

3.3 Remote Trunk Release (PSE/RTR)
Model 210

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Activation of the Pneumatic System Equipment (PSE):

The control wire from the remote trunk release switch (S15) or RCL control module (N54) is connected to the combination control module (N10-1). From the combination control module the control signal is sent via two CAN data lines to the PSE control module (A37).

Diagnosis – Function Test (Remote Trunk Release)

Preparation for Test:

1. Check fuses F1–14, F1–22, F4–3, F4–5 ok,
2. Battery voltage 11 – 14 V.
3. Vehicle is unlocked via IR transmitter.
4. Rear trunk lid is closed.
5. Trunk lid has not been locked separately (using mechanical key).

Test step/Test scope	Test condition	Nominal value	Possible cause/Remedy ¹⁾
⇒ 1.0 Open trunk lid via remote trunk lid release switch (S15).	Press remote trunk lid release switch (S15).	Trunk lid opens.	Trunk lid does not open and pump motor in PSE control module (A37) does not run. 23 ⇒ 1.0 Trunk lid does not open even though pump motor in PSE control module (A37) runs. 32 ⇒ 1.0, 32 PSE ⇒ 2.0, Mechanical fault in trunk lid lock.

1) Observe Preparation for Test, see 22.

Electrical Test Program – Component Locations (RTR)

