3.4 Remote Trunk Release (PSE/RTR)
Models 202, 208, 210 as of M.Y. 1998

Activation of the Pneumatic System Equipment (PSE):
The remote trunk release switch (N72s15) (RTR) is connected via the CAN data line to the PSE control module (A37). The radio signal is sent from the IR transmitter key to the roof control panel control module (N70). The roof control panel control module then sends a signal via CAN data line to the electronic ignition lock control module (N73). If a valid signal is recognized by the electronic ignition lock control module, the PSE control module is activated via the CAN data line.
The infrared signal from the IR transmitter key is sent via the left/right door IR receiver (A26/1, A26/2) to the individual front driver-side/passenger-side door control modules (N69/1, N69/2). The receivers send the signal via the CAN data line to the electronic ignition lock control module (N73). If a valid signal is recognized, the PSE control module (A37) is activated via the CAN data line.
When the trunk lid is unlocked, the LED in the remote trunk release switch is activated (illuminated) by the PSE control module, via the CAN data line.

Particular notes regarding Model 208.465 (Cabriolet):
RTR function via the RCL transmitter key is not possible.
The power soft top control module (N52) "signals" via CAN interior databus if the power soft top is unlocked or locked, or if the power soft top switch (S84) has been activated. As a result, as long as the CAN message (signal) is:
"Power soft top switch (S84) activated" or "Power soft top unlocked"
the RTR unlocking function is **not** possible.

Diagnosis – Function Test (Remote Trunk Release)

Preparation for Test:

1. Review C/1, 11, 20, 21, 22, 32,
2. Connect HHT and readout DTC'S,
3. Do not unlock trunk lid separately,
4. Trunk lid closed,
5. Battery voltage 11 to 14 V,
6. Fuses ok,
7. Voltage supply to all control modules and CAN data lines ok.

Test step/Test scope	Test condition	Nominal value	Possible cause/Remedy [1]
⇒ 1.0 Open trunk lid via RTR switch (N72s15)	Press remote trunk lid release switch (N72s15).	Trunk lid opens. Model 208.465 only: With a not completely opened or closed power soft top, the RTR function is not possible.	Trunk lid does not open and pump motor in PSE control module (A37) **does not run**: PSE version coding incorrect,see 3.4 PSE C/2, PSE (A37). Trunk lid does not open even though pump motor in PSE control module (A37) **runs**: Mechanical fault in trunk lid lock, 23 PSE/RTR ⇒ 1.0, 32 PSE/RTR ⇒ 1.0, See AD80.20-P-8000-01BB.

[1] Observe Preparation for Test, see 22.

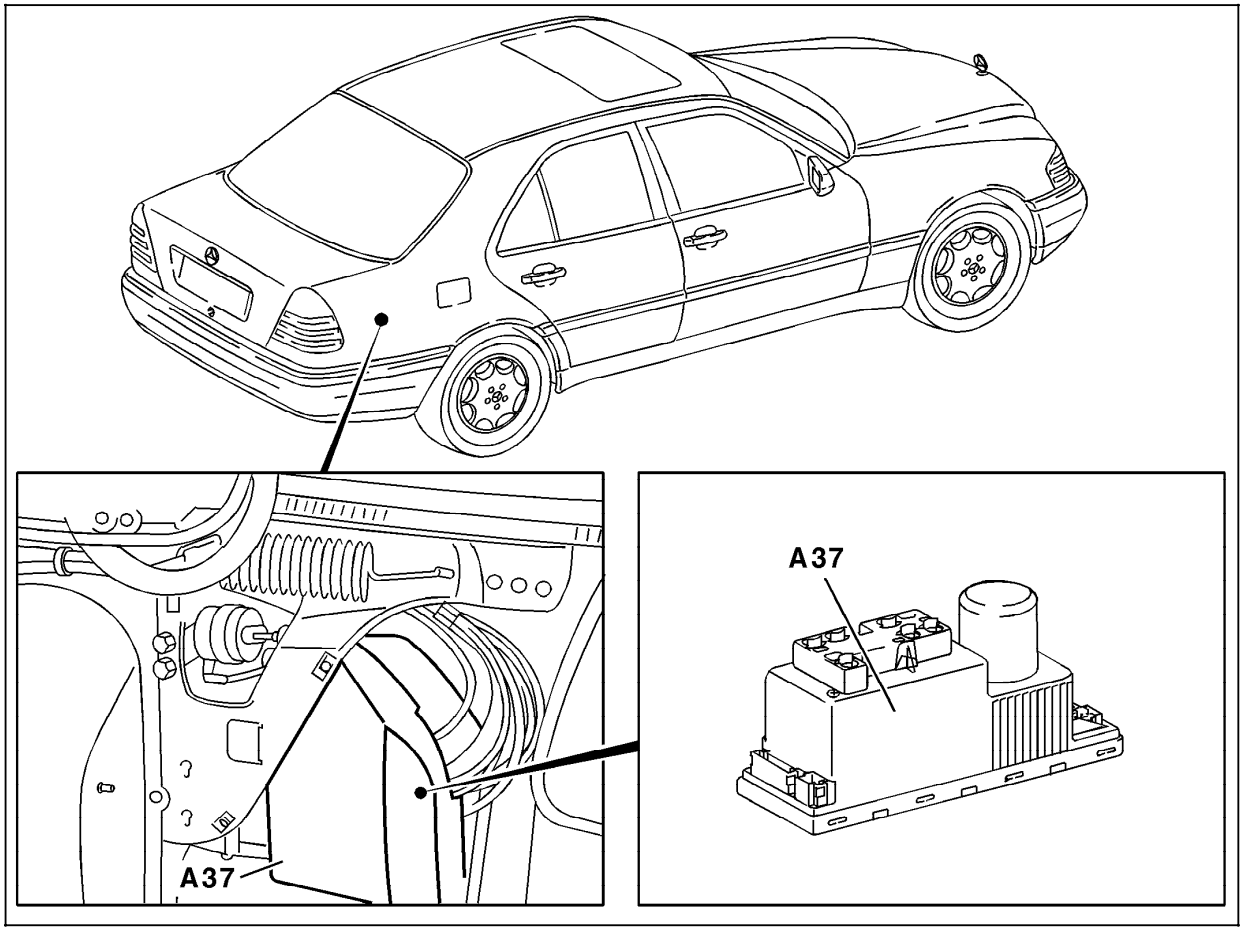
Diagnosis – Function Test (Remote Trunk Release)

