

Contents

00 - Technical data	1
1 Safety information	1
1.1 Safety information	1
2 Repair instructions	2
2.1 Repair instructions	2
3 Electrical components	3
3.1 Starting diagnosis	3
27 - Starter, current supply, CCS	7
1 Safety and repair instructions	7
1.1 Safety information	7
1.2 Repair instructions	7
2 Battery	8
2.1 Assembly overview - battery	8
2.2 Disconnecting and connecting battery	10
2.3 Removing and installing earth cable with battery monitor control unit J367	13
2.4 Removing and installing battery	15
2.5 Checking battery	17
2.6 Charging battery	17
3 Voltage converter	19
3.1 Assembly overview - voltage converter	19
3.2 Removing and installing voltage converter	19
4 Jump-start connection point	25
4.1 Assembly overview - jump-start connection point	25
90 - Gauges, instruments	26
1 Safety and repair instructions	26
1.1 Safety information	26
1.2 Repair instructions	26
2 Dash panel insert	27
2.1 Assembly overview - dash panel insert	27
2.2 Assembly overview - head-up display	27
2.3 Removing and installing dash panel insert with control unit in dash panel insert J285	29
2.4 Removing and installing control unit for head-up display	31
3 Horn	34
3.1 Assembly overview - horn	34
3.2 Removing and installing treble horn H2/bass horn H7	34
92 - Windscreen wash/wipe system	36
1 Safety and repair instructions	36
1.1 Safety information	36
1.2 Repair instructions	36
2 Windscreen wiper system	37
2.1 Overview of fitting locations - windscreen wiper system	37
2.2 Assembly overview - windscreen wiper system	37
2.3 Moving wipers to service position	39
2.4 Removing and installing wiper blade - vehicles without wiper with integrated washer jet	40
2.5 Removing and installing wiper blade - vehicles with wiper with integrated washer jet	41
2.6 Removing and installing wiper arm - vehicles without wiper with integrated washer jet	42
2.7 Removing and installing wiper arm - vehicles with wiper with integrated washer jet	44
2.8 Adjusting wiper arms	47
2.9 Removing and installing wiper motor V	49

2.10	Removing and installing rain and light sensor G397	50
3	Windscreen washer system	55
3.1	Assembly overview - windscreen washer system, vehicles without wiper with integrated washer jet	55
3.2	Assembly overview - windscreen washer system, vehicles with wiper with integrated washer jet	57
3.3	Removing and installing filler neck for washer fluid reservoir	59
3.4	Removing and installing washer fluid reservoir	59
3.5	Removing and installing windscreen washer fluid level sender	61
3.6	Removing and installing washer pump	62
3.7	Removing and installing windscreen washer pump control unit J1100 - vehicles with wiper with integrated washer jet	62
3.8	Removing and installing washer jets	64
3.9	Adjusting washer jets	64
4	Rear window wiper system	67
4.1	Overview of fitting locations - rear window wiper system	67
4.2	Assembly overview - rear window wiper system	67
4.3	Removing and installing wiper blade	68
4.4	Removing and installing wiper arm	69
4.5	Adjusting wiper arm	70
4.6	Removing and installing rear window wiper motor V12	71
5	Rear window washer system	73
5.1	Assembly overview - rear window washer system	73
5.2	Removing and installing rear window washer pump	73
6	Headlight washer system	75
6.1	Assembly overview - headlight washer system	75
6.2	Assembly overview - additional washer system	75
6.3	Removing and installing headlight washer system pump V11	76
6.4	Removing and installing washer jets	77
7	Washer fluid hoses	84
7.1	Repairing washer fluid hoses	84
94	Lights, bulbs, switches - exterior	85
1	Safety and repair instructions	85
1.1	Safety information	85
1.2	Repair instructions	85
2	Headlights	86
2.1	Assembly overview - LED headlight/matrix LED headlight	86
2.2	Assembly overview - digital matrix LED headlight	88
2.3	Assembly overview - headlight mounting	90
2.4	Removing and installing headlights	91
2.5	Removing and installing headlight mounting	93
2.6	Adjusting LED headlights/matrix LED headlights	94
2.7	Adjusting digital matrix LED headlights	104
2.8	Removing and installing LED module for daytime running light and side light L176/L177	118
2.9	Removing and installing output module 1 for LED headlight A27/A31 - LED headlights/matrix LED headlights	119
2.10	Removing and installing output module 1 for LED headlight A27/A31 - digital matrix LED headlights	121
2.11	Removing and installing control unit for projection modules in matrix headlights J1231 - digital matrix LED headlights	122
2.12	Removing and installing filter membrane	124
2.13	Adapting headlights for driving on the left side of the road	126
2.14	Adapting headlights for driving on the right side of the road	126
3	Lights in exterior mirror	127
3.1	Assembly overview - lights in exterior mirror, analogue exterior mirror	127

