

4.9 Models 202, 208, 210 as of M.Y. 1998

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Hand-Held Tester (HHT)

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Components

- Electronic ignition lock control module (N73),
- ESC control module (N26/5),
- Transmitter key with integrated electronics,
- Roof control panel control module (N70),
- Radio antenna,
- Left/right front door IR receiver (A26/1, A26/2),
- Left/right front door lock switch (CF) (S86/1, S87/1) (USA),
- Trunk lid lock switch (CF) (S88/2) (USA),
- Front driver-side/passenger-side door control module (N69/1, N69/2),
- Signal pick-up and activation module (SAM) (N10/1).



Electronic ignition lock control module (N73)

The following functions are carried out:



a) Radio frequency/infrared remote central locking

- Evaluation of the radio or Infrared signal
- Activation of
 - Central locking (CL)
 - Anti-theft Alarm (ATA)
 - Remote trunk lid release (PSE/RHR)
 - Confirmation signal via blinker system.



A confirmation signal **is not sent** if the mechanical key is used to unlock or lock the vehicle. However, the central locking system (CL) and the ATA system are indeed activated (USA) (J).

b) Drive Authorization System (DAS)

- Voltage supply to the transmitter key
- Reception and checking of the authentication value of the transmitter key.
- Release of:
 - Electronic steering lock
 - Engine control module (DAS 2)



The drive authorization is independent from the infrared remote control and the battery condition in the transmitter key. Drive authorization requires the transfer of secret data codes between the transmitter key, electronic ignition switch, electrical steering lock and the engine control module. Locking of the engine control modules occurs via the electronic ignition switch (N73). The electronic ignition switch is connected via a CAN Data line to the engine control module. After locking of the engine control module (ignition key in ignition OFF position), the engine control module disables the fuel injection system.

For testing purposes, the installation of both the electronic ignition lock control module (N73) and the ESC control module (N26/5) is possible, during this **Test Cycle**. The test cycle is limited by a test cycle counter.

**Test cycle**

The components are in a test cycle until they are activated and can be personalized numerous times. Within the test cycle, the components respond to all authentication requests without testing the obtained data. Data is checked however, after the personalization during the test cycle. These procedures are limited by the test cycle counter.

Test Cycle Counter

Limits the duration of the test cycle. For each requested function, the test cycle counter counts one cycle back. Once the test cycle counter reaches the Zero value, any additional tests are no longer possible. As a result, the components will automatically activate, which means they are "married" to the vehicle. The status of the test cycle counter can be readout via the HHT.

Version coding

Replacement of the Electronic ignition lock control module (N73) requires version coding via the HHT. The version coding is menu driven.



The Electronic ignition lock control module (N73), ESC control module (N26/5) and the engine control module are "married" to each other via an identification code exchange. For this reason, the identification codes can not be changed and remain with the vehicle for its service life. Only the mechanical locks can be replaced.

If the Electronic ignition lock control module (N73) or ESC control module (N26/5) becomes defective:

It will be necessary to replace the defective component and program the replacement control module.

If the mechanical lock or mechanical key are defective:

Replace the defective mechanical lock or key with a new one, using the same code number (special order from your facing PDC).

Loss of transmitter key:

The vehicle identification code remains, the lost transmitter key is made invalid via desynchronization. All mechanical locks are replaced using a new mechanical lock number code. You must notify your facing PDC of any mechanical lock changes, by using the Lock Change Notice Form.

Desynchronization

If a transmitter key is lost, it must be desynchronized and the mechanical locks replaced. Desynchronization is only possible via the HHT.

Revocable and Irrevocable Deactivation

Tranmitter keys can be **revocably** deactivated. This is accomplished via the HHT and is menu driven. Entry into the menu is as follows: Body and Accessories-EIS-Control module adaption-Deactivate transmitter key. Tranmitter keys can be **irrevocably** deactivated (**only upon the customer's consent**). This is accomplished via the HHT and is menu driven. The reactivation of the irrevocably deactivated transmitter key is not possible, since the replacement transmitter key, when used, will erase any codes from the **lost** key.



If a transmitter key is lost and additionally provided key is used (not a replacement transmitter key), the lost transmitter key must be deactivated.

Diagnosis – Function Test

Preliminary work: Check operation of central locking;
Check batteries in infrared transmitter key,
see SMS, Job No. 80-420

Models 202, 208, 210
(Model 210 shown)

