



Contents

00 - Technical data	1
1 Safety information and repair notes	1
1.1 Safety information	1
1.2 Repair instructions	1
2 Electrical components	2
2.1 Access to diagnoses	2
3 Repair instructions	3
3.1 General information for use of adhesives	3
3.2 Bonding surfaces for self-adhesive components	4
50 - Body - front	6
1 Safety information and repair notes	6
1.1 Safety information	6
1.2 Repair instructions	6
2 Lock carrier	7
2.1 Assembly overview – lock carrier	7
2.2 Removing and installing lock carrier	7
2.3 Removing and installing anti-vibration brace	9
2.4 Removing and installing lock carrier support	9
3 Wings	11
3.1 Assembly overview ? wing	11
3.2 Removing and installing wing	11
3.3 Removing and installing end plate	13
3.4 Removing and installing wing bracket	14
3.5 Removing and installing wing bracket	15
3.6 Removing and installing bracket for deformation element	15
4 Bulkhead	17
4.1 Assembly overview – bulkhead	17
4.2 Assembly overview ? plenum chamber cover	17
4.3 Removing and installing bulkhead	18
4.4 Removing and installing plenum chamber cover	20
55 - Bonnet, rear lid	22
1 Safety information and repair notes	22
1.1 Safety information	22
1.2 Repair instructions	22
2 Bonnet	23
2.1 Assembly overview – bonnet	23
2.2 Assembly overview – Bowden cable	25
2.3 Removing and installing bonnet	26
2.4 Adjusting bonnet	26
2.5 Adjusting hinges	27
2.6 Adjusting striker pin	28
2.7 Adjusting adjusting buffers	29
2.8 Adjusting bonnet lock	30
2.9 Removing and installing bonnet lock	31
2.10 Removing and installing bonnet lock operating lever	32
2.11 Removing and installing striker pin	33
2.12 Removing and installing hinge	33
2.13 Removing and installing Bowden cable	34
2.14 Removing and installing bonnet stay	37
3 Rear lid	38



3.1	Assembly overview – rear lid	38
3.2	Assembly overview – electrically operated rear lid	41
3.3	Removing and installing rear lid	43
3.4	Adjusting rear lid	44
3.5	Adjust adjustment buffer at bottom	46
3.6	Adjusting adjusting buffer at side	47
3.7	Adjusting striker pin	48
3.8	Removing and installing power latching for rear lid [VX16]	48
3.9	Removing and installing Bowden cable for power latching system	49
3.10	Removing and installing rear lid handle [EX37]	51
3.11	Removing and installing adapter for rear lid handle	52
3.12	Removing and installing hinge	53
3.13	Removing and installing adjusting buffer at bottom	55
3.14	Removing and installing adjusting buffer at side	55
3.15	Removing and installing stop for adjusting buffer	56
3.16	Removing and installing striker pin	56
3.17	Removing and installing rear lid seal	57
3.18	Removing and installing gas strut	59
3.19	Removing and installing rear lid drive unit [VX69]/[VX77]	60
3.20	Removing and installing rear lid power opening sender [G750]/[G760]	61
3.21	Rear lid control unit [J605]	63
3.22	Rear lid lock unit [VX25]	64
3.23	Rear lid power opening control unit [J938]	65
3.24	Preparing gas strut for disposal	67
3.25	Preparing rear lid drive unit [VX69]/rear lid drive unit 2 [VX77] for disposal	68
3.26	Removing and installing ball stud	68
4	Charging flap unit	71
4.1	Assembly overview – charging flap unit	71
4.2	Removing and installing charging flap unit	71
4.3	Removing and installing charging flap	73
4.4	Removing and installing LED module for charging socket 1 [L263]	74
57	Front doors, door components, central locking	76
1	Safety information and repair notes	76
1.1	Repair instructions	76
1.2	Safety information	76
2	Door	77
2.1	Assembly overview – door	77
2.2	Removing and installing inner door seal	79
2.3	Removing and installing outer door seal	81
2.4	Removing and installing door	85
2.5	Adjusting door	87
2.6	Adjusting striker pin	89
2.7	Removing and installing door hinge	90
2.8	Removing and installing door arrester	91
3	Door components	93
3.1	Assembly overview – door components	93
3.2	Assembly overview – assembly carrier	93
3.3	Assembly overview – door handle and door lock	94
3.4	Removing and installing window regulator motor [V147]/[V148]	96
3.5	Removing and installing striker pin	97
3.6	Removing and installing exterior door handle [EX6]/[EX7]	97
3.7	Dismantling and assembling exterior door handle [EX6]/[EX7]	99
3.8	Removing and installing mounting bracket	102
3.9	Removing and installing lock unit [VX21]/[VX22]	103