Test step/Test scope	Test condition	Nominal value	Possible cause/Remedy [1]
⇒ 2.0 Open trunk lid via lock button on trunk release switch (S15/1).	Vehicle is unlocked via remote central locking. Trunk lid has not been locked via mechanical key. Press lock button on trunk release switch (S15/1).	Trunk lid opens. Model 208.465 only: With a not completely opened or closed power soft top, the RTR function is not possible.	Trunk lid does not open and pump motor in PSE control module (A37) **does not run**: PSE version coding incorrect, see 3.4 PSE C/2, PSE (A37). Trunk lid does not open even though pump motor in PSE control module (A37) **runs**: Mechanical fault in trunk lid lock. 23 PSE/RTR ⇒ 2.0, See AD80.20-P-6000-15B, 32 PSE/RTR ⇒ 1.0, See AD80.20-P-8000-01BB.

[1] Observe Preparation for Test, see 22.

Electrical Test Program – Component Locations (RTR)

Models 202, 208
(Model 202 shown)
(for balance of components see Figure 2)



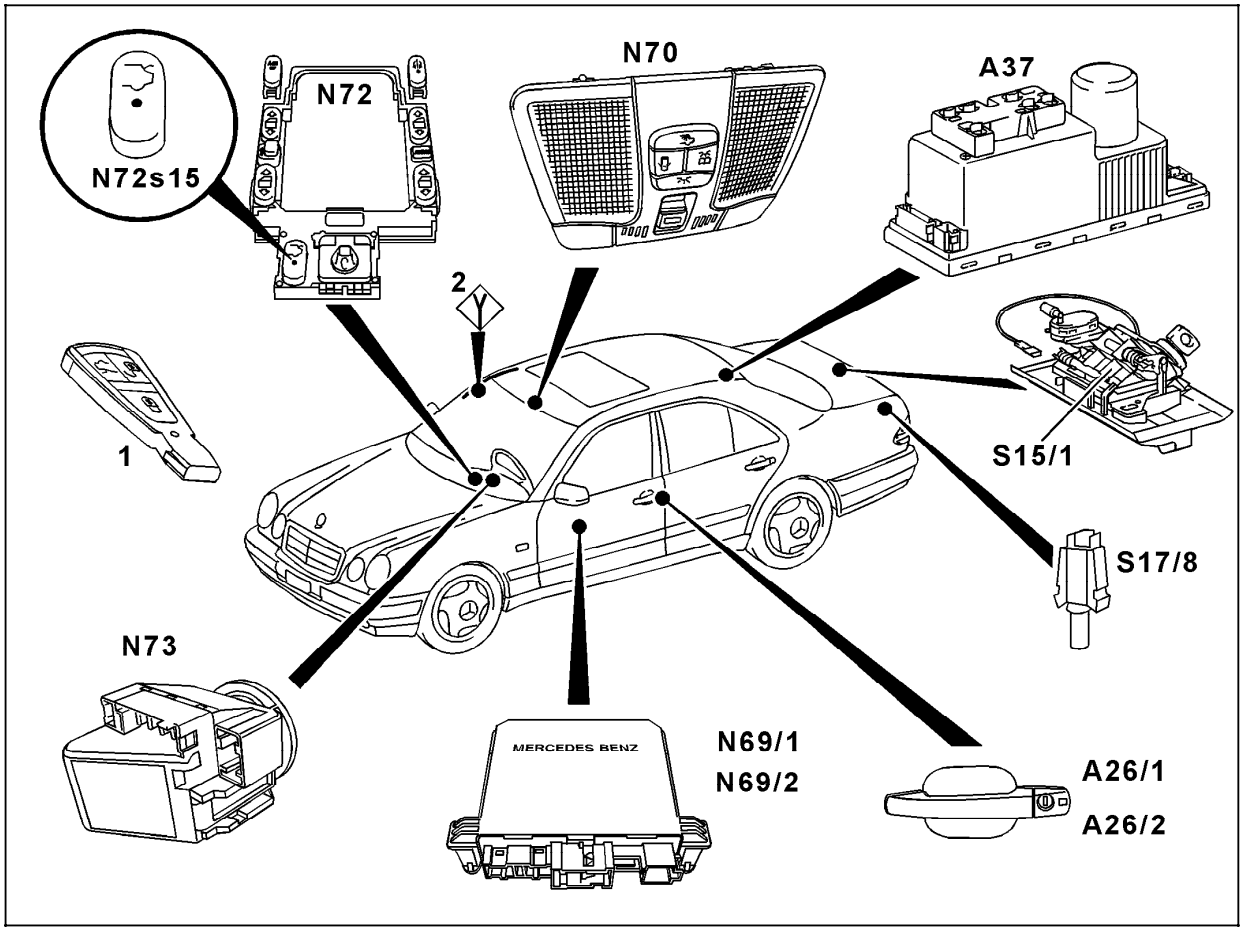
P80.20-0365-06

Figure 1

A37 PSE control module, combined functions

Electrical Test Program – Component Locations (RTR)

Model 210
(Model 210 sedan shown)



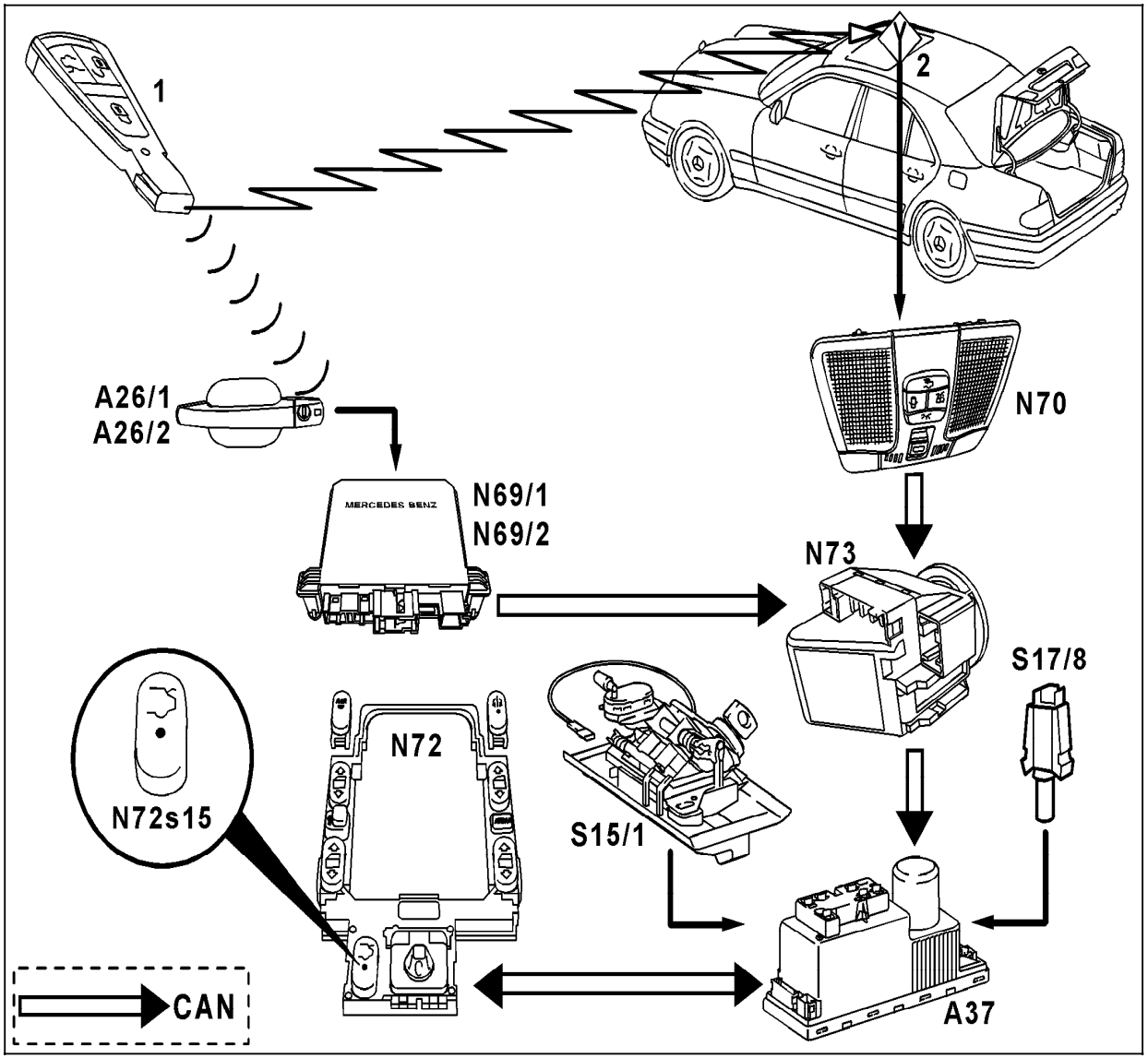
P80.20-0367-06

Figure 2

A26/1	Left front door IR receiver
A26/2	Right front door IR receiver
A37	PSE control module, combined functions
N69/1	Front driver-side door control module
N69/2	Front passenger-side door control module
N70	Roof control panel control module
N72	Lower control field control module
N72s15	RTR switch
N73	Electronic ignition lock control module
S15/1	Trunk release switch
S17/8	Trunk lamp switch
1	Transmitter key
2	Antenna

