

MODEL 169, 171, 203 (except 169.090) with CODE (580) Automatic air conditioning

System drained

MODEL 169, 171, 203 (except 169.090) with CODE (581) Comfort automatic air conditioning

System drained

MODEL 163, 164, 199,

203 as of 24.4.04,

209, 211, 215, 219.3, 220, 230, 240, 245, 251, 461.302 /304 /331 /332 /334 /342 /344 /345 /346, 463.222 /243 /244 /245 /246 /247 /248 /249 /250 /254 /270 /271 /303 /306 /309 /322 /323 /332 /333 /336 /340 /341 (except 245.286)

System drained

MODEL 463.202 /236 /237 /346 up to model year 2013

System drained,

/model refinement package 2012

| | Checking | | |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Risk of accident caused by vehicle starting off by itself when engine is running. Risk of injury caused by contusions and burns during starting procedure or when working near the engine as it is running | Secure vehicle to prevent it from moving by itself. Wear closed and snug-fitting work clothes. Do not touch hot or rotating parts. | AS00.00-Z-0005-01A |
| | Risk of explosion caused by welding or soldering work on closed air conditioning system. Risk of poisoning caused by inhaling overheated refrigerant vapors. Risk of injury to skin and eyes caused by contact with liquid refrigerants. | Never perform welding work on or near a closed air conditioning system. No smoking or open flames. Wear safety glasses and protective gloves. Work only in well ventilated areas. Carry out repair work on the air conditioning system circuit only after the system has been emptied. | AS83.00-Z-0001-01A |
| ⓘ | Procedure for a damaged or leaky air conditioning system | | AH83.30-N-0004-01A |
| i | Notes on handling R134a refrigerant | Air conditioning with refrigerant R134a | AH83.30-N-0003-01A |
| 1 | Evacuate air conditioning system | Air conditioner service unit gotis://E 83 05.0 | |
| 2 | Fill air conditioning system with nitrogen | i Fill system with a system pressure of 15 bar only when engine is cold. This system pressure must be maintained for at least 4 hours. Fill high and low-pressure side of air conditioning with nitrogen. i Temperature changes during the pressure test can cause pressure surges, e.g. due to weather changes, transition from day to night, cooling down of engine compartment. Consistent ambient conditions must be strictly ensured. Air conditioner pressure and leak tester (mobile) gotis://E 83 06.0 | |
| 3 | Check air conditioning circuit for leakage. | i Check for leaks using a leak detection spray in case of pressure drop. for USA If there is a pressure loss and no leak is found in the refrigeration circuit: ↓ Check air conditioning for leaks with leak detector additives | *BR00.45-Z-1002-03A *BR00.45-Z-1004-03A AR83.30-P-1761P |
| 4 | Drain nitrogen | | |
| 5 | Charge air conditioning system | i Fill air conditioning system with refrigerant R 134a Model 163 Model 171, 211, 215, 220, 230 Type 199 Model 203, 209 Model 164 Model 169, 245 Type 219.3 Model 240 Model 251 Model 461, 463 | *BF83.30-P-1001-01B *BF83.00-P-1001-01A *BF83.00-P-1001-01C *BF83.30-P-1001-01B *BF83.00-P-1001-01F *BF83.00-P-1001-01D *BF83.00-P-1001-01E *BF83.00-P-1001-01B *BF83.00-P-1001-01G *BF83.30-P-1001-01A |

Repair materials

| Number | Designation | Order number |
|--------|-------------|--------------|
|--------|-------------|--------------|

| | | |
|--------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| BR00.45-Z-1002-03A | Leak detection spray | Christof Fischer GmbH, Augsburger Str. 289-293, 70327 Stuttgart Germany Tel. +49 711 30502-0 Fax +49 711 30502-10 www.kaelfefischer.de |
| BR00.45-Z-1004-03A | Leak detection spray for USA | LIQUI MOLY Gary Boyd 1820 Clark Avenue Long Beach, CA 90815 USA Tel. +1 562 5975519 Fax + 1-562-5975269 www.liqui-moly.com |

