

Pneumatic Test Program – Test (CL)

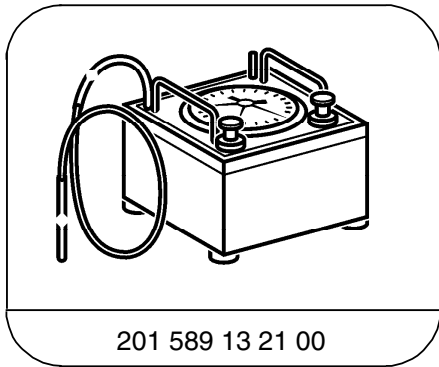
Preliminary work:

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 approx. 12/93:

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

Vehicles as of approx. 01/94:

1. Disconnect **yellow** pneumatic line with socket from PSE control module.
2. Connect tester to disconnected pneumatic line using with 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),
SRU (German) = **MVA** (English),
OSL (German) = **OSB** (English).

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0	Complete system pressurized	Yellow connector on tester. Connector ZV 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 ZV 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 approx. 12/93:

1. Pry off **yellow and black** pneumatic lines at pneumatic multiple connector (using a 7 mm open end wrench).
2. Connect tester to each of the **yellow** or **black** CL pneumatic lines using connector 007 997 61 82.

Vehicles as of approx. 01/94:

1. Disconnect pneumatic line leading to the non-operating pneumatic actuator at the pneumatic distributor. Letters on the distributor indicate to which of the CL actuators the pneumatic line leads.

- | | | | |
|-----|------------------|-----|-----------------------|
| A → | Left front door | D → | Right rear door |
| B → | Right front door | E → | Fuel tank filler flap |
| C → | Left rear door | F → | Trunk lid |

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 |
|---|-----------------------|---------------|

⇒	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. Remove actuator, see SMS, Repair Instructions, Job No.'s AR80.20–2160, AR80.20–2200, AR80.20–2300, AR80.20-2400.
2. Connect vacuum/pressure tester to pneumatic connection of actuator.

Parts Required for Test:

- | | | |
|---|-----------------------|---------------|
| 1 | Pneumatic line | 129 800 09 15 |
| 1 | Connector, 50 mm long | 007 997 61 62 |
| 1 | Connector | 129 805 04 44 |

⇒	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 | Connection piece (30 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 lines.	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 lines.	Vacuum loss 0 mbar in 1 minute.	Pneumatic line leaks. Repair/replace line.