Electrical Test Program – Connection of Components

Model 210
(Model 210 sedan shown)



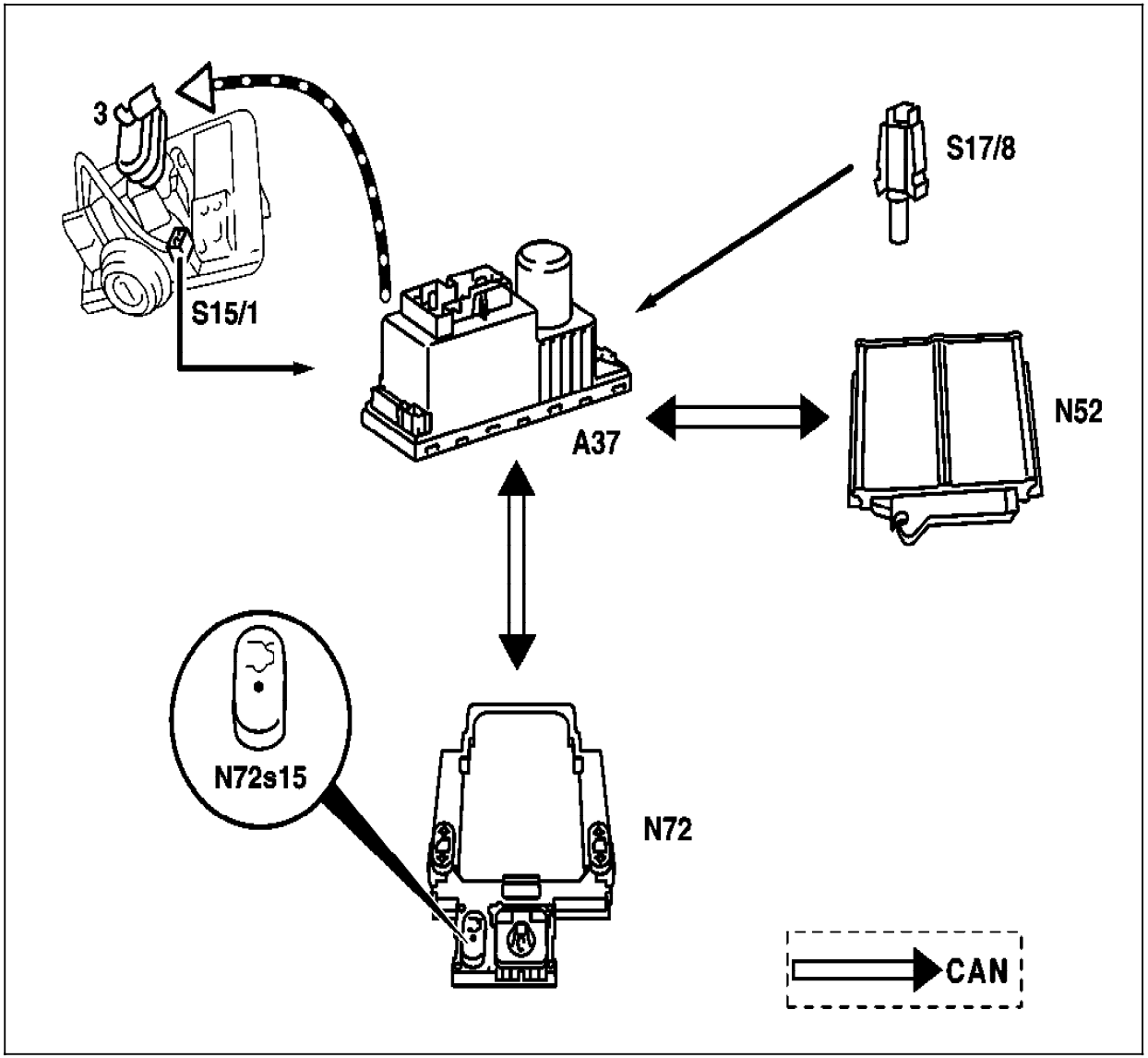
P80.20-0369-06

Figure 1

A26/1	Left front door IR receiver
A26/2	Right front door IR receiver
A37	PSE control module, combined functions
CAN	Control-Area-Network
N69/1	Front driver-side door control module
N69/2	Front passenger-side door control module
N70	Roof control panel control module
N72	Lower control field control module
N72s15	RTR switch
N73	Electronic ignition lock control module
S15/1	Trunk release switch
S17/8	Trunk lamp switch
1	Transmitter key
2	Antenna