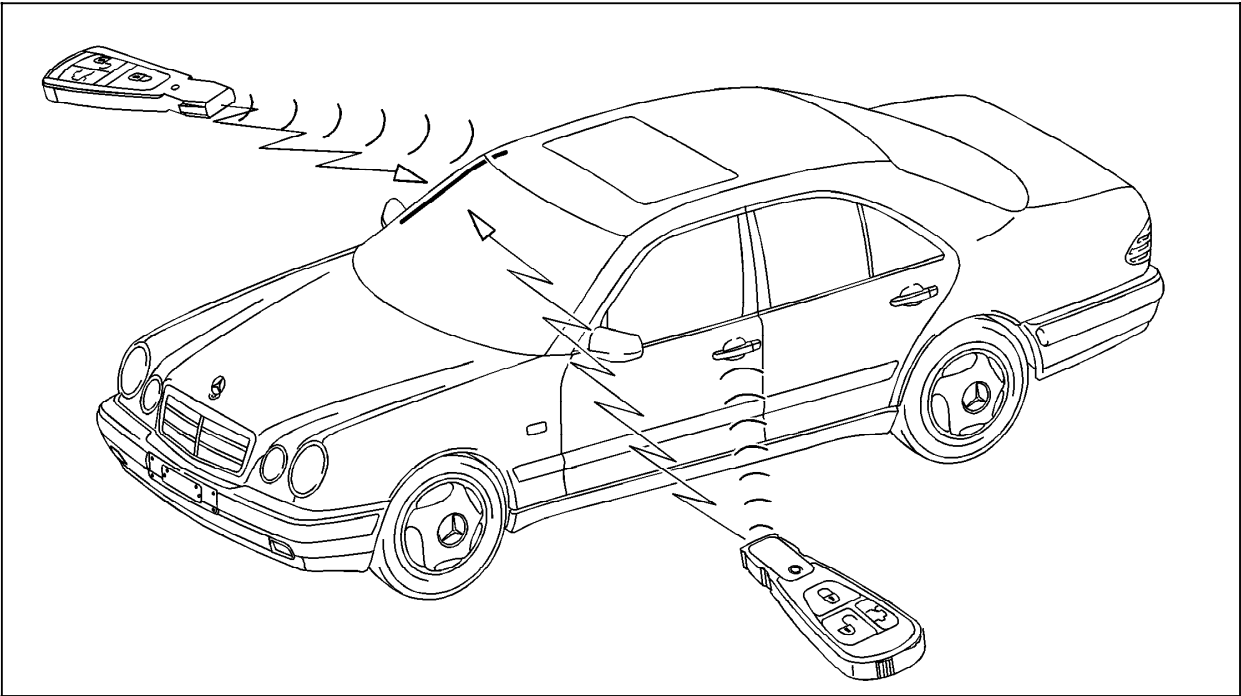


Figure 1

P80.35-0217-05

Diagnosis – Function Test

Preparation for Test:

1. Battery voltage 11 – 14 V,
2. Fuses ok,
3. Voltage supply to control modules and CAN data lines ok,
4. Central locking system in proper operating condition,
5. Batteries in transmitter key ok,
6. Transmitter key removed from electronic ignition switch,
7. Side windows lowered approx. 100 mm (4 in.),
8. Sliding/pop-up roof open,
9. All doors and trunk lid closed.

Diagnosis – Function Test

Test step/Test scope	Test condition	Nominal value	Possible cause/Remedy ¹⁾
⇒ 1.0 Locking of vehicle with transmitter key (radio signal) via radio antenna.	Lock vehicle using transmitter key (radio signal). Do not point transmitter key towards any of the IR receivers.	Vehicle is locked. Blinker system blinks 3X.	23 ⇒ 1.0, 23 ⇒ 2.0
⇒ 2.0 Unlocking of vehicle with transmitter key (radio signal) via radio antenna.	Unlock vehicle using transmitter key (radio signal). Do not point transmitter key towards any of the IR receivers.	Vehicle is unlocked. Blinker system blinks 1X.	23 ⇒ 1.0, 23 ⇒ 2.0
⇒ 3.0 Locking of vehicle via left front door IR receiver (A26/1)	Open side windows and sliding/pop-up sunroof. Disconnect connector A on roof control panel control module (N70). Point transmitter key towards left front door IR receiver. Lock vehicle by pressing lock button on transmitter key for > 1 second and hold.	Vehicle is locked. Blinker system blinks 3X. Side windows and sliding/pop-up roof close.	23 ⇒ 12.0, 23 ⇒ 13.0
⇒ 4.0 Unlocking of vehicle via left front door IR receiver (A26/1)	Close side windows and sliding/pop-up sunroof. Disconnect connector A on roof control panel control module (N70). Point transmitter key towards left front door IR receiver. Unlock vehicle by pressing unlock button on transmitter key for > 1 second and hold.	Vehicle is unlocked. Blinker system blinks 1X. Side windows and sliding/pop-up roof open.	23 ⇒ 12.0, 23 ⇒ 13.0

¹⁾ Observe Preparation for Test, see 22.

