Nm + 90° turn
- ☐ M8 x 30
- ☐ Always replace if removed

5 - Wheel Bearing Housing
6 - Nut
- ☐ 45 Nm
- ☐ Always replace if removed

7 - Bolt
- ☐ Always replace if removed

8 - Coupling Rod
9 - Subframe

Drive Axle Overview



1 - Outer Constant Velocity (CV) Joint

2 - Bolt

- ☐ Twelve point bolt with ribs is 70 Nm + 90° turn
- ☐ Twelve point bolt without ribs is 200 Nm + 180° turn
- ☐ Always replace if removed

3 - Axle Shaft

4 - Clamp

- ☐ Always replace if removed

5 - Outer CV Joint Boot

6 - Clamp

- ☐ Always replace if removed

7 - Concave Washer

8 - Lock Ring

- ☐ Always replace if removed

9 - Inner CV Joint Boot

10 - Clamp

- ☐ Always replace if removed

11 - Locking Plate

12 - Bolt

- ☐ 40 Nm
- ☐ M8 x 48
- ☐ After disassembly, always replace the bolts

13 - Circlip

- ☐ Always replace if removed

14 - Gasket

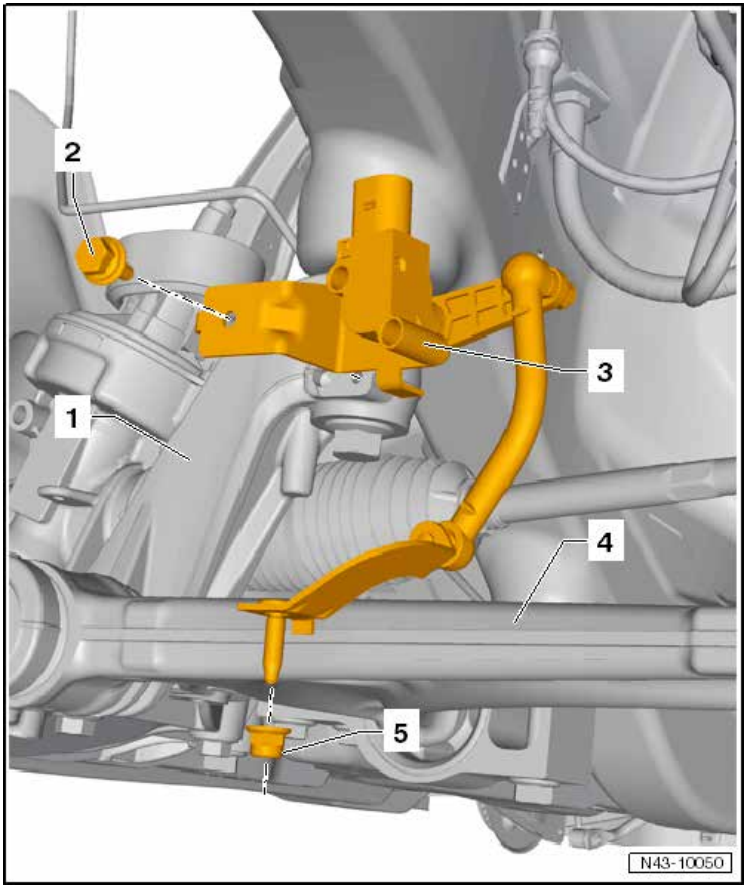
- ☐ Always replace if removed

15 - Inner CV Joint

16 - Concave Washer

Self-Leveling Suspension

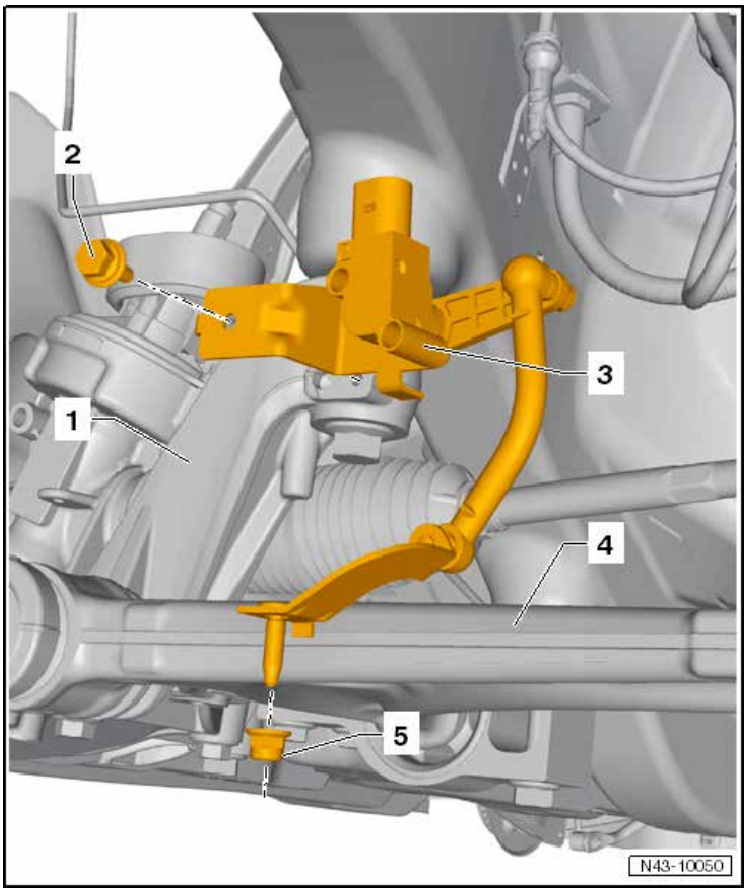
Front Level Control System Sensor -G78, G289- Overview



1 - Subframe
2 - Bolt
- ☐ 9 Nm
- ☐ M6 x 16

3 - Left Front Level Control System Sensor -G78- or Right Front Level Control Sensor -G289-
4 - Control Arm
5 - Bolt
- ☐ 9 Nm
- ☐ Always replace if removed

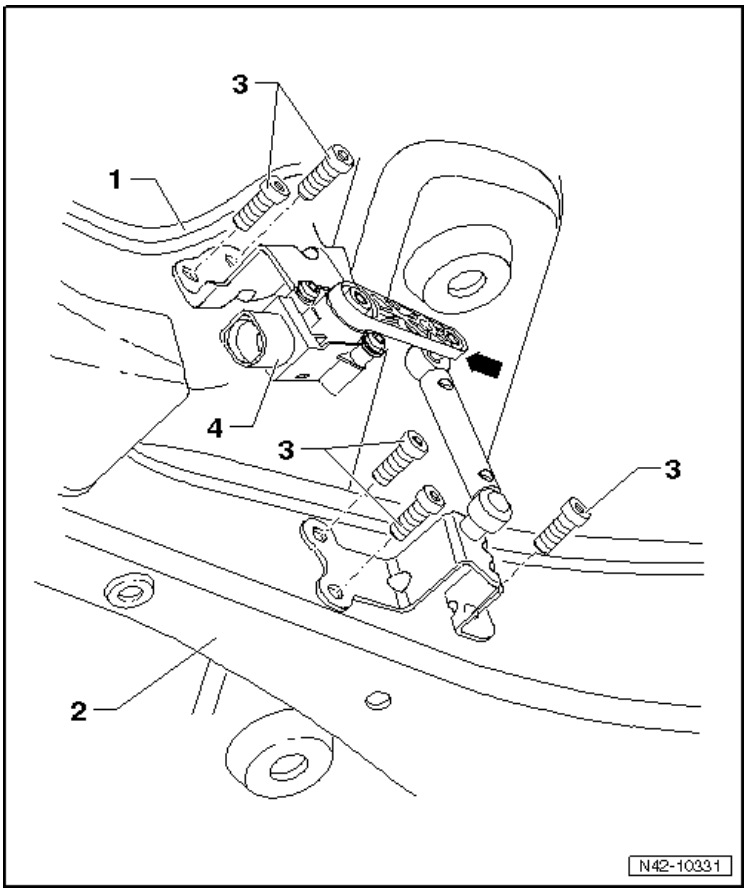
Front Level Control System Sensor -G78, G289- Overview, with Adaptive Chassis DCC



1 - Subframe
2 - Bolt
- ☐ 9 Nm
- ☐ M6 x 16

3 - Left Front Level Control System Sensor -G78- or Right Front Level Control Sensor -G289-
4 - Control Arm
5 - Bolt
- ☐ 9 Nm
- ☐ Always replace if removed

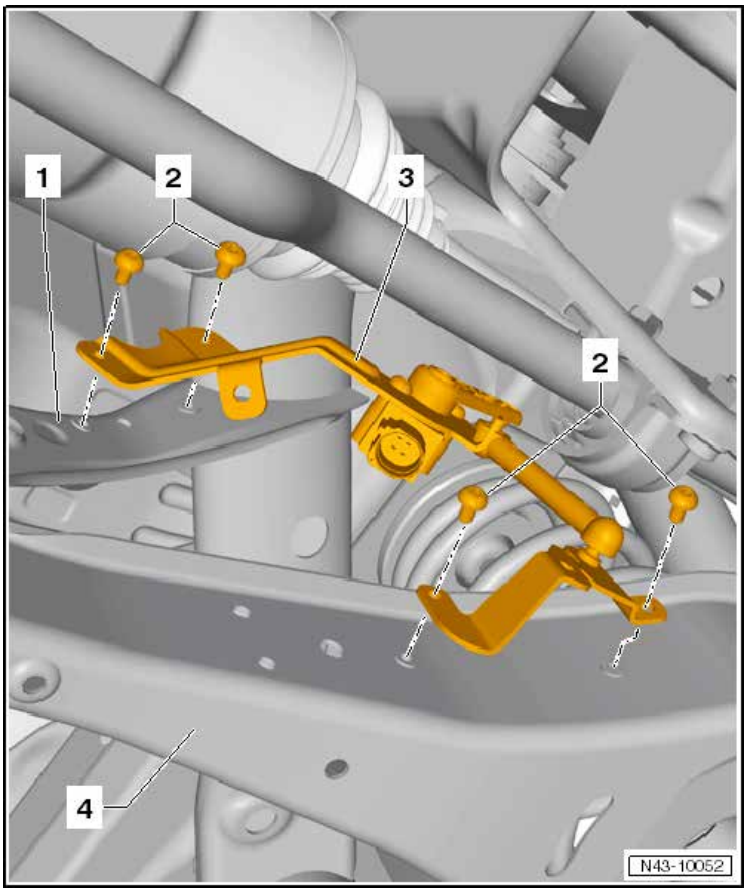
Left Rear Level Control System Sensor -G76- Overview



1 - Subframe
2 - Lower Track Control Arm
3 - Bolt
- ☐ 5 Nm
- ☐ M5 x 20

4 - Left Rear Level Control System Sensor -G76-

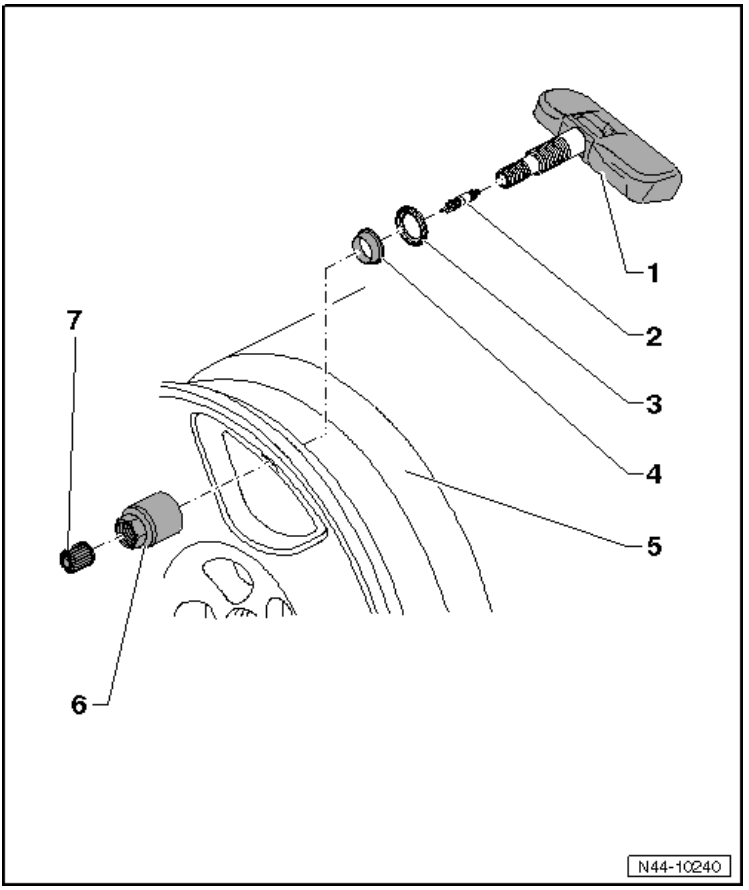
Left Rear Level Control System Sensor -G76-
Overview, with Adaptive Chassis DCC



1 - Subframe
2 - Bolt
- ☐ 5 Nm
- ☐ M5 x 20

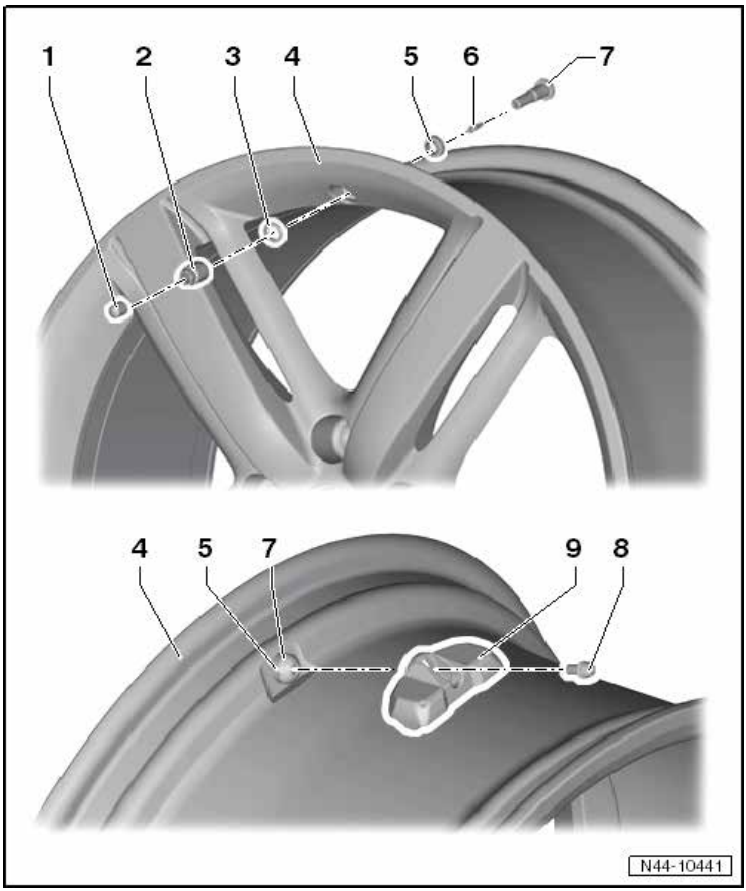
3 - Left Rear Level Control System Sensor -G76-
4 - Lower Track Control Arm

Tire Pressure Monitoring Sensor -G222, G223, G224, G225- with Rubber Valve Overview, Indirect System



1 - Tire Pressure Monitoring Sensor -G222, G223, G224, G225-
2 - Valve Core
3 - Sealing Washer
4 - Seal
5 - Disk Wheel
6 - Union Nut
☐ 8 Nm
7 - Valve Cap

Tire Pressure Monitoring Sensor -G222, G223, G224, G225- or the Tire Pressure Monitoring Sensor -G222, G223, G224, G225- with Metal Valve, Direct System Overview



1 - Valve Cap
2 - Nut
- ☐ 4 Nm

3 - Washer
4 - Disk Wheel
5 - Seal
6 - Valve Core
7 - Metal Valve
8 - Torx® Bolt
- ☐ 4 Nm
- ☐ Size: T20

9 - Tire Pressure Monitoring Sensor -G222, G223, G224, G225-

Fastener Tightening Specifications

Component	Fastener size	Nm
Wheel bolts to wheel hub	-	120

Wheel Alignment Data

Wheel Alignment Specified Values

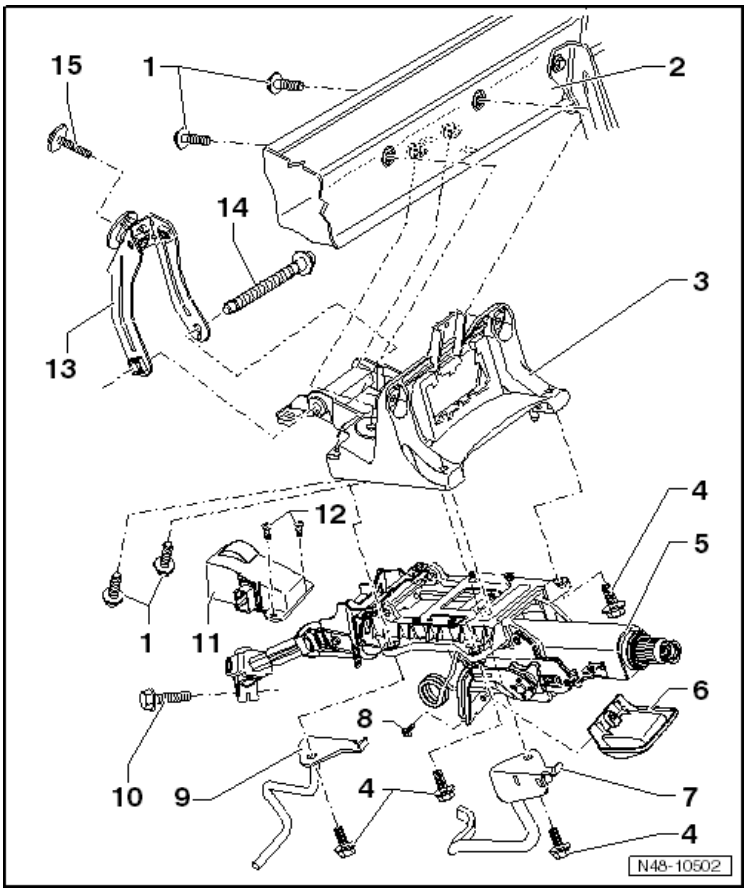
Front suspension	Basic suspension	Basic suspension with adaptive chassis DCC	Comfort - heavy duty suspension
Production Relevant No. (PR. No.)	G60	G61	G62
Total toe (wheels not pressed)	10’ ± 10′	10′ ± 10′	10′ ± 10′
Camber (wheels in straight ahead position)	-41′ ± 30′	-41′ ± 30′	-34′ ± 30′
Maximum permissible difference between both sides	30’	30’	30’
Toe-out angle [1)] with steering wheel turned 20° to left and right	1°21′ ± 20′	1°21′ ± 20′	1°20′ ± 20′
Caster	7° 44′ ± 30′	7° 44′ ± 30′	7° 35′ ± 30′
Maximum permissible difference between both sides	30’	30’	30’
Standing height (mm)	379 ± 10	379 ± 10	389 ± 10

1) Depending on the manufacturer, the toe out angle difference can also be indicated negatively in the alignment computer.

Rear suspension, front and all wheel drive	Basic suspension	Basic suspension with adaptive chassis DCC	Comfort - heavy duty suspension
Camber	-1° 20′ ± 30′	-1° 20′ ± 30′	-1° 20′ ± 30′
Maximum permissible difference between both sides	30’	30’	30’
Total toe (at prescribed camber)	+10′ ± 10′	+10′ ± 10′	+10′ ± 10′
Maximum permissible deviation from direction of rotation	20’	20’	20’
Standing height (mm)	382 ± 10	382 ± 10	389 ± 10

Steering

Steering Column Overview



1 - Bolt
- ☐ 20 Nm
- ☐ M8 x 30, M8 x 85

2 - Steering Column Cross Member

3 - Bracket

4 - Bolt
- ☐ 20 Nm
- ☐ M8 x 30
- ☐ Always replace if removed

5 - Steering Column

6 - Handle

7 - Brake Pedal Impact Brace

8 - Bolt
- ☐ 3 Nm
- ☐ M6 x 10

9 - Clutch Pedal Impact Brace

10 - Bolt

- ☐ 20 Nm + 90° turn
- ☐ M8 x 35
- ☐ Always replace if removed

11 - Electronic Steering Column Lock Control Module -J764-

12 - Shear Head Bolt

13 - Cross Support

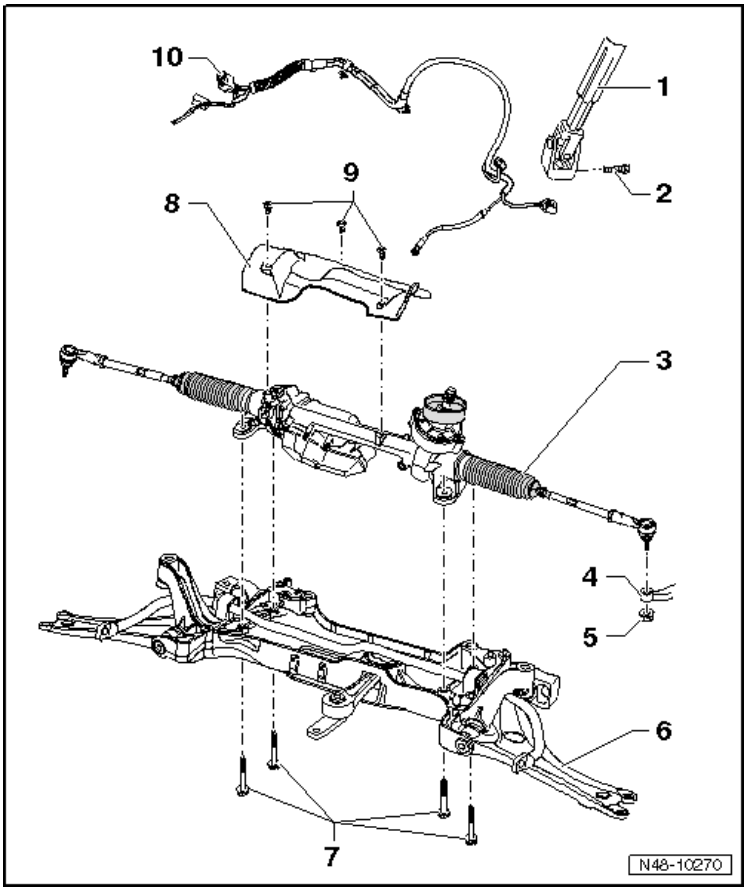
14 - Bolt

- ☐ 20 Nm
- ☐ M8 x 94

15 - Bolt

- ☐ 20 Nm
- ☐ M8 x 48

Steering Gear and Subframe Component Overview



1 - Universal Joint

2 - Bolt

- ☐ 20 Nm + 90° turn
- ☐ M8 x 35
- ☐ Always replace if removed

3 - Steering Gear

4 - Wheel Bearing Housing

5 - Nut

- ☐ Tighten to 100 Nm, then loosen 180° turn and tighten to 100 Nm again
- ☐ M12 x 1.5
- ☐ Always replace if removed

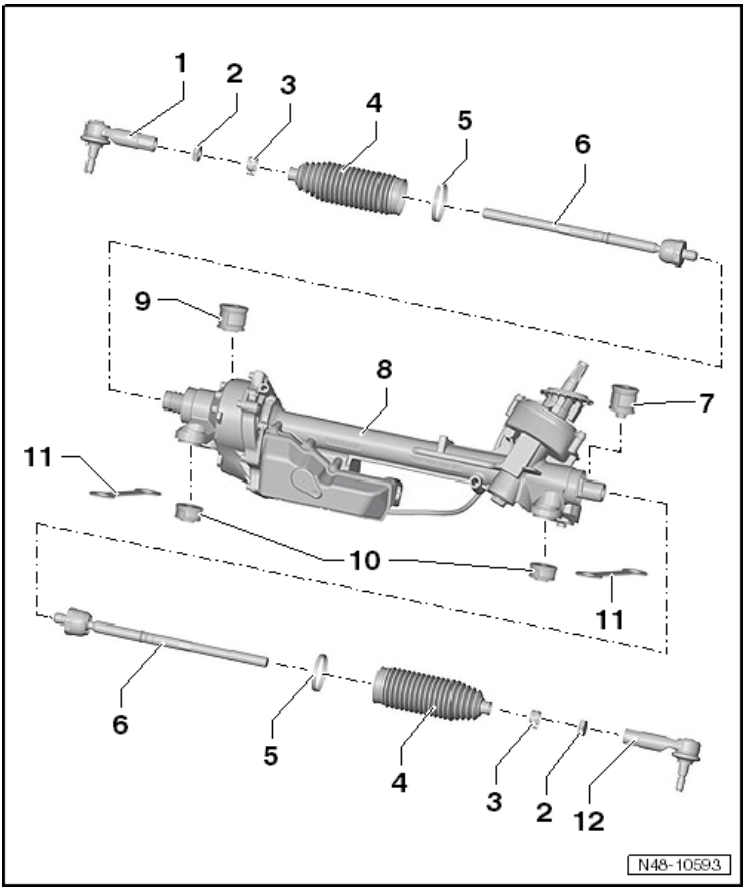
6 - Subframe

7 - Bolt

- ☐ 50 Nm + 90° turn
- ☐ M10 x 70
- ☐ Always replace if removed

8 - Heat Shield
9 - Torx® Bolt
☐ 6 Nm
10 - Electrical Wire

Steering Gear Overview



1 - Right Tie Rod End
2 - Nut
- ☐ 70 Nm

3 - Clamp
4 - Boot
5 - Clamp
- ☐ Always replace

6 - Tie Rod
- ☐ 100 Nm

7 - Long Bonded Rubber Bushing
8 - Steering Gear
9 - Long Bonded Rubber Bushing
10 - Short Bonded Rubber Bushing
11 - Plate
12 - Left Tie Rod End

BRAKE SYSTEM

General, Technical Data

Brake PR Numbers
Front Brakes

Engine version	PR Number	Front wheel brake
2.0L - 147 kW	1ZG	FN 3 (16”)
3.6L - 206 kW (FWD)		
3.6L -206 kW (AWD)	1LB	C60 (17”)

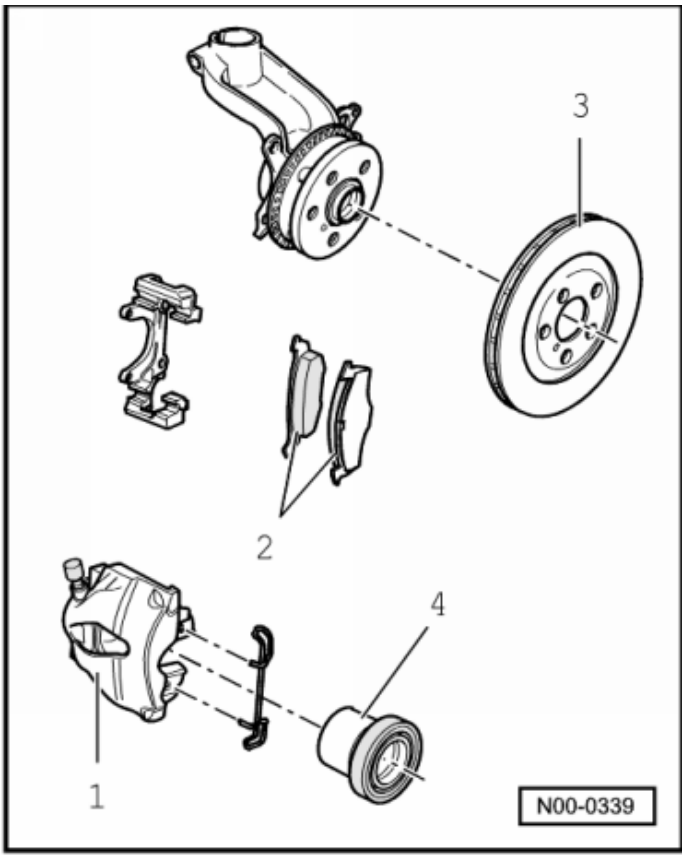
Rear Brakes

Engine version	PR Number	Rear wheel brake
2.0L - 147 kW FSI	1KU/1KW	CII 38 (16”)
3.6L - 206 kW (FWD)		
3.6L -206 kW (AWD)	2EA	CII 41 (17”)

Brake Master Cylinder and Brake Booster

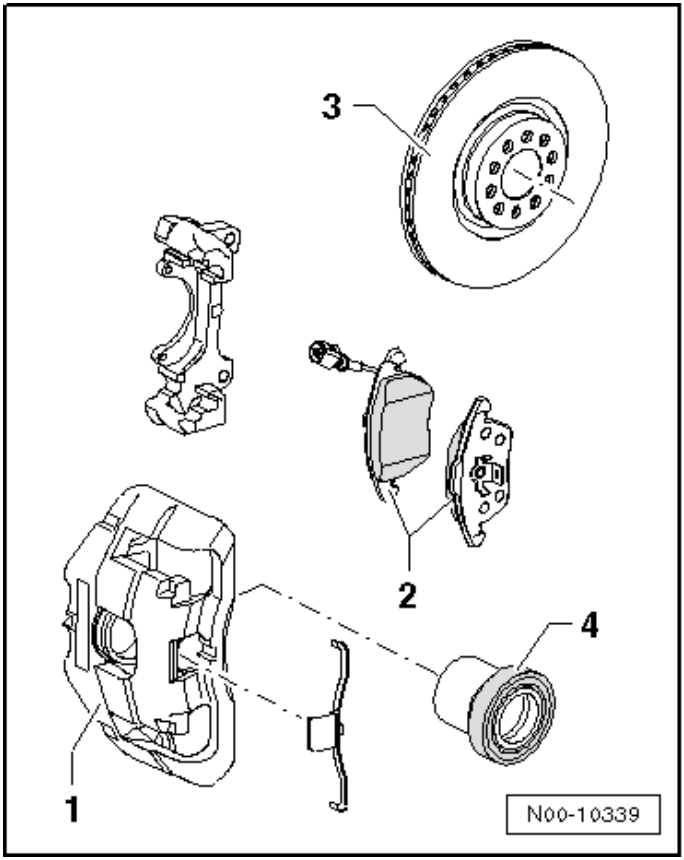
Component	Diameter in mm
Brake master cylinder (low engine)	22.22
Brake master cylinder (high engine)	23.81
Brake booster	11

Front Brakes, FN3



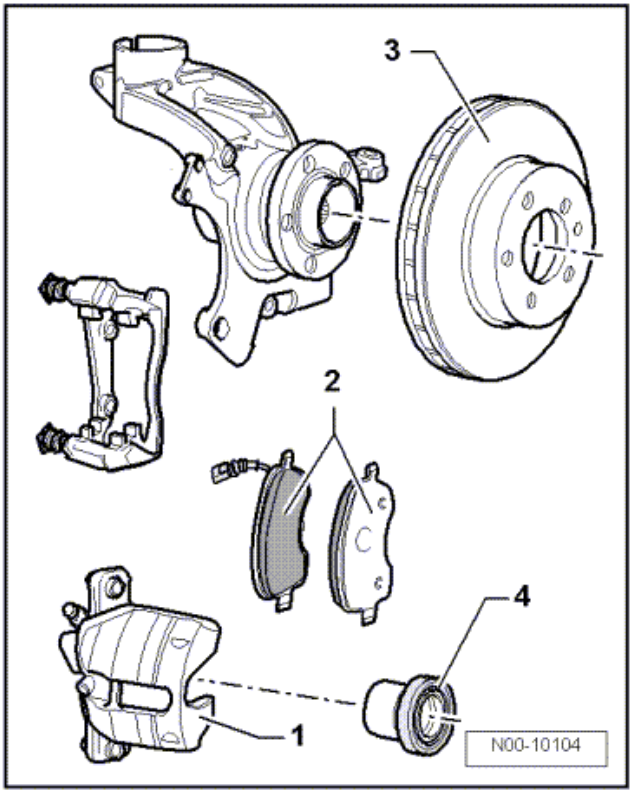
Item	PR Number		1LH / 1ZG / 1ZM
1	Brake caliper		FN 3 (16”)
2	Brake pad thickness	mm	14
	Brake pad wear limit without back plate	mm	2
3	Brake disc	Diameter in mm	312
	Brake disc thickness	mm	25
	Brake disc wear limit	mm	22
4	Brake caliper, piston	Diameter in mm	54

Front Brakes, FNR-G



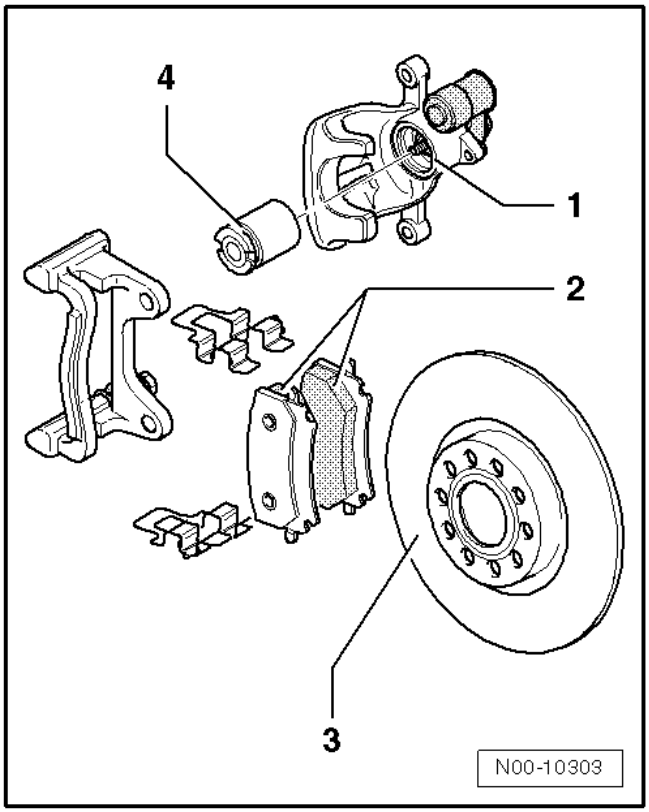
Item	PR number		1LK
1	Brake caliper		FNR-G (17”)
2	Brake pad thickness	mm	14
	Brake pad wear limit without back plate	mm	2
3	Brake disc	Diameter in mm	345
	Brake disc thickness	mm	30
	Brake disc wear limit	mm	27
4	Brake caliper, piston	Diameter in mm	57

Front Brakes, C60



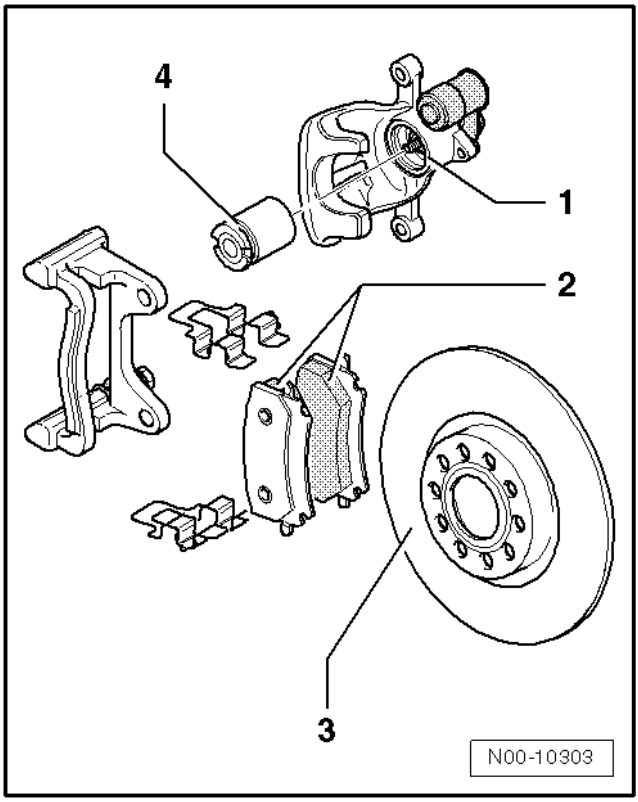
Item	PR number		1LA 1 LB
1	Brake caliper		C60 (17”)
2	Brake pad thickness	mm	13
	Brake pad wear limit without back plate	mm	2
3	Brake disc	Diameter in mm	340
	Brake disc thickness	mm	30
	Brake disc wear limit	mm	27
4	Brake caliper, piston	Diameter in mm	60

Rear Brakes CII 38



Item	PR Number		1KU / 1KW
1	Brake caliper		CII 38 (16”)
2	Brake pad thickness	mm	11
	Brake pad wear limit without back plate	mm	2
3	Brake disc	Diameter in mm	286
	Brake disc thickness	mm	12
	Brake disc wear limit	mm	10
4	Brake caliper, piston	Diameter in mm	38

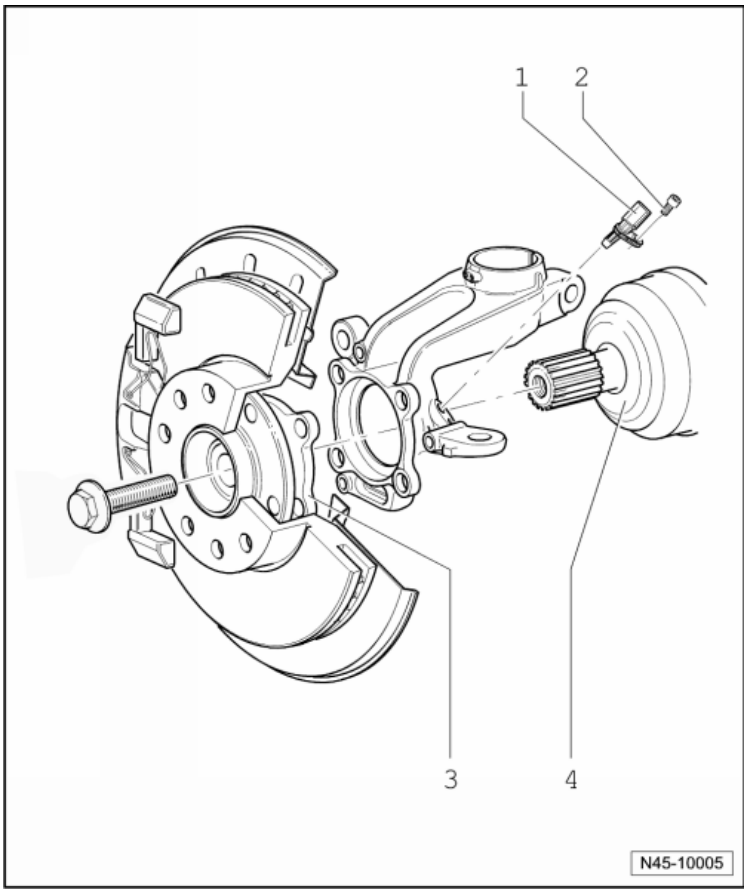
Rear Brakes CII 41



Item	PR Number		2EA
1	Brake caliper		CII 41 (17”)
2	Brake pad thickness	mm	11
	Brake pad wear limit without back plate	mm	2
3	Brake disc	Diameter in mm	310
	Brake disc thickness	mm	22
	Brake disc wear limit	mm	20
4	Brake caliper, piston	Diameter in mm	41