Electrical Test Program – Connection of Components

Model 208
(Model 208.465 cabriolet shown)



P80.20-2003-06

Figure 2

A37	PSE control module, combined functions
CAN	Control-Area-Network
N52	Power soft top control module
N72	Lower control field control module
N72s15	RTR switch
S15/1	Trunk release switch
S17/8	Trunk lamp switch
3	Trunklid pneumatic element

Electrical Test Program - Preparation for Test

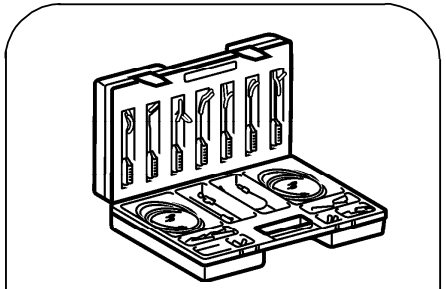
Preparation for Test:

1. Voltage supply to all control modules and CAN data lines ok,
2. Battery voltage 11 – 14 V,
3. Review section 0,
4. Review C/1, C/2, 11, 12, 20, 21, 22, 31, 32,
5. Connect HHT, see section 0,
6. For model 202 and 208, review PE80.00-P-1100D and for model 210 review PE80.00-P-1100A, prior to starting test.

Electrical Wiring Diagrams:

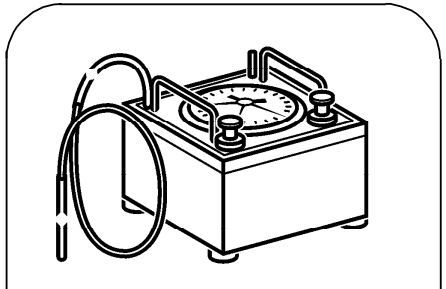
See Electric Troubleshooting Manual, Model 202/208, group 80,
Model 210, Volume 2, group 80

