2014 Volkswagen Tiguan
Quick Reference Specification Book

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CHASSIS

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.

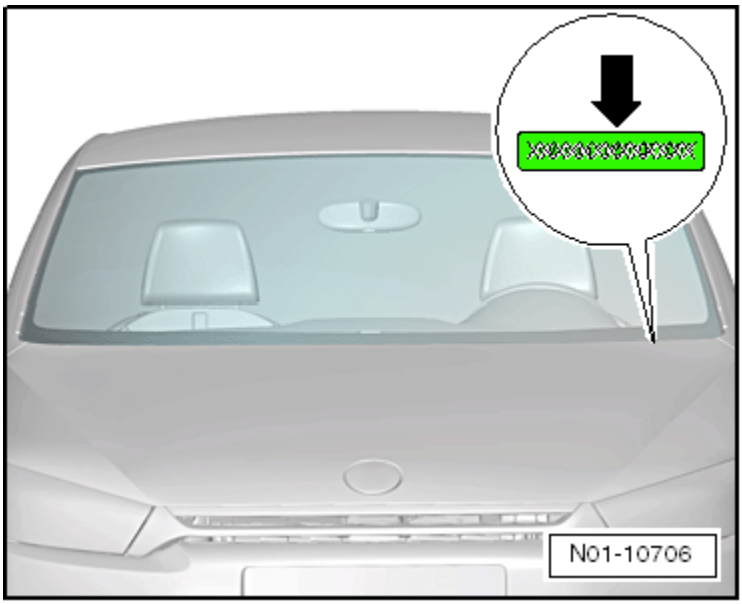
(CAUTIONS cont'd on next page)

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.

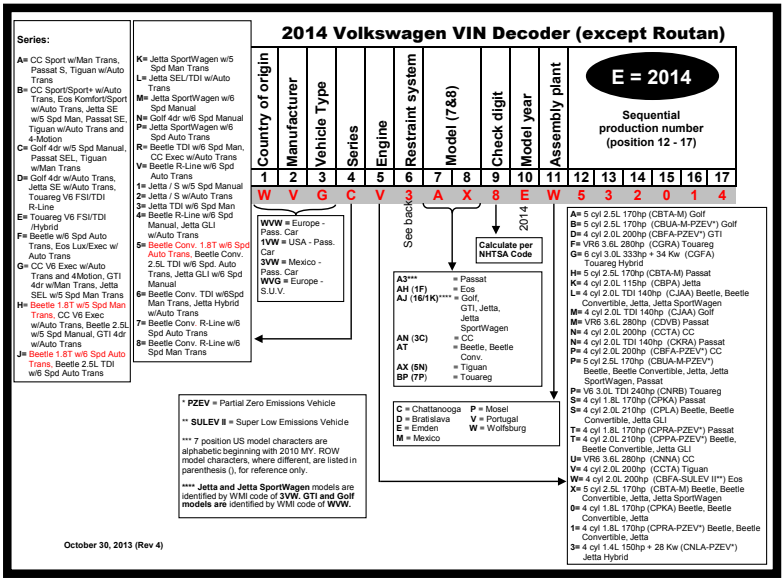
VEHICLE IDENTIFICATION

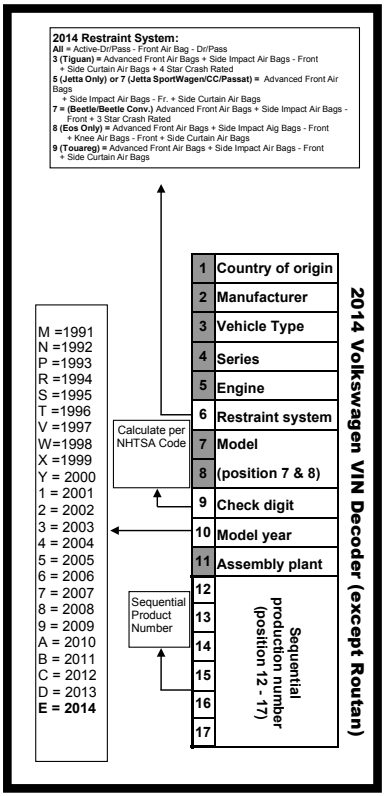
Vehicle Identification Number (VIN) Location



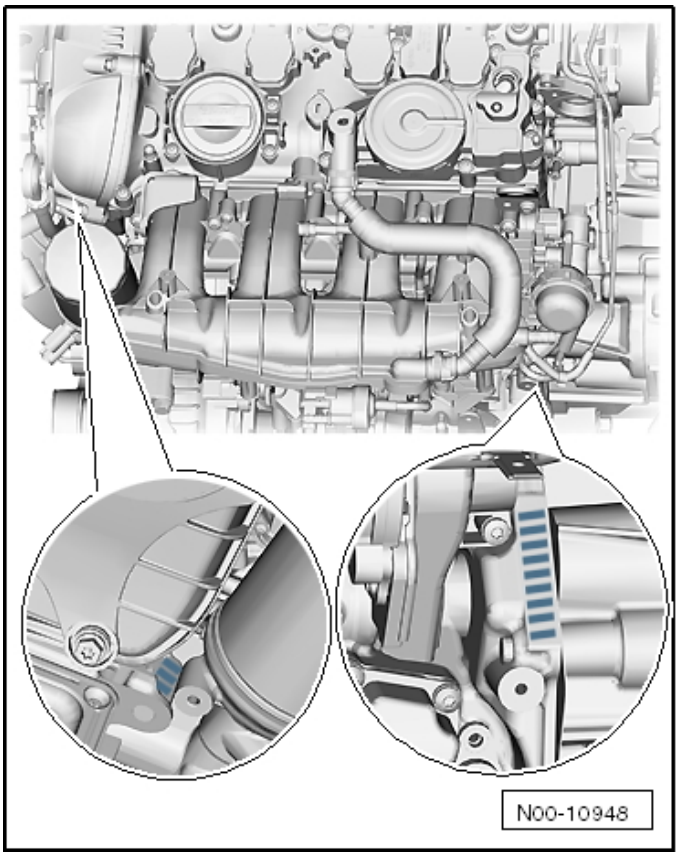
The VIN (➡) is on the left side of the vehicle in the area of the windshield wiper mount. It is visible from the outside (typical illustration shown).

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
See back
2014
WVW = Europe - Pass. Car
1VW = USA - Pass. Car
3VW = Mexico - Pass. Car
WVG = Europe - S.U.V.
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= V R6 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 WWW.
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)

Vehicle Identification Number (VIN)



The engine number “engine code” and “serial number” are located at the engine/transmission joint. The engine code is also printed behind the oil filter on the cylinder block.

Vehicles with Four Digit Engine Codes

Four digit engine codes beginning with the letter “C” are used. The first three digits describe the mechanical structure of the engine and are still stamped on the engine, as before. The fourth digit describes the engine output and torque and depends on the Engine Control Module -J623-. Four digit engine codes are found on the type plate and vehicle data label. It can also be read via the Engine Control Module -J623-.

SALES CODES

Engine Codes

CCTA	2.0L 4-cylinder

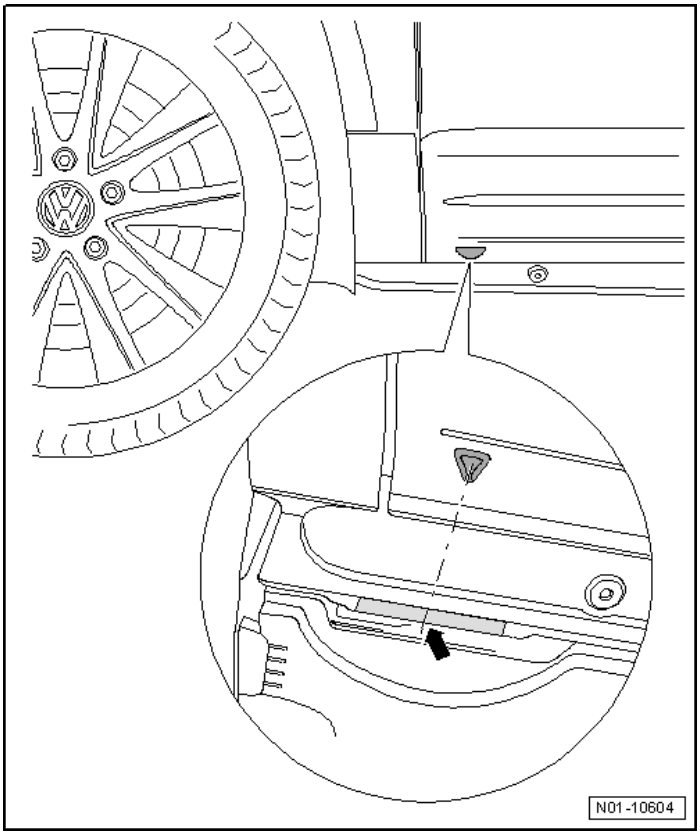
Transmission Codes

0A6	6-speed manual
09M	6-speed automatic

VEHICLE LIFTING

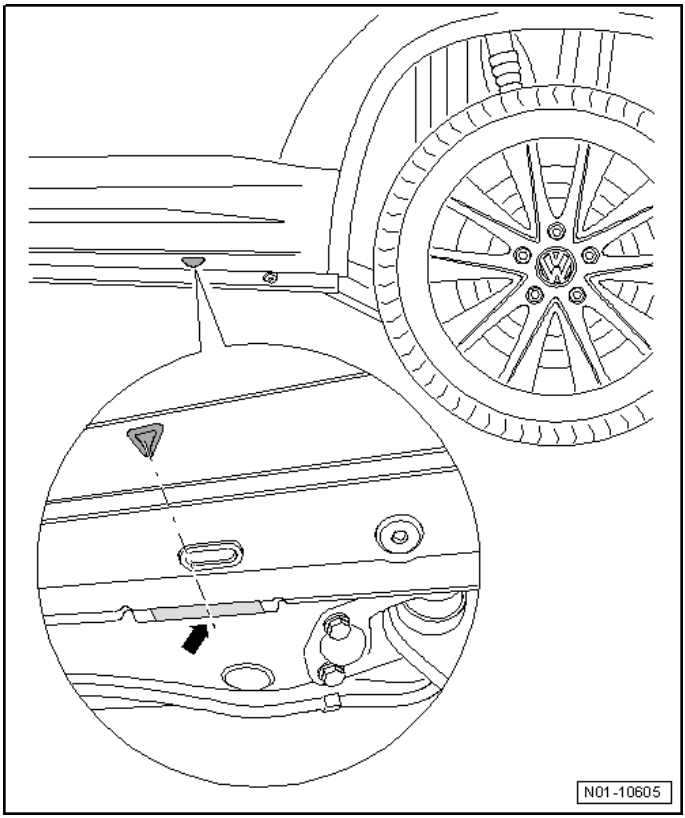
Hoist and Jack Mounting Points

Front



Position the support plate in the side member vertical reinforcement area (➡).

Rear

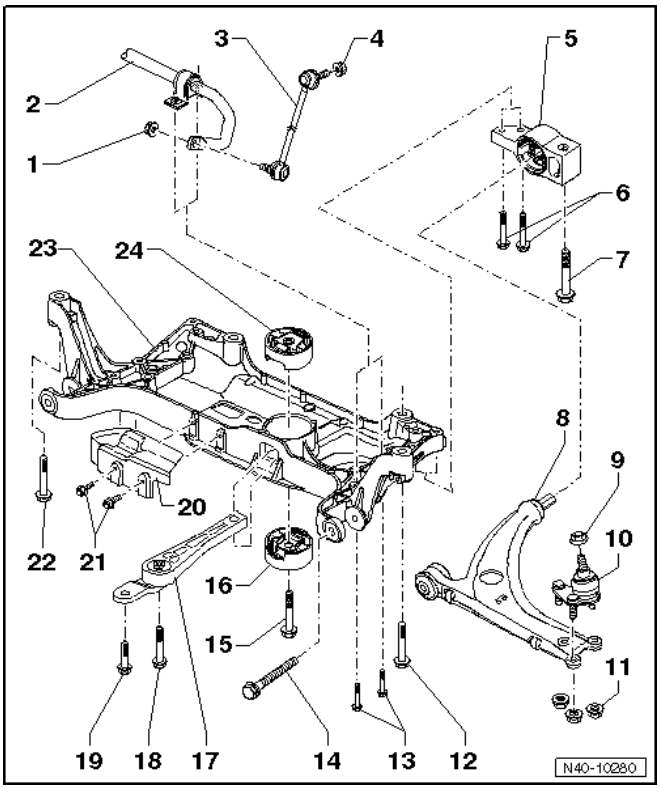


Position the support plate in the side member vertical reinforcement area (➡).

SUSPENSION, WHEELS, STEERING

Front Suspension

Subframe, Stabilizer Bar and Control Arms Overview



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

2 - Stabilizer Bar
- ☐ There are different versions

3 - Coupling Rod

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

5 - Bracket

6 - Bolt
- ☐ 50 Nm + 90° turn
- ☐ M10 x 70
- ☐ Allways replace if removed

7 - Bolt
- ☐ 70 Nm +180° turn
- ☐ M12 x 1.5 x 100
- ☐ Allways replace if removed

8 - Control Arm

9 - Nut
- ☐ 60 Nm
- ☐ M12 x 1.5
- ☐ Allways replace if removed

10 - Ball Joint

11 - Nut
- ☐ Aluminum control arm: 60 Nm
- ☐ Steel control arm: 100 Nm
- ☐ Allways replace if removed

12 - Bolt
- ☐ M12 x 1.5 x 100: 70 Nm + 180° turn
- ☐ M12 x 1.5 x 110: 70 Nm + 90° turn
- ☐ Allways replace if removed

13 - Bolt
- ☐ 20 Nm + 90° turn
- ☐ M8 x 55
- ☐ Allways replace if removed

14 - Bolt
- ☐ 70 Nm + 180° turn
- ☐ M12 x 1.5 x 110
- ☐ Allways replace if removed

15 - Bolt
- ☐ 100 Nm + 90° turn
- ☐ M14 x 1.5 x 70
- ☐ Allways replace if removed

16 - Lower Bonded Rubber Bushing for Pendulum Support

17 - Pendulum Support

18 - Bolt
- ☐ M10 x 75: 50 Nm + 90° turn
- ☐ M12 x 1.5 x 85: 60 Nm + 90° turn
- ☐ Allways replace if removed

19 - Bolt
- ☐ M10 x 35: 50 Nm + 90° turn
- ☐ M12 x 1.5 x 50: 60 Nm + 90° turn
- ☐ Allways replace if removed

20 - Heat Shield

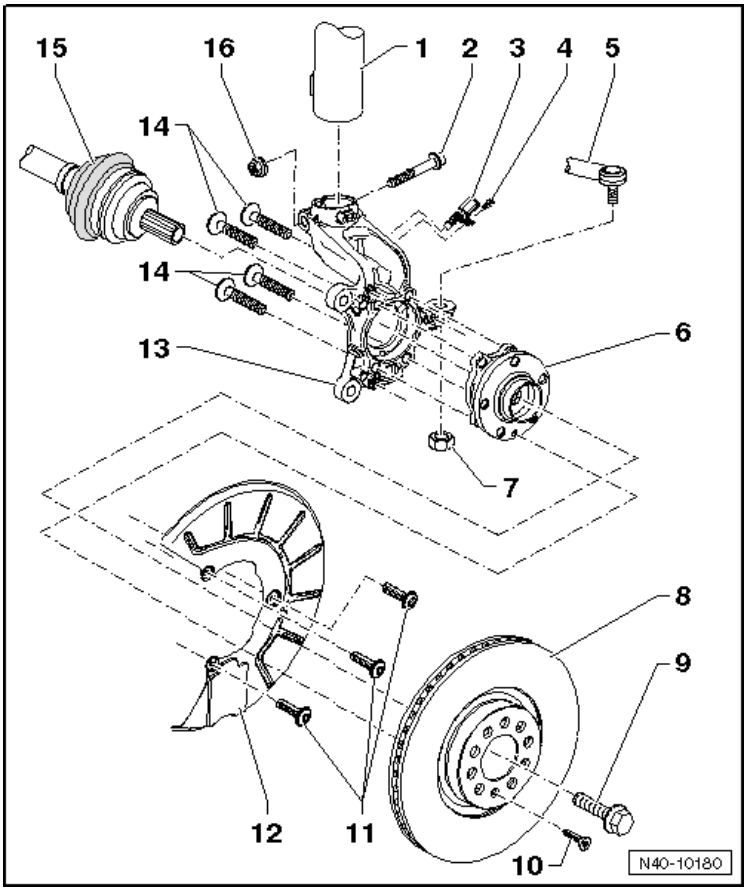
21 - Bolt
- ☐ 6 Nm

22 - Bolt
- ☐ 70 Nm + 180° turn
- ☐ M12 x 1.5 x 90
- ☐ Allways replace if removed

23 - Subframe

24 - Upper Bonded Rubber Bushing for Pendulum Support

Wheel Bearing Overview



1 - Suspension Strut
2 - Internal Multi-Point Bolt
3 - Left Front ABS Wheel Speed Sensor -G47-/Right Front ABS Wheel Speed Sensor -G45-
4 - Hex Socket Head Bolt
- ☐ 8 Nm
- ☐ M6 x 16

5 - Tie Rod End
6 - Wheel Hub with Wheel Bearing
7 - Nut
- ☐ 50 Nm
- ☐ M12 x 1.5
- ☐ Allways replace if removed

8 - Internally Vented Brake Rotor

9 - Bolt

- ☐ There are different versions.
- ☐ Twelve-point bolt with ribs is 70 Nm + 90° turn.
- ☐ Twelve-point bolt without ribs is 200 Nm + 180° turn
- ☐ Allways replace if removed

10 - Bolt

- ☐ Refer to Brake System; Mechanical Components

11 - Bolt

- ☐ 12 Nm
- ☐ M6 x 12

12 - Cover Plate

13 - Wheel Bearing Housing

14 - Internal Multi-Point Bolt

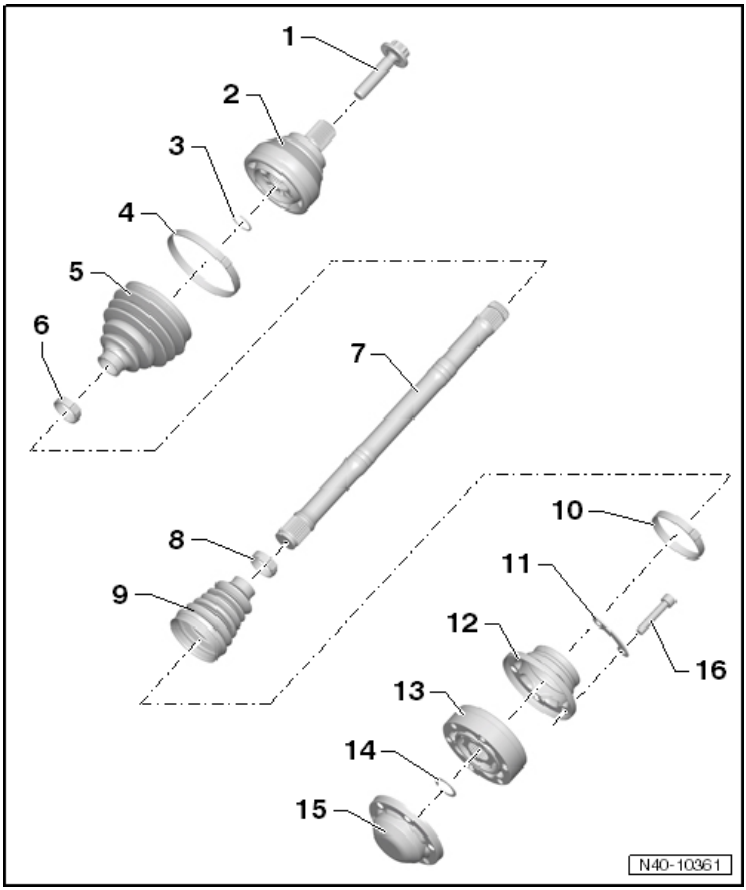
- ☐ 70 Nm + 90° turn
- ☐ M12 x 1.5 x 45
- ☐ Allways replace if removed

15 - Driveshaft

16 - Nut

- ☐ 70 Nm + 90° turn
- ☐ M12 x 1.5 x 80
- ☐ Allways replace if removed

Driveshaft with Mounted CV Joint VL 107 Overview



1 - Bolt
- ☐ There are different versions.
- ☐ Twelve-point bolt with ribs is 70 Nm + 90° turn.
- ☐ Twelve-point bolt without ribs is 200 Nm + 180° turn
- ☐ Allways replace if removed

2 - Outer CV Joint

3 - Locking Ring
- ☐ Allways replace if removed

4 - Clamp
- ☐ Allways replace if removed

5 - Protective Boot

6 - Clamp
- ☐ Always replace

7 - Driveshaft

8 - Clamp
- ☐ Always replace

9 - CV Boot

10 - Clamp

- ☐ Allways replace if removed

11 - Locking Plate

12 - Cover

13 - Inner CV Joint

14 - Locking Ring

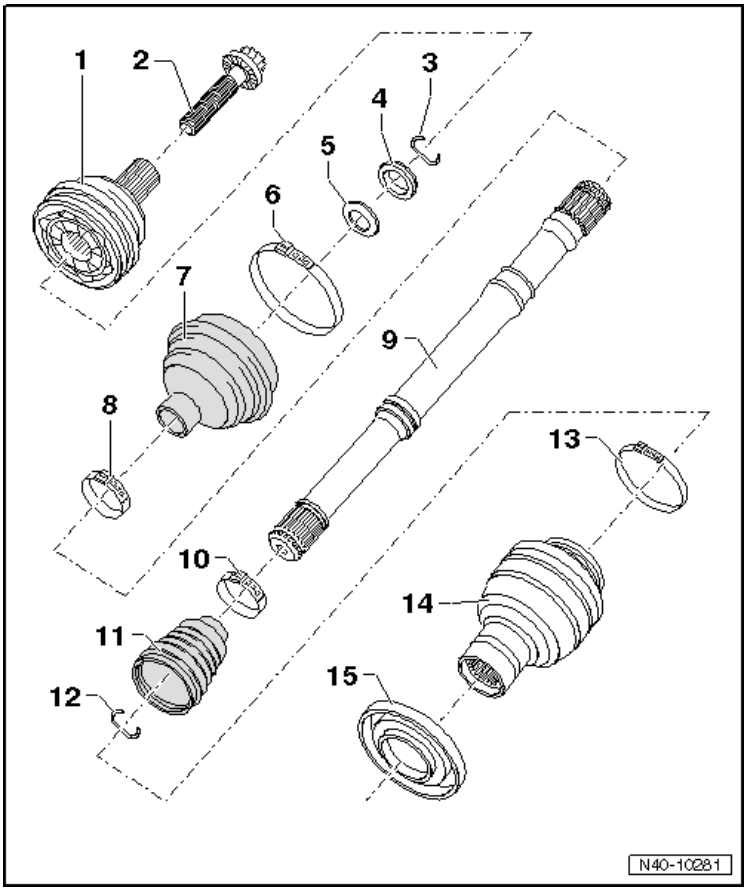
15 - Cover

- ☐ Allways replace if removed

16 - Internal Multi-Point Bolt

- ☐ 70 Nm
- ☐ First tighten diagonally to 10 Nm, then tighten diagonally again to the tightening specification
- ☐ M10 x 52
- ☐ Always replace bolts

Driveshaft with CV joint VL107 Overview



1 - Outer CV Joint

2 - Bolt

- ☐ There are different versions.
- ☐ Twelve-point bolt with ribs is 70 Nm + 90° turn.
- ☐ Twelve-point bolt without ribs is 200 Nm + 180° turn
- ☐ Allways replace if removed

3 - Locking Ring

- ☐ Allways replace if removed

4 - Thrust Ring

5 - Plate Spring

6 - Clamp

- ☐ Always replace if removed

7 - Protective Boot

8 - Clamp

- ☐ Always replace if removed

9 - Driveshaft

10 - Clamp

- ☐ Allways replace if removed

11 - CV Joint Protective Boot

12 - Locking Ring

- ☐ Allways replace if removed

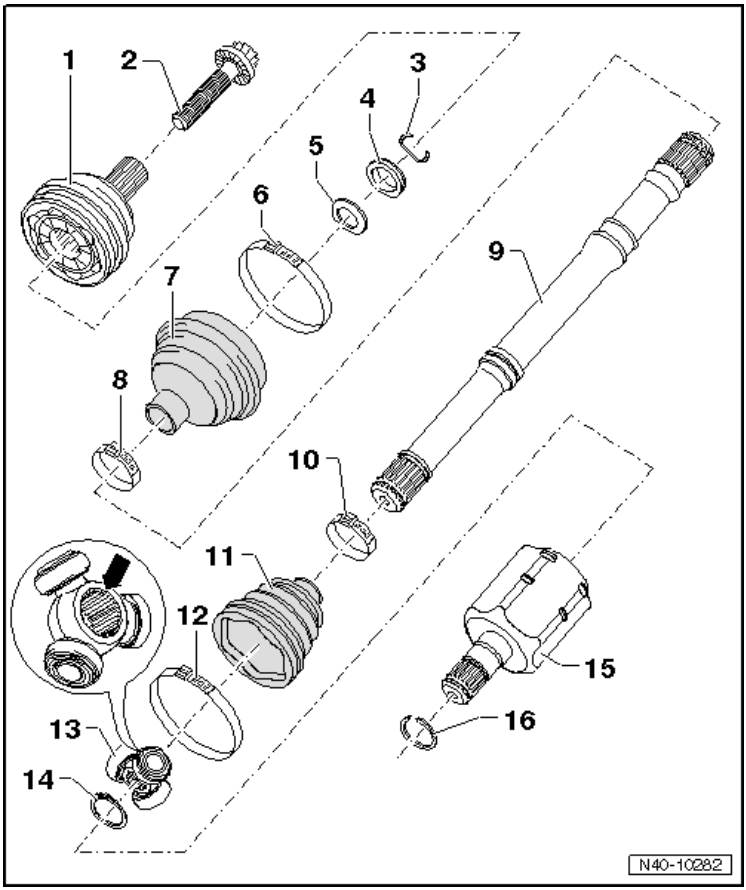
13 - Clamp

- ☐ Always replace if removed

14 - CV Joint

15 - Cap

Driveshaft with Triple Roller Joint AAR3300i Overview



1 - Outer CV Joint

2 - Bolt

- ☐ There are different versions.
- ☐ Twelve-point bolt with ribs is 70 Nm + 90° turn.
- ☐ Twelve-point bolt without ribs is 200 Nm + 180° turn
- ☐ Allways replace if removed

3 - Locking Ring

- ☐ Allways replace if removed

4 - Thrust Ring

5 - Plate Spring

6 - Clamp

- ☐ Always replace if removed

7 - CV Boot

8 - Clamp

- ☐ Always replace if removed

9 - Driveshaft

10 - Clamp

- ☐ Allways replace if removed

11 - CV Joint Protective Boot

12 - Clamp

- ☐ Allways replace if removed

13 - Triple Roller Star with Rollers

14 - Locking Ring

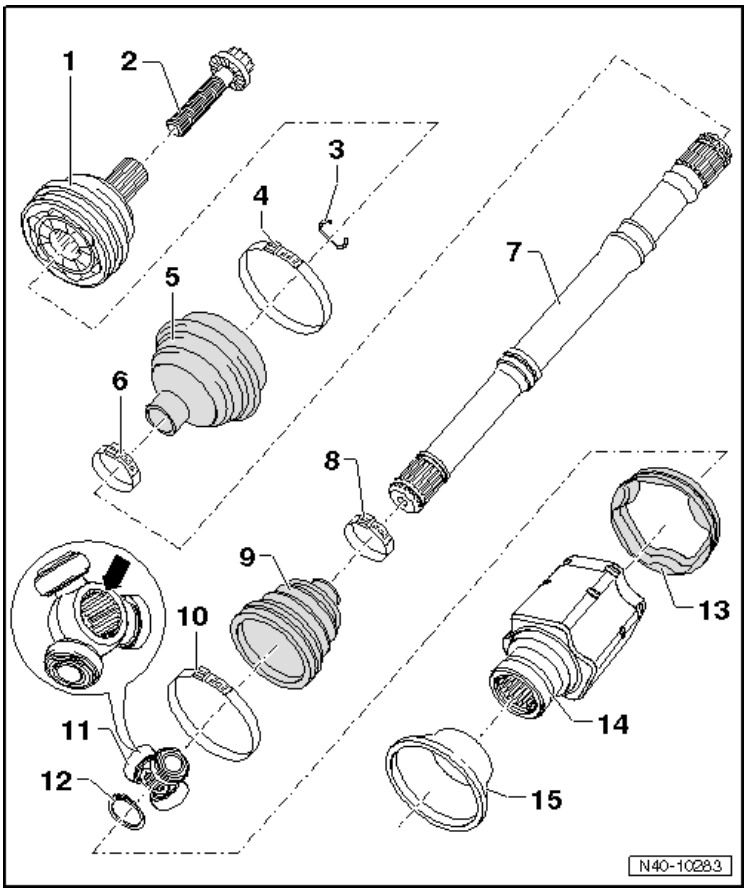
- ☐ Allways replace if removed

15 - Joint

16 - Locking Ring

- ☐ Allways replace if removed

Driveshaft with Triple Roller Joint AAR3300i, 09M Automatic Transmission, 6-Speed, AWD Overview



1 - Outer CV Joint

2 - Bolt

- ☐ There are different versions.
- ☐ 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 - Locking Ring

- ☐ Allways replace if removed

4 - Clamp

- ☐ Always replace if removed

5 - CV Boot

6 - Clamp

- ☐ Always replace if removed

7 - Driveshaft

8 - Clamp

- ☐ Always replace if removed

9 - CV Boot for Triple Roller Joint

10 - Clamp

- ☐ Allways replace if removed

11 - Triple Roller Star with Rollers

12 - Locking Ring

- ☐ Allways replace if removed

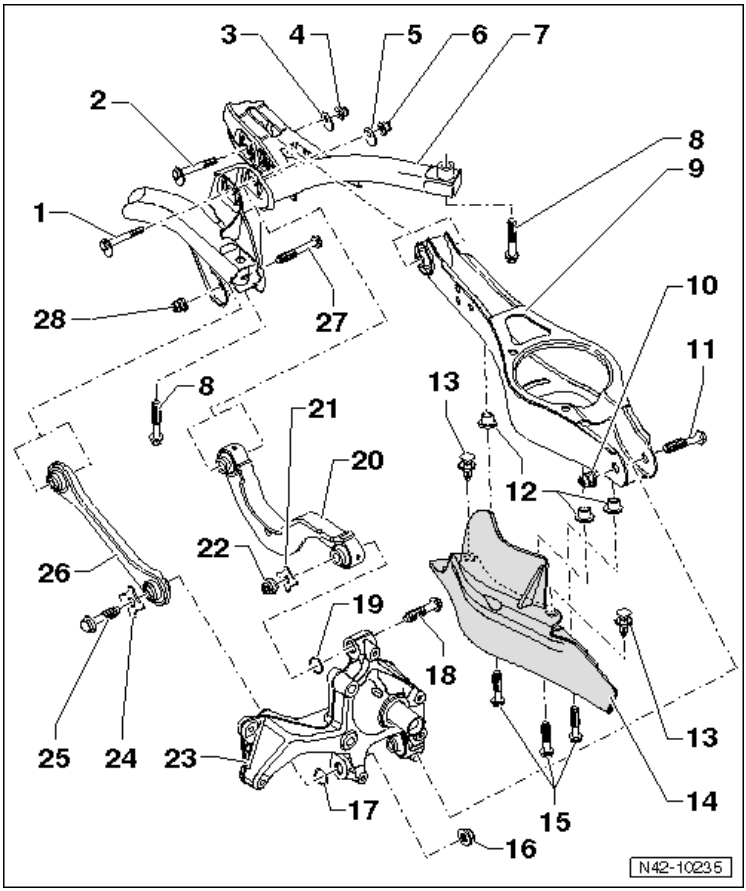
13 - Adapter

14 - Joint

15 - Cap

Rear Suspension

Subframe Transverse Link and Tie Rods FWD Overview



1 - Eccentric Bolt
2 - Eccentric Bolt
3 - Eccentric Washer
4 - Nut
- ☐ 95 Nm
- ☐ M12 x 1.5
- ☐ Always replace if removed