 **Air conditioning system/automatic air conditioning**

| Number | Designation | | | Model 251 without air conditioning in rear (code 582) | Model 251 with air conditioning in rear (code 582) |
|--------------------|------------------------------------------------------------------------|----------------------------------------|-------|-------------------------------------------------------|----------------------------------------------------|
| BF83.00-P-1001-01G | Air conditioning/ automatic air conditioning filling capacity | Refrigerant R134 a | g | 970 | 1220 |
| | | Specifications for Operating Fluids | Sheet | BB00.40-P-0361-00A | BB00.40-P-0361-00A |

 **Air conditioning system/automatic air conditioning**

| Number | Designation | | | Model 171 with engine 113 | Model 171 with engine 271, 272 up to vehicle ID 1F187119 without code 809 | Model 171 with engine 271, 272 as of vehicle ID 1F187120 or with code 809 |
|--------------------|-----------------------------------------------------------------------|----------------------------------------|-------|---------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------|
| BF83.00-P-1001-01A | Capacity air conditioning system/ automatic air conditioning | Refrigerant R12 | g | - | - | - |
| | | Refrigerant R134 a | g | 670 | 670 | 530 |
| | | Specifications for Operating Fluids | Sheet | BB00.40-P-0361-00A | BB00.40-P-0361-00A | BB00.40-P-0361-00A |

 **Air conditioning system/automatic air conditioning**


| Number | Designation | | | Model 199 |
|--------------------|-----------------------------------------------------------------------|----------------------------------------|-------|--------------------|
| BF83.00-P-1001-01C | Capacity air conditioning system/ automatic air conditioning | Refrigerant R134 a | g | 980 |
| | | Specifications for Operating Fluids | Sheet | BB00.40-P-0361-00A |

 **Air conditioning system/automatic air conditioning**

| Number | Designation | Model 211 | Model 215 |
|--------------------|-----------------------------------------------------------------------|----------------------------------------------|---------------------------------------|
| BF83.00-P-1001-01A | Capacity air conditioning system/ automatic air conditioning | Refrigerant R12 g - | - |
| | | Refrigerant R134 a g 950 | 950 |
| | | Specifications for Operating Fluids Sheet | BB00.40-P-0361-00A BB00.40-P-0361-00A |

 **Air conditioning system/automatic air conditioning**

| Number | Designation | Model 220 without rear air conditioning | Model 220 with rear air conditioning | Model 230 |
|--------------------|-----------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------|--------------------|
| BF83.00-P-1001-01A | Capacity air conditioning system/ automatic air conditioning | Refrigerant R12 g - | - | - |
| | | Refrigerant R134 a g 950 | 1050 | 920 |
| | | Specifications for Operating Fluids Sheet | BB00.40-P-0361-00A BB00.40-P-0361-00A | BB00.40-P-0361-00A |

 **Air conditioning system/automatic air conditioning**

| Number | Designation | Model 240 Front air conditioning system | Model 240 Rear air conditioning system |
|--------------------|-----------------------------------------------------------------------|--------------------------------------------------|-------------------------------------------------|
| BF83.00-P-1001-01B | Capacity air conditioning system/ automatic air conditioning | Refrigerant R134 a g 950 | 950 |
| | | Specifications for Operating Fluids Sheet | BB00.40-P-0361-00A BB00.40-P-0361-00A |

 **Air conditioning system/automatic air conditioning**

| Number | Designation | Model 169.006/007/ 031/032/033/ 306/307/331/ 332/333 | Model 169.008/034/ 308/334 up to vehicle ID 1J393301 | Model 169.008/034/ 308/334 as of vehicle ID 1J393302 |
|--------------------|-----------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|
| BF83.00-P-1001-01D | Capacity air conditioning system/ automatic air conditioning | Refrigerant R134 a g 770 | 840 | 770 |

| | | | | | |
|--|-------------------------------------|-------|--------------------|--------------------|--------------------|
| | Specifications for Operating Fluids | Sheet | BB00.40-P-0361-00A | BB00.40-P-0361-00A | BB00.40-P-0361-00A |
|--|-------------------------------------|-------|--------------------|--------------------|--------------------|