3.10	Removing and installing assembly carrier	104
3.11	Removing and installing window channel	106
3.12	Removing and installing inner window slot seal	107
3.13	Removing and installing window slot outer seal	109
3.14	Removing and installing lock cylinder	110
3.15	Removing and installing cap on door handle	111
3.16	Removing and installing Bowden cable for exterior door handle	112
3.17	Removing and installing Bowden cable for interior door handle	112
4	Central locking	114
4.1	Overview of fitting locations – central locking system	114
4.2	Removing and installing door control unit [J386]/[J387]	116
4.3	Removing and installing rear door control unit [J926]/[J927]	117
4.4	Removing and installing ignition key battery	118
4.5	Removing and installing actuator for high-voltage charging flap lock [F496]	118
58	Rear doors, door components	120
1	Safety information and repair notes	120
1.1	Safety information	120
1.2	Repair instructions	120
2	Door	121
2.1	Assembly overview – door	121
2.2	Removing and installing door	123
2.3	Adjusting door	125
2.4	Adjusting striker pin	127
2.5	Removing and installing door hinge	128
2.6	Removing and installing door arrester	129
2.7	Removing and installing outer door seal	130
2.8	Removing and installing inner door seal	134
3	Door components	136
3.1	Assembly overview – door components	136
3.2	Assembly overview – assembly carrier	136
3.3	Assembly overview – door handle and door lock	137
3.4	Removing and installing rear window regulator motor [V471]/[V472]	138
3.5	Removing and installing striker pin	140
3.6	Removing and installing rear exterior door handle [EX8]/[EX9]	140
3.7	Dismantling and assembling rear exterior door handle [EX8]/[EX9]	142
3.8	Removing and installing mounting bracket	145
3.9	Removing and installing rear door lock unit [VX83]/[VX84]	146
3.10	Removing and installing assembly carrier	147
3.11	Removing and installing window channel	148
3.12	Removing and installing window slot outer seal	150
3.13	Removing and installing inner window slot seal	152
3.14	Removing and installing Bowden cable for exterior door handle	153
3.15	Removing and installing Bowden cable for interior door handle	154
60	Sunroof	155
1	Safety information and repair notes	155
1.1	Safety information	155
1.2	Repair instructions	155
2	Sliding sunroof	156
2.1	Assembly overview – glass panel	156
2.2	Assembly overview - sun blind	156
2.3	Removing and installing glass panel	158
2.4	Removing and installing frame with sun blind	164
2.5	Removing and installing sliding sunroof adjustment control unit [J245]	164



2.6	Removing and installing sun blind	165
2.7	Adapting sliding sunroof adjustment control unit [J245]	167
2.8	Removing and installing sunroof roller blind motor [V260]	167
2.9	Removing and installing sun blind cables	168
2.10	Manual operation	169
2.11	Minimum drying time for bonded glass panels	169
2.12	Installations instructions for bonded glass panels	170
3	Water drain hoses	172
3.1	Assembly overview - water drain hoses	172
3.2	Cleaning water drain hoses	172
3.3	Removing and installing water drain hoses	173
63	Bumpers	175
1	Safety information and repair notes	175
1.1	Safety information	175
1.2	Repair instructions	175
2	Bumper, front	176
2.1	Assembly overview – bumper cover	176
2.2	Assembly overview - bumper carrier	178
2.3	Assembly overview - add-on parts	179
2.4	Removing and installing bumper cover	181
2.5	Repairing bumper cover	182
2.6	Moving bumper carrier to and back from service position	183
2.7	Removing and installing bumper carrier	184
2.8	Removing and installing radar sensor cover	185
2.9	Removing and installing centre air intake grille	187
2.10	Removing and installing trim for side air intake grille	188
2.11	Removing and installing air duct	188
2.12	Removing and installing closure section of bumper cover	189
2.13	Removing and installing bottom end plate of bumper cover	190
2.14	Removing and installing bottom end plate of bumper cover, GTX	190
2.15	Removing and installing reinforcement of bumper cover	191
2.16	Removing and installing reinforcement of bumper cover, GTX	192
2.17	Removing and installing front spoiler of bumper cover	193
2.18	Removing and installing front spoiler of bumper cover, GTX	194
2.19	Removing and installing spoiler strip	195
2.20	Removing and installing cover section for bumper cover	195
2.21	Removing and installing trim	196
2.22	Removing and installing trim strip	197
2.23	Installing holder for park assist steering sender	197
2.24	Removing and installing towing eye cap	200
2.25	Removing and installing side marker reflector	200
2.26	Removing and installing number plate carrier, version 1	202
2.27	Removing and installing number plate carrier, version 2	203
3	Bumper, rear	205
3.1	Assembly overview – bumper cover	205
3.2	Assembly overview - bumper carrier	205
3.3	Assembly overview - attachments	206
3.4	Removing and installing bumper cover	208
3.5	Repairing bumper cover	211
3.6	Removing and installing bumper carrier	211
3.7	Removing and installing base plate for bumper cover	212
3.8	Removing and installing base plate for bumper cover, GTX	212
3.9	Removing and installing top section of bumper cover	213
3.10	Removing and installing bottom section of bumper cover	214