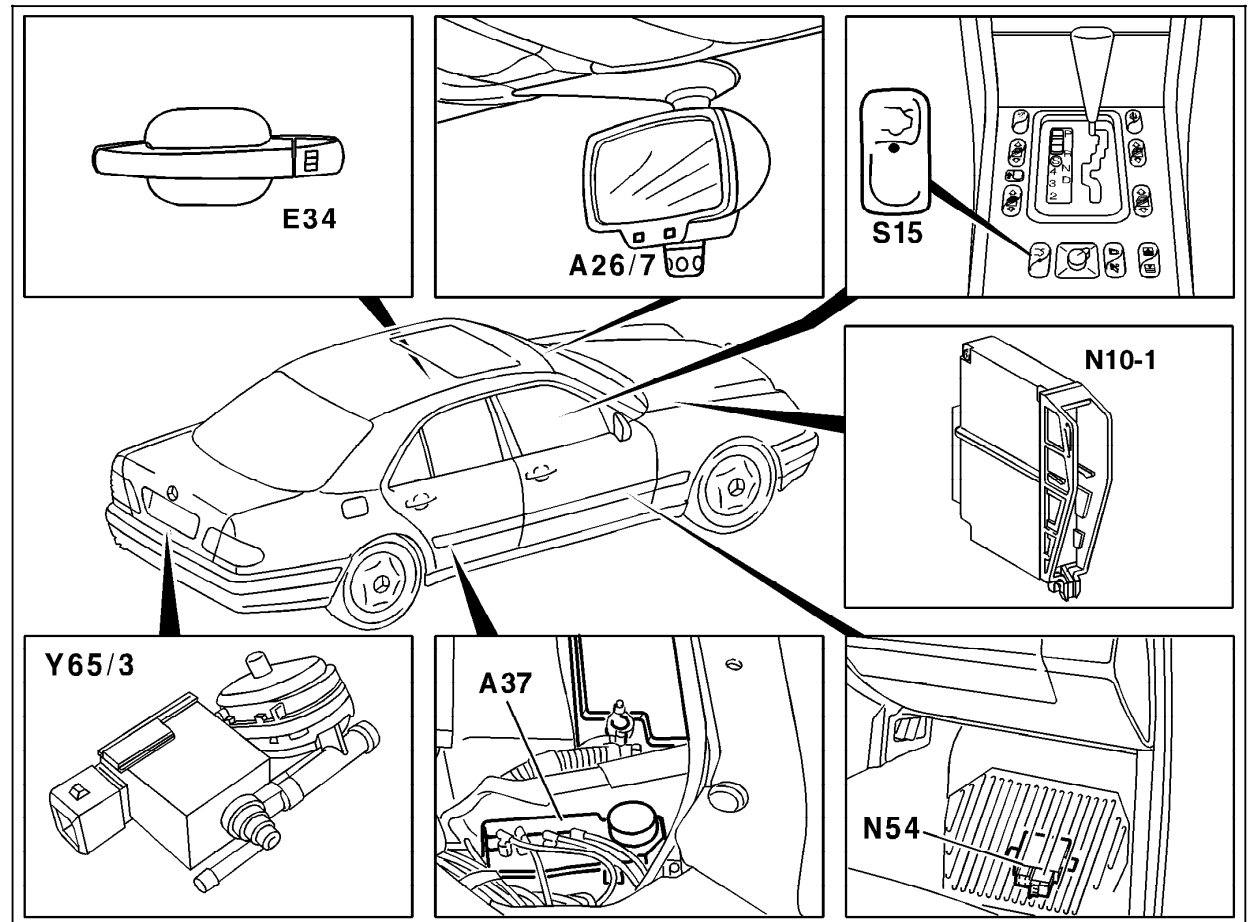


Figure 1

- A26/7 RCL receiver (interior rearview mirror)
- A37 PSE control module, combined functions
- N10-1 Combination control module
- N54 RCL control module
- S15 Remote trunk release switch
- Y65/3 RTR control valve (CL)

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Electrical Test Program – Connection of Components

