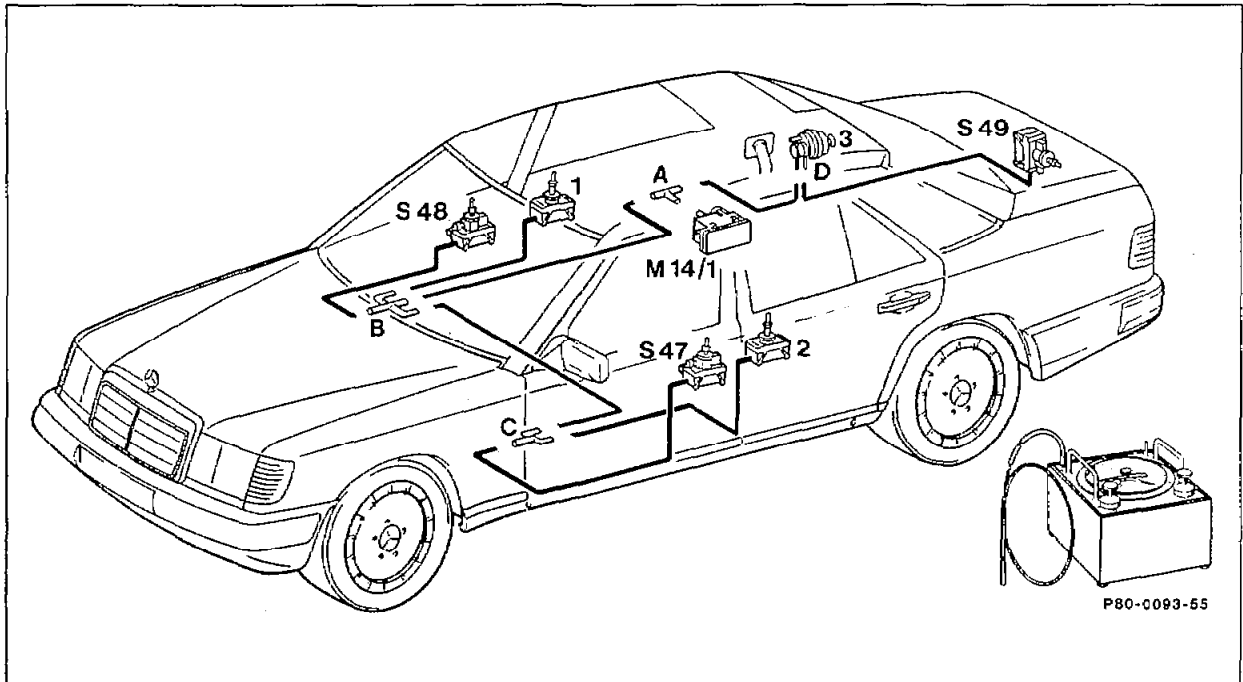


# 80-120 Checking central locking system for leaks

Preceding operation:  
Checking pneumatic function of supply pump  
(80-108)

Operation no. of operation texts and work units  
or standard texts and flat rates ..... 80-0032

## A. Sedan up to approx. 08/90



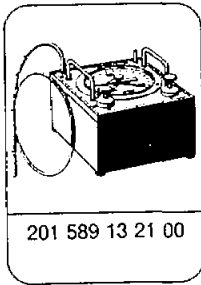
Connector or distributor	Scope of test	Follow-on test or remedy in case of leaks
A	Entire system	Check leaks in lines to passenger compartment or to trunk.
	Actuator and pneumatic lines in passenger compartment.	Check leaks at connector B.
	Actuator and pneumatic lines in trunk.	Check leaks at distributor or connector D.

Connector or distributor	Scope of test	Follow-on test or remedy in case of leaks
<b>B</b>	<p>Pneumatic line to distributor <b>A</b></p> <p><b>S48</b> Right front door actuator with connector and pneumatic line.</p> <p>Right rear door actuator <b>1</b> with connector and pneumatic line</p> <p>Actuator and pneumatic lines in left passenger compartment</p>	<p>Repair or renew.</p> <p>Check line, connector and actuator individually for leaks. Repair or renew faulty parts.</p> <p>Check line, connector and actuator individually for leaks. Repair or renew faulty parts.</p> <p>Check leaks at distributor <b>C</b>.</p>
<b>C</b>	<p>Pneumatic line to distributor <b>B</b></p> <p><b>S47</b> Left front door actuator with connector and pneumatic line.</p> <p>Left rear door actuator <b>2</b> with connector and pneumatic line.</p>	<p>Repair or renew.</p> <p>Check line, connector and actuator individually for leaks. Repair or renew faulty parts.</p> <p>Check line, connector and actuator individually for leaks. Repair or renew faulty parts.</p>
<b>D</b>	<p>Pneumatic line to distributor <b>A</b></p> <p><b>S49</b> Trunk lid actuator with pneumatic line and connector.</p> <p>Fuel filler flap actuator <b>3</b></p>	<p>Repair or renew.</p> <p>Check line, connector and actuator individually for leaks. Repair or renew faulty parts.</p> <p>renew.</p>

#### Data

Permissible leak rate in 1 minute of entire system and actuator at 600 mbar pressure and 300 mbar vacuum	mbar 30
Permissible leak rate in 1 minute of individual lines at 600 mbar pressure	mbar 0
Fit-on length of connectors and distributors	mm 12 ± 2

## Special tool



Parts for test	Part No.
Sealing cap	000 987 11 45
Adapter	129 805 00 44

### Note

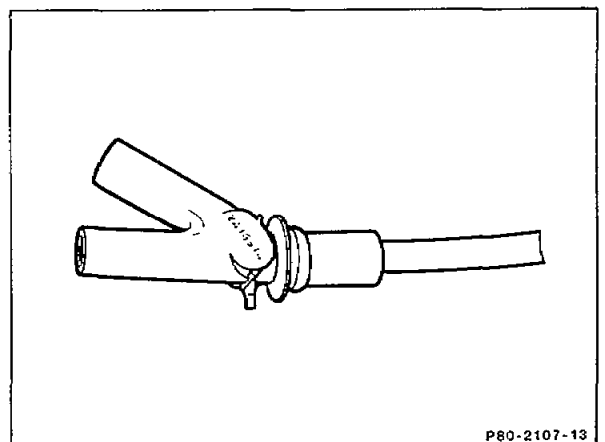
If not all the actuators operate properly although no leak is detected, check affected lines, distributors and connectors for kinks and clear passage.

When performing leak test of individual lines, connect tester to one end of the line and seal the other end with cap 000 987 11 45 (80-125).