 **Air conditioning system/automatic air conditioning**

| Number | Designation | Model 245.207/231/232/ 233 | Model 245.208/234 up to vehicle ID 1J176283 | Model 245.208/234 as of vehicle ID 1J176284 | | |
|--------------------|-----------------------------------------------------------------------|----------------------------------------|------------------------------------------------------|------------------------------------------------------|--------------------|--------------------|
| BF83.00-P-1001-01D | Capacity air conditioning system/ automatic air conditioning | Refrigerant R134 a | g | 770 | 840 | 770 |
| | | Specifications for Operating Fluids | Sheet | BB00.40-P-0361-00A | BB00.40-P-0361-00A | BB00.40-P-0361-00A |

 **Air conditioning system/automatic air conditioning**

| Number | Designation | Model 219 |
|--------------------|-----------------------------------------------------------------------------------|----------------------------------------|
| BF83.00-P-1001-01E | Filling capacity for air conditioning/ automatic air conditioning system | Refrigerant R134 a |
| | | g |
| | | 950 |
| | | Specifications for Operating Fluids |
| | | Sheet |
| | | BB00.40-P-0361-00A |

 **Air conditioning system**

| Number | Designation | Model 209 Drier at side | Model 209 Drier underneath, except code P98 | Model 209 Drier underneath, with code P98 | | |
|--------------------|-------------|----------------------------------------|---------------------------------------------------------|-------------------------------------------------------|--------------------|--------------------|
| BF83.30-P-1001-01B | Refrigerant | Filling capacity | g | 750 | 850 | 900 |
| | | Specifications for Operating Fluids | Sheet | BB00.40-P-0361-00A | BB00.40-P-0361-00A | BB00.40-P-0361-00A |

 **Air conditioning**

| Number | Designation | Model 461.302/304/ 331/332/334/ 342/344/345 / 346 | Model 463.222/303/ 306/336/340/ 341, model 463.202/236/237 up to model year 2013 | Model 463.346 up to model year 2013 with left-hand drive vehicle |
|--------|-------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|--------|-------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|

| | | | | | | |
|--------------------|----------------------|-------------------------------------|-------|--------------------|--------------------|--------------------|
| BF83.30-P-1001-01A | Refrigerant capacity | | g | 1080 | 1000 | 1000 |
| | | Specifications for Operating Fluids | Sheet | BB00.40-P-0361-00A | BB00.40-P-0361-00A | BB00.40-P-0361-00A |

Air conditioning

| Number | Designation | | | Model 463.346 up to model year 2013 with right-hand drive vehicle | Model 463.206/209/232/233/240/243/244/245/246/247/249/250/254/270/271, model 463.241/248 without code HH7 | Model 463.236/241/248 with code HH7 |
|--------------------|----------------------|-------------------------------------|-------|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------------------|
| BF83.30-P-1001-01A | Refrigerant capacity | | g | 1050 | 1050 | 1180 |
| | | Specifications for Operating Fluids | Sheet | BB00.40-P-0361-00A | BB00.40-P-0361-00A | BB00.40-P-0361-00A |

Air conditioning

| Number | Designation | | | Model 463.309/332/333 | Model 463.322/323 |
|--------------------|----------------------|-------------------------------------|-------|--------------------------|----------------------|
| BF83.30-P-1001-01A | Refrigerant capacity | | g | 1070 | 1070 |
| | | Specifications for Operating Fluids | Sheet | BB00.40-P-0361-00A | BB00.40-P-0361-00A |

Air conditioning system/automatic air conditioning

| Number | Designation | | | Model 164.1/8 without air conditioning in rear (code 582) | Model 164.8 with air conditioning in rear (code 582) |
|--------------------|-------------------------------------------------------------------------|-------------------------------------|-------|--------------------------------------------------------------|---------------------------------------------------------|
| BF83.00-P-1001-01F | Filling capacity for air conditioning/automatic air conditioning system | Refrigerant R134 a | g | 970 | 1220 |
| | | Specifications for Operating Fluids | Sheet | BB00.40-P-0361-00A | BB00.40-P-0361-00A |

Air conditioning system

| Number | Designation | | Model 163 | Model 203 Drier at side | Model 203 Drier underneath |
|--------------------|-------------|-------------------------------------------------------------|--------------------|-------------------------------|-------------------------------------|
| BF83.30-P-1001-01B | Refrigerant | Filling capacity ⁹ | 750 | 750 | 850 |
| | | Specifications for Operating Fluids <small>Sheet</small> | BB00.40-P-0361-00A | BB00.40-P-0361-00A | BB00.40-P-0361-00A |