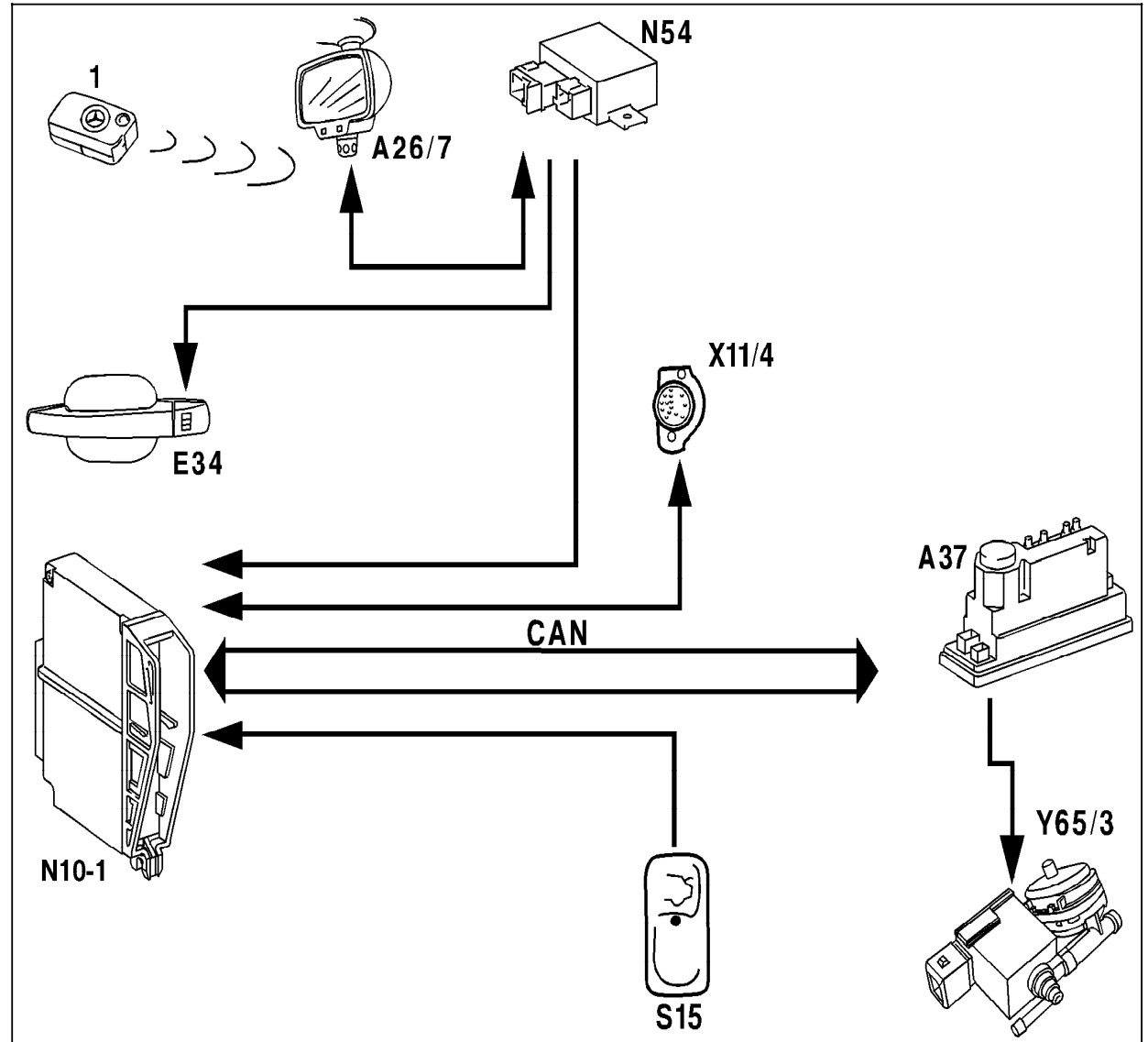


Figure 1

- A37 PSE control module, combined functions
- A26/7 RCL receiver (interior rearview mirror)
- CAN Control-Area-Network
- N10-1 Combination control module
- N54 RCL control module
- S15 Remote trunk lid release switch
- X11/4 Data link connector (DTC readout)
- Y65/3 RTR control valve (CL)
- 1 IR transmitter key

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Electrical Test Program - Preparation for Test

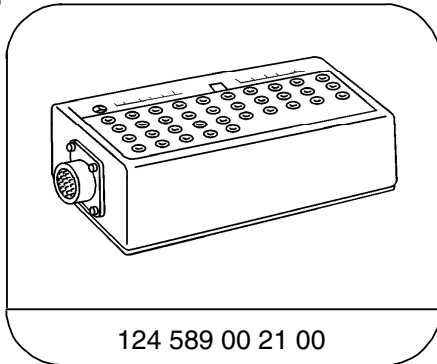
Preparation for Test:

1. Fuses for PSE system and PSE control module ok,
2. Battery voltage 11 – 14 V,
3. Provide access to PSE control module (A37),
4. Provide access to combination control module (N10-1 or N10-3),
5. Connect socket box with test cable according to connection diagram, see 22, Figure 1 – 3.

Electrical Wiring Diagrams:

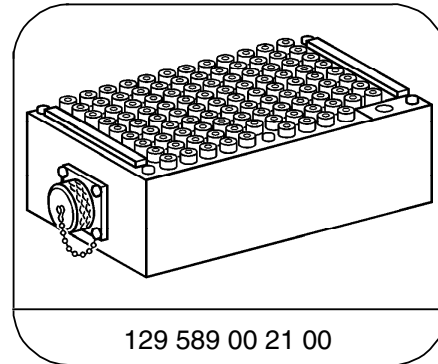
See Electric Troubleshooting Manual, Model 170, (please see future ETM), Model 210, Volume 2, group 80

Special Tools



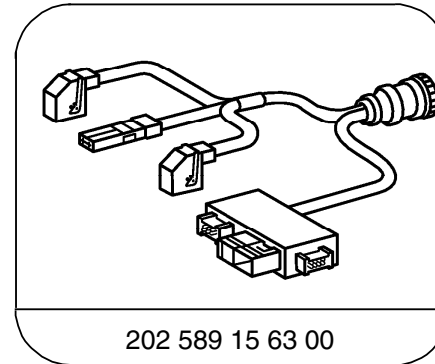
124 589 00 21 00

35-pin socket box



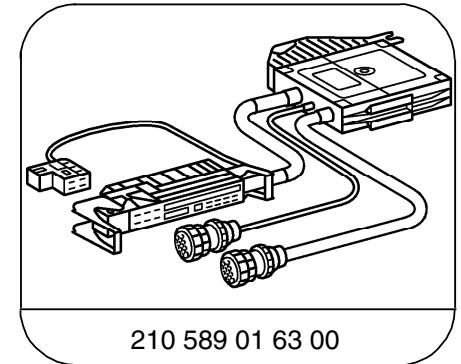
129 589 00 21 00

126-pin socket box



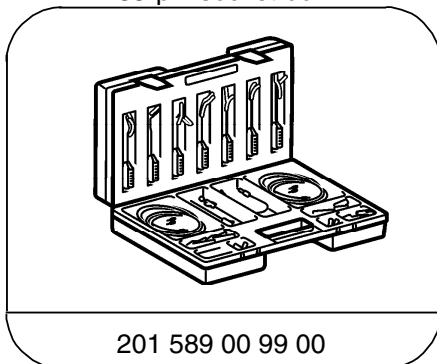
202 589 15 63 00

18-pin and 12-pin CAN test cable



210 589 01 63 00

78-pin test cable



201 589 00 99 00

Electrical connecting set

3.3 Pneumatic System Equipment (PSE)

Models 170, 210

Conventional tools, test equipment

Description	Brand, model, etc.
Multimeter ¹⁾	Fluke models 23, 83, 85, 87

¹⁾ Available through the MBUSA Standard Equipment Program.

