



Contents

00 - Technical data	1
1 Repair instructions	1
1.1 General repair instructions	1
1.2 Notes on repair of CAN bus wiring	1
91 - Communication	2
1 Infotainment system	2
1.1 Removing and installing magnetic field sender for compass	2
2 Sound system	3
2.1 Overview - Sound system	3
2.2 Overview of fitting locations – sound system	9
2.3 Removing and installing digital sound package control unit/amplifier	9
2.4 Removing and installing rear treble loudspeakers R14 / R16	10
2.5 Removing and installing front treble loudspeakers R20 / R22	11
2.6 Removing and installing rear bass loudspeakers R15 / R17	12
2.7 Removing and installing front bass loudspeakers R21 / R23	13
2.8 Removing and installing subwoofer R211	13
2.9 Connector pin assignment	14
3 Aerial systems	18
3.1 Overview - aerial systems	18
3.2 Overview of fitting locations – aerial systems	18
3.3 Removing and installing frequency modulation (FM) frequency filter R178 / R179	19
3.4 Removing and installing aerial amplifier	20
3.5 Removing and installing roof aerial RX5	21
3.6 Removing and installing aerials for vehicle location system	22
4 Radio	24
4.1 Overview - Radio	24
4.2 Overview of fitting locations – radio	42
4.3 Assembly overview - radio	44
4.4 Removing and installing radio	44
4.5 Connector pin assignment	46
5 Telephone system	66
5.1 Components of telephone system	66
5.2 Overview of fitting locations – telephone system	71
5.3 Removing and installing telephone microphone R38	73
5.4 Removing and installing telephone bracket R126	74
5.5 Removing and installing telephone transmitter and receiver unit	75
5.6 Removing and installing mobile telephone operating electronics control unit J412 , UMI	76
5.7 Removing and installing operating unit for preparation for mobile phone	79
5.8 Connector pin assignment	80
6 Navigation system	85
6.1 Overview - navigation system	85
6.2 Overview of fitting locations – navigation system	93
6.3 Connector pin assignment	94
6.4 Removing and installing navigation system	101
6.5 Removing and installing control unit for vehicle location system	103
7 Reversing camera system	104
7.1 Components of reversing camera system	104
7.2 Overview of fitting locations – reversing camera system	104
7.3 Removing and installing reversing camera R189	105
8 Multifunction steering wheel	107
8.1 Layout - multi-function steering wheel	107



8.2	Overview - multifunction steering wheel	107
8.3	Removing and installing steering wheel multifunction buttons E441 / E440	108
8.4	Removing and installing Tiptronic switch in steering wheel E439 / E438	109
9	Connection for external multimedia devices	111
9.1	Overview - connection for external multimedia devices	111
9.2	Connectors, connection for external multimedia devices	117
9.3	Removing and installing connection for external audio sources R199	121
10	Mobile online services	130
10.1	Overview – Mobile Online Services	130
10.2	Overview of fitting locations - mobile online services	131
10.3	Connectors of control unit for emergency call module and communication unit J949	131
10.4	Removing and installing control unit for emergency call module and communication unit J949	131
	132