Diagnosis – Function Test

Test step/Test scope	Test condition	Nominal value	Possible cause/Remedy ¹⁾
⇒ 5.0 Locking of vehicle via right front door IR receiver (A26/2)	Open side windows and sliding/pop-up sunroof. Disconnect connector A on roof control panel control module (N70). Point transmitter key towards right front door IR receiver (A26/2). Lock vehicle by pressing lock button on transmitter key for > 1 second and hold.	Vehicle is locked. Blinker system blinks 3X. Side windows and sliding/pop-up roof close.	23 ⇒ 12.0, 23 ⇒ 13.0
⇒ 6.0 Unlocking of vehicle via right front door IR receiver (A26/2)	Close side windows and sliding/pop-up sunroof. Disconnect connector A on roof control panel control module (N70). Point transmitter key towards right front door IR receiver (A26/2). Unlock vehicle by pressing unlock button on transmitter key for > 1 second and hold.	Vehicle is unlocked. Blinker system blinks 1X. Side windows and sliding/pop-up roof open.	23 ⇒ 12.0, 23 ⇒ 13.0
⇒ 7.0 Locking of vehicle with a mechanical lock cylinder. (USA) (J) only	Lock vehicle using mechanical key via mechanical lock cylinder.	Vehicle is locked.	23 ⇒ 3.0, 23 ⇒ 4.0
⇒ 8.0 Unlocking of vehicle with a mechanical lock cylinder. (USA) (J) only	Unlock vehicle using mechanical key via mechanical lock cylinder.	Vehicle is unlocked.	23 ⇒ 3.0, 23 ⇒ 4.0

1) Observe Preparation for Test, see 22.

Diagnosis – Function Test

Test step/Test scope	Test condition	Nominal value	Possible cause/Remedy ¹⁾
⇒ 9.0 Release of electrical steering lock.	Insert transmitter key into electronic ignition switch.	Electrical steering lock unlocks. Transmitter key can be turned towards the right.	12 23 ⇒ 14.0, 23 ⇒ 15.0
⇒ 10.0 Activate engine management.	Insert transmitter key and turn key to right to stop in steering column lock.	Engine starts.	12 23 ⇒ 5.0, 23 ⇒ 6.0, 23 ⇒ 7.0, 23 ⇒ 8.0, 23 ⇒ 9.0, 23 ⇒ 10.0, 23 ⇒ 11.0, 23 ⇒ 16.0, DTC memory, engine, Actual values, engine, drive authorization.
⇒ 11.0 Open trunk lid with transmitter key (vehicles with RTR only)	Trunk lid lock key slot is not in 90° (key can be removed) position Press unlock trunk lid button on transmitter key.	Trunk lid opens.	23 ⇒ 1.0, 23 ⇒ 2.0, 23 ⇒ 12.0, 23 ⇒ 13.0, PSE electrical/pneumatic fault, Trunk lid lock mechanical fault.

1) Observe Preparation for Test, see 22.

Diagnosis – Diagnostic Trouble Code (DTC) Memory

Preliminary work:
 Function test 11

Preparation for Test (DTC readout):

1. Fuses OK.
2. Battery voltage >11 V.
3. voltage supply to control modules and CAN data lines ok,
4. Connect Hand-Held Tester (HHT) according to connection diagram shown in section 0.

Note:

The diagnostic trouble codes (DTC's) can only be read out and erased using the Hand-Held Tester (HHT).

Entry into DTC memory of CL with DAS 3 is via HHT display as follows:
 Function-Closing systems-Central locking or DAS-DTC memory.

While performing the DTC readout it is possible that DTCs may appear that are not relevant to the system being checked, meaning that all stored DTCs in that particular control module are being displayed.

Note regarding Diagnostic Trouble Codes (DTC's):

Current diagnostic trouble codes are highlighted in black on the display. Additional detailed fault information based on fault type is displayed with nearly all diagnostic codes (DTC's) such as:

- > Ω Resistance too great
- < Ω Resistance too low
- Γ Γ- Short circuit to ground (GND)
- Γ Γ+ Short circuit to positive (POS)
- // - Open circuit

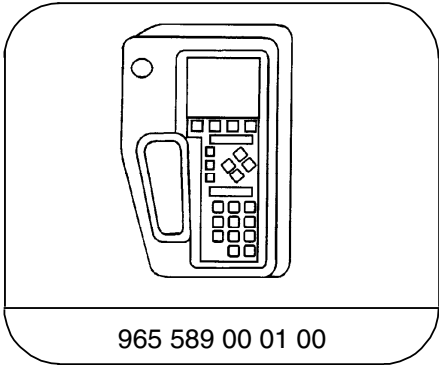
Abbreviations:

- DBE** Roof control panel control module (N70)
- EZS** Electronic ignition switch (N73)
- SAM** Signal pick-up and activation module (N10/1)
- TSG1** Door control module 1 (N69/2)
- TSG2** Door control module 2 (N69/1)

The above noted abbreviations are in the second column of the following DTC memory table in **bold type** to advise of hints (regarding in which of the control modules the actual values or activations are stored).