Electrical Test Program - Preparation for Test

Connection Diagram - Socket Box
Model 170

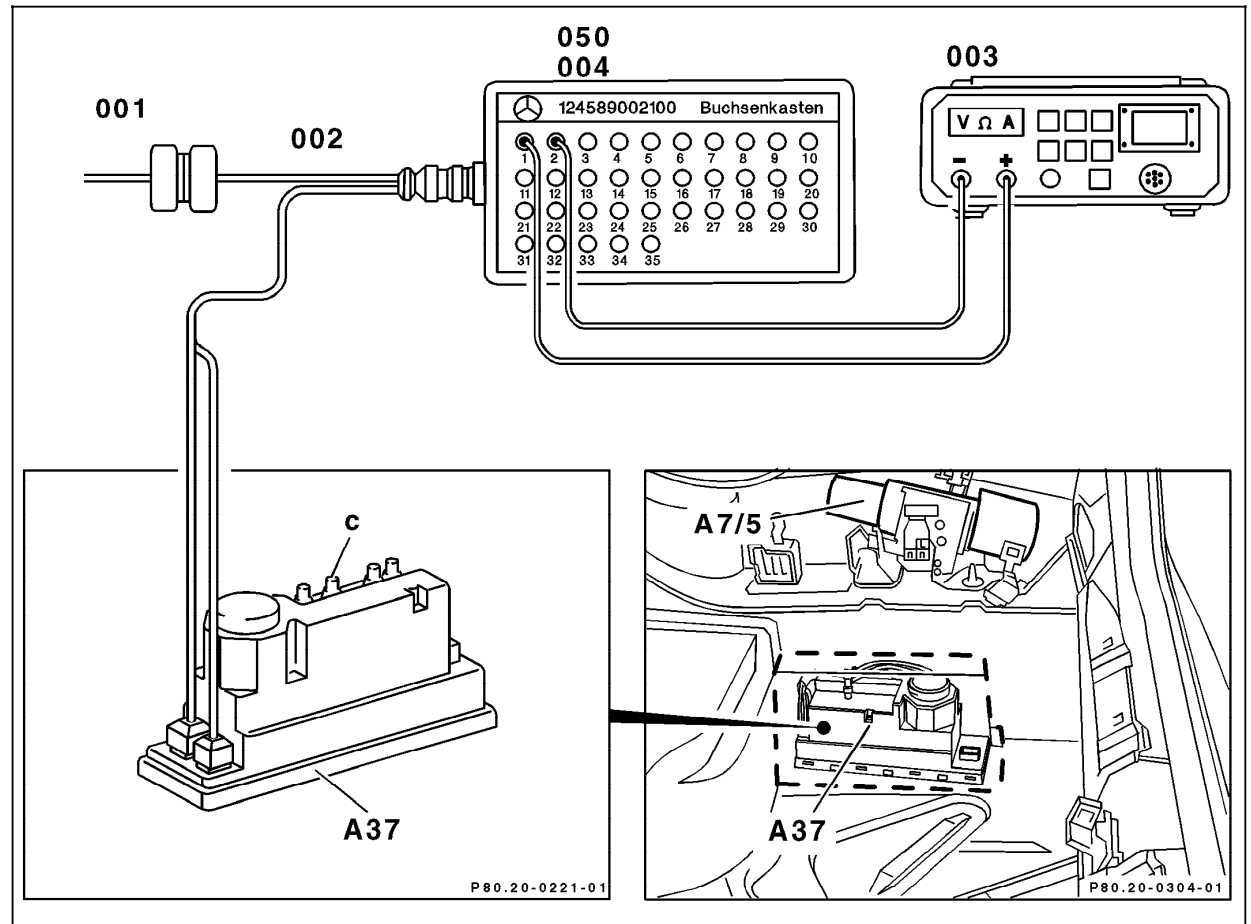


Figure 1

- A37 PSE control module, combined functions
- 001 PSE control module connector
- 002 Test cable
- 003 Multimeter
- 004/050 Socket box (35-pole)