5 - Eccentric Washer
6 - Nut
- ☐ 95 Nm
- ☐ M12 x 1.5
- ☐ Always replace if removed

7 - Subframe
8 - Bolt
- ☐ 90 Nm + 90° turn
- ☐ M12 x 1.5 x 95
- ☐ Always replace if removed

9 - Lower Transverse Link
10 - Nut
- ☐ 90 Nm + 90° turn
- ☐ M12 x 1.5
- ☐ Always replace if removed

11 - Bolt
- ☐ Always replace if removed

12 - Threaded Rivet
- ☐ M6

13 - Expanding Rivet
14 - Stone Chip Protection
15 - Bolt
- ☐ 8 Nm

16 - Nut
- ☐ 130 Nm + 90° turn
- ☐ M14 x 1.5
- ☐ Always replace if removed

17 - Washer
18 - Bolt
- ☐ 130 Nm + 90° turn
- ☐ Always replace if removed

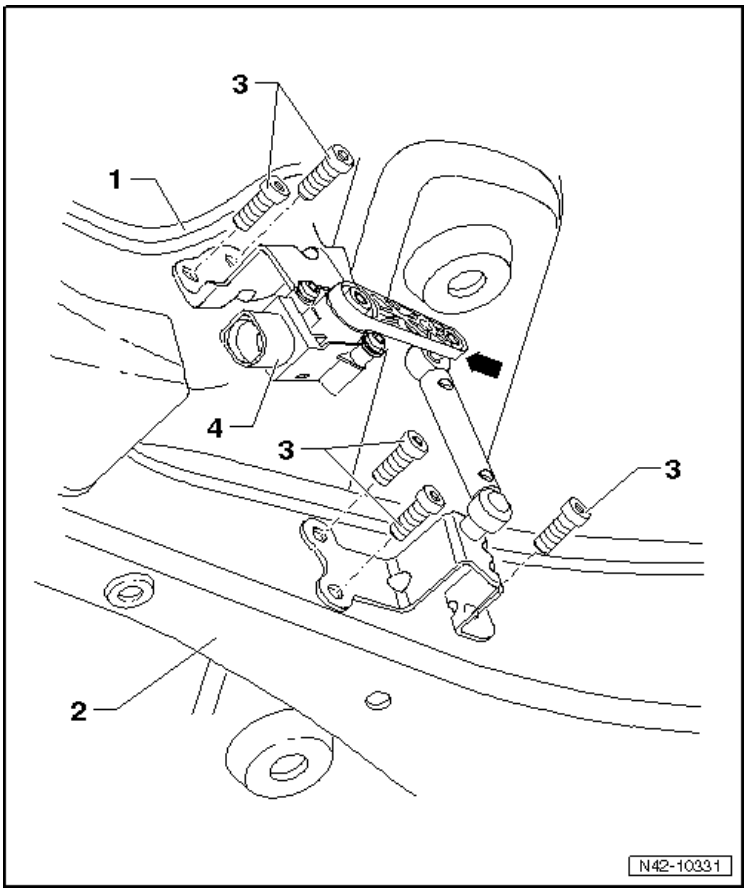
19 - Washer
20 - Upper Transverse Link
21 - Washer
22 - Nut
- ☐ M14 x 1.5
- ☐ Allways replace if removed

23 - Wheel Bearing Housing
24 - Washer
25 - Bolt
- ☐ Always replace if removed

26 - Tie Rod
27 - Bolt
- ☐ Allways replace if removed

28 - Nut
- ☐ 90 Nm + 90° turn
- ☐ M12 x 1.5
- ☐ Always replace if removed

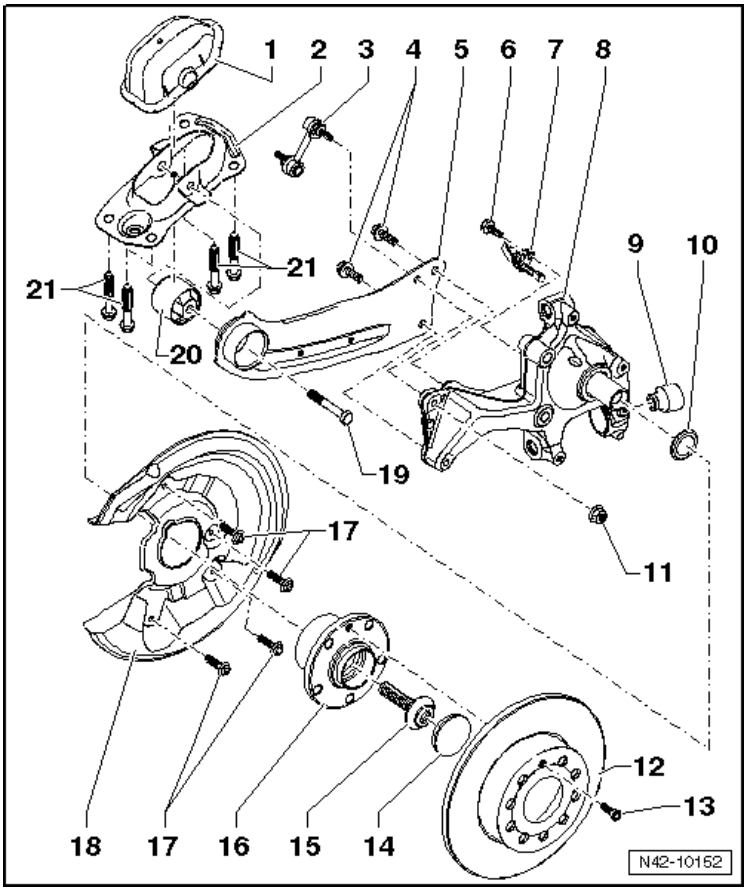
Left Rear Level Control System Sensor -G76- FWD Overview



1 - Subframe
2 - Lower Transverse Link
3 - Bolt
- ☐ 5 Nm
- ☐ M5 x 20

4 - Left Rear Level Control System Sensor

Wheel Bearing Housing, Trailing Arm FWD Overview



1 - Cover
2 - Bracket
3 - Coupling Rod
4 - Bolt
- ☐ 90 Nm + 90° turn
- ☐ M12 x 1.5 x 40
- ☐ Always replace if removed

5 - Trailing Link
6 - Bolt
- ☐ 8 Nm
- ☐ M6 x 16

7 - Right Rear ABS Wheel Speed Sensor -G44-/Left Rear ABS Whee Speed Sensor -G46-
8 - Wheel Bearing Housing
9 - Bonded Rubber Bushing
10 - Washer

11 - Nut
- ☐ 40 Nm
- ☐ Always replace if removed

12 - Brake Rotor

13 - Bolt
- ☐ 4 Nm

14 - Dust Cap

15 - Bolt
- ☐ 200 Nm + 180° turn
- ☐ M16 x 1.5 x 70
- ☐ Always replace if removed

16 - Wheel Hub with Wheel Bearing

17 - Bolt
- ☐ 12 Nm
- ☐ M6 x 10

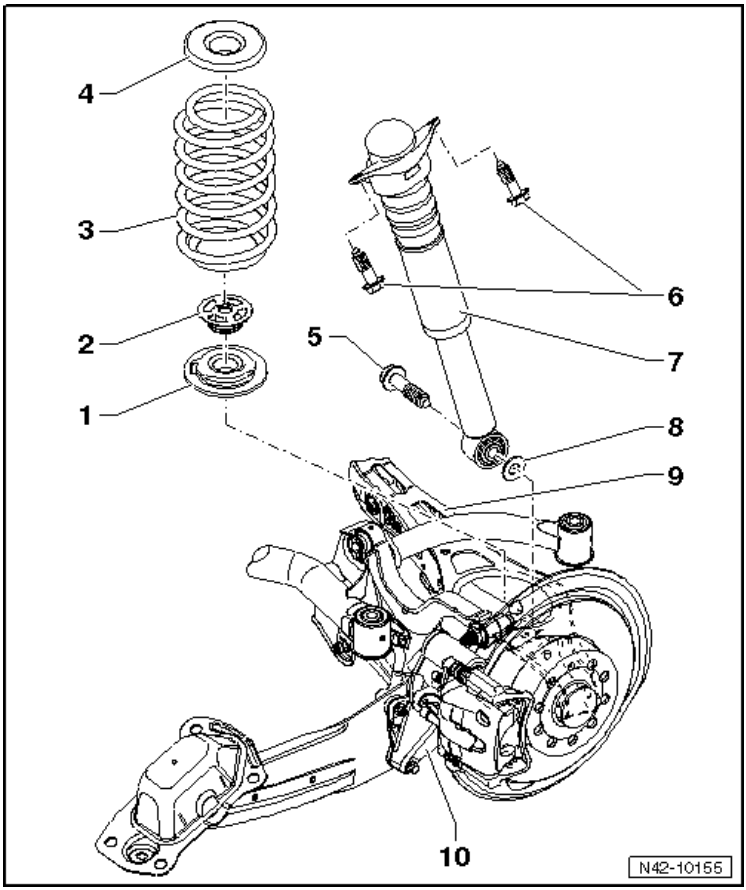
18 - Cover Plate

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, Coil Spring FWD Overview

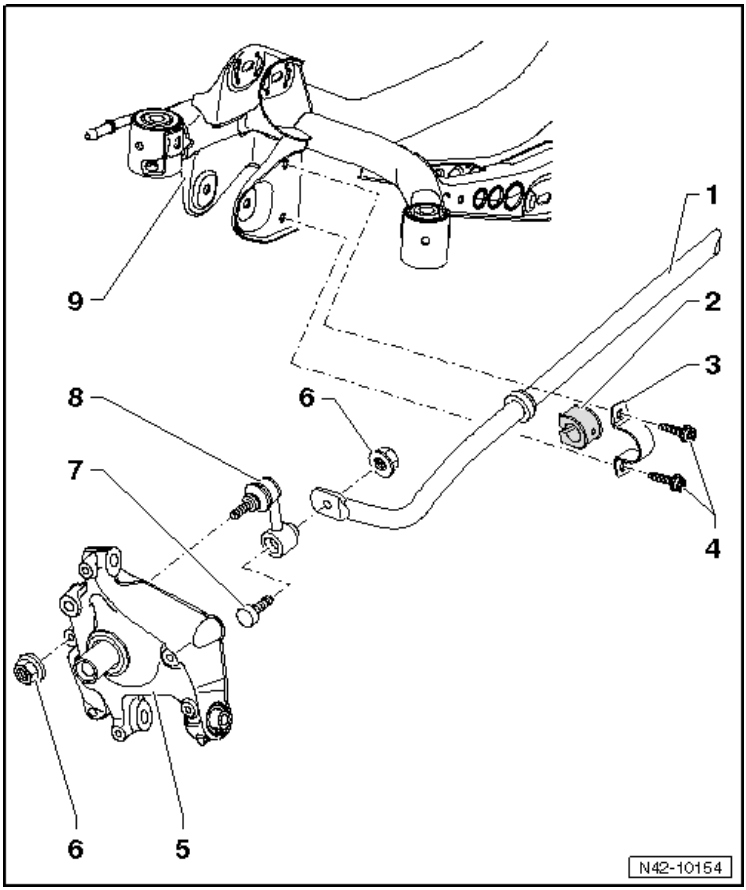


1 - Low Spring Support
2 - Assembly Aid
3 - Coil Spring
4 - Upper Spring Support
5 - Bolt
- ☐ 180 Nm
- ☐ M14 x 1.5 x 85
- ☐ Always replace if removed

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

7 - Shock Absorbers
8 - Washer
9 - Lower Transverse Link
10 - Wheel Bearing Housing

Stabilizer Bar FWD Overview

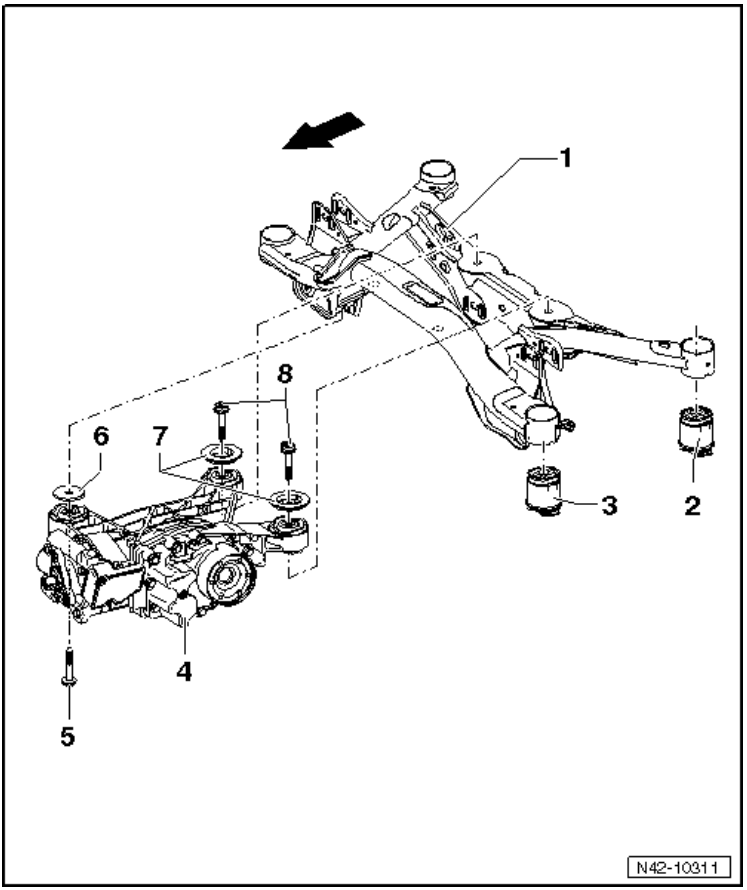


1 - Stabilizer Bar
2 - Rubber Mount
3 - Clamp
4 - Bolt
- ☐ 25 Nm + 90° turn
- ☐ M8 x 30
- ☐ Always replace if removed

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

7 - Bolt
8 - Coupling Rod
9 - Subframe

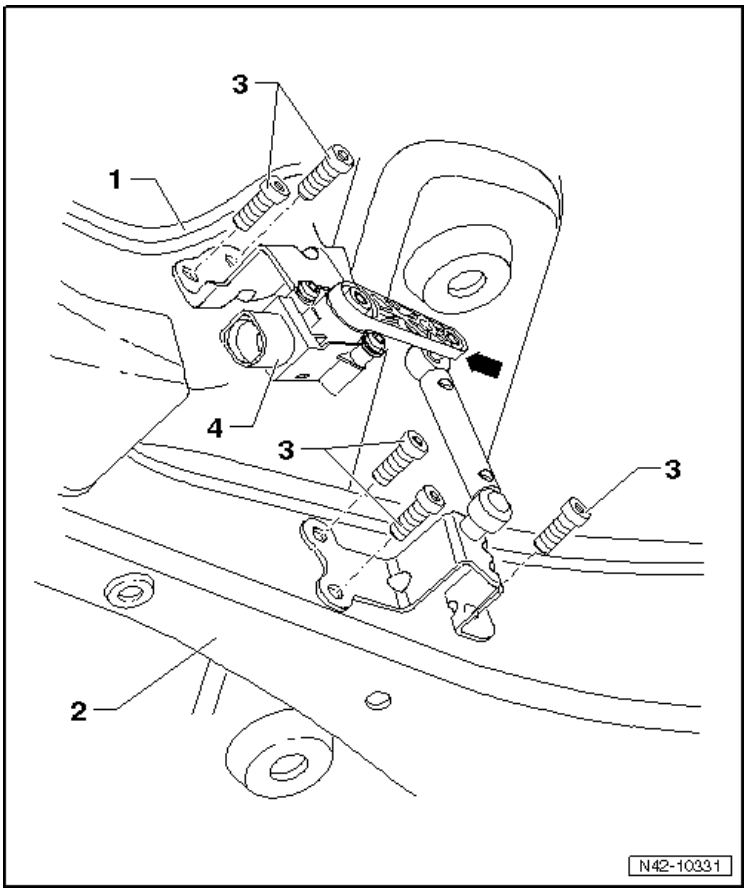
Subframe, Final Drive AWD Overview



1 - Subframe
2 - Rear Bonded Rubber Bushing
3 - Front Bonded Rubber Bushing
4 - 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

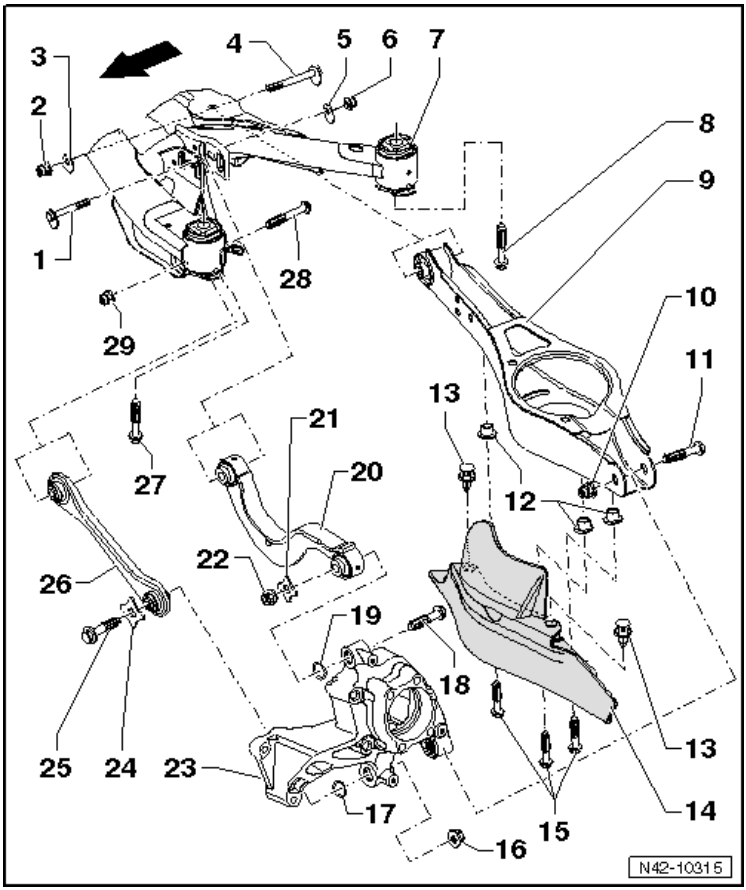
Left Rear Level Control System Sensor -G76- AWD Overview



1 - Subframe
2 - Lower Transverse Link
3 - Bolt
- ☐ 5 Nm
- ☐ M5 x 20

4 - Left Rear Level Control System Sensor -G76-

Transverse Link, Tie Rod AWD Overview



1 - Eccentric Bolt

2 - Nut

- ☐ 95 Nm
- ☐ M12 x 1.5
- ☐ Always replace if removed

3 - Eccentric Washer

4 - Eccentric Bolt

5 - Eccentric Washer

6 - Nut

- ☐ 95 Nm
- ☐ M12 x 1.5
- ☐ Always replace if removed

7 - Subframe

8 - Bolt

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

9 - Lower Transverse Link

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 Chip Protection

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 Transverse Link

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

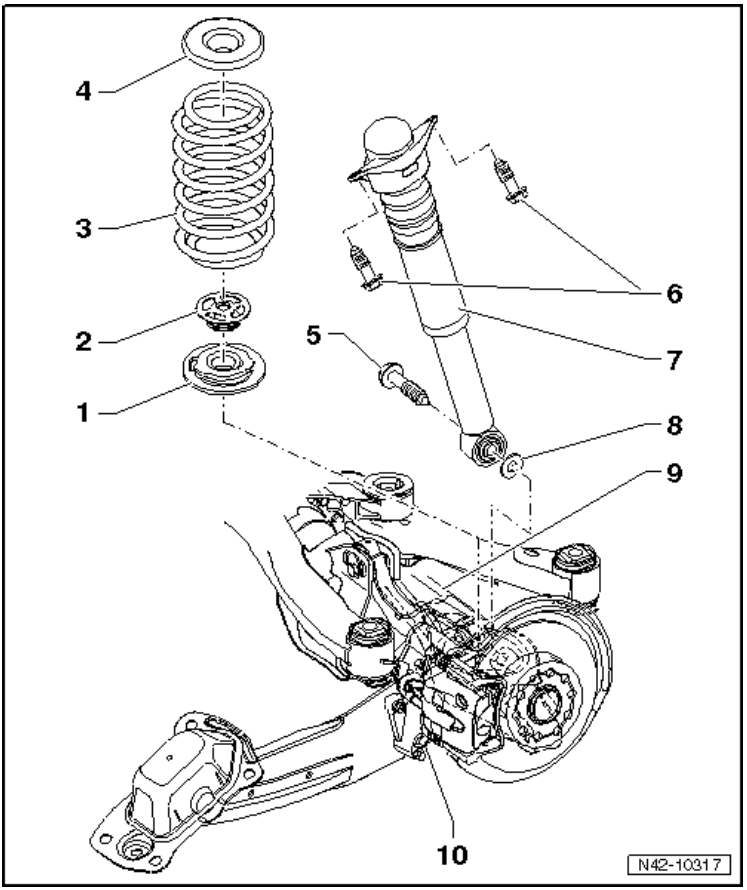
26 - Tie Rod

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

Shock Absorber, Coil Spring AWD

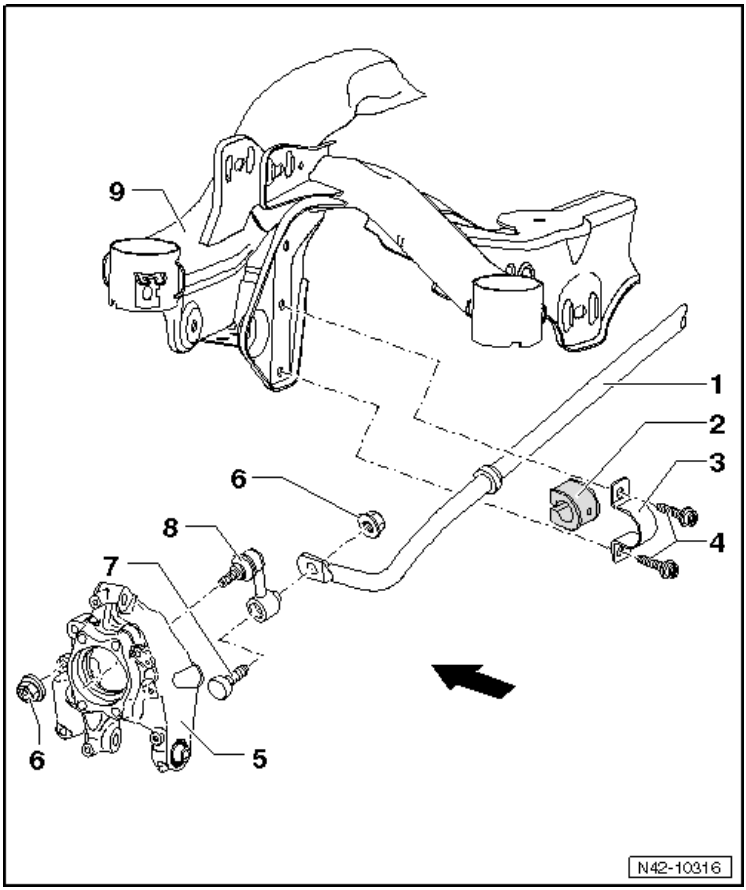


1 - Low Spring Support
2 - Assembly Aid
3 - Coil Spring
4 - Upper Spring Support
5 - Bolt
- ☐ 180 Nm
- ☐ M14 x 1.5 x 70

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

7 - Shock Absorbers
8 - Washer
9 - Lower Transverse Link
10 - Wheel Bearing Housing

Stabilizer Bar AWD Overview



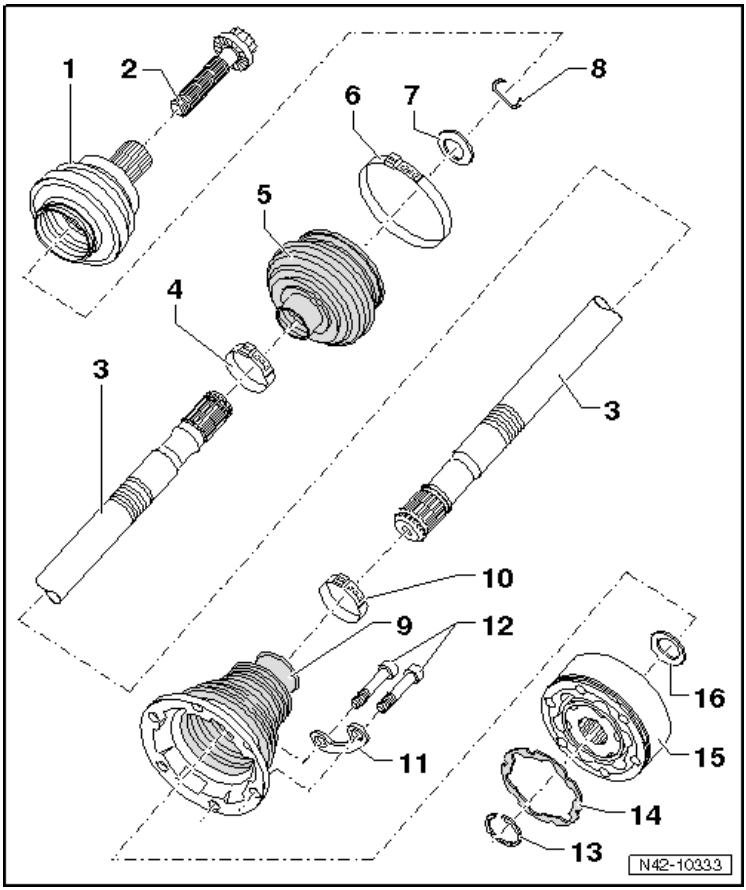
1 - Stabilizer Bar
2 - Rubber Mount
3 - Clamp
4 - Internal Multi-Point Bolt
- ☐ 25 Nm + 90° turn
- ☐ M8 x 28
- ☐ Always replace if removed

5 - Wheel Bearing Housing
6 - Nut
- ☐ 40 Nm
- ☐ M10 x 55
- ☐ Always replace if removed

7 - Internal Multi-Point Bolt
- ☐ Always replace if removed

8 - Coupling Rod
9 - Subframe

Driveshaft Overview



1 - Outer CV Joint
2 - Boot
- ☐ Always replace if removed

3 - Driveshaft
4 - Clamp
- ☐ Always replace if removed

5 - Protective Boot
6 - Clamp
- ☐ Always replace if removed

7 - Plate Spring
8 - Locking Ring
- ☐ Always replace if removed

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

11 - Locking Plate

12 - Internal Multi-Point Bolt

- ☐ 40 Nm
- ☐ M8 x 48
- ☐ Always replace if removed

13 - Gasket

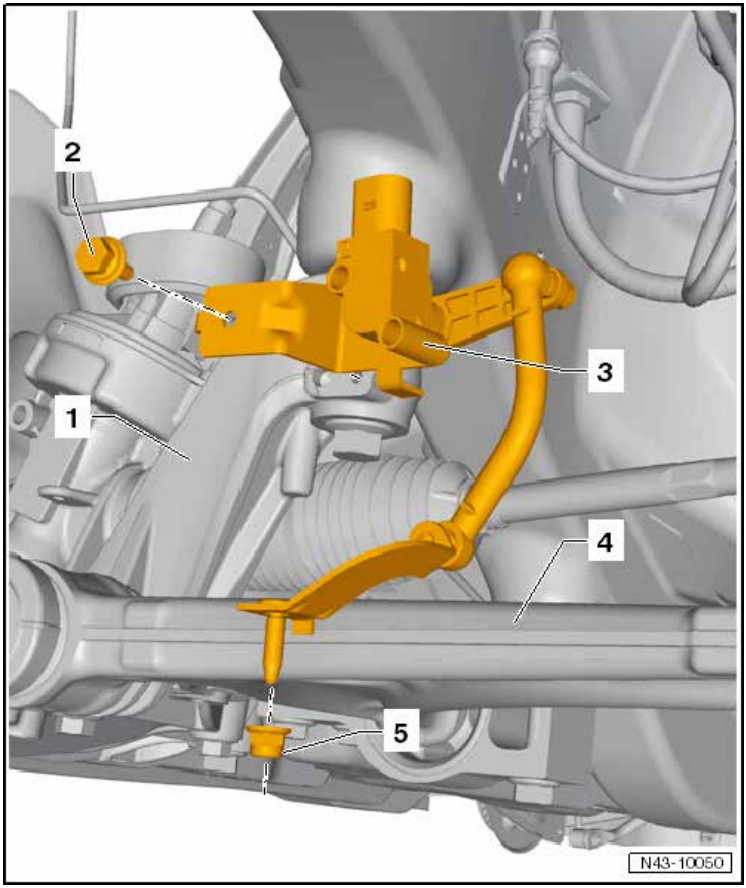
- ☐ Always replace if removed

14 - Wheel Bearing Housing

15 - Inner CV Joint

16 - Plate Spring

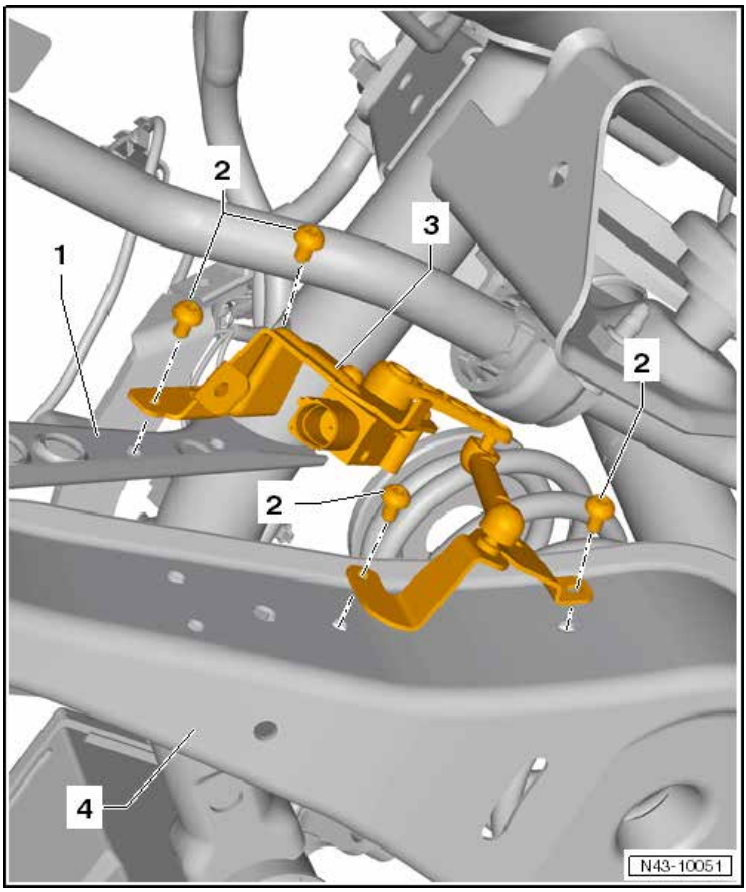
Left and Right Front Level Control System Sensor -G78/G289-, Adaptive Chassis DCC Overview



