

Pneumatic Test Program – Test (BA)

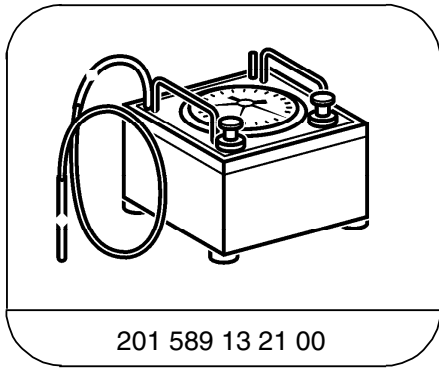
Preliminary work:

Diagnosis - Diagnostic Trouble Code (DTC) Memory	11 PSE
PSE Control Module Test	32 PSE

Data (mbar)

Test procedure	Permissible deviation
Allowable system leakage at 600 mbar pressure or 300 mbar vacuum in 1 minute.	30 mbar
Allowable leakage of actuators with lines at 600 mbar pressure or 300 mbar vacuum in 1 minute.	25 mbar

Special Tools



201 589 13 21 00

Tester

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A. Entire system

Preparation for Test:

Vehicles up to 07/94:

1. Disconnect pneumatic multiple connector from PSE control module.
2. Connect tester to bottom side of pneumatic multiple connector at **RH** (BA) using connector 129 805 04 44.

Vehicles as of 08/94:

1. Disconnect **orange** pneumatic line with socket from PSE control module.
2. Connect tester to disconnected pneumatic line using connector 129 805 04 44.

Parts Required for Test:

1	Connector	129 805 04 44
2	Connection hose, 50 mm long	007 997 61 82
1	Pneumatic line, 1 m long	000 158 14 35

Note:

The connections on the PSE control module and pneumatic multiple connector are marked with their German acronyms. In other words:

ZV (German) = **CL** (English),
RH (German) = **BA** (English),
FKS (German) = **RHR** (English),
SFG (German) = **RTG** (English),
PÜ/P+ (OSL) (German) = **PÜ/P+ (OSB)** (English),
PU/P- (SRU) (German) = **PU/P- (MVA)** (English).

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0	Complete system pressurized	Yellow connector on tester. Connector RH on bottom side of multiple connector.	Apply 600 mbar pressure to entire system.	Pressure loss 30 mbar in 1 minute	33 PSE ⇒ 1.0, 32 ⇒ 3.0
2.0	Complete system evacuated	Black connector on tester. Connector RH on bottom side of multiple connector.	Apply 300 mbar vacuum to entire system.	Vacuum loss 30 mbar in 1 minute	33 PSE ⇒ 2.0, 32 ⇒ 4.0

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B. Individual lines with actuators

Preparation for Test:

Vehicles up to 07/94:

1. Pry off **orange** backup assist (BA) pneumatic line at pneumatic multiple connector (using a 7 mm open end wrench).
2. Connect tester in sequence to each of the **orange** BA pneumatic lines using connector 007 997 61 82.

Vehicles as of 08/94:

1. Disconnect **orange** BA pneumatic lines at pneumatic distributor.
2. Connect tester in sequence to each of the **orange** BA pneumatic lines using connector 007 997 61 82.

Note:

1. If an actuator does not operate correctly and no leakage is found, check the respective lines for kinks or blockages.
2. On vehicles as of approx. 06/94, the disconnected pneumatic lines are to be reconnected to the distributor with connector 007 997 61 82.

Parts Required for Test:

- | | | |
|---|-----------------------|---------------|
| 1 | Connector, 50 mm long | 007 997 61 82 |
|---|-----------------------|---------------|

Letters on the distributor indicate to which of the actuators the pneumatic line leads.

A → Left actuator

B → Right actuator

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
3.0	Line and actuator pressurized	Yellow connector on tester.	Apply 600 mbar pressure to line and actuator.	Pressure drop 25 mbar in 1 minute	32 ⇒ 5.0, 32 ⇒ 7.0
4.0	Line and actuator evacuated	Black connector on tester.	Apply 300 mbar vacuum to line and actuator.	Vacuum loss 25 mbar in 1 minute	32 ⇒ 6.0, 32 ⇒ 8.0

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C. Actuators

Preparation for Test:

1. Provide access to actuator, see SMS, Repair Instructions, Job No. 82–400.
2. Connect vacuum/pressure tester to pneumatic connection of actuator.

Parts Required for Test:

- | | | |
|---|-----------------------|---------------|
| 1 | Pneumatic line | 129 800 62 15 |
| 1 | Connector, 50 mm long | 007 997 61 82 |

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
5.0	Actuator holds pressure.	Yellow connector on tester	Apply 600 mbar pressure to actuator.	Pressure drop 25 mbar in 1 minute	Actuator leaks. Replace actuator.
6.0	Actuator holds vacuum.	Black connector on tester	Apply 300 mbar vacuum to actuator.	Vacuum loss 25 mbar in 1 minute	Actuator leaks. Replace actuator.

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D. Lines

Preparation for Test:

1. Connect tester to one end of pneumatic line and plug other end with cap 000 987 29 45.

Parts Required for Test:

- | | | |
|---|-----------------------|---------------|
| 1 | Cap | 000 987 29 45 |
| 1 | Connector, 50 mm long | 007 997 61 82 |

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
7.0	Line holds pressure.	Yellow connector on tester.	Apply 600 mbar pressure to line.	Pressure drop 0 mbar in 1 minute	Pneumatic line leaks. Repair/replace line.
8.0	Line holds vacuum.	Black connector on tester.	Apply 300 mbar vacuum to line.	Vacuum loss: 0 mbar in 1 minute	Pneumatic line leaks. Repair/replace line.