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Electrical Test Program - Preparation for Test

Connection Diagram - Socket Box

Model 210

(sedan shown)

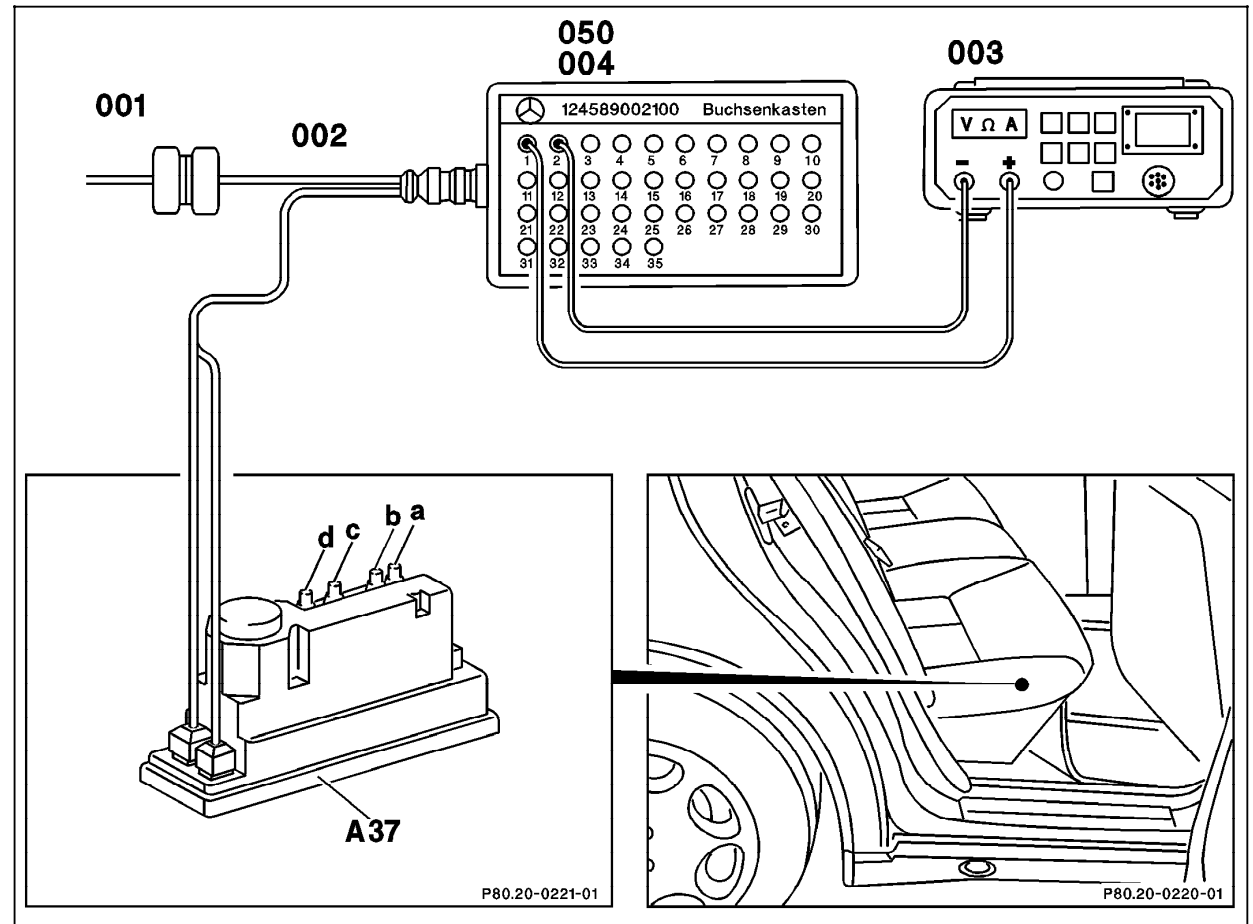


Figure 2

- A37 PSE control module, combined functions
- 001 PSE control module connector
- 002 Test cable
- 003 Multimeter
- 004/050 Socket box (35-pole)