Special Tools



201 589 00 99 00

Electrical connecting set



201 589 13 21 00

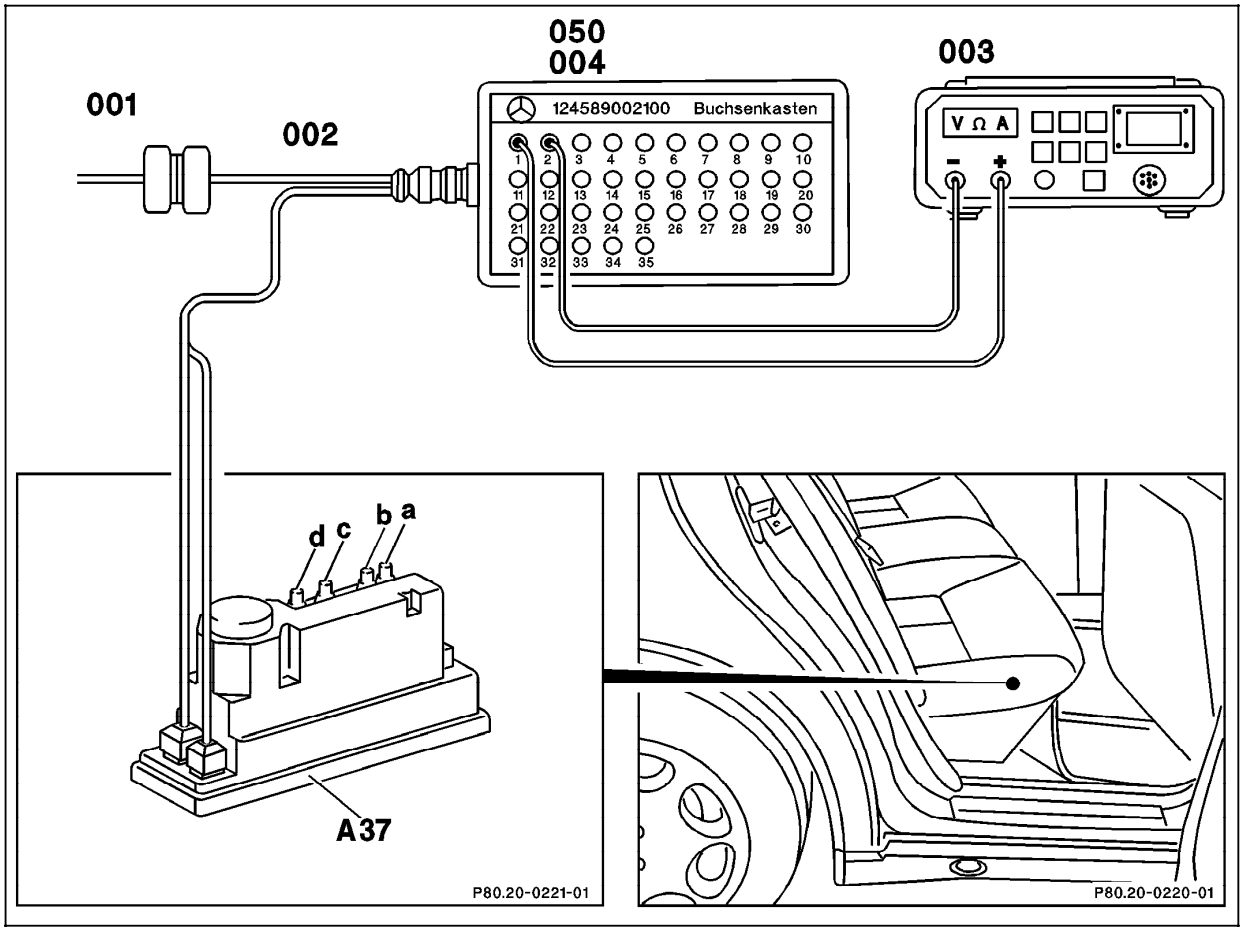
Tester

Test equipment; See MBUSA Standard Service Equipment Program

Description	Brand, model, etc.
Digital multimeter	Fluke models 23, 77 III, 83, 85, 87

Electrical Test Program - Preparation for Test

Connection Diagram - Socket Box
Model 210
(sedan shown)