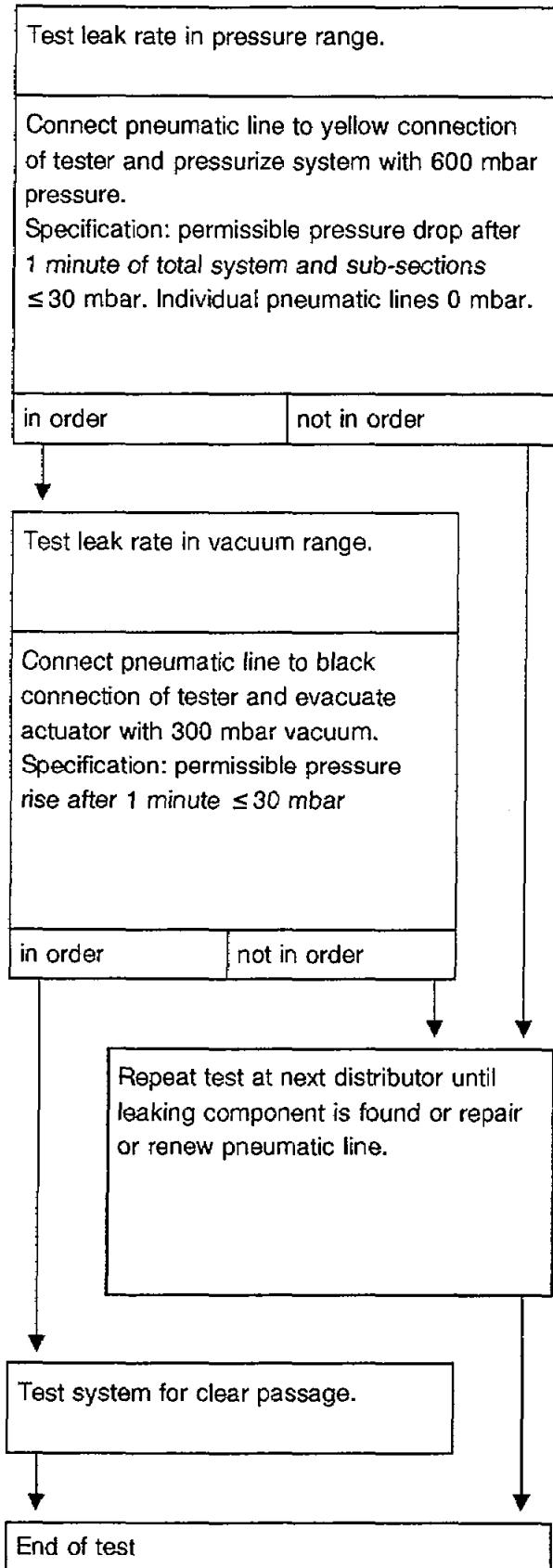
The following test can be applied to all steps of the table listed above.

### Preparing test

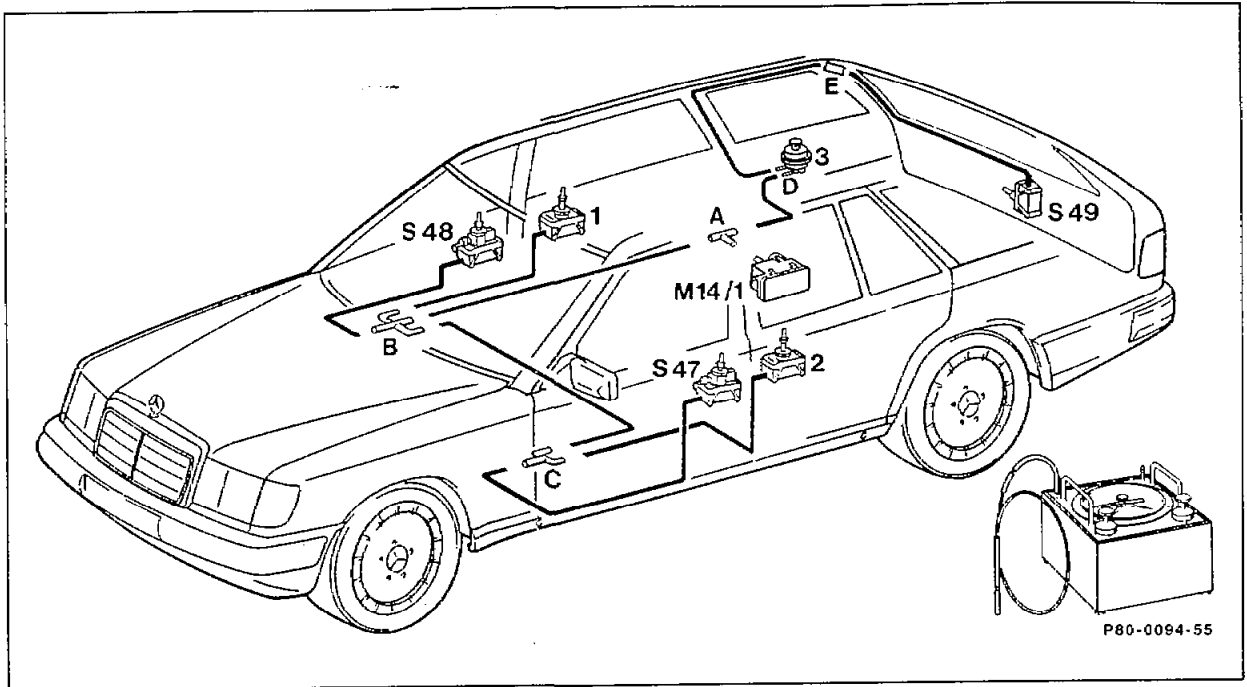
Connect tester for vacuum and pressure systems to distributor or to pneumatic line, respectively.



## Test



**B. Station wagon 1st version up to approx. 01/86**



Connector or distributor	Scope of test	Follow-on test or remedy in case of leaks
<b>A</b>	<p>Entire system</p> <p>Actuators and pneumatic lines in passenger compartment.</p> <p>Actuators and pneumatic lines in trunk.</p>	<p>Check leaks in lines to passenger compartment or to trunk.</p> <p>Check leaks at distributor <b>B</b>.</p> <p>Check leaks at distributor or connector <b>D</b>.</p>
<b>B</b>	<p>Pneumatic line to distributor <b>A</b></p> <p><b>S48</b> Right front door actuator with connector and pneumatic line.</p> <p>Right rear door actuator <b>1</b> with connector and pneumatic line.</p> <p>Actuator and pneumatic lines in left passenger compartment.</p>	<p>Repair or renew.</p> <p>Check line, connector and actuator individually for leaks. Repair or renew faulty parts.</p> <p>Check line, connector and actuator individually for leaks. Repair or renew faulty parts.</p> <p>Check leaks at distributor <b>C</b>.</p>

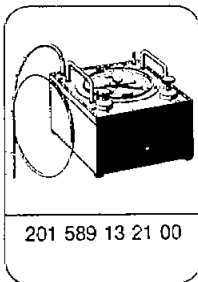
Connector or distributor	Scope of test	Follow-on test or remedy in case of leaks
<b>C</b>	Pneumatic line to distributor <b>B</b>	Repair or renew.
	<b>S47</b> Left front door actuator with connector and pneumatic line.  Left rear door actuator <b>2</b> with connector and pneumatic line.	Check line, connector and actuator individually for leaks. Repair or renew faulty parts.  Check line, connector and actuator individually for leaks. Repair or renew faulty parts.
<b>D</b>	Fuel filler flap actuator <b>3</b>	renew.
	Pneumatic line to distributor <b>A</b>	repair or renew.
	Pneumatic line to connector <b>E</b>	check leaks at connector <b>E</b> .
<b>E</b>	Pneumatic line to connector <b>D</b>	repair or renew.
	<b>S49</b> Tailgate with pneumatic line and connector.	check line, connector and actuator individually for leaks. Repair or renew faulty parts.

