

Contents

00 - Technical data	1
1 Safety information	1
1.1 Safety precautions when working on vehicles with start/stop system	1
1.2 Safety precautions when using testers and measuring instruments during a road test	1
1.3 Safety information for handling gas discharge bulbs	1
1.4 Notes on use and safety for LED headlights and Audi laser lights	2
2 Repair instructions	3
2.1 Rules for cleanliness	3
2.2 General notes	3
2.3 Contact corrosion	3
2.4 ESD (electrostatic discharge) workplace	4
2.5 Routing and attachment of pipes, hoses and wiring	4
2.6 Identification plates	4
2.7 Use of impact wrenches	4
3 Battery	6
3.1 Battery - general notes	6
3.2 Battery types	6
27 - Starter, current supply, CCS	7
1 Battery	7
1.1 Assembly overview - battery	7
1.2 Disconnecting and connecting battery	18
1.3 Removing and installing earth cable with battery monitor control unit J367	24
1.4 Removing and installing battery	26
1.5 Removing and installing protective housing	43
1.6 Removing and installing battery tray	46
1.7 Inspecting and classifying battery	47
1.8 Charging battery	50
1.9 Removing and installing battery cut-off relay/battery isolation igniter	51
2 Voltage converter	52
2.1 Assembly overview - voltage converter	52
2.2 Removing and installing voltage converter (48 V/12 V) A7	53
3 Jump-start connection point	55
3.1 Assembly overview - jump-start connection point	55
4 Alternator	56
4.1 Assembly overview - alternator	56
4.2 Removing and installing alternator	64
4.3 Checking alternator	80
5 Starter	82
5.1 Assembly overview - starter	82
5.2 Removing and installing starter	83
6 Adaptive cruise control	91
6.1 Overview of fitting locations - adaptive cruise control	91
6.2 Removing and installing adaptive cruise control unit	93
90 - Gauges, instruments	97
1 Dash panel insert	97
1.1 Assembly overview - dash panel insert	97
1.2 Assembly overview - head-up display	99
1.3 Removing and installing dash panel insert with control unit in dash panel insert J285	101
1.4 Removing and installing control unit for head-up display	105
1.5 Calibrating control unit for head-up display	109



2	Horn	111
2.1	Assembly overview - horn	111
2.2	Removing and installing treble horn H2 / bass horn H7	111
92	Windscreen wash/wipe system	113
1	Windscreen wiper system	113
1.1	Overview of fitting locations - windscreen wiper system	113
1.2	Assembly overview - windscreen wiper system	114
1.3	Moving wipers to service position	116
1.4	Removing and installing wiper blade	117
1.5	Removing and installing wiper arms	117
1.6	Adjusting wiper arms	119
1.7	Removing and installing wiper motor V	120
1.8	Removing and installing rain and light sensor	120
2	Windscreen washer system	125
2.1	Assembly overview - windscreen washer system	125
2.2	Removing and installing washer fluid reservoir	126
2.3	Removing and installing windscreen washer fluid level sender	127
2.4	Removing and installing washer pump	128
2.5	Removing and installing washer jets	128
2.6	Adjusting washer jets	129
3	Headlight washer system	130
3.1	Assembly overview - headlight washer system	130
3.2	Removing and installing headlight washer system pump V11	131
3.3	Removing and installing washer jets	131
3.4	Adjusting washer jets	133
94	Lights, bulbs, switches - exterior	134
1	Headlights	134
1.1	Assembly overview - headlight	134
1.2	Removing and installing headlights	144
1.3	Adjusting headlights	150
1.4	Removing and installing front turn signal bulb M5 / M7	173
1.5	Removing and installing fog light bulb L22 / L23	175
1.6	Removing and installing gas discharge bulb L13 / L14	175
1.7	Removing and installing output module for headlight	176
1.8	Installing repair kit for headlight housing	182
1.9	Adapting headlights for driving on the left side of the road	182
1.10	Adapting headlights for driving on the right side of the road	182
2	Daytime running lights	183
2.1	Removing and installing LED module for daytime running light and side light L176 / L177	183
3	Side marker lights	185
3.1	Assembly overview - side marker lights	185
4	Lights in exterior mirror	186
4.1	Assembly overview - lights in exterior mirror	186
4.2	Removing and installing turn signal	187
5	Lights in exterior door handle	188
5.1	Assembly overview - lights in exterior door handle	188
5.2	Removing and installing exterior door handle illumination bulb	188
6	Lights in sill panel moulding	190
6.1	Assembly overview - entry light	190
7	Tail light clusters	191
7.1	Assembly overview - tail light cluster on body	191
7.2	Assembly overview - tail light cluster on rear lid	191