Anti-lock Brake System (ABS)

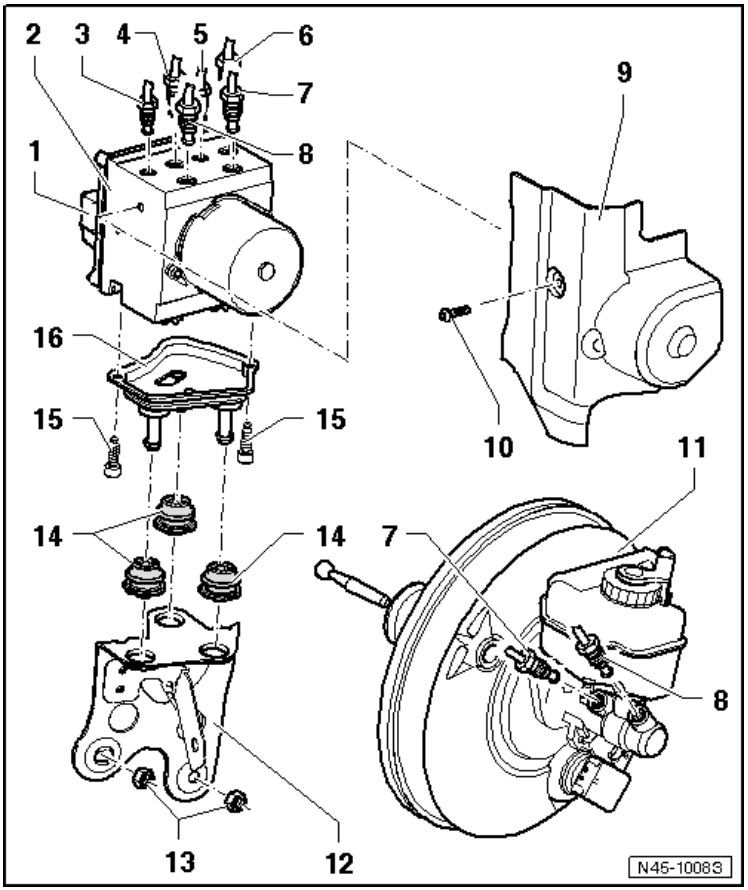
Front Axle Speed Sensor Overview



1 - ABS Speed Sensor
2 - Hex Socket Bolt
- ☐ 8 Nm

3 - Wheel Hub with Wheel Bearing
4 - Drive Axle

ABS Control Module and Brake Booster Overview



1 - ABS Control Module -J104-
2 - ABS Hydraulic Unit -N55-
3 - Brake Line
- ☐ To right front brake caliper

4 - Brake Line
- ☐ To right rear brake caliper

5 - Brake Line
- ☐ To right rear brake caliper

6 - Brake Line
- ☐ To left front brake caliper

7 - Brake Line
- ☐ Master brake cylinder/primary piston circuit to hydraulic control unit

8 - Brake Line
- ☐ Master brake cylinder/secondary piston circuit to hydraulic unit

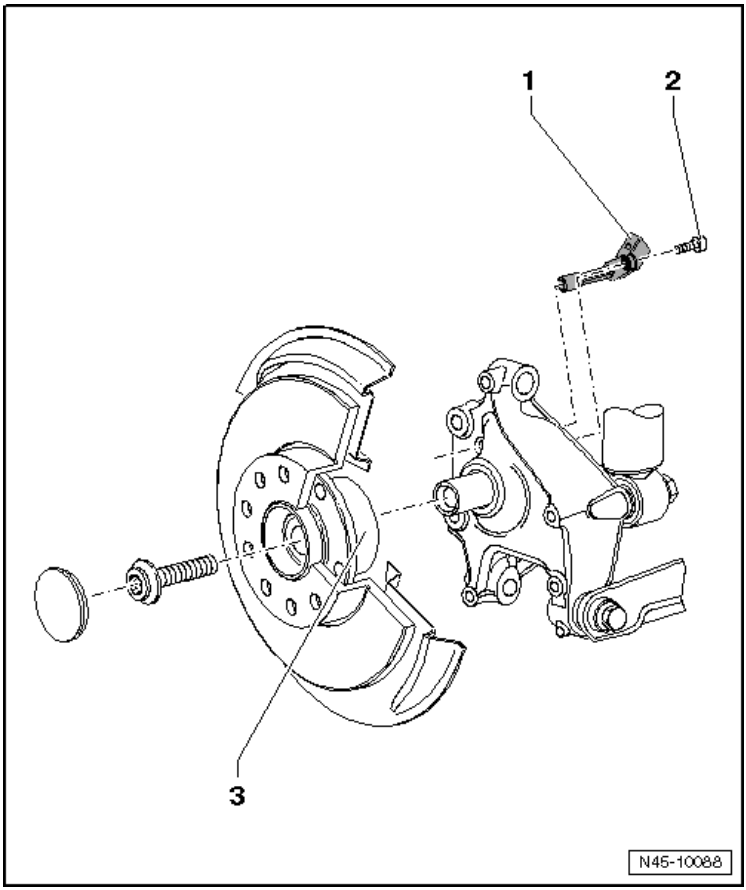
9 - Heat Shield
10 - Inner Torx® Bolt
- ☐ 12 Nm

11 - Brake Booster
12 - Bracket
13 - Nut
- ☐ 20 Nm

14 - Rubber Insulation
15 - Inner Torx® Bolt
- ☐ 10 Nm

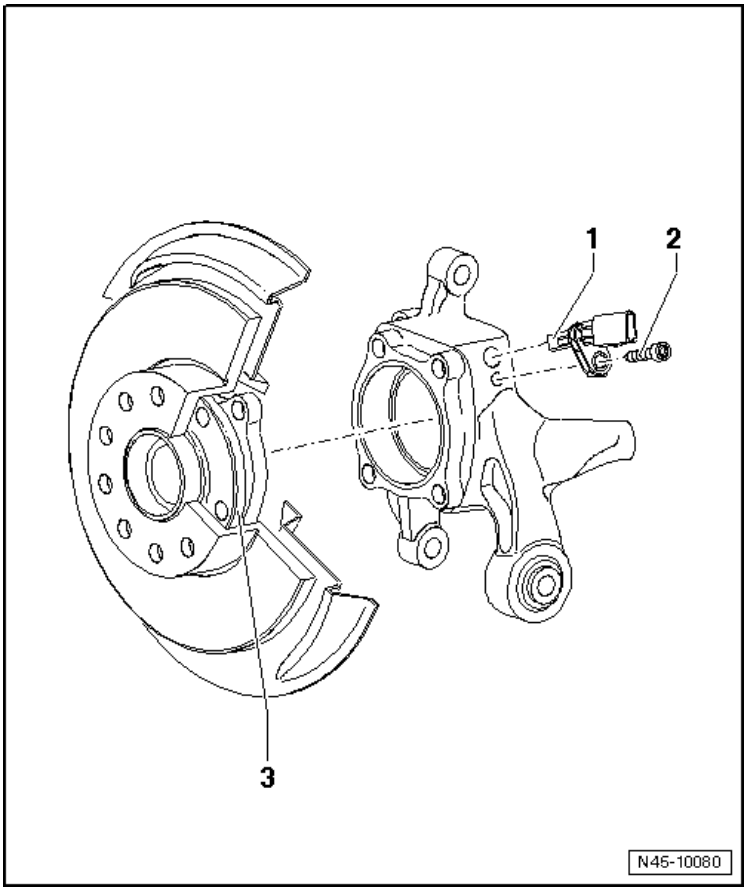
16 - Bracket

Front Wheel Drive Overview



1 - ABS Speed Sensor
2 - Hex Bolt
☐ 8 Nm
3 - Wheel Hub with Wheel Bearing

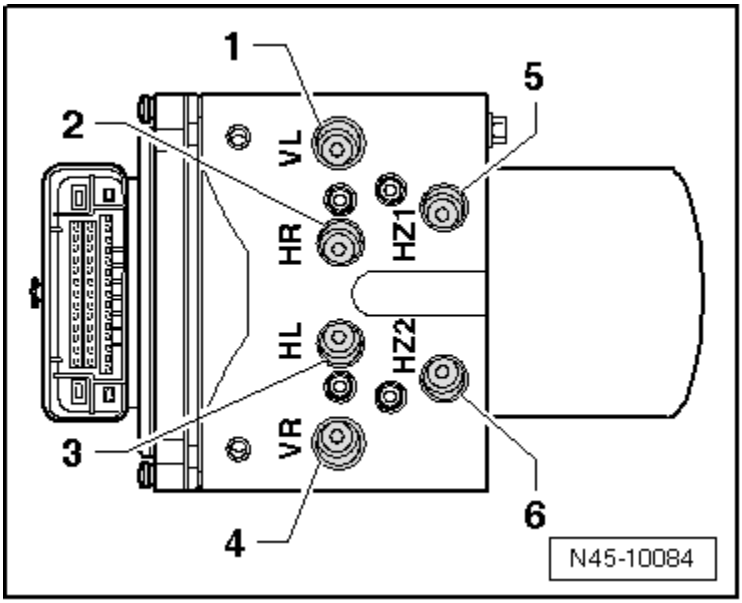
All Wheel Drive Overview



1 - ABS Speed Sensor
2 - Hex Bolt
- ☐ 8 Nm

3 - Wheel Hub with Wheel Bearing

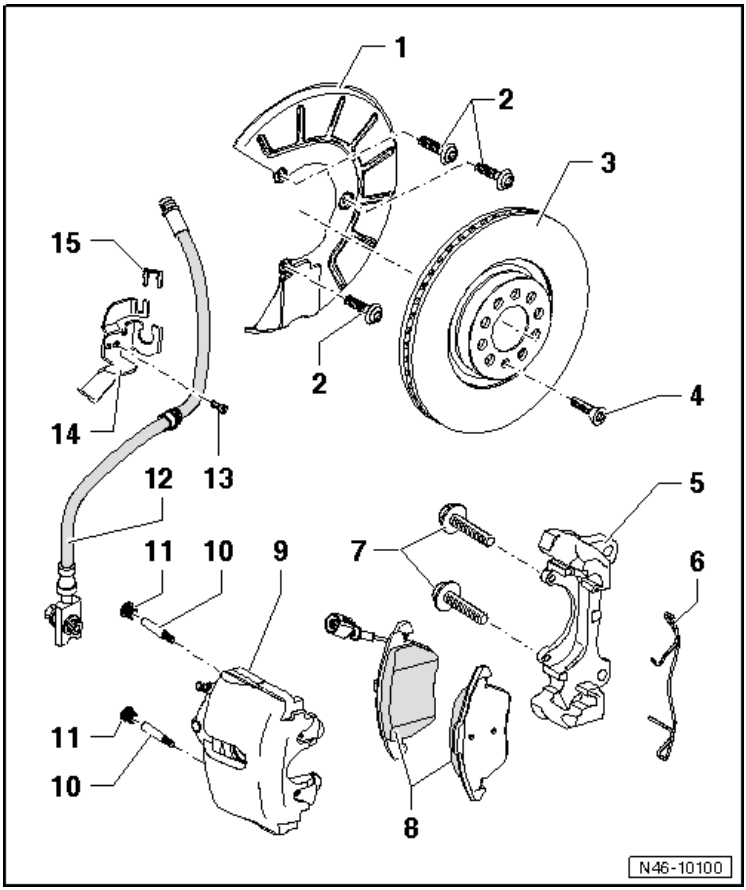
Control Module and Hydraulic Unit Tightening Specifications



Component	Nm
Hydraulic unit bracket hex bolt	10
Brake lines with the ABS module	
Brake lines 1 through 4 (brake calipers)	14
Brake lines 5 and 6 (brake master cylinder)	
Diameter 8.5 mm	17
Diameter 6 mm	14

Mechanical Components

Front Brakes FN3 Overview



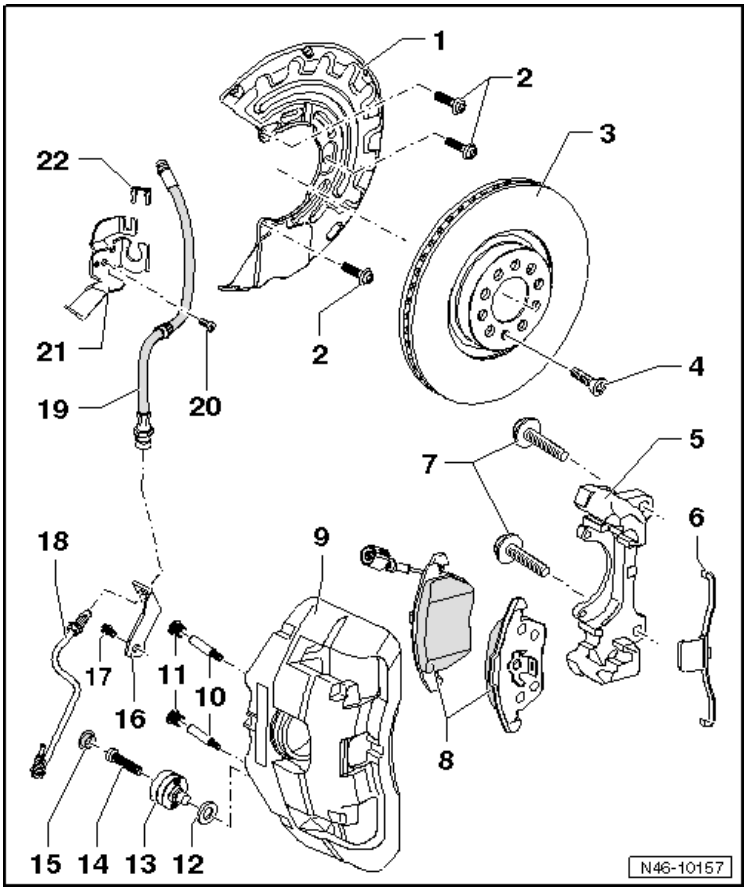
1 - Cover Plate
2 - Torx® Bolt
☐ 12 Nm
3 - Brake Disc
4 - Torx® Bolt
☐ 4 Nm
5 - Brake Carrier
6 - Spring
7 - Ribbed Bolt
☐ 200 Nm
8 - Brake Pads
9 - Brake Caliper
10 - Guide Pins
☐ 30 Nm

11 - Cap
12 - Brake Hose with Ring Connection and Banjo Bolt
- ☐ 35 Nm

13 - Bolt
- ☐ 8 Nm

14 - Bracket
15 - Clip

Front Brakes FNR-G Overview



1 - Cover Plate
2 - Torx® Bolt
☐ 12 Nm
3 - Brake Rotor
4 - Torx® Bolt
☐ 4 Nm
5 - Brake Carrier
6 - Spring
7 - Ribbed Bolt
☐ 190 Nm
8 - Brake Pads
9 - Brake Caliper
10 - Guide Pins
☐ 30 Nm
11 - Cap
12 - Washer
13 - Vibration Damper

14 - Bolt
- ☐ 10 Nm

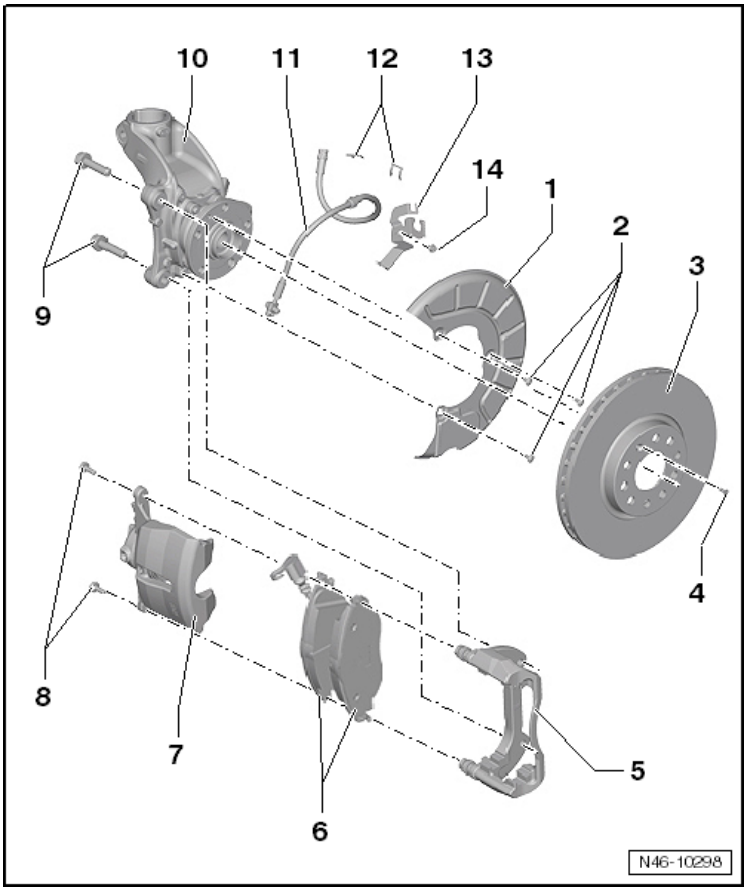
15 - Dust Cap
16 - Bracket
17 - Bolt
- ☐ 15 Nm

18 - Brake Line
- ☐ 14 Nm

19 - Brake Hose
20 - Hex Bolt
- ☐ 8 Nm

21 - Bracket
22 - Spring Clamp

Front Brakes C60 Overview



1 - Cover Plate
2 - Torx® Bolt
- ☐ 12 Nm

3 - Brake Disc
4 - Torx® Bolt
- ☐ 4 Nm

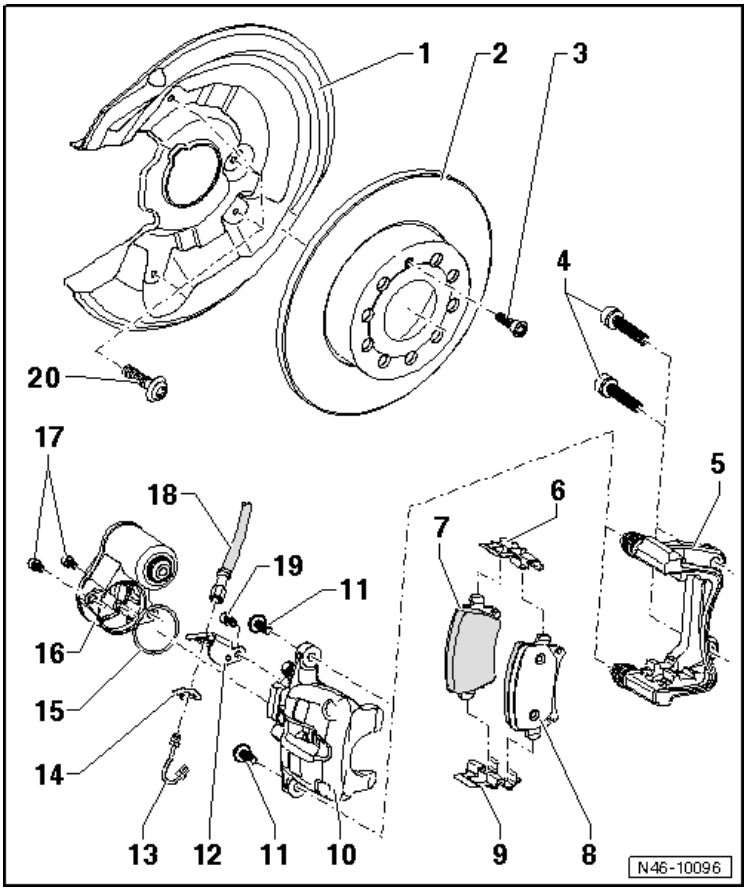
5 - Brake Carrier
6 - Brake Pads
7 - Brake Caliper
8 - Self-Locking Bolt
- ☐ 35 Nm
- ☐ Replace

9 - Ribbed Bolt
- ☐ 200 Nm

10 - Wheel Bearing Housing
11 - Brake Hose with Ring Connection and Banjo Bolt
- ☐ 35 Nm

12 - Clip
13 - Bracket
14 - Bolt
☐ 8 Nm

Rear Brakes Overview



1 - Cover Plate
2 - Brake Rotor
3 - Inner Torx® Bolt
- ☐ 4 Nm

4 - Internal Multi-Point Bolt
- ☐ 90 Nm + 90° turn
- ☐ Always replace if removed

5 - Brake Carrier with Guide Pins and Cap
6 - Brake Pad Retaining Plate
7 - Brake Pad
8 - Brake Pad
9 - Brake Pad Retaining Plate
- ☐ Always replace when pads are replaced

10 - Brake Caliper
11 - Self-Locking Bolt
- ☐ 35 Nm
- ☐ Replace

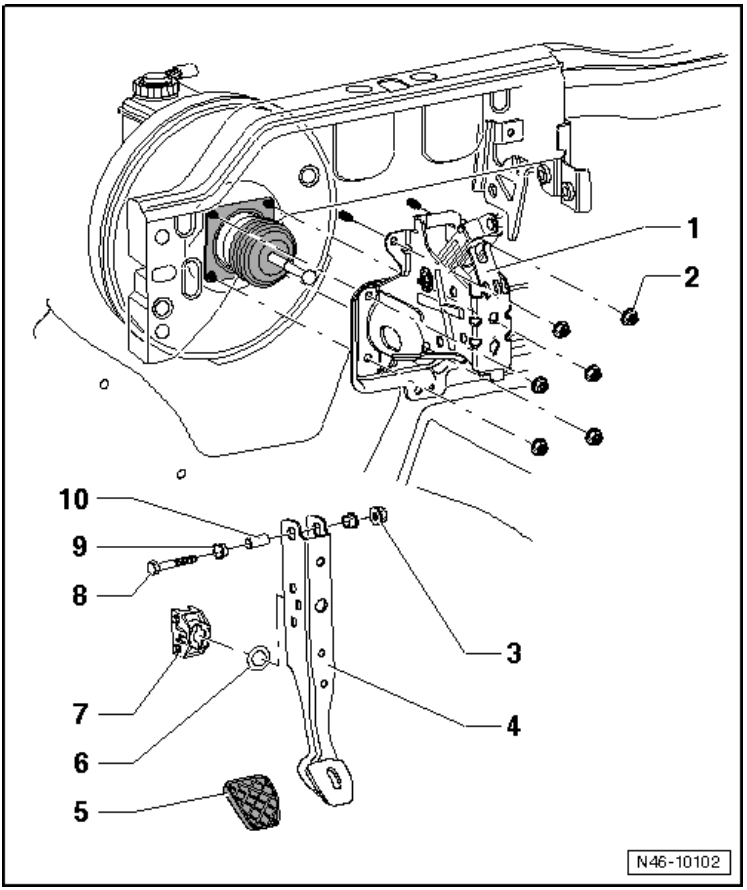
12 - Bracket
13 - Brake Line
- ☐ 14 Nm

14 - Clip
15 - Seal
16 - Parking Brake Motor
17 - Inner Torx® Bolt
- ☐ 12 Nm

18 - Brake Hose
19 - Inner Torx® Bolt
- ☐ 12 Nm

20 - Bolt

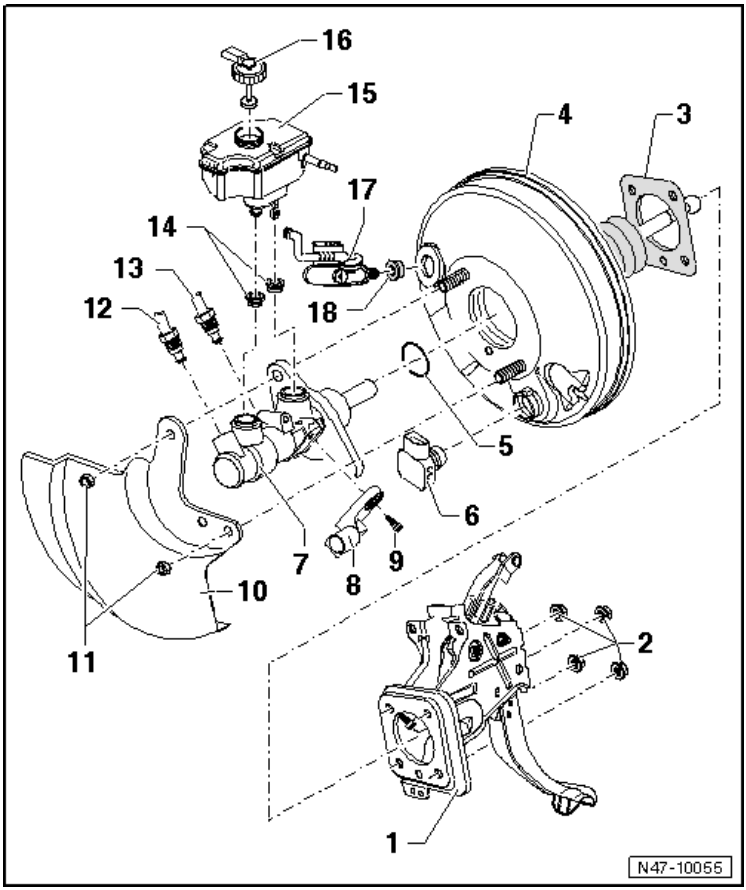
Brake Pedal Overview



1 - Bracket
2 - Self-Locking Nut
☐ 25 Nm
3 - Self-Locking Nut
☐ 25 Nm
4 - Brake Pedal
5 - Cover
6 - Bearing Shell
7 - Mount
8 - Bolt
9 - Bearing Bushing
10 - Bearing Pin

Hydraulic Components

Brake Booster/Master Brake Cylinder Overview



1 - Pedal Assembly
2 - Self-Locking Nut
- ☐ 25 Nm
- ☐ Always replace if removed

3 - Gasket
4 - Brake Booster
5 - Seal
6 - Brake Booster Vacuum Sensor -G483-
7 - Brake Master Cylinder
8 - Brake Lamp Switch -F-
9 - Inner Torx® Bolt
- ☐ 5 Nm

10 - Heat Shield

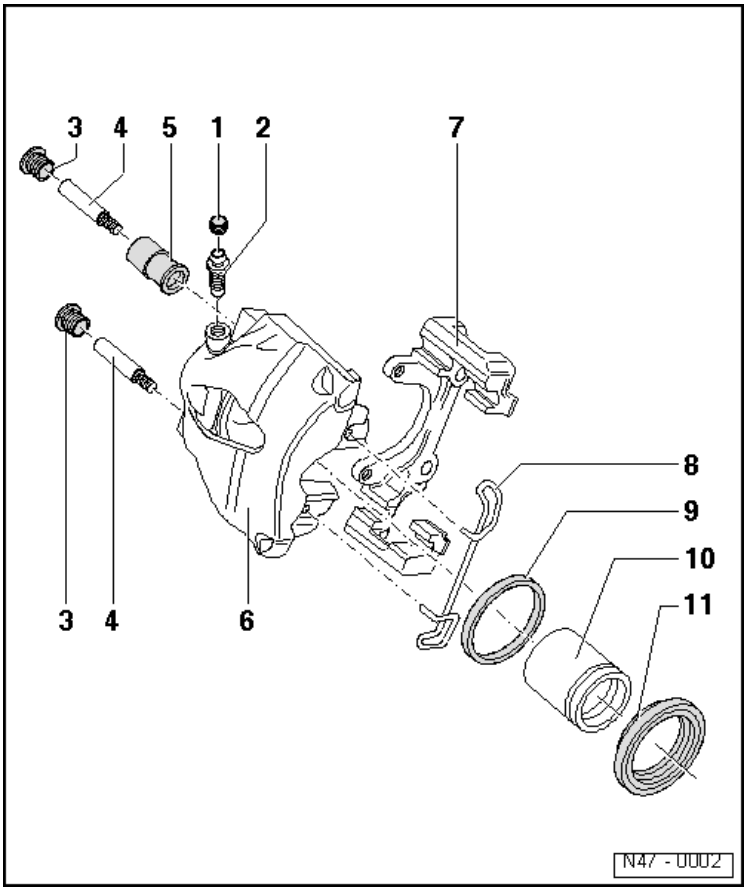
11 - Self-Locking Nut
- ☐ 25 Nm
- ☐ Always replace if removed

12 - Brake Line, 6 mm Diameter
- ☐ 14 Nm

13 - Brake Line, 6 mm Diameter
- ☐ 14 Nm

14 - Sealing Plug
15 - Brake Fluid Reservoir
16 - Cap
17 - Vacuum Hose
18 - Sealing Plug

Front Brake Caliper FN3 Overview

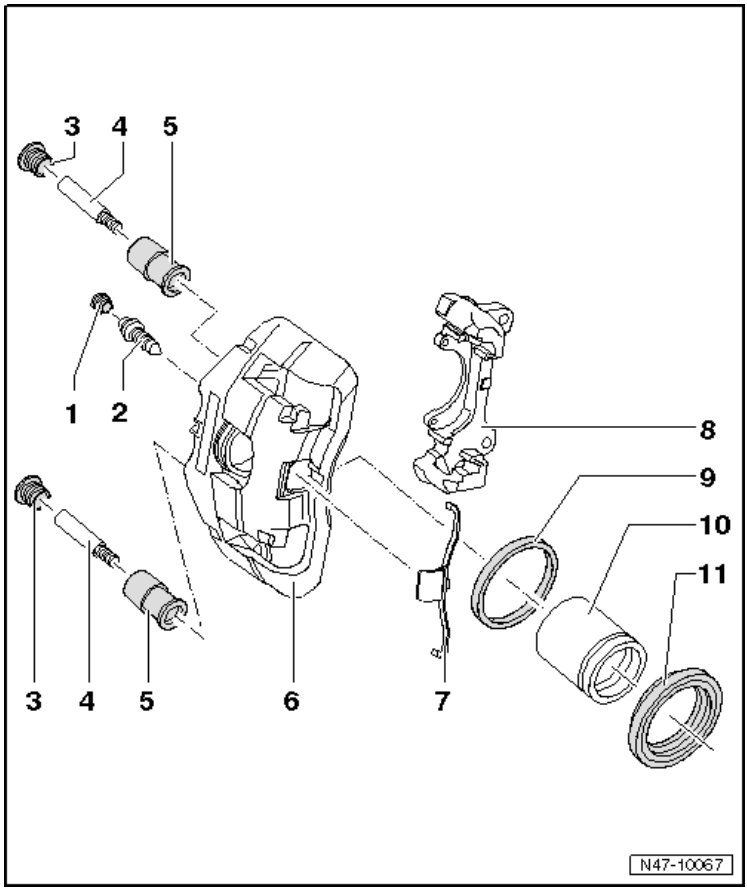


1 - Dust Cap
2 - Bleeder Valve
- ☐ 10 Nm
- ☐ Apply a thin coat of assembly paste G 052 150 A2 to the threads before screwing in.

3 - Caps
4 - Guide Pins
- ☐ 30 Nm

5 - Bearing Bushing
6 - Brake Caliper
7 - Brake Caliper
8 - Spring
9 - Seal
10 - Pistons
11 - Cap

Front Brake Caliper FNR-G Overview

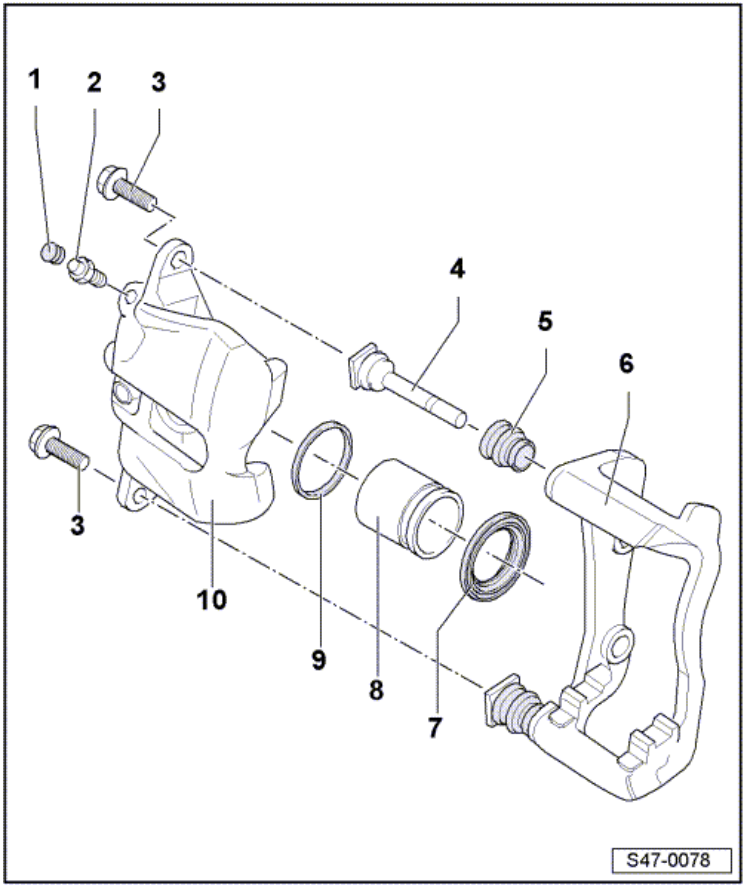


1 - Dust Cap
2 - Bleeder Valve
- ☐ 12 Nm
- ☐ Apply a thin coat of assembly paste G 052 150 A2 to the threads before screwing in.

3 - Caps
4 - Guide Pins
- ☐ 30 Nm

5 - Bearing Bushing
6 - Brake Caliper
7 - Spring
8 - Brake Caliper
9 - Seal
10 - Pistons
11 - Cap

Front Brake Caliper C60 Overview



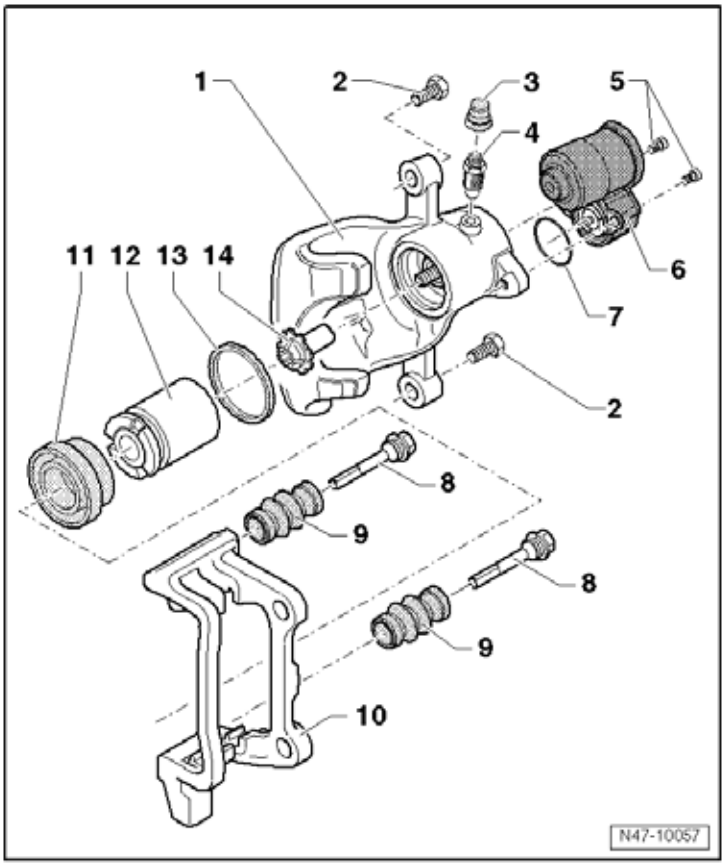
1 - Dust Cap
2 - Bleeder Valve
- ☐ 13 Nm
- ☐ Apply a thin coat of assembly paste G 052 150 A2 to the threads before screwing in.

3 - Bolt
- ☐ 35 Nm
- ☐ Always replace if removed

4 - Guide Pins
- ☐ 30 Nm

5 - Cap
6 - Brake Caliper
7 - Cap
8 - Pistons
9 - Seal
10 - Brake Caliper

Rear Brake Caliper Overview



1 - Brake Caliper
2 - Self-Locking Nut
- ☐ 35 Nm
- ☐ Replace

3 - Dust Cap
4 - Bleeder Valve
- ☐ 10 Nm
- ☐ Apply a thin coat of assembly paste G 052 150 A2 to the threads before screwing in.