Electrical Test Program - Preparation for Test

Connection Diagram - Socket Box

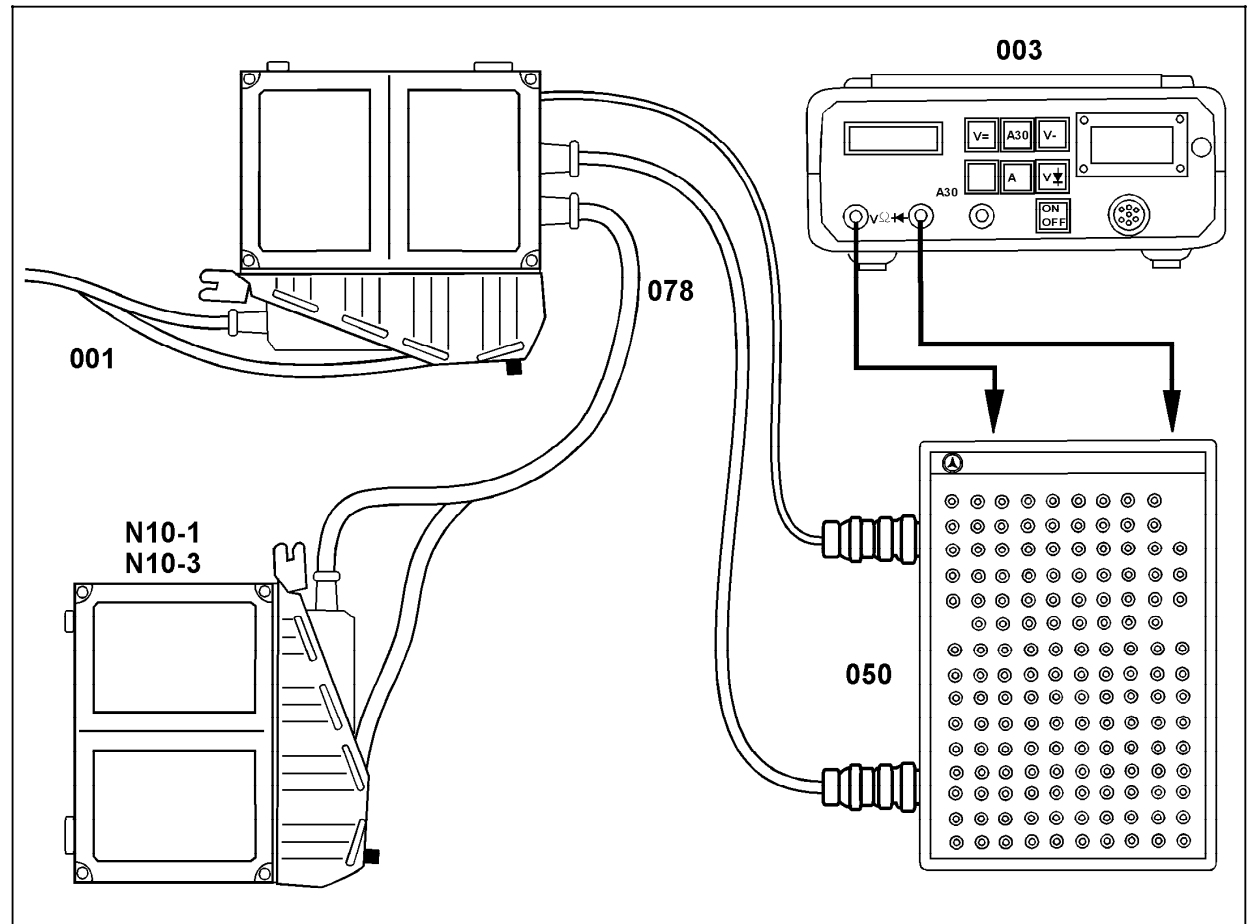

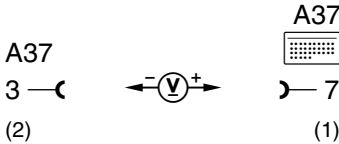


Figure 3

- N10-1 Combination control module (model 210)
- N10-3 Combination control module (model 170)
- 001 PSE control module connector
- 002 Test cable
- 003 Multimeter
- 050 Socket box (35-pole)

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Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.0		Activate RTR control valve (Y65/3) (CL)		Remote trunk release switch (S15): Rest position S15: Hold pressed	< 1 V 11 – 14 V, as long as PSE pump runs, (use fluke 83, 88 to measure voltage).	Wiring, ⇒ 1.1, 23 PSE ⇒ 1.0–8.0, 2.0 23 1.0–3.0, PSE control module (A37).