7.3	Removing and installing tail light cluster	192
7.4	Removing and installing tail light cluster on rear lid	194
7.5	Correcting installation position of tail light cluster	197
8	High-level brake light	200
8.1	Assembly overview - high-level brake light	200
8.2	Removing and installing high-level brake light bulb	201
9	Number plate light	205
9.1	Removing and installing number plate light X4 / X5	205
10	Entry and start authorisation	206
10.1	Overview of fitting locations - entry and start authorisation system	206
10.2	Overview of fitting locations - keyless entry system	206
10.3	Assembly overview - exterior door handle for keyless entry system	207
10.4	Removing and installing front exterior door handle switches	208
10.5	Removing and installing rear exterior door handle switches	209
10.6	Removing and installing aerial for entry and start system	210
10.7	Alcohol interlock	211
11	Steering column switch module	222
11.1	Assembly overview - steering column switch module	222
11.2	Removing and installing steering column switch module	222
12	Parking aid	224
12.1	Assembly overview - parking aid	224
12.2	Removing and installing front parking aid warning buzzer H22	226
12.3	Removing and installing rear parking aid warning buzzer H15	226
12.4	Removing and installing front parking aid sender	228
12.5	Removing and installing rear parking aid sender	229
13	Park assist steering	231
13.1	Assembly overview - park assist steering	231
13.2	Removing and installing front sender	232
13.3	Removing and installing rear sender	232
96	Lights, bulbs, switches - interior	234
1	Lights	235
1.1	Overview of fitting locations - lights in dash panel	236
1.2	Overview of fitting locations - lights in front doors	237
1.3	Overview of fitting locations - lights in rear doors	237
1.4	Overview of fitting locations - background lighting in doors	238
1.5	Overview of fitting locations - lights in side trim	242
1.6	Overview of fitting locations - lights in centre console	242
1.7	Overview of fitting locations - lights in luggage compartment	244
1.8	Overview of fitting locations - lights in roof trim	245
1.9	Removing and installing glove compartment light W6	246
1.10	Renewing bulb for glove compartment light W6	246
1.11	Removing and installing front footwell light K268 / K269	247
1.12	Removing and installing central locking SAFELOCK function warning lamp K133	247
1.13	Removing and installing light for interior door handle illumination L219 / L220	247
1.14	Removing and installing entry light W92 / W93	248
1.15	Removing and installing light for rear interior door handle illumination	248
1.16	Removing and installing rear entry light	248
1.17	Removing and installing front door background lighting bulb L164 / L165	249
1.18	Removing and installing door storage compartment illumination bulb L160 / L161	251
1.19	Removing and installing rear door background lighting bulb	251
1.20	Removing and installing light for background lighting in side trim	254
1.21	Removing and installing light for rear door storage compartment illumination L257 / L258	256
1.22	Removing and installing light for cup holder background lighting	257
1.23	Removing and installing light for centre console background lighting L193 / L194	258