#### Data

Permissible leak rate in 1 minute of entire system and actuators at 600 mbar pressure and 300 mbar vacuum	mbar 30
Permissible leak rate in 1 minute of individual lines at 600 mbar pressure	mbar 0
Fit-on length of connectors and distributors	mm 12 ± 2



## Special tool



## Part for test

## Part No.

Sealing cap

000 987 11 45

### Note

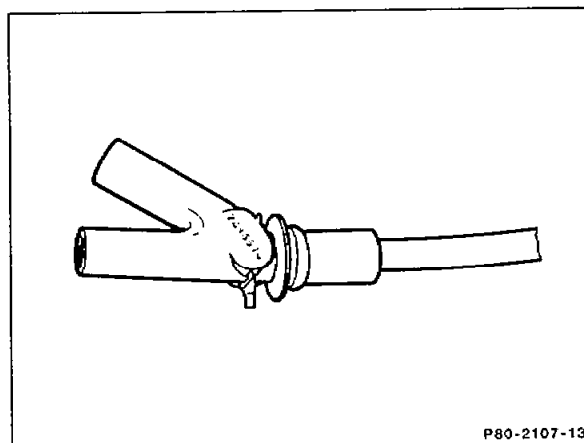
If not all the actuators operate properly although no leak is detected, check affected lines, distributors and connectors for kinks and clear passage.

When performing leak test of individual lines, connect tester to one end of the line and seal the other end with cap 000 987 11 45

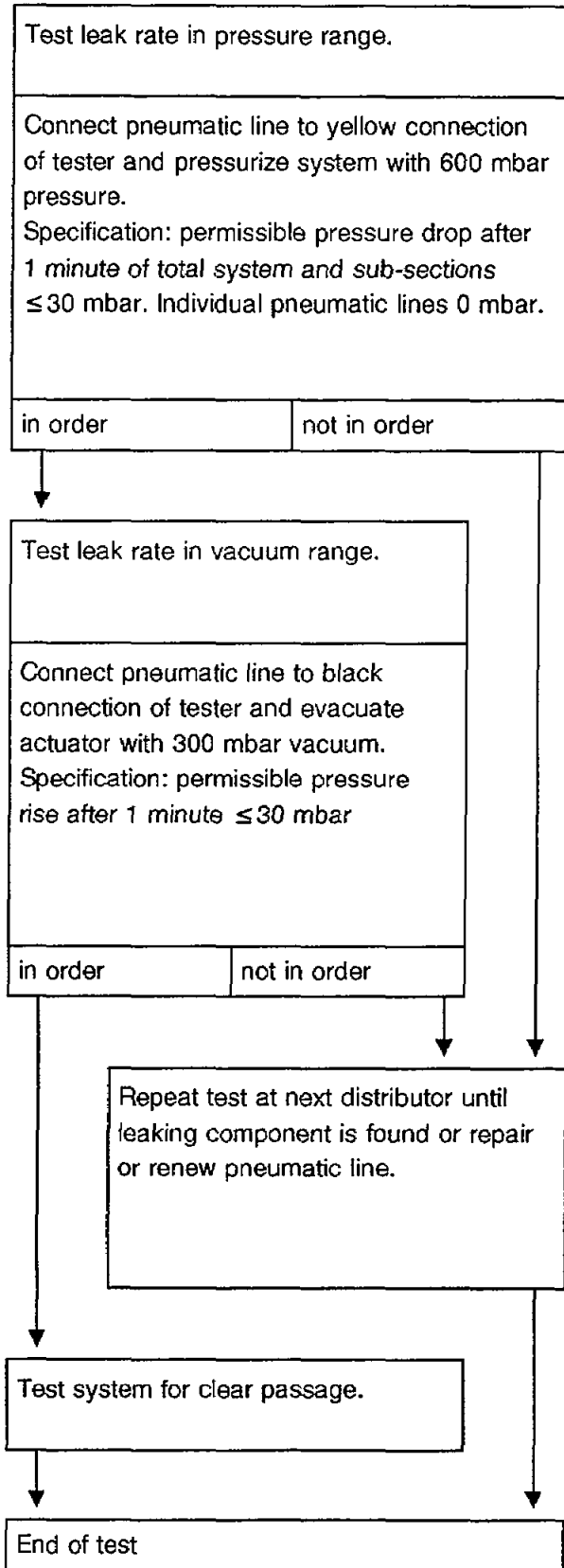
The following test can be applied to all steps of the table listed above.

### Preparing test

Connect tester for vacuum and pressure systems to distributor or to pneumatic line, respectively.