5 - Inner Torx® Bolt
- ☐ 12 Nm

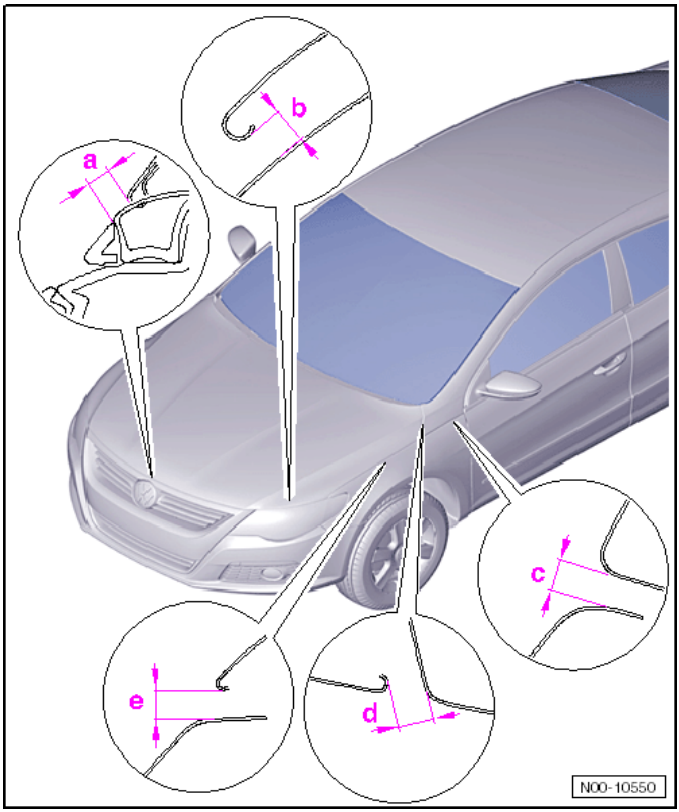
6 - Parking Brake Motor
7 - Seal
8 - Guide Pins
9 - Cap

10 - Brake Carrier with Guide Pins and Cap
11 - Cap
12 - Pistons
13 - Seal
14 - Pressure Nut

BODY

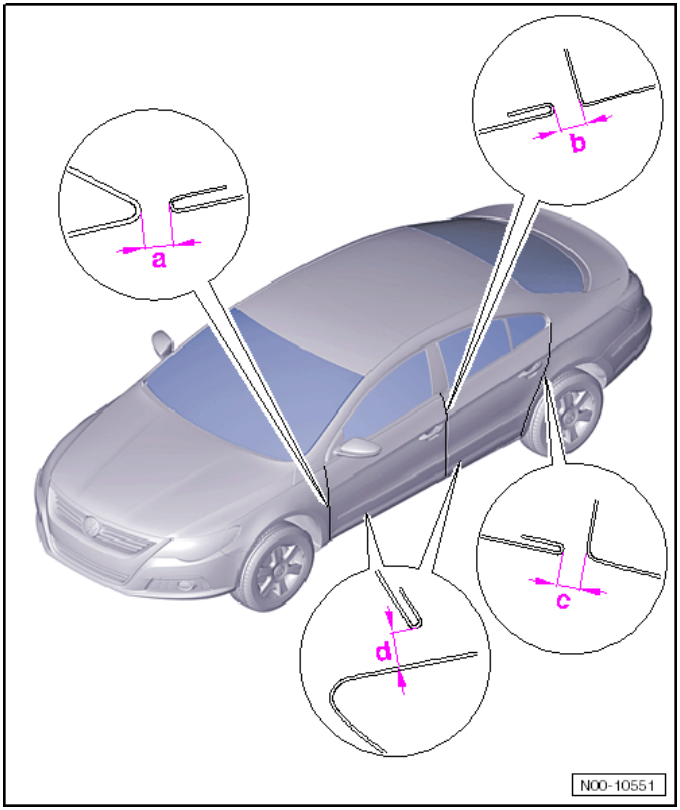
Air Gap Body Dimensions

Body, Front



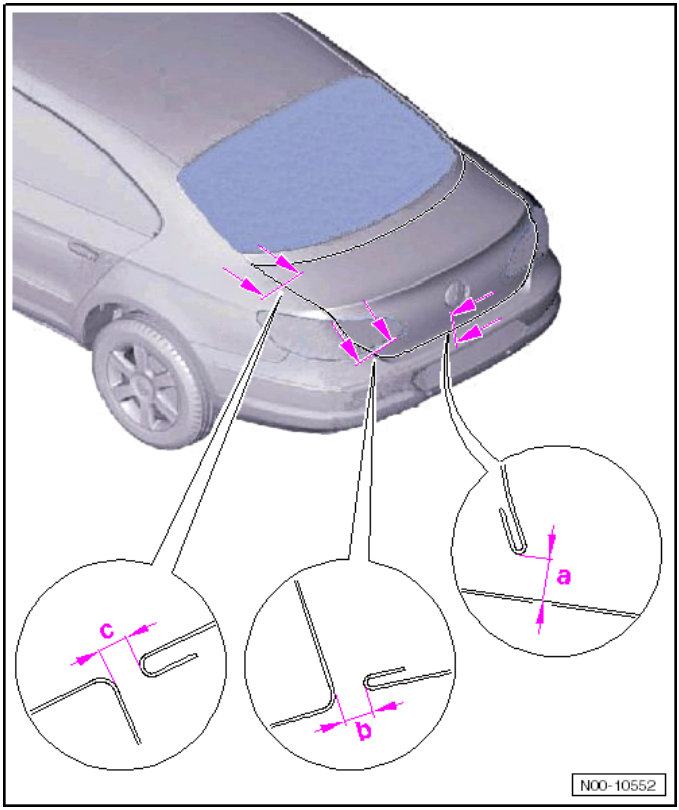
Component	mm
a	6.0 ± 1
b	6.0 ± 1
c	3.5 ± 1
d	3.5 ± 1
e	4.0 ± 1

Body, Center



Component	mm
a	3.5 ± 1
b	4.5 ± 1
c	3.5 ± 1
d	5.5 ± 1

Body, Rear

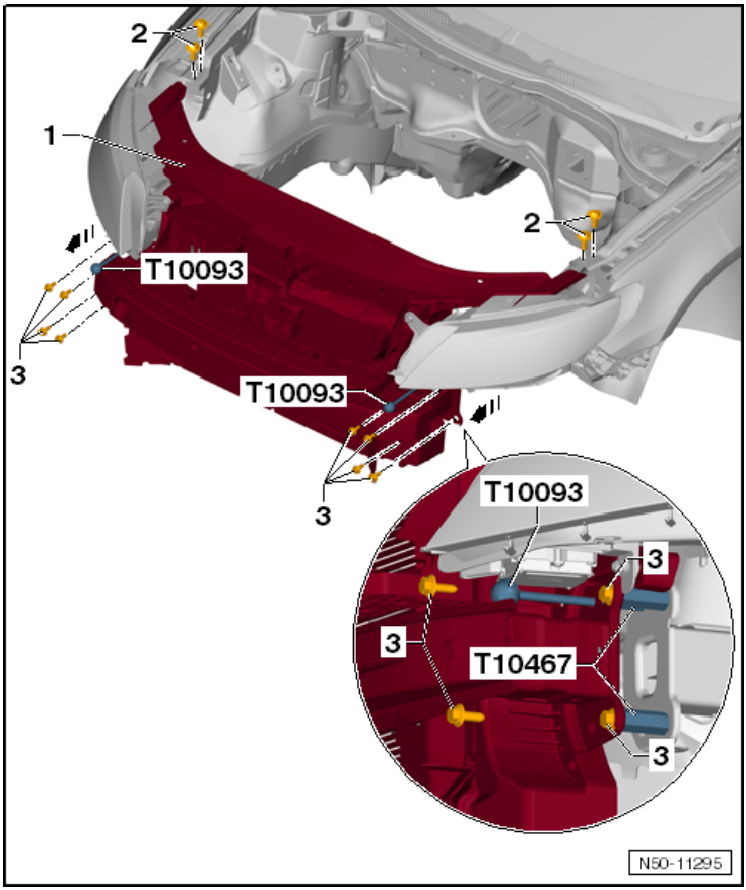


Component	mm
a	6.0 ± 1
b	3.5 ± 1
c	3.5 ± 1

Body Exterior

Body Front

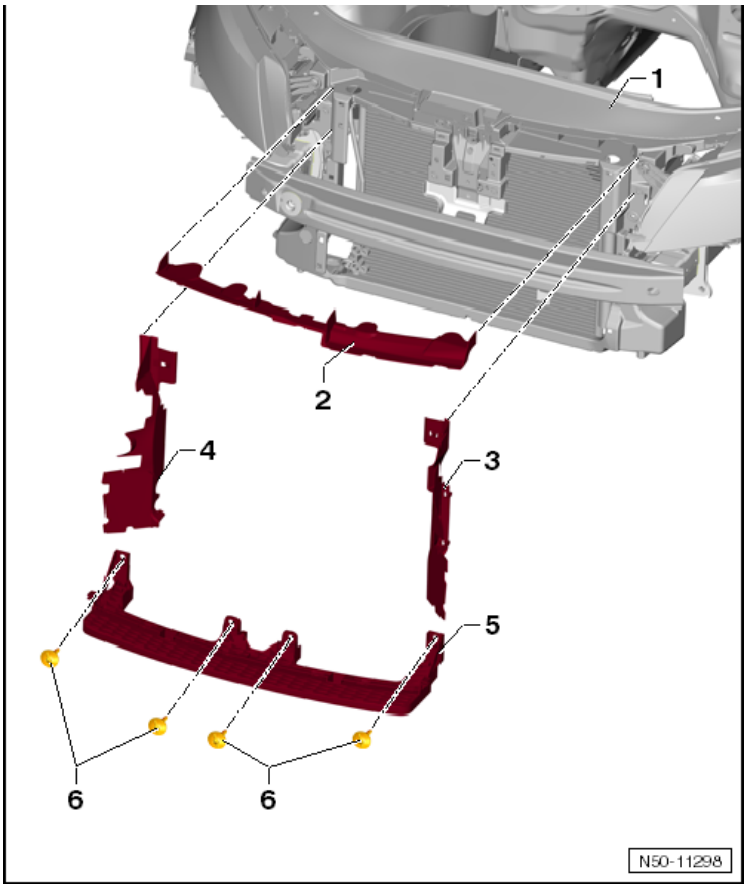
Lock Carrier Assembly Overview



1 - Lock Carrier with Attachments
2 - Bolt
- ☐ 8 Nm

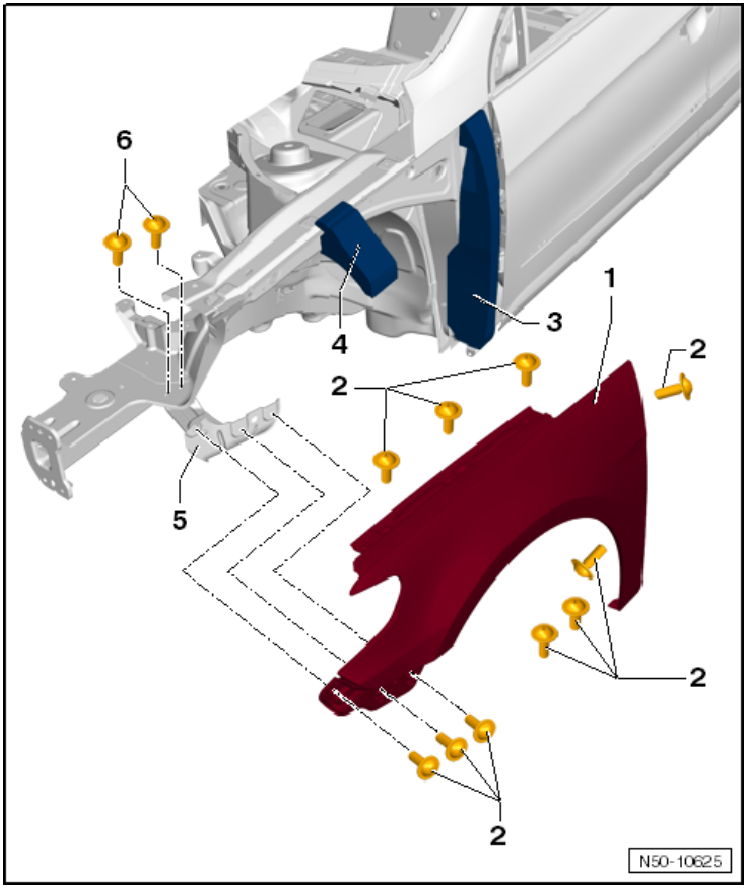
3 - Bolt
- ☐ 60 Nm

Lock Carrier Air Vents Assembly Overview



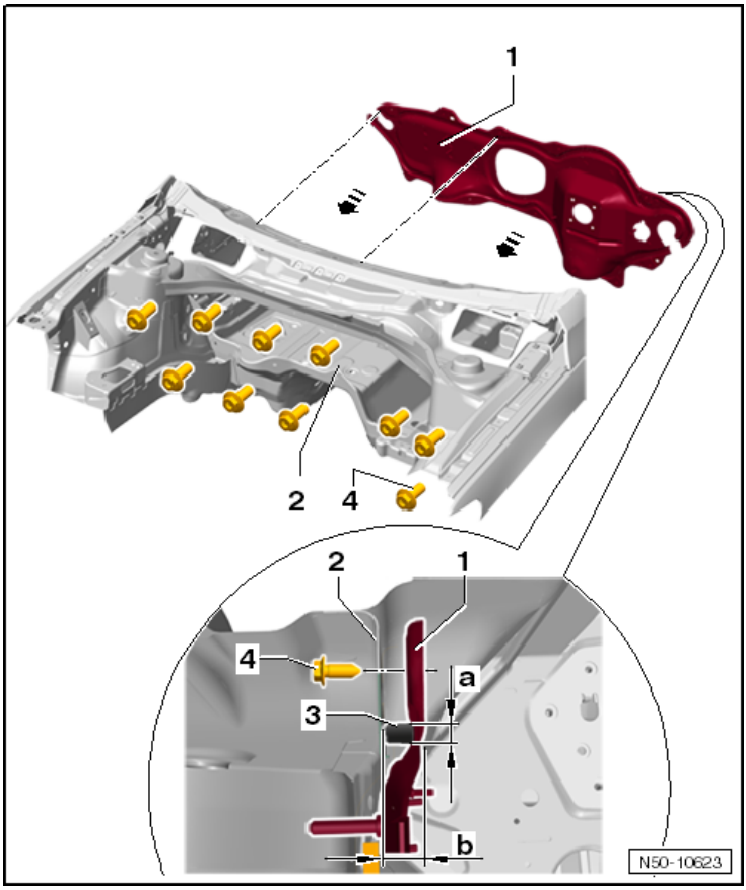
1 - Lock Carrier
2 - Upper Air Vent
3 - Left Air Vent
4 - Right Air Vent
5 - Center Guide
6 - Bolt
☐ 8 Nm

Fender Assembly Overview



1 - Fender
2 - Bolt
☐ 7.5 Nm
3 - Fender End Plate
4 - Foam Piece
5 - Fender Brace
6 - Bolt
☐ 2 Nm

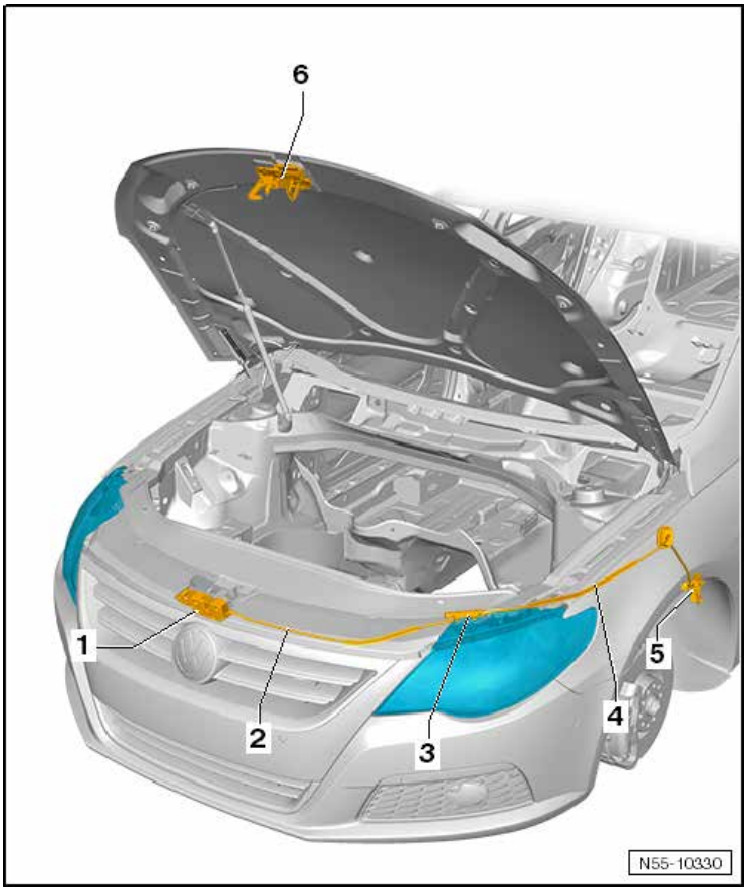
Bulkhead Assembly Overview



1 - Bulkhead
2 - Body Flange
3 - PUR Adhesive Sealant
4 - Bolt
☐ 25 Nm

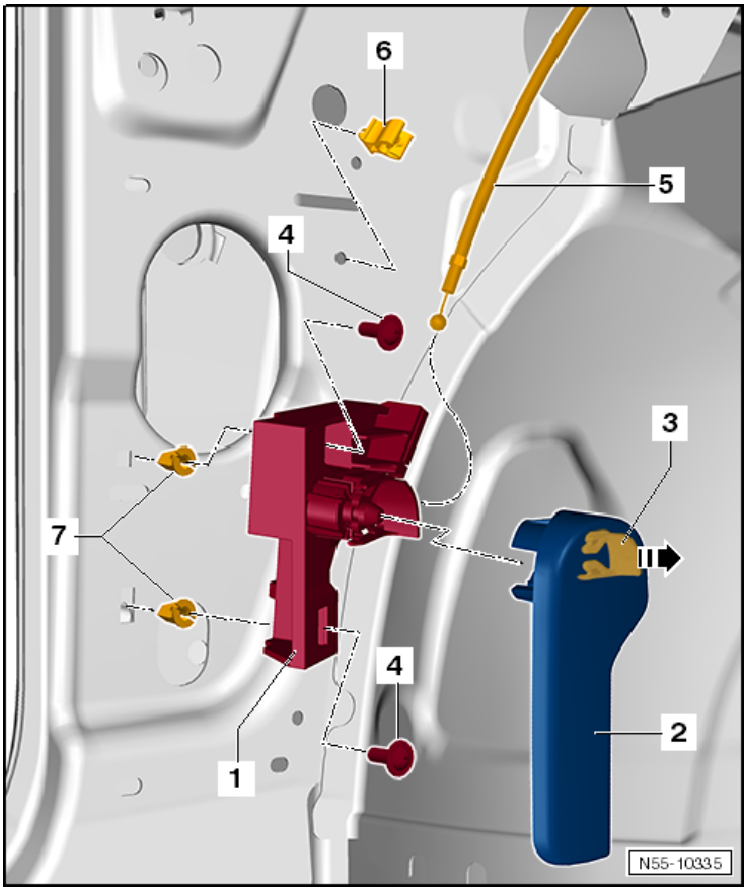
Hood, Lids

Hood Locking and Unlocking Components Overview



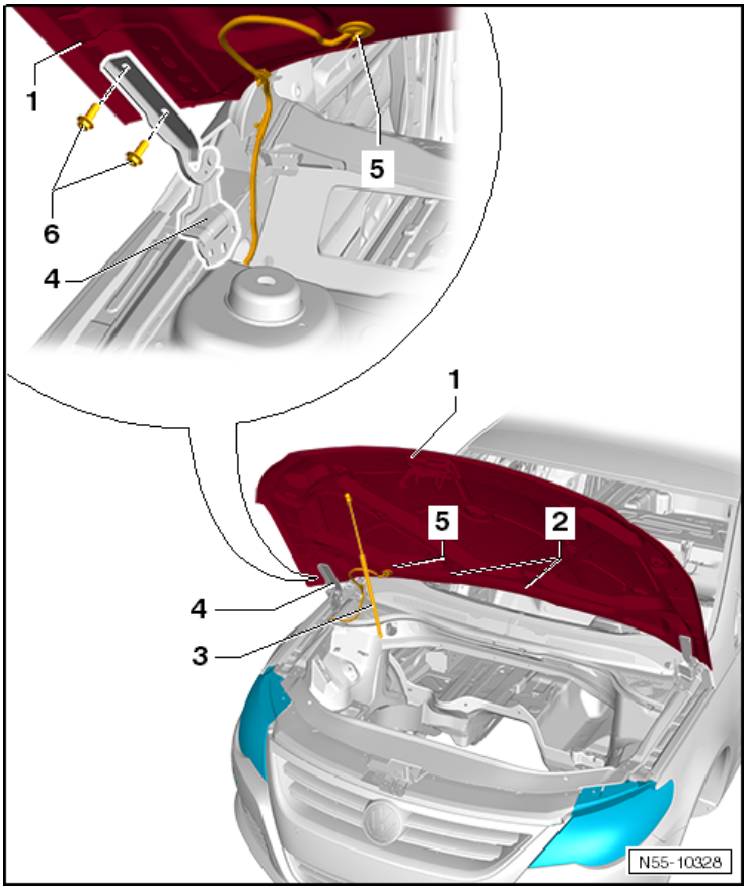
1 - Rear Lid Latch
2 - Release Cable
3 - Release Coupling
4 - Release Cable
5 - Operating Lever
6 - Hook
☐ Bolt: 25 Nm

Hood Release Lever and Bracket Overview



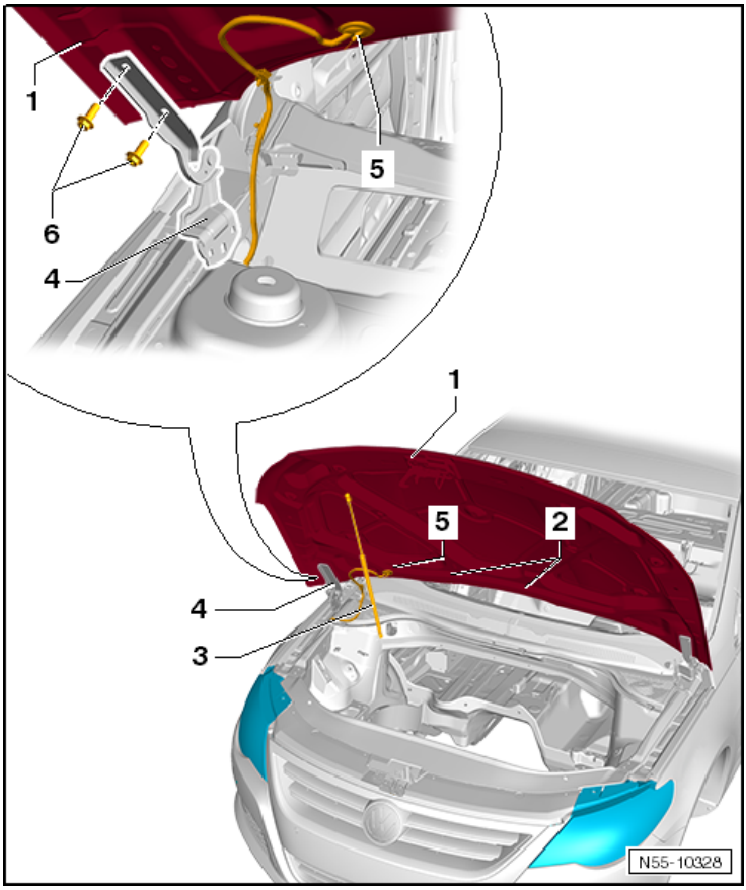
1 - Bracket
2 - Operating Lever
3 - Clip
4 - Bolt
☐ 2 Nm
5 - Release Cable
6 - Clip
7 - Expanding Nut

Hood Overview



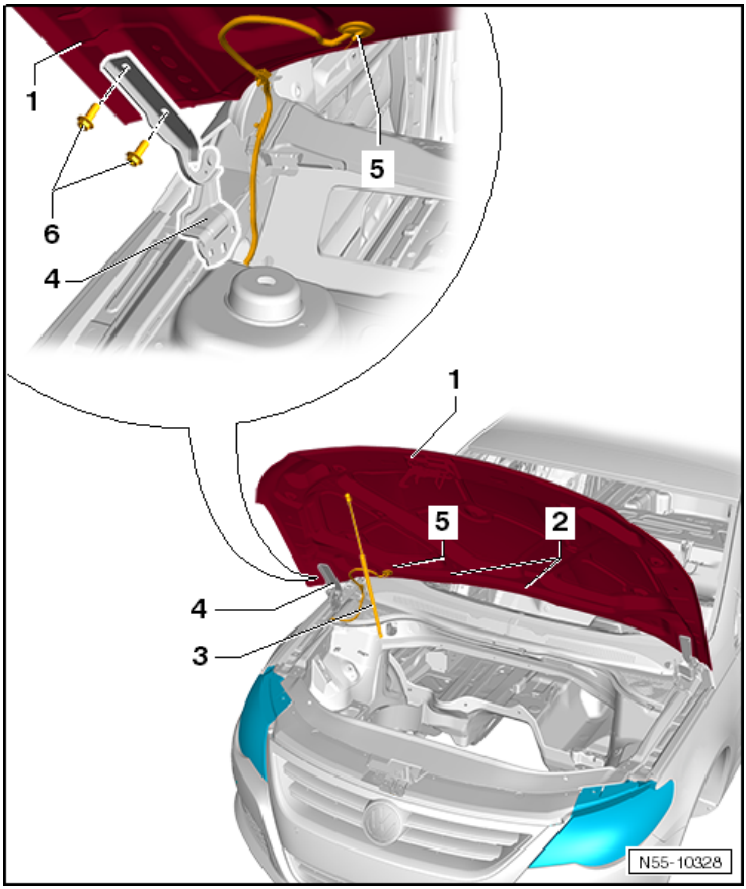
1 - Hood
2 - Spray Nozzles
3 - Gas-Filled Strut
4 - Hinge
5 - Wire
6 - Bolt
☐ 21 Nm

Hood Overview



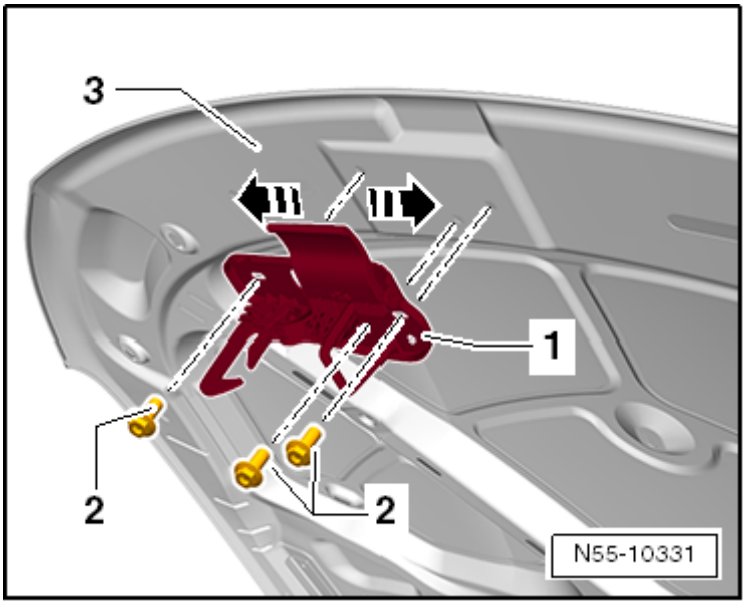
1 - Hood
2 - Spray Nozzles
3 - Gas-Filled Strut
4 - Hinge
5 - Wire
6 - Bolt
☐ 21 Nm

Hood Overview



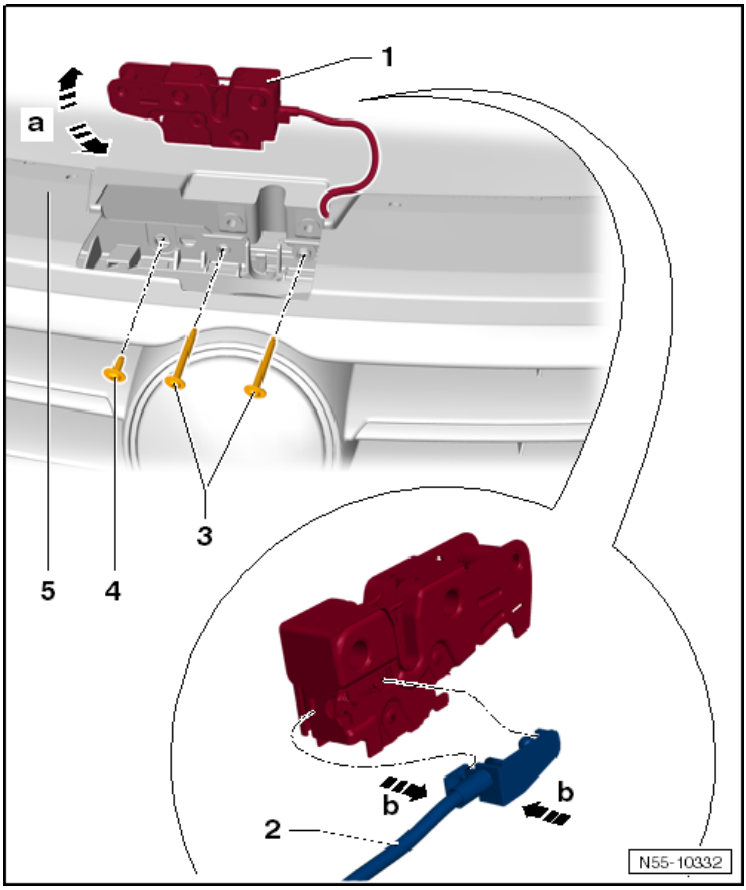
1 - Hood
2 - Spray Nozzles
3 - Gas-Filled Strut
4 - Hinge
5 - Wire
6 - Bolt
☐ 21 Nm

Striker Pin Overview



1 - Catch
2 - Bolt
☐ 10 Nm
3 - Hood

Hood Latch and Cable Overview

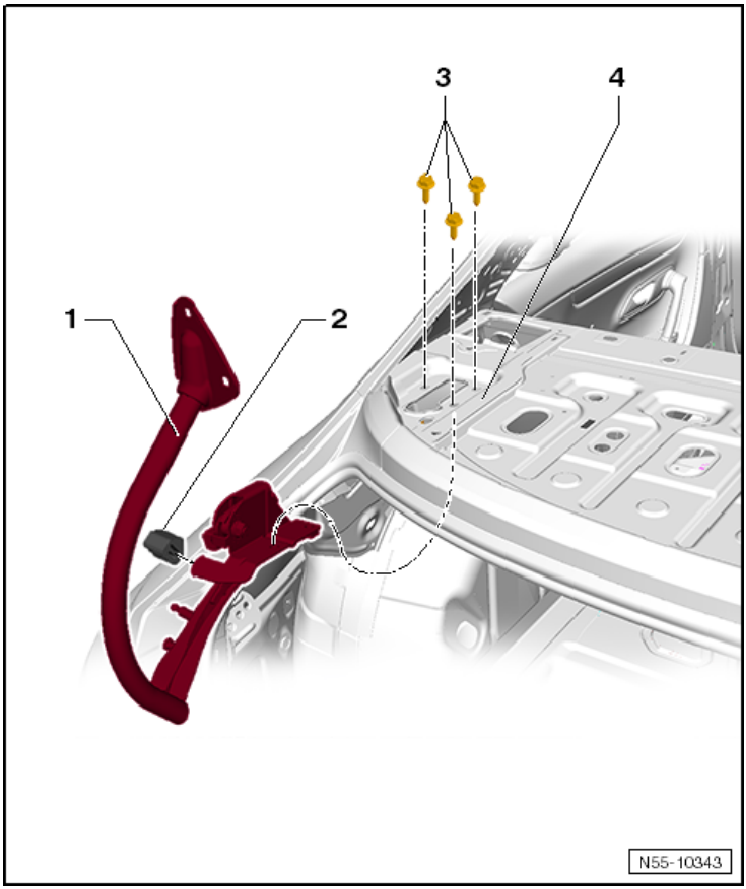


1 - Hood Latch
2 - Release Cable
3 - Bolt
- ☐ 12 Nm

4 - Bolt
- ☐ 12 Nm

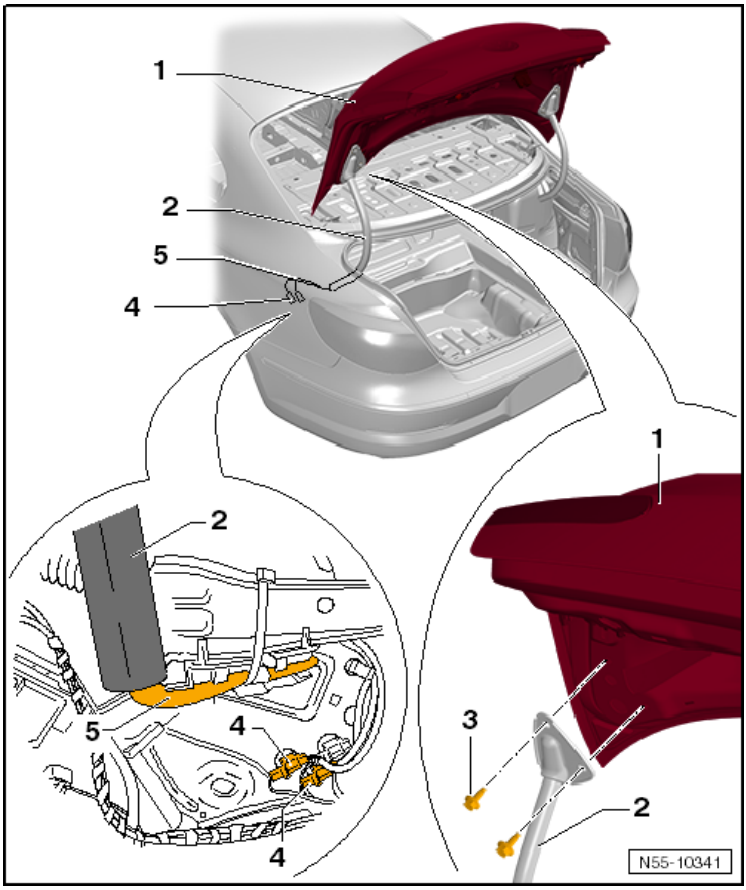
5 - Lock Carrier

Rear Lid Hinge Assembly Overview



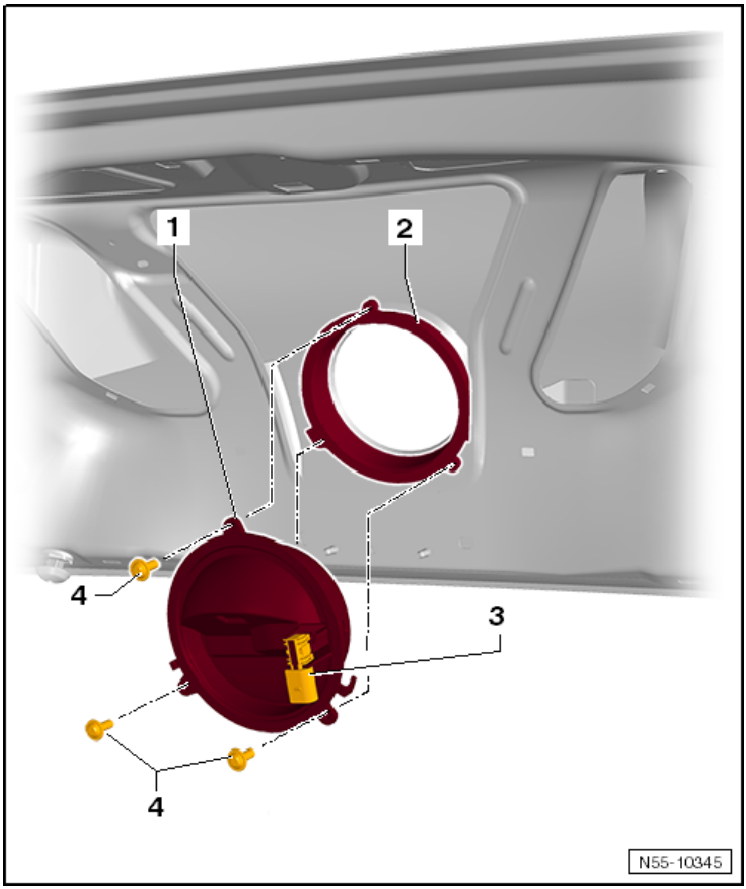
1 - Hinge
2 - Rubber Stop
3 - Bolt
☐ 22 Nm
4 - Rear Shelf

Rear Lid Overview



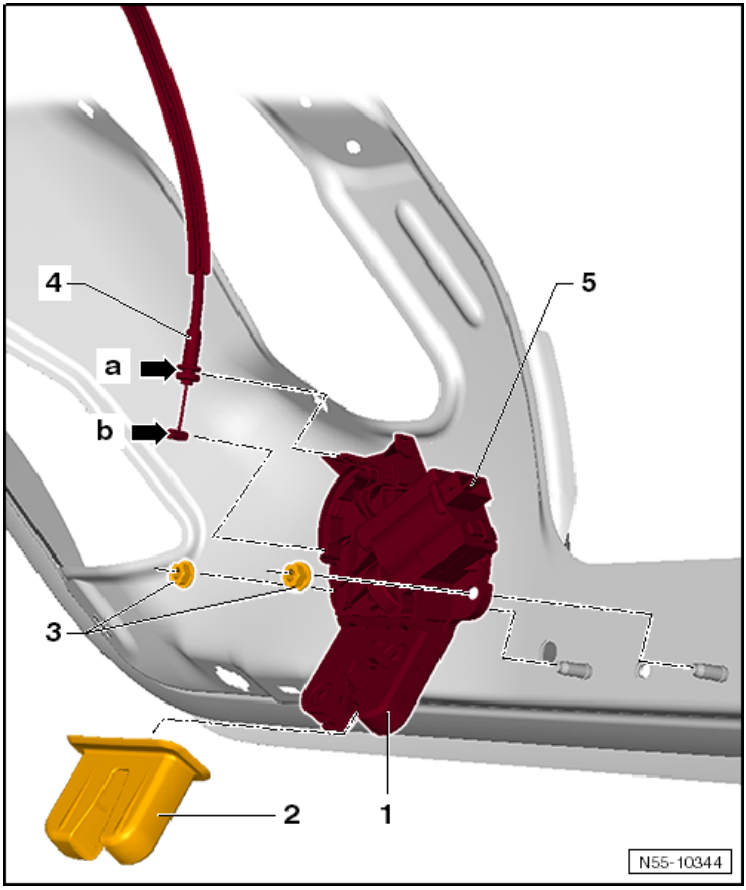
1 - Rear Lid
2 - Rear Lid Hinge
3 - Bolt
☐ 24 Nm
4 - Connectors
5 - Wires

Actuator



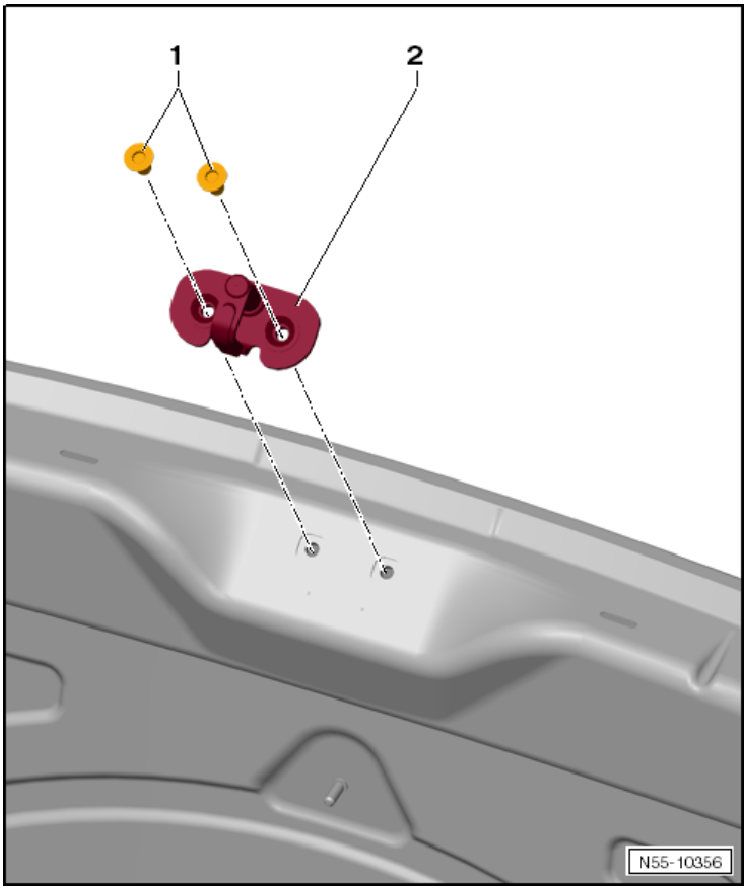
1 - Unlocking Element
2 -
3 - Connector
4 - Bolt
☐ 4 Nm