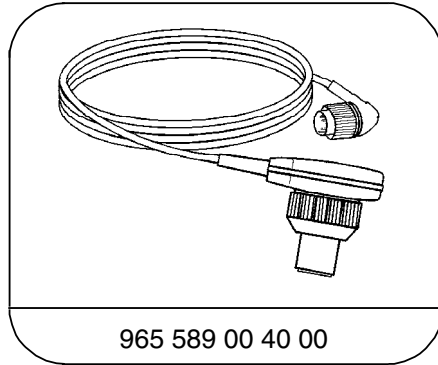
Diagnosis – Diagnostic Trouble Code (DTC) Memory

Special Tools



965 589 00 01 00


Hand-Held-Tester



965 589 00 40 00


Test cable

Diagnosis – Diagnostic Trouble Code (DTC) Memory

DTC 	Possible cause	Hints	Test step/Remedy ¹⁾
B1000 004	Electronic ignition lock control module (N73)	EZS	Replace N73
B1000 005	Electronic ignition lock control module (N73)	EZS	Replace N73
B1000 008	Electronic ignition lock control module (N73)	EZS	Ignore fault codes, Erase DTC memory.
B1000	Roof control panel control module (N70)	DBE	Replace N70
B1000	Signal pick-up and activation module (SAM) (N10/1)	SAM	Replace N10/1
B1010	Low voltage	EZS	D.M., B&A, Vol. 2
B1011	Excessive voltage	EZS	D.M., B&A, Vol. 2
B1021	CAN: communication fault with PSE	EZS	D.M., B&A, Vol. 2
B1024	CAN-L: Data line --/-, Γ1, Γ1-, Γ1+	EZS	D.M., B&A, Vol. 2
B1025	CAN-H: Data line --/-, Γ1, Γ1-, Γ1+	EZS	D.M., B&A, Vol. 2
B1054	CAN-L: communication fault with front driver-side/passenger-side door control module (N69/1, N69/2)		D.M., B&A, Vol. 2
B1055	CAN-H: communication fault with front driver-side/passenger-side door control module (N69/1, N69/2)		D.M., B&A, Vol. 2

1) Observe Preparation for Test, see 22.

Diagnosis – Diagnostic Trouble Code (DTC) Memory

DTC 	Possible cause	Hints	Test step/Remedy ¹⁾
B1507	CAN: communication fault with Roof control panel control module (N70)	EZS	D.M., B&A, Vol. 2
B1509	CAN: communication fault with Signal pick-up and activation module (SAM) (N10/1)	EZS	D.M., B&A, Vol. 2
B1148	Circuit 50 output --/, ΓΓ, ΓΓ-, ΓΓ+	EZS	Replace N73
B1156 000 001 002 003 004 005	ESC control module (N26/5) --/, ΓΓ-, ΓΓ+	EZS	23 ⇒ 14.0, 23 ⇒ 15.0 (N26/5).
B1157 000 001 002 003 004 005	ESC control module (N26/5) --/, ΓΓ-, ΓΓ+	EZS	23 ⇒ 14.0, 23 ⇒ 15.0 (N26/5).

1) Observe Preparation for Test, see 22.

Diagnosis – Recalling Actual Values with HHT for DAS 3

The following tests and activations are possible **via the Hand-Held Tester**.



The actual values and activations of the infrared remote central locking system with **DAS 3**, are located in various control modules.

With the HHT it is possible to gain access to the actual and activation is as follows:

Functions - Locking systems - Central locking or Drive authorization - Actual values or activations.

Preparation for Test:

1. Fuses ok,
2. Battery voltage 11 – 14 V,
3. Voltage to control modules and CAN data lines ok,
4. Connect the Hand-Held Tester (HHT) to X11/4, according to diagram, see section 0.

Abbreviations:

DBE Roof control panel control module (N70)

EZS Electronic ignition switch (N73)

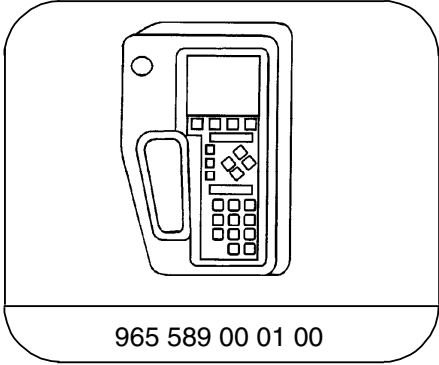
SAM Signal pick-up and activation module (N10/1)

The above noted abbreviations are in the second column of the following actual values table in **bold type** to advise of hints (regarding in which of the control modules the actual values or activations are stored).