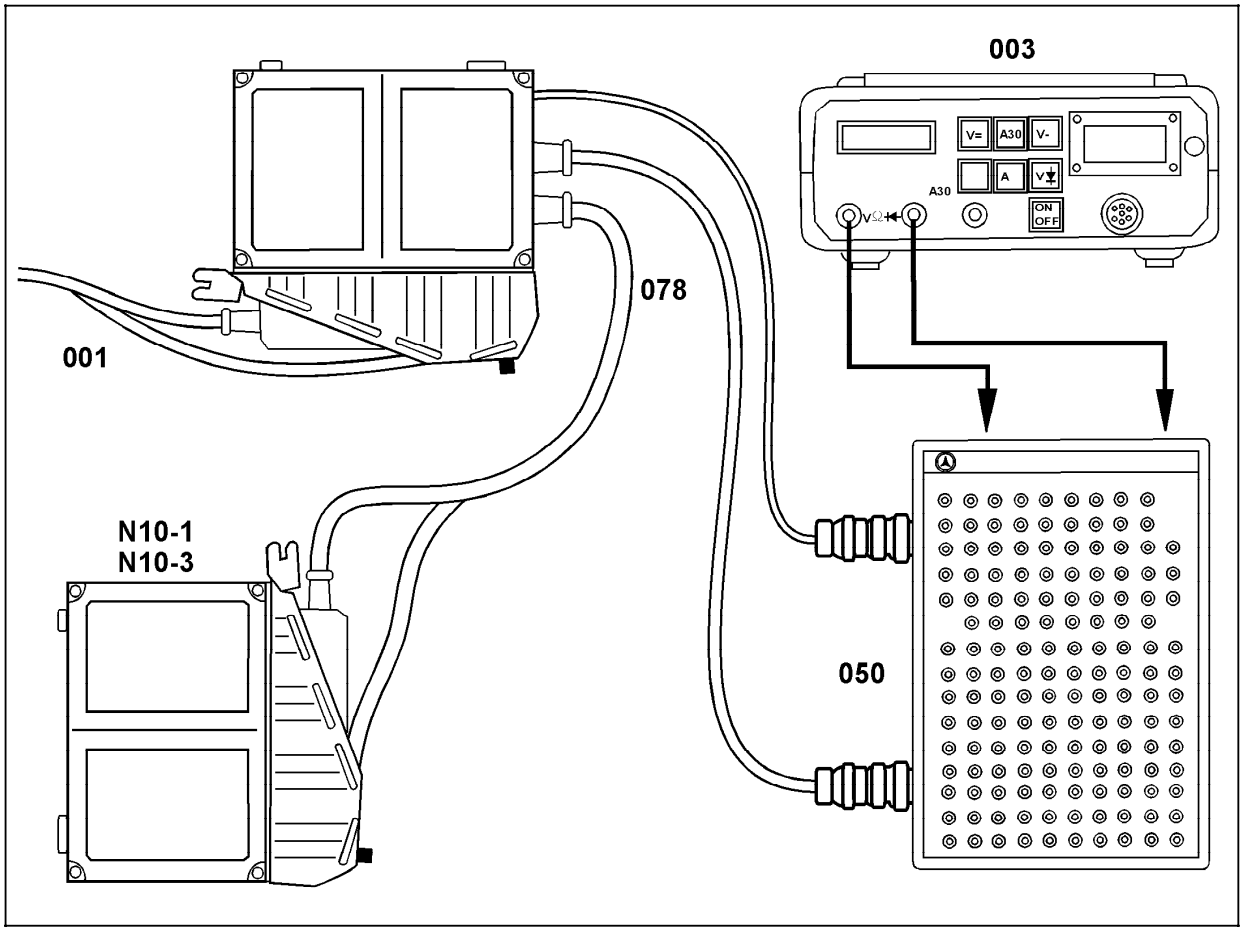
P80.20-0213-06

Figure 1

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



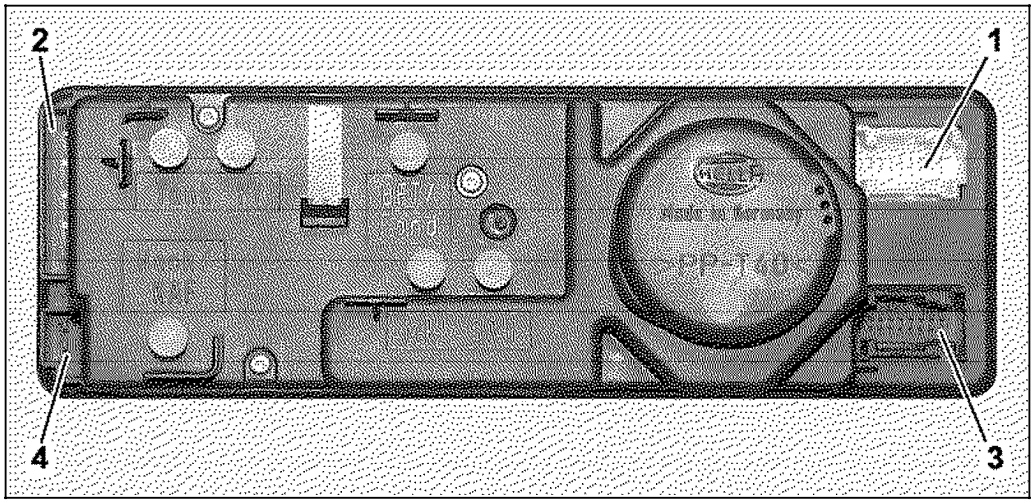
P82.40-0214-06

Figure 2

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

Electrical Test Program - Preparation for Test