Rear Lid Latch Overview



1 - Rear Lid Lock
2 - Rubber Stop
3 - Nuts
☐ 8 Nm
4 - Cover
5 - Connector

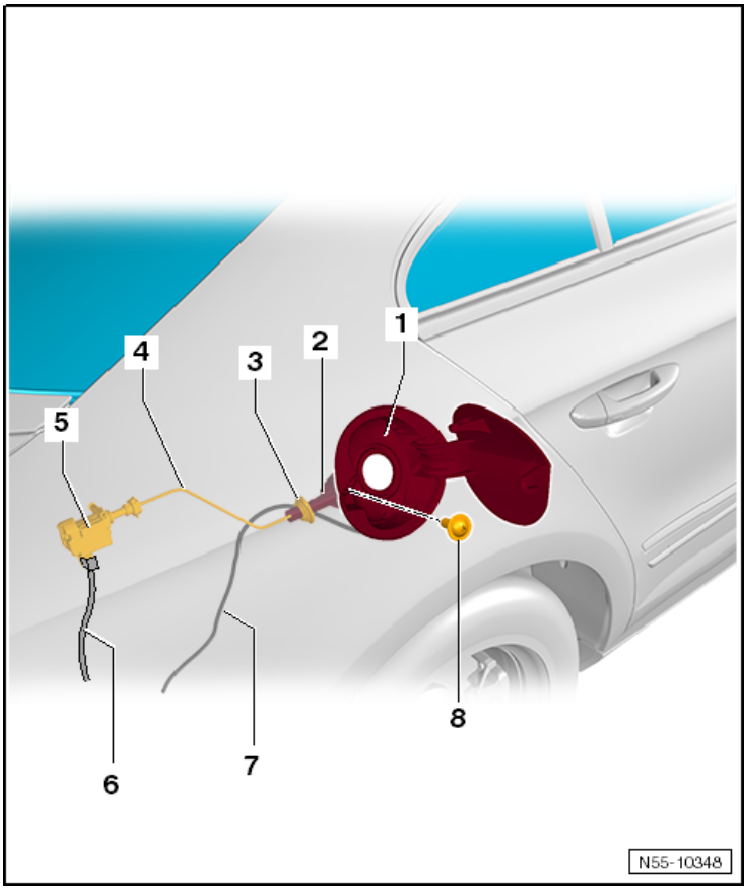
Striker Pin Overview



1 - Bolt
- ☐ 18 Nm

2 - Catch

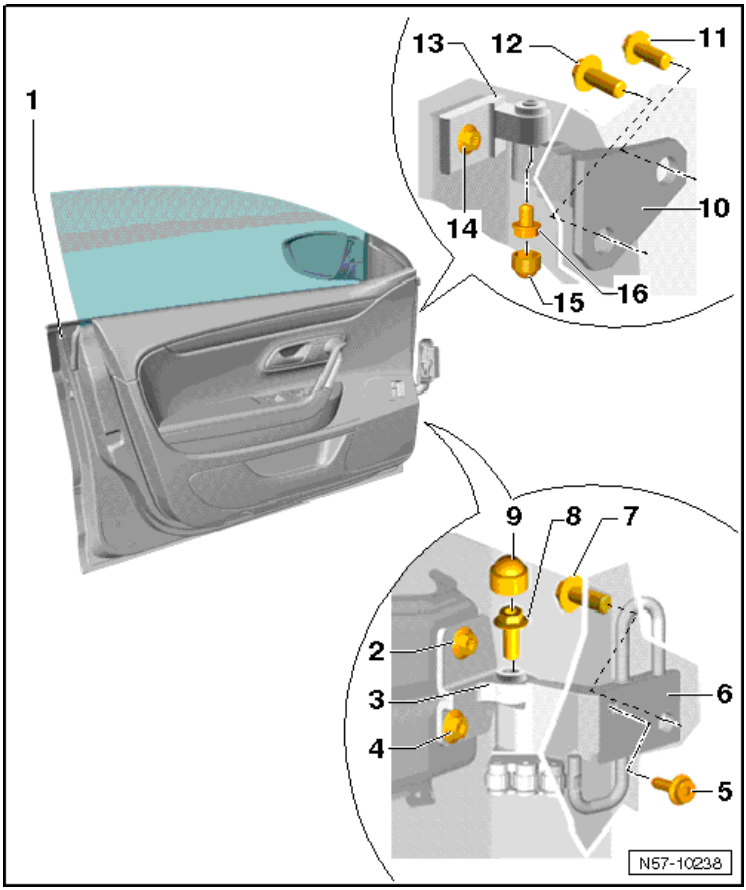
Fuel Filler Door Unit Overview



1 - Fuel Filler Door Unit
2 - Assembly Piece
3 - Seal
4 - Release Rod
5 - Actuator
6 - Connector
7 - Water Drain Hose
8 - Bolt
☐ 1.5 Nm

Front Doors, Central Locking System

Door Hinges Assembly Overview



1 - Door
2 - Socket Head Bolt
- ☐ 50 Nm
- ☐ Always replace bolts after removing them

3 - Door Hinge
4 - Socket Head Bolt
- ☐ 50 Nm
- ☐ Always replace bolts after removing them

5 - Socket Head Bolt
- ☐ 44 Nm
- ☐ Always replace bolts after removing them

6 - Door Hinge with Door Arrester

7 - Socket Head Bolt
- ☐ 44 Nm
- ☐ Always replace bolts after removing them

8 - Bolt
- ☐ 28 Nm

9 - Cover

10 - Door Hinge

11 - Socket Head Bolt
- ☐ 44 Nm
- ☐ Always replace bolts after removing them

12 - Socket Head Bolt
- ☐ 44 Nm
- ☐ Always replace bolts after removing them

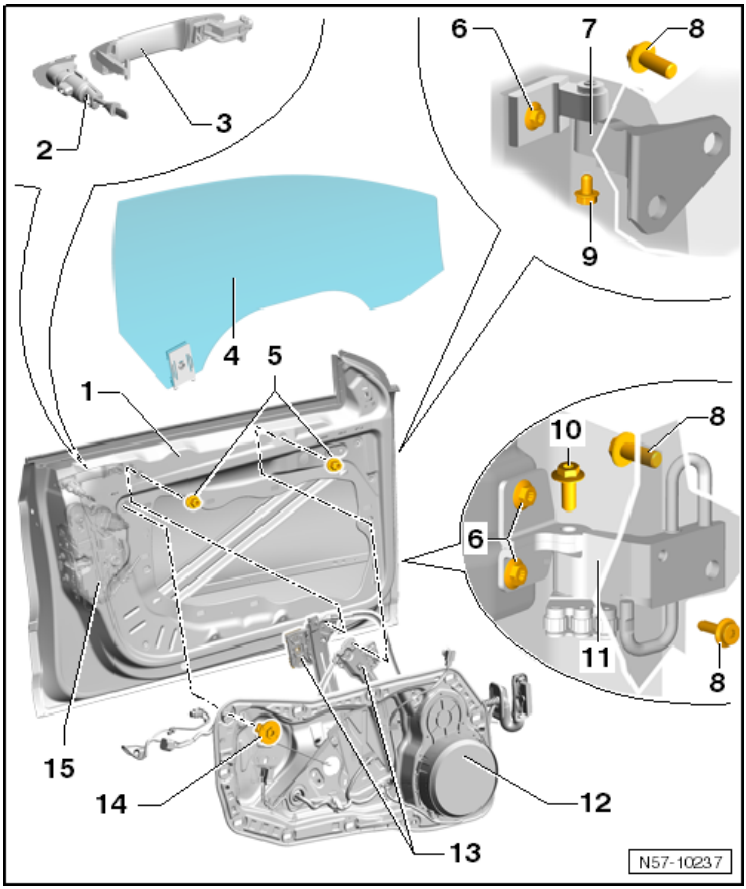
13 - Door Hinge

14 - Socket Head Bolt
- ☐ 50 Nm
- ☐ Always replace bolts after removing them

15 - Cover

16 - Bolt
- ☐ 28 Nm

Installation Components Overview



1 - Door
2 - Lock Cylinder
3 - Door Handle with Backing Plate
4 - Door Window
5 - Bolt
- ☐ 12 Nm

6 - Socket Head Bolt
- ☐ 50 Nm
- ☐ Always replace bolts after removing them

7 - Door Hinge
8 - Bolt
- ☐ 44 Nm
- ☐ Always replace bolts after removing them

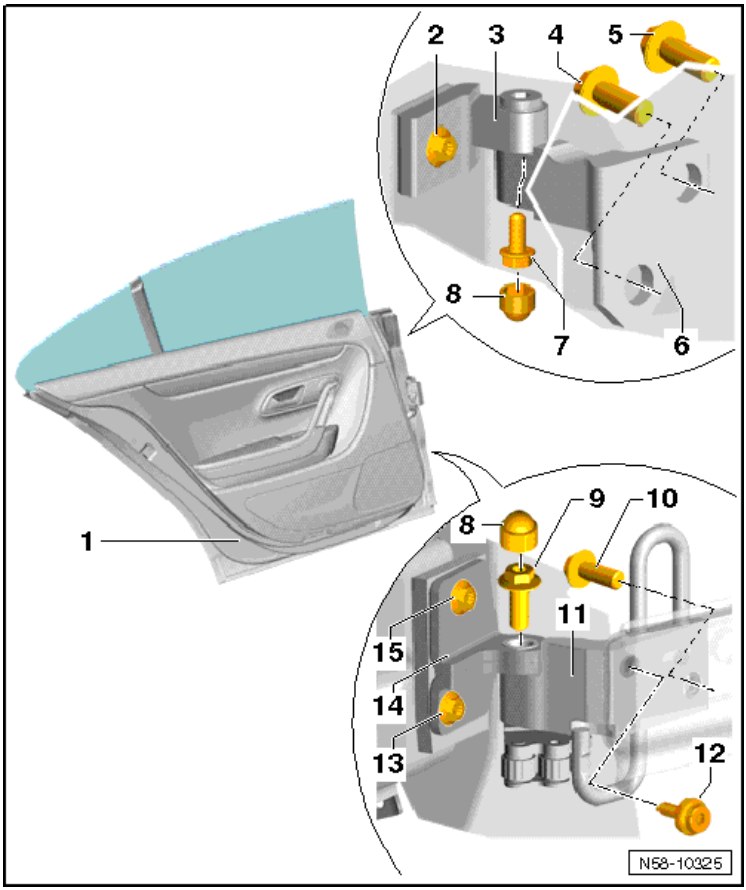
9 - Bolt
- ☐ 28 Nm

10 - Bolt
- ☐ 28 Nm

11 - Door Hinge
12 - Subframe
13 - Window Regulator
14 - Clip
15 - Door Lock

Rear Doors

Door Hinges Overview



1 - Door
2 - Socket Head Bolt
- ☐ 50 Nm
- ☐ Always replace bolts after removing them

3 - Door Hinge
4 - Socket Head Bolt
- ☐ 50 Nm
- ☐ Always replace bolts after removing them

5 - Socket Head Bolt
- ☐ 50 Nm
- ☐ Always replace bolts after removing them

6 - Door Hinge
7 - Bolt
- ☐ 28 Nm

8 - Cover

9 - Bolt

- ☐ 28 Nm

10 - Socket Head Bolt

- ☐ 44 Nm
- ☐ Always replace bolts after removing them

11 - Door Hinge with Door Arrester

12 - Socket Head Bolt

- ☐ 44 Nm
- ☐ Always replace bolts after removing them

13 - Socket Head Bolt

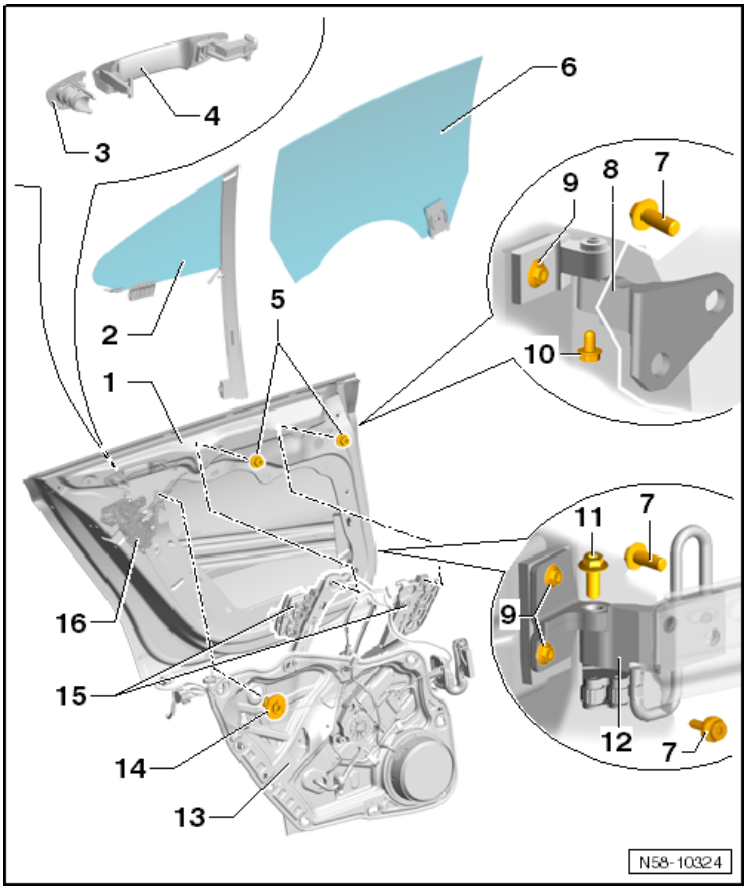
- ☐ 50 Nm
- ☐ Always replace bolts after loosening them

14 - Door Hinge

15 - Socket Head Bolt

- ☐ 50 Nm
- ☐ Always replace bolts after removing them

Rear Door Hinges Overview



1 - Door
2 - Fixed Rear Door Glass
3 - Lock Cylinder Housing
4 - Door Handle with Backing Plate
5 - Nut
- ☐ 14 Nm

6 - Rear Door Window
7 - Socket Head Bolt
- ☐ 44 Nm
- ☐ Always replace bolts after removing them

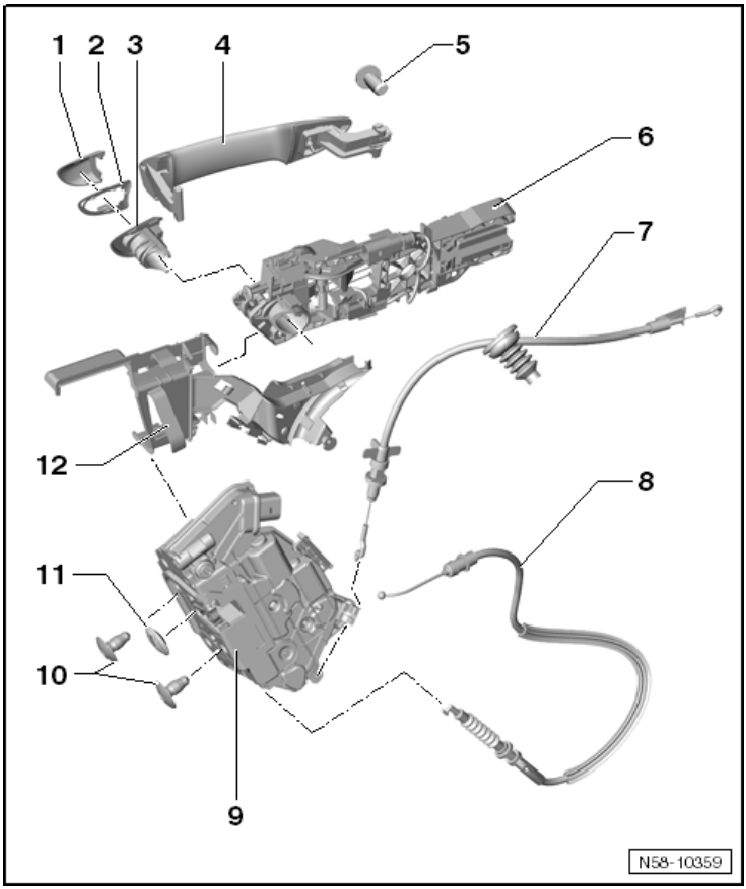
8 - Door Hinge
9 - Socket Head Bolt
- ☐ 50 Nm
- ☐ Always replace bolts after removing them

10 - Bolt
- ☐ 28 Nm

11 - Bolt
- ☐ 28 Nm

12 - Door Hinge with Door Arrestor
13 - Subframe
14 - Clip
15 - Window Regulator
16 - Door Lock

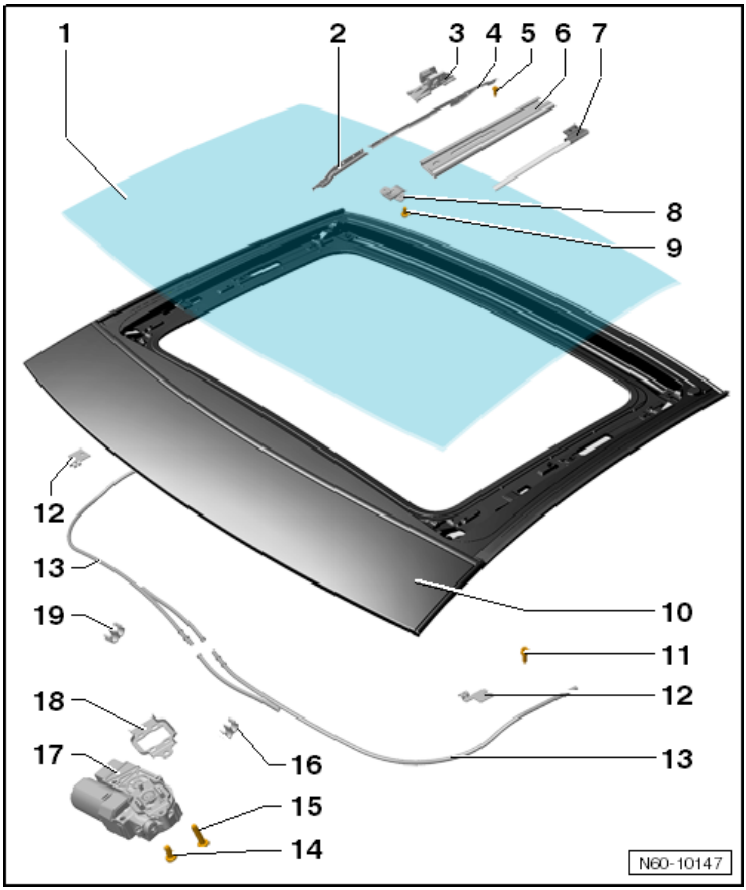
Door Handle and Door Lock Assembly Overview



1 - Cover
2 - Backing
3 - Lock Cylinder Housing
4 - Door Handle with Backing Plate
5 - Bolt
☐ 4.5 Nm
6 - Bracket
7 - Cable
8 - Cable
9 - Door Lock
10 - Bolt
☐ 20 Nm
11 - Cover
12 - Bracket

Sunroof

Sunroof Overview

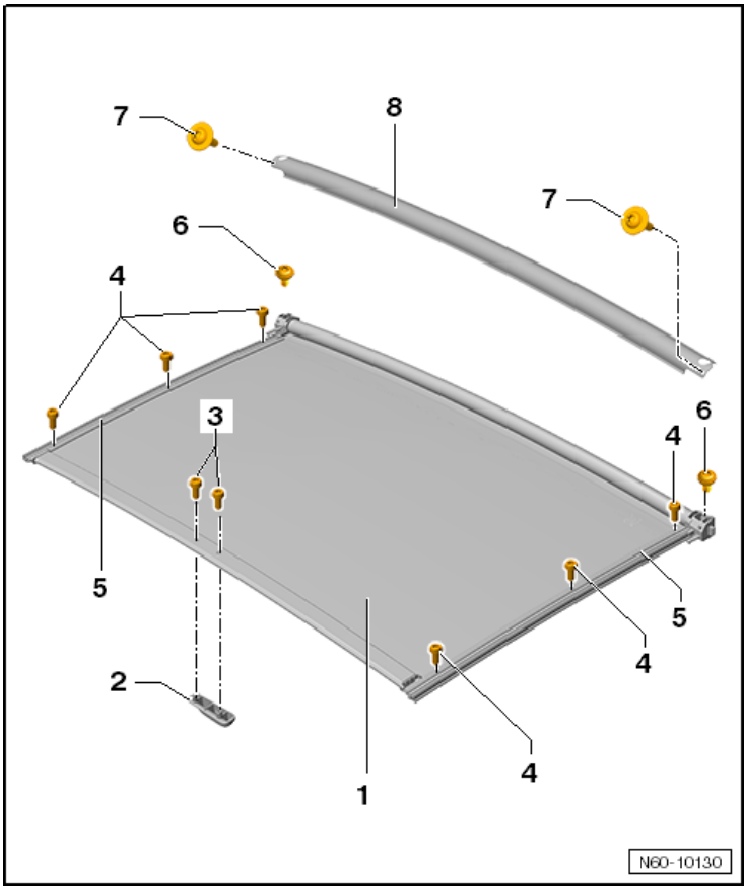


1 - Panorama Sunroof Glass Panel (one-piece safety glass)
2 - Hinge
3 - Sliding Block
4 - Slotted Guide Rail
5 - Bolt
☐ 2 Nm
6 - Slotted Guide Rail
7 - Cable
8 - Hinge
9 - Bolt
☐ 1.8 Nm
10 - Assembly Frame
11 - Bolt
☐ 2 Nm

12 - Bracket
13 - Protective Tubes
14 - Bolt
15 - Bolt
- ☐ 3.5 Nm

16 - Clip
17 - Electrical Drive Motor
18 - Cover Plate
19 - Clip

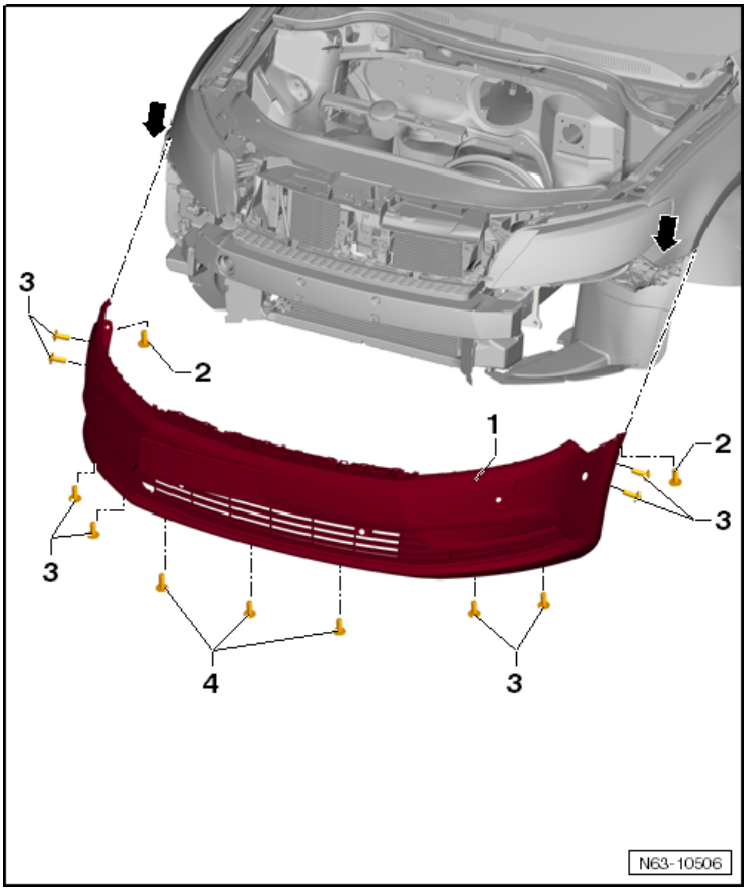
Sun Shade Overview



1 - Sun Shade
2 - Handle
3 - Bolt
☐ 2 Nm
4 - Bolts
☐ 2 Nm
5 - Guide Rail
6 - Bolt
☐ 2 Nm
7 - Bolt
☐ 2 Nm
8 - Cover

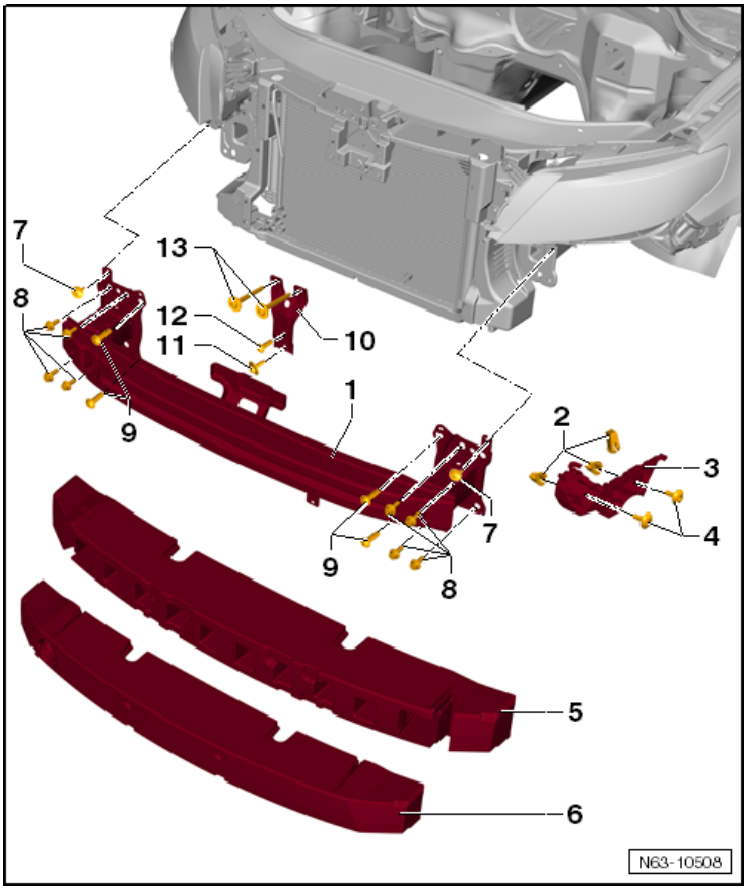
Bumpers

Front Bumper Overview



1 - Front Bumper Cover
2 - Bolt
☐ 2 Nm
3 - Bolt
☐ 2 Nm
4 - Bolt
☐ 2 Nm

Front Bumper Carrier Overview



1 - Front Bumpber
2 - Expanding Nut
3 - Guide Trim
4 - Bolt
☐ 2 Nm
5 - Foam Filler Piece
6 - Foam Filler Piece
7 - Bolt
☐ 3.5 Nm
8 - Bolt
☐ 60 Nm
9 - Bolt
☐ 8 Nm
10 - Lock Carrier Support
11 - Bolt
☐ 12 Nm

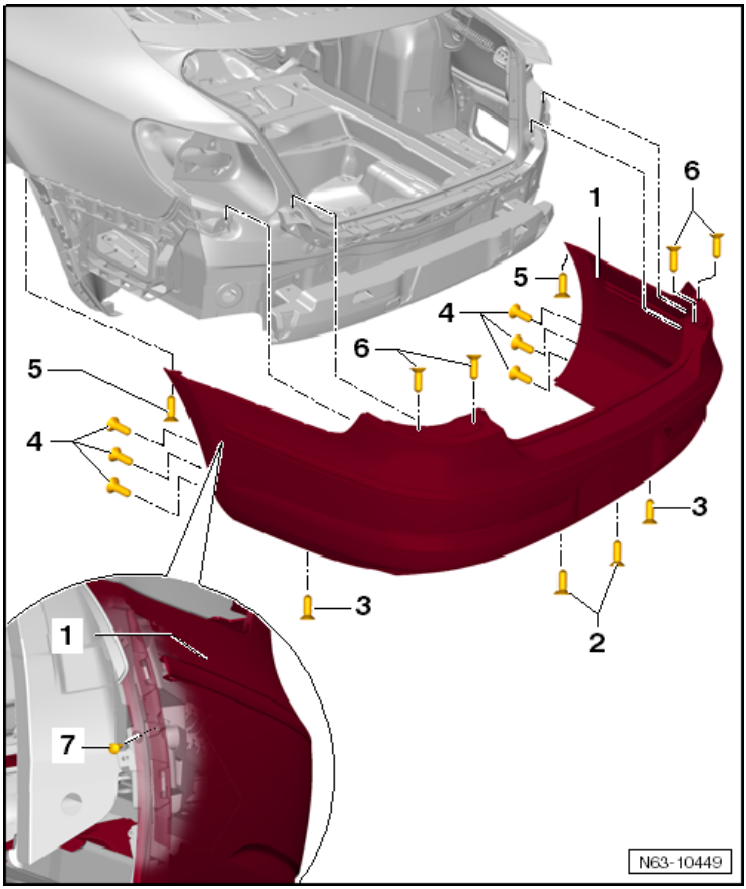
12 - Bolt

☐ 3.5 Nm

13 - Bolt

☐ 12 Nm

Rear Bumper Cover Overview



1 - Rear Bumper Cover
2 - Bolt
- ☐ 2 Nm

3 - Bolt
- ☐ 2 Nm

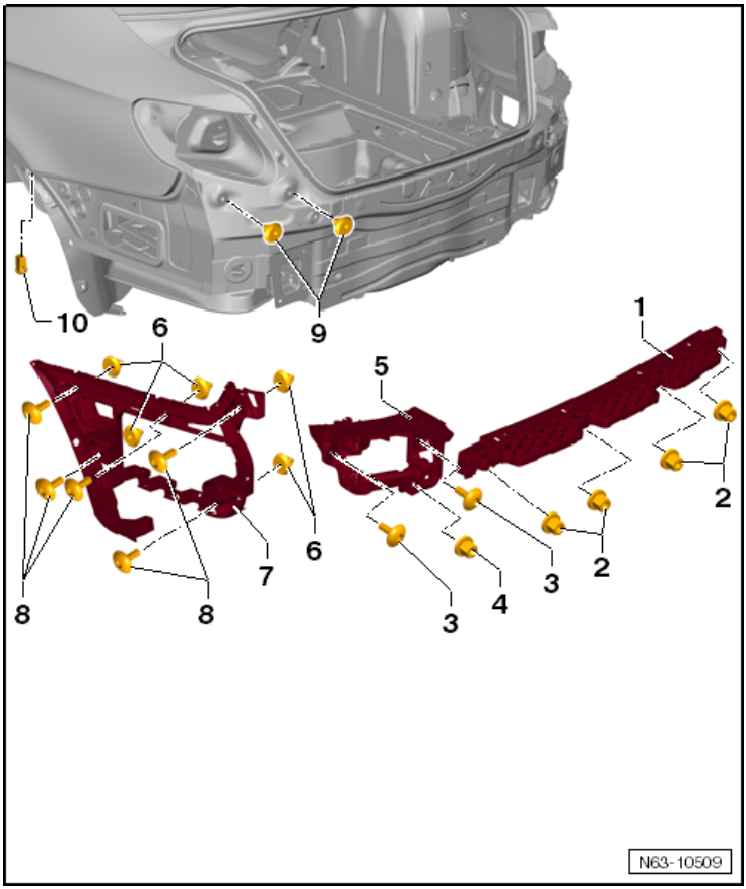
4 - Bolt
- ☐ 2 Nm

5 - Bolt
- ☐ 2 Nm

6 - Bolt
- ☐ 4 Nm

7 - Bolt
- ☐ 2 Nm

Rear Bumper Cover Guides Overview



1 - Securing Strip
2 - Nut
- ☐ 2.2 Nm

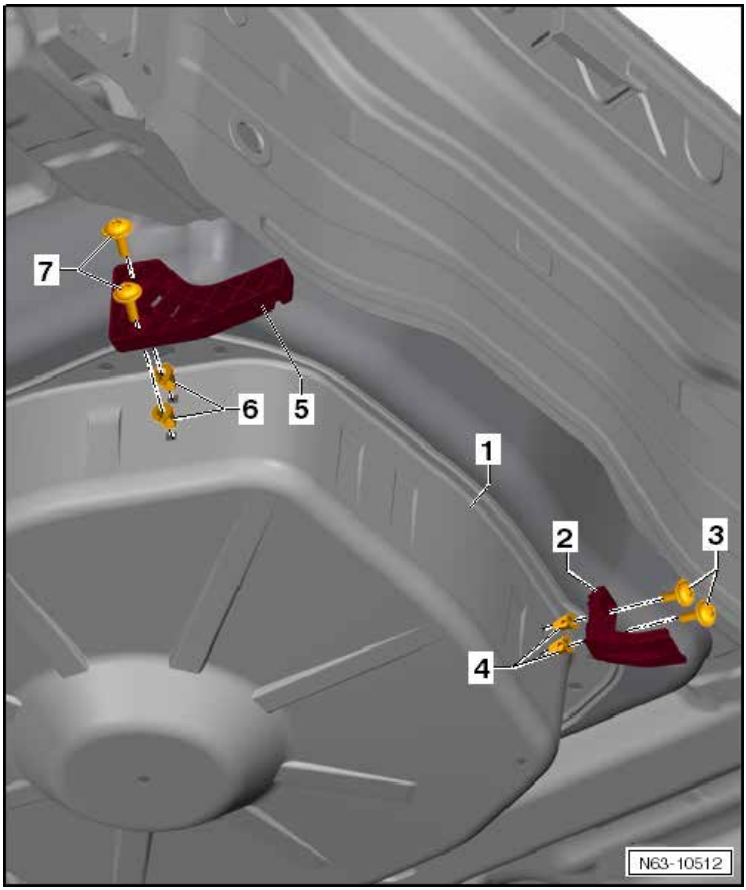
3 - Bolt
- ☐ 2.2 Nm

4 - Nut
- ☐ 2.2 Nm

5 - Guide Trim
6 - Expanding Nut
7 - Guide Trim
8 - Bolts
- ☐ 2.2 Nm

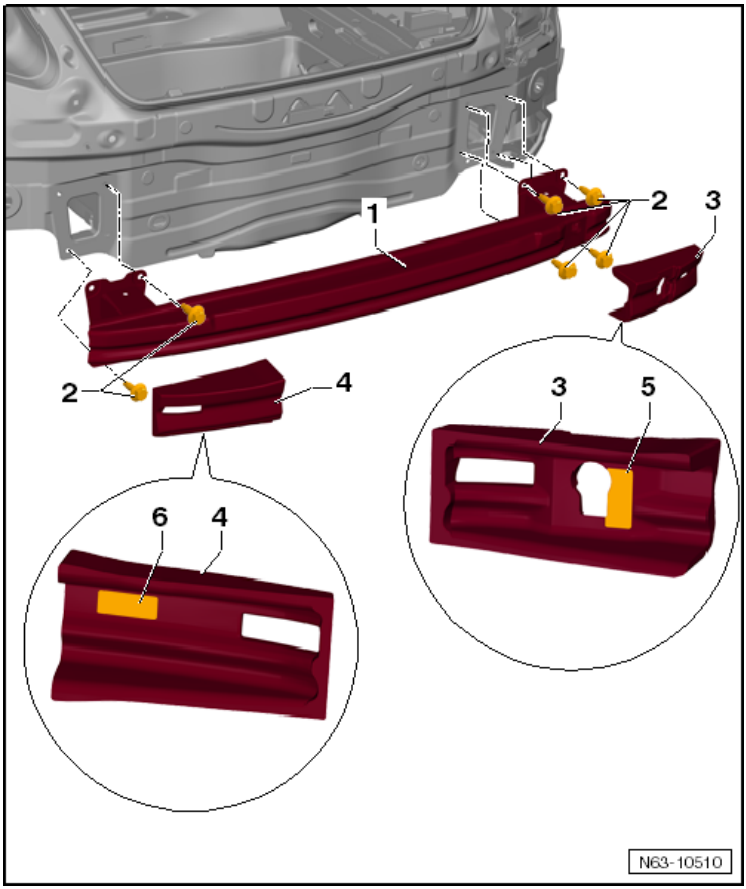
9 - Expanding Nut
10 - Expanding Nut

Rear Bumper Cover Mount Assembly Overview (Selective Catalytic Reduction)



1 - Spare wheel well
2 - Bracket
3 - Bolt
☐ 2 Nm
4 - Expanding Nut
5 - Bracket
6 - Expanding Nut
7 - Bolt
☐ 2 Nm

Rear Bumper Carrier Overview

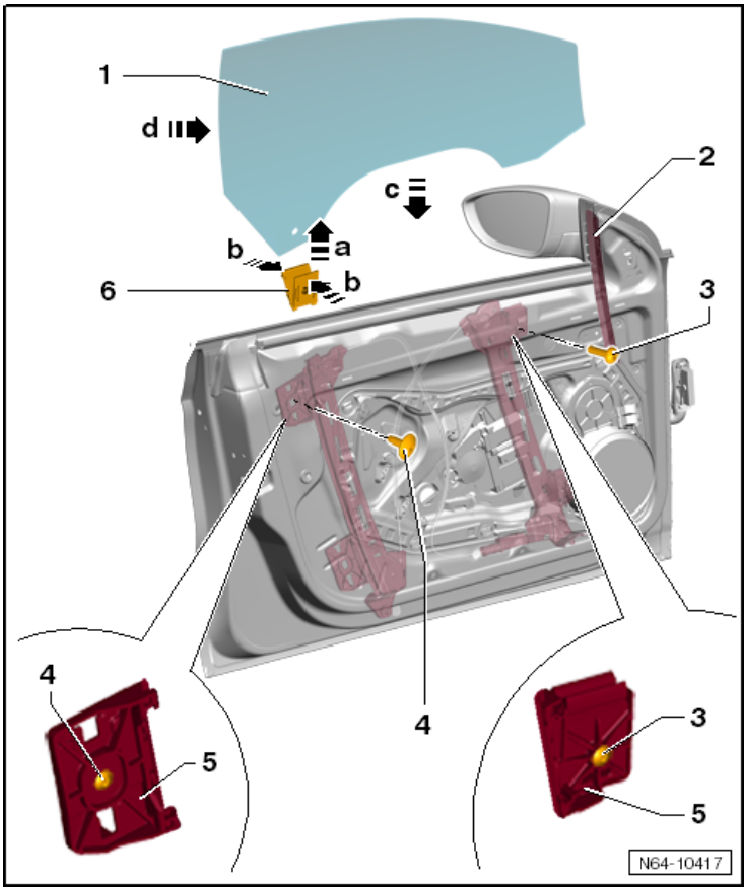


1 - Rear Bumper Carrier
2 - Bolt
- ☐ 20 Nm ± 3.0 Nm + 90° turn

3 - Right Foam Piece
4 - Left Foam Piece
5 - Right Protective Film
6 - Left Protective Film

Glass, Window Regulators

Front Door Window Overview



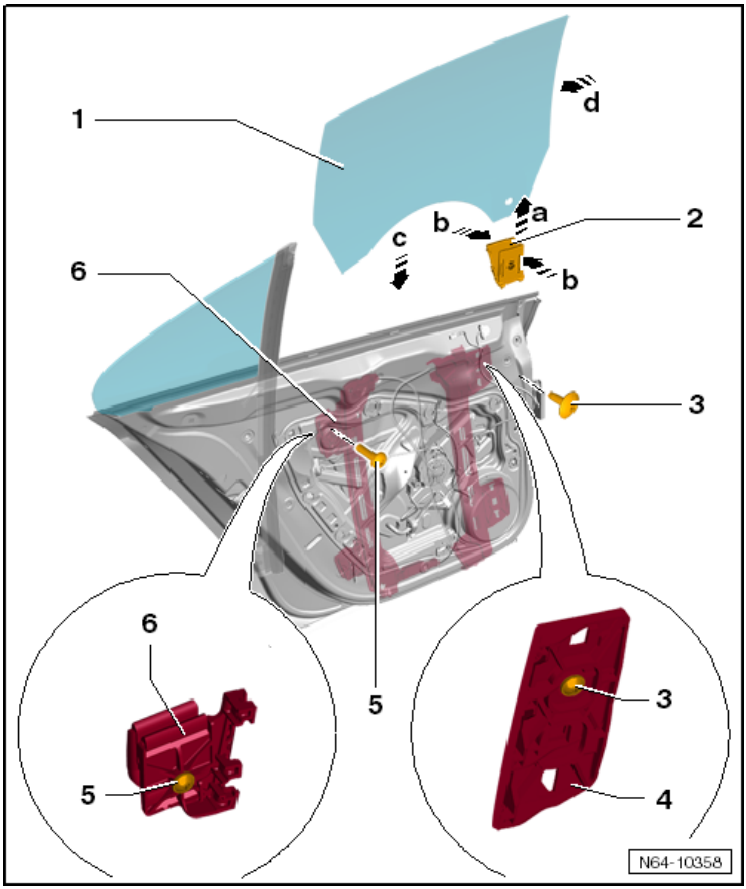
1 - Door Window
2 - Window Guide
3 - Bolt
- ☐ 8 Nm