The following actual values can be read out using the HHT:

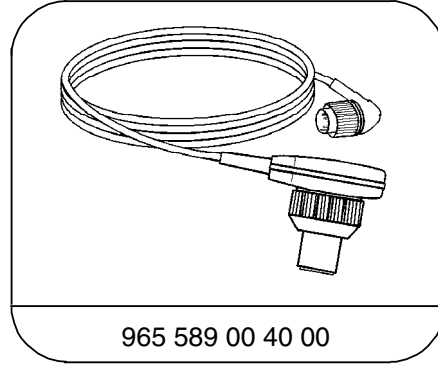
- Status of electronic ignition key:
 Initialized/Anti-towing safety released/personnalizer /activation
- Status of electrical steering lock:
 Initialized/Anti-towing safety released/personnalizer /activation
- Status of transmitter key: Authorized/not authorized
 Used/ not used
- Electronic ignition key test cycle counter
- Electrical steering locking test cycle counter

Special Tools



965 589 00 01 00

Hand-Held-Tester









965 589 00 40 00

Test cable

4.9 Infrared Remote Central Locking (RCL)

Models 202, 208, 210 as of M.Y. 1998






Electrical Test Program – Test Actual Values of DAS 3

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0	EZ5	Circuit 15 Voltage supply		Transmitter key position: Ignition: ON Ignition: OFF	YES NO	23 ⇒ 14.0, 23 ⇒ 15.0
2.0	EZ5	Electrical steering lock 1		Transmitter key: Inserted into electronic ignition switch: Removed from electronic ignition switch:	Unlocked Locked	23 ⇒ 14.0, 23 ⇒ 15.0
3.0	EZ5	Electrical steering lock 2		Transmitter key: Inserted into electronic ignition switch: Removed from electronic ignition switch:	Unlocked Locked	23 ⇒ 14.0, 23 ⇒ 15.0
4.0	EZ5	Transmitter key inserted into electronic ignition switch		Transmitter key: Inserted Removed	YES NO	Electronic ignition lock control module (N73).
5.0	EZ5	Start signal received from transmitter key		Transmitter key: Inserted Removed	YES NO	Transmitter key, Electronic ignition lock control module (N73).

4.9 Infrared Remote Central Locking (RCL)

Models 202, 208, 210 as of M.Y. 1998

Electrical Test Program – Test Actual Values of DAS 3

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
6.0	EZS	Authentication test run (transmitter key to electronic ignition switch)		Transmitter key: Inserted Removed	YES NO	Transmitter key, Electronic ignition lock control module (N73).
7.0	EZS	Energy supply for transmitter key turned off (coil in electronic ignition switch)		Transmitter key: Inserted	NO (during step 6 above) then: YES	Electronic ignition lock control module (N73).
8.0	EZS	HUF contact: H0		Transmitter key: Inserted into electronic ignition switch, then turned slightly to right: Turn ignition : ON	YES NO	Electronic ignition lock control module (N73).
9.0	EZS	Circuit 15		Transmitter key Inserted into electronic ignition switch, then turned completely to right stop: Release transmitter key:	ON OFF	Electronic ignition lock control module (N73).

Diagnosis – Recalling Actual Values with HHT for IRCL

The following tests and activations are possible **via the Hand-Held Tester**.



The actual values and activations of the infrared remote central locking system with **DAS 3**, are located in various control modules.

With the HHT it is possible to gain access to the actual and activation is as follows:

Functions - Locking systems - Central locking or Drive authorization - Actual values or activations.

Preparation for Test:

1. Fuses ok,
2. Battery voltage 11 – 14 V,
3. Voltage to control modules and CAN data lines ok,
4. Connect the Hand-Held Tester (HHT) to X11/4, according to diagram, see section 0.

Abbreviations:

DBE Roof control panel control module (N70)

EZS Electronic ignition switch (N73)

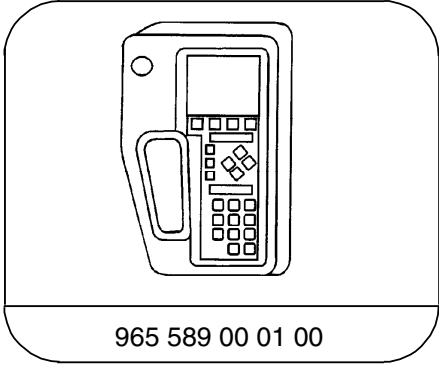
SAM Signal pick-up and activation module (N10/1)

The above noted abbreviations are in the second column of the following actual values table in **bold type** to advise of hints (regarding in which of the control modules the actual values or activations are stored).

The following actual values can be read out using the HHT:

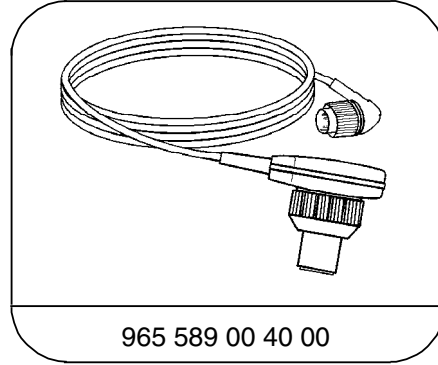
- Status of electronic ignition key:
 Initialized/Anti-towing safety released/personnalizer /activation
- Status of electrical steering lock:
 Initialized/Anti-towing safety released/personnalizer /activation
- Status of transmitter key: Authorized/not authorized
 Used/ not used
- Electronic ignition key test cycle counter
- Electrical steering locking test cycle counter