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

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

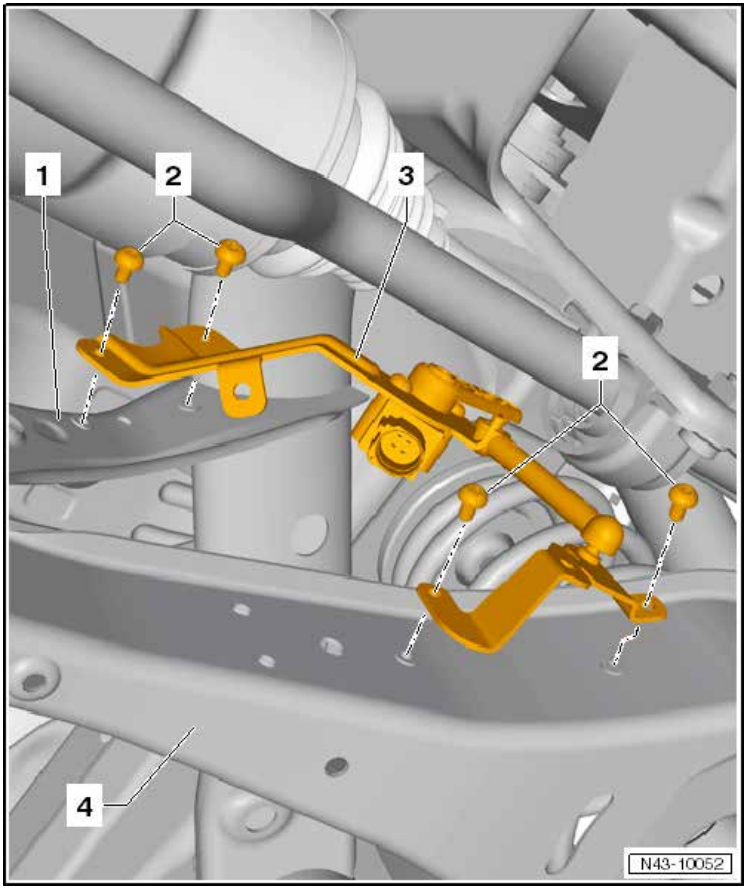
Left Rear Level Control System Sensor -G76-, Adaptive Chassis DCC, FWD Overview



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

3 - Left Rear Level Control System Sensor -G76-
4 - Lower Transverse Link

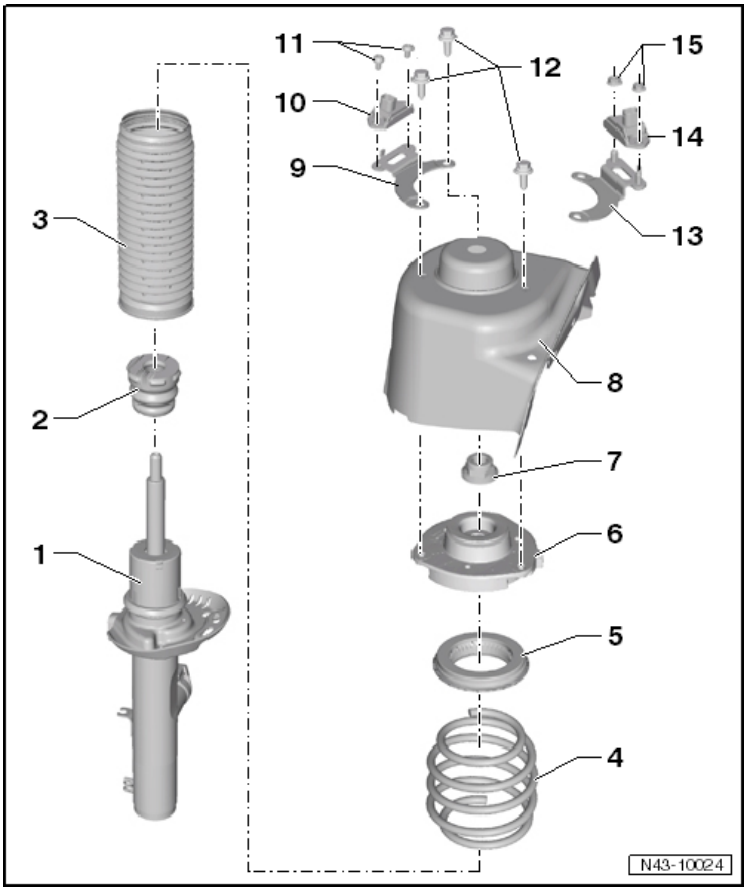
Left Rear Level Control System Sensor -G76-, Adaptive Chassis DCC, AWD Overview



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

3 - Left Rear Level Control System Sensor -G76-
4 - Lower Transverse Link

Adaptive Chassis DCC Suspension Strut Overview



1 - Shock Absorber with Left Front Dampening Adjustment Valve -N336-
2 - Stop Buffer
3 - Protective Sleeve
4 - Coil Spring
5 - Wheel Bearing Housing
6 - Suspension Strut Bearing
7 - Nut
- ☐ 60 Nm
- ☐ M14 x 1.5
- ☐ Always replace if removed

8 - Suspension Strut Dome
9 - Bracket
10 - Left Front Body Acceleration Sensor -G341-
11 - Bolt
- ☐ 5 Nm
- ☐ Always replace if removed

12 - Bolt

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

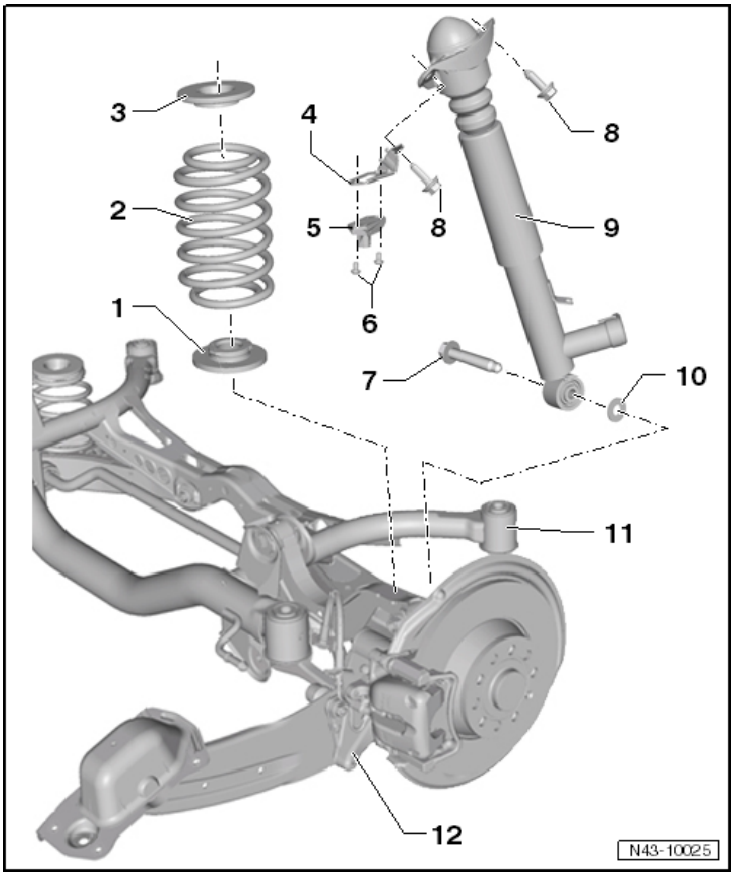
13 - Bracket

14 - Right Front Body Acceleration Sensor -G342-

15 - Nut

- ☐ 5 Nm
- ☐ Always replace if removed

Adaptive Chassis DCC Shock Absorber, FWD Overview



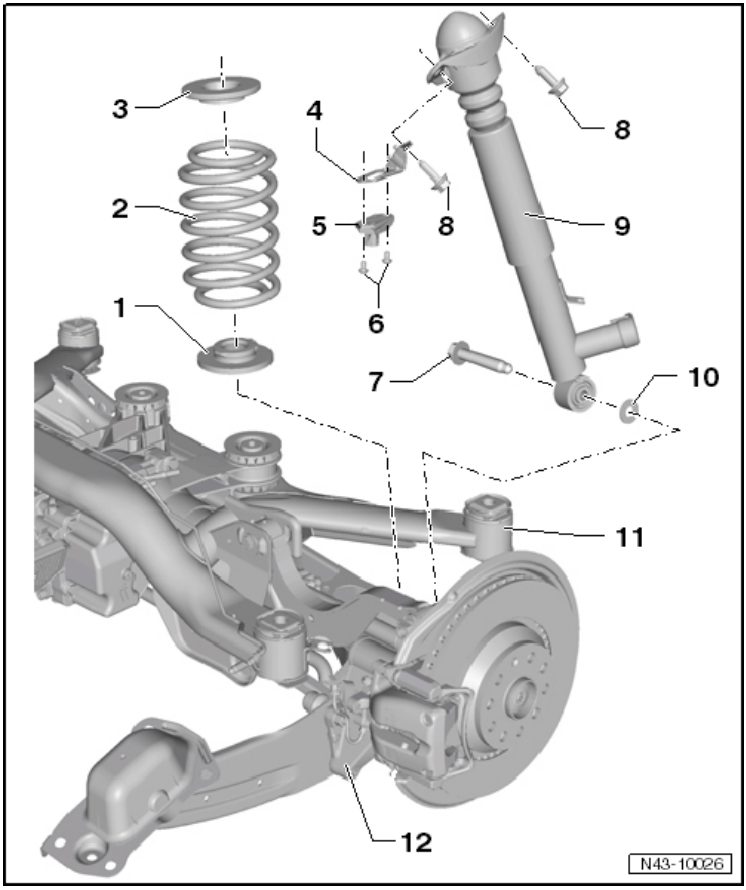
1 - Lower Spring Support
2 - Coil Spring
3 - Upper Spring Support
4 - Bracket
5 - Rear Body Acceleration Sensor -G343-
6 - Bolt
- ☐ 5 Nm
- ☐ Always replace if removed

7 - Bolt
- ☐ 180 Nm
- ☐ M14 x 1.5 x 85
- ☐ Always replace if removed

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

9 - Shock Absorber with Left and Right Rear Dampening Adjustment Valve -N338/N339-
10 - Washer
11 - Lower Transverse Link
12 - Wheel Bearing Housing

Adaptive Chassis DCC Shock Absorber, AWD Overview



1 - Lower Spring Support
2 - Coil Spring
3 - Upper Spring Support
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
- ☐ Always replace if removed

8 - Bolt

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

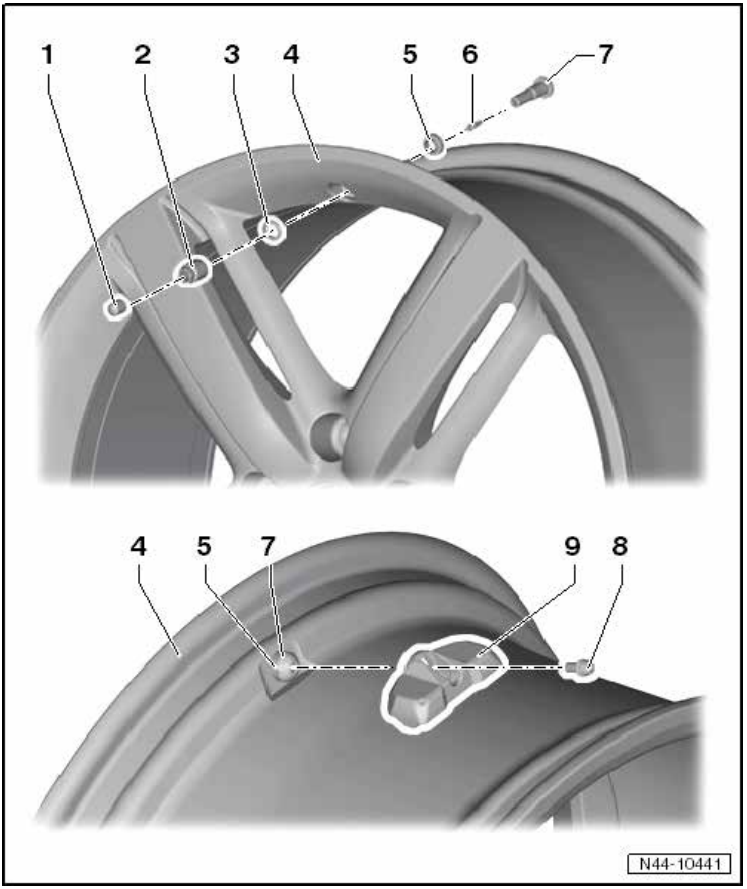
9 - Shock Absorber

10 - Washer

11 - Lower Transverse Link

12 - Wheel Bearing Housing

Tire Pressure And Metal Valve Sensor Overview



1 - Valve Cap
2 - Nut
3 - Washer
4 - Disk Wheel
5 - Seal
6 - Valve Core
7 - Metal Valve
8 - Bolt
☐ 4 Nm
9 - Tire Pressure Sensor

Fastener Tightening Specifications

Component	Nm
Control arm mounting bracket-to-body mounting bolt [1]	70 plus an additional 180° (½ turn)
Front mounting bracket-to-body bolt [1]	70 plus an additional 180° (½ turn)
Front subframe-to-body mounting bolt [1]	70 plus an additional 180° (½ turn)
Tie rod end-to-tie rod lock nut	70
Tire pressure sensor to metal valve bolt, with autolocation	4
Tire pressure sensor union nut	8
Rear lower transverse link-to-subframe nut [1] [2]	95
Rear upper transverse link-to-subframe mounting nut (AWD) [1] [2]	95
Wheel hub bolt (FWD)	140
Wheel hub bolt (AWD)	120

[1] Replace fastener(s).
[2] Always tighten in curb weight position.

Wheel Alignment Data

Wheel Alignment Specified Values

Front suspension	Basic suspension	Sport suspension
Production Relevant No. (PR. No.)	G02	G03
Total toe (wheels not pressed)	10’ ± 10′	10’ ± 10′
Camber (wheels in straight ahead position)	-27′ ± 30′	-27′ ± 30′
Maximum permissible difference between both sides	30’	30’
Toe-out angle [1] with steering wheel turned 20° to left and right	1°36′ ± 20′	1°36′ ± 20′
Caster	7° 34′ ± 30′	7° 34′ ± 30′
Maximum permissible difference between both sides	30’	30’
Standing height (mm)	430 ± 10	430 ± 10

Wheel Alignment Specified Values *(cont'd)*

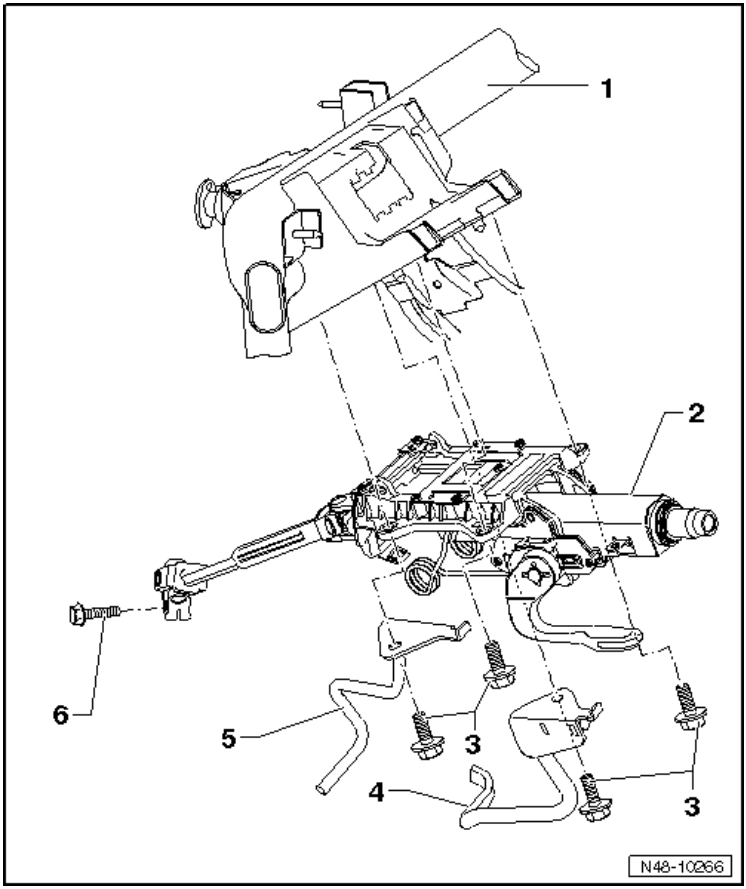
Front suspension	Basic suspension with adaptive chassis DCC	Basic suspension US version
PR numbers	G40	G34
Total toe (wheels not pressed)	10' ± 10′	10' ± 10′
Camber (wheels in straight ahead position)	-27′ ± 30′	-27′ ± 30′
Maximum permissible difference between both sides	30'	30'
Toe-out angle [1)] with steering wheel turned 20° to left and right	1°36′ ± 20′	1°36′ ± 20′
Caster	7° 34′ ± 30′	7° 34′ ± 30′
Maximum permissible difference between both sides	30'	30'
Standing height (mm)	430 ± 10	430 ± 10

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

AWD rear suspension	Basic suspension	Sport suspension
Camber	-1° 20′ ± 30′	-1° 20′ ± 30′
Maximum permissible difference between both sides	30'	30'
Total toe (at prescribed camber)	+10′ ± 10′	+10′ ± 10′
Maximum permissible deviation from direction of rotation	20'	20'
Standing height (mm)	440 ± 10	440 ± 10

AWD rear suspension	Basic suspension with adaptive chassis DCC	Basic suspension US version
Camber	-1° 20′ ± 30′	-1° 20′ ± 30′
Maximum permissible difference between both sides	30'	30'
Total toe (at prescribed camber)	+10′ ± 10′	+10′ ± 10′
Maximum permissible deviation from direction of rotation	20'	20'
Standing height (mm)	440 ± 10	440 ± 10

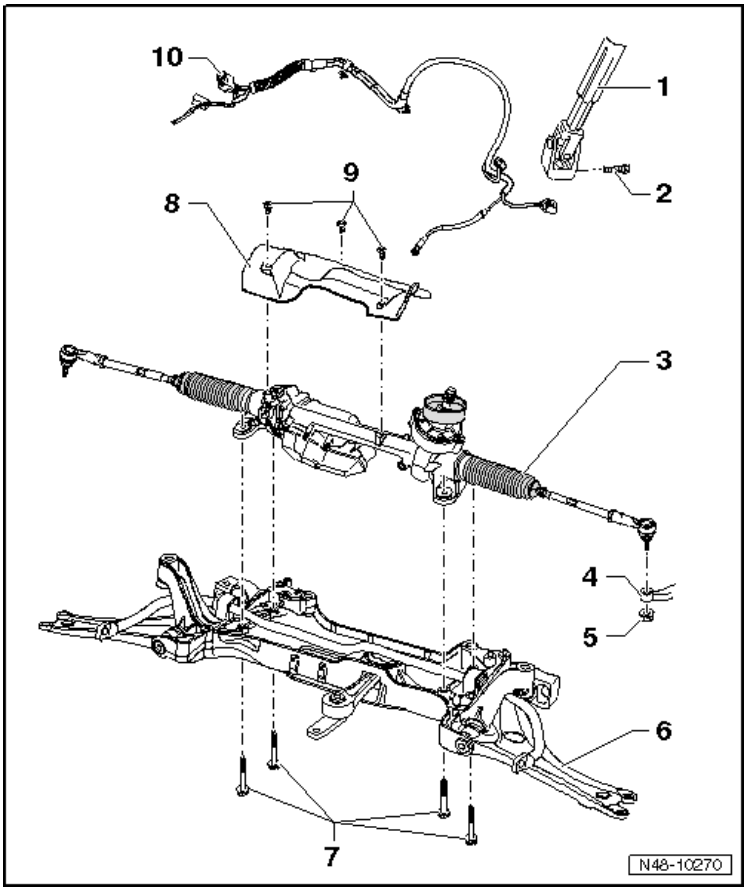
Steering Column Overview



1 - Steering Column Crossmember
2 - Steering Column
3 - Bolt
- ☐ 20 Nm

4 - Brake Pedal Crash Brace
5 - Clutch Pedal Crash Brace
6 - Bolt
- ☐ 30 Nm
- ☐ Always replace if removed

Electro-Mechanical Steering Gear Overview



1 - Universal Joint

2 - Bolt

- ☐ 30 Nm
- ☐ M8 x 35
- ☐ Always replace if removed

3 - Power Steering Gear

4 - Wheel Bearing Housing

5 - Nut

- ☐ 50 Nm
- ☐ M12 x 1.5
- ☐ Always replace if removed

6 - Subframe

7 - Bolt

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

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

Fastener Tightening Specifications

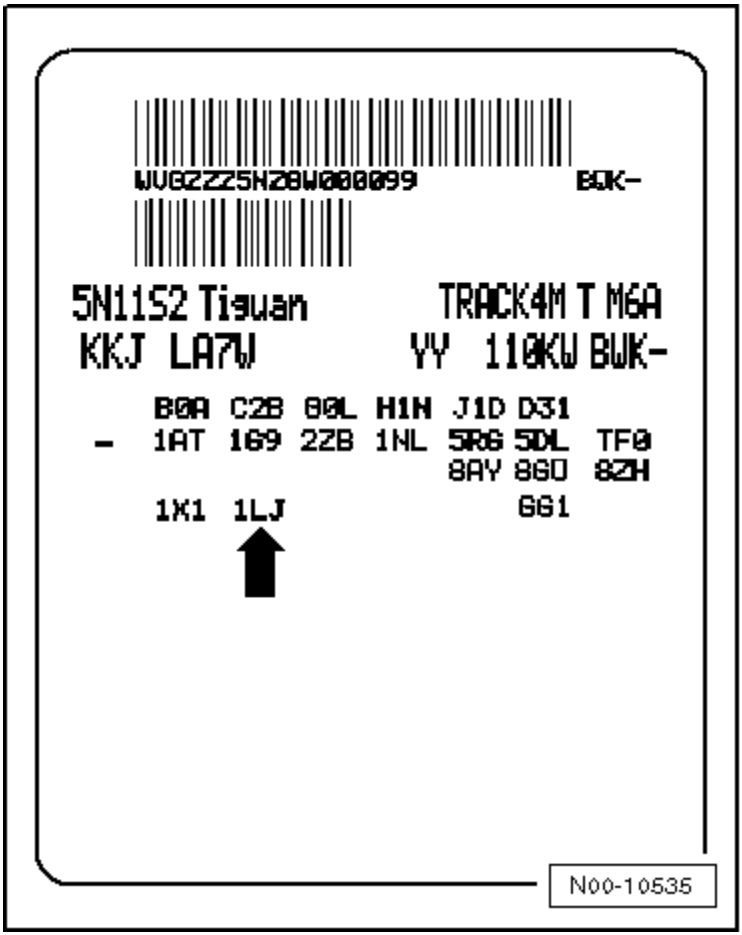
Component	Fastener size	Nm
Ball joint-to-control arm nut [1]		
- To aluminum control arm	-	60
- To steel control arm	-	100
Mounting bracket-to-body bolt [1]	-	70 plus an additional 90° (¼ turn)
Pendulum support-to-transmission bolt [1]	M10 x 35	50 plus an additional 90° (¼ turn)
	M10 x 75	50 plus an additional 90° (¼ turn)
	M12 x 1.5 x 85	60 plus an additional 90° (¼ turn)
Stabilizer bar-to-subframe bolt [1]	-	20 plus an additional 90° (¼ turn)
Steering wheel-to-steering column bolt [1]	-	30 plus an additional 90° (¼ turn)
Subframe-to-body bolt [1]	M12 x 1.5 x 110-	70 plus an additional 90° (¼ turn)
	M12 x 1.5 x 90, M12 x 1.5 x 100	70 plus an additional 180° (½ turn)
Subframe shield bolt	M6	6
Tie rod-to-steering gear	-	100
Tie rod end-to-tie rod lock nut	-	70

[1] Replace fastener(s).

BRAKE SYSTEM

General, Technical Data

Vehicle Data Sticker PR Number Allocation



The Production Relevant No. (PR. No.) on the vehicle data label describes which brake system is installed in the vehicle.

Example: (➡) - Front brakes - 1LJ

The vehicle data label can be found in the spare wheel well and the maintenance booklet.

Allocation, refer to the Electronic Parts Catalog (ETKA).

NOTE: The vehicle's rear brake system information is not currently available on the vehicle data plate.

The following tables explain the PR numbers. This is important in order to know the brake caliper/ brake disc and brake pad combination.

Front Brakes

Engine Version	PR Number	Front Wheel Brake
2.0L - 147 kW FSI	1ZD	FN 3 (16”)

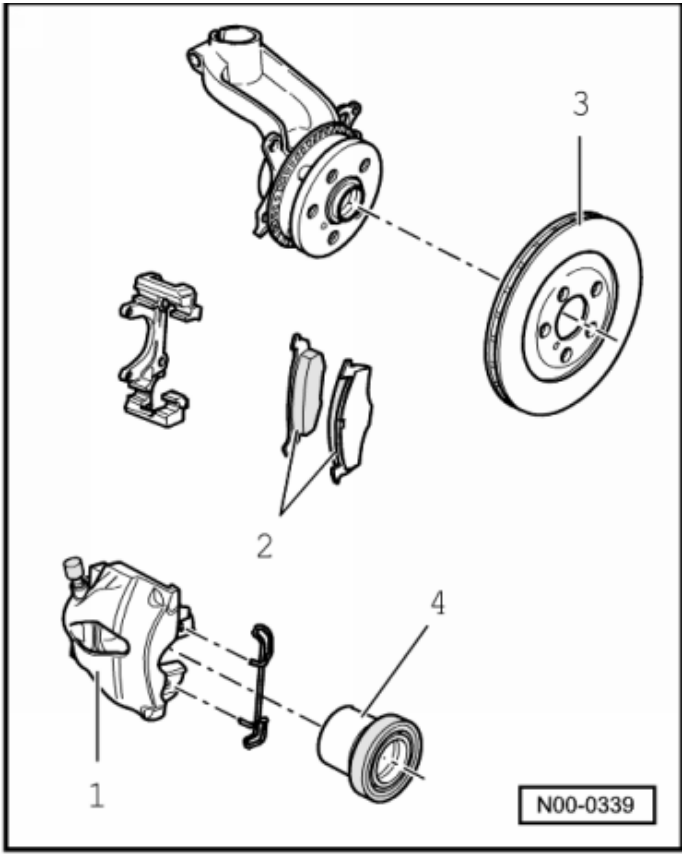
Rear Brakes

Engine Version	PR Number	Rear Wheel Brake
2.0L - 147 kW FSI	1KU	CII 41 (16”)

Brake Master Cylinder and Brake Booster

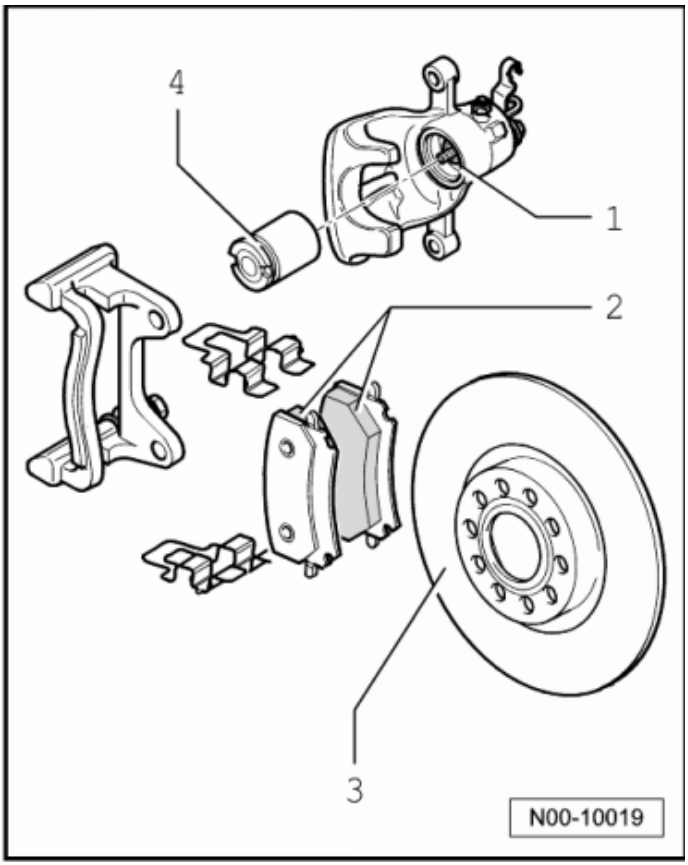
Component	Diamter in mm
Brake master cylinder	23.8
Brake booster (left hand drive)	11

Front Brakes, FN 3



Item	PR Number		1LJ / 1ZD
1	Brake caliper		FN 3 (16”)
2	Brake pad thickness	mm	14
3	Brake disc	Diameter in mm	312
	Brake disc thickness	mm	25
4	Brake caliper piston	Diameter in mm	54

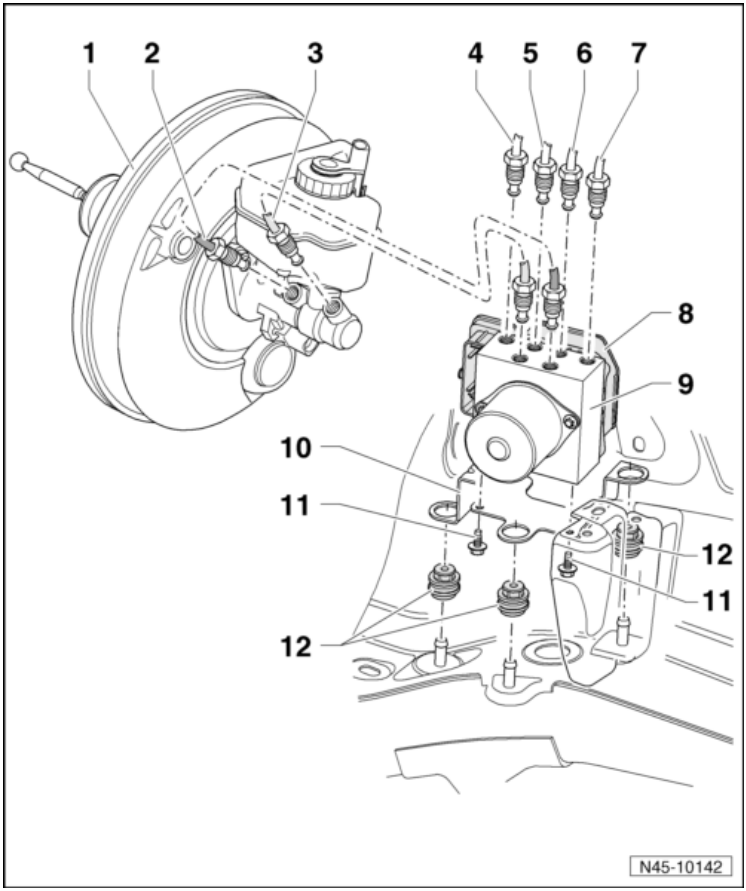
Rear Brakes, CII 41



Item	PR Number		1KU
1	Brake caliper		CII 41 (16”)
2	Brake pad thickness	mm	11
3	Brake disc	Diameter in mm	286
	Brake disc thickness	mm	12
4	Brake caliper piston	Diameter in mm	41

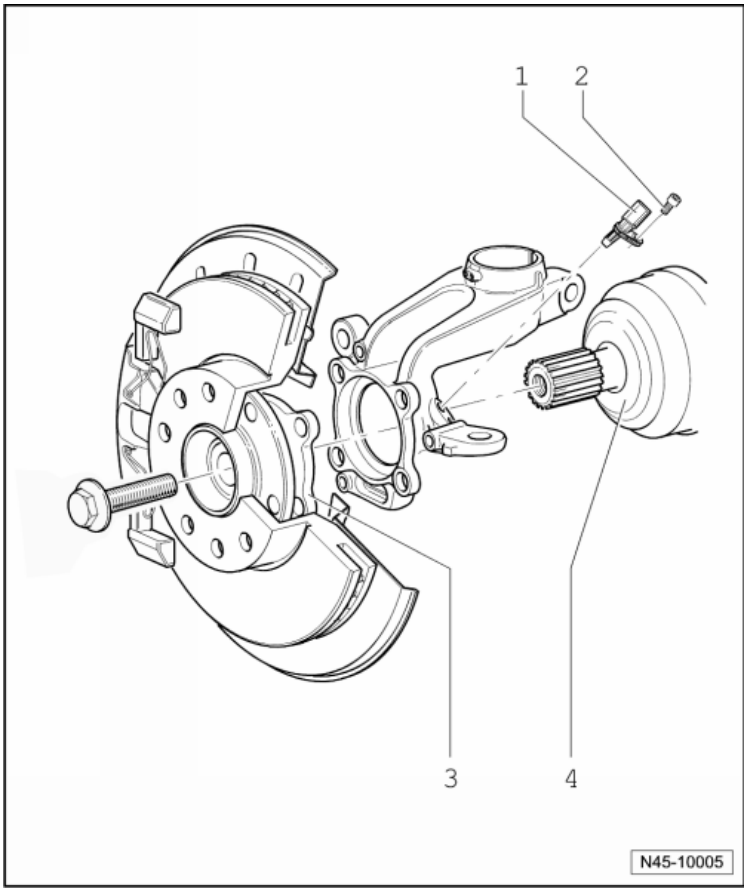
Anti-lock Brake System (ABS)

Control Module and Hydraulic Unit Overview



1 - Brake Booster
2 - Brake Line
3 - Brake Line
4 - Brake Line
5 - Brake Line
6 - Brake Line
7 - Brake Line
8 - ABS Control Module -J104-
9 - ABS Hydraulic Unit -N55-
10 - Electrical Wire
11 - Torx® Bolt
☐ 8 Nm
12 - Rubber Insulation

Front Axle ABS Components Overview



1 - Wheel Speed Sensor

- ☐ Before inserting the speed sensor, clean the inner surface of the hole and coat it with hot bolt paste G 052 112 A3.