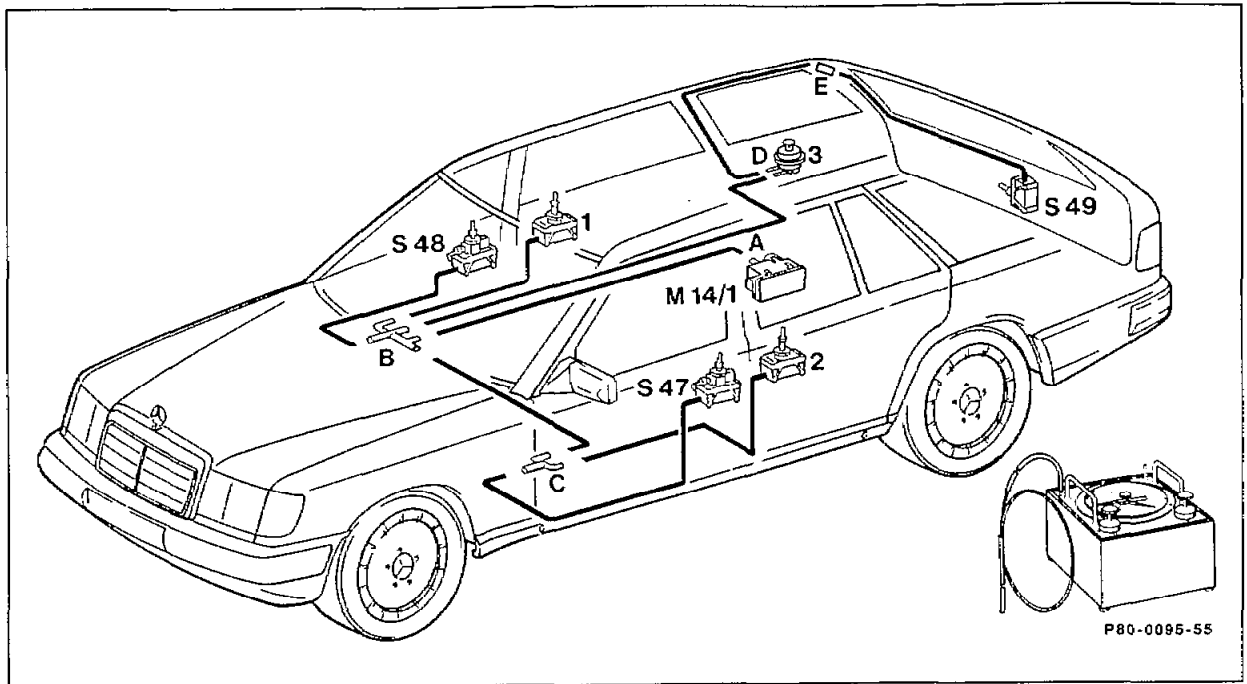


## Test





C. Station wagon 2nd version as of approx. 02/86 up to approx. 08/90



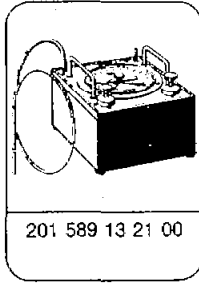
Connector or distributor	Scope of test	Follow-on test or remedy in case of leaks
<b>A</b>	Entire system	Check leak rate at distributor <b>B</b> .
<b>B</b>	<p>Actuators and pneumatic lines in baggage area.</p> <p>Pneumatic line to distributor <b>A</b></p> <p><b>S 48</b> Right front door actuator with connector and pneumatic line.</p> <p>Right rear door actuator <b>1</b> with connector and pneumatic line.</p> <p>Actuator and pneumatic lines in left passenger compartment.</p>	<p>Check leak rate at connectors <b>D</b>.</p> <p>repair or renew.</p> <p>Check line, connector and actuator individually for leaks. Repair or renew faulty parts.</p> <p>Check line, connector and actuator individually for leaks. Repair or renew faulty parts.</p> <p>Check leaks at distributor <b>C</b>.</p>

Connector or distributor	Scope of test	Follow-on test or remedy in case of leaks
<b>C</b>	Pneumatic line to distributor <b>B</b>	repair or renew.
	<b>S47</b> Left front door actuator with connector and pneumatic line.  Left rear door actuator <b>2</b> with connector and pneumatic line.	Check line, connector and actuator individually for leaks. Repair or renew faulty parts.  Check line, connector and actuator individually for leaks. Repair or renew faulty parts.
<b>D</b>	Fuel filler cap actuator <b>3</b>	renew.
	Pneumatic line to distributor <b>B</b>	repair or renew.
	Pneumatic line to connector <b>E</b>	check leaks at connector <b>E</b> .
<b>E</b>	Pneumatic line to connector <b>D</b> .	repair or renew.
	<b>S49</b> Tailgate with pneumatic line and connector.	check line, connector and actuator individually for leaks. Repair or renew faulty parts.

#### Data

Permissible leak rate in 1 minute of entire system and actuators at 600 mbar pressure and 300 mbar vacuum	mbar 30
Permissible leak rate in 1 minute of individual lines at 600 mbar pressure	mbar 0
Fit-on length of connectors and distributors	mm 12 ± 2

## Special tool



## Part for test

## Part No.

Sealing cap

000 987 11 45

### Note

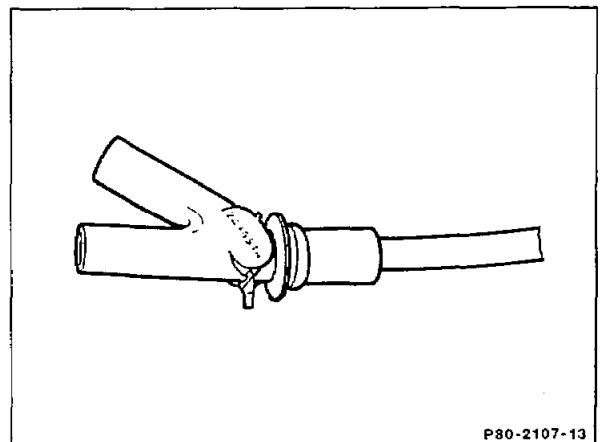
If not all the actuators operate properly although no leak is detected, check affected lines, distributors and connectors for kinks and clear passage.

When performing leak test of individual lines, connect tester to one end of the line and seal the other end with cap 000 987 11 45.

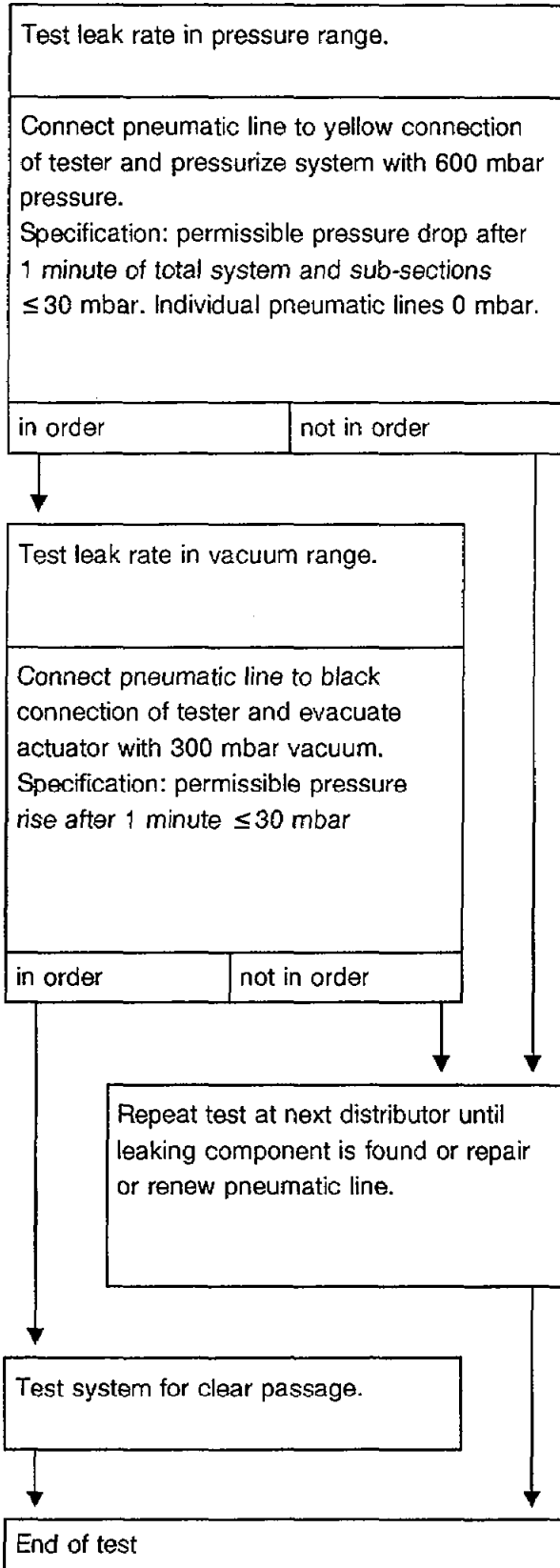
The following test can be applied to all steps of the table listed above.