3.2	Assembly overview - lights in exterior mirror, digital exterior mirror	127
3.3	Removing and installing turn signal - analogue exterior mirror	128
3.4	Removing and installing turn signal - digital exterior mirror	129
4	Lights in exterior door handle	131
4.1	Assembly overview - lights in exterior door handle	131
4.2	Removing and installing exterior door handle illumination bulb	131
5	Lights in sill panel moulding	133
5.1	Assembly overview - entry light	133
6	Tail light clusters	135
6.1	Assembly overview - tail light cluster on body	135
6.2	Assembly overview - tail light cluster on rear lid	135
6.3	Removing and installing tail light cluster	137
6.4	Removing and installing rear fog light	138
6.5	Removing and installing tail light cluster on rear lid	139
6.6	Correcting installation position of tail light cluster	141
7	High-level brake light	143
7.1	Assembly overview - high-level brake light, e-tron	143
7.2	Assembly overview - high-level brake light, e-tron Sportback	143
7.3	Removing and installing high-level brake light bulb M25 - e-tron	145
7.4	Removing and installing high-level brake light bulb M25 - e-tron Sportback	145
8	Additional exterior lights	148
8.1	Removing and installing LED module for daytime running light and side light L405	148
9	Entry and start authorisation	150
9.1	Overview of fitting locations - entry and start authorisation system	150
9.2	Overview of fitting locations - keyless entry system	150
9.3	Assembly overview - exterior door handle for keyless entry system	152
9.4	Removing and installing contact sensor for exterior door handle	152
9.5	Removing and installing interior aerial 1 for entry and start system R138	154
9.6	Removing and installing front aerial for entry and start authorisation R376	154
9.7	Removing and installing luggage compartment aerial for entry and start system R137 ..	155
9.8	Removing and installing aerial for entry and start authorisation R200/R201	156
9.9	Removing and installing near field communication control unit 2 J1170	156
9.10	Alcohol interlock	157
10	Steering column switch module	173
10.1	Assembly overview - steering column switch module	173
10.2	Removing and installing steering column switch module	173
11	Automatic headlight range control	175
11.1	Assembly overview - automatic headlight range control	175
96 - Lights, bulbs, switches - interior		176
1	Safety and repair instructions	176
1.1	Safety information	176
1.2	Repair instructions	176
2	Lights	177
2.1	Overview of fitting locations - lights in dash panel	177
2.2	Overview of fitting locations - lights in front doors	179
2.3	Overview of fitting locations - lights in rear doors	181
2.4	Overview of fitting locations - background lighting in doors	183
2.5	Overview of fitting locations - lights in centre console	187
2.6	Overview of fitting locations - lights in seats and B-pillar	189
2.7	Overview of fitting locations - lights in luggage compartment	189
2.8	Overview of fitting locations - lights in roof trim	190
2.9	Removing and installing glove compartment light W6	192
2.10	Removing and installing footwell illumination bulb L151/L152	192