Special Tools



965 589 00 01 00

Hand-Held-Tester









965 589 00 40 00

Test cable

4.9 Infrared Remote Central Locking (RCL)

Models 202, 208, 210 as of M.Y. 1998






Electrical Test Program – Test Actual Values of IRCL

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0	DBE	Circuit 30 Voltage supply			✓ F	23 ⇒ 1.0, 23 ⇒ 2.0
2.0	DBE	Radio signal: Transmitter key to roof control panel control module (N70)			✓ F	23 ⇒ 1.0, 23 ⇒ 2.0
3.0	DBE	Transmitter key belongs to the vehicle		Transmitter key: Press button	Yes No	Wrong transmitter key.
4.0	TSG I	IR signal from left front door IR receiver (A26/1) to front driver-side/passenger-side door control module (N69/1)		Point transmitter key at the L/R front door IR receiver Press button:	✓ F	23 ⇒ 12.0, 23 ⇒ 13.0
5.0	TSG I	Transmitter key belongs to vehicle		Point transmitter at the Left front door IR receiver Press button:	YES NO	Wrong transmitter key.

4.9 Infrared Remote Central Locking (RCL)

Models 202, 208, 210 as of M.Y. 1998

Electrical Test Program – Test Actual Values of IRCL

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
6.0		IR signal from right front door IR receiver (A26/2) to front driver-side/passenger-side door control module (N69/1)		Point transmitter at the L/R front door IR receiver Press button:	✓ F	23 ⇒ 12.0, 23 ⇒ 13.0
7.0		Transmitter key belongs to vehicle		Point transmitter at the L/R front door IR receiver Press button:	YES NO	Wrong transmitter key.

Electrical Test Program – Component Locations

Model 210 shown
(Components for DAS 3 shown)

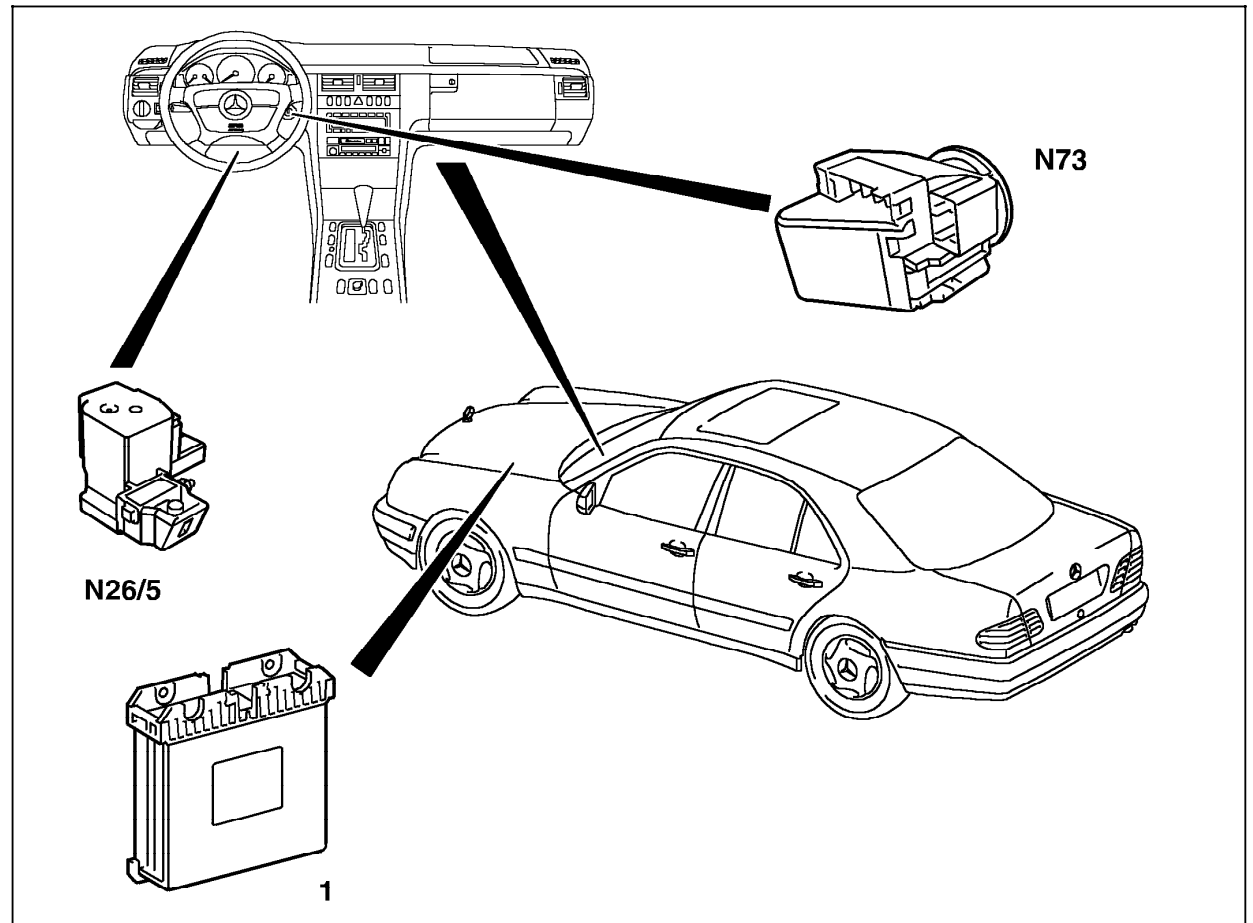


Figure 1

- N26/5 ESC control module
- N73 Electronic ignition lock control module
- 1 Engine control module