### Preparing test

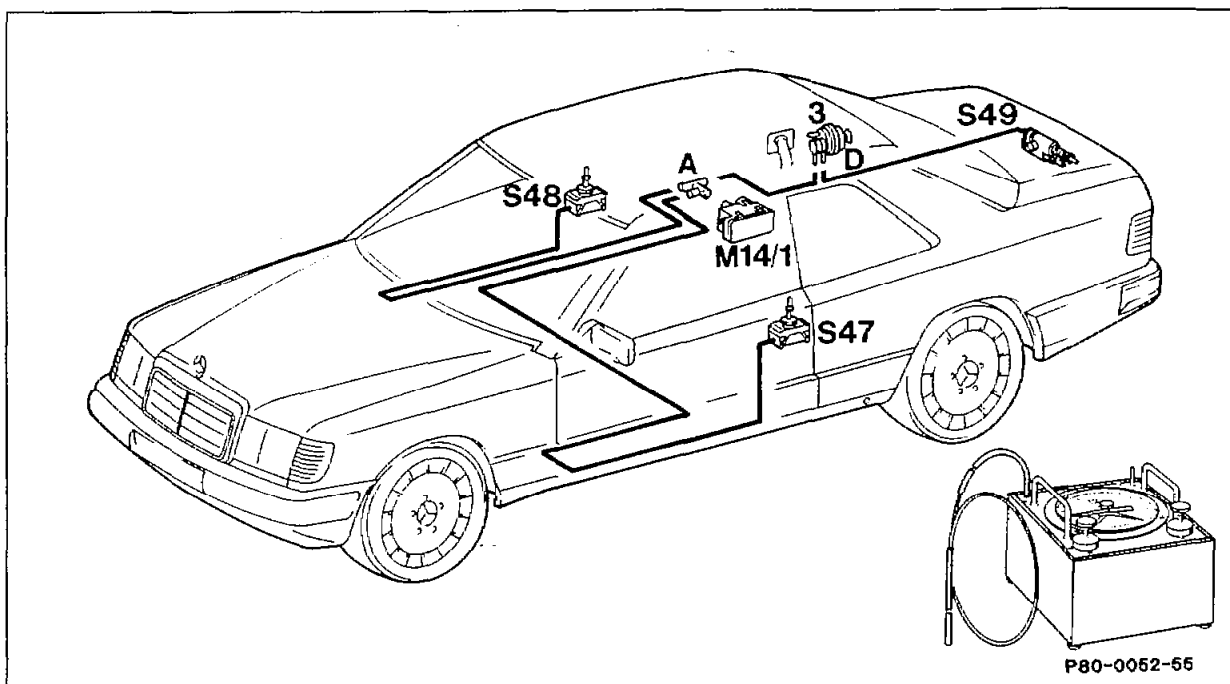
Connect tester for vacuum and pressure systems to distributor or to pneumatic line, respectively.



## Test



D. Coupé up to approx. 08/90

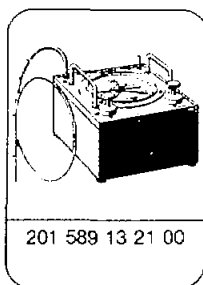


Connector or distributor	Scope of test	Follow-on test or remedy in case of leaks
<b>A</b>	<p>Entire system</p> <p><b>S48</b> Right front door actuator with connector and pneumatic line.</p> <p><b>S47</b> Left front door actuator with connector and pneumatic line.</p> <p>Actuators and pneumatic lines in trunk.</p>	<p>Check leaks at lines to passenger compartment or to trunk.</p> <p>Check line, connector and actuator individually for leaks. Repair or renew faulty parts.</p> <p>Check line, connector and actuator individually for leaks. Repair or renew faulty parts.</p> <p>Check leaks at distributor or connector in <b>D</b>.</p>
<b>D</b>	<p>Pneumatic line to distributor <b>A</b></p> <p><b>S49</b> Trunk lid actuator with pneumatic line and connector.</p> <p>Fuel filler flap actuator <b>3</b></p>	<p>Repair or renew.</p> <p>Check line, connector and actuator individually for leaks. Repair or renew faulty parts.</p> <p>renew.</p>

## Data

Permissible leak rate in 1 minute of entire system and actuators at 600 mbar pressure and 300 mbar vacuum	mbar 30
Permissible leak rate in 1 minute of individual lines at 600 mbar pressure	mbar 0
Fit-on length of connectors and distributors	mm 12 ±2

## Special tool



Parts for test	Part No.
Sealing cap	000 987 11 45
Adapter	129 805 00 44

### Note

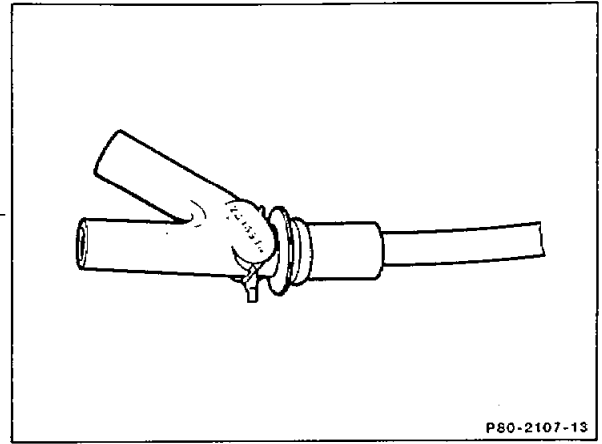
If not all the actuators operate properly although no leak is detected, check affected lines, distributors and connectors for kinks and clear passage.

When performing leak test of individual lines, connect tester to one end of the line and seal the other end with cap 000 987 11 45