2.11	Removing and installing central locking SAFELOCK function warning lamp K133	193
2.12	Removing and installing front entry light W92/W93	193
2.13	Removing and installing rear entry light W83/W84	194
2.14	Removing and installing light for dash panel background lighting L292/L293	195
2.15	Removing and installing light for door background lighting W86/W87	196
2.16	Removing and installing light for front door contour lighting L248/L251/L252	197
2.17	Removing and installing exit warning lamp W111/W112/W113/W114	198
2.18	Removing and installing light 1 for rear door background lighting L201/L202	199
2.19	Removing and installing light for rear door contour lighting L253/L254	200
2.20	Removing and installing light for door storage compartment illumination L255/L256/L257/ L258	201
2.21	Removing and installing light for front centre console background lighting L193/L194	201
2.22	Removing and installing light for centre console contour lighting L308/L309	202
2.23	Removing and installing right centre armrest illumination bulb L228	203
2.24	Removing and installing rear footwell light W45/W46	204
2.25	Removing and installing luggage compartment light	205
2.26	Removing and installing rear lid light W51	206
2.27	Removing and installing illuminated vanity mirror W20/W14	206
3	Controls	208
3.1	Overview of fitting locations - controls in dash panel	208
3.2	Overview of fitting locations - controls in front doors	208
3.3	Overview of fitting locations - controls in rear doors	210
3.4	Overview of fitting locations - controls in centre console	210
3.5	Overview of fitting locations - controls in luggage compartment	211
3.6	Overview of fitting locations - controls in roof trim	212
3.7	Assembly overview - front interior light	214
3.8	Removing and installing light switch E1	215
3.9	Removing and installing steering column adjustment switch E167	215
3.10	Removing and installing centre switch module in dash panel EX22	218
3.11	Removing and installing switch module 1 in centre console EX23	219
3.12	Removing and installing glove compartment light switch E26	220
3.13	Removing and installing exterior mirror adjuster EX11	221
3.14	Removing and installing operating unit for window regulator in driver door EX36	221
3.15	Removing and installing window regulator switch in front passenger door EX27	222
3.16	Removing and installing interior locking button for central locking system E308/E309/E717/ E718	223
3.17	Removing and installing operating unit for memory settings E464/E465	223
3.18	Removing and installing rear lid remote release button E233	224
3.19	Removing and installing button for deactivating interior monitoring and vehicle inclination sensor E616	225
3.20	Removing and installing operating unit in rear door EX60/EX61	225
3.21	Removing and installing parking brake button EX12	226
3.22	Removing and installing entry and start authorisation button E408	227
3.23	Removing and installing rear lid handle release button E234	227
3.24	Removing and installing operating unit for rear lid control EX58	229
3.25	Removing and installing rear lid warning buzzer H32	230
3.26	Removing and installing sunroof button E325	231
3.27	Removing and installing front interior light/reading light	231
3.28	Dismantling and assembling front interior light/reading light	233
3.29	Removing and installing rear interior light/reading light	237
3.30	Removing and installing garage door operating unit E284	238
4	Anti-theft alarm system	239
4.1	Assembly overview - interior monitoring	239
4.2	Removing and installing alarm horn H12 - left-hand drive vehicles	240
4.3	Removing and installing alarm horn H12 - right-hand drive vehicles	240
4.4	Removing and installing anti-theft alarm sensor G578	241

5	Cigarette lighter, socket	243
5.1	Assembly overview - cigarette lighter, 12 V socket	243
5.2	Removing and installing cigarette lighter U1/12 V socket U5	243
5.3	Removing and installing cigarette lighter illumination bulb/socket illumination bulb	246
5.4	Removing and installing rear cigarette lighter U9	246
5.5	Removing and installing 12 V socket 3 U19	248
5.6	Renewing 12 V socket 3 U19	249
97	- Wiring	252
1	Safety and repair instructions	252
1.1	Safety information	252
1.2	Repair instructions	252
2	Relay carriers, fuse carriers, electronics boxes	253
2.1	Assembly overview - relay carriers, fuse carriers, electronics boxes	253
2.2	Removing and installing electronics box	258
2.3	Removing and installing fuse holder F SF	259
2.4	Removing and installing relay and fuse carriers	260
2.5	Removing and installing fuse holder	269
2.6	Removing and installing wiring junction TV1	270
2.7	Removing and installing terminal 30 wiring junction TV2	271
3	Control units	273
3.1	Overview of fitting locations - control units	273
3.2	Assembly overview - data bus diagnostic interface	273
3.3	Removing and installing onboard supply control unit J519 - left-hand drive vehicles	274
3.4	Removing and installing onboard supply control unit J519 - right-hand drive vehicles	277
3.5	Removing and installing garage door operation control unit	279
3.6	Removing and installing data bus diagnostic interface J533	280
4	Connectors	282
4.1	Overview of fitting locations - connectors	282
4.2	Unplugging door coupling point	282
4.3	Repairing electrical wiring harnesses and electrical connectors	283
5	Releasing and dismantling connector housings	284
5.1	Releasing and dismantling connector housings	284
6	Cleaning contact surfaces	285
6.1	Cleaning contact surfaces	285
7	Repairing aerial wires	286
7.1	Repairing aerial wires	286
8	Fibre optic cables	287
8.1	Fibre optic cables	287