4 - Bolt
- ☐ 8 Nm

5 - Window Regulator
- ☐ Is not part of the subframe in the Passat CC

6 - Clip

Rear Door Window Overview



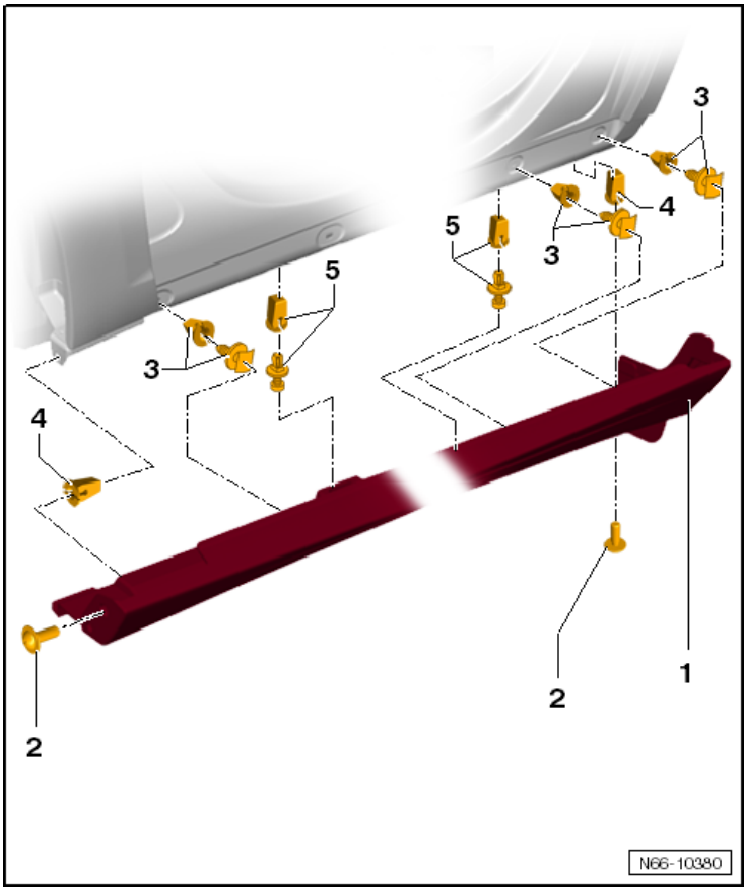
1 - Door Window
2 - Clip
3 - Bolt
- ☐ 8 Nm

4 - Window Regulator
- ☐ Is not part of the subframe in the Passat CC

5 - Bolt
- ☐ 8 Nm

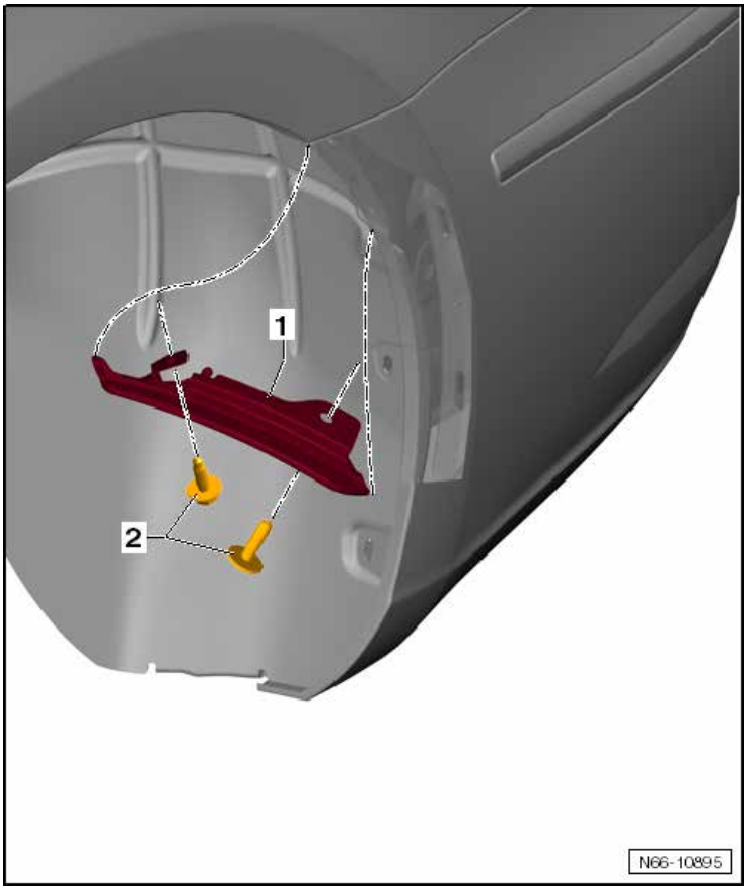
6 - Window Regulator
- ☐ Is not part of the subframe in the Passat CC

Side Member Trim Panel Overview



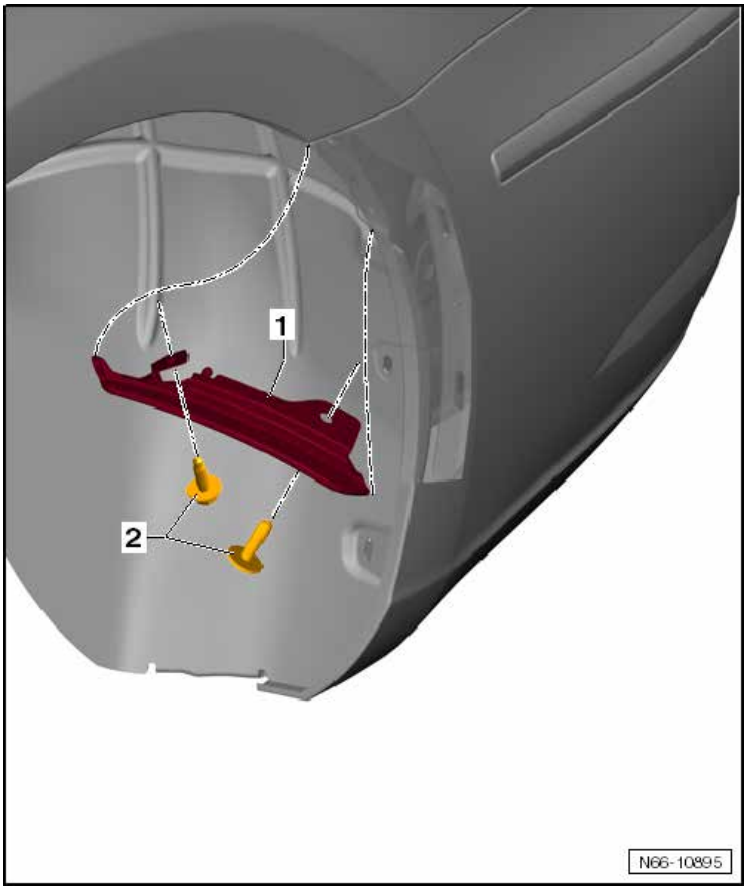
1 - Sill Panel Cover
2 - Bolt
☐ 1.5 Nm
3 - Clip with Protective Grommet
4 - Expanding Nut
5 - Expanding Rivet with Grommet

Wheel Cover Overview



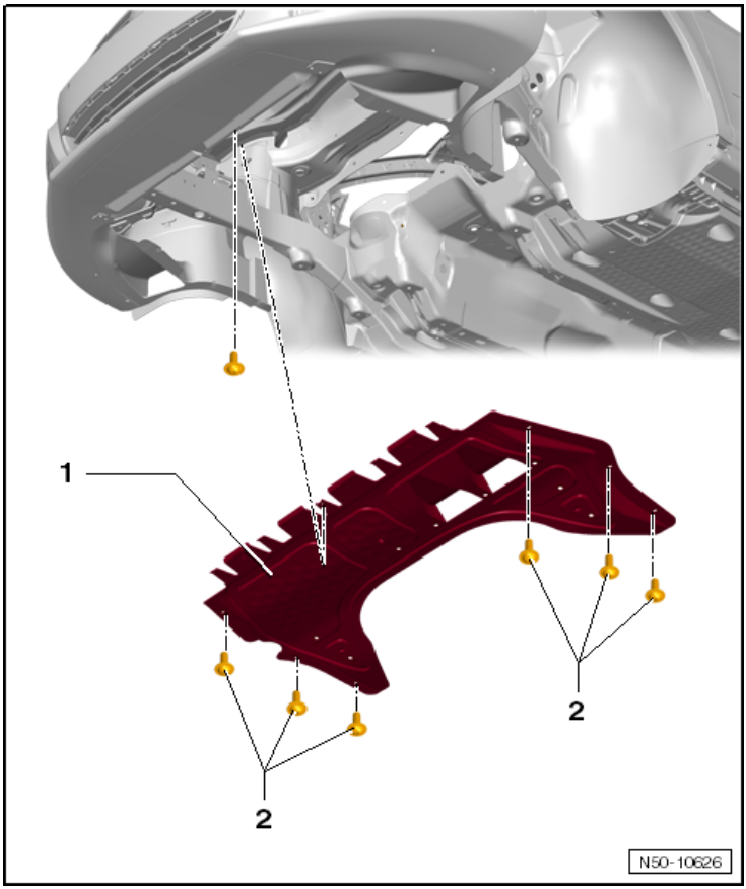
1 - Rear Wheel Trim
2 - Bolt
☐ 2 Nm

Wheel Cover Overview



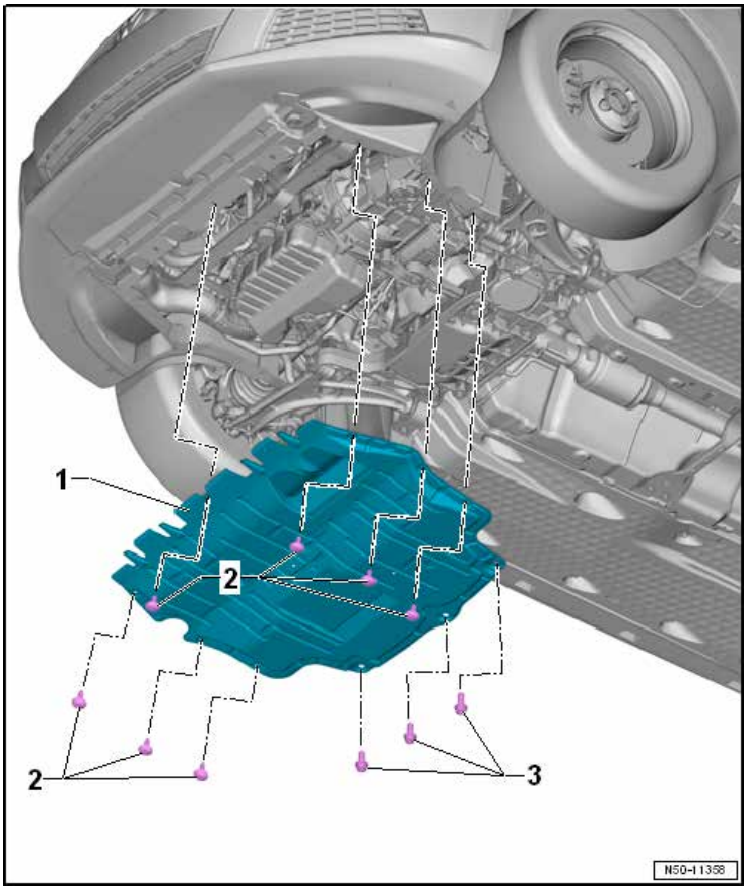
1 - Rear Wheel Trim
2 - Bolt
☐ 2 Nm

Noise Insulation Overview, Short



1 - Noise Insulation
2 - Bolt
☐ 2 Nm

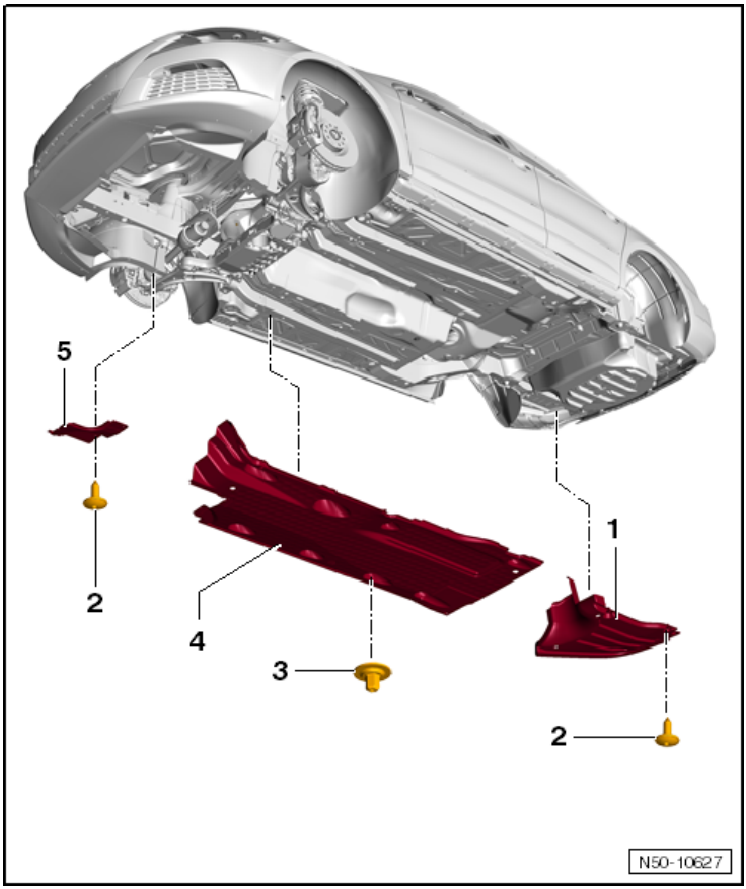
Noise Insulation Overview, Long



1 - Noise Insulation
2 - Bolt
- ☐ 2 Nm

3 - Bolt
- ☐ 6 Nm

Underbody Panel Overview

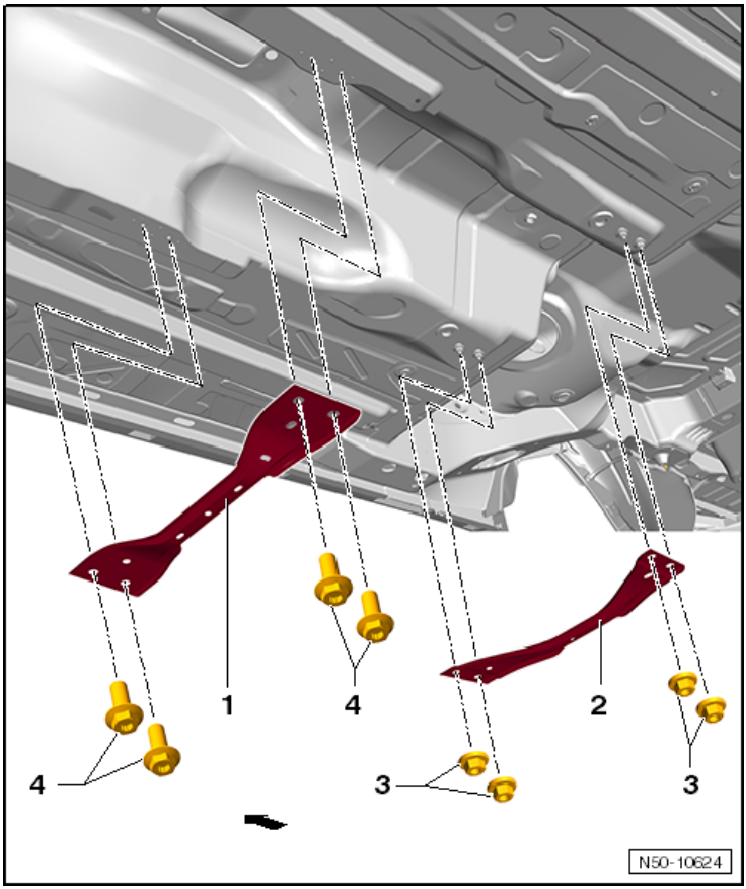


1 - Rear Underbody Cover
2 - Bolt
- ☐ 2 Nm

3 - Nut
- ☐ 6 Nm

4 - Underbody Cover
5 - Cover

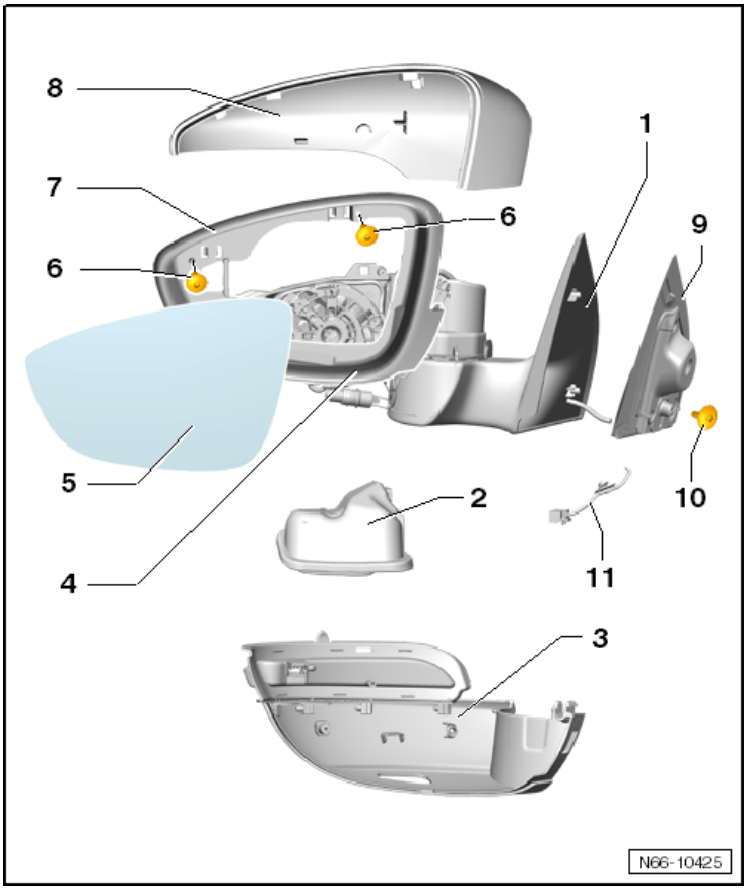
Tunnel Brace Overview



1 - Front Tunnel Bridge
2 - Rear Tunnel Bridge
3 - Nut
- ☐ 20 Nm

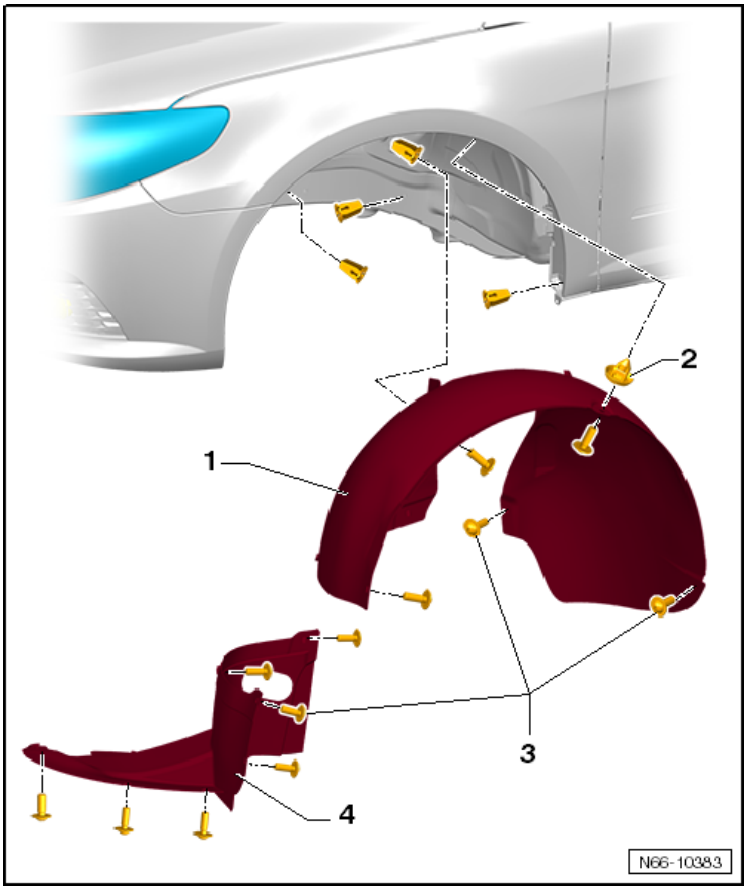
4 - Bolt
- ☐ 20 Nm

Exterior Rearview Mirror Overview



1 - Mirror Base Plate
2 - Entry Lamp
3 - Assembly Piece
4 - Bulb For Entry Lamp
5 - Mirror Glass
6 - Bolt
☐ 1 Nm
7 - Trim
8 - Mirror Cap
9 - Insulation
10 - Bolt
☐ 10 Nm
11 - Connector

Front Wheel Housing Liner Overview



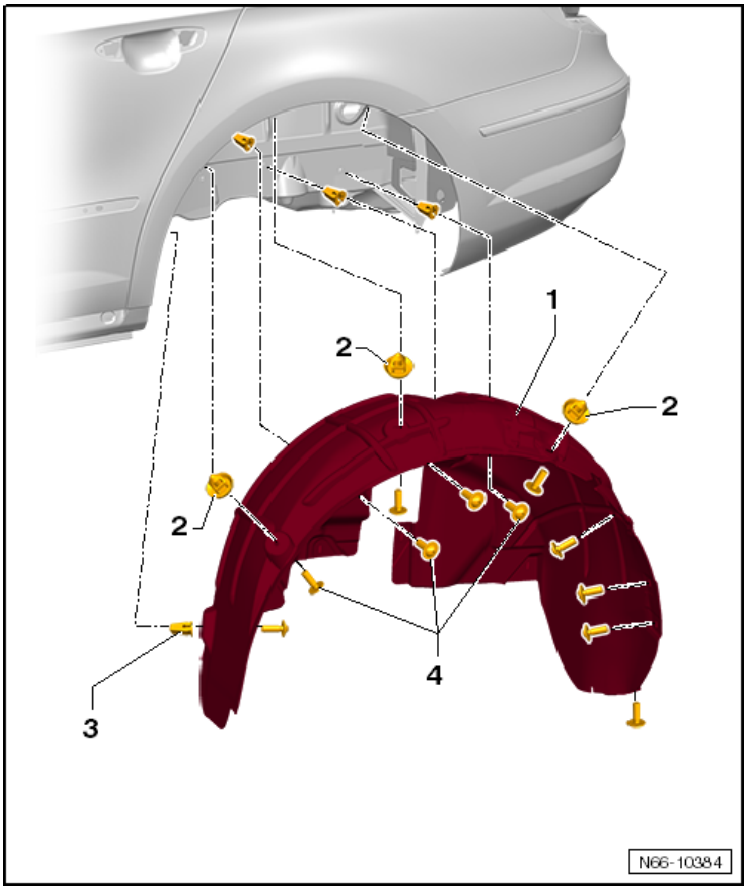
1 - Bolt
- ☐ 1 Nm

2 - Expanding Nut

3 - Bolt
- ☐ 2 Nm

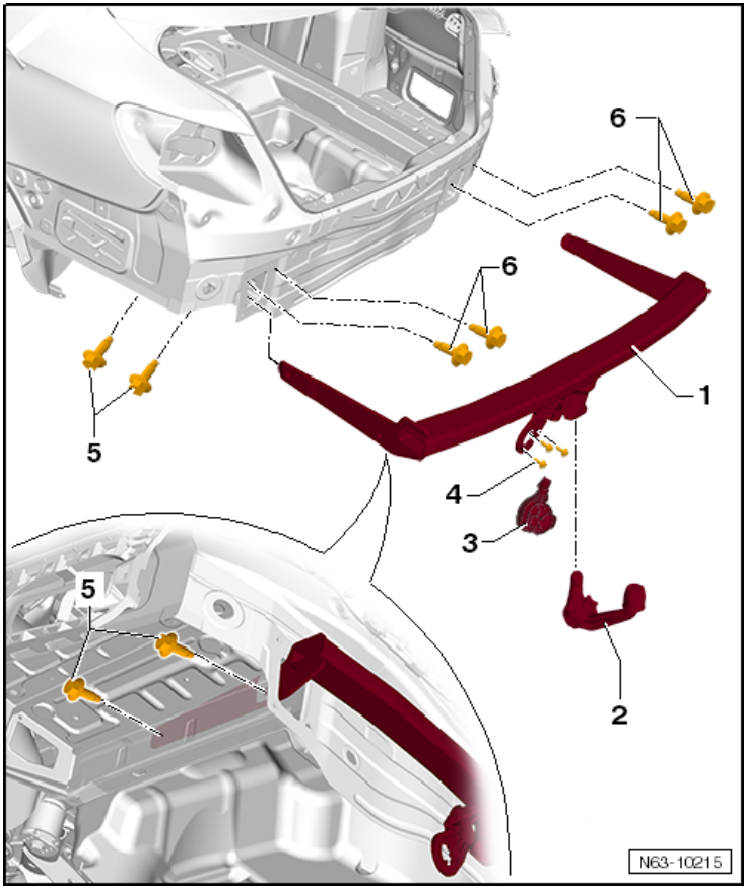
4 - Front Part of Wheel Housing Liner

Rear Wheel Housing Liner Overview



1 - Wheel Housing Liner
2 - Expanding Nut
3 - Bolt
☐ 2 Nm
4 - Expanding Nut

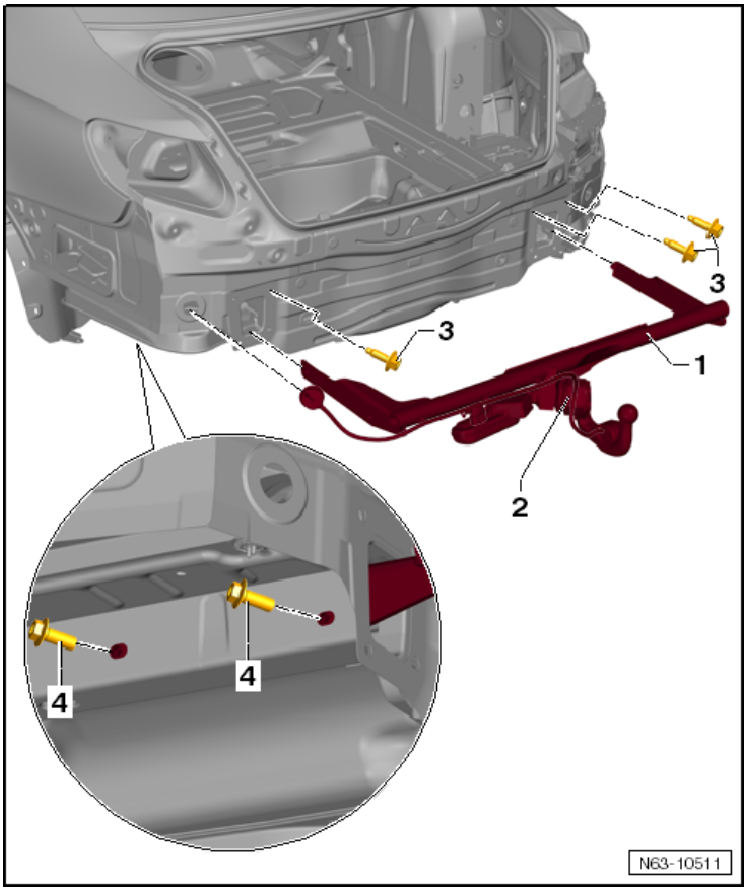
Trailer Hitch Assembly Overview (Removable Ball Head)



1 - Trailer Hitch
2 - Ball Head
3 - Socket
4 - Bolt
5 - Bolt
- ☐ 50 Nm + 90° turn

6 - Bolt
- ☐ 20 Nm

Trailer Hitch Assembly Overview (Swiveling Ball Head)



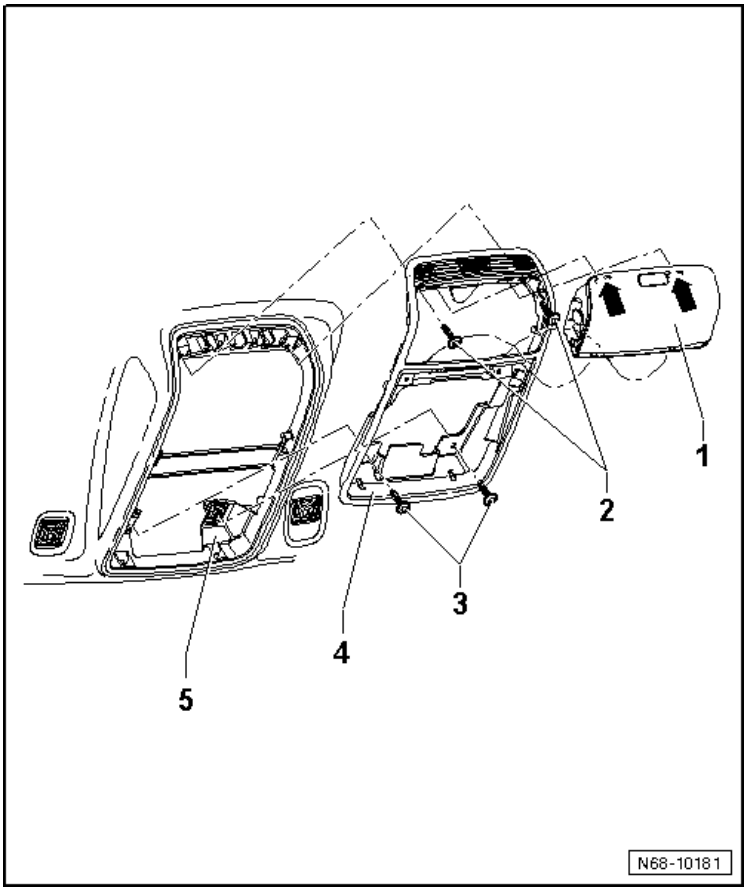
1 - Trailer Hitch
2 - Socket
3 - Bolt
- ☐ 20 Nm ± 3.0 Nm

4 - Bolt
- ☐ 50 Nm + 90° turn

Body Interior

Interior Equipment

Storage Compartment in Headliner Overview

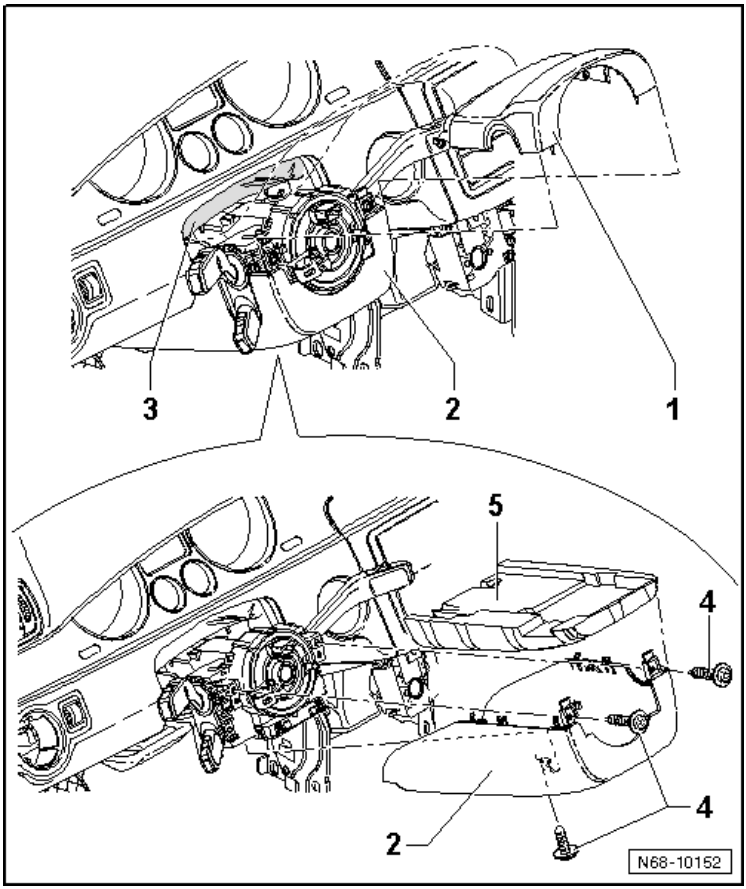


1 - Storage Compartment
2 - Bolt
- ☐ 1.2 Nm

3 - Bolt
- ☐ 1.6 Nm

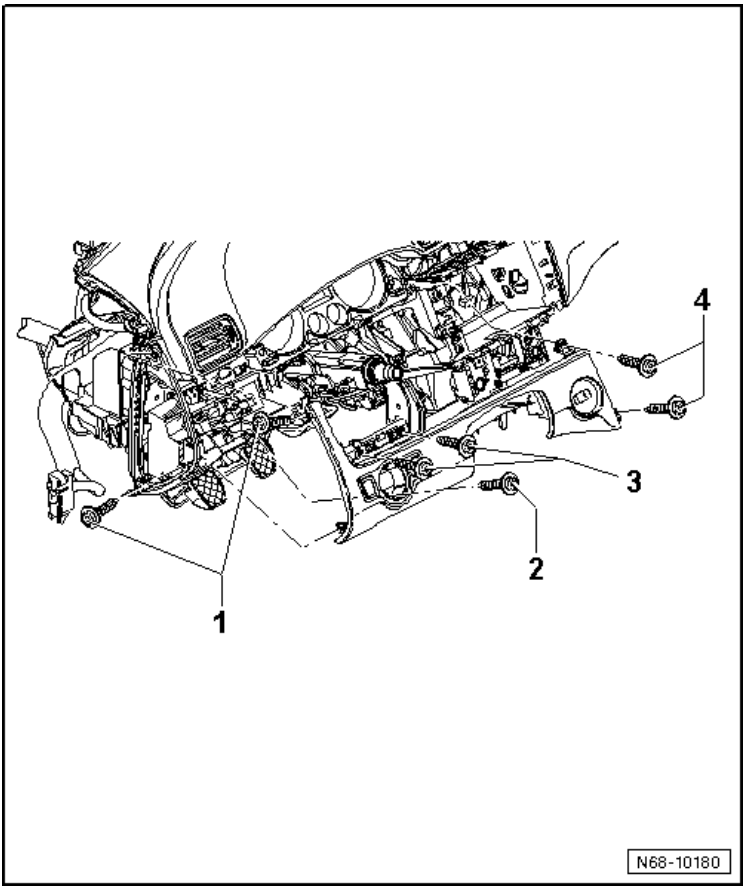
4 - Console
5 - Headliner

Steering Column Trim Overview



1 - Upper Steering Column Trim
2 - Lower Steering Column Trim
3 - Gap Cover
4 - Bolt
☐ 1.5 Nm
5 - Foam Inser