1.24	Removing and installing selector lever position display Y5	259
1.25	Removing and installing rear footwell light W45 / W46	259
1.26	Removing and installing luggage compartment light	260
1.27	Removing and installing illuminated vanity mirror W20 / W14	261
2	Controls	263
2.1	Overview of fitting locations - controls in dash panel	264
2.2	Overview of fitting locations - controls in front doors	266
2.3	Overview of fitting locations - controls in rear doors	268
2.4	Overview of fitting locations - controls in centre console	268
2.5	Overview of fitting locations - controls in luggage compartment	270
2.6	Overview of fitting locations - controls in roof trim	271
2.7	Assembly overview - front roof module WX3	273
2.8	Removing and installing light switch E1	274
2.9	Removing and installing buttons/switches in dash panel	275
2.10	Removing and installing hazard warning lights button E229	276
2.11	Removing and installing valet parking button E536	276
2.12	Removing and installing glove compartment light switch E26	277
2.13	Removing and installing mirror adjustment switch E43 / E168	277
2.14	Removing and installing operating unit for window regulator in driver door E512	277
2.15	Removing and installing window regulator switch in front passenger door E107	278
2.16	Removing and installing driver side interior locking button for central locking system E308	278
2.17	Removing and installing operating unit for memory settings E464 / E465	278
2.18	Removing and installing rear lid remote release button E233	279
2.19	Removing and installing button for deactivating interior monitoring and vehicle inclination sensor E616	280
2.20	Removing and installing rear window regulator button in rear door	280
2.21	Removing and installing rear interior locking switch E273 / E274	280
2.22	Removing and installing entry and start authorisation button E408	281
2.23	Removing and installing electromechanical parking brake button E540 / auto hold button E538	281
2.24	Removing and installing convertible roof actuation button E137	282
2.25	Removing and installing button for electric swivelling towing bracket E474	282
2.26	Removing and installing button for convertible roof box operation E896	283
2.27	Removing and installing rear lid handle release button E234	283
2.28	Removing and installing button to close rear lid in luggage compartment E406	284
2.29	Removing and installing rear lid warning buzzer H32	285
2.30	Removing and installing sunroof button E325	285
2.31	Removing and installing front interior light/reading light	286
2.32	Removing and installing rear interior light/reading light	289
2.33	Removing and installing garage door operating unit E284	290
3	Anti-theft alarm system	292
3.1	Assembly overview - interior monitoring	292
3.2	Removing and installing alarm horn H12	293
3.3	Removing and installing anti-theft alarm sensor G578	293
4	Lane change assist	296
4.1	Assembly overview - lane change assist	296
4.2	Removing and installing lane change assist warning lamp in exterior mirror K233 / K234	297
4.3	Removing and installing lane change assist control unit J769 / J770	297
4.4	Calibrating lane change assist	297
5	Front camera for driver assist systems	305
5.1	Overview of fitting locations - front camera for driver assist systems	305
5.2	Removing and installing front camera for driver assist systems	306
6	Towing bracket	311
6.1	Trailer socket	311

7	Cigarette lighter, socket	312
7.1	Assembly overview - cigarette lighter, 12 V socket	312
7.2	Removing and installing cigarette lighter U1	314
7.3	Removing and installing cigarette lighter illumination bulb L28	315
7.4	Removing and installing socket illumination bulb L42	316
7.5	Removing and installing 12 V socket U5	316
7.6	Removing and installing 12 V socket 2 U18 / 12 V socket 3 U19	318
7.7	Removing and installing 12 V socket 4 U20 / 12 V socket 5 U26	319
7.8	Renewing 12 V socket 4 U20 / 12 V socket 5 U26	319
97 - Wiring	322
1	Relay carriers, fuse carriers, electronics boxes	322
1.1	Overview of fitting locations - relay carriers, fuse carriers, electronics boxes	322
1.2	Assembly overview - main fuse carrier	333
1.3	Removing and installing relay and fuse carrier (front left)	334
1.4	Removing and installing suppression capacitor C24	338
1.5	Removing and installing wiring junction	338
1.6	Removing and installing fuse holder C SC	345
1.7	Removing and installing relay and fuse holders in luggage compartment (left-side)	346
1.8	Removing and installing main fuse carrier on battery	349
2	Control units	353
2.1	Overview of fitting locations - control units	353
2.2	Assembly overview - data bus diagnostic interface	354
2.3	Removing and installing onboard supply control unit J519	355
2.4	Removing and installing garage door operation control unit	357
2.5	Removing and installing data bus diagnostic interface J533	358
3	Connectors	360
3.1	Overview of fitting locations - connectors	360
3.2	Unplugging door coupling point	361
3.3	Removing and installing coupling station at right A-pillar	361
3.4	Repairing electrical wiring harnesses and electrical connectors	361
4	Releasing and dismantling connector housings	362
5	Cleaning contact surfaces	363
6	Repairing aerial wires	364
7	Fibre optic cables	365
8	Vehicle diagnostic, testing and information systems	366