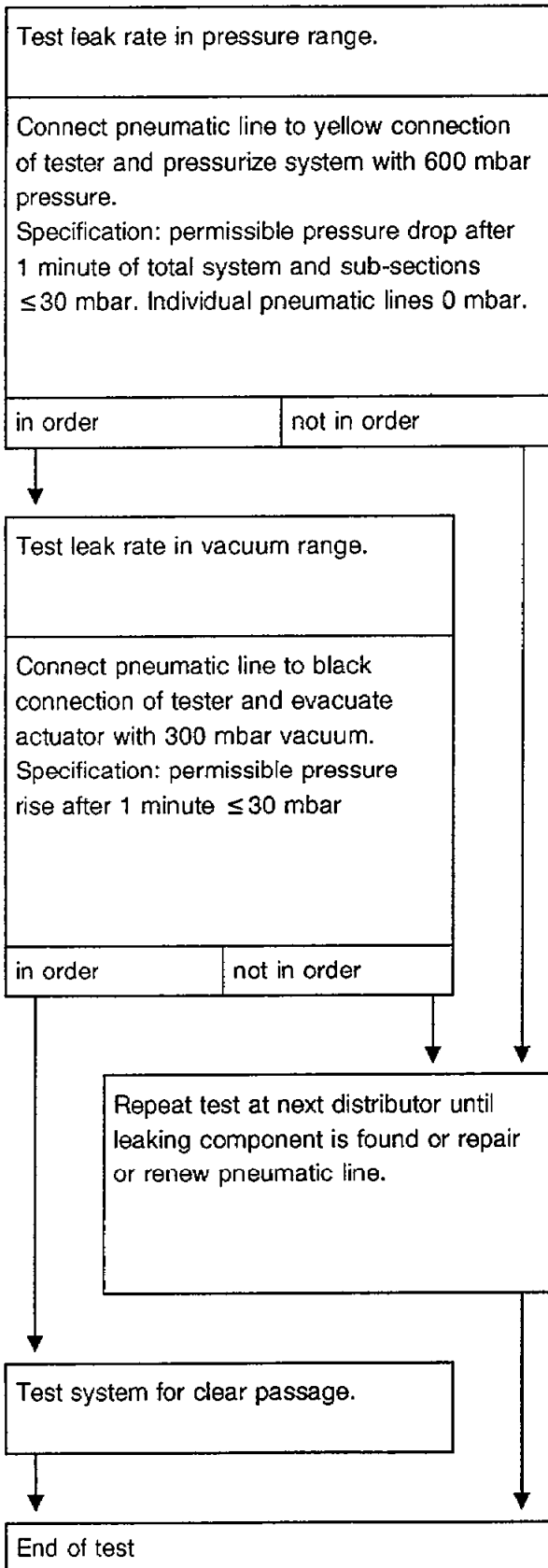
The following test can be applied to all steps of the table listed above.

**Preparing test**

Connect tester for vacuum and pressure systems to distributor or to pneumatic line, respectively.