Driver Side Instrument Panel Cover Overview



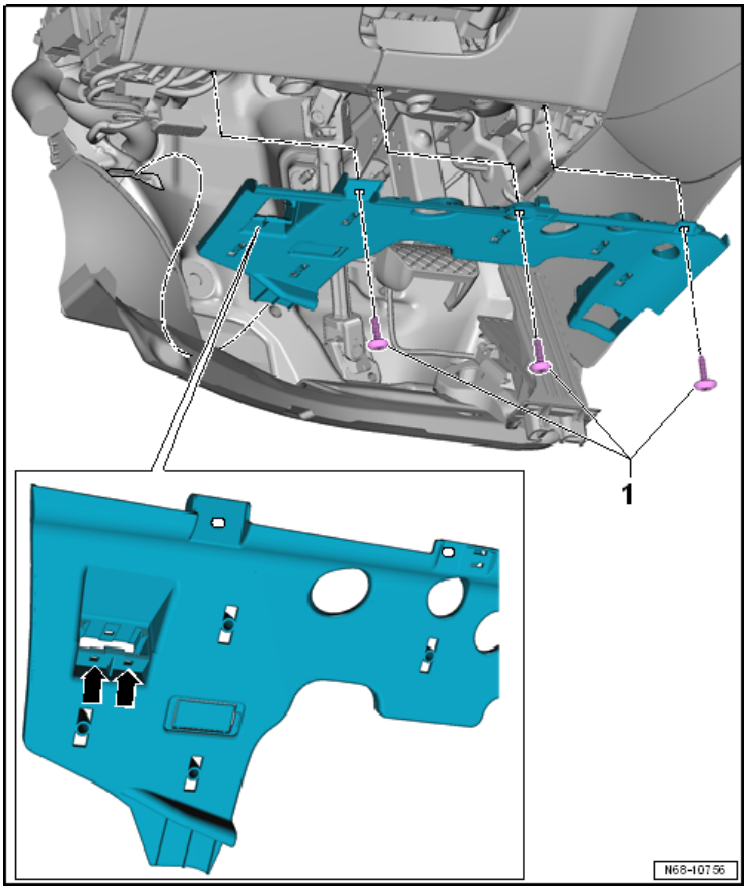
1 - Bolts
- ☐ 1.5 Nm

2 - Bolt
- ☐ 1.5 Nm

3 - Bolts
- ☐ 1.5 Nm

4 - Bolts
- ☐ 1.5 Nm

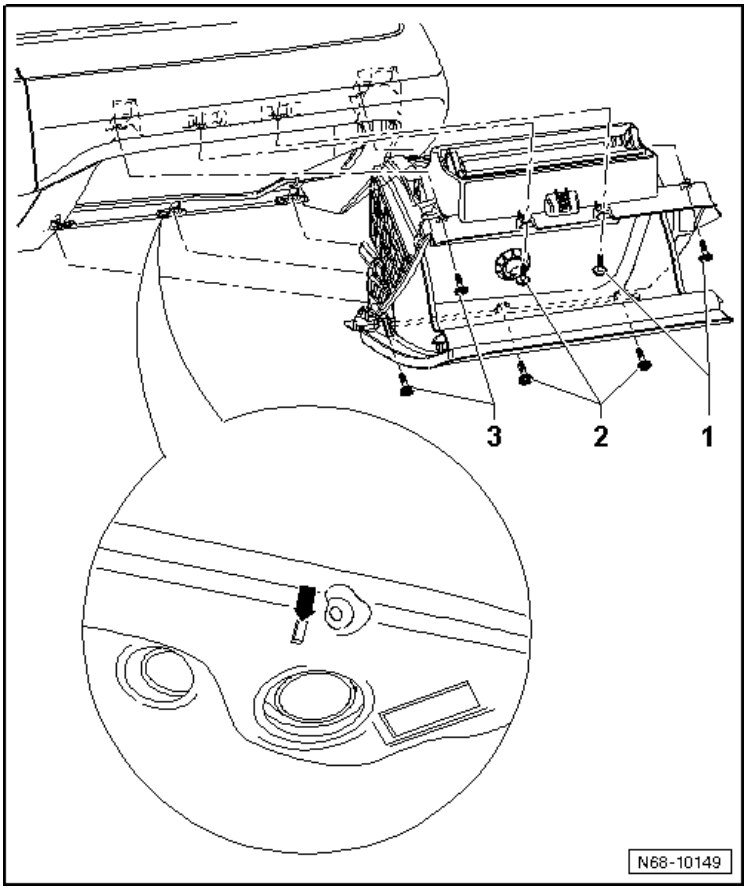
Driver Side Footwell Cover



1 - Bolt

☐ 1.5 Nm

Glove Compartment

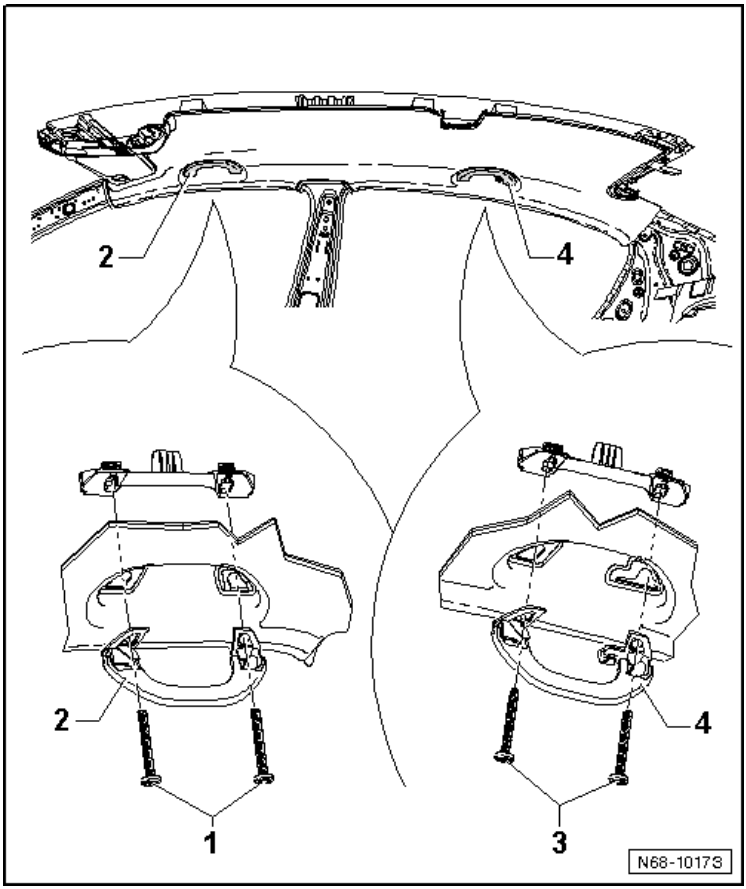


1 - Bolts
- ☐ 1.5 Nm

2 - Bolts
- ☐ 1.5 Nm

3 - Bolts
- ☐ 1.5 Nm

Roof Grab Handle



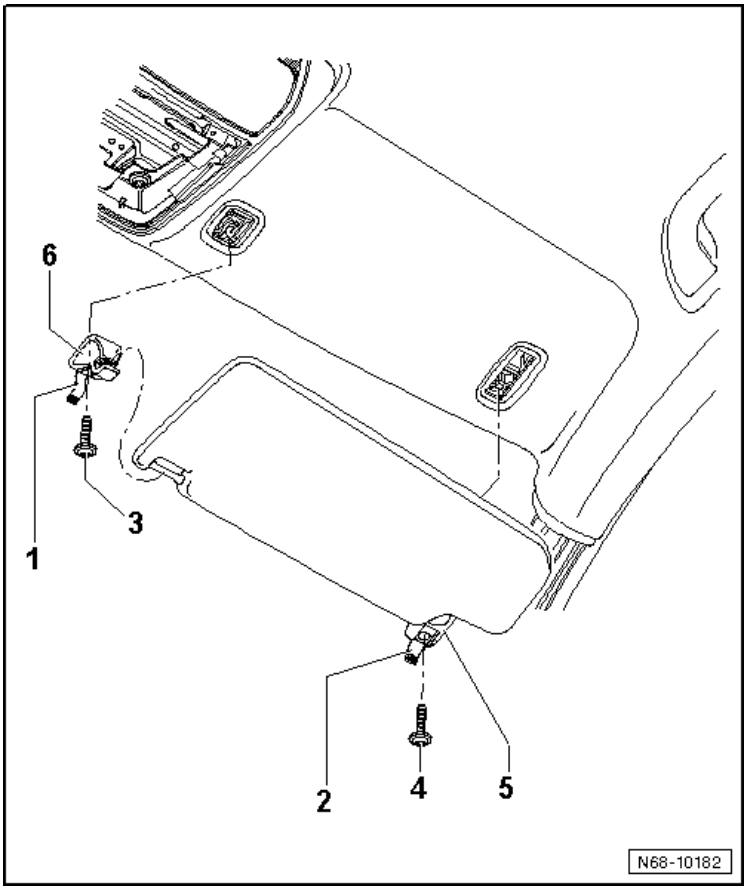
1 - Bolt
- ☐ 2 Nm

2 - Right Front Handle

3 - Bolt
- ☐ 2 Nm

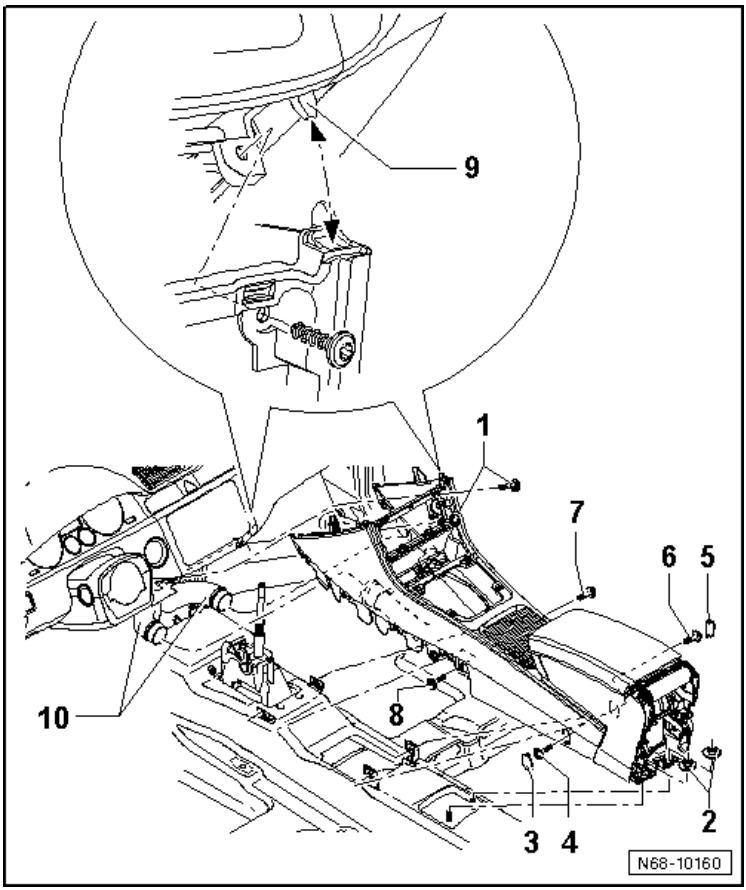
4 - Right Rear Handle

Sun Visor



1 - Cover Cap
2 - Cover Cap
3 - Bolt
☐ 2 Nm
4 - Bolt
☐ 2 Nm
5 - Sun Visor Mount
6 - Sun Visor Mount

Center Console



1 - Screws
- ☐ 1.5 Nm

2 - Nuts
- ☐ 6 Nm

3 - Cover Cap

4 - Bolt
- ☐ 6 Nm

5 - Cover Cap

6 - Bolt
- ☐ 6 Nm

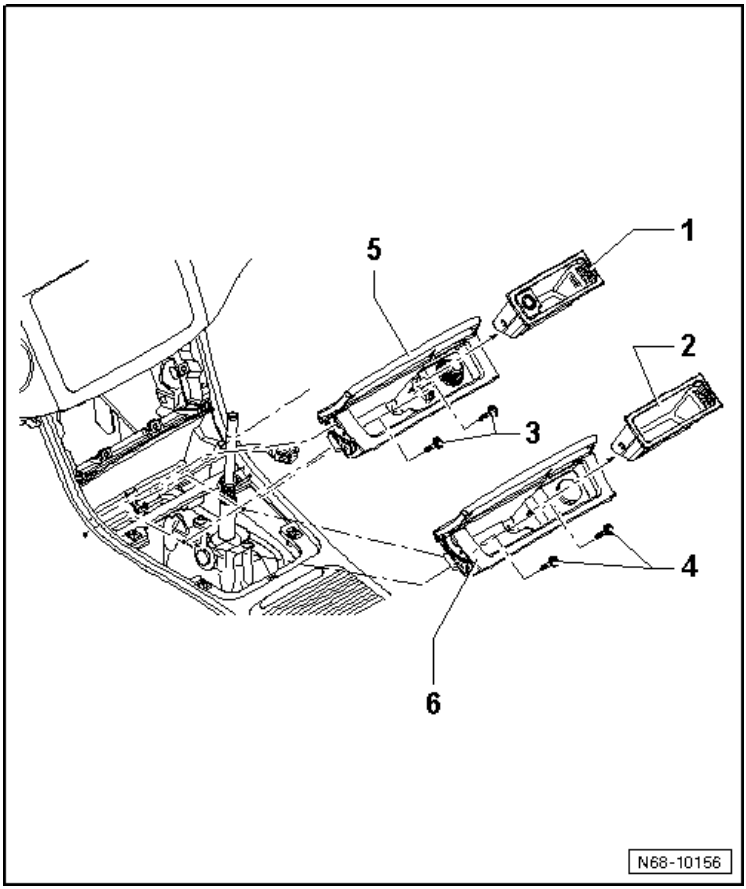
7 - Bolt
- ☐ 1.5 Nm

8 - Bolt
- ☐ 1.5 Nm

9 - Centering Tabs

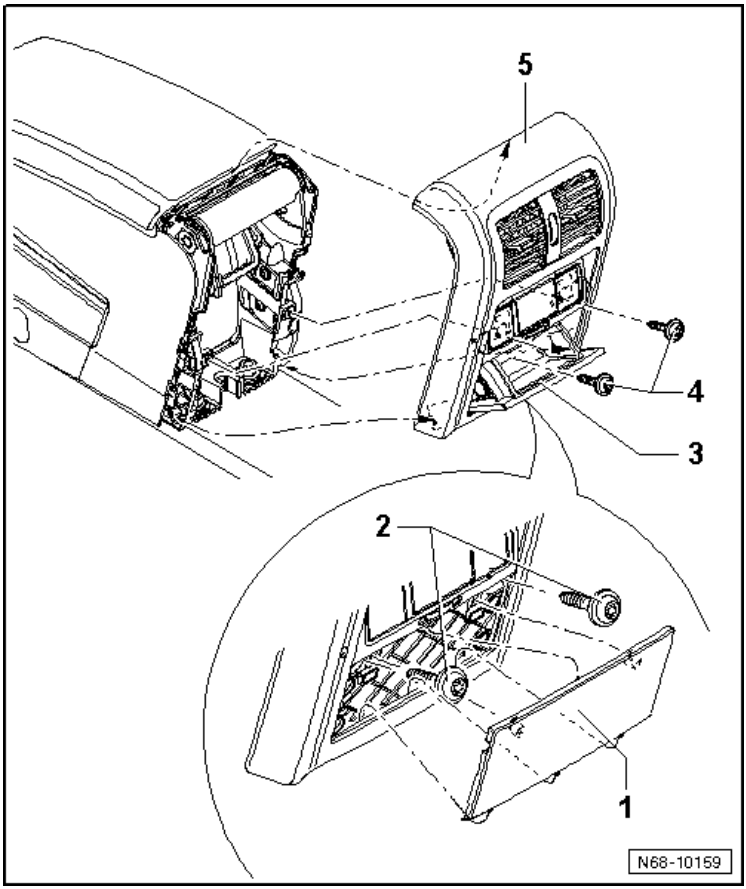
10 - Cooling Channels

Center Console Front Storage Compartment



1 - Ashtray
2 - Compartment
3 - Screws
☐ 1.5 Nm
4 - Screws
☐ 1.5 Nm
5 - Ashtray

Center Console Rear Trim

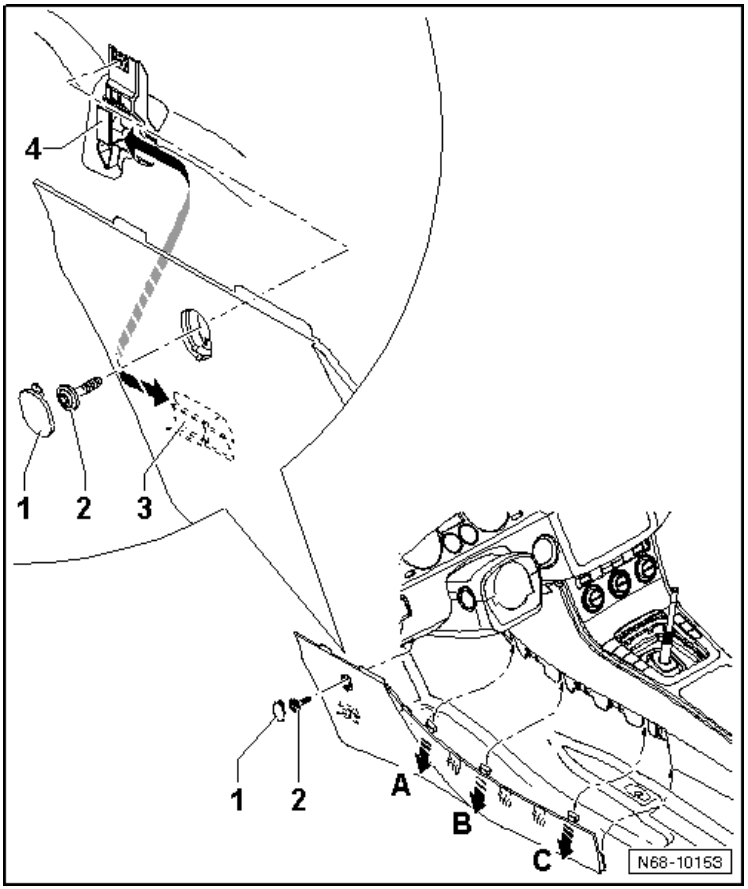


1 - Trim
2 - Bolt
- ☐ 1.5 Nm

3 - Compartment
4 - Bolt
- ☐ 1.5 Nm

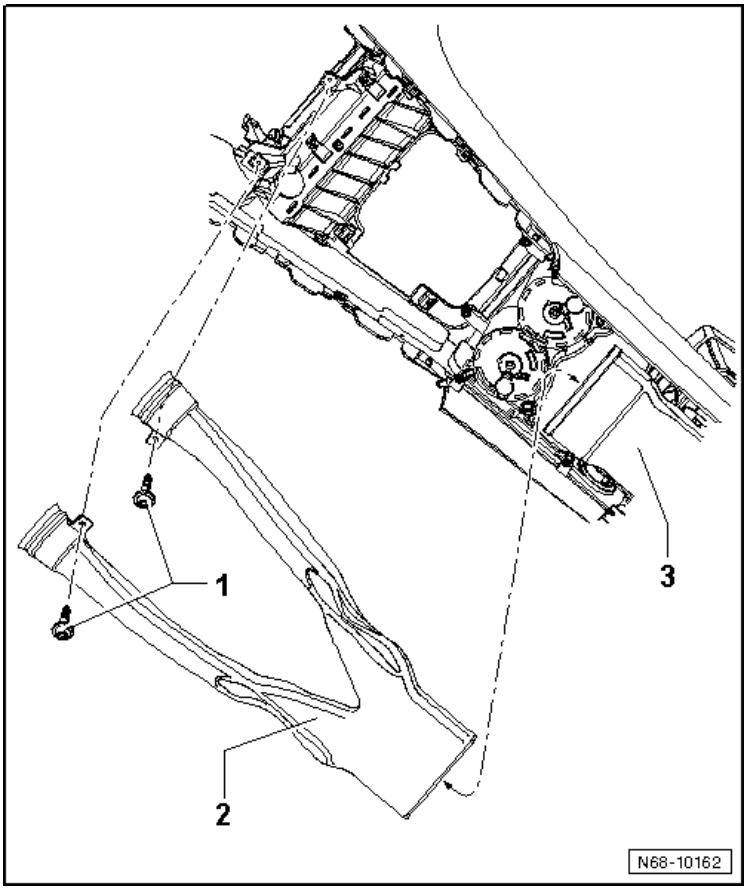
5 - Rear Trim

Center Console Side Trim



1 - Cover
2 - Bolt
☐ 1.5 Nm
3 - Front Guides
4 - Footwell

Center Console Extension

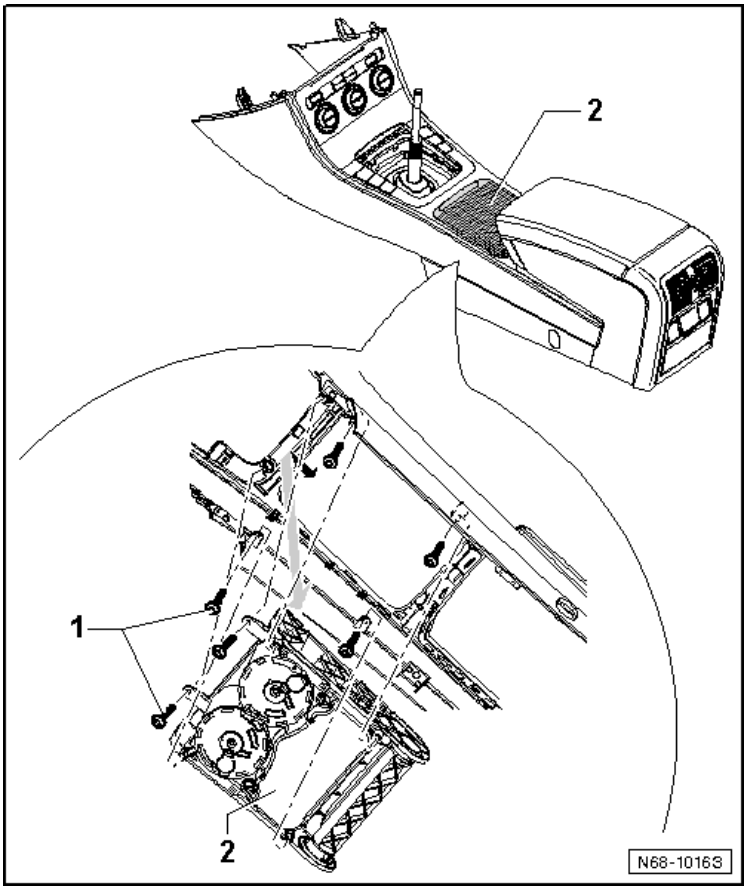


1 - Screws
- ☐ 1.5 Nm

2 - Front Air Duct

3 - Rear Air Duct

Center Console Storage Compartment

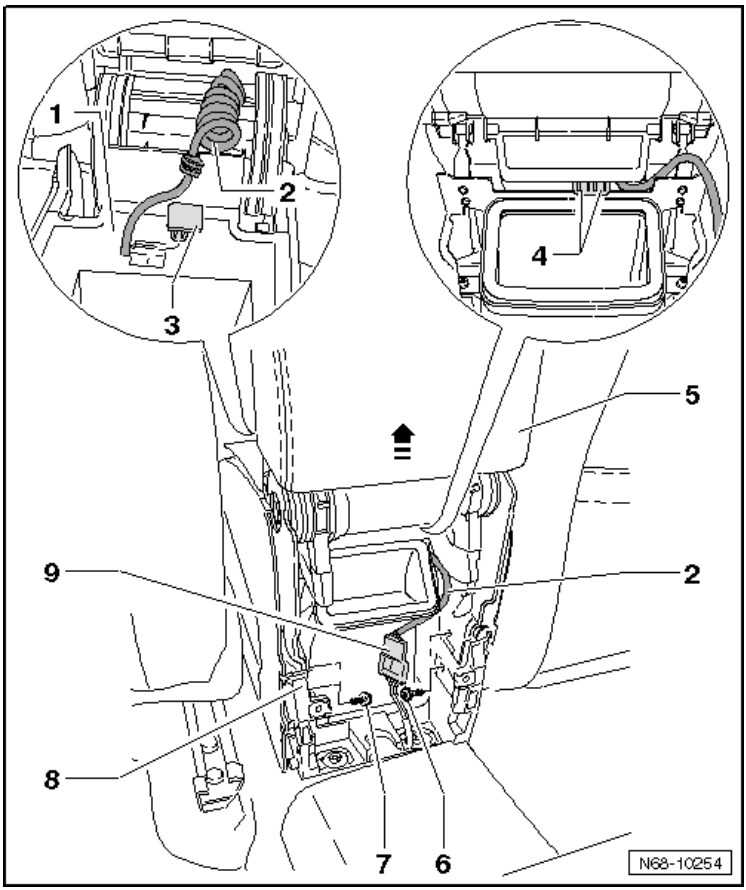


1 - Screws

☐ 1.5 Nm

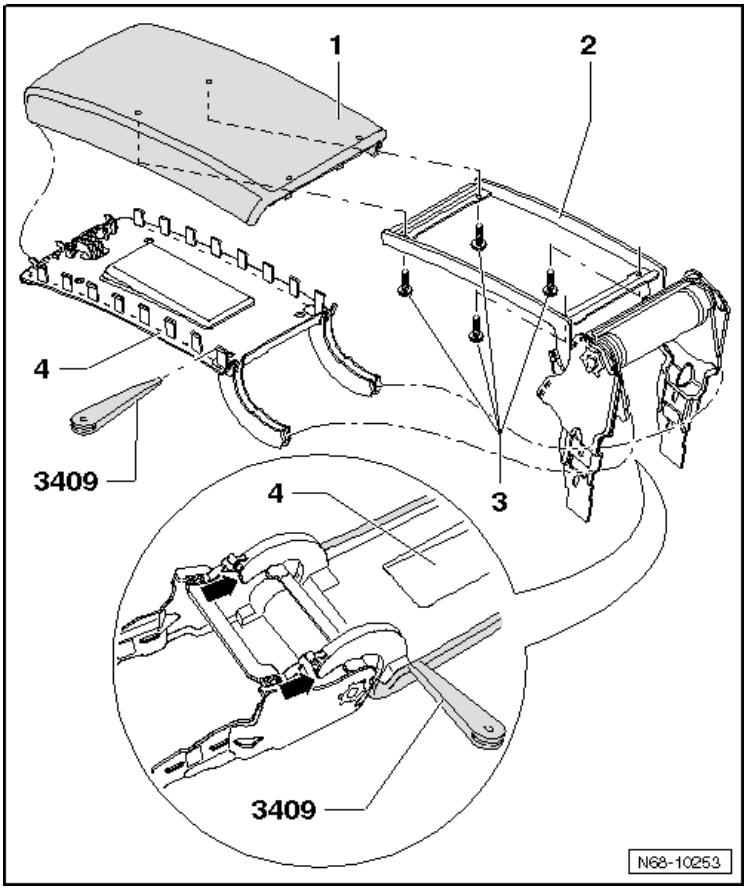
2 - Lower Storage Compartment

Center Armrest



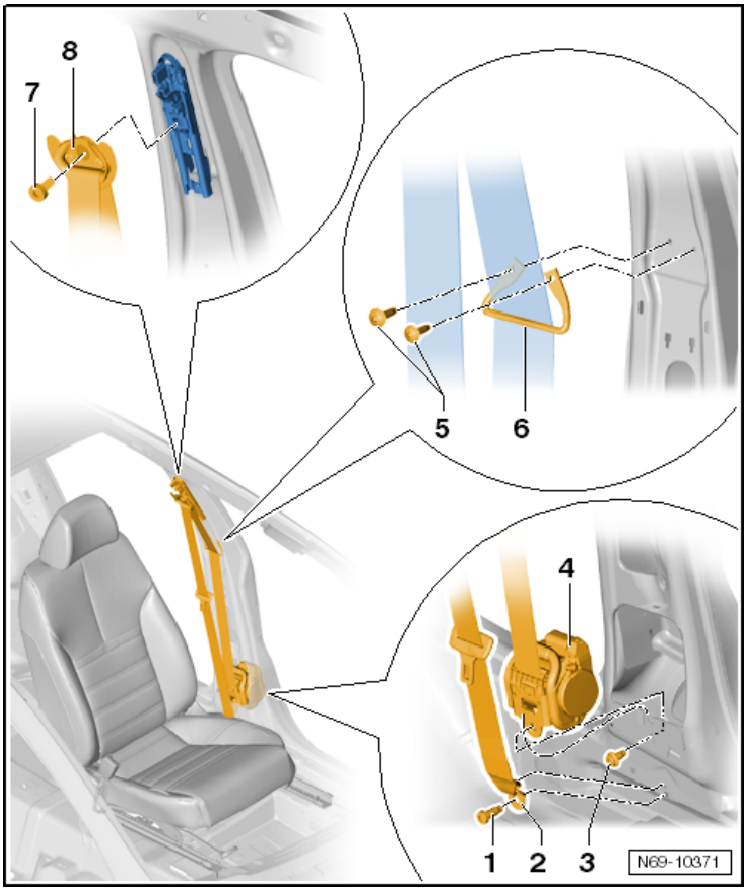
1 - Center Console Armrest
2 - Wiring Harness
3 - Trim
4 - Retaining Hooks
5 - Armrest
6 - Bolt
☐ 1.5 Nm
7 - Bolt
☐ 1.5 Nm
8 - Armrest Frame
9 - Connector

Center Armrest Upper Section



1 - Armrest Upper Part
2 - Armrest
3 - Bolt
☐ 2 Nm
4 - Swing Cover

Front Three-Point Seat Belt Overview



1 - Bolt
- ☐ 40 Nm

2 - Belt Anchor

3 - Bolt
- ☐ 40 Nm

4 - B-Pillar Belt Retractor

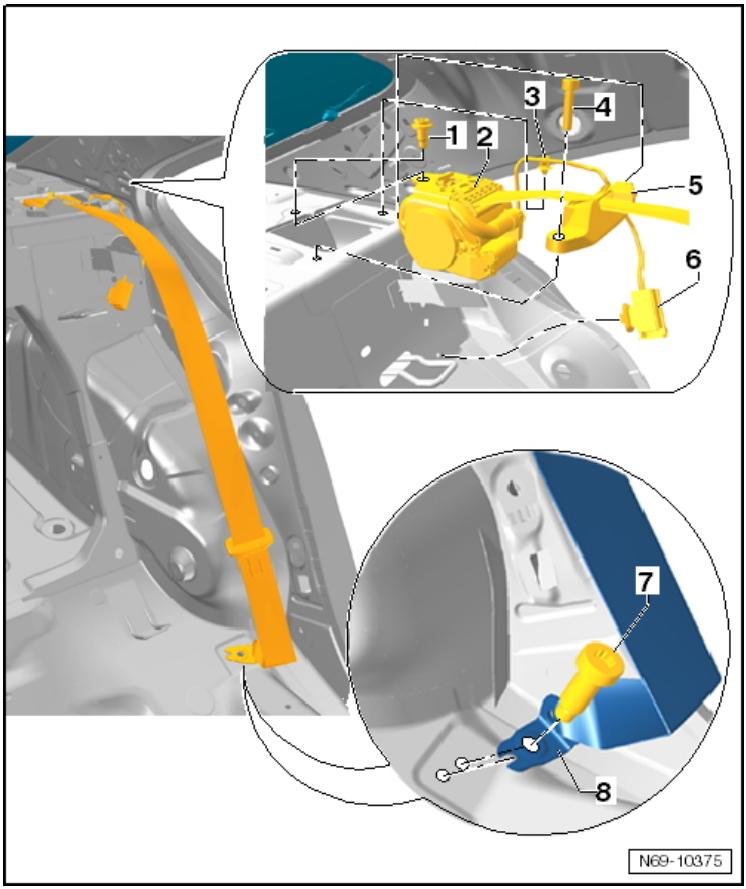
5 - Screws
- ☐ 4.5 Nm

6 - Belt Guide

7 - Bolt
- ☐ 40 Nm

8 - Belt Guide Ring

Rear Outer Three-Point Seat Belt Overview



1 - Bolt
- ☐ 40 Nm

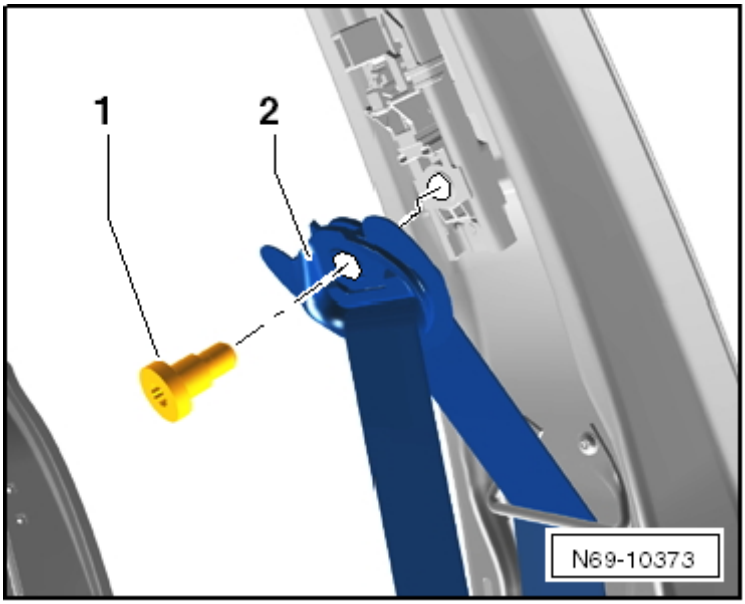
2 - Automatic Belt Retractor
3 - Clip
4 - Bolt
- ☐ 6 Nm

5 - Belt Guide
6 - Bolt
- ☐ 2 Nm

7 - Bolt
- ☐ 40 Nm

8 - Belt Anchor

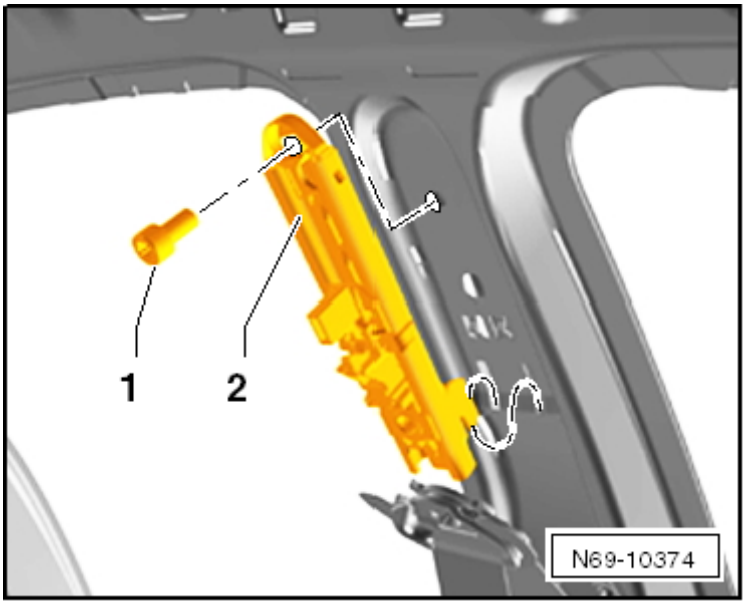
Belt Relay



1 - Bolt
- ☐ 40 Nm

2 - Belt Relay

Belt Height Adjuster

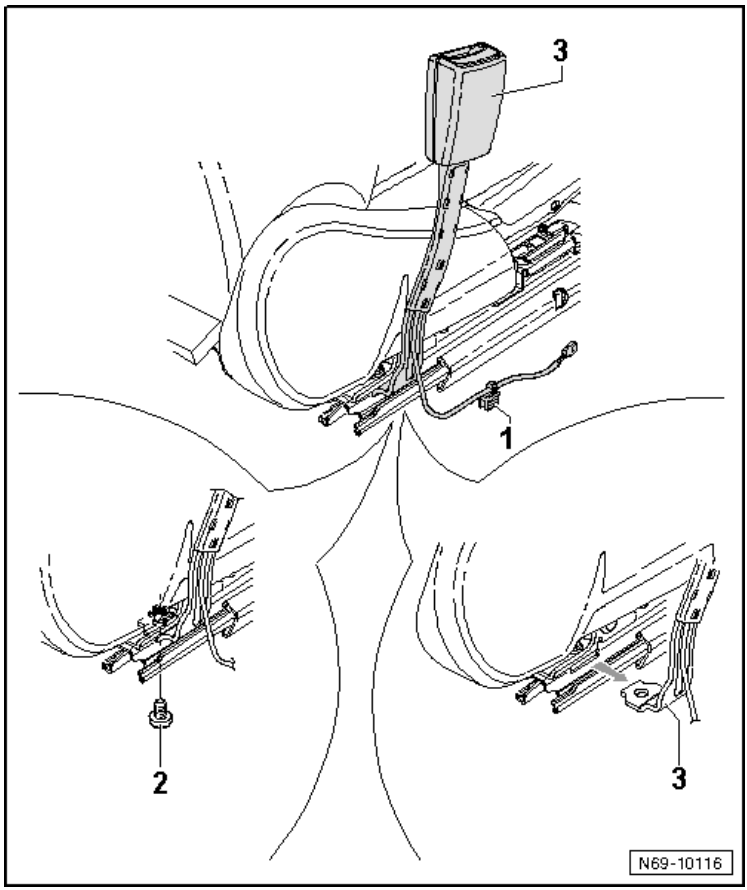


1 - Bolt

☐ 20 Nm

2 - Belt Hieght Adjuster

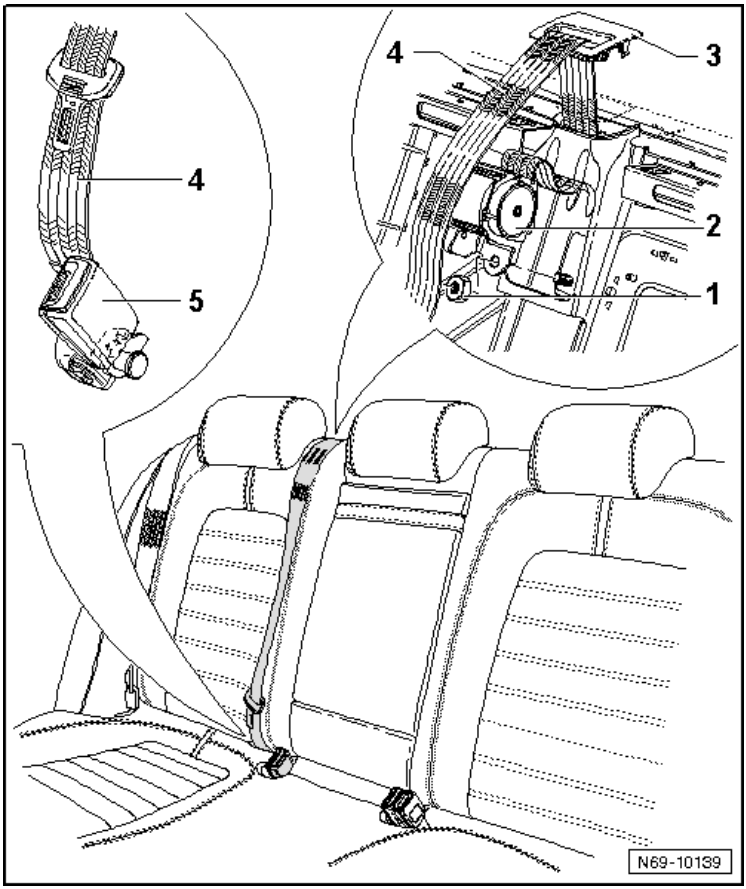
Front Belt Latch



1 - Wiring Harness
2 - Bolt
- ☐ 20 Nm

3 - Seat Belt Latch

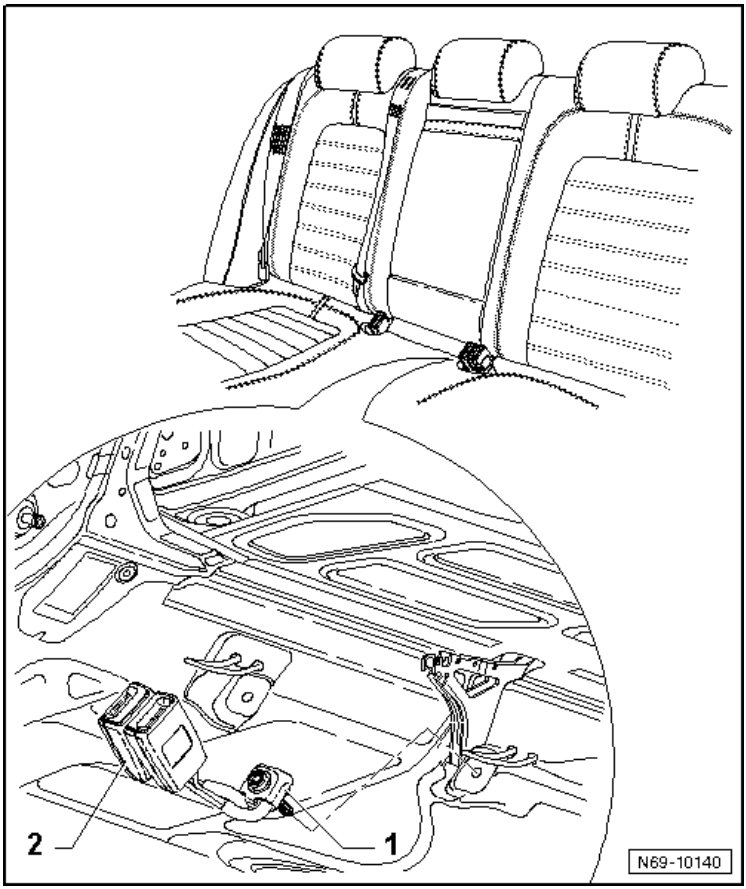
Rear Center Three-Point Seat Belt



1 - Nut
- ☐ 40 Nm

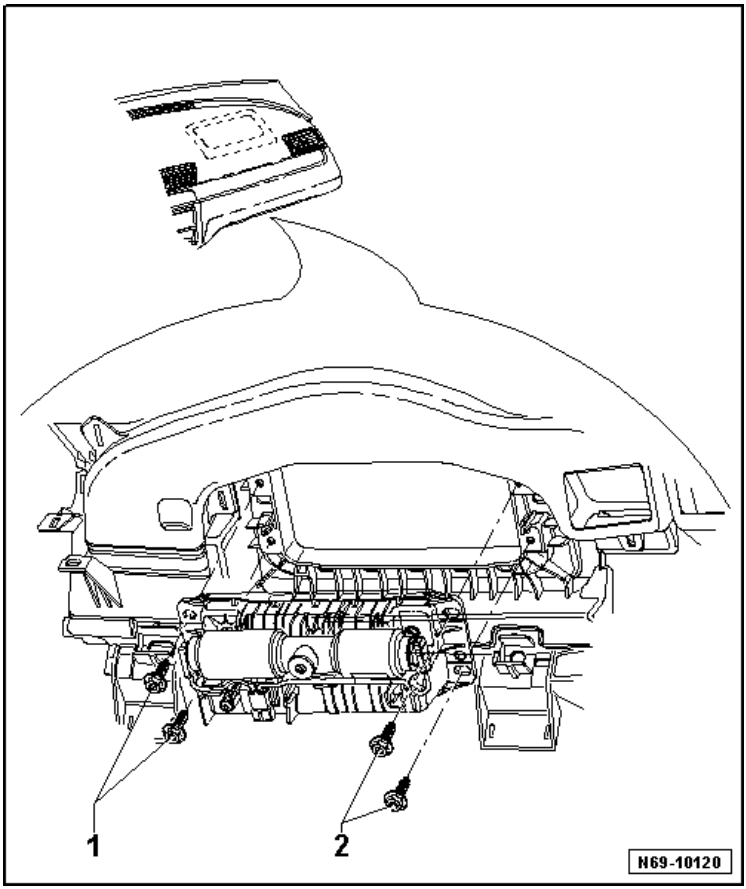
2 - Automatic Belt Retractor
3 - Belt Guide
4 - Seat Belt
5 - Seat Belt Latch