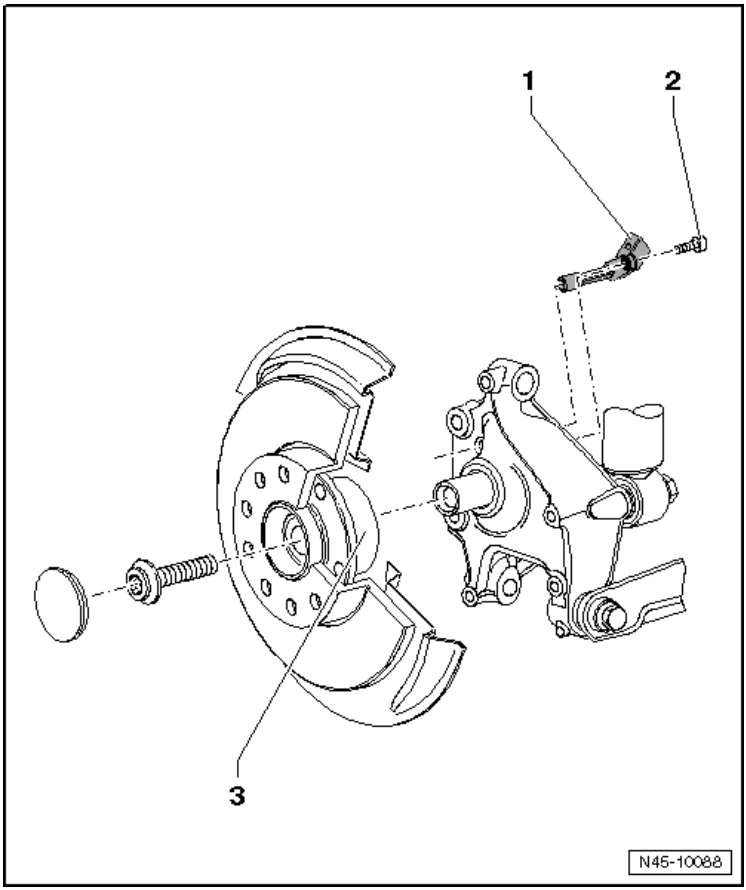
2 - Hex Socket Bolt

- ☐ 8 Nm

3 - Wheel Hub with Wheel Bearing

4 - Drive Axle

Rear Axle ABS Components, FWD Overview



1 - Wheel Speed Sensor

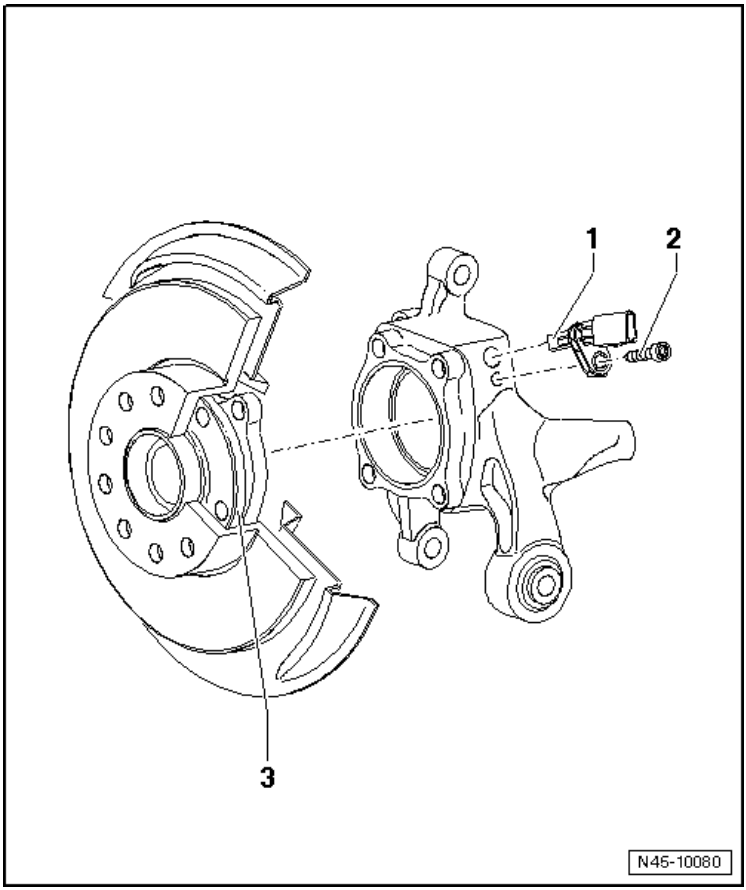
- ☐ Before inserting the speed sensor, clean the inner surface of the hole and coat it with hot bolt paste G 052 112 A3.

2 - Hex Socket Bolt

- ☐ 8 Nm

3 - Wheel Hub with Wheel Bearing

Rear Axle ABS Components, AWD



1 - Wheel Speed Sensor

- ☐ Before inserting the speed sensor, clean the inner surface of the hole and coat it with hot bolt paste G 052 112 A3.

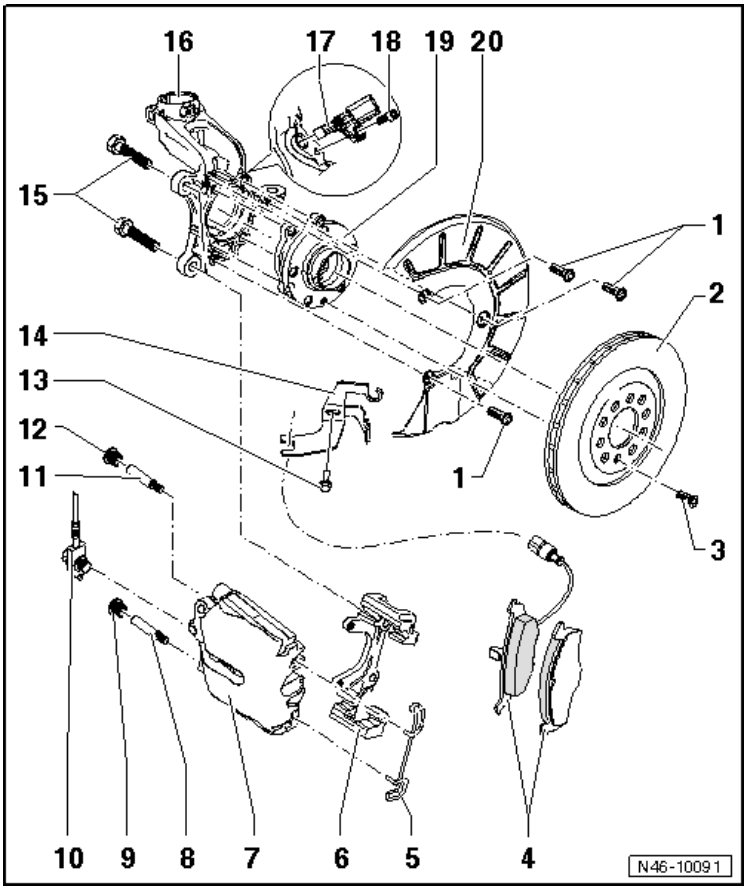
2 - Hex Socket Bolt

- ☐ 8 Nm

3 - Wheel Hub with Wheel Bearing

Mechanical Components

Front Wheel Brakes FN 3 Assembly Overview



1 - Torx® Bolt
- ☐ 12 Nm

2 - Brake Disc

3 - Torx® Bolt
- ☐ 4 Nm

4 - Brake Pads

5 - Retaining Spring

6 - Brake Carrier

7 - Brake Caliper

8 - Guide Pins
- ☐ 30 Nm

9 - Cap

10 - Brake Hose with Banjo Fitting and Union Bolt
- ☐ 35 Nm

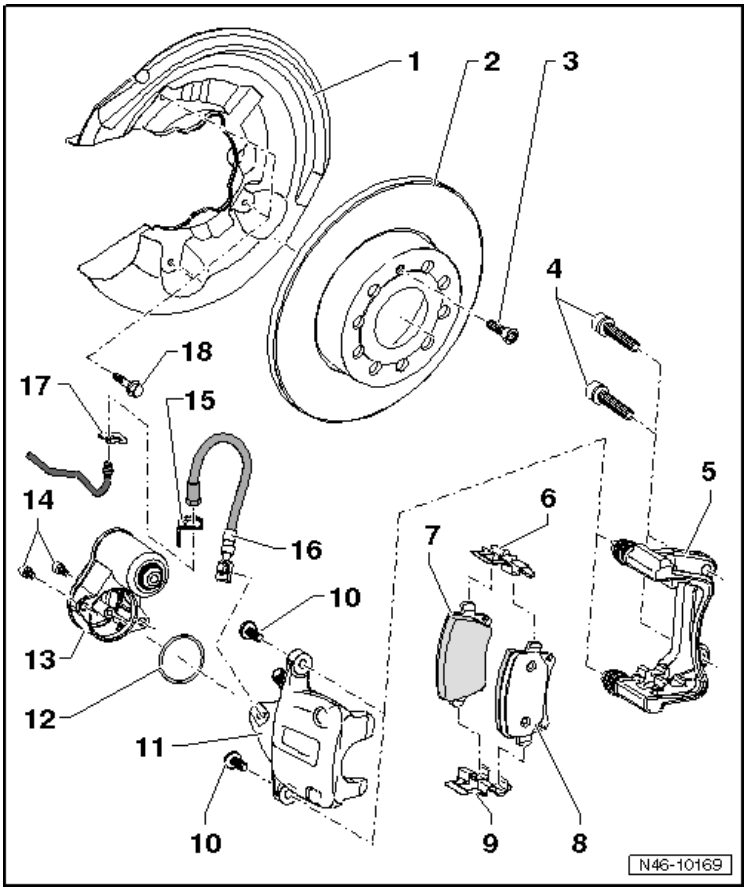
11 - Universal Joint
12 - Guide Pins
- ☐ 30 Nm

13 - Bolt
14 - Bracket
15 - Ribbed Bolt
- ☐ 200 Nm
- ☐ M12 x 1.5
- ☐ Always replace if removed

16 - Wheel Bearing Housing
17 - Wheel Speed Sensor
18 - Hex Socket Bolt
- ☐ 8 Nm

19 - Wheel Hub with Wheel Bearing
20 - Cover Plate

Rear Brakes CII 41 Assembly Overview



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

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

5 - Brake Carrier with Guide Pins and Protective Cap
6 - Anti-Rattle Spring
7 - Brake Pads
8 - Heat Shield
9 - Anti-Rattle Spring
- ☐ Always replace when pads are replaced

10 - Hex Bolt, Self-Locking
- ☐ 35 Nm
- ☐ Replace

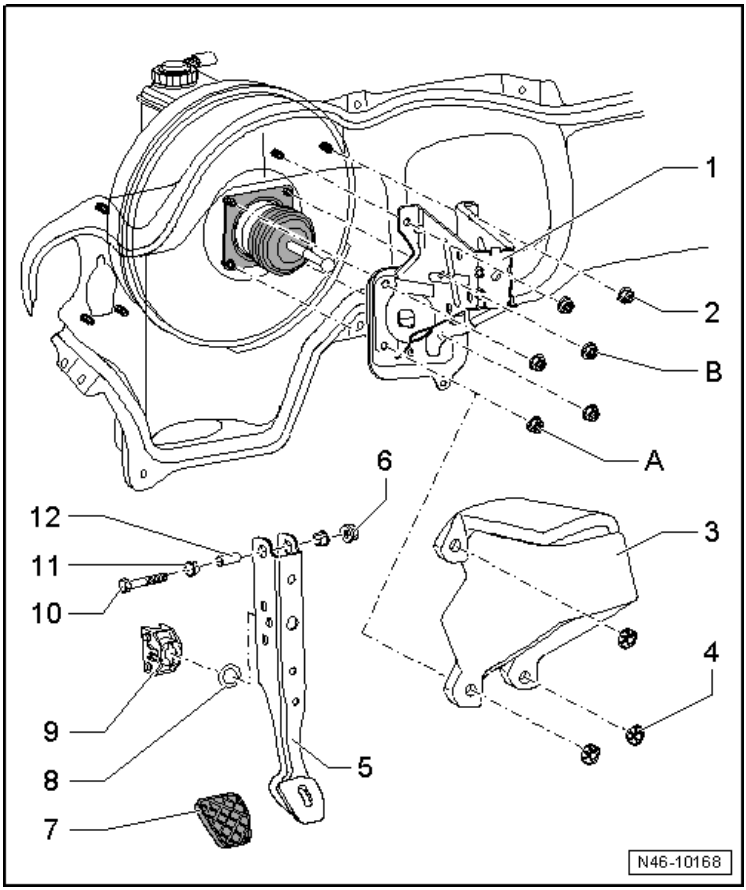
11 - Brake Caliper

12 - Seal
13 - Parking Brake Motor
14 - Inner Torx® Bolt
- ☐ 12 Nm

15 - Bracket
16 - Brake Hose with Banjo Fitting and Union Bolt
- ☐ 35 Nm
- ☐ To the brake caliper
- ☐ To the brake line, 14 Nm

17 - Retaining Clip
18 - Hex Bolt
- ☐ 12 Nm

Brake Pedal Assembly Overview



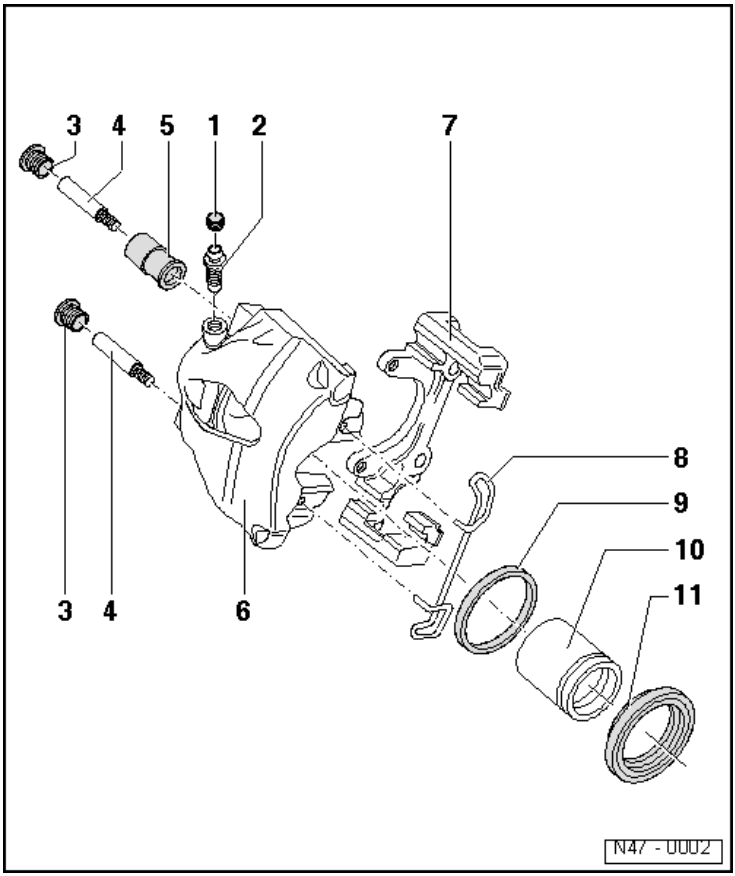
1 - Mounting Bracket
2 - Self-Locking Hex Nut
- ☐ 25 Nm
- ☐ Always replace if removed

3 - Noise Insulation on the Brake Pedal
4 - Clamping Washer
5 - Brake Pedal
6 - Self-Locking Hex Nut
- ☐ 25 Nm

7 - Cover
8 - Ball Socket
9 - Mount
10 - Hex Head Bolt
11 - Bushing
12 - Pivot Pin

Hydraulic Components

Front Brake Caliper, FN 3 Overview

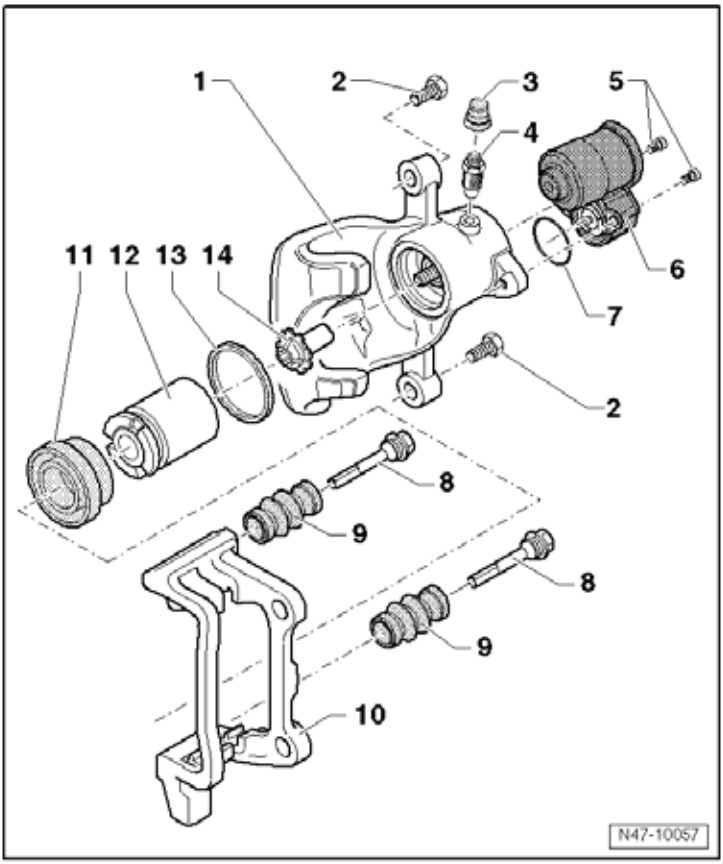


1 - Dust Cap
2 - Bleeder Valve
- ☐ 10 Nm
- ☐ Apply a thin coat of assembly paste G 052 150 A2 to the threads before screwing in.

3 - Caps
4 - Guide Pins
- ☐ 30 Nm

5 - Bushing
6 - Brake Caliper
7 - Brake Carrier
8 - Retaining Spring
9 - Seal
10 - Pistons
11 - Protective Cap

Rear Brake Caliper, CII 41 Overview



1 - Brake Caliper
2 - Hex Bolt, Self-Locking
- ☐ 35 Nm
- ☐ Always replace if removed

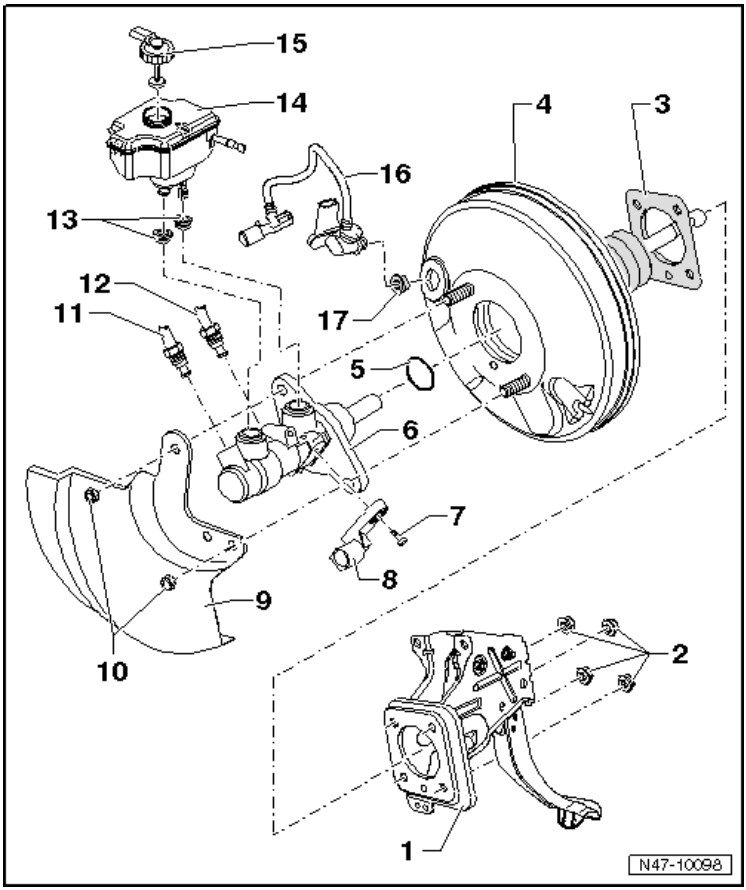
3 - Dust Cap
4 - Bleeder Valve
- ☐ 10 Nm
- ☐ Apply a thin coat of assembly paste G 052 150 A2 to the threads before screwing in.

5 - Inner Torx® Bolt
- ☐ 35 Nm

6 - Parking Brake Motor
7 - Seal
8 - Guide Pins
9 - Protective Cap
10 - Brake Carrier with Guide Pins and Protective Cap

11 - Protective Cap
12 - Pistons
13 - Seal
14 - Pressire Nut

Brake Booster/Brake Master Cylinder Overview



1 - Pedal Assembly
2 - Self-Locking Hex Nut
- ☐ 25 Nm
- ☐ Always replace if removed
- ☐ First tighten at the lower left and then the upper right

3 - Gasket
4 - Brake Booster
5 - Seal
6 - Brake Master Cylinder
7 - Inner Torx® Bolt
- ☐ 8 Nm

8 - Brake Lamp Switch -F-
9 - Heat Shield
10 - Self-Locking Hex Nut
- ☐ 25 Nm
- ☐ Always replace if removed

11 - Brake Line
- ☐ 14 Nm

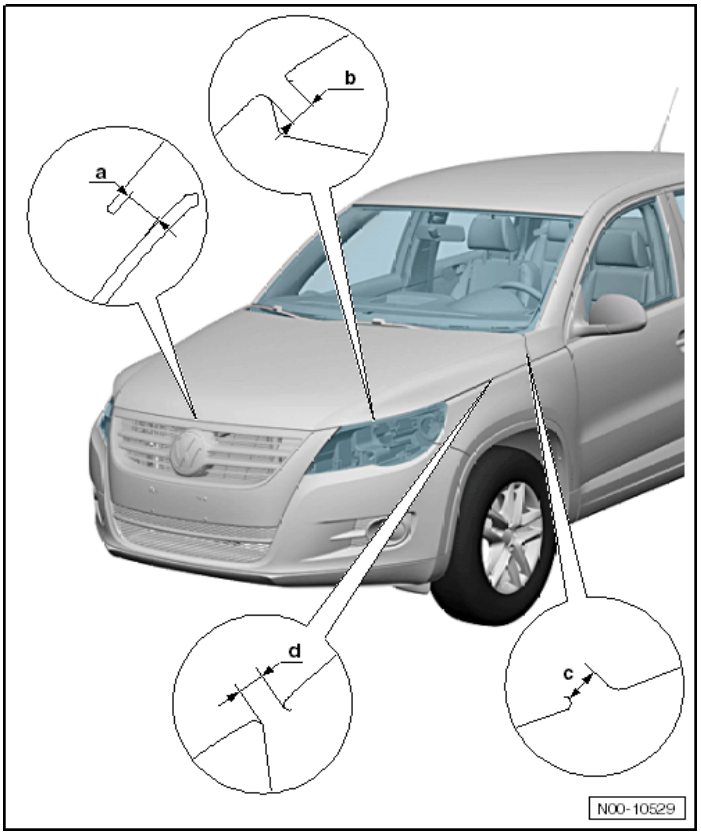
12 - Brake Line
- ☐ 14 Nm

13 - Sealing Plugs
14 - Brake Fluid Reservoir
15 - Cap
16 - Vacuum Hose
17 - Sealing Plugs

BODY

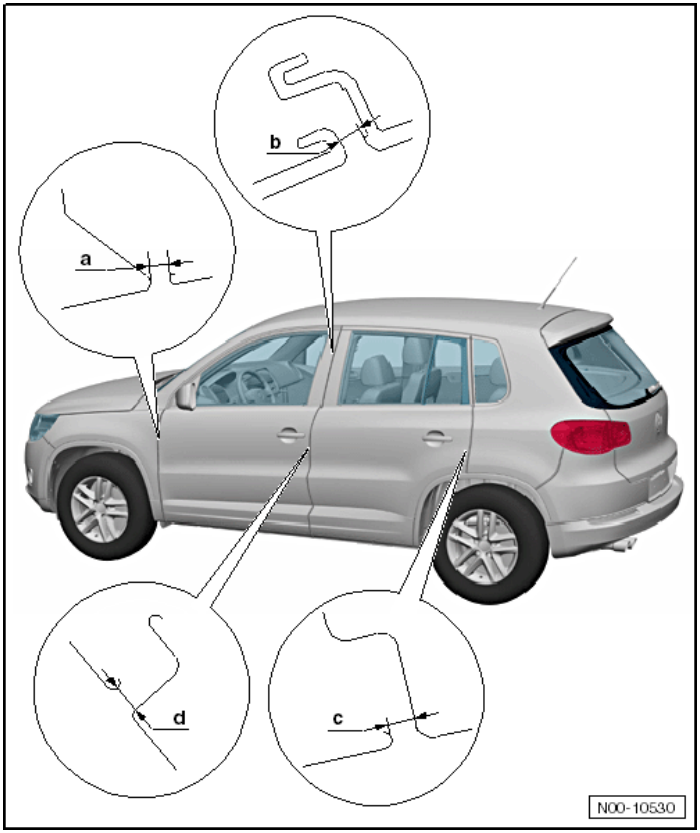
Body Exterior

Body Gap Dimensions, Front



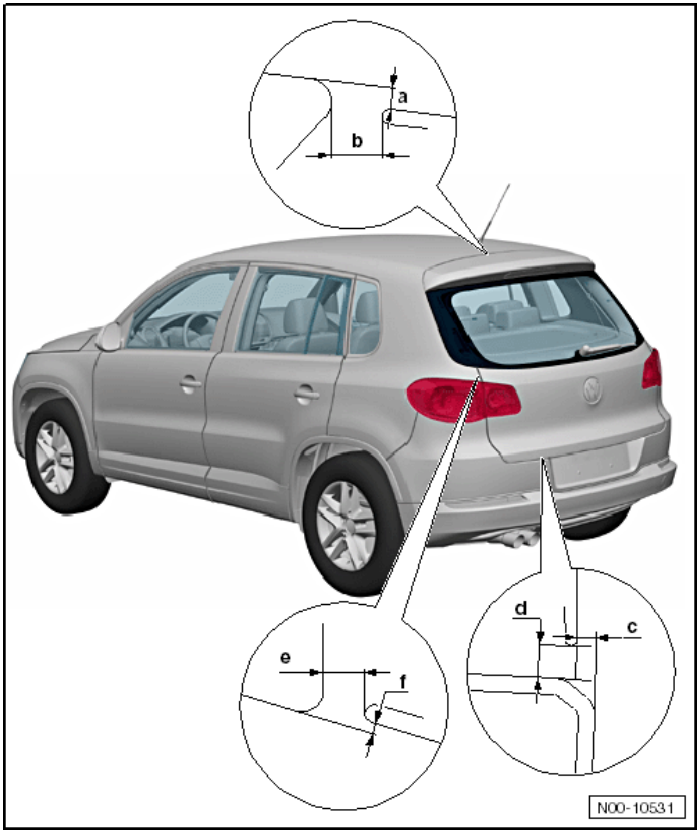
Component	mm
a	7.5 ± 1.0
b	5.5 ± 1.0
c	5.5 ± 1.0
d	5.0 ± 1.0

Body Gap Dimensions, Center



Component	mm
a	4.0 ± 1.0
b	4.5 ± 1.0
c	4.0 ± 1.0
d	4.5 ± 1.0

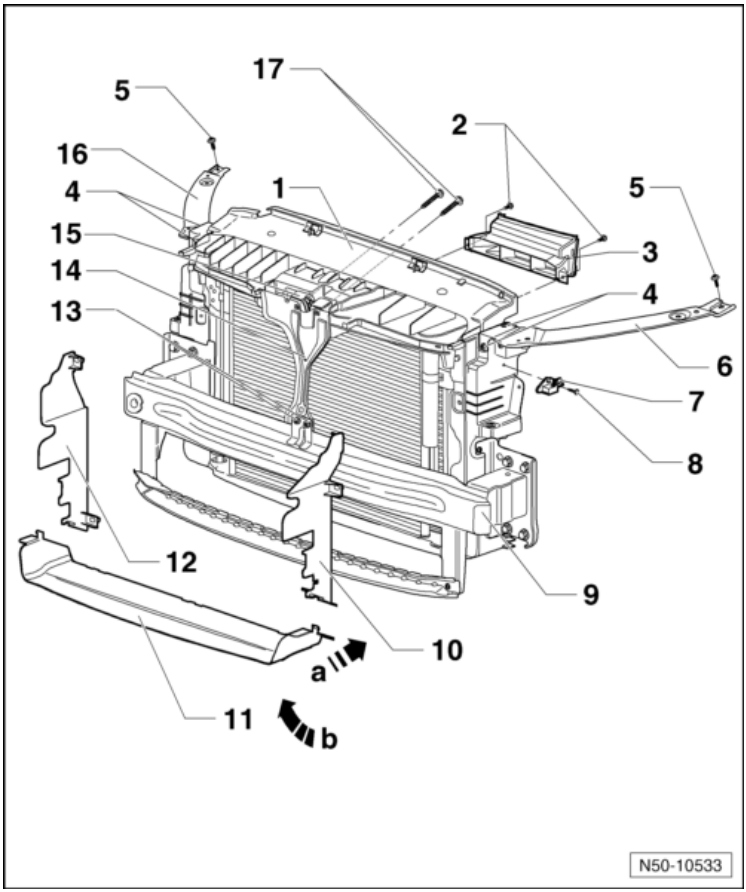
Body Gap Dimensions, Rear



Component	mm
a	3.0 ± 1.0
b	6.0 ± 0.5
c	3.5 ± 0.5
d	6.0 ± 1.0
e	5.0 ± 1.0
f	1.0 ± 1.0

Body Front

Lock Carrier Assembly Overview



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

3 - Air Duct
4 - Bolt
- ☐ 8 Nm

5 - Bolt
- ☐ 8 Nm

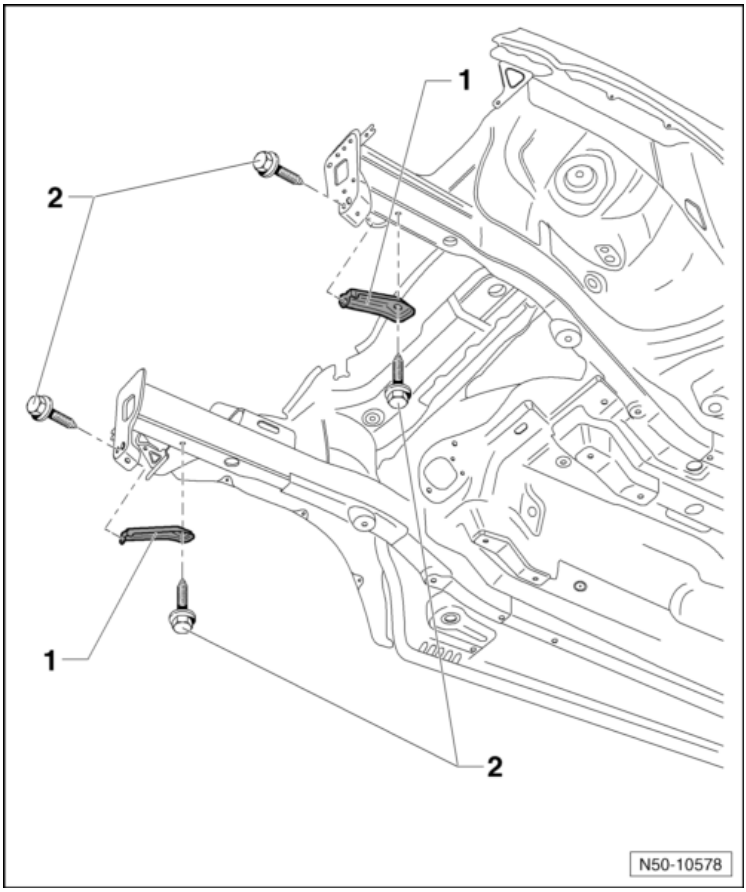
6 - Left Side Angle Bracket
7 - Driver Front Airbag Crash Sensor
8 - Bolt
- ☐ 6 Nm