3.11	Removing and installing bumper cover trim	214
3.12	Installing holder for park assist steering sender	215
3.13	Installing number plate	217
3.14	Removing and installing towing eye cap	218
3.15	Removing and installing towing eye cap, GTX	219
3.16	Removing and installing forced ventilation for passenger compartment	219
3.17	Checking forced ventilation for passenger compartment	220
64	- Glazing	221
1	Safety information and repair notes	221
1.1	Safety information	221
1.2	Repair instructions	221
2	Repair notes	222
2.1	Minimum drying times for bonded windows	222
2.2	Repairing windows	222
2.3	Installation instructions for bonded windows	222
2.4	Preparing old undamaged windows for installing	224
2.5	Preparing new windows for installing	225
2.6	Preparing body flange for installing	226
2.7	Removing broken window	228
2.8	Cleaning off excess adhesive	229
3	Windscreen	230
3.1	Assembly overview – windscreen	230
3.2	Removing and installing windscreen	230
3.3	Removing broken windscreen	236
4	Rear windscreen	237
4.1	Assembly overview – rear window	237
4.2	Removing and installing rear window	237
4.3	Removing broken rear window	240
5	Side windows	241
5.1	Assembly overview - rear side windows	241
5.2	Removing and installing rear side window	241
5.3	Removing broken rear side window	244
6	Door windows	245
6.1	Assembly overview - front door window	245
6.2	Assembly overview ? fixed front door window	245
6.3	Assembly overview - rear door window	246
6.4	Assembly overview – fixed rear door window	247
6.5	Removing and installing front door window	248
6.6	Removing and installing rear door window	251
6.7	Removing and installing fixed front door window	253
6.8	Removing and installing fixed rear door window	254
66	- Exterior equipment	257
1	Safety information and repair notes	257
1.1	Safety information	257
1.2	Repair instructions	257
2	Spoiler	258
2.1	Assembly overview – spoiler	258
2.2	Removing and installing side spoiler	258
2.3	Removing and installing spoiler trim	260
2.4	Removing and installing spoiler trim carrier	261
3	Mouldings, trims, extensions	264
3.1	Assembly overview - covers	264
3.2	Assembly overview – step moulding	264



3.3	Assembly overview - side member trim	265
3.4	Assembly overview – water deflector	266
3.5	Assembly overview ? C-pillar trim	267
3.6	Assembly overview - wheel arch trims	268
3.7	Removing and installing step moulding	270
3.8	Removing and installing side member trim	271
3.9	Removing and installing water deflector	273
3.10	Removing and installing retaining strip	273
3.11	Removing and installing A-pillar trim	274
3.12	Removing and installing B-pillar trim on door	275
3.13	Removing and installing C-pillar trim	278
3.14	Removing and installing front wheel arch trim	280
3.15	Removing and installing wing cover	282
3.16	Removing and installing rear wheel cover	283
3.17	Removing and installing trim cover for front door	284
3.18	Removing and installing trim cover for rear door	285
3.19	Removing and installing trim cover for rear door, GTX	287
4	Underbody cladding	289
4.1	Assembly overview – underbody cladding, 55, 62 kWh	289
4.2	Assembly overview – underbody cladding, 82 kWh	291
4.3	Assembly overview – underbody cladding, 82 kWh, GTX	293
4.4	Removing and installing high-voltage battery skid plate, 55, 62 kWh	295
4.5	Removing and installing high-voltage battery skid plate, 82 kWh	297
4.6	Removing and installing front underbody cladding	298
4.7	Removing and installing side underbody cladding, 55 kWh, 62 kWh	299
4.8	Removing and installing side underbody cladding, 82 kWh	300
4.9	Removing and installing centre underbody cladding	302
4.10	Removing and installing rear underbody cladding	302
4.11	Removing and installing skid plate	303
4.12	Removing and installing underbody towing eye	304
4.13	Removing and installing power unit skid plate	305
4.14	Removing and installing power unit skid plate	306
4.15	Removing and installing underbody cladding, rear centre	306
5	Roof moulding and roof railing	308
5.1	Assembly overview ? roof railing	308
5.2	Assembly overview ? roof trim strip	308
5.3	Removing and installing roof railing	309
5.4	Removing and installing roof trim strip	310
6	Exterior mirror	312
6.1	Assembly overview – exterior mirror	312
6.2	Removing and installing exterior mirror [VX4]/[VX5]	314
6.3	Removing and installing mirror glass	315
6.4	Removing and installing mirror adjustment unit	317
6.5	Removing and installing upper mirror cover	317
6.6	Removing and installing lower mirror cover	318
6.7	Removing and installing mirror frame	319
7	Wheel housing liner	321
7.1	Assembly overview – front wheel housing liner	321
7.2	Assembly overview – rear wheel housing liner	321
7.3	Removing and installing front wheel housing liner	322
7.4	Removing and installing rear wheel housing liner	324
7.5	Removing and installing side member trim	325
8	Lettering and emblems	326
8.1	Assembly overview – lettering and badges	326
8.2	Removing and installing front badge	326



8.3	Removing and installing badge at rear	327
8.4	Removing and installing lettering at rear	328
8.5	Renewing lettering and badges on sides	329
9	Towing bracket	331
9.1	Removing and installing trailer detector control unit [J345]	331
9.2	Hinged towing bracket [VX15]	331
9.3	Towing bracket with mounting for trailer coupling ball head	334