Rear Belt Latch



1 - Rear Belt Latch
2 - Bolt
☐ 40 Nm

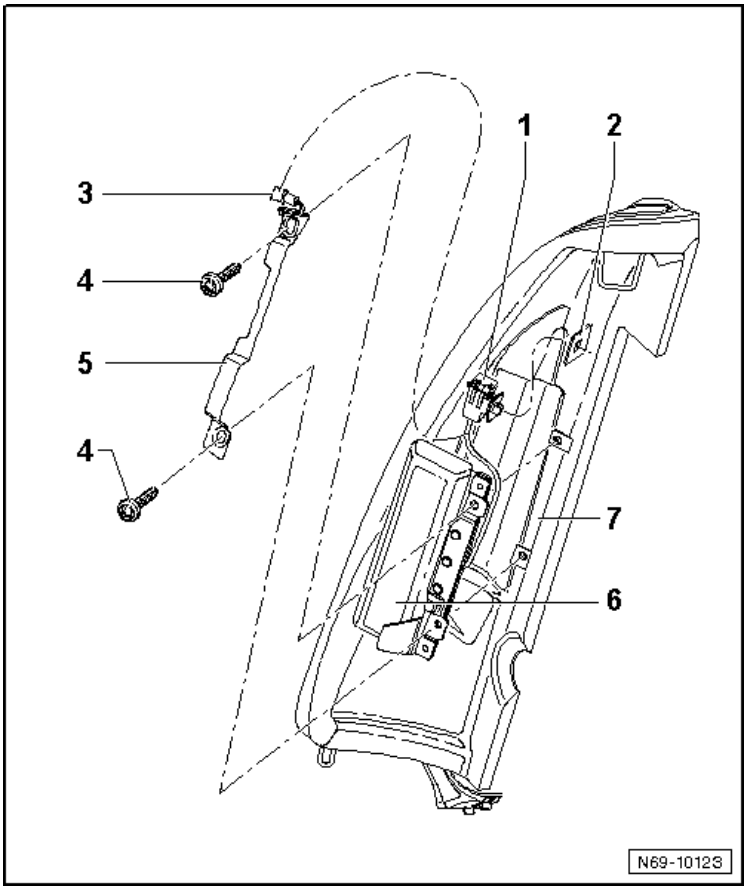
Front Passenger Airbag Unit with Igniter



1 - Bolt
- ☐ 8 Nm

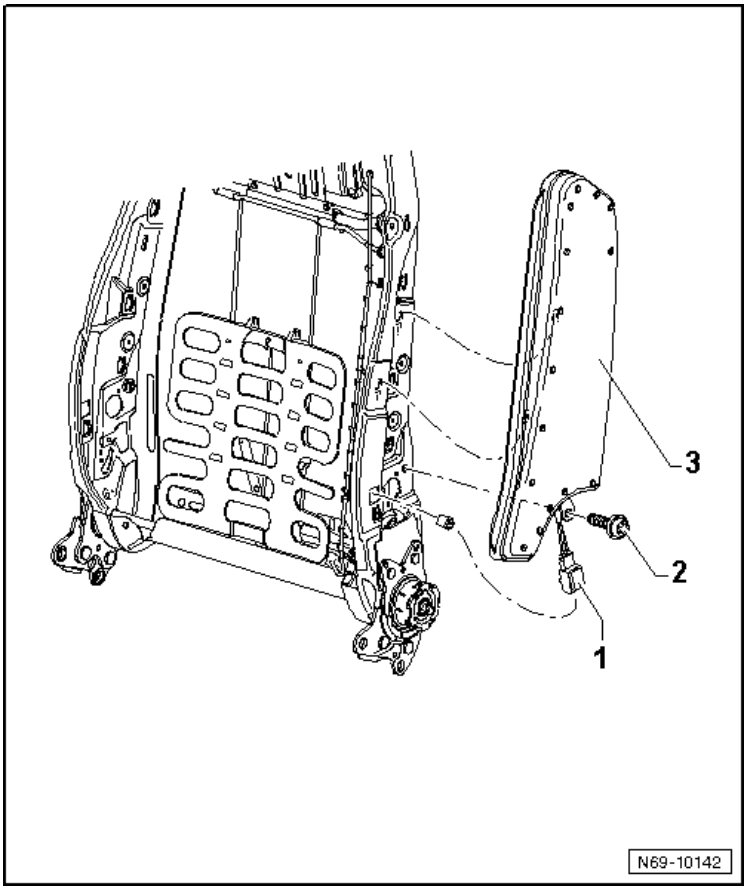
2 - Bolt
- ☐ 8 Nm

Rear Side Airbag with Igniter



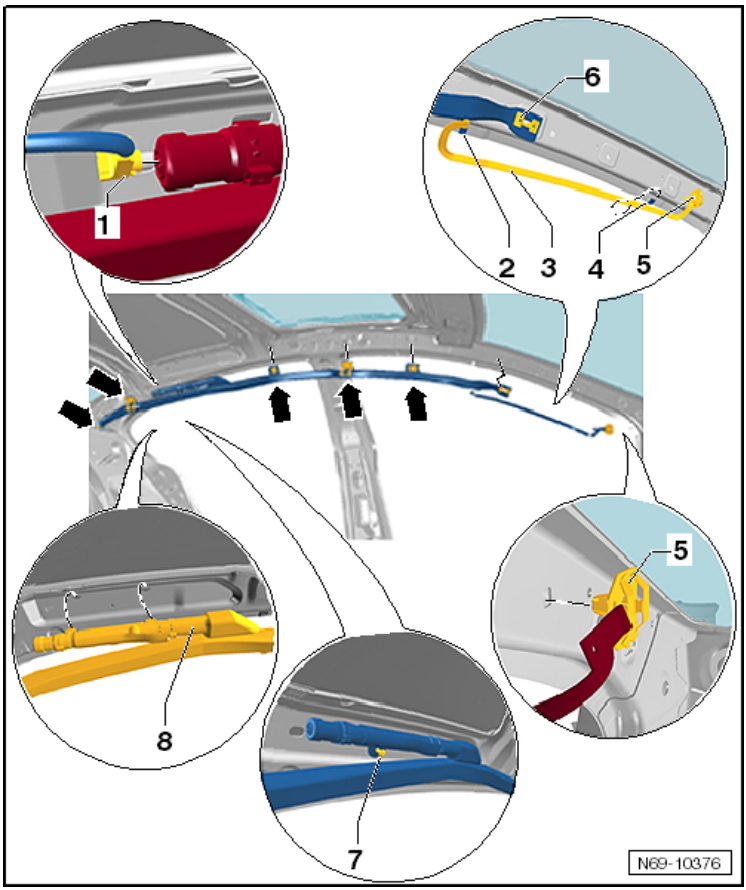
1 - Connector
2 - Bolt
☐ 9 Nm
3 - Mount
4 - Bolt
☐ 9 Nm
5 - Circuit Board
6 - Side Airbag
7 - Side Upholstery

Front Side Airbag with Igniter



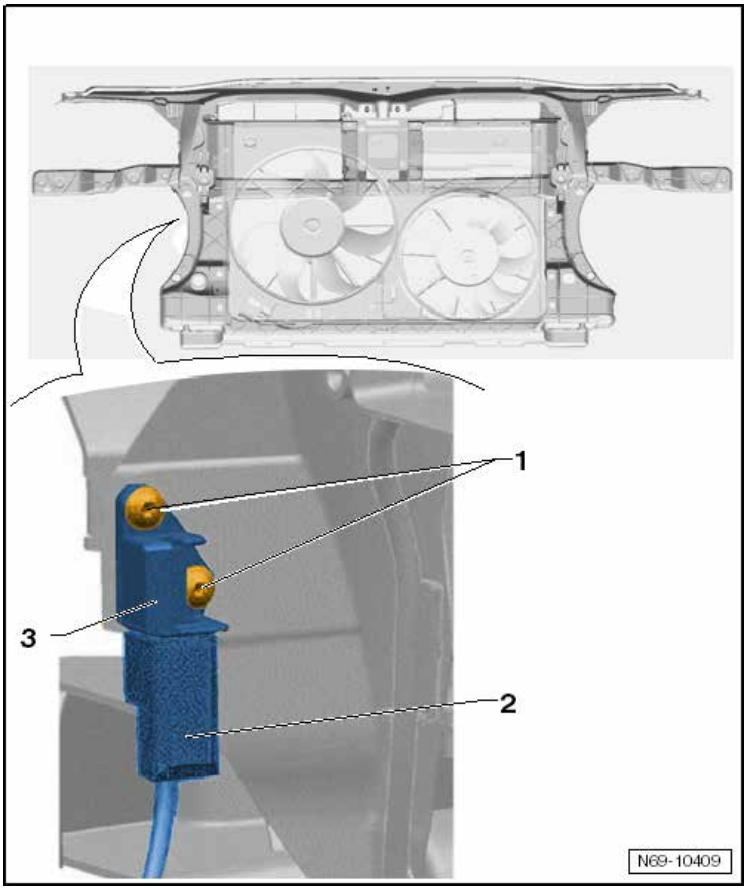
1 - Wiring Harness
2 - Bolt
☐ 9 Nm
3 - Side Airbag

Head Curtain Airbag with Igniter



1 - Connector
2 -Clip
3 - Tensioning Band
4 - Clip
5 - Front Bumper Cover
6 - Clamps
7 - Bolt
☐ 4.5 Nm
8 - Side Curtain Airbag

Driver Front Airbag Crash Sensor G283

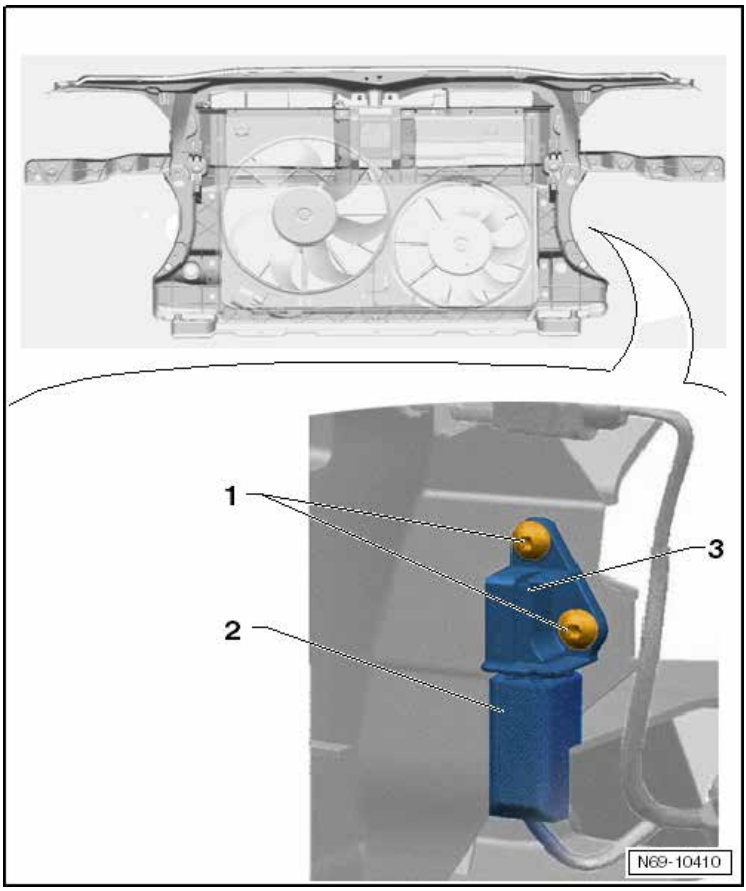


1 - Bolt
- ☐ 4.5 Nm

2 - Connector

3 - Driver Front Airbag Crash Sensor -G283-

Driver Front Airbag Crash Sensor G284

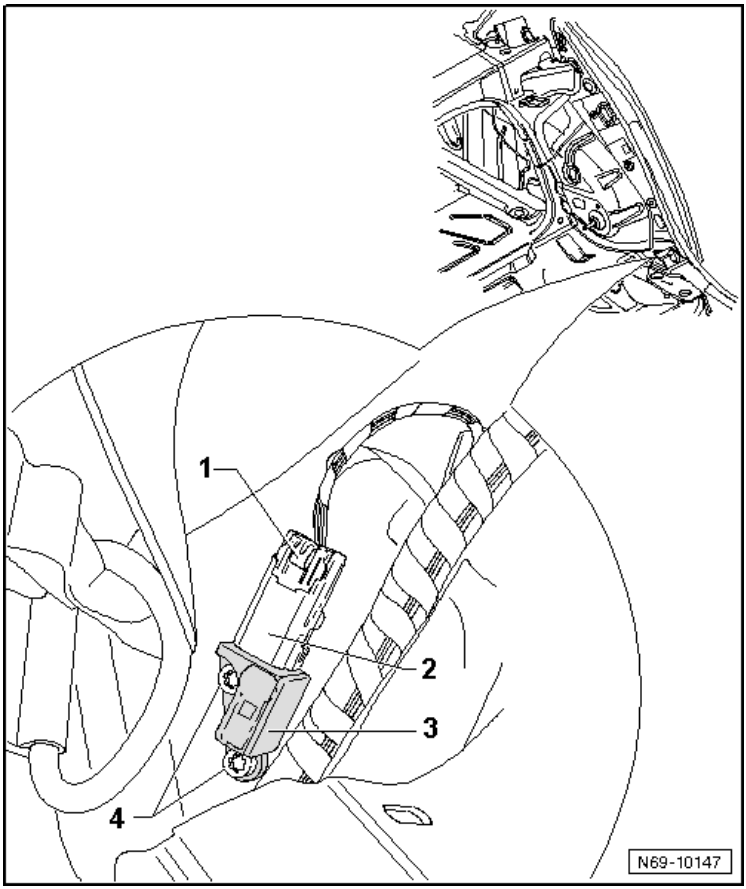


1 - Bolt
- ☐ 4.5 Nm

2 - Connector

3 - Passenger Front Airbag Crash Sensor -G284-

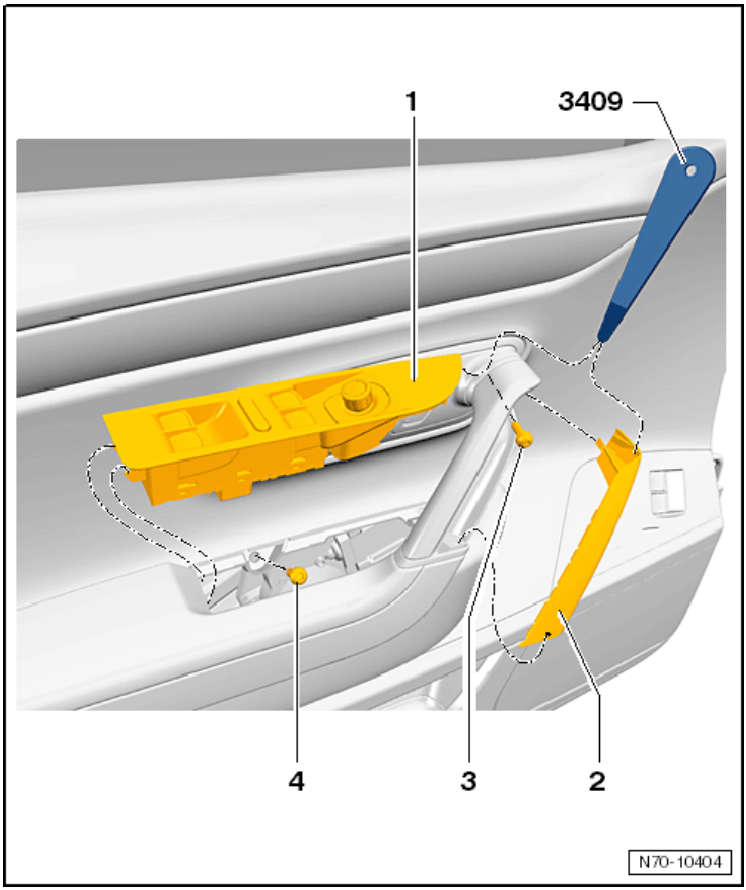
Rear Left Side Airbag Crash Sensor



1 - Connector Lock
2 - Connector
3 - Rear Side Airbag Crash Sensor (driver side) -G256-
4 - Bolt
☐ 9 Nm

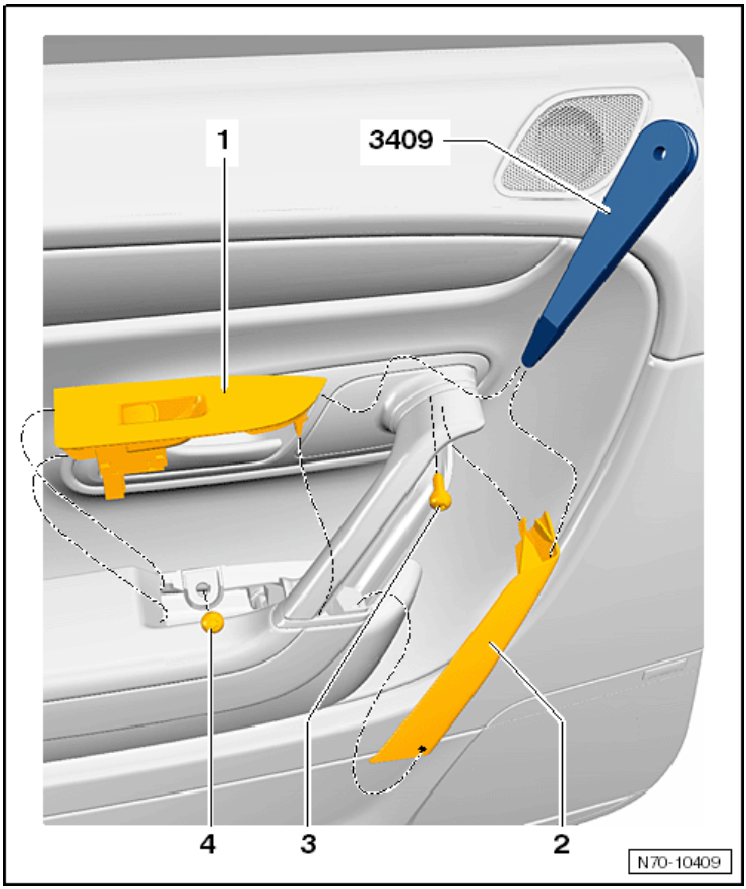
Interior Trim

Front Trim Panel



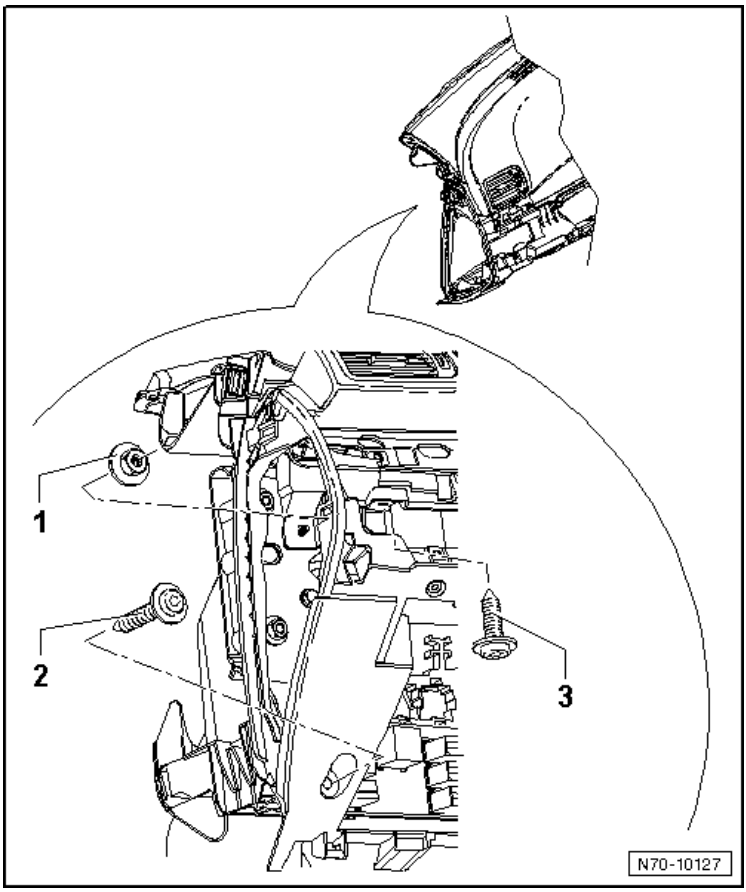
1 - Switch Mount
2 - Handle Molding
3 - Bolt
☐ 4.5 Nm
4 - Bolt
☐ 4.5 Nm

Rear Door Trim Panel



1 - Switch Mount
2 - Handle Molding
3 - Bolt
☐ 4.5 Nm
4 - Bolt
☐ 4.5 Nm

Instrument Panel



1 - Nut
- ☐ 3.5 Nm

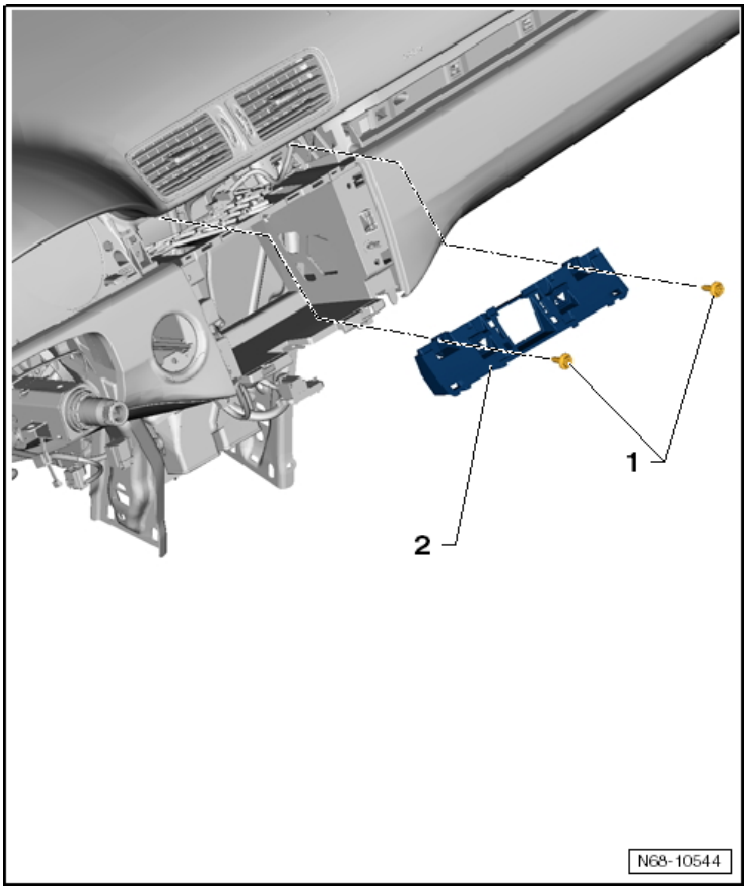
2 - Bolt
- ☐ 3.5 Nm

3 - Bolt
- ☐ 3.5 Nm

Right Side Identical

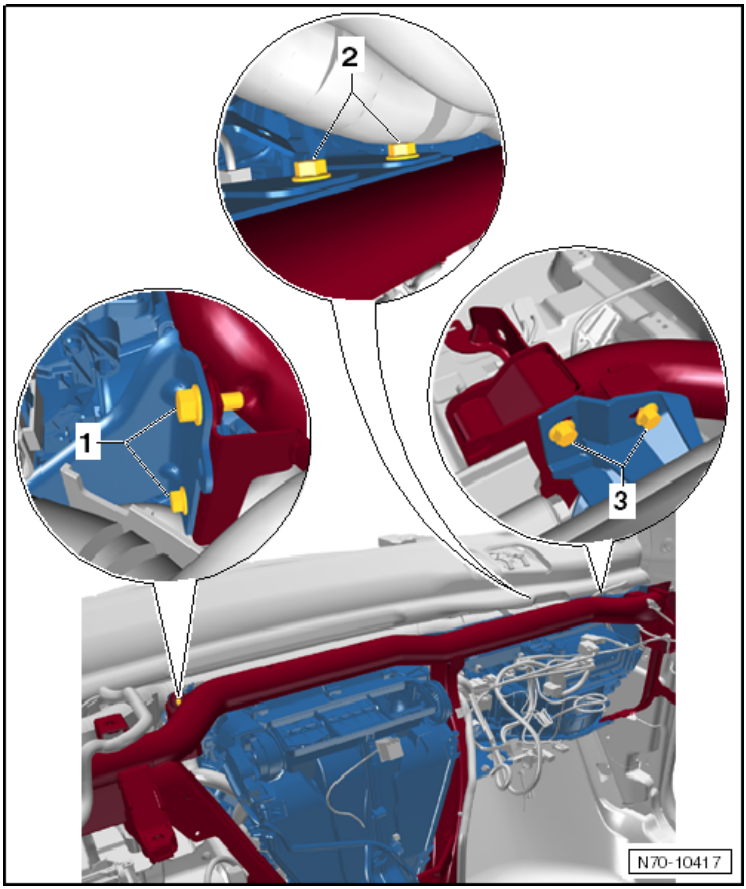
Bolt behind Instrument Cluster
- ☐ 3.5 Nm

Analog Clock Mount



1 - Analog Clock Mount
2 - Bolt
☐ 1.5 Nm

Instrument Panel Central Tube

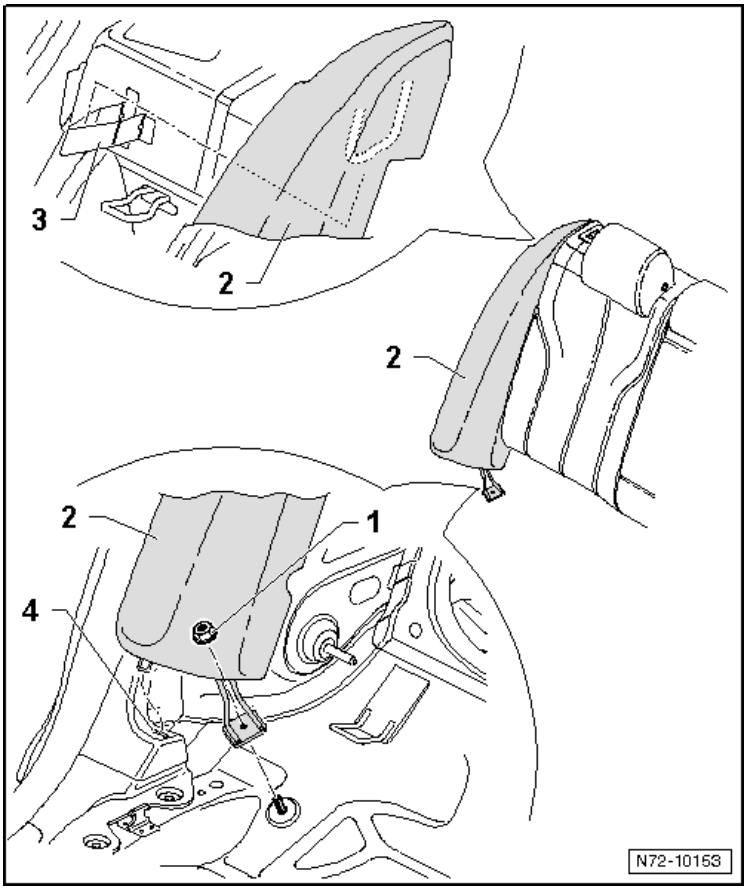


1 - Bolt
- ☐ 9 Nm

2 - Bolt
- ☐ 9 Nm

3 - Bolt
- ☐ 9 Nm

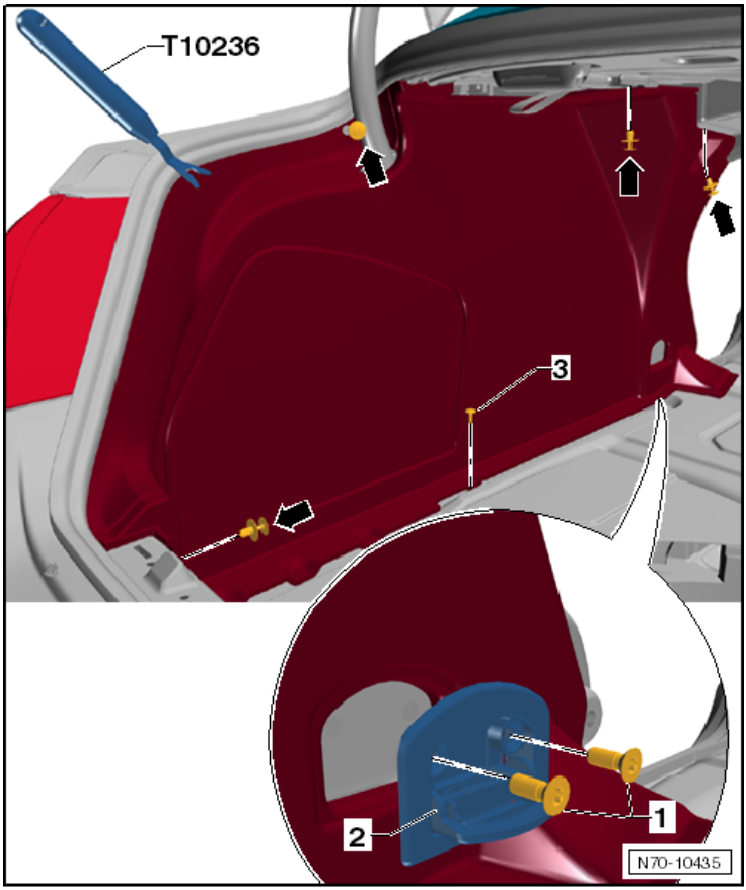
Lower C-Pillar Trim



1 - Nut
- ☐ 8 Nm

2 - Side Upholstery
3 - Mount
4 - Mount

Luggage Compartment Side Trim Panel



1 - Bolt
- ☐ 6 Nm

2 - Luggage Compartment Side Trim Panel

3 - Bolt
- ☐ 1.5 Nm

Tightening Specifications

Component	Nm
Footrest cover bolt	1.5
Footrest mount nut	2
Sill panel trim bolt	2

Seat Frames

Fastener Tightening Specifications

Component	Nm
Backrest bolts	34.5 +/- 1.5
Front seat bolts	40 +/- 4
Left seat trim screws	0.75
Lumbar support bolts	2
Power seat bracket bolts	7.5
Power seat bracket and operating lever bolts	7.5
Power seat forward/back adjustment bolts	22
Rear seat center armrest bolt	8

HEATING, VENTILATION AND AIR CONDITIONING

General, Technical Data

Refrigerant Oil Distribution

Component	Approximate % of total amount of oil in component
A/C compressor	50
Condenser	10
Suction hose	10
Evaporator	20
Fluid reservoir	10

Refrigerant R134a Vapor Pressure Table

Temperature in °C	Pressure in bar (positive pressure) of R134a
-45	-0.61
-40	-0.49
-35	-0.34
-30	-0.16
-25	0.06
-20	0.32
-15	0.63
-10	1.00
-5	1.43
0	1.92
5	2.49
10	3.13
15	3.90
20	4.70
25	5.63
30	6.70
35	7.83
40	9.10
45	10.54
50	12.11
55	13.83
60	15.72
65	17.79
70	20.05
75	22.52
80	25.21
85	28.14
90	31.34

Heating, Ventilation

Fastener Tightening Specifications

Component	Nm
Cable bracket bolts	4
Footwell vents	1.5
Fresh air blower bolt	1
Fresh air intake grille	2.5
Heat and fresh air controls	1.5
Heater core hose clamps	2
Heater core connection flange bolt	2
Heater unit attaching screws	9 ± 1.3
Intake air grille	2.5
Rear vent	1.5
Rear vent air duct	1.5

Air Conditioning

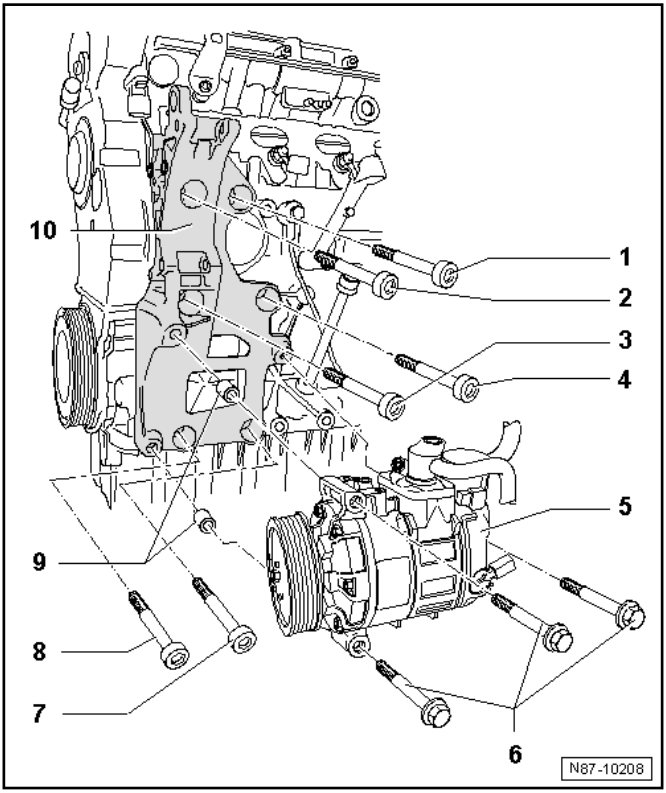
Climatic and Climatronic Components Fastener Tightening Specifications

Component	Nm
Climatic/Climatronic heating and A/C system controls	1.5
Heating and A/C unit-to-instrument panel assembly carrier	
Cable bracket bolts	4
Climatic/climatronic bracket bolts	9 ± 1.3
Door motors	
Fresh air/recirculating air/back pressure door motor	1.4
Indirect ventilation door motor	3.5
Door motors	1.5
Refrigerant line bracket to body nuts	20

Refrigerant System, Fastener Tightening Specifications

Component	Fastener size	Nm
A/C refrigerant line to A/C compressor, bolts	-	22 ± 1
2.0L Engine		
A/C compressor accessory bracket to engine, bolts	M10 x 45	40
A/C Compressor to A/C Compressor Accessory Bracket, Bolts	M8 x 100	25
3.6L Engine		
A/C Compressor Accessory Bracket to Engine, Bolts	-	25
A/C compressor to A/C compressor accessory bracket, bolts	M8 x 100	25
Ribbed Belt Pulley, Denso		
Input Shaft	-	35 ± 5
Ribbed Belt Pulley, Zexel		
Overload protection to A/C compressor, bolt	-	20
Overload protection to ribbed belt pulley, bolts	-	5
Ribbed Belt Pulley, Sanden		
Overload protection to A/C compressor, nut	-	25
Overload protection to ribbed belt pulley, bolts	-	4.5
Condenser to radiator, bolts	-	5 ± 0.5
Dryer cartridge cover, cap	-	1.2 ± 0.3
Evacuating and charging valve insert	-	2 ± 0.2
Expansion valve heat shield, bolt	-	2.5
Expansion valve heat shield, nut	-	4.5
Expansion valve to heating and a/c unit, bolts	-	5
High pressure sensor	-	8 ± 1
Refrigerant lines to expansion valve, bolts	-	10 ± 1
Refrigerant lines to condenser	-	12 ± 1

2.0L Accessory Bracket Tightening Sequence



1 - M10 x 45 Cylinder Bolt
- ☐ 40 Nm

2 - M10 x 45 Cylinder Bolt
- ☐ 40 Nm

3 - M10 x 45 Cylinder Bolt
- ☐ 40 Nm

4 - M10 x 45 Cylinder Bolt
- ☐ 40 Nm

5 - A/C Compressor

6 - M8 x 100 Bolts
- ☐ 25 Nm

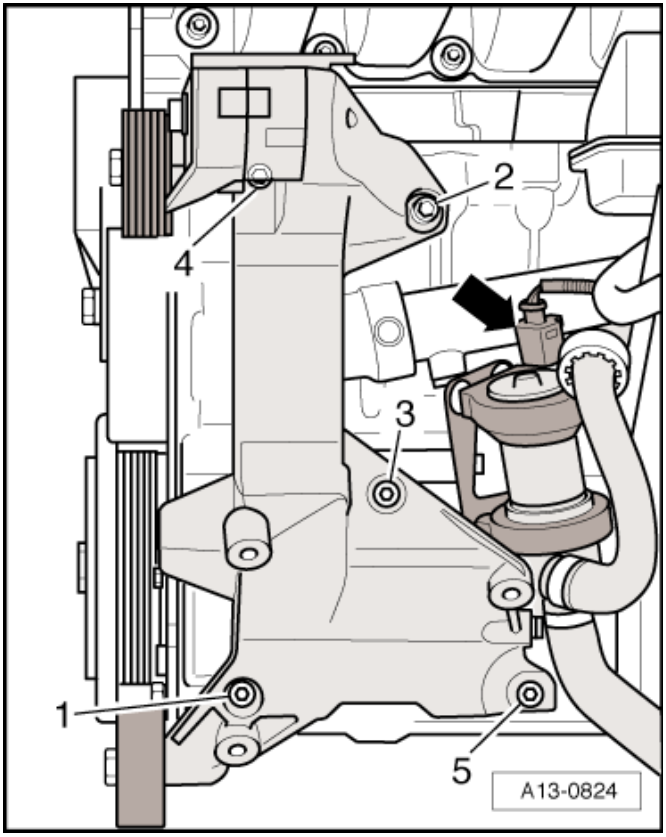
7 - M10 x 45 Cylinder Bolt
- ☐ 40 Nm

8 - M10 x 45 Cylinder Bolt
- ☐ 40 Nm

9 - Alignment Sleeves

10 - A/C Compressor Accessory Brackett

3.6L Accessory Bracket Tightening Sequence



Step	Component	Nm
1	Tighten bolts 1 through 5 in sequence hand tight	
2	Tighten bolts 1 through 5 in sequence	25

