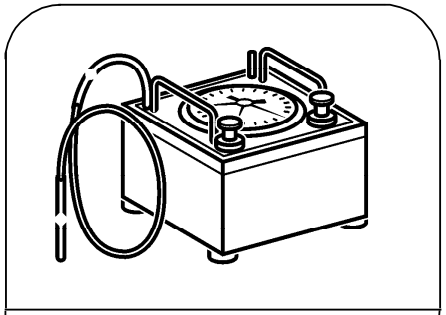
Pneumatic Test Program – Test (MVA)

Preliminary work:
PSE control module voltage supply . . . . . 23 **PSE** ⇒ 1.0, 2.0
PSE Control Module Test . . . . . 32 **PSE**

Data (mbar)

Test procedure	Permissible deviation
Allowable leakage of pneumatic multiple connector, pneumatic lines and vacuum distribution block at 300 mbar vacuum in 1 minute.	30 mbar
Allowable leakage of vacuum distribution block with line at 300 mbar vacuum in 1 minute.	25 mbar

Special Tools



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Tester

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A. Pneumatic multiple connector, pneumatic line with vacuum distribution block

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 **SRU** (MVA) using connector 129 805 04 44.

Vehicles as of approx. 01/94:

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

All vehicles:

1. Provide access to vacuum distribution block in right component compartment and pry off all pneumatic lines except **transparent** MVA line at connection 1.

Parts Required for Test:

1	Connector	129 805 04 44
1	Connector, 50 mm long	007 997 61 82

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	**Multiple connector, pneumatic line with vacuum distribution block**	**Black** connector on tester to connector **SRU** on bottom of pneumatic multiple connector.	Apply 300 mbar vacuum to entire system.	Vacuum loss 30 mbar in 1 minute.	33 PSE ⇒ 2.0, 32 ⇒ 2.0

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B. Line with vacuum distribution block

Preparation for Test:

Vehicles up to approx. 12/93:

1. Pry off **transparent** MVA pneumatic line at pneumatic multiple connector (using a 7 mm open end wrench) .
2. Connect tester to **transparent** MVA pneumatic line using connector 007 997 61 82.

Vehicles as of approx. 01/94:

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

All vehicles:

1. Provide access to vacuum distribution block in right component compartment and pry off all pneumatic lines except **transparent** MVA line at connection 1.

Parts Required for Test:

1	Connector, 50 mm long	007 997 61 82
1	Connector	129 805 04 44

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.0	**Vacuum applied to vacuum distribution block and pneumatic line**	**Black** connector on tester.	Apply 300 mbar vacuum to vacuum distribution block and line.	Vacuum loss 25 mbar in 1 minute.	32 ⇒ 3.0, 32 ⇒ 4.0

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C. Vacuum distribution block

Preparation for Test:

1. Remove vacuum distribution block.
2. Connect vacuum/pressure tester to connection 1.

Parts Required for Test:

1	Connector	129 805 04 44
1	Connector, 50 mm long	007 997 61 82

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
3.0	**Vacuum leakage**	**Black** connector on tester.	Apply 300 mbar vacuum to vacuum distribution block.	Vacuum loss 25 mbar in 1 minute.	Vacuum distribution block.

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D. Line

Preparation for Test:

1. Connect tester to one end of pneumatic line and plug other end with cap part no. 000 987 29 45.

Notes:

If vacuum is not available at the vacuum distribution block with the PSE control module operating correctly, check the effected line for clogging or kinks.

Parts Required for Test:

1	Cap	000 987 29 45
1	Connector, 50 mm long	007 997 61 82
1	Connector	129 805 04 44

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
4.0	**Vacuum leakage**	**Black** connector on tester.	Apply 300 mbar vacuum to pneumatic line	Vacuum loss 0 mbar in 1 minute.	Pneumatic line.