Pneumatic Test Program – Component Locations (RTR)

Component Locations

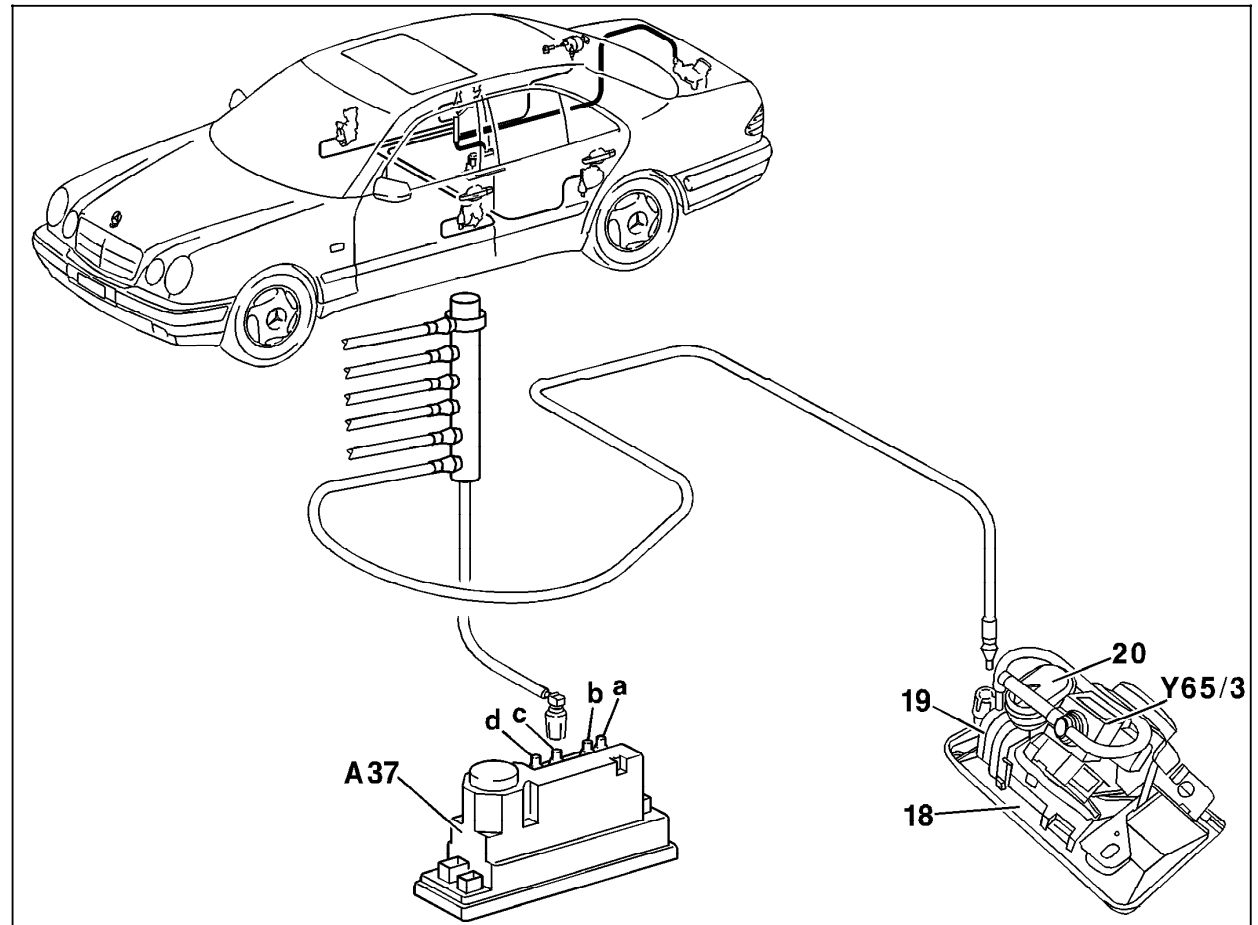


Figure 1

- A37 PSE control module, combined functions
- a Pneumatic connection OSB
- b Pneumatic connection MVA
- c Pneumatic connection CL, RTR
- d Pneumatic connection RHR
- Y65/3 RTR control valve (CL)
- 18 Trunk lid lock
- 19 Trunk lid CL actuator
- 20 Remote trunk lid release pneumatic actuator