9 - Cross Member

10 - Left Air Vent
11 - Lower Air Vent
12 - Right Air Vent
13 - Bolt
- ☐ 8 Nm

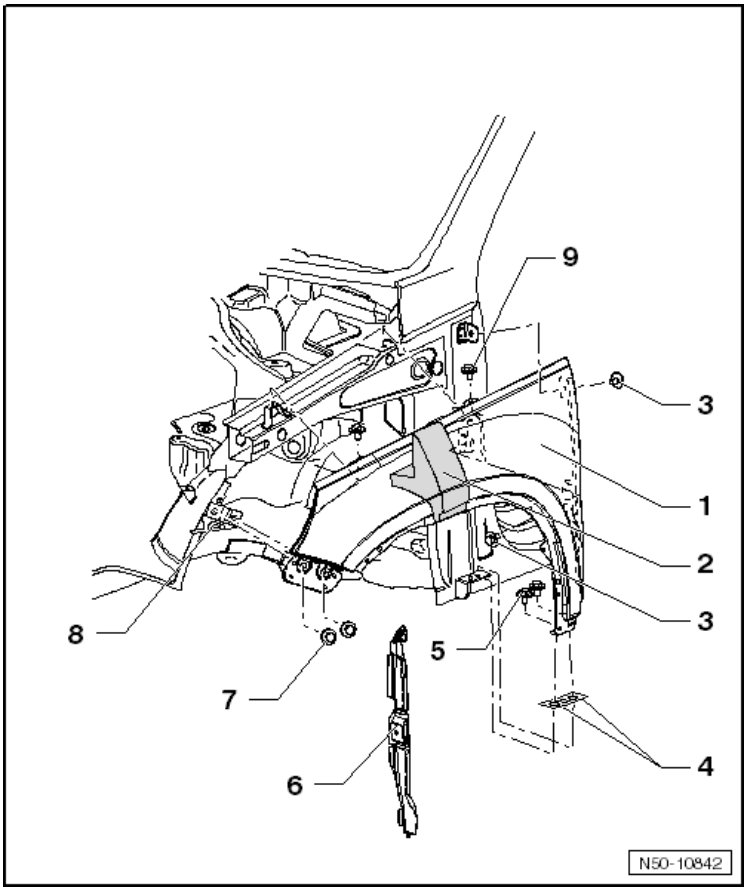
14 - Lock Support
15 - Lock
16 - Left Side Angle Bracket
17 - Bolt
- ☐ 12 Nm

Bumper Angle Brackets Assembly Overview



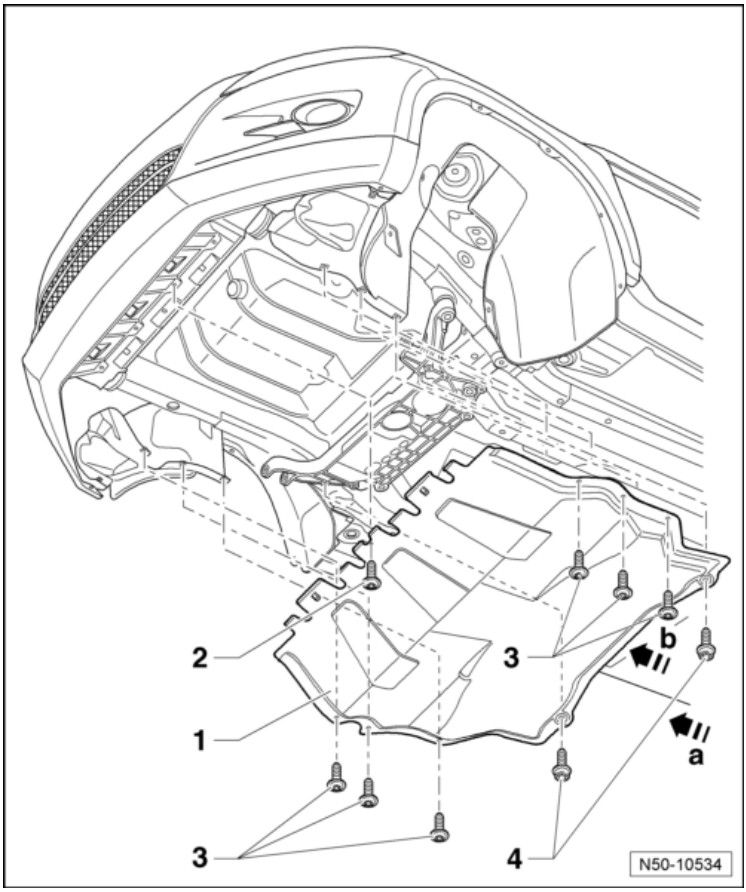
1 - Angle Bracket
2 - Bolt
☐ 55 Nm

Front Fender Assembly Overview



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

Noise Insulation, Long Version, Assembly Overview

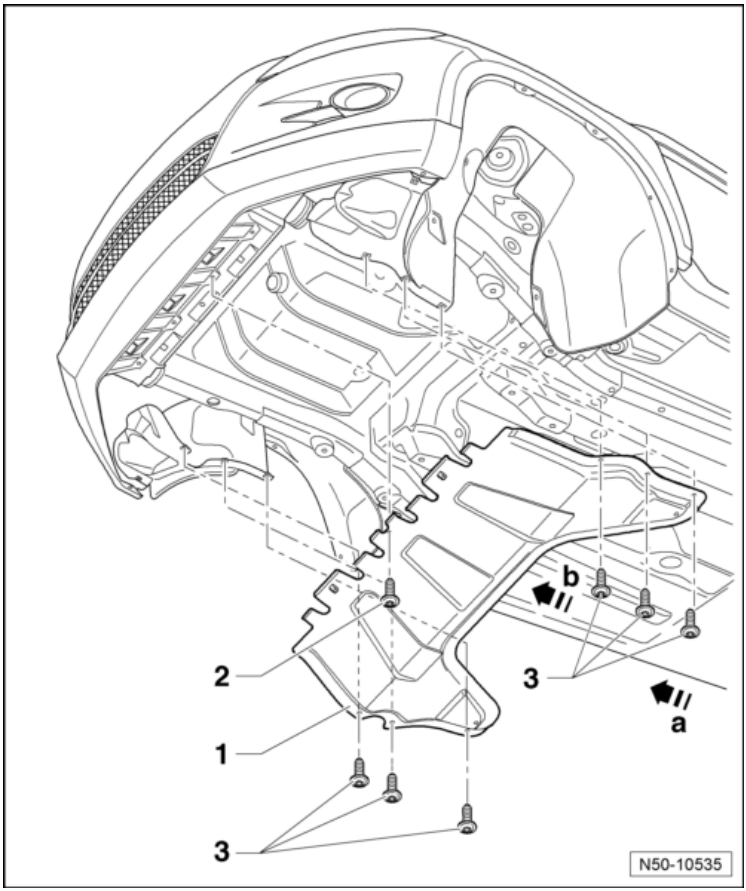


1 - Noise Insulation
2 - Bolt
- ☐ 2 Nm

3 - Bolt
- ☐ 2 Nm

4 - Bolt
- ☐ 6 Nm

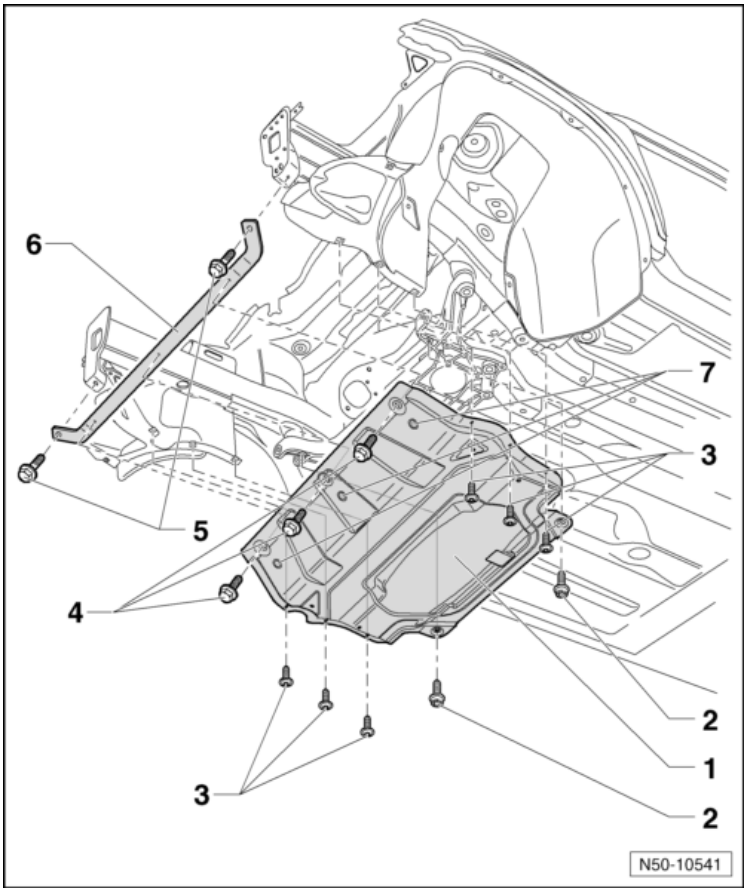
Noise Insulation, Short Version, Assembly Overview



1 - Noise Insulation
2 - Bolt
- ☐ 2 Nm

3 - Bolt
- ☐ 2 Nm

Underbody Impact Guard



1 - Underbody Impact Guard
2 - Bolt
- ☐ 20 Nm

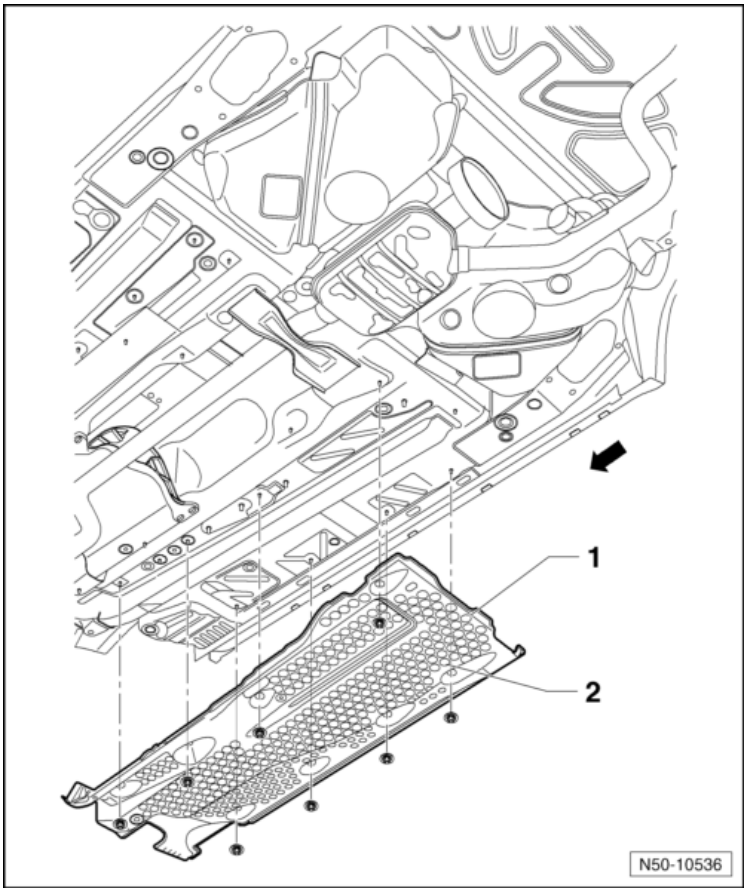
3 - Bolt
- ☐ 2 Nm

4 - Bolt
- ☐ 20 Nm

5 - Bolt
- ☐ 35 Nm

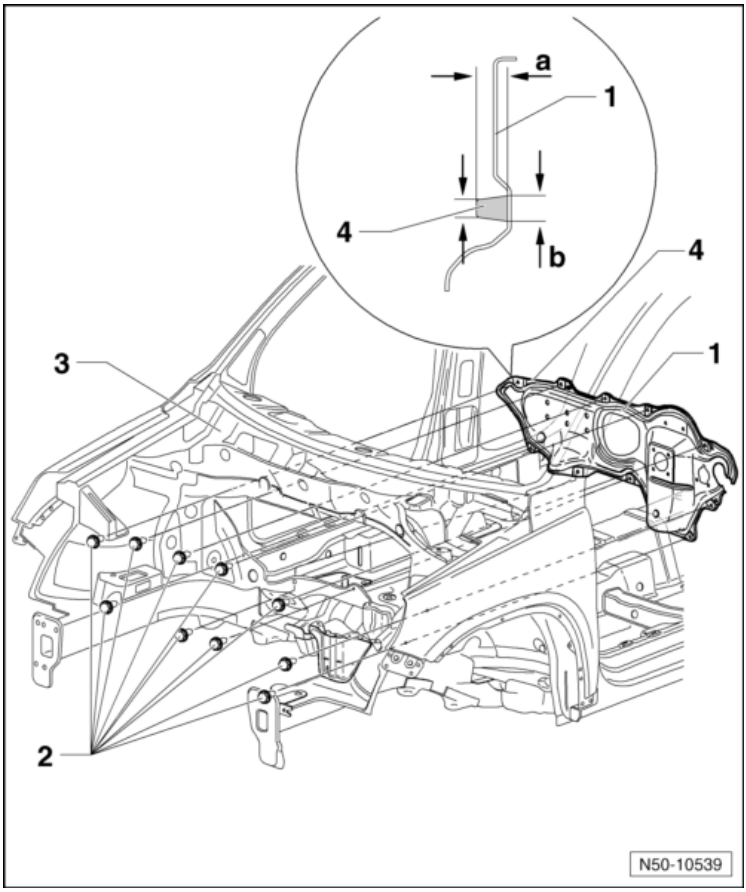
6 - Cross Brace
7 - Expanding Nut

Underbody Trim Assembly Overview



1 - Underbody Trim
2 - Nut
☐ 2 Nm

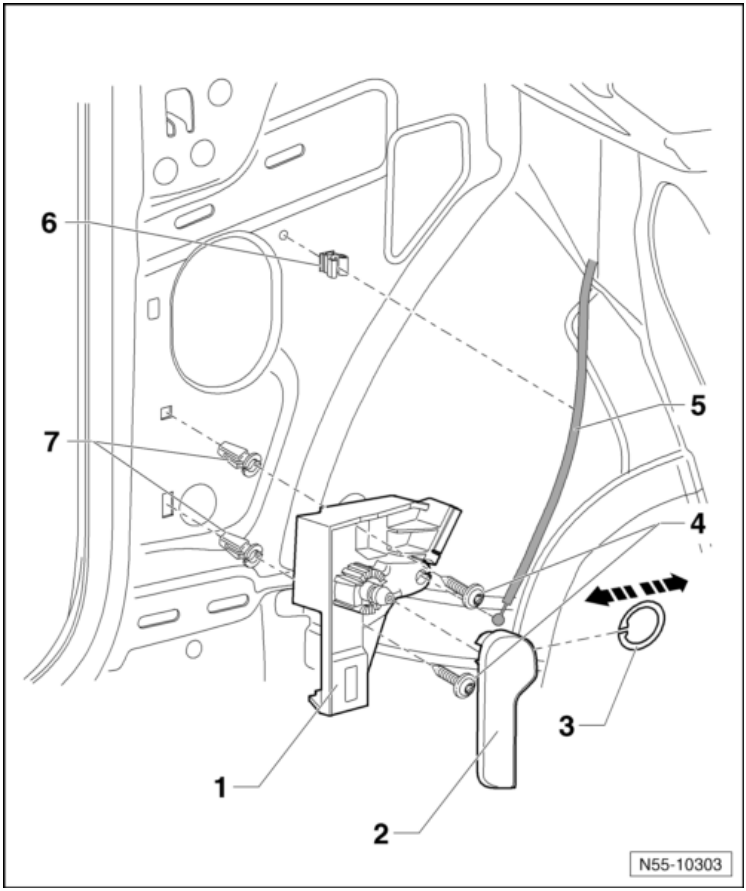
Bulkhead Assembly Overview



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

Hood, Lids

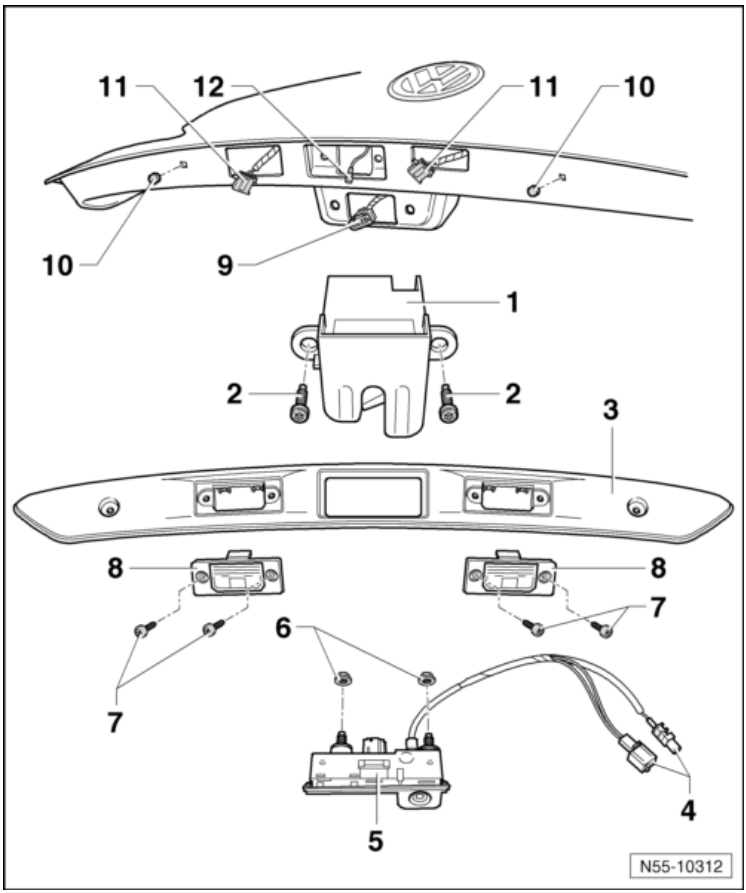
Hood Release Assembly Overview



1 - Mounting Bracket
2 - Actuating Lever
3 - Clip
4 - Bolt
- ☐ 1.5 Nm

5 - Release Cable
6 - Bracket
7 - Insert Nut

Rear Lid Locking and Unlocking Components Assembly Overview



1 - Rear Lid Latch
2 - Bolt
- ☐ 23 Nm

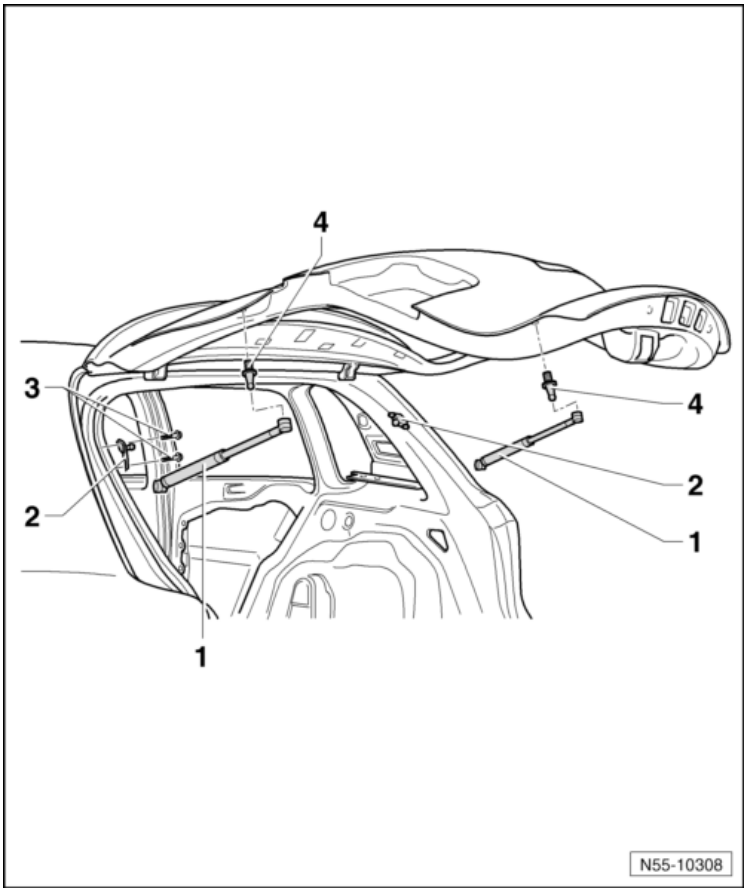
3 - Grip with Button
- ☐ Screw tightening torque: 2 Nm

4 - Connectors
5 - Button
6 - Nut
- ☐ 4 Nm

7 - Bolt
- ☐ 1 Nm

8 - License Plate Lamp
9 - Connector
10 - Insert Nut
11 - Connector
12 - Connector

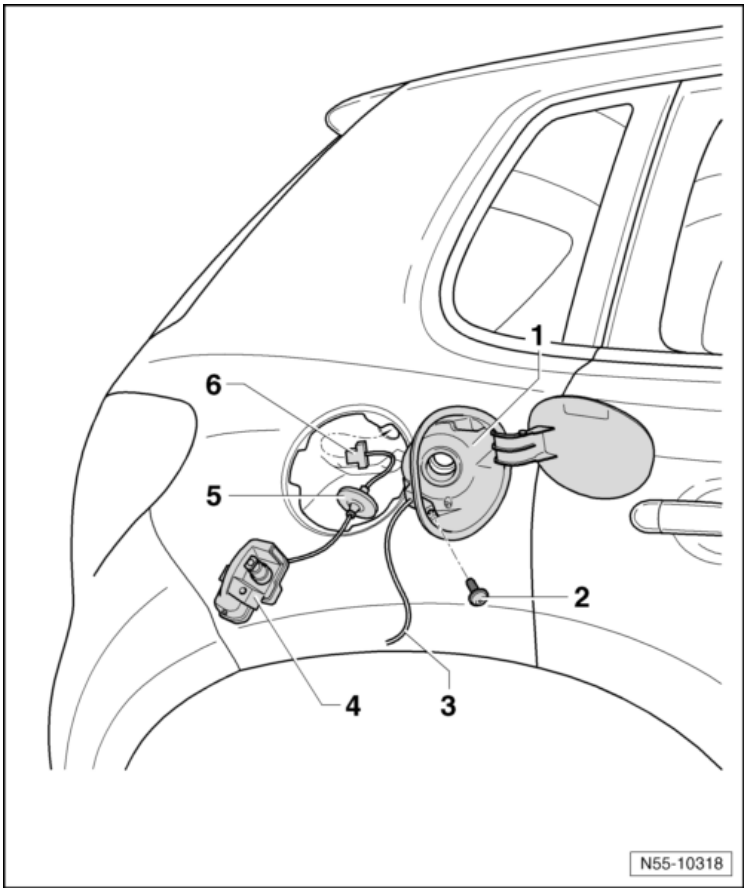
Gas-Filled Strut Assembly Overview



1 - Gas Strut
2 - Angle Bracket
3 - Screws
- ☐ 8 Nm

4 - Ball Head Pin
- ☐ 8 Nm

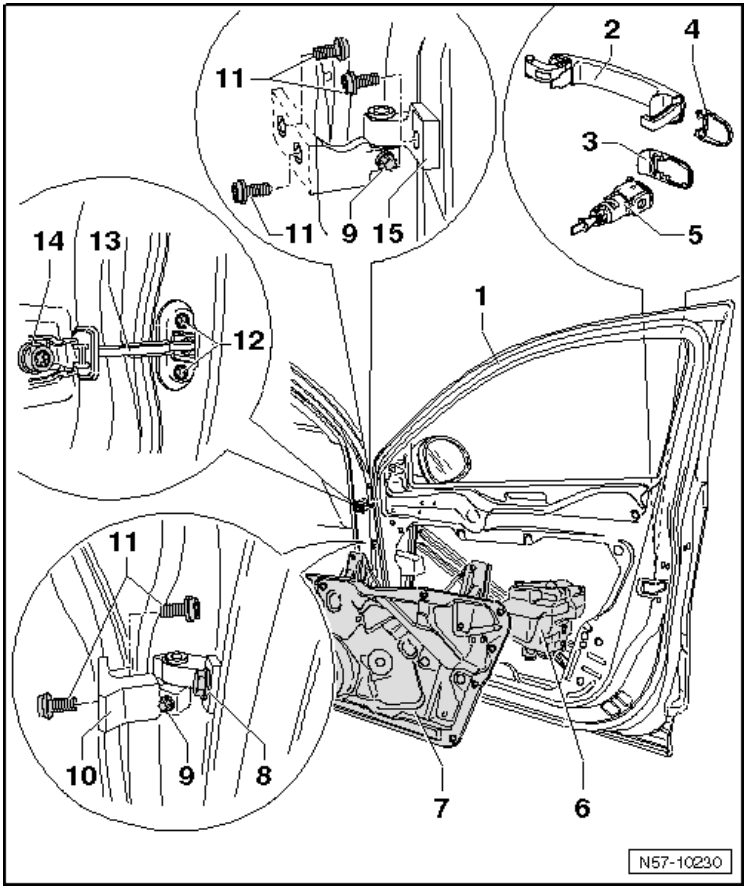
Fuel Filler Door Unit and Actuator Assembly Overview



1 - Fuel Filler Door Unit
2 - Bolt
☐ 1.5 Nm
3 - Water Drain Hose
4 - Actuator
5 - Seal
6 - Connector

Front Doors, Central Locking System

Front Door Assembly Overview



1 - Door
2 - Door Handle
3 - Backing
4 - Cover
5 - Lock Cylinder
6 - Door Lock
7 - Subframe
8 - Bolt
- ☐ 32 Nm
- ☐ Always replace bolts after loosening them

9 - Bolt
- ☐ 30 Nm

10 - Bottom Door Hinge

11 - Bolt

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

12 - Bolt

- ☐ 9 Nm

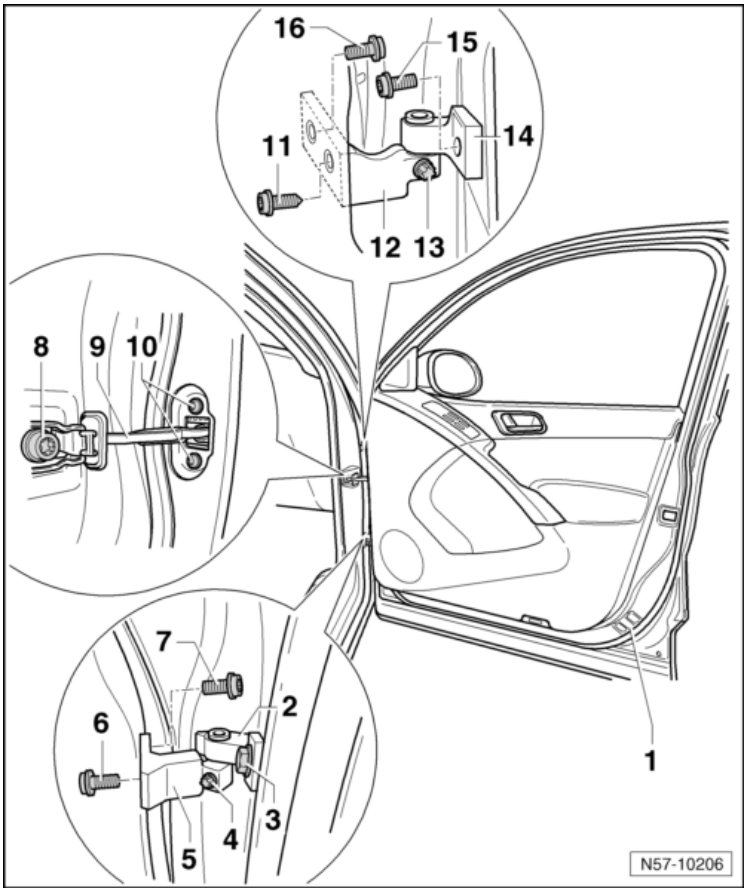
13 - Limiting Strap

14 - Bolt

- ☐ 32 Nm

15 - Upper Door Hinge

Door Hinge Assembly Overview



1 - Door
2 - Door Hinge
3 - Bolt
- ☐ 32 Nm
- ☐ Always replace bolts after loosening them

4 - Bolt
- ☐ 30 Nm

5 - Door Hinge
6 - Bolt
- ☐ 32 Nm
- ☐ Always replace bolts after loosening them

7 - Bolt
- ☐ 32 Nm
- ☐ Always replace bolts after loosening them

8 - Bolt
- ☐ 32 Nm

9 - Door Strap

10 - Bolt
- ☐ 32 Nm

11 - Bolt
- ☐ 32 Nm
- ☐ Always replace bolts after loosening them

12 - Door Hinge

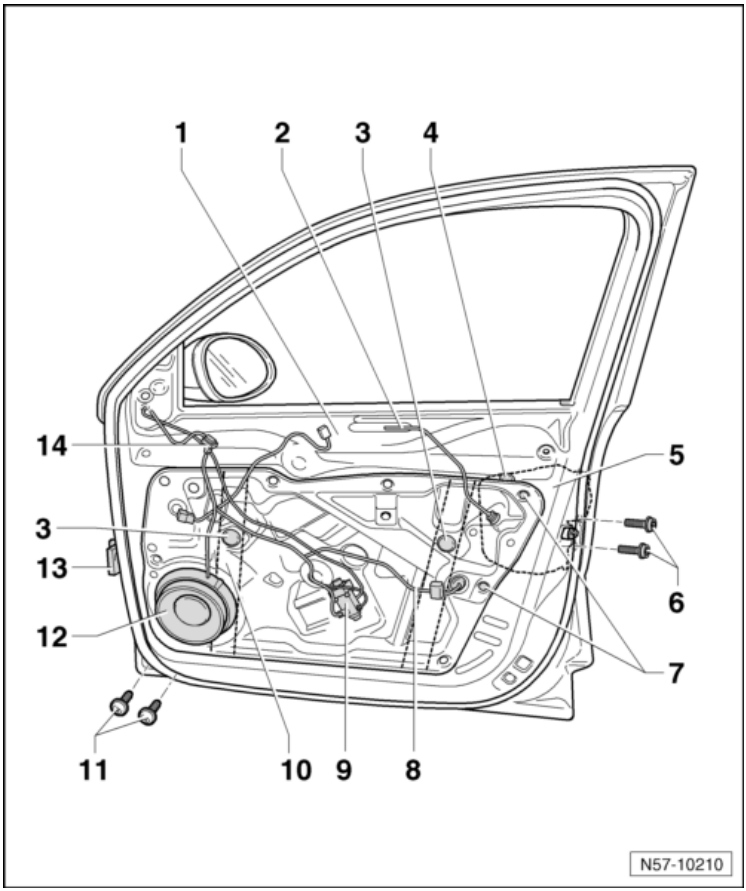
13 - Bolt
- ☐ 30 Nm

14 - Door Hinge

15 - Bolt
- ☐ 32 Nm
- ☐ Always replace bolts after loosening them

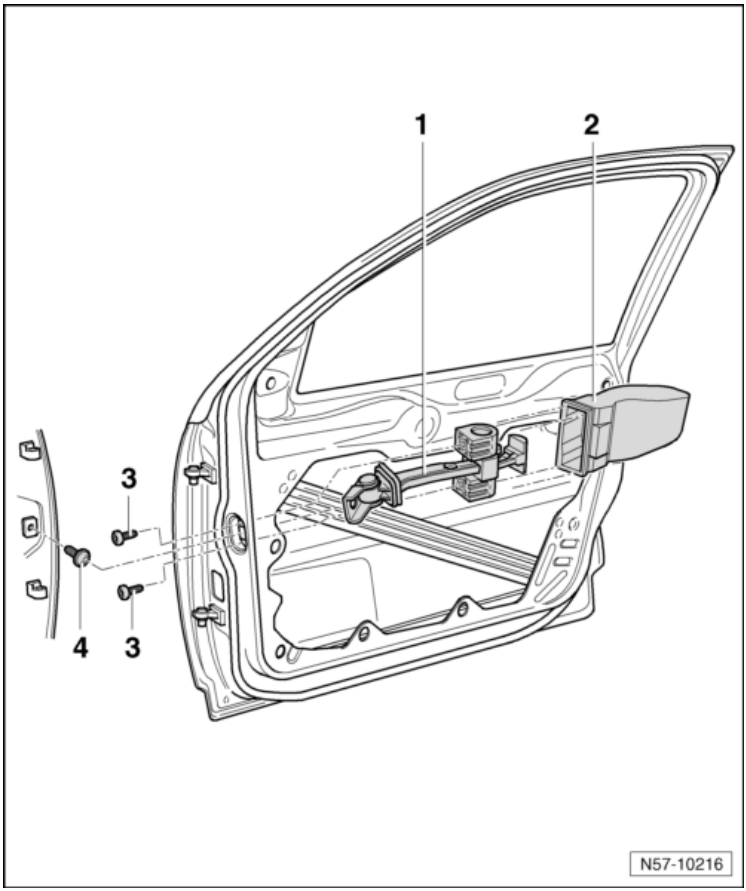
16 - Bolt
- ☐ 32 Nm
- ☐ Always replace bolts after loosening them