ELECTRICAL SYSTEM

Communication

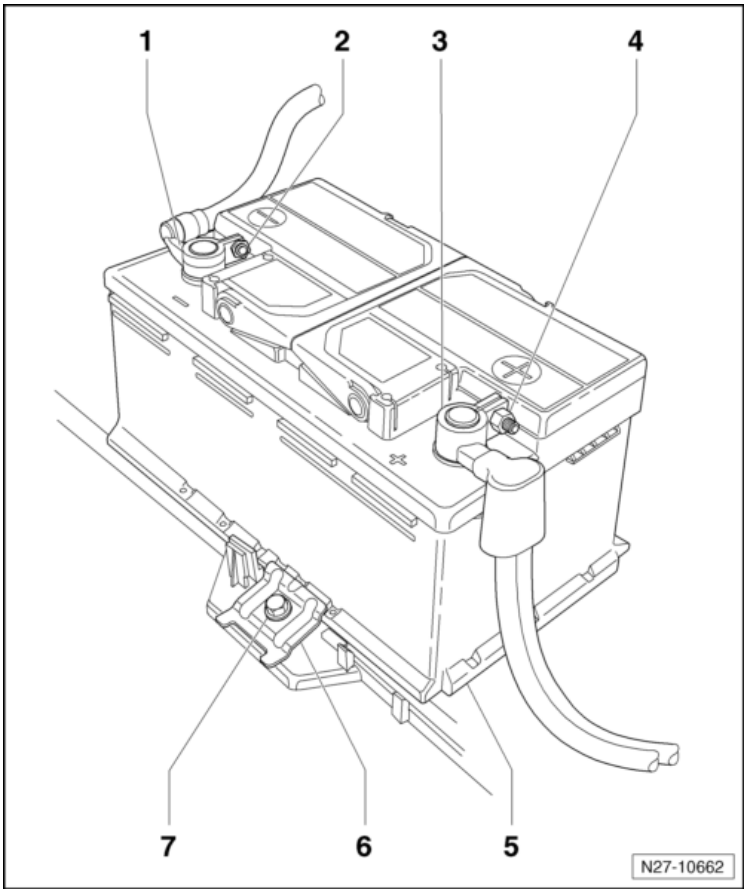
Fastener Tightening Specifications

Component	Nm
Pivoting emblem bolts in rear lid	4
Rear view camera housing and pivoting motor bolts in pivoting emblem	2.5
Rear view camera housing bolts to pivoting motor	1.5

Electrical Equipment

Battery, Starter, Generator, Cruise Control

Battery Overview 2.0L

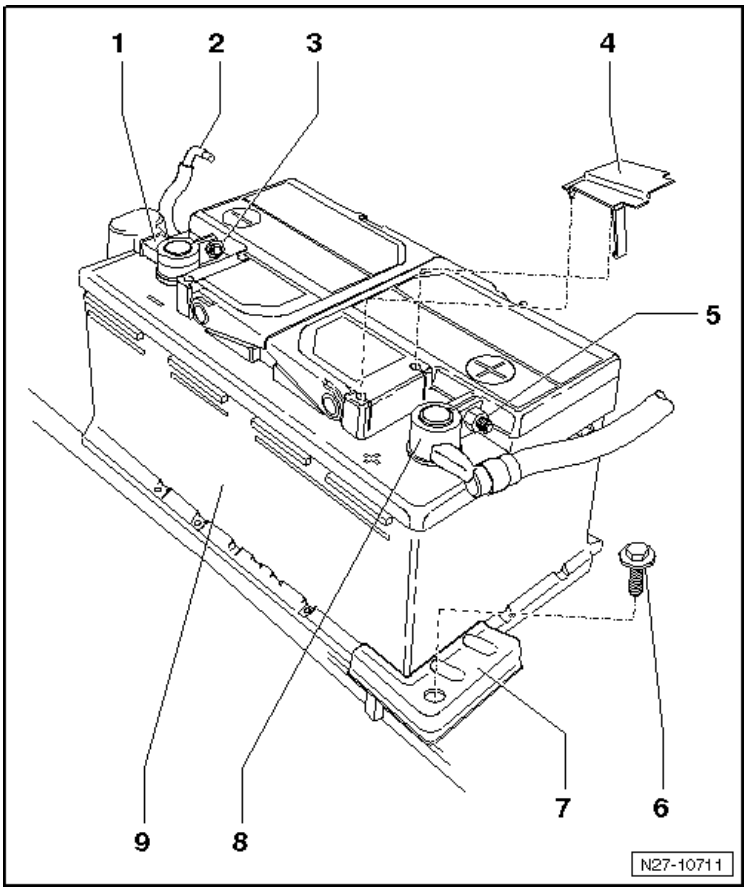


1 - Battery Terminal Clamp Ground Wire
2 - Nut for Battery Terminal Clamp Ground Cable
- ☐ 6 Nm
- ☐ M6

3 - Positive Cable Battery Terminal
4 - Nut for Positive Cable Battery Terminal
- ☐ 6 Nm
- ☐ M6

5 - Battery
6 - Clamp-Down Bracket
7 - Bolt
- ☐ 20 Nm
- ☐ M8

Battery Overview 3.6L



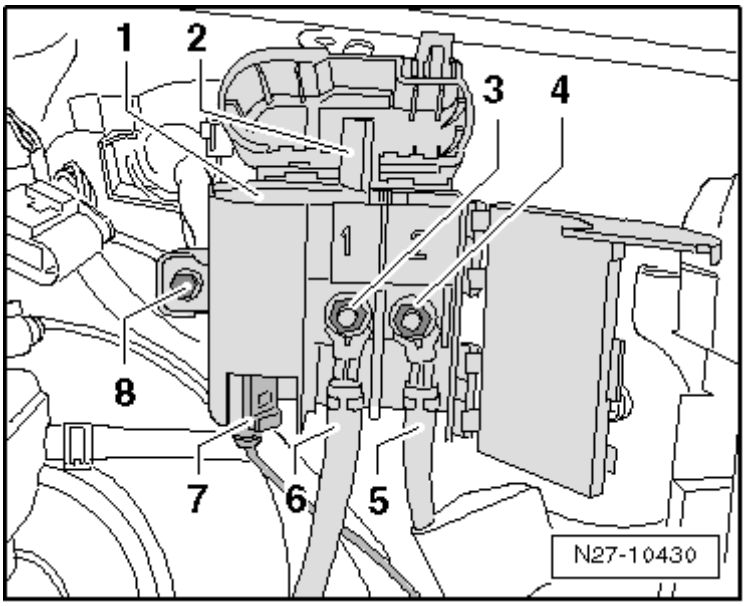
1 - Front Bumper Cover
2 - Hose for the Central Venting System
3 - Nut for Ground Cable
- ☐ 6 Nm
- ☐ M6

4 - Positive Terminal Cover
5 - Nut for Positive Cable
- ☐ 6 Nm
- ☐ M6

6 - Clamping Plate Bolt
- ☐ 35 Nm
- ☐ M8 x 35

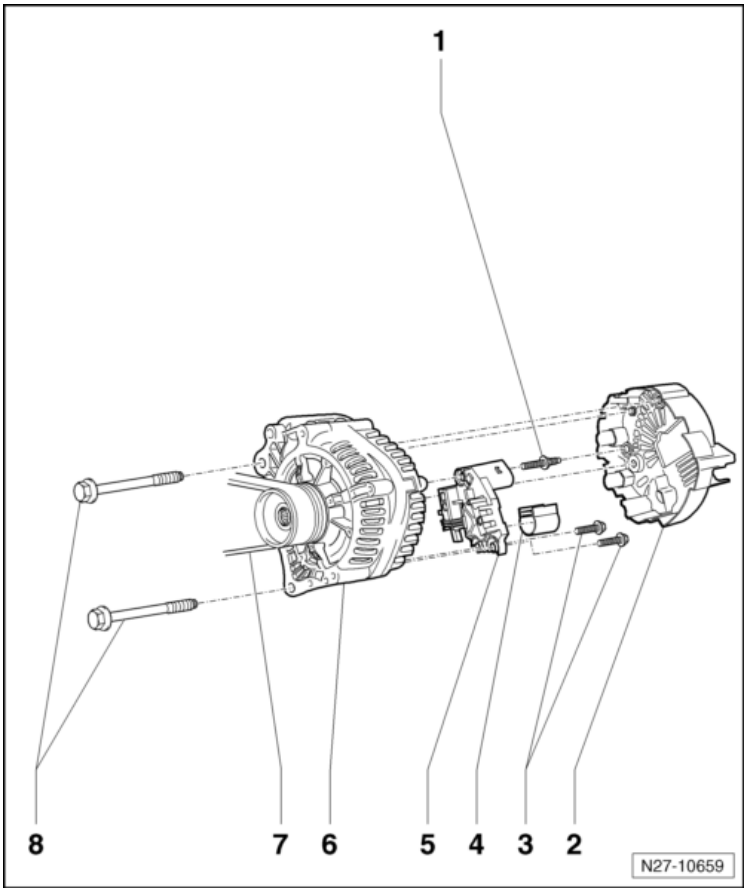
7 - Clamping Plate
8 - Battery Terminal Positive Cable
8 - Battery

Battery Jump Start Terminal Overview



1 - Suppressor -C24-
2 - Battery Jump Start Terminal
3 - Mounting Nut (collar nut)
☐ 15 Nm
4 - Mounting Nut (collar nut)
☐ 15 Nm
5 - Terminal 30 Wire from Battery Interrupt Igniter -N253- in Luggage Compartment, Right Side
6 - Terminal 30 Wire to Starter and to Threaded Connection (30) on E-Box.
7 - Suppressor Connector
8 - Bolt
☐ 9 Nm

Generator Overview



1 - Hex Bolt with Washer and Threaded Piece
- ☐ 2 Nm
- ☐ M4 x 20, M4 x 15

2 - Protective Cap For Generator
- ☐ 3 Nm
- ☐ M5

3 - Phillips Head Screws
- ☐ 2 Nm
- ☐ M4 x 20

4 - Protective Cap For Carbon Brushes

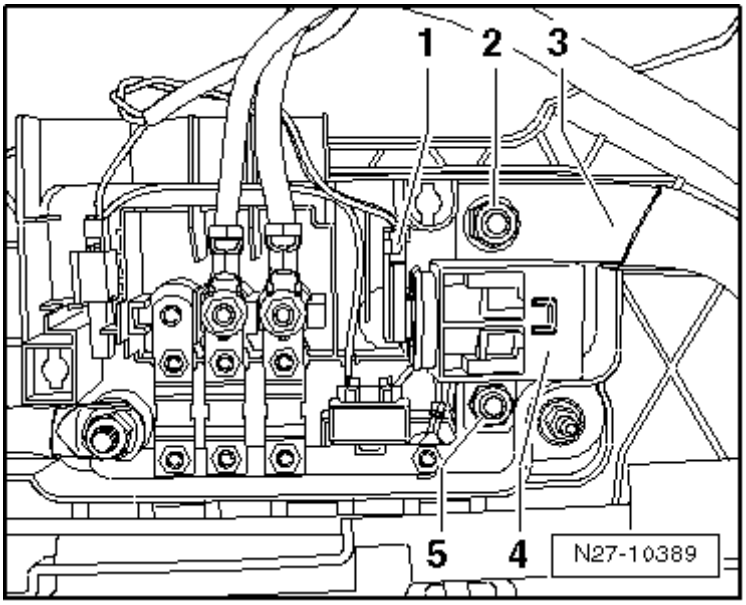
5 - Voltage Regulator

6 - Generator

7 - Ribbed Belt

8 - Collar Bolts
- ☐ 20 Nm
- ☐ M8 x 90

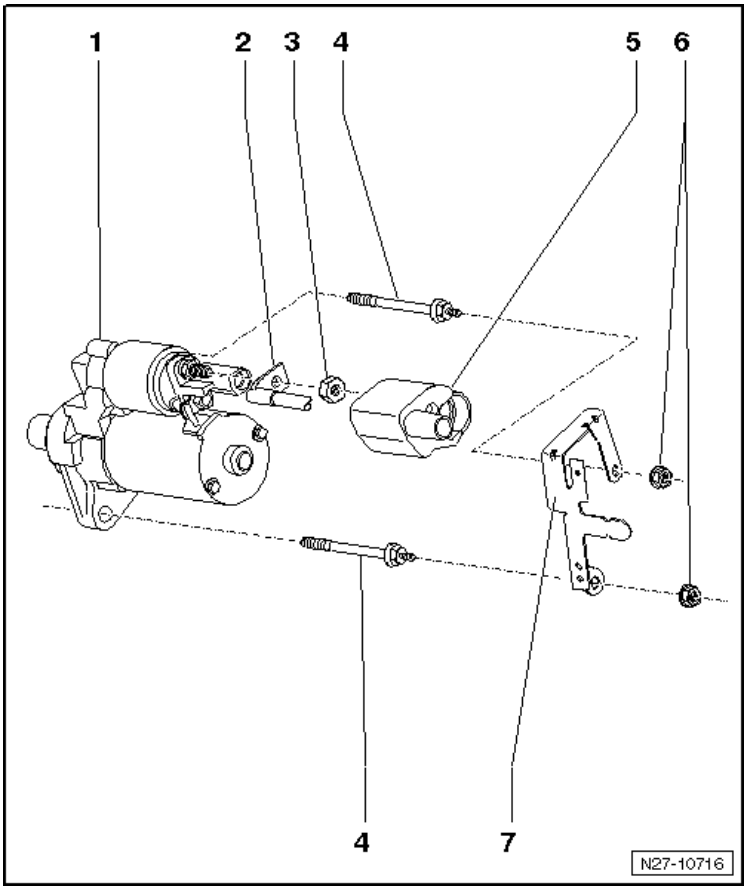
Pyrotechnic Battery Isolator Component Overview



1 - Connector on Pyrotechnic Battery Cut-Out
2 - Nut
- ☐ 15 Nm

3 - B+ Wire
4 - Pyrotechnic Battery Cut-Out
5 - Nut
- ☐ 15 Nm

Starter Overview



1 - Starter
2 - Connection, B+ Wire to Starter
3 - Nut, B+ Wire to Starter
- ☐ 15 Nm
- ☐ M8

4 - Starter Bolts
- ☐ 75 Nm
- ☐ M12

5 - Cap
6 - Mounting Nuts, Wiring Bracket
- ☐ 23 Nm
- ☐ M8

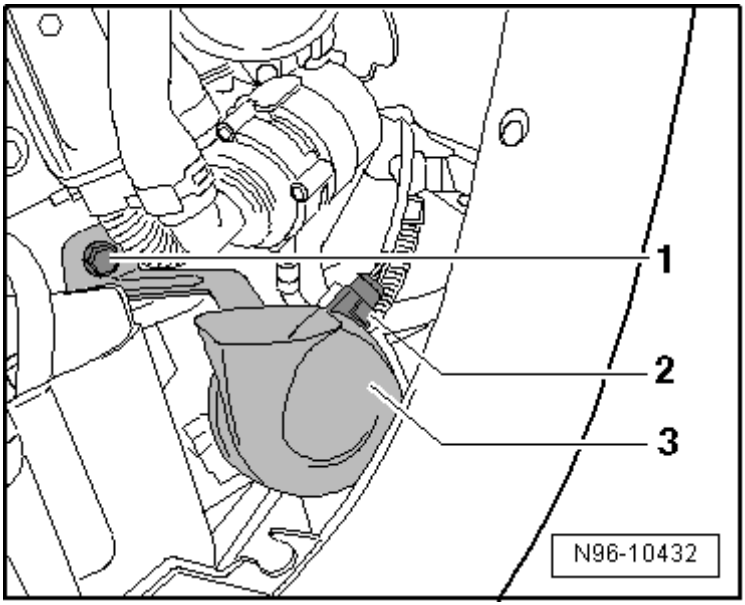
7 - Cable Holder
8 - (Not Illustrated) Air Filter Housing To Body Bolt
- ☐ 10 Nm
- ☐ M6

9 - (Not Illustrated) Ground Wire To Transmission Housing

- ☐ 15 Nm
- ☐ M8

Instruments

Signal Horns



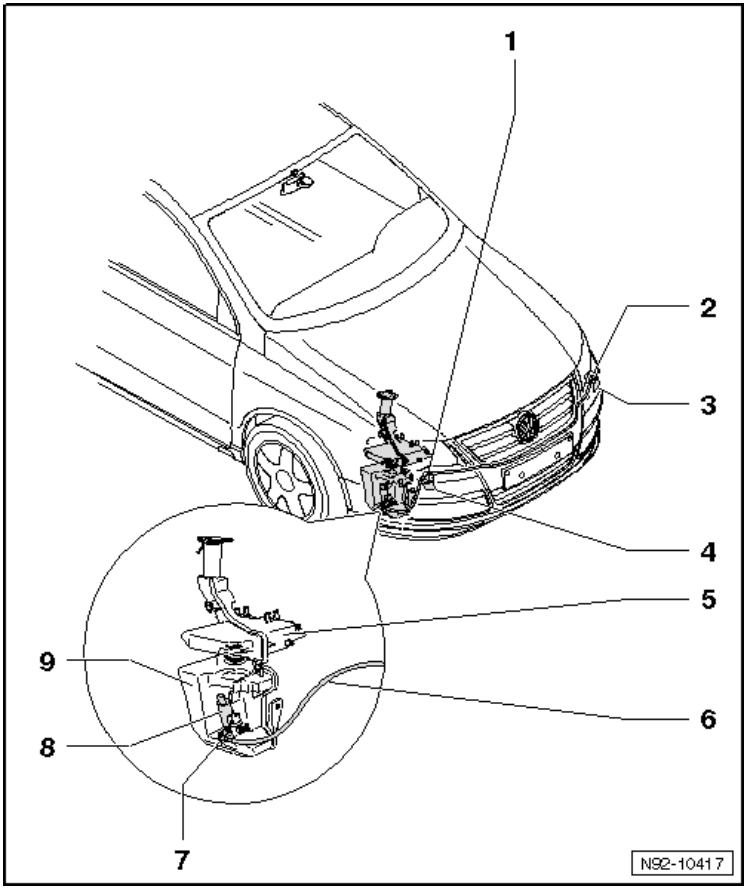
1 - Bolt
- ☐ 20 Nm

2 - Electrical Connection

3 - Horn

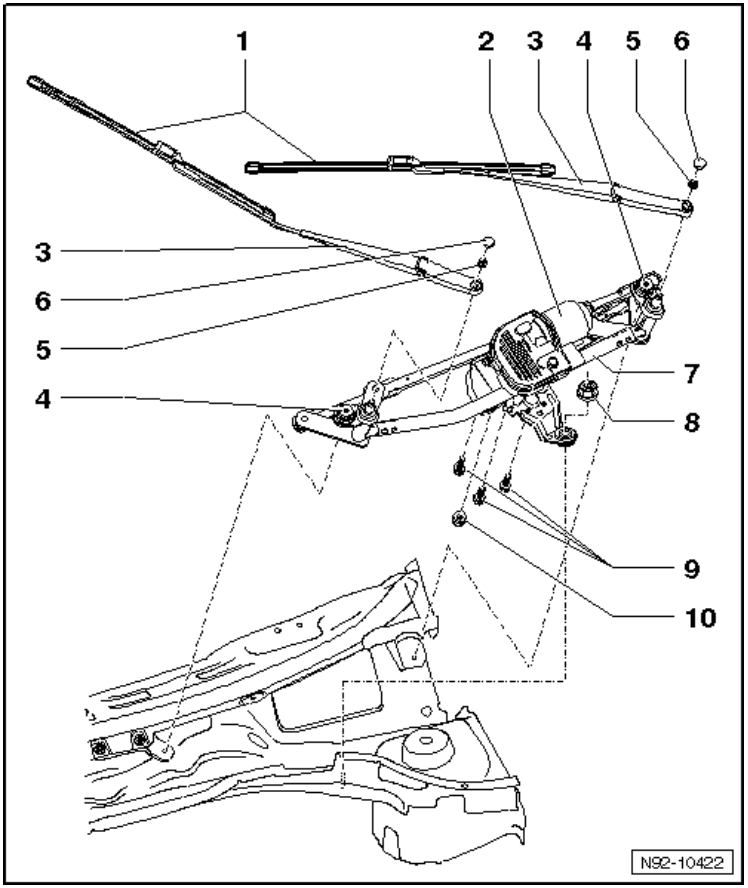
Windshield Wiper/Washer System

Headlamp Washer System Overview



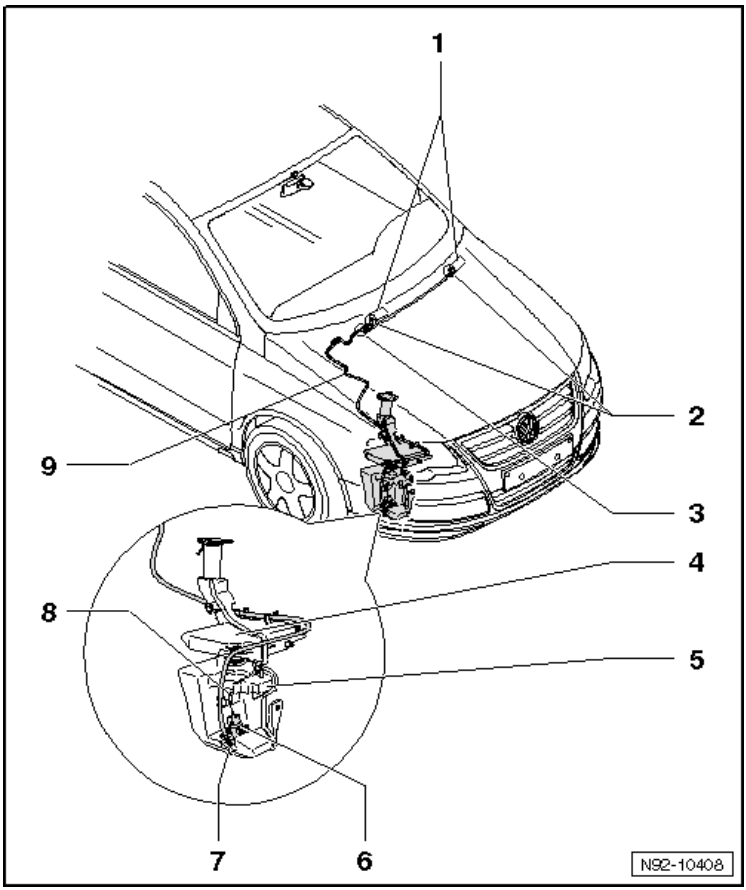
1 - T-connection
2 - Angle Coupling
3 - Lift Cylinder with Left Washer Nozzle
☐ Lift cylinder to bumper cover bolts: 3 Nm
4 - Lift Cylinder with Rught Washer Nozzle
☐ Lift cylinder to bumper cover bolts: 3 Nm
5 - Upper Section Of Tank For Windshield Washer System and Headlamp Cleaning System
6 - Hose
7 - Angle Coupling
8 - Headlamp Washer Pump -V11-
9 - Lower Section Of Tank For Windshield Washer System and Headlamp Cleaning System

Windshield Wiper System Overview



1 - Wiper Blades
2 - Windshield Wiper Motor -V- with Wiper Motor Control Module -J400-
3 - Wiper Arms
4 - Bolts for Wiper Frame with Linkage to Body
☐ 8 Nm
5 - Mounting Nuts, Wiper Arm to Linkage
☐ 20 Nm
6 - Cover Caps
7 - Wiper Frame With Linkage
8 - Wiper Arm Nut to Body
☐ 5 Nm
9 - Mounting Screws, Wiper Motor to Wiper Frame with Linkage
☐ 12 Nm
10 - Motor Crank Nut on the Wiper Motor Shaft
☐ 17 Nm

Windshield Washer System Overview



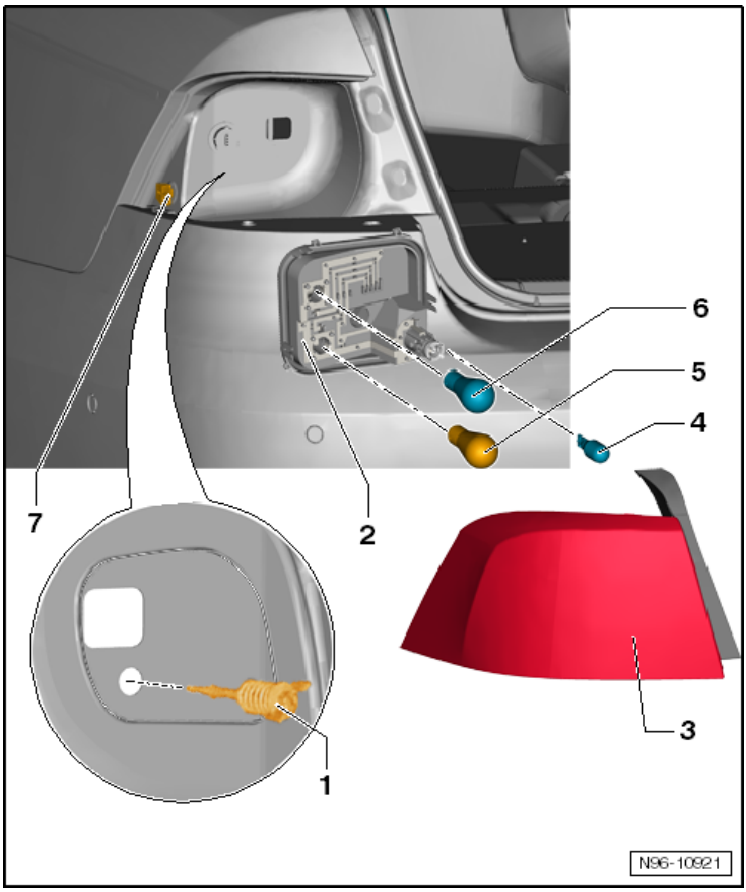
1 - Spray Nozzles Windshield Washer System
2 - Angle Coupling
3 - Y-Connection
4 - Upper Section of Tank for Windshield Washer System and Headlamp Cleaning System
- ☐ Bolts: 5 Nm

5 - Lower Section of Tank For Windshield Washer System and Headlamp Cleaning System
- ☐ Bolts: 5 Nm

6 - Windshield Washer Pump -V5-
7 - Angle Coupling
8 - Windshield Washer Fluid Level Sensor -G33-
7 - Angle Coupling
8 - Windshield Washer Fluid Level Sensor -G33-
9 - Hose

Exterior Lights, Switches

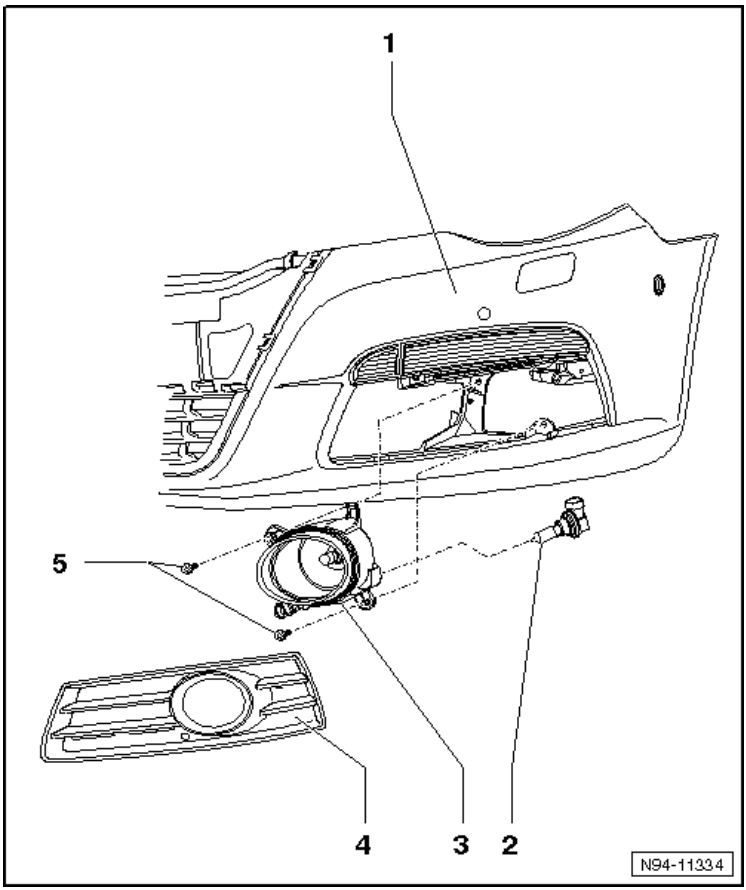
Side Panel Tail Lamps Overview



1 - Tail Lamp Housing Bolt
- ☐ 2 Nm

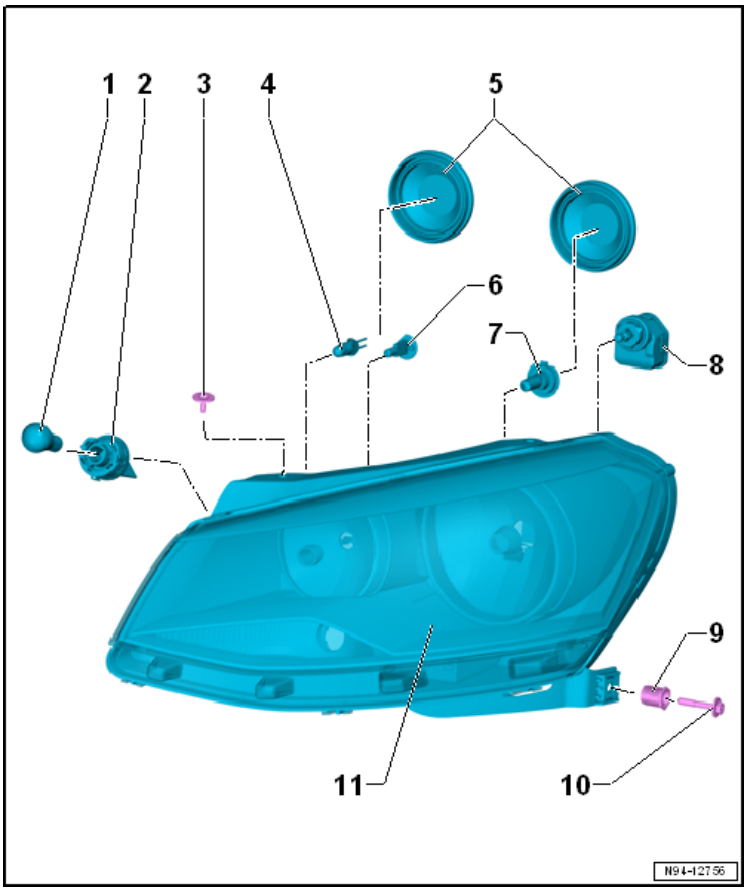
2 - Bulb Holder
3 - Tail Lamps In Side Panel
4 - Left Back-Up Light -M16- and Right Back-Up Light -M17-
5 - Left Rear Turn Signal Lamp -M6- and Right Rear Turn Signal Lamp -M8-
6 - Brake and Tail Lamp Bulb
7 - Guide On The Side Panel

Fog Lamps Overview



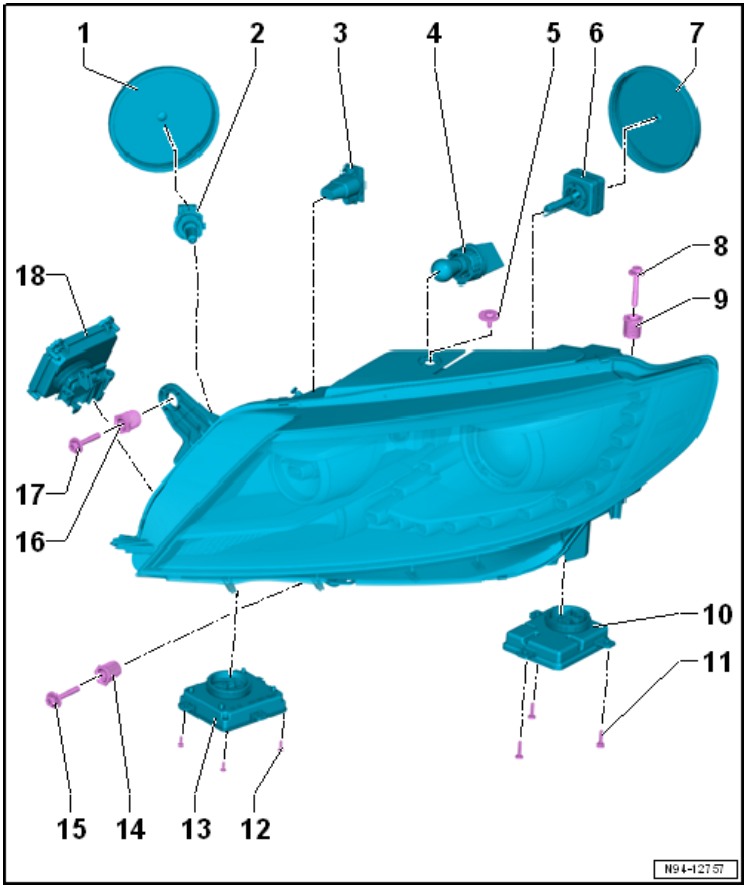
1 - Front Bumper
2 - Left Front Fog Lamp -L22- and Right Front Fog Lamp -L23-
3 - Fog Lamp Housing
4 - Cover
5 - Screws
☐ 20 Nm

Halogen Headlamps



1 - Left Front Turn Signal Light -M5- and Right Front Turn Signal Light -M7-
2 - Bulb Socket
3 - Upper Screw
☐ 2 Nm
4 - Left Parking Lamp -M1- and Right Parking Lamp -M3-
5 - Caps
6 - Left High Beam Headlamp -M30- and Right High Beam Headlamp -M32-
7 - Left Low Beam Headlamp -M29- and Right Low Beam Headlamp -M31-
8 - Left Headlamp Beam Adjustment Motor -V48- and Right Headlamp Beam Adjustment Motor -V49-
9 - Adjusting Bushings
10 - Screws
☐ 6 Nm
11 - Headlamp

HID Headlamps With Cornering Lamp



1 - Cap
2 - Left High Beam Headlamp -M30- and Right High Beam Headlamp -M32-
3 - Left Parking Lamp -M1- and Right Parking Lamp -M3-
4 - Left Front Turn Signal Light -M5- and Right Front Turn Signal Light -M7-
5 - Upper Screw
☐ 2 Nm
6 - High Intensity Gas Discharge Lamp -L13- And High Intensity Discharge Lamp -L14- (“Bi-Xenon”)
7 - Cap
8 - Screws
☐ 6 Nm
9 - Adjusting Bushings
10 - Left Headlamp Power Output Stage -J667- Or Right Headlamp Power Output Stage -J668--

11 - Screws

- ☐ 2 Nm

12 - Screws

- ☐ 2 Nm

13 - Left High-intensity Gas Discharge Lamp Control Module -J343- and Right High-intensity Gas Discharge Lamp Control Module -J344-

14 - Adjusting Bushings

15 - Screws

- ☐ 6 Nm

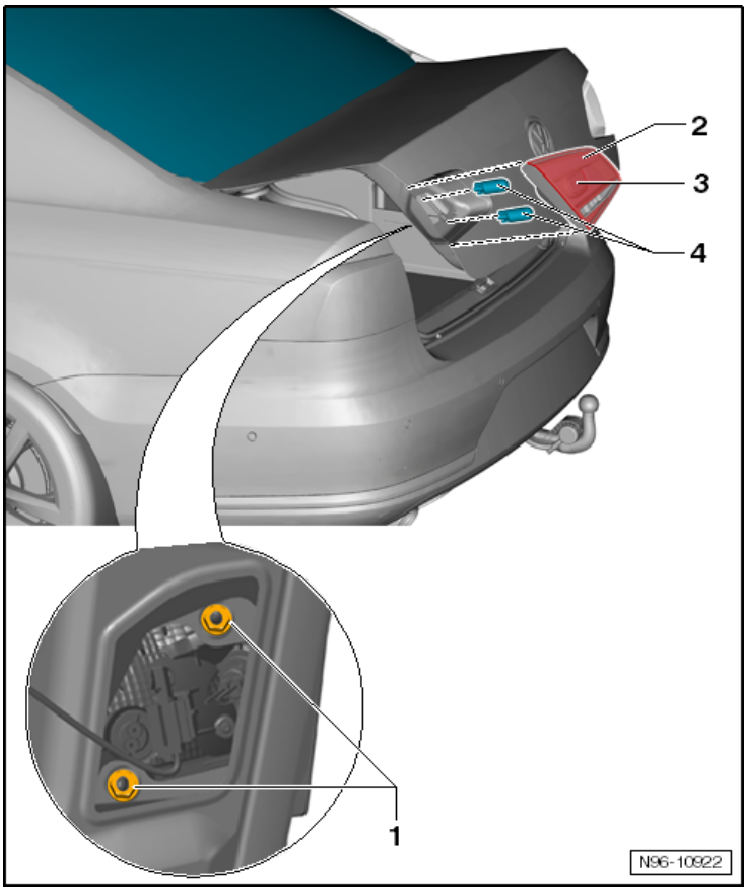
16 - Adjusting Bushings

17 - Screws

- ☐ 6 Nm

18 - Cornering Lamp and Headlamp Range Control Module -J745-

Rear Lid Tail Lamps Overview



1 - Nuts
- ☐ 3 Nm

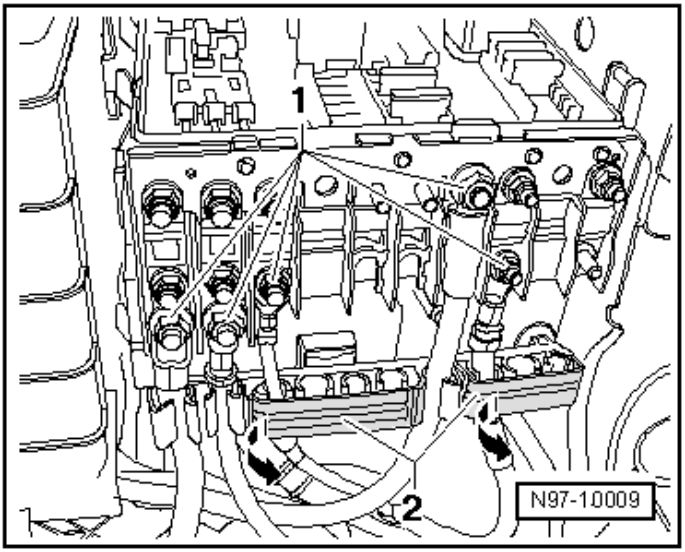
2 - Tail Lamp Housing
3 - Left Rear Fog Light -L46- and Right Rear Fog Light -L47-
4 - Left Tail Lamp Bulb 2 -M49- and Right Tail Lamp Bulb 2 -M50-

Wiring

Wiring Tightening Specifications

Component	Nm
Comfort system central control module	4.5
Instrument panel fuse panel	4

Left Engine Compartment E-Box Tightening Specifications



Component	Fastener size	Nm
Central bolt E-box	-	9
Securing nuts (1)	M5 (8 mm)	4
	M6 (10 mm)	6