



Contents

80 - Heating	1
1 Heating	1
1.1 Repairing heating system	1
1.2 Removing vents	4
1.3 Removing and installing rear duct	6
1.4 Removing and installing controls for fresh and heated air	7
1.5 Checking ventilation	9
1.6 Notes on mapped cooling, engine code BAD	10
2 Heater unit	11
2.1 Removing and installing heater unit	11
2.2 Dismantling and assembling heater unit	11
2.3 Removing and installing fresh air and air recirculation flap control motor V154	13
3 Dismantling and assembling heated air and fresh air controls	14
4 Warm air and fresh air control cables	15
4.1 Installing and adjusting cables	15
82 - Auxiliary heating	18
1 Glow plugs - auxiliary heater	18
1.1 Glow plugs - auxiliary heater in cooling system circuit	18
87 - Air conditioning system	19
1 Notes on repair work to vehicles with air conditioning and on handling refrigerant	19
2 Air conditioning system with manual controls	20
2.1 Air conditioning and heating system - passenger compartment	20
2.2 Removing and installing heating and air conditioning controls	22
2.3 Dismantling and assembling heating and air conditioning controls	24
2.4 Installing and adjusting heating and air conditioning cables	26
2.5 Air conditioning and heating system - engine compartment	28
2.6 Removing and installing air conditioner compressor bracket, engine codes AHW, AKQ, APE, AUS, ATN, AXP, AZD, BCA und BCB	30
2.7 Removing and installing air conditioner compressor bracket, engine codes AEG, AEH, AGN, AGU, AKL, ALN, APF, APK, AQA, AQY, ARX, ARZ, ATF, AUM, AUQ, AVH, AVU, AWD, AWP, AWW, AZG, AZH, AZJ, BEH, BEV und BFQ	33
2.8 Removing and installing compressor bracket, engine codes: AGP, AGR, AHF, AQM, ASV and ALH	35
2.9 Removing and installing bracket for air conditioner compressor, engine codes AJM, ARL, ASZ, ATD, AUY, AXR, AXS and BEW	37
2.10 Removing and installing air conditioner compressor bracket, engine code BAD	40
2.11 Removing and installing air conditioner compressor bracket, engine code AGZ and AQN	42
2.12 Removing and installing air conditioner compressor bracket, engine codes AFP, AQP, AUE, BDE and BFH	44
2.13 Repairing Sanden air conditioning system magnetic coupling N25	46
2.14 Repairing Zexel air conditioner magnetic coupling N25	50
3 Climatronic air conditioning system with automatic regulation	56
3.1 Before beginning repair work, perform the following steps:	56
3.2 Procedure for checking and adjusting components	56
3.3 Function of operating and display unit for Climatronic control unit E87 with Climatronic control unit J255	57
3.4 Climatronic - passenger compartment	59
3.5 Removing and installing operating and display unit for Climatronic air conditioning system E87 with Climatronic control unit J255	64
3.6 Renewing control motors for air conditioning regulation	65
3.7 Climatronic - engine compartment	68



4	Repair work on refrigerant circuit which may be performed only in workshops with specially trained mechanics	71
4.1	Repairing refrigerant circuit components	71
4.2	Notes on installing air conditioner compressor, engine code BAD	77
4.3	Checking high pressure sensor G65	78
4.4	Removing expansion valve	79
4.5	Removing and installing condenser	80
4.6	Removing and installing evaporator housing	82
4.7	Dismantling and assembling distribution box and evaporator housing	83
5	Capacities	86
5.1	Refrigerant R134a	86
5.2	Refrigerant oil	86