Subframe Assembly Overview



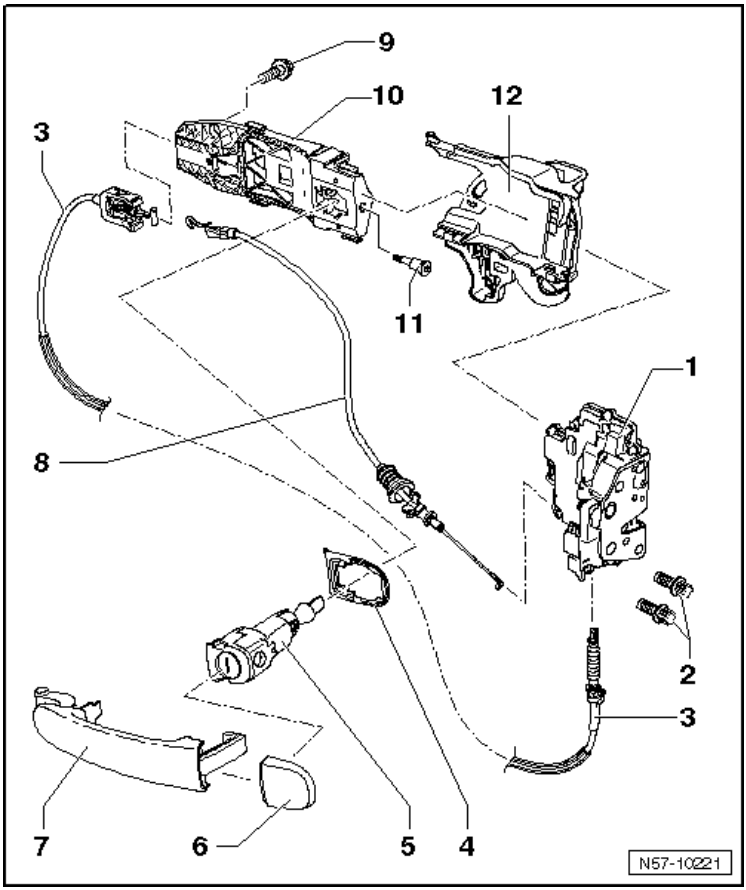
1 - Door
2 - Release Cable
3 - Cover Caps for Assembly Opening
4 - Subframe
5 - Door Lock
6 - Bolt
☐ 20 Nm
7 - Bolt
☐ 8 Nm
8 - Wiring Harness
9 - Window Regulator Motor
10 - Window Regulator
11 - Bolt
12 - Speaker
13 - Connector
14 - Wiring Harness

Door Limiting Strap Assembly Overview



1 - Door Limiting Strap
2 - Cover
3 - Bolt
☐ 9 Nm
4 - Bolt
☐ 32 Nm

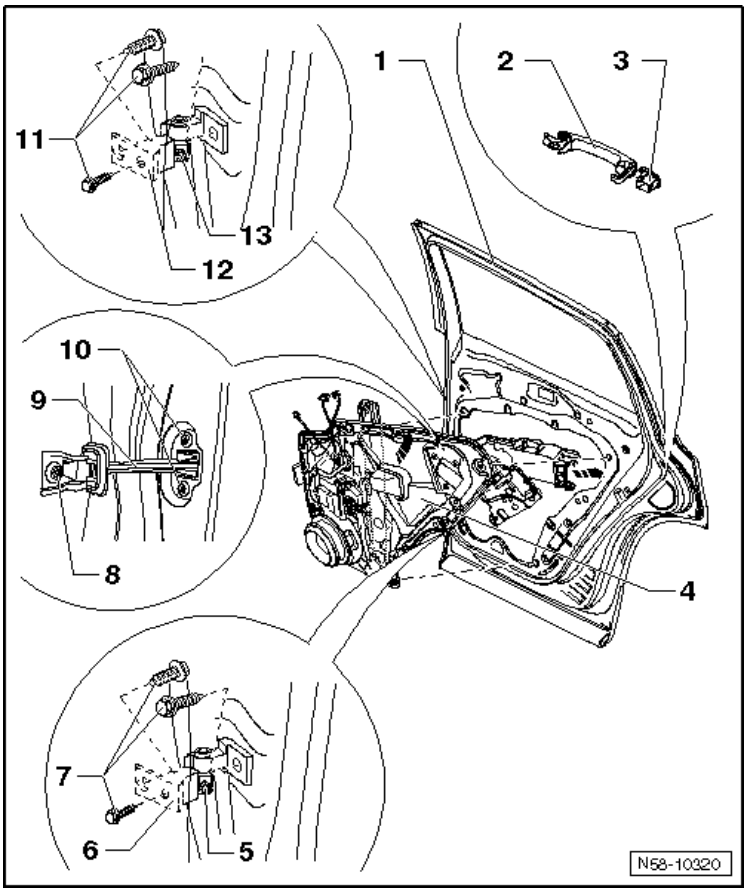
Door Handle and Door Lock Assembly Overview



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

Rear Doors

Rear Door Assembly Overview



1 - Door
2 - Door Handle with Backing Plate
3 - Cover
4 - Subframe with Door Lock
5 - Bolt
- ☐ 30 Nm

6 - Door Hinge
7 - Bolt
- ☐ 32 Nm
- ☐ Always replace bolts after removing them.

8 - Bolt
- ☐ 30 Nm

9 - Door Strap

10 - Bolt

- ☐ 9 Nm

11 - Bolt

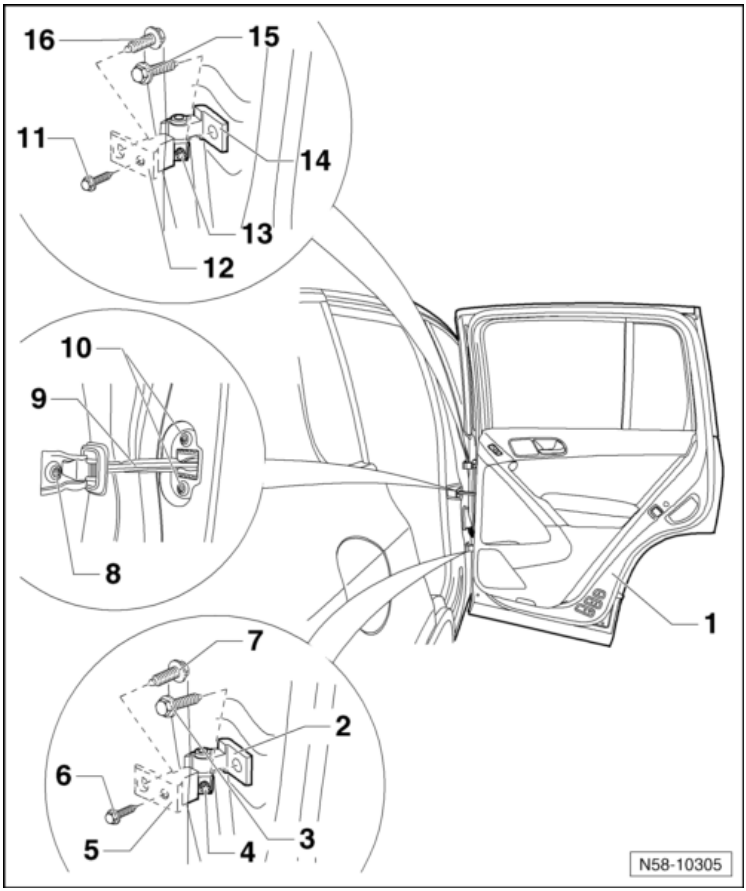
- ☐ 32 Nm
- ☐ Always replace bolts after removing them.

12 - Door Hinge

13 - Bolt

- ☐ 30 Nm

Door Hinge Assembly Overview



1 - Door
2 - Door Hinge
3 - Bolt
- ☐ 32 Nm
- ☐ Always replace bolts after loosening them

4 - Bolt
- ☐ 30 Nm

5 - Door Hinge
6 - Bolt
- ☐ 32 Nm
- ☐ Always replace bolts after loosening them

7 - Bolt
- ☐ 32 Nm
- ☐ Always replace bolts after loosening them

8 - Bolt
- ☐ 32 Nm

9 - Door Strap

10 - Bolt
- ☐ 9 Nm

11 - Bolt
- ☐ 32 Nm
- ☐ Always replace bolts after loosening them

12 - Door Hinge

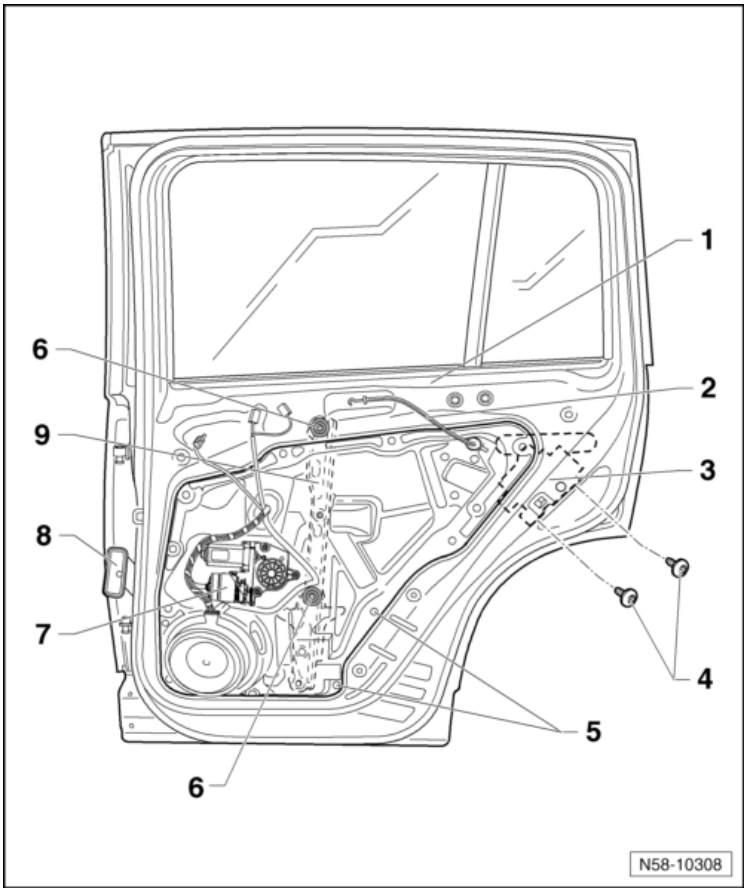
13 - Bolt
- ☐ 30 Nm

14 - Door Hinge

15 - Bolt
- ☐ 32 Nm
- ☐ Always replace bolts after loosening them

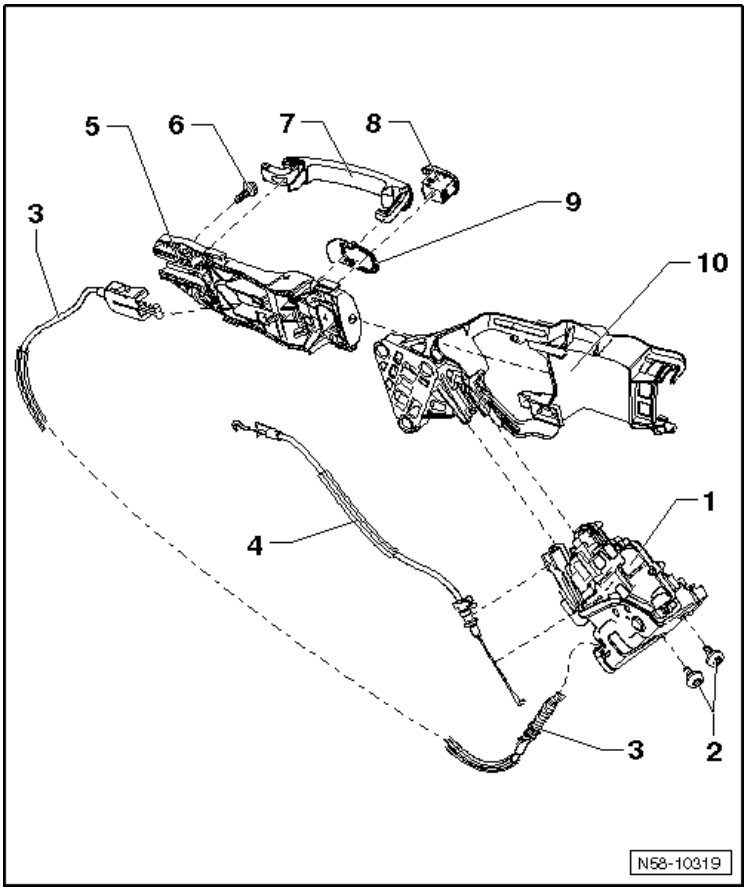
16 - Bolt
- ☐ 32 Nm
- ☐ Always replace bolts after loosening them

Subframe Assembly Overview



1 - Subframe
2 - Release Cable
3 - Door Lock
4 - Bolt
☐ 20 Nm
5 - Bolt
☐ 8 Nm
6 - Cover Caps for Assembly Opening
7 - Window Regulator Motor
8 - Connectors
9 - Window Regulator

Door Handle and Door Lock Assembly Overview

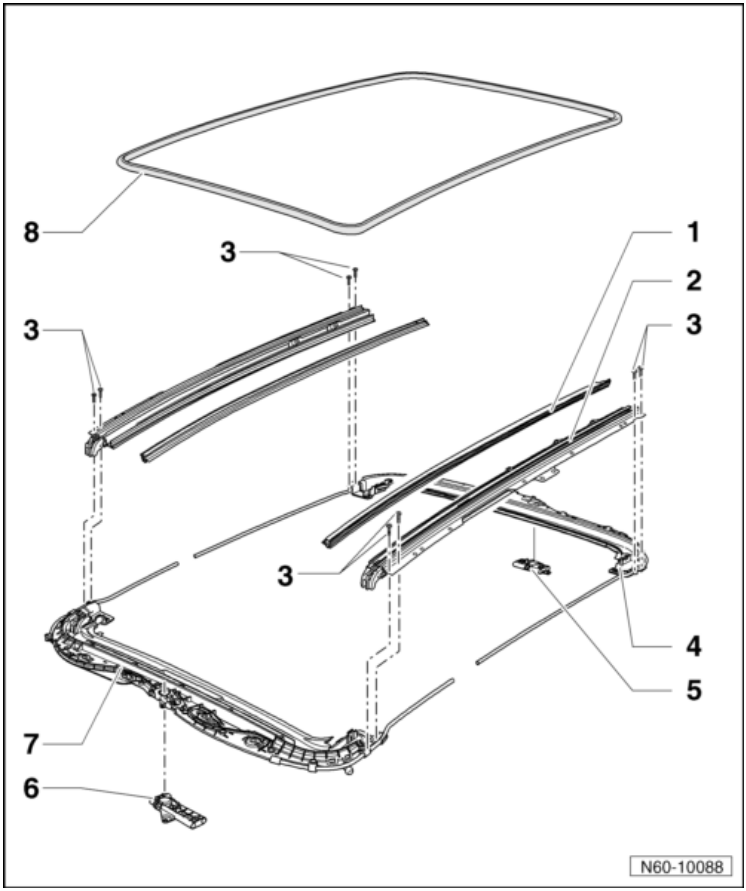


1 - Door Lock
2 - Bolt
- ☐ 20 Nm

3 - Cable
4 - Cable
5 - Mounting Bracket
6 - Bolt
7 - Door Handle with Backing Plate
8 - Cover
9 - Backing
10 - Angle Bracket

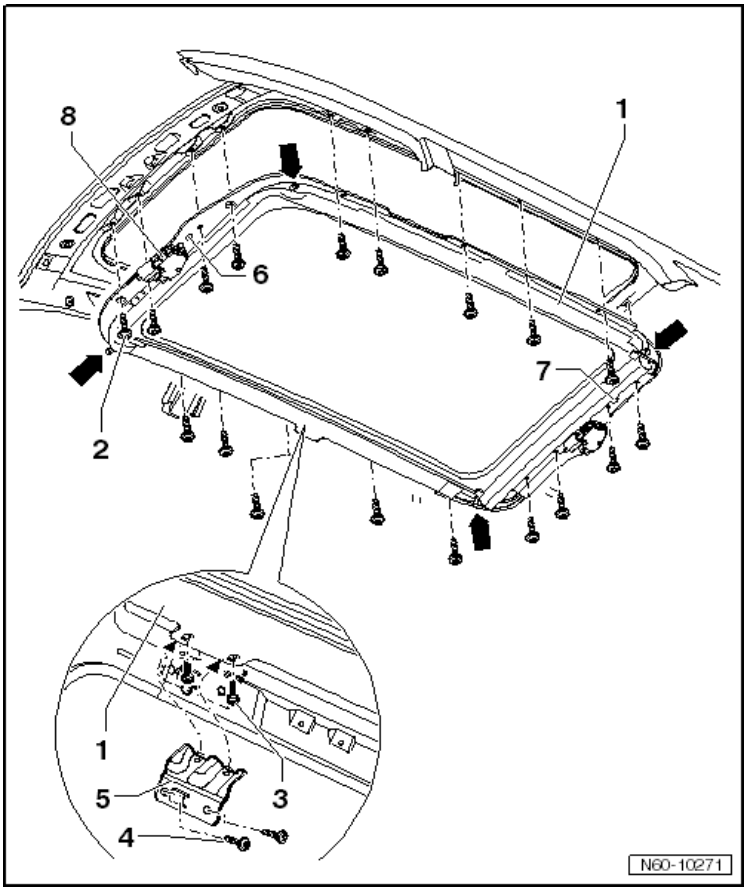
Sunroof

Panorama Sunroof Assembly Overview



1 - Sun Shade Rail
2 - Guide Rail
3 - Bolt
☐ 2 Nm
4 - Rear Lid Part
5 - Rear Motor Support
6 - Front Motor Support
7 - Front Part
8 - Inner Seal

Assembly Frame Overview



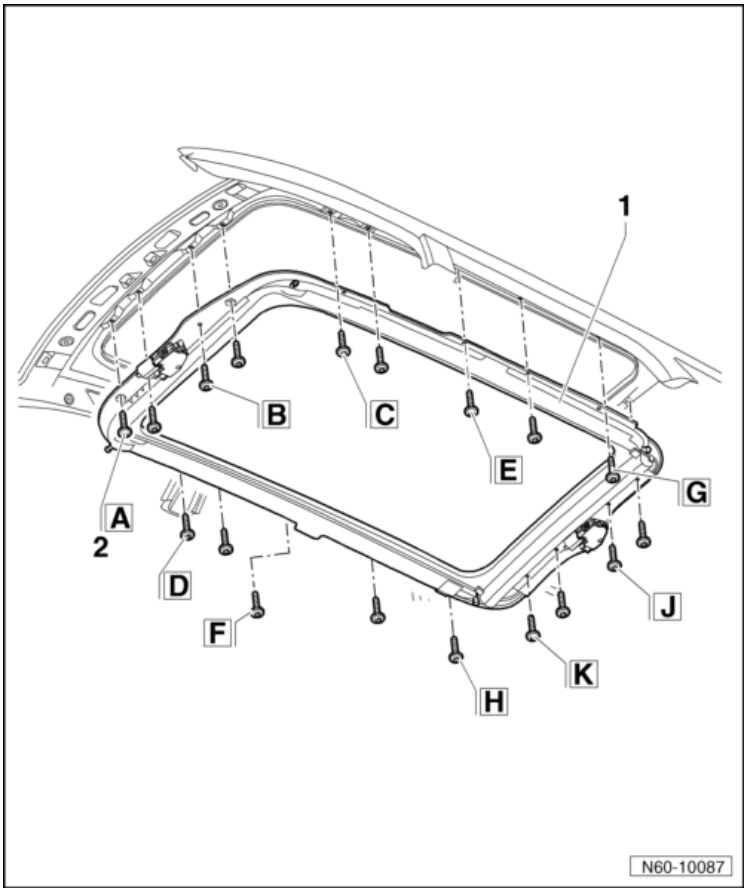
1 - Assembly Frame
2 - Bolts
- ☐ See illustration below

3 - Screw
- ☐ 8 Nm

4 - Screw
- ☐ 4.5 Nm

5 - Console
6 - Centering Hole
7 - Centering Hole
8 - Sunroof Motor

Assembly Frame Overview *(cont'd)*



1 - Assembly Frame

2 - Screws

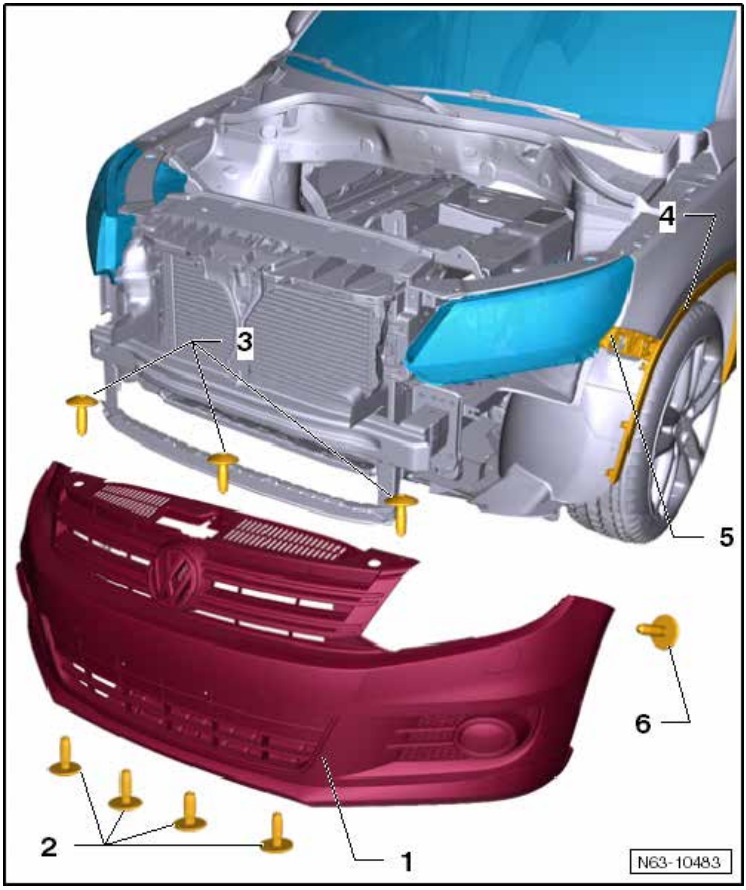
- ☐ Tighten first the screws identified with letters -2- in alphabetical order to 8 Nm.
- ☐ Tighten the remaining screws -2- on the assembly frame -1- to 8 Nm.

Sunroof Tightening Specifications

Component	Nm
Cable cover screws	2
Glass panel screws	5
Sunroof motor screws	3.5
Shade motor screws	3.5
Rear part guide rail screws	2
Wind deflector screws	2