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Pneumatic Test Program – Test (RHR)

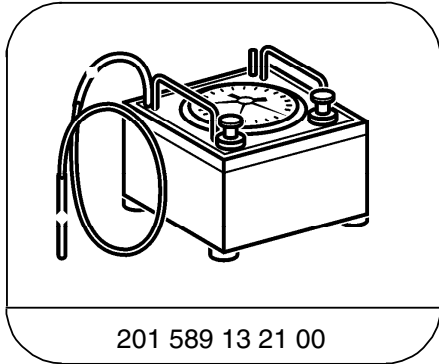
Preliminary work:

PSE control module voltage supply 23 PSE ⇒ 1.0, 2.0
 PSE Control Module Test 32 PSE

Data (mbar)

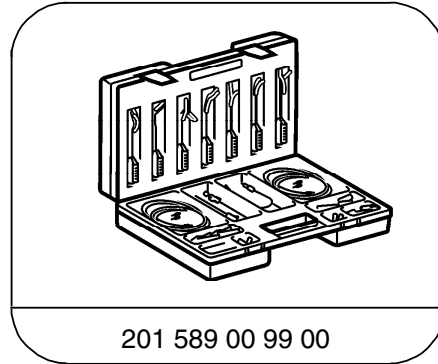
Test procedure	Permissible deviation
Allowable system leakage of 300 mbar vacuum in 1 minute.	30 mbar
Allowable leakage of actuators with line at 300 mbar vacuum in 1 minute.	25 mbar

Special Tools



201 589 13 21 00

Tester



201 589 00 99 00

Electrical connecting set

Pneumatic Test Program – Test (RHR)

A. Entire System

Preparation for Test:

1. Disconnect **yellow** central locking (CL) pneumatic line from PSE control module.
2. Connect tester to disconnected pneumatic line using connector 202 805 03 44.
3. Remove trunk lid lock, do not disconnect pneumatic line.
4. Apply battery voltage to electrical connector of remote trunk lid release switch (Y65/3).



If an actuator does not operate correctly and no leakage is found, check the respective lines for kinks or blockages.

Parts Required for Test:

1	Connector	202 805 03 44
2	Rubber 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 to connector	Apply 600 mbar pressure to entire system.	Pressure loss 30 mbar in 1 minute.	⇒ 2.0, ⇒ 3.0

Pneumatic Test Program – Test (RTR)

B. Pneumatic lines with actuators and RTR control valve (Y65/3)

Preparation for Test:

1. Disconnect pneumatic line connected to connector **F** of pneumatic distributor.
2. Connect tester to disconnected pneumatic line using rubber hose, part no. 007 997 61 82.
3. Remove trunk lid lock, do not disconnect pneumatic line.
4. Apply battery voltage to RTR control valve (Y65/3).

Parts Required for Test:

1 Rubber hose, 50 mm long 007 997 61 82

Parts Required for Repair

Rubber hose (as necessary) 007 997 61 82



After testing, reconnect prior disconnected pneumatic line using rubber hose part no. 007 997 61 82 to pneumatic distributor.

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.0	Actuators with pneumatic line and RTR control valve (Y65/3) pressurized	Yellow connector on tester.	Apply 600 mbar pressure to actuators with pneumatic line and RTR control valve (Y65/3).	Pressure loss 25 mbar in 1 minute.	⇒ 3.0, 32 PSE/CL ⇒ 7.0

Pneumatic Test Program – Test (RTR)

C. RTR control valve (Y65/3) with RTR pneumatic actuator

Preparation for Test:

1. Remove trunk lid lock.
2. Connect tester to pneumatic connector of RTR control valve (Y65/3).
3. Apply battery voltage to electrical connector of RTR control valve (Y65/30).

Parts Required for Test:

- | | | |
|---|-------------------------|---------------|
| 1 | Pneumatic line, 1m long | 000 158 14 35 |
| 2 | Connector, 50 mm long | 007 997 61 82 |

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
3.0	RTR control valve (Y65/3) with RTR pneumatic actuator pressurized	Yellow connector on tester.	Apply 600 mbar pressure to actuator and pneumatic line.	Pressure loss 25 mbar in 1 minute.	RTR control valve with actuator leaks. Replace.