P82.57-0236-06

Electrical Test Program – Component Locations

Model 210 sedan shown
(Components for central locking shown)

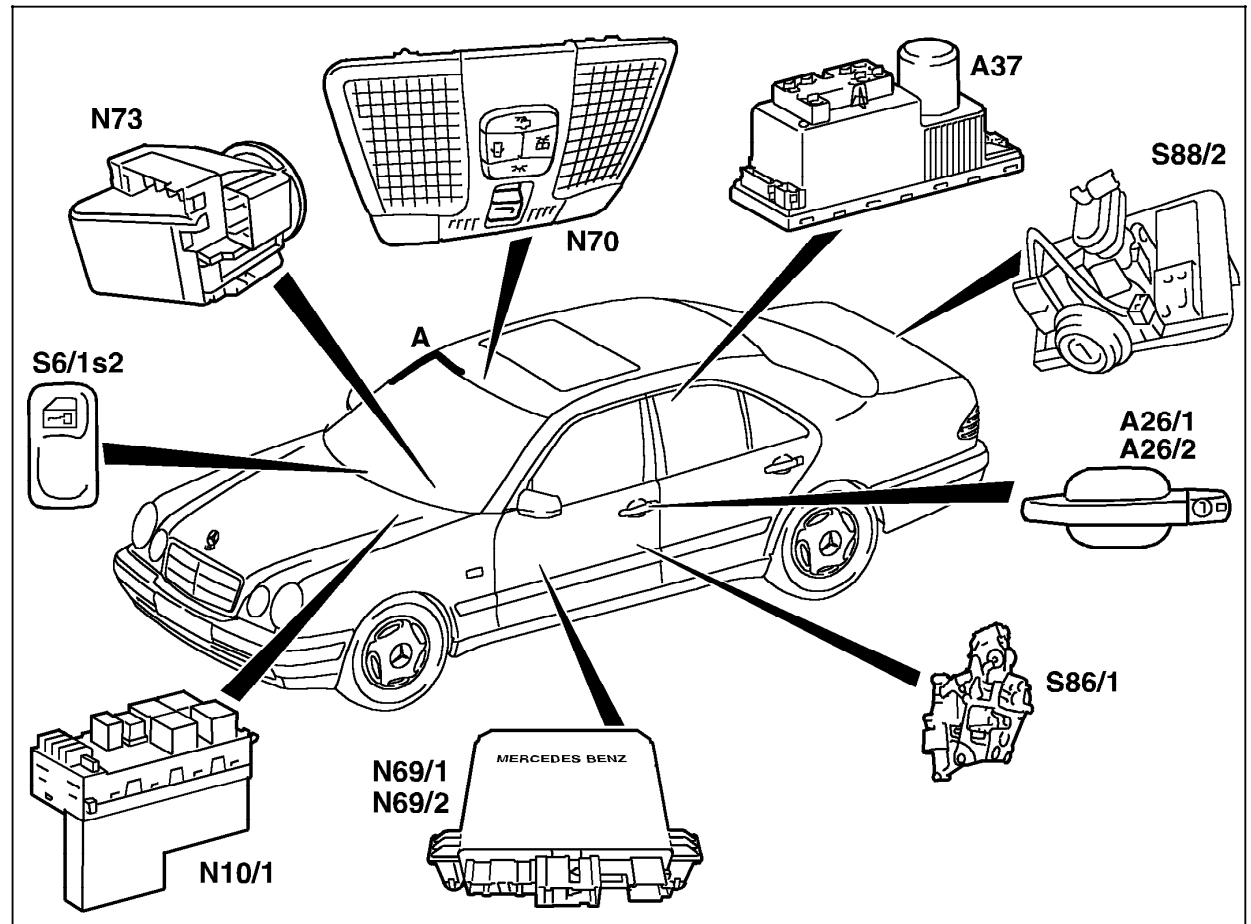


Figure 2

- A Antenna
- A26/1 Left front door IR receiver
- A26/2 Right front door IR receiver
- A37 PSE control module, combined functions
- N10/1 Signal pick-up and activation module (SAM) left front
- N69/1 Front driver-side door control module
- N69/2 Front passenger-side door control module
- N70 Roof control panel control module
- N73 Electronic ignition lock control module
- S6/1s2 Interior switch (CL)
- S86/1 Left front door lock switch (CF)
- S88/2 Trunk lid lock switch (CF)

P80.20-0417-06

Electrical Test Program – Preparation for Test

Preliminary work:

Diagnosis - Diagnostic Trouble Code (DTC) Memory 12

Preparation for Test:

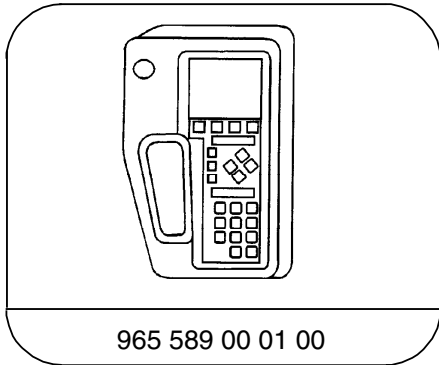
1. Fuses OK.
2. Battery voltage >11 V.
3. Install model specific HHT module into HHT.
4. Voltage to control modules and CAN data lines ok.
5. Connect the Hand-Held Tester (HHT) to X11/4, according to diagram, see section 0.

Electrical wiring diagrams:

Electrical Troubleshooting Manual, Model 202 and 208, Volume 2, group 80,
Model 210, Volume 2, group 80

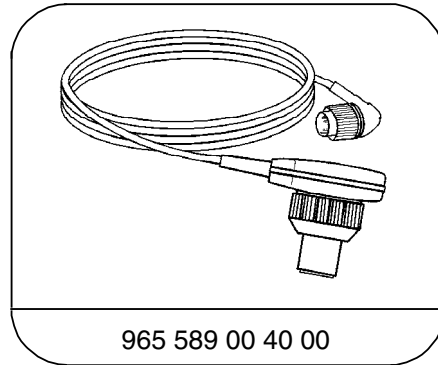
Electrical Test Program – Preparation for Test

Special Tools



965 589 00 01 00

Hand-Held-Tester



965 589 00 40 00



Test cable

Conventional tools, test equipment

Description	Brand, model, etc.
Multimeter ¹⁾	Fluke models 23, 83, 85, 87, 88

¹⁾ Available through the MBUSA Standard Equipment Program.

Electrical Test Program – Test








⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
1.0		Antenna HF line Γ1+	N70 7 —(—(← Ω → —(+ (A)	Disconnect connector from roof control panel control module N70	>20 kΩ	Antenna
2.0		Antenna HF line Γ1-	⊥ ← Ω → —(N70 7	Disconnect connector from roof control panel control module N70	>20 kΩ	Antenna
3.0		Lock nut switch circuit Left front door lock switch (S86/1) (CF) 	N69/1 1 —(← Ω → —(2 (2) (2) N69/1 1 —(← Ω → —(3 (2) (2)	Disconnect connector from left front door lock switch (S86/1): S86/1: Rest position Press and hold unlock: S86/1: Rest position Press and hold lock:	>20 kΩ <1 Ω >20 kΩ <1 Ω	Wiring, S86/1

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
4.0		Trunk lid lock switch (S88/2) (CF)	<p>A37 11 — — + (1)</p> <p>A37 12 — — + (1)</p>	<p>Disconnect connector from PSE control module (A37) S88/2: Rest position</p> <p>Press and hold unlock:</p> <p>S88/2: Rest position</p> <p>Press and hold unlock:</p>	<p><1 V</p> <p>11 – 14 V</p> <p><1 V</p> <p>11 – 14 V</p>	Wiring, S88/2
5.0		Data line CAN H/CAN L Motor electronics activation Γ to each other	<p>N73</p> <p>1 — — 2 (C)</p>	<p>N73</p> <p>Disconnect connector (C) from N73 and disconnect motor control module.</p>	>20 kΩ	Wiring.
6.0		Data line CAN L Motor electronics activation —//—	<p>N73</p> <p>2 — — 2) (C)</p>	<p>Disconnect connector (C) from N73 and disconnect motor control module.</p>	<1 Ω	Wiring.

2) Prior to testing, please see appropriate ETM to determine engine control module harness socket number.

Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy	
7.0		Data line CAN H Motor electronics activation -//-	N73 1 —  (C)	N73 2) — 	Disconnect connector (C) from N73 and disconnect motor control module.	<1 Ω	Wiring.
8.0		Data line CAN L Motor electronics activation Γ1+	N73 2 —  (C)	N73 	Disconnect connector (C) from N73 and disconnect motor control module.	>20 kΩ	Wiring.
9.0		Data line CAN H Motor electronics activation Γ1+	N73 1 —  (C)	N73 	Disconnect connector (C) from N73 and disconnect motor control module.	>20 kΩ	Wiring.

2) Prior to testing, please see appropriate ETM to determine engine control module harness socket number.








4.9 Infrared Remote Central Locking (RCL)

Models 202, 208, 210 as of M.Y. 1998









Electrical Test Program – Test

10.0	Data line CAN L Motor electronics activation Γ1-		N73	Disconnect connector (C) from N73 and disconnect motor control module.	>20 kΩ	Wiring.
11.0	Data line CAN H Motor electronics activation Γ1-		N73	Disconnect connector (C) from N73 and disconnect motor control