Bumpers

Front Bumper Cover Assembly Overview

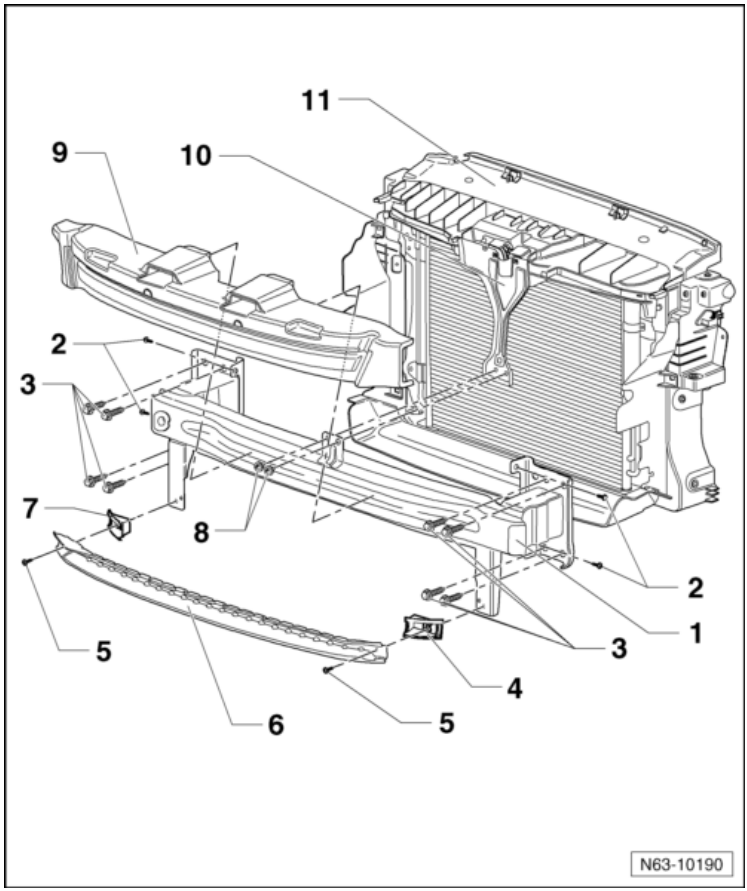


1 - Front Bumper Cover
2 - Bolt
- ☐ 2 Nm

3 - Bolt
- ☐ 2 Nm

4 - Wheel Cover
5 - Bracket
6 - Bolt
- ☐ 2 Nm

Front Bumper Carrier Assembly Overview



1 - Front Bumper Carrier
2 - Bolt
- ☐ 8 Nm

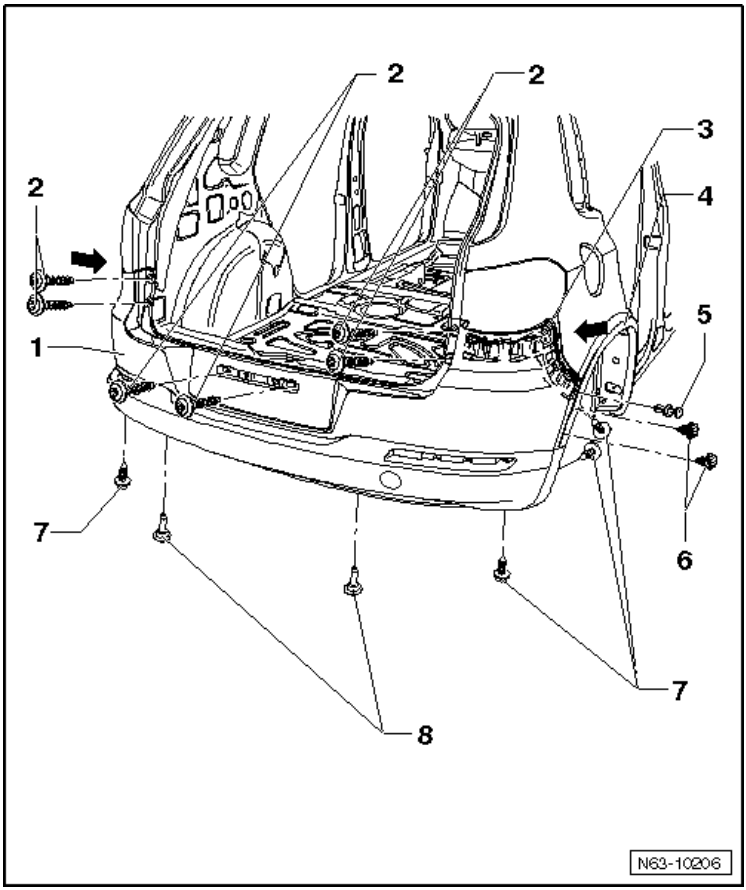
3 - Bolt
- ☐ 60 Nm

4 - Angle Bracket
5 - Bolt
- ☐ 8 Nm

6 - Cross Member
7 - Angle Bracket
8 -Bolt
- ☐ 8 Nm

9 - Foam Piece
10 - Lock Support
11 - Lock Carrier

Rear Bumper Cover Assembly Overview

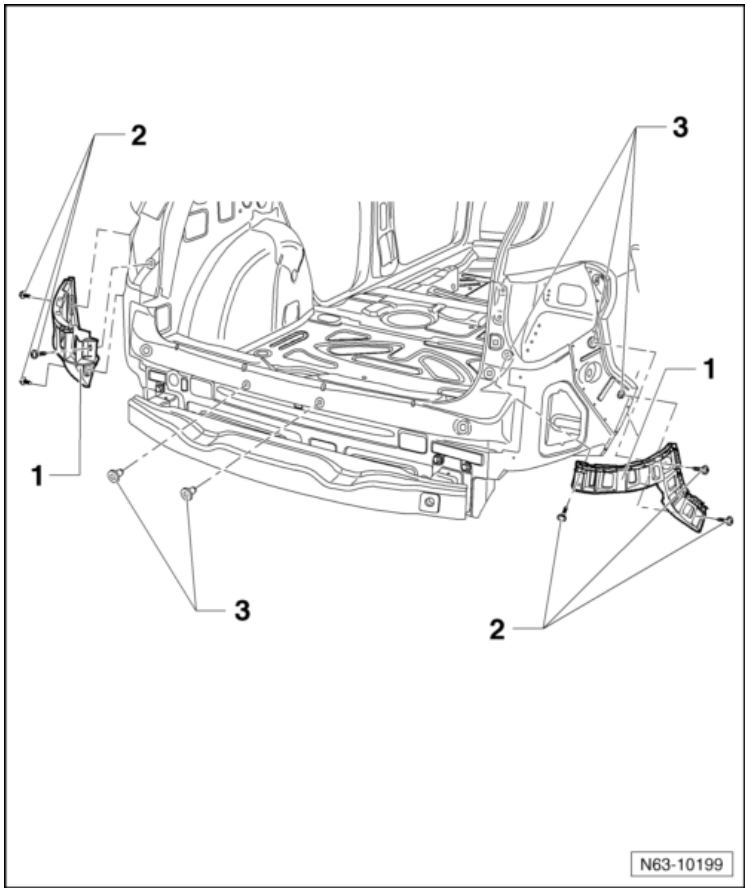


1 - Rear Bumper Cover
2 - Bolt
- ☐ 3.5 Nm

3 - Guide Trim
4 - Wheel Cover
5 - Expanding Rivet
6 - Catches
7 - Bolt
- ☐ 2 Nm

8 - Bolt
- ☐ 6 Nm

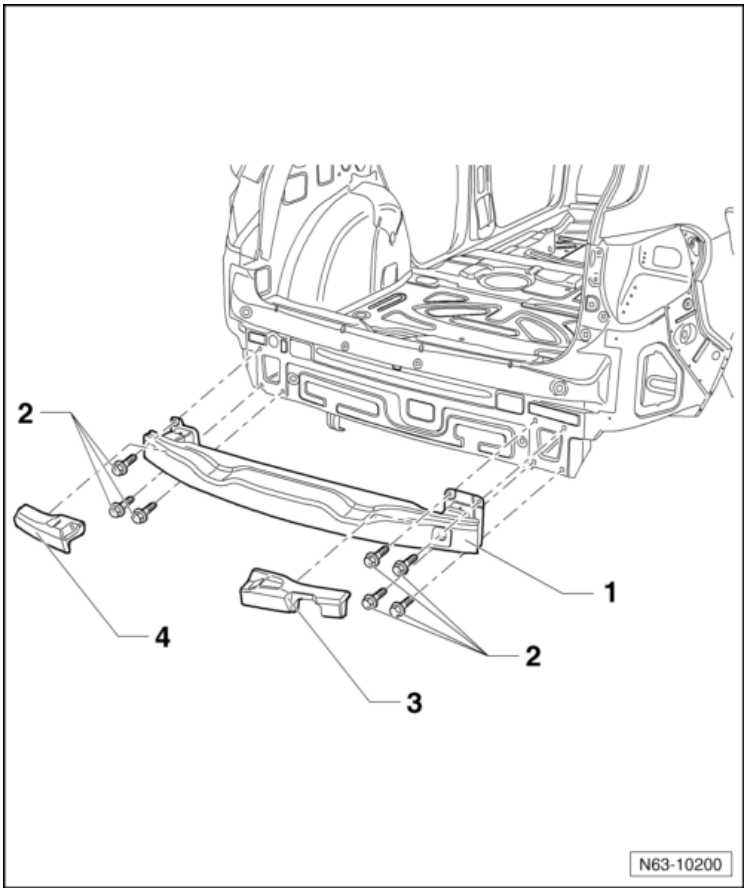
Rear Bumper Cover Substructure



1 - Guide Trim
2 - Screws
- ☐ 3.5 Nm

3 - Expanding Nut
- ☐ 8 Nm

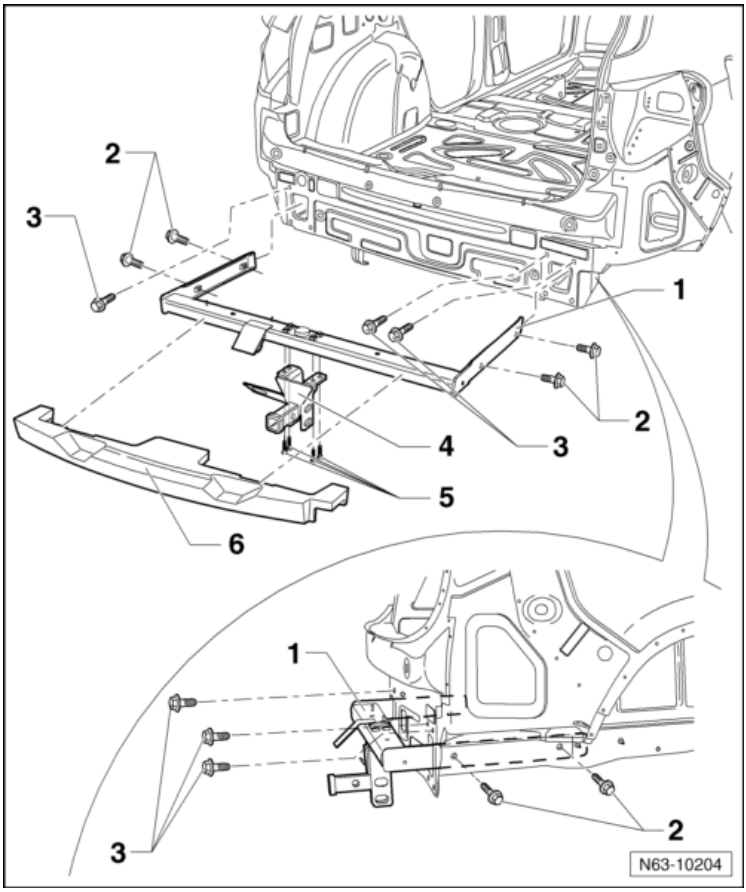
Rear Bumper Carrier Assembly Overview



1 - Rear Bumper Carrier
2 - Bolt
- ☐ 20 Nm

3 - Right Foam Piece
4 - Left Foam Piece

Trailer Hitch Assembly Overview



1 - Trailer Hitch
2 - Bolt
- ☐ 50 Nm + 90° turn
- ☐ Replace after loosening

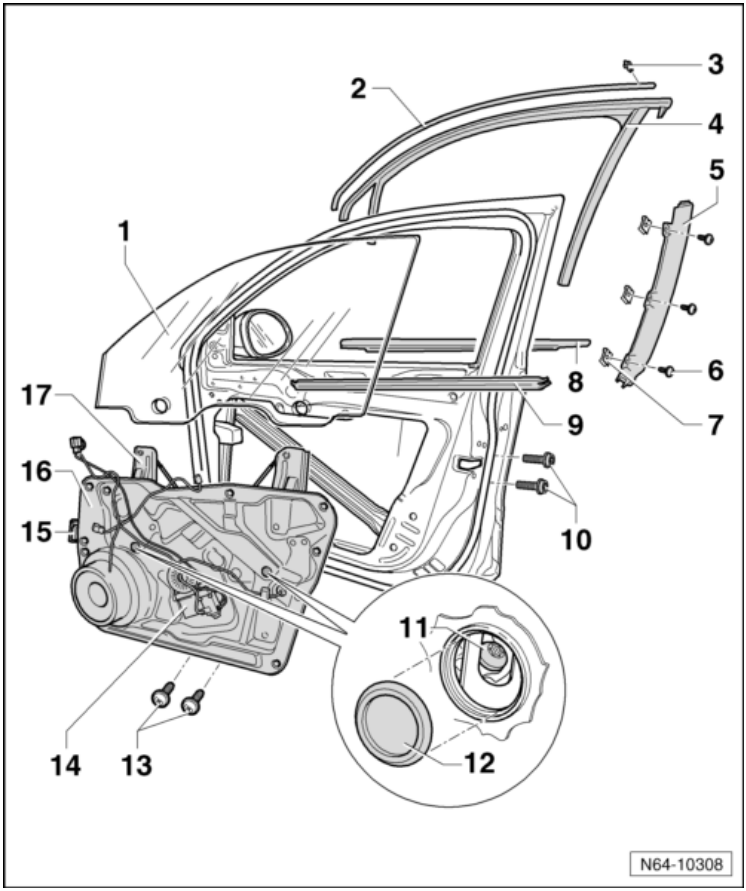
3 - Bolt
- ☐ 20 Nm

4 - Connectors
5 - Bolt
- ☐ 80 Nm

6 - Foam Piece

Glass, Window Regulators

Front Door Window Assembly Overview

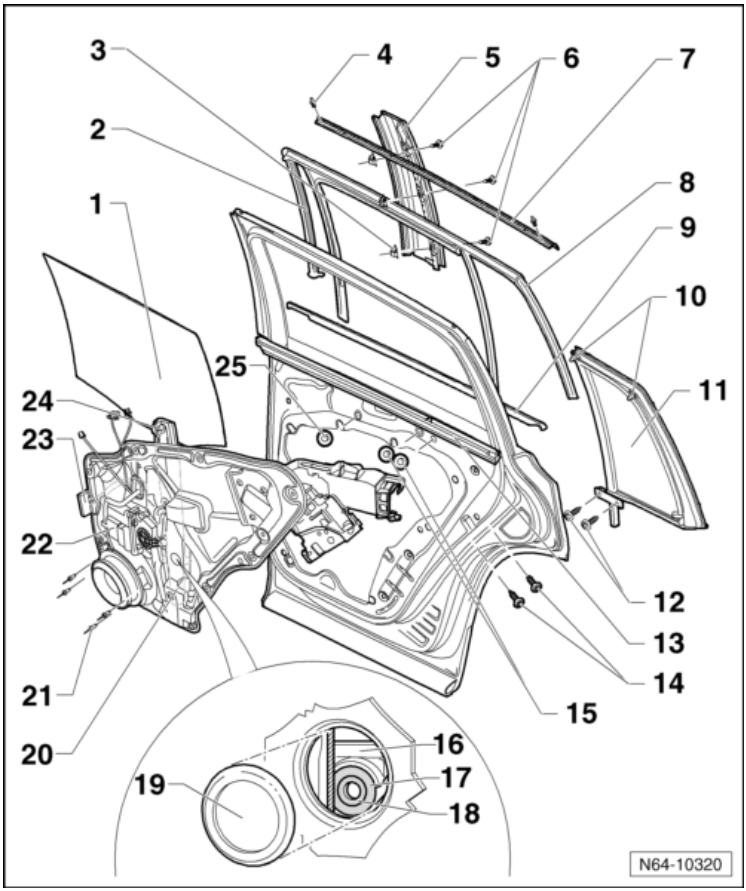


1 - Door Window
2 - Decorative Trim Strip
3 - Clip
4 - Window Guide
5 - Trim
6 - Bolt
☐ 2 Nm
7 - Spring Nut
8 - Outer Window Shaft Seal
9 - Inner Window Recess Seal
10 - Bolt
☐ 20 Nm
11 - Bolt
☐ 8 Nm

12 - Cover
13 - Bolt
- ☐ 8 Nm

14 - Window Regulator Motor
15 - Connector
16 - Subframe
17 - Window Regulator

Rear Door Window Assembly Overview

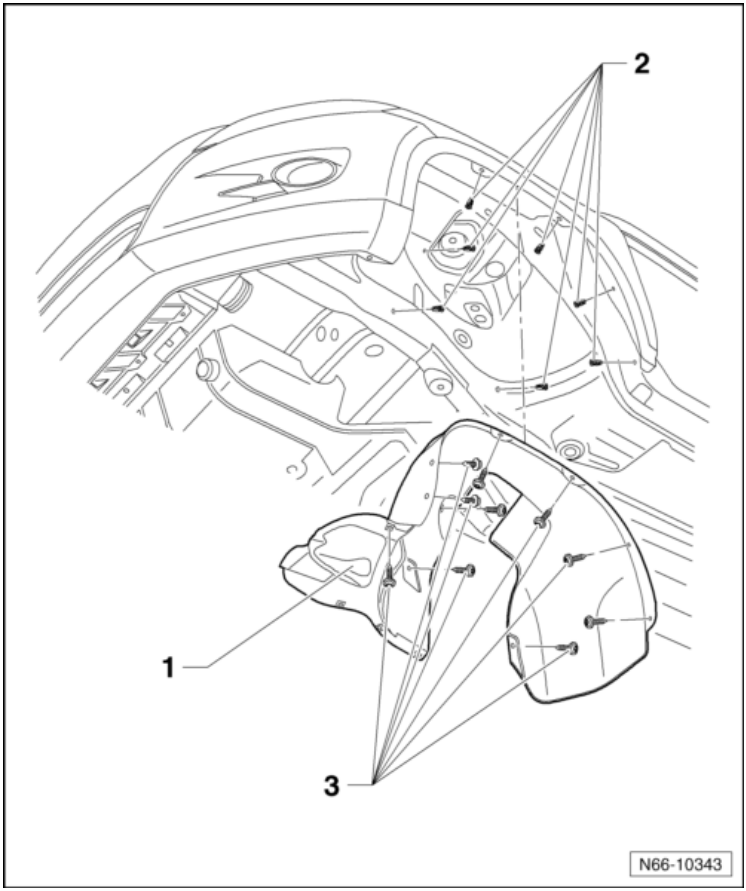


1 - Door Window
2 - Adhesive Tape
3 - Spring Nut
4 - Clip
5 - Trim
6 - Bolt
☐ 2 Nm
7 - Decorative Trim Strip
8 - Window Guide
9 - Outer Window Recess Seal
10 - Centering Pin
11 - Fixed Door Window
12 - Bolt
☐ 8 Nm
13 - Inner Window Recess Seal
14 - Bolt
☐ 20 Nm

15 - Cover
16 - Clamping Brackets
17 - Spreader Pin
18 - Spreader Plug
19 - Cover
20 - Subframe
21 - Rivet
22 - Window Regulator Motor
23 - Connector
24 - Window Regulator
25 - Coverr

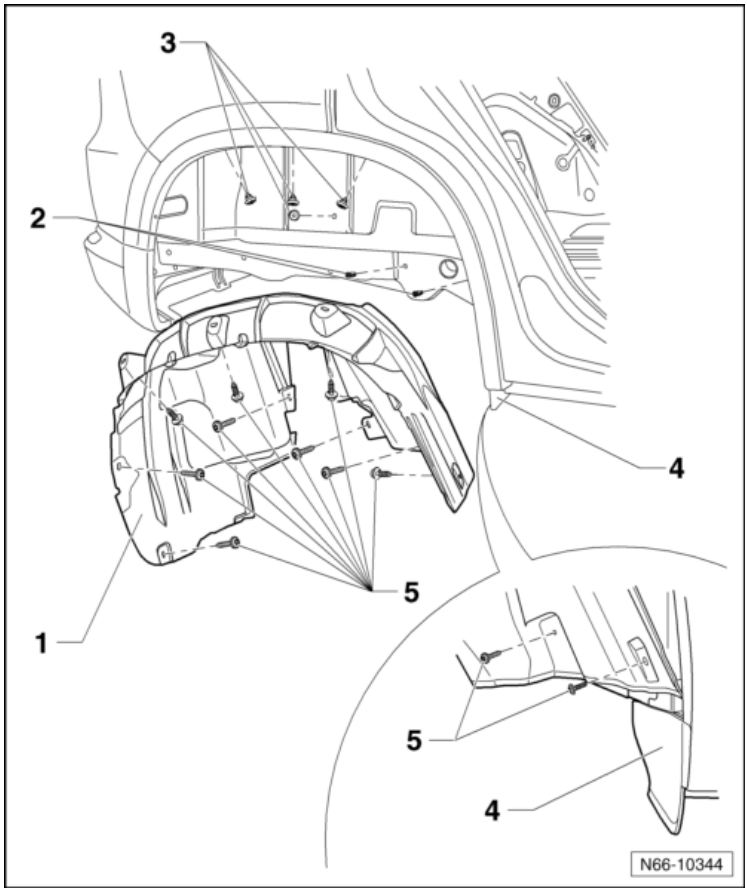
Exterior Equipment

Front Wheel Housing Liner Assembly Overview



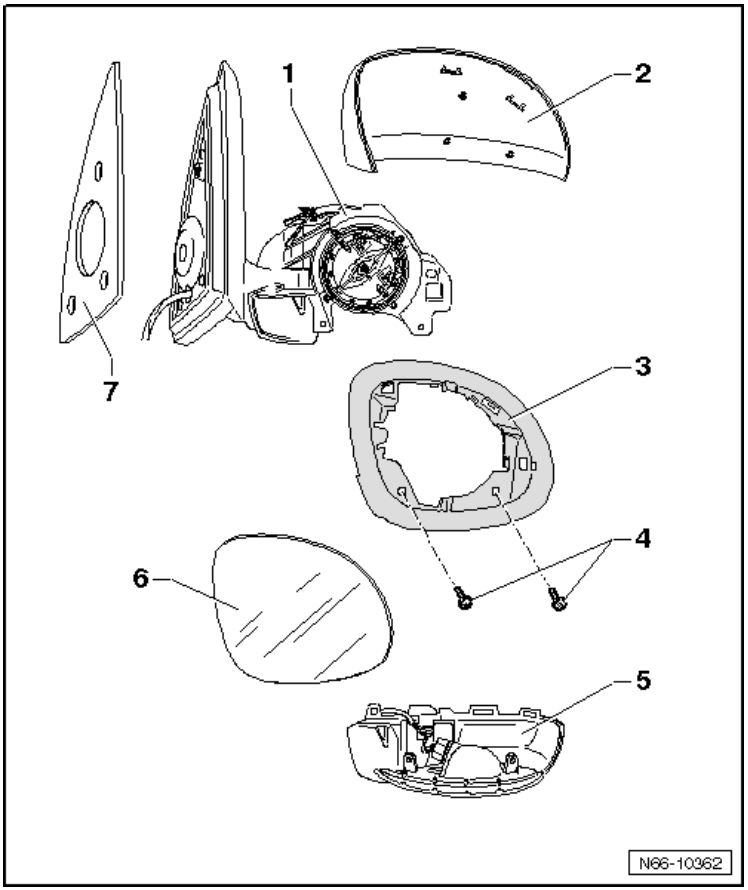
1 - Wheel Housing Liner
2 - Expanding Nut
3 - Bolt
☐ 2 Nm

Rear Wheel Housing Liner Assembly Overview



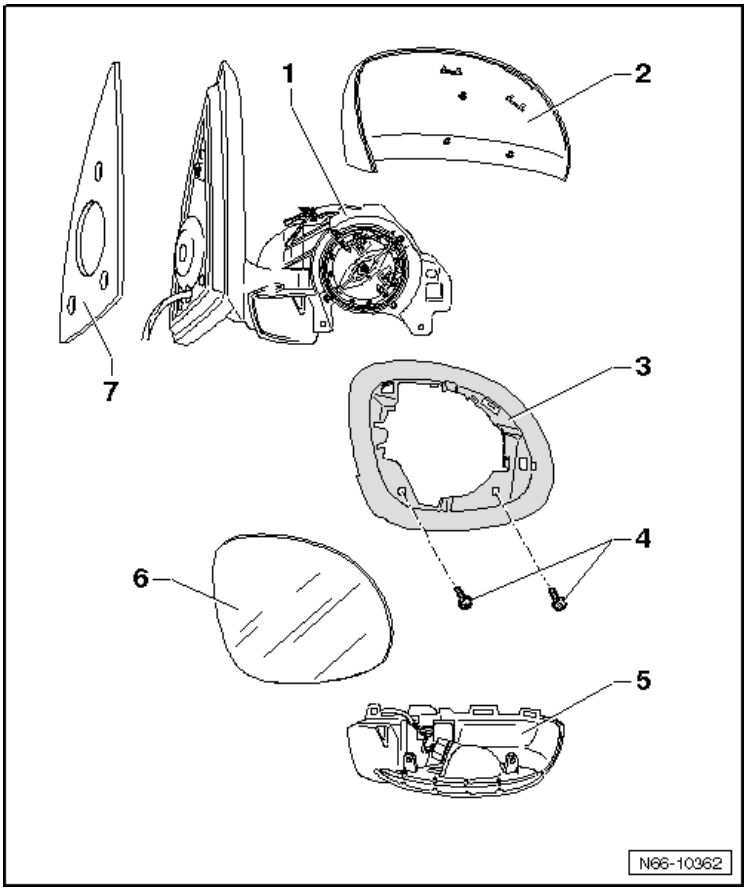
1 - Wheel Housing Liner
2 - Expanding Nut
3 - Insert Nut
4 - Rear Sill Panel Cover
5 - Bolt
☐ 2 Nm

Exterior Rearview Mirror Assembly Overview



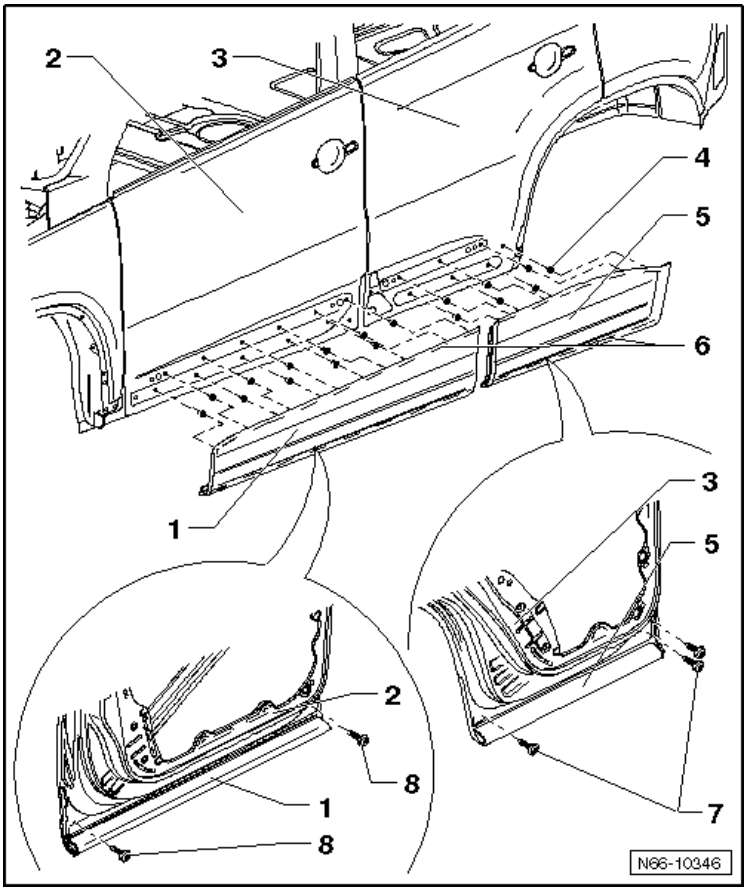
1 - Mirror Base Plate
2 - Mirror Housing
3 - Housing Frame
4 - Bolt
☐ 1 Nm
5 - Assembly Piece
6 - Mirror Glass
7 - Insulation

Roof Rail Assembly Overview



1 - Mirror Base Plate
2 - Mirror Housing
3 - Housing Frame
4 - Bolt
☐ 1 Nm
5 - Assembly Piece
6 - Mirror Glass
7 - Insulation

Front and Rear Door Cover Assembly Overview



1 - Front Door Cover
2 - Front Door
3 - Rear Door
4 - Grommet
5 - Rear Door Cover
6 - Adhesive Tape
7 - Bolt
☐ 2 Nm
8 - Bolt
☐ 2 Nm

Body Interior

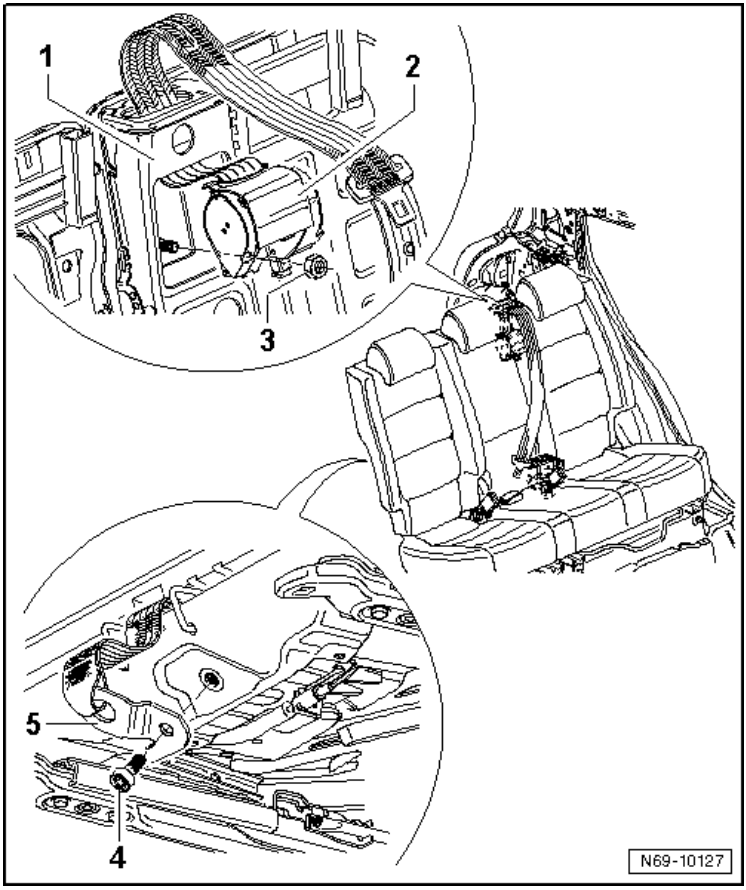
Interior Equipment

Tightening Specifications

Component	Nm
Center console to mount screws	1.5
Center console mounting bracket nuts to floor	8
Driver side left trim panel screws	1.5
Foot cover screws	1.5
Glove compartment screws	1.5
Headliner console bolts	3
Heater and A/C control trim screws	1.5
Lower instrument panel trim screws	1.5
Lower rear center console screws to mount [1)]	6**
Rear wheel housing trim (with rear side airbag) [2)]	4.5**
Roof grab handles screws	2
Steering column trim screws	1.5
Sunvisor bolts	2

1) For bolt tightening clarification, refer to ElsaWeb, *Center Console without Armrest"*
2) For bolt tightening clarification, refer to ElsaWeb, *Rear Wheel Housing Trim with Rear Side Airbag.*

Front Bumper Cover Assembly Overview



1 - Console
2 - Automatic Belt Retractor
3 - Hex Nut
- ☐ 40 Nm

4 - Bolt
- ☐ 40 Nm

5 - Belt Anchor

Tightening Specifications

Component	Nm
Airbag control module bracket nuts to body	2
Airbag control module nuts to body	9
Driver and passenger front airbag crash sensor bolt	6
Driver and passenger seat side airbag bolt to seat frame	9
Outer rear seat belt automatic belt retractors bolt to mount	40
Passenger airbag unit bolts to instrument panel	9
Rear seat belt latch seat frame	40
Rear side airbag crash sensor bolt	6
Seat belt anchor bolt to body	40
Seat belt guide bolts	4.5
Seat belt height adjuster to mounting plate	20
Seat belt latch to seat frame mount	40
Seat belt relay bolt to seat belt height adjuster	40
Seat position sensor screw	0.3
Side curtain airbags gas generator retaining plate bolts	9

Interior Trim

Interior Trim Tightening Specifications

Component	Nm
Assembly carrier to tunnel bolts	20
B-pillar upper trim	4
Door trim bolts	4.5
Instrument cluster bolt	2.5 ± 0.5
Left and right insrument panel vent bolt	2.5 ± 0.5
Lower instrument panel to tunnel bolts	2.5 ± 0.5
Plenum chamber bolt	20
Rear lid handle recess screw	1.5
Relay carrier nuts	4.5
Screen separator bolt	8
Side assembly carrier nuts	20
Side luggage compartment trim screw	1.5
Upper assembly carrier nuts	8

Seat Frames

Tightening Specifications

Component	Nm
Backrest folding table scews	2.5
Backrest to seat bolts	34.5
Door sill side trim bracket bolts	8
Door sill side trim screws	2
Height adjustment drive bolt	18
Height adjustment element bolts	6 ± 2
Height adjustment lever to seat bolt	19.5
Lumbar adjustment switch screws	1
Lower door sill side trim bracket bolt	8
Rear bench seat bolts	22
Rear bench seat backrest adjustment trim screw	60
Rear bench seat backrest adjustment trim screw	2.5
Rear seat bench rails to floor nuts	48
Rear seat bench rails to seat frame nuts	24
Rear seat cushion release spring bolt	6
Rear seat cushion release spring bolt	6 ± 2
Seat adjustment control head screws	1
Seat drawer mount bolt	8
Seat to floor bolts	40
Upper door sill side trim bracket bolt	2

Seat Upholstery, Covers

Instrument Panel Tightening Specifications

Component	Nm
Rear seat center armrest to seat bolt	20
Rear seat storage compartment bolts	2.5

HEATING, VENTILATION & 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

Fastener Tightening Specifications

Component	Nm
Air distribution housing bolts [1]	1.4
Air grille	2.5 ± 0.4
Auxiliary heater heating element connector nut	9 ± 1
Footwell vents	1.5 ± 0.2
Fresh air blower bolts	1
Heater control bolts	1.5 ± 0.2
Heater core connection flange bolt	2
Heater core pipe clamps	2
Heater unit screws	4.5 ± 0.7
Heater unit screws [2]	8
Heater unit screws/nuts [3]	9 ± 1.3

[1] For bolt tightening clarification, refer to ElsaWeb, *Heater Unit*, items 1 and 2.
[2] For bolt tightening clarification, refer to ElsaWeb, *Heater Unit*, item 6.
[3] For bolt tightening clarification, refer to ElsaWeb, *Heater Unit*, items 10 and 12.

Air Conditioning

Fastener Tightening Specifications

Component	Nm
A/C compressor bolts	25
Air distribution door motor	1.5
Condenser-to-radiator	5 ± 0.5
Defroster door motor	1.4
Evacuating and charging valve insert	2.4 ± 0.2
Expansion valve	5
Expansion valve heat shield	6
Fluid reservoir with dryer	4.2 ± 0.7
Fluid reservoir with dryer clamp bolt	7
Fresh air/recirculating air/back pressure door motor	1.4
Front air distribution door motor	1.4
Heater and A/C control bolts	1.5 ± 0.2
Heating and A/C housing bracket bolts	9
Heater unit screws [1)]	4.5 ± 0.7
Heater unit screws [2)]	8
Heater unit screws/nuts [3)]	9 ± 1.3
High pressure sensor	8 ± 1
Left temperature door motor	1.4
Refrigerant lines-to-A/C compressor	22
Refrigerant lines-to-condenser	12 ± 1
Refrigerant lines-to-expansion valve	10 ± 1
Ribbed belt pulley	35 ± 5
Right temperature door motor	1.4
Temperature regulator door motor	1.4

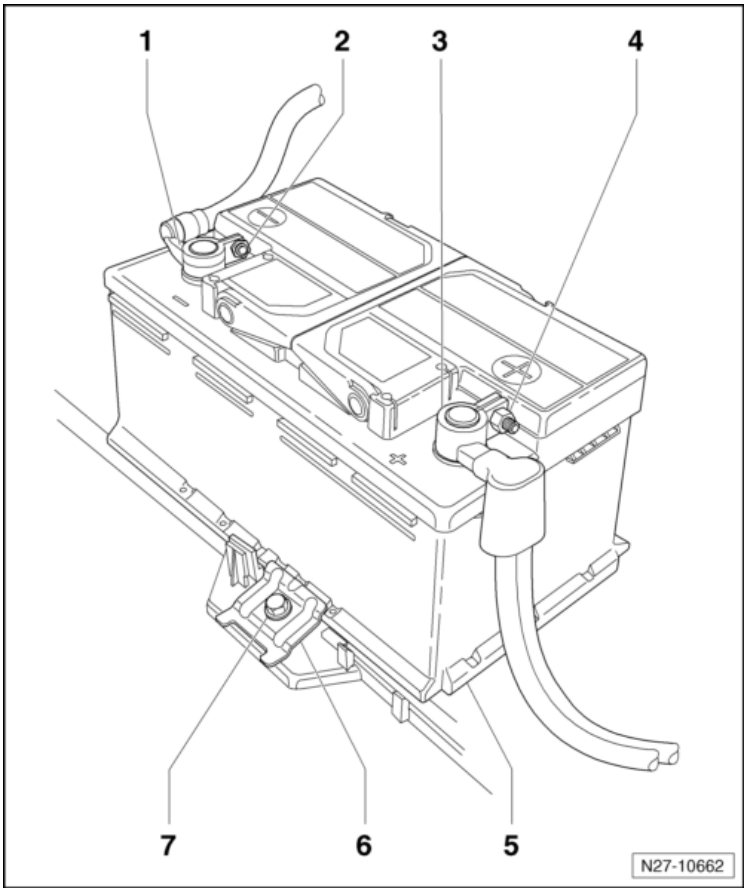
1) For bolt tightening clarification, refer to ElsaWeb, *Heating and A/C Unit,* item 1.
2) For bolt tightening clarification, refer to ElsaWeb, *Heating and A/C Unit,* item 6.
3) For bolt tightening clarification, refer to ElsaWeb, *Heating and A/C Unit*, items 10 and 12.