Connections - PSE control module (A37)



P80.20-2037-10

Figure 4

1	Connector 1 (control line PSE)
2	Connector 2 (voltage supply PSE)
3	Connector 3 (control line ATA)
4	Connector 4 (load connections ATA)

Electrical Test Program – Test

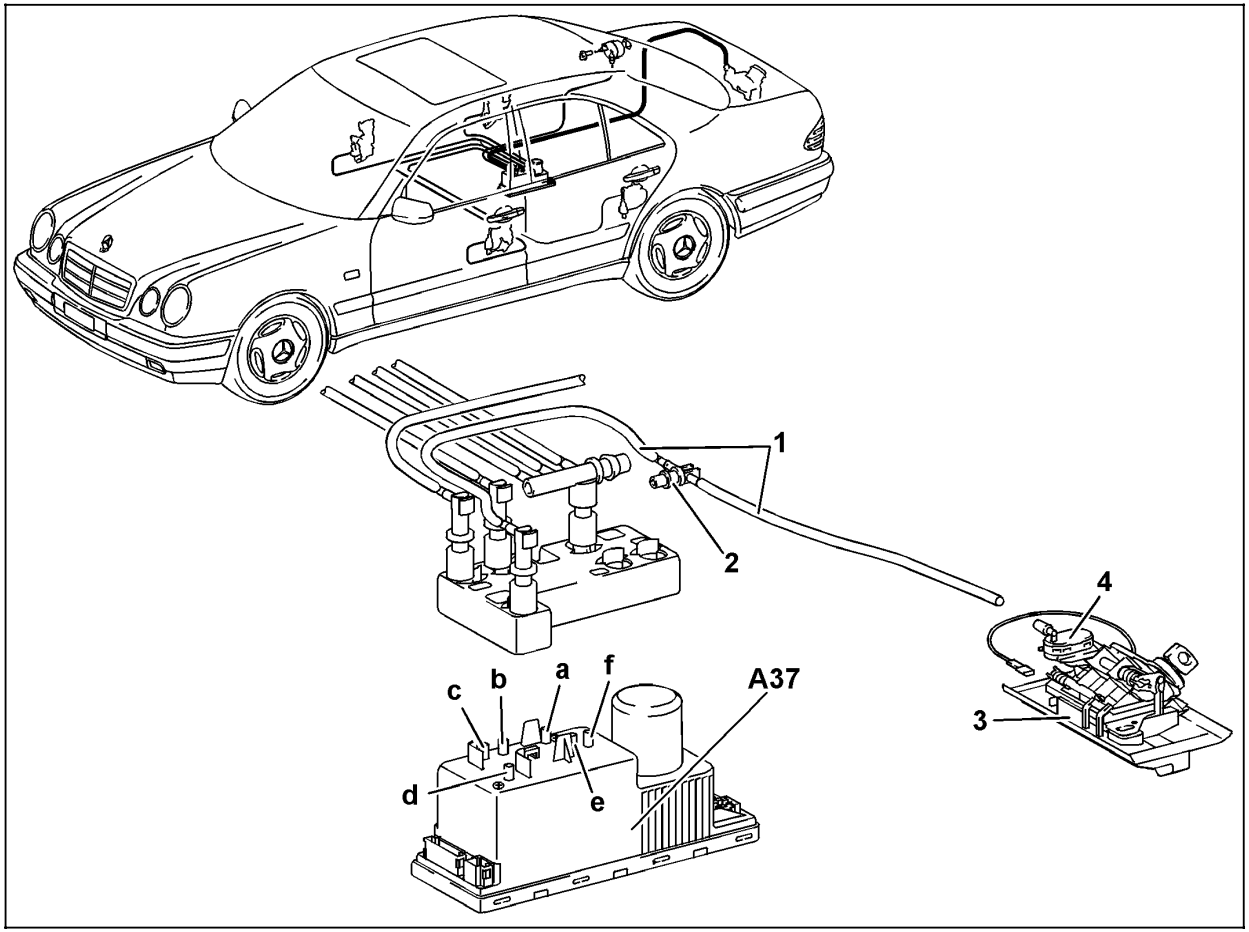
Preparation for Test:

1. Review section 0,
2. Review C/1, 20, 21, 31, 32.

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0	B1124	**Remote trunk release**		Trunk lid closed. Trunk lid not locked with mechanical key. Remote trunk release switch (N72s15): **Press switch:**	Trunk lid opens. LED in switch illuminated.	32 PSE/RTR ⇒ 1.0, See AD80.20-P-8000-10B, PSE (A37), Lower control field control module (N72), Mechanical fault in trunk lid lock, 23 PSE/RTR ⇒ 3.0
2.0		**Trunk release switch (S15/1)**		Trunk lid closed. Trunk lid not locked with mechanical key. Unlock trunk lid by pressing lock button on trunk release switch.	Trunk lid opens. LED in switch illuminated.	See AD80.20-P-6000-15B, 32 PSE/RTR ⇒ 1.0, See AD80.20-P-8000-10B, PSE (A37), Mechanical fault in trunk lid lock, 23 PSE/RTR ⇒ 3.0
3.0		**Trunk lamp switch (S17/8)**		Trunk lid unlocked via remote trunk release switch (N72s15).	LED in switch (N72s15) illuminated.	Wiring, See AD80.20-P-6000-14B, S17/8, Lower control field control module (N72), PSE (A37).

Pneumatic Test Program – Component Locations (RTR)

Model 210
(Model 210 sedan shown)



P80.20-0375-06

Figure 1

A37	PSE control module, combined functions
a	Pneumatic connection, passenger/rear doors
b	Pneumatic connection, driver-side door
c	Pneumatic connection, fuel tank filler flap
d	Pneumatic connection, RTR/RHR
e	Pneumatic connection, OSB
f	Pneumatic connection, MVA
1	Pneumatic line, remote trunk lid release
2	T-connnector (RTR/RHR)
3	Trunk lid lock
4	Pneumatic actuator, trunk lid release

Pneumatic Test Program – Test (RTR)

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

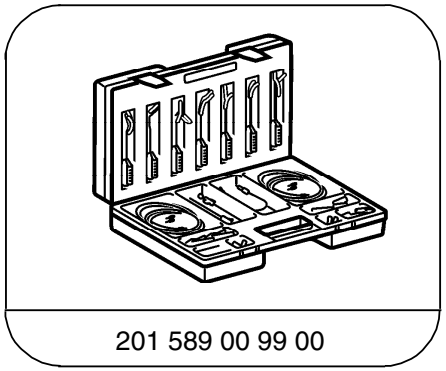
Preparation for Test:

1. Review section 0,
2. Review C/1, 20, 21, 31, 32.

Data (mbar)

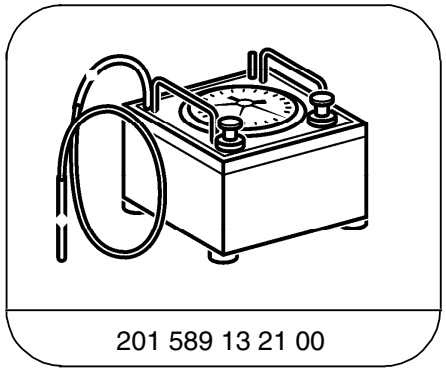
Test procedure	Permissible deviation
Allowable system leakage of 300 mbar vacuum in 1 minute.	30 mbar
Allowable leakage of actuators with line at 300 mbar vacuum in 1 minute.	25 mbar

Special Tools



201 589 00 99 00

Electrical connecting set



201 589 13 21 00

Tester

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.

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.	32 PSE/RTR ⇒ 2.0, 32 PSE/RTR ⇒ 3.0, See AD80.20-P-8003-01A.

Pneumatic Test Program – Test (RTR)

B. Pneumatic line with RTR actuator

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.

i

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

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

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
2.0		**Actuator, RTR pressurized**	**Yellow** connector on tester.	Apply 600 mbar pressure to RTR actuator with pneumatic line.	Pressure loss 25 mbar in 1 minute.	Actuator leaks, Replace.

Pneumatic Test Program – Test (RTR)

C. Pneumatic line

Preparation for Test:

1. Remove trunk lid lock.
2. Connect tester to pneumatic connector.

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		**Vacuum leak test**	**Black** connector on tester.	Apply 300 mbar vacuum to pneumatic line.	Vacuum loss 0 mbar in 1 minute.	Pneumatic line leaks, Replace/repair.