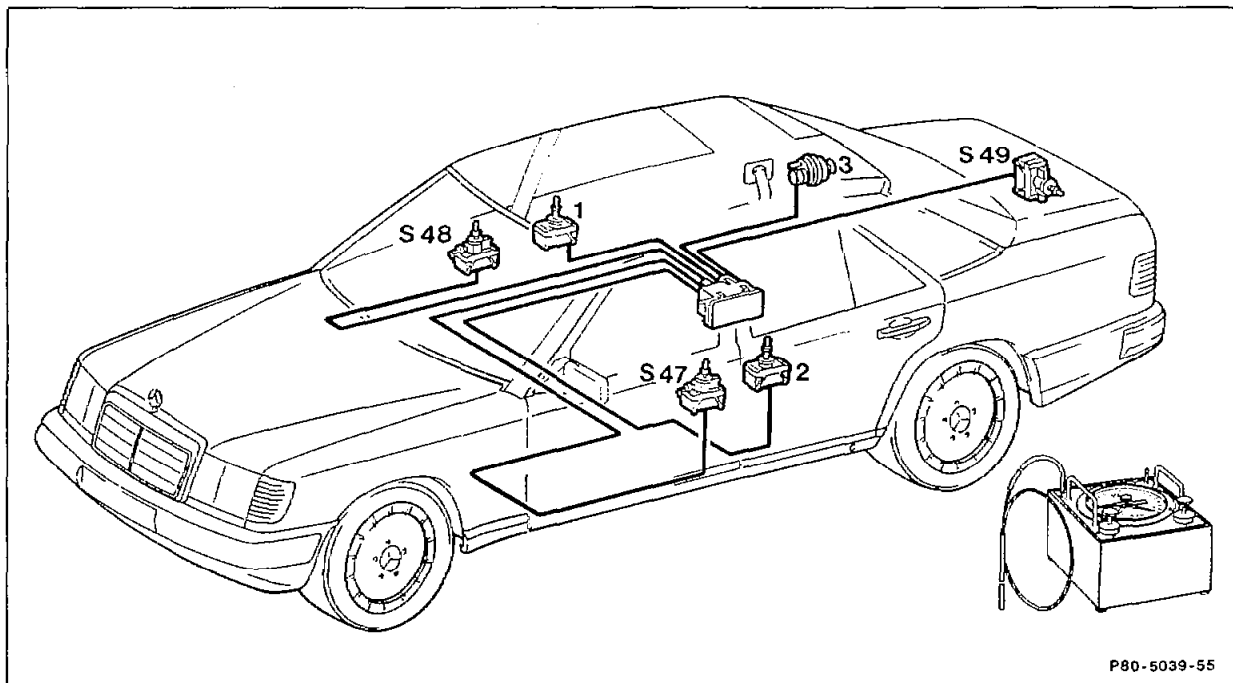
## Test



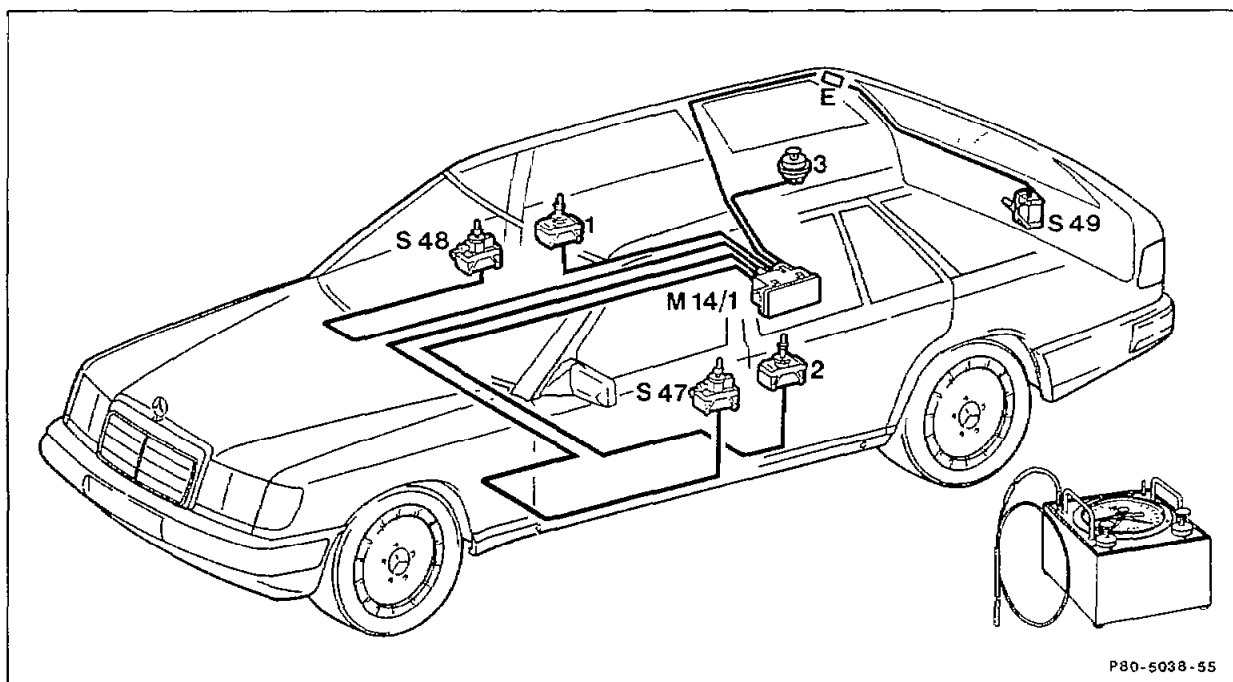


E. Sedan, station wagon, coupé as of approx. 09/90, cabriolet as of start of production

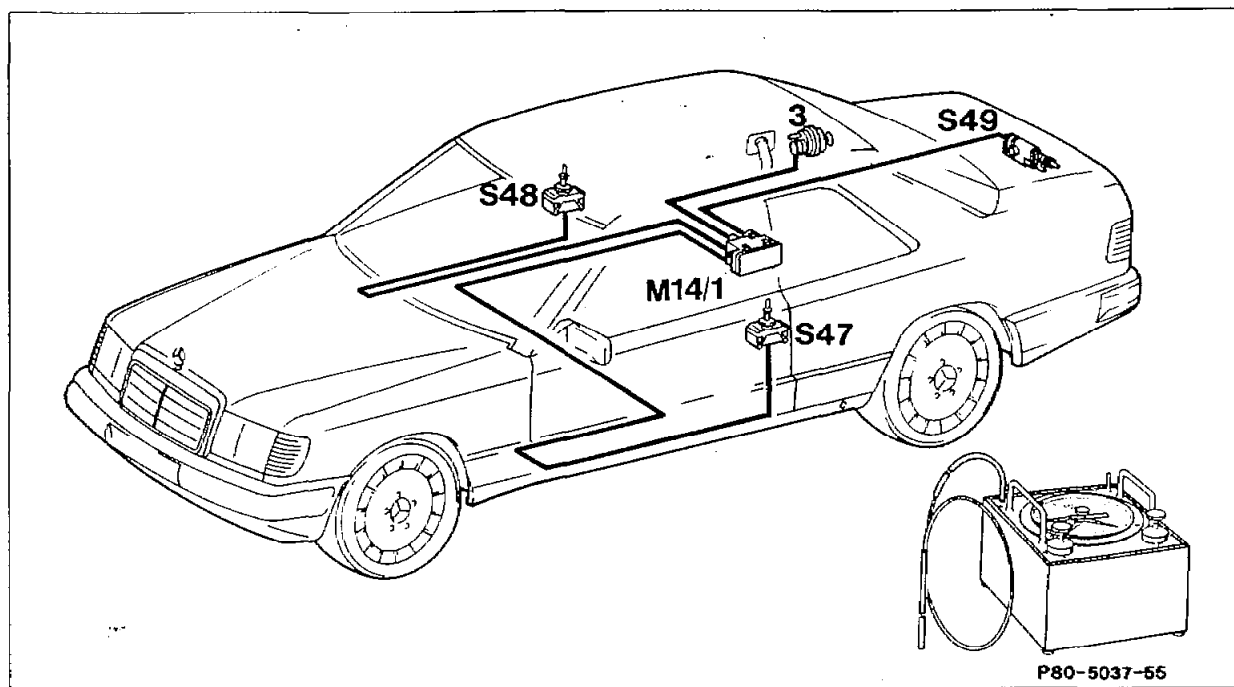
Sedan



Station wagon



## Coupé and cabriolet



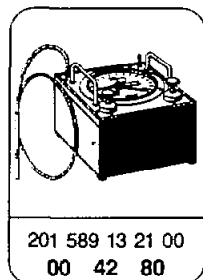
### Data (mbar)

Permissible leakage rate of entire system per minute at a pressure of 600 mbar and a vacuum of 300 mbar.	≤ 30
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Permissible leakage rate per minute of actuators with lines at a pressure of 600 mbar and a vacuum of 300 mbar.	≤ 25
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Permissible leakage rate per minute of distributor at a pressure of 600 mbar.	0
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### Special tool



### Part for test

1 plug

### Part no.

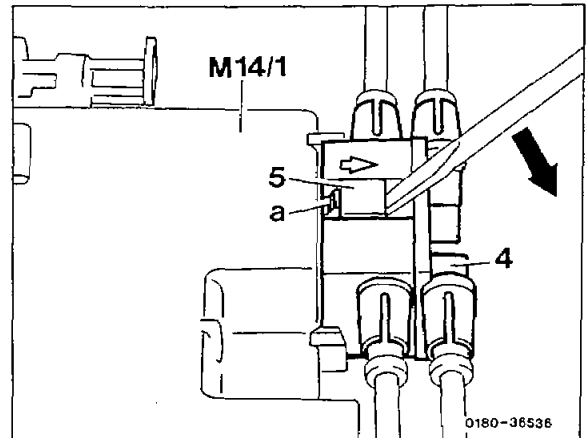
129 805 04 44

a) Checking entire system for leaks

**Test preparation**

1. Press out locking device with a screwdriver.
2. Press pull-off lock upwards and pull off distributor.

- 4 6-point distributor
- 5 Locking device
- M14/1 Supply pump, central locking system (ZV)
- a Pull-off lock



3. Connect tester to underside of distributor.

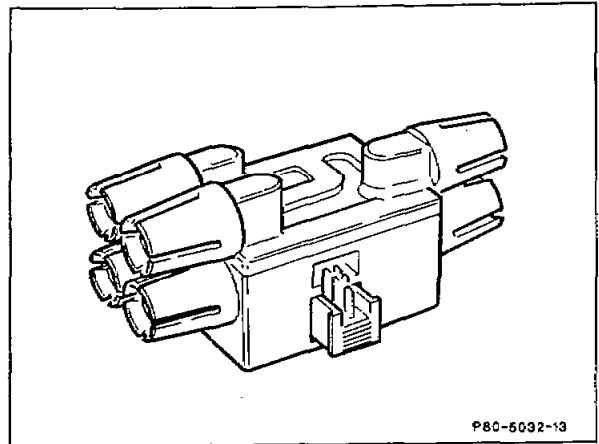
**Testing**

Test step	Scope of test	Test connection	Operation/ requirement	Nominal value	Possible cause/remedy
1	Entire system in pressure range	Yellow connection on tester  Pneumatic connection on underside of distributor	Apply a pressure of 600 mbar to the system	Pressure drop $\leq 30$ mbar per minute	Distributor, pneumatic line or actuator leaking
2	Entire system in vacuum range	Black connection on tester  Pneumatic connection on underside of distributor	Evacuate system with a vacuum of 300 mbar	Pressure rise $\leq 30$ mbar in 1 minute	Distributor, pneumatic line or actuator leaking