ELECTRICAL SYSTEM

Electrical Equipment

Battery, Starter, Generator, Cruise Control

Battery Overview



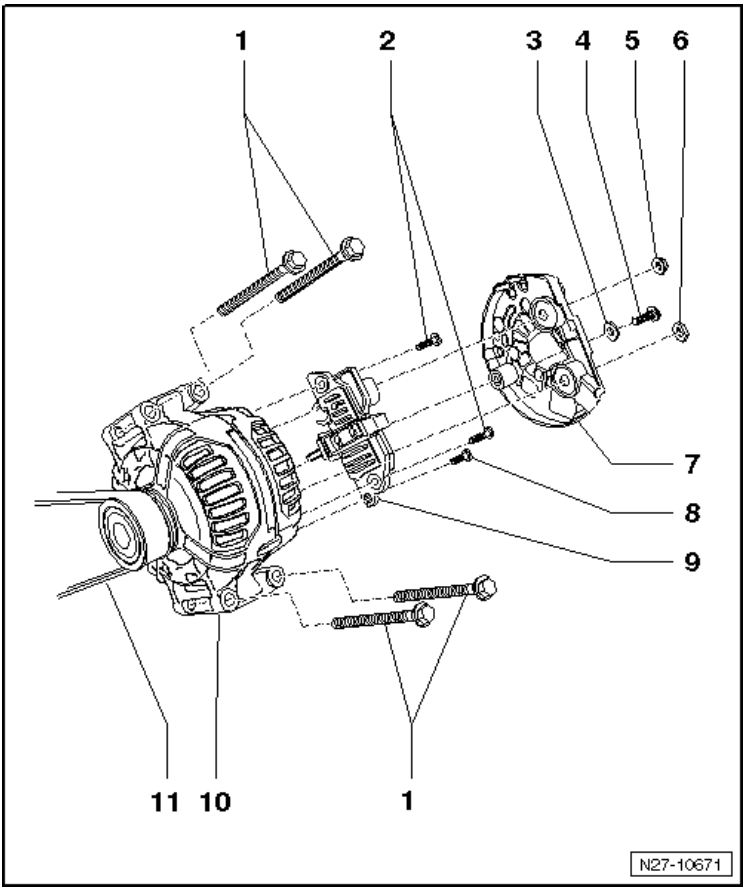
1 - Battery Terminal Clamp Ground Wire
2 - Mounting Nut For Battery Terminal Clamp Ground Wire
- ☐ 6 Nm
- ☐ M6

3 - Battery Terminal Clamp Positive Wire
4 - Mounting Nut For Battery Terminal Clamp Positive Wire
- ☐ 6 Nm
- ☐ M6

5 - Battery

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

Generator Overview



1 - Collar Bolt
- ☐ 20 Nm
- ☐ M8 x 110

2 - Phillips Head Screws
- ☐ 2 Nm
- ☐ M4 x 19

3 - Washer
- ☐ M5

4 - Phillips Head Screws
- ☐ 4.5 Nm
- ☐ M5 x 21

5 - Nut
- ☐ 15 Nm
- ☐ M8

6 - Flat Hex Nut
- ☐ M8 Nm

7 - Generator Cap

8 - Phillips Head Screws

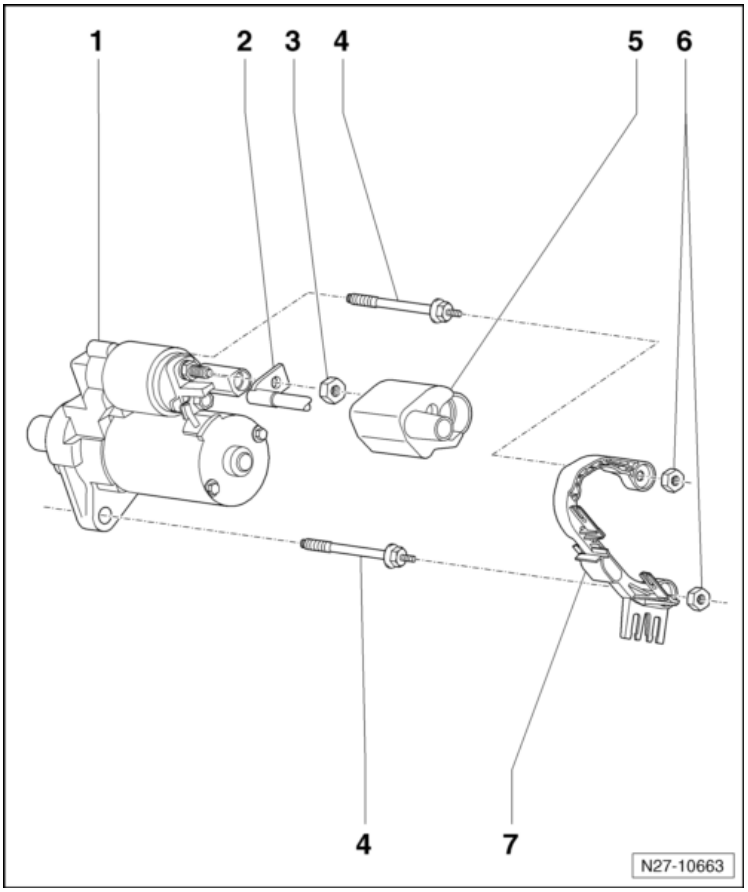
- ☐ 2 Nm
- ☐ M4 x 13

9 - Voltage Regulator

10 - Generator

11 - Ribbed Belt

Starter Overview



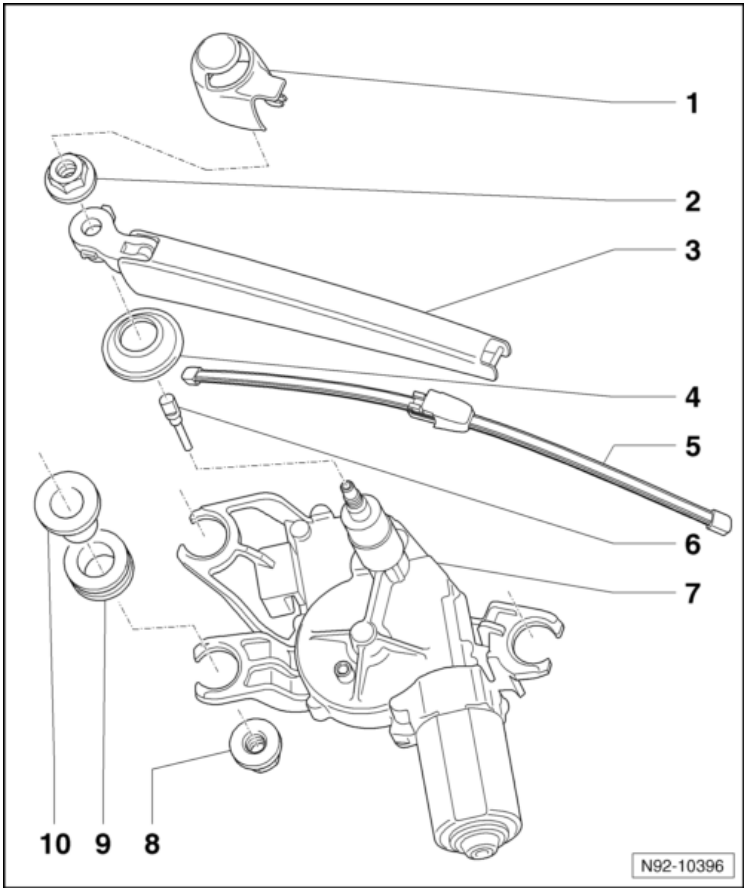
1 - Starter
2 - Connection B+ Wire To Starter
3 - Mounting Nut B+ Wire To Starter
4 - Starter Bolts
- ☐ 75 Nm
- ☐ M12

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

7 - Wiring Bracket

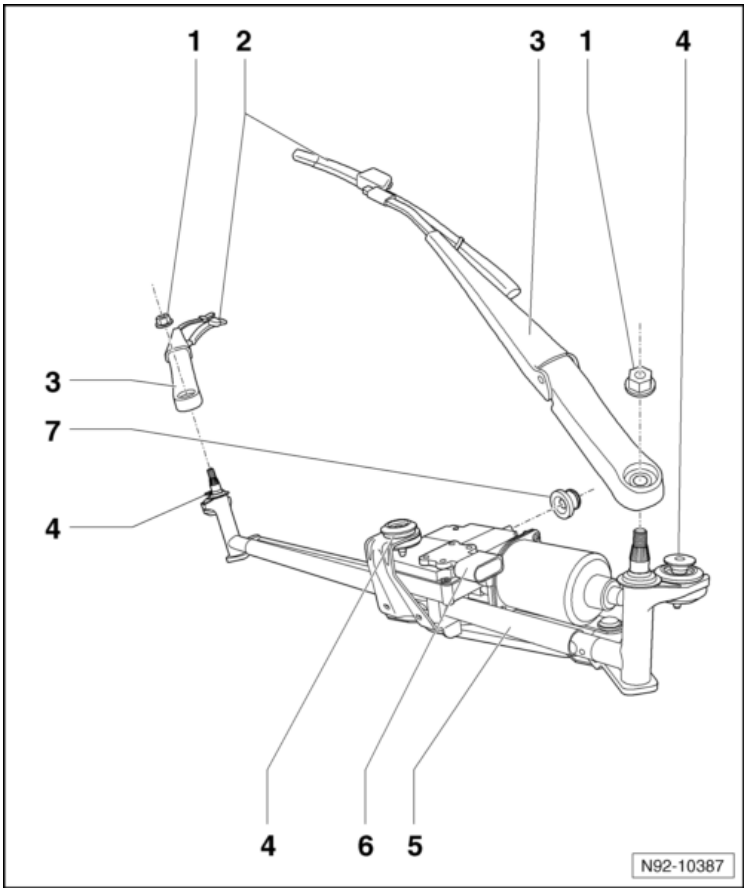
Windshield Wiper/Washer System

Rear Window Wiper System Overview



1 - Cap
2 - Nut
☐ 12 Nm
3 - Wiper Arm
4 - Gasket
5 - Joint-Free Wiper Blade
6 - Spray Nozzle
7 - Rear Window Wiper Motor -V12-
8 - M6 Nut With Washer
☐ 8 Nm
9 - Rubber Ring
10 - Spacer

Windshield Wiper System Overview



1 - Mounting Nuts, Wiper Arm to Linkage
- ☐ 20 Nm

2 - Joint-Free Windshield Wiper

3 - Wiper Arms

4 - Bolts for Wiper Frame With Linkage to Body
- ☐ 8 Nm

5 - Wiper Frame With Linkage

6 - Windshield Wiper Motor -V- with Wiper Motor Control Module -J400-

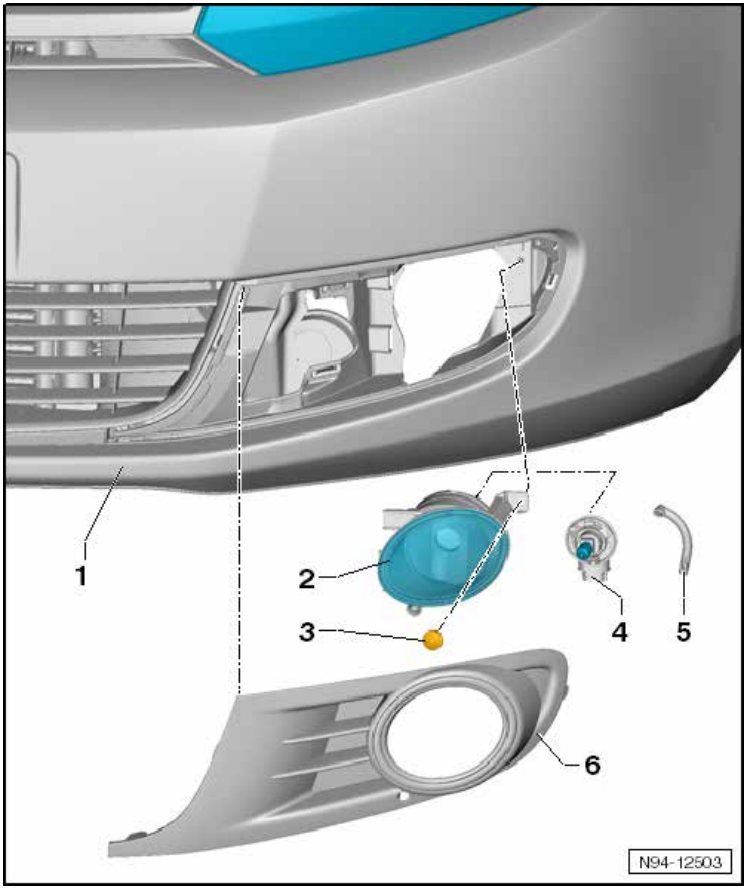
7 - Rubber Grommet In the Bulkhead

No Illustration
- ☐ Bolts: windshield washer fluid reservoir to body - 8 Nm
- ☐ Bolt: horn retaining plate to longitudinal member - 20 Nm

Windshield Wiper/Washer System Tightening Specifications

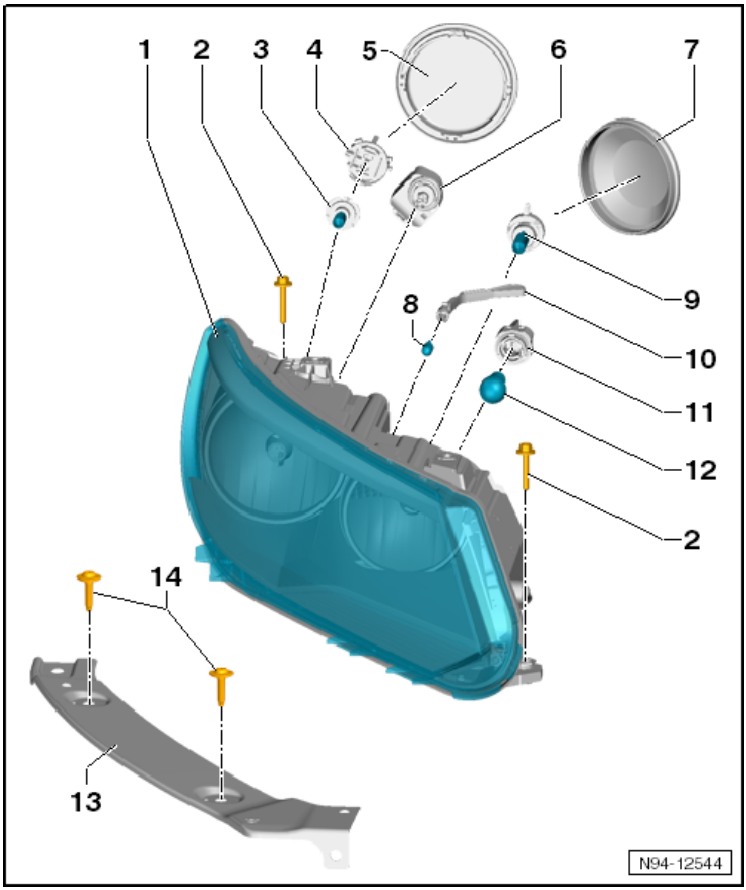
Component	Fastener size	Nm
Washer fluid reservoir-to-body	-	8

Fog Lamps Overview



1 - Front Bumper Cover
2 - Fog Lamp Housing
3 - Bolt
☐ 1.5 Nm
4 - Left Fog Lamp Bulb -L22- Or Right Fog Lamp Bulb -L23- And Left Cornering Lamp Bulb -L148- And Right Cornering Lamp Bulb -L149-
5 - Vent Hose
6 - Divider

Halogen Headlamps Overview



1 - Headlamp
2 - Mounting Screws, Headlamp To Body
- ☐ 4 Nm
- ☐ 6 x 40

3 - Left Low Beam Headlamp -M29- and Right Low Beam Headlamp -M31-
4 - Lamp Socket With Grip
5 - Cap
6 - Headlamp Beam Adjustment Motor
7 - Cap
8 - Left Parking Lamp -M1- and Right Parking Lamp -M3-
9 - Left High Beam Headlamp -M30- and Right High Beam Headlamp -M32-, Left Daytime Running Lamp Bulb -L174- And Right Daytime Running Lamp Bulb -L175-
10 - Lamp Socket With Grip
11 - Lamp Socket With Grip

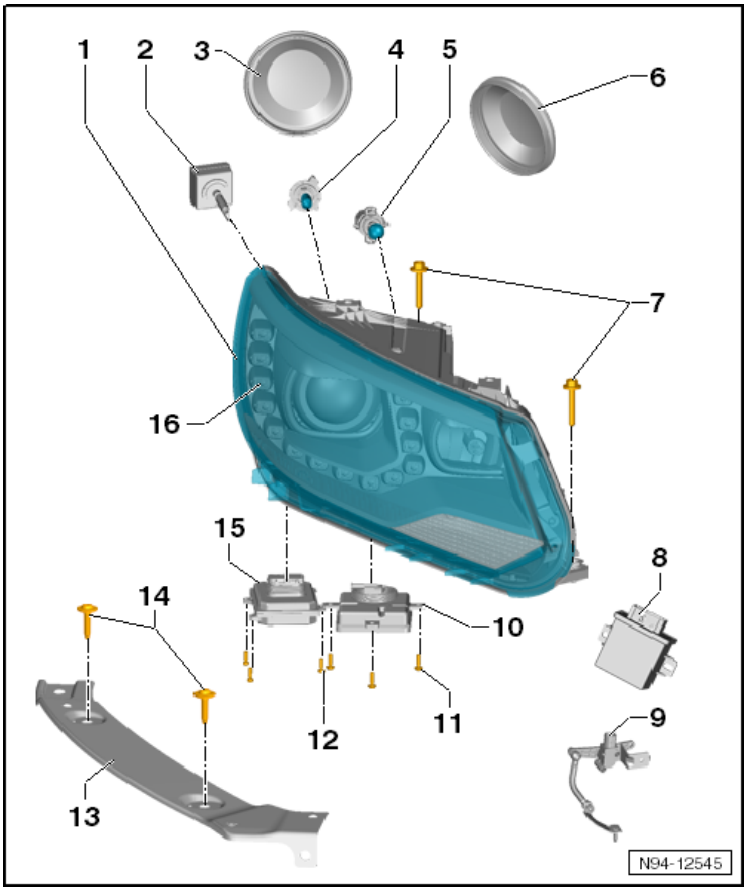
12 - Left Front Turn Signal Lamp -M5- and Right Front Turn Signal Lamp -M7-

13 - Carrier

14 - Bolts: Headlamp to Carrier

- ☐ 4 Nm
- ☐ 6 x 40

HID Headlamp and Cornering Lamp Overview



1 - Headlamp
2 - Left HID Headlamp Bulb -L13- and Right HID Headlamp Bulb -L14-
3 - Cap
4 - Left Cornering Lamp -L148- or Right Cornering Lamp -L149-
5 - Left Front Turn Signal Light -M5- and Right Front Turn Signal Light -M7-
6 - Cap
7 - Mounting Screws, Headlamp to Body
- ☐ 4 Nm
- ☐ 6 x 40

8 - Headlamp Range Control Module -J745-
9 - Left Rear Level Control System Sensor -G76-
- ☐ 5 Nm

10 - Left High-Intensity Gas Discharge Lamp Control Module -J343- and Right High-Intensity Gas Discharge Lamp Control Module -J344-
11 - Screw Secure HID Headlamp Control Module To Headlamp
- ☐ 3 Nm

12 - Screws Connect The Headlamp Power Output Stage to the Headlamp

13 - Carrier

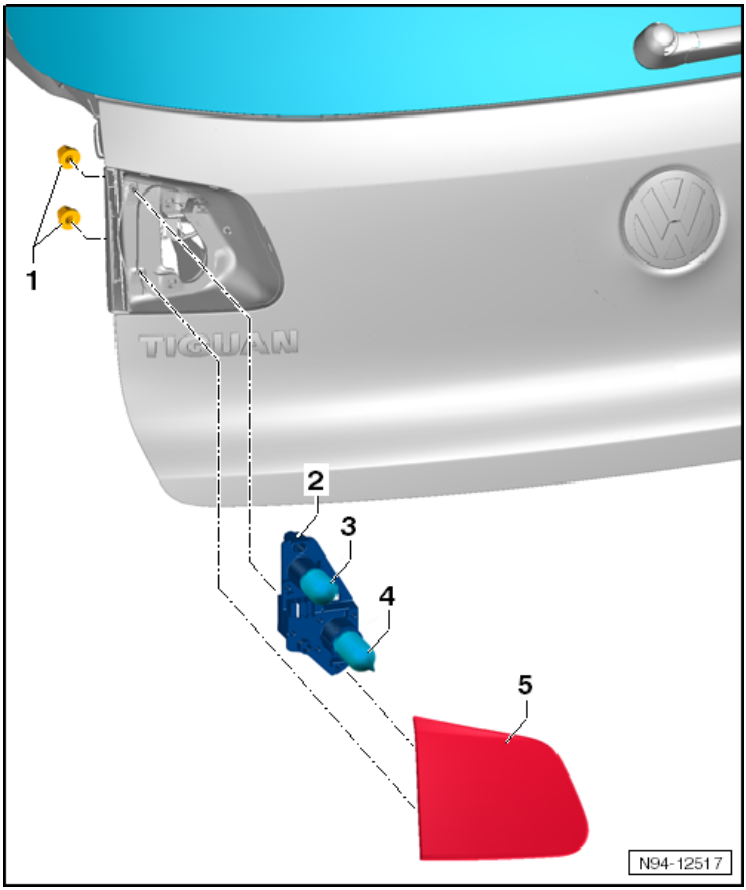
14 - Bolts: Headlamp to Carrier

- ☐ 4 Nm
- ☐ 6 x 14

15 - Left Headlamp Power Output Stage -J667- or Right Headlamp Power Output Stage -J668-

16 - Left LED Parking Lamp/DRL Module -L176- and Right LED Parking Lamp/DRL Module -L177-

Rear Lid Tail Lamps Overview



1 - Nut
- ☐ 3 Nm

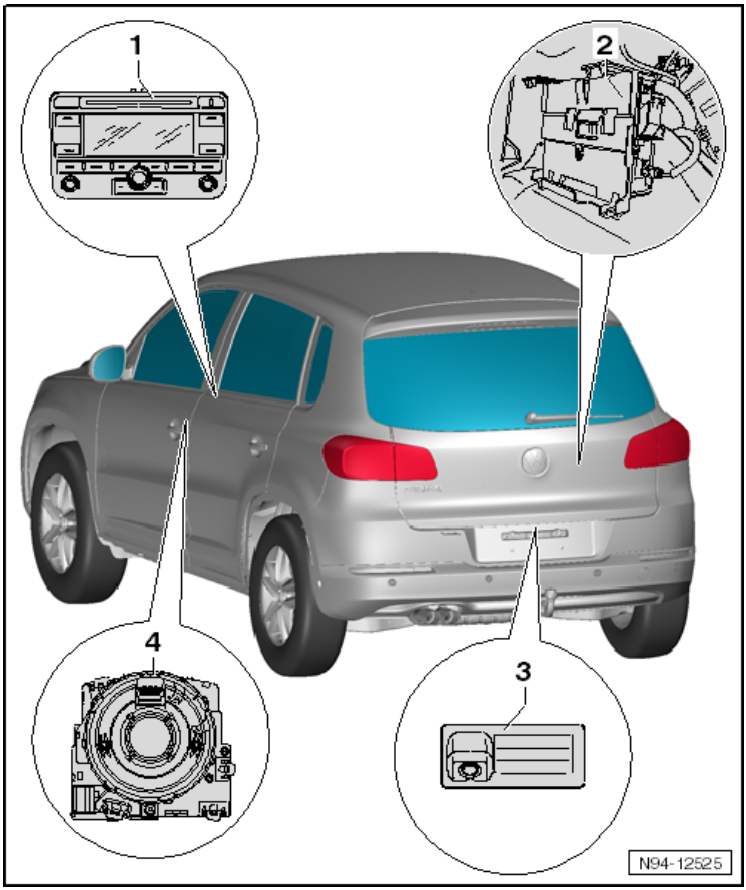
2 - Bolb Holder

3 - Right Tail Lamp -M2- and Left Tail Lamp -M4-

4 - Left Rear Fog Light -L46- and Right Rear Fog Light -L47-
- ☐ Not applicable to USA or Canada.

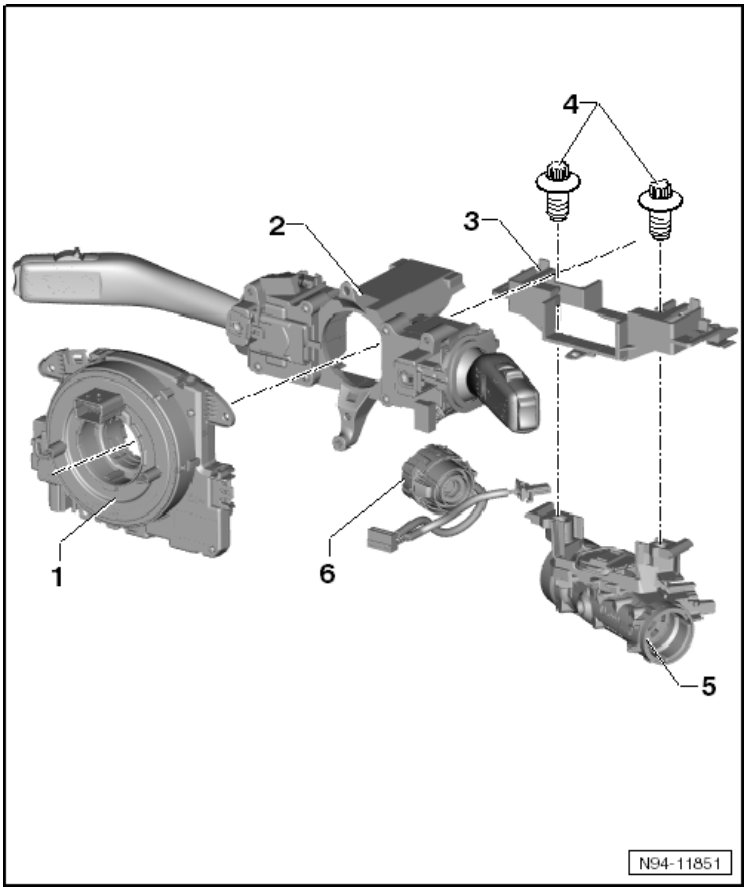
5 - Tail Lamp Housing In Rear Lid

Rear View Camera System Overview



1 - Radio/Navigation Display Control Module -J503-
2 - Rear View Camera System Control Module -J772-
3 - Rear View Camera -R189-
☐ Nuts: 6 Nm
4 - Steering Angle Sensor -G85-

Steering Column Switch, Without KESSY, Overview



1 - Steering Column Electronic Systems Control Module -J527-
- ☐ 1.5 Nm

2 - Steering Column Combination Switch -E595-

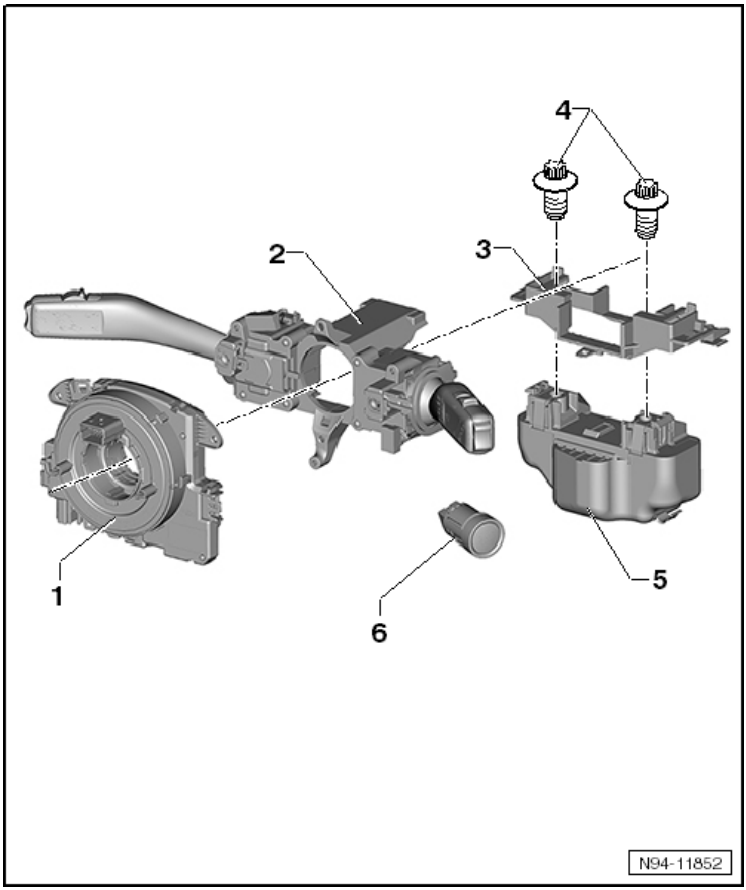
3 - Steering Column Switch Mount

4 - Shear Bolts
- ☐ 15 Nm
- ☐ M8 x 20

5 - Steering Lock Housing

6 - Ignition Switch and Lock Cylinder

Steering Column Switch, With KESSY, Overview



1 - Steering Column Electronic Systems Control Module -J527-
- ☐ 1.5 Nm

2 - Steering Column Combination Switch -E595-

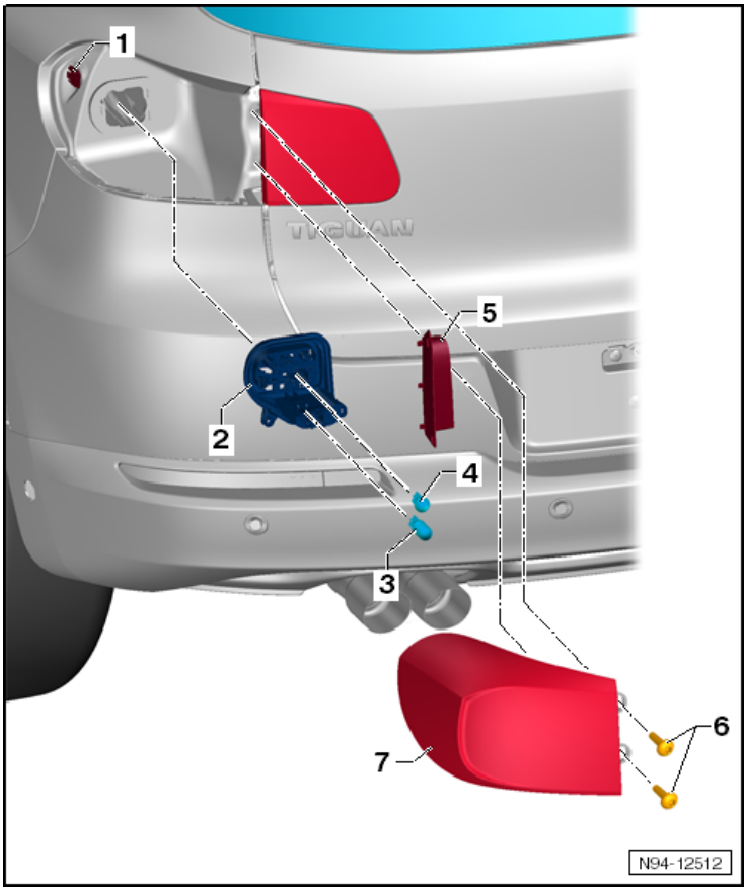
3 - Steering Column Switch Mount

4 - Shear Bolts
- ☐ 15 Nm
- ☐ M8 x 20

5 - Electronic Steering Column Lock Control Module -J764-

6 - Start System Button -E378-

Tail Lamps in Side Panel Overview



1 - Side Latch
2 - Bulb Holder
☐ 1.5 Nm
3 - Left Brake/Tail Light -M21- and Right Brake/Tail Light -M22-
4 - Left Rear Turn Signal Lamp -M6- and Right Rear Turn Signal Lamp -M8-
5 - Divider
6 - Screws
☐ 3 Nm
7 - Tail Lamp Housing In Side Panel

Interior Lights, Switches Tightening Specification

Component	Nm
Horns	20

Wiring Tightening Specifications

Component	Fastener size	Nm
Engine compartment E-box	M5	4
	M6	6
Engine compartment E-box central bolt		9
Instrument panel fuse panel		4
Towing recognition control module bolt		3.5