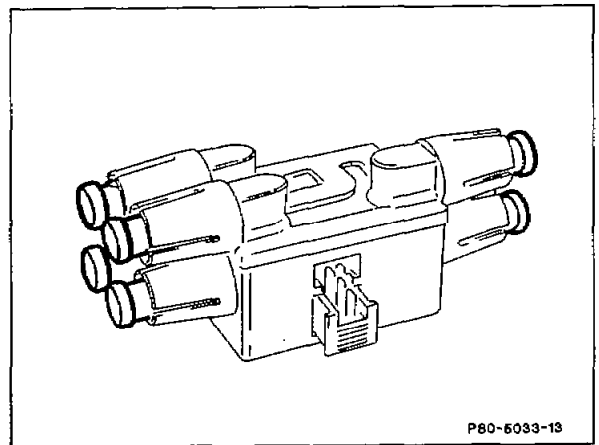
## b) Checking distributor for leaks

### Test preparation

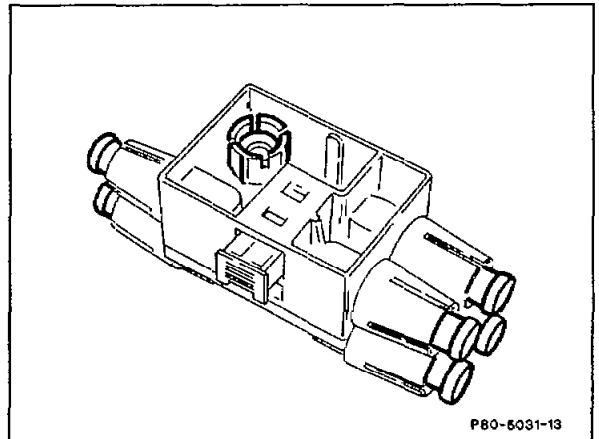
1 Lever off all pneumatic lines on distributor using an open-end wrench (width across flats 7).



2 Close all connections on distributor with plugs (part no. 124 805 02 44).



3 Connect tester to pneumatic connection on underside of distributor.



### Testing

Test step	Scope of test	Test connection	Operation/ requirement	Nominal value	Possible cause/remedy
1	Leaks at central locking system connections	Yellow connection on tester  Pneumatic connection on underside of distributor	Apply a pressure of 600 mbar to distributor	Pressure drop 0 mbar per minute	Distributor leaking

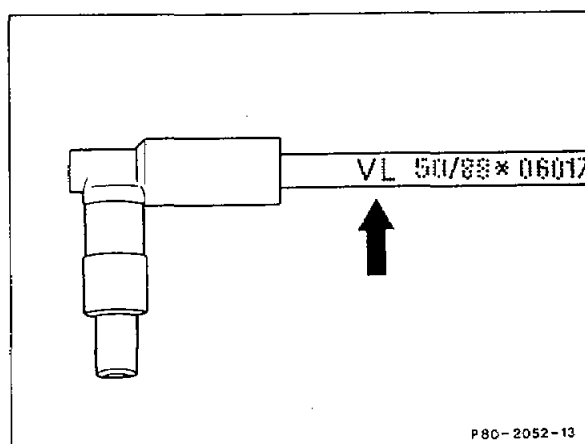
### c) Checking lines with actuators for leaks

#### Test preparation

1 Connect tester with connector (Part no. 007 997 61 82) to the pneumatic line for the left front door.

#### Note

If an actuator does not work properly although no leaks could be detected, check the line concerned for kinks and clear passage.



P80-2052-13

#### Testing

Test step	Scope of test	Test connection	Operation/requirement	Nominal value	Possible cause/remedy
1	<b>S47</b> Left front door actuator with pneumatic line in pressure range	Yellow connection on tester  Marking <b>VL</b> on pneumatic line	Apply a pressure of 600 mbar to actuator and line	Pressure drop $\leq 25$ mbar per minute	<b>S47</b> actuator or pneumatic line leaking (80-125)
2	<b>S47</b> Left front door actuator with pneumatic line in vacuum range	Black connection on tester  Marking <b>VL</b> on pneumatic line	Evacuate actuator and line with a vacuum of 300 mbar	Pressure rise $\leq 25$ mbar per minute	<b>S47</b> actuator or pneumatic line leaking (80-125).

Test step	Scope of test	Test connection	Operation/ requirement	Nominal value	Possible cause/remedy
3	<b>S48</b> Right front door actuator with pneumatic line in pressure range	Yellow connection on tester  Marking <b>VR</b> on pneumatic line	Apply a pressure of 600 mbar to actuator and line	Pressure drop ≤ 25 mbar per minute	<b>S48</b> actuator or pneumatic line leaking (80-125)
4	<b>S48</b> Right front door actuator with pneumatic line in vacuum range	Black connection on tester  Marking <b>VR</b> on pneumatic line	Evacuate actuator and line with a vacuum of 300 mbar	Pressure rise ≤ 25 mbar per minute	<b>S48</b> actuator or pneumatic line leaking (80-125)
5	<b>S49</b> Trunk lid lock actuator with pneumatic line in pressure range	Yellow connection on tester  Marking <b>HD</b> on pneumatic line	Apply pressure of 600 mbar to actuator and line	Pressure drop ≤ 25 mbar per minute	<b>S49</b> actuator or pneumatic line leaking (80-125)
6	<b>S49</b> Trunk lid lock actuator with pneumatic line in vacuum range	Black connection on tester  Marking <b>HD</b> on pneumatic line	Evacuate actuator and line with a vacuum of 300 mbar	Pressure rise ≤ 25 mbar per minute	<b>S49</b> actuator or pneumatic line leaking (80-125)

Test step	Scope of test	Test connection	Operation/ requirement	Nominal value	Possible cause/remedy
7	Left rear door actuator with pneumatic line in pressure range	Yellow connection on tester  Marking <b>HL</b> on pneumatic line	Apply a pressure of 600 mbar to actuator and line	Pressure drop $\leq 25$ mbar per minute	Left rear door actuator or pneumatic line leaking (80-125)
8	Left rear door actuator with pneumatic line in vacuum range	Black connection on tester  Marking <b>HL</b> on pneumatic line	Evacuate actuator and line with a vacuum of 300 mbar	Pressure rise $\leq 25$ mbar per minute	Left rear door actuator or pneumatic line leaking (80-125)
9	Right rear door actuator with pneumatic line in pressure range	Yellow connection on tester  Marking <b>HR</b> on pneumatic line	Apply a pressure of 600 mbar to actuator and line	Pressure drop $\leq 25$ mbar per minute	Right rear door actuator or pneumatic line leaking (80-125)
10	Right rear door actuator with pneumatic line in vacuum range	Black connection on tester  Marking <b>HR</b> on pneumatic line	Evacuate actuator and line with a vacuum of 300 mbar	Pressure rise $\leq 25$ mbar per minute	Right rear door actuator or pneumatic line leaking (80-125)
11	Fuel filler flap actuator with pneumatic line in pressure range	Yellow connection on tester  Marking <b>KE</b> on pneumatic line	Apply a pressure of 600 mbar to actuator and line	Pressure drop $\leq 25$ mbar per minute	Fuel filler flap actuator or pneumatic line leaking (80-125)
12	Fuel filler flap actuator with pneumatic line in vacuum range	Black connection on tester  Marking <b>KE</b> on pneumatic line	Evacuate actuator and line with a vacuum of 300 mbar	Pressure rise $\leq 25$ mbar per minute	Fuel filler flap actuator or pneumatic line leaking (80-125)

## F. Vehicles for as of 03/94 and vehicles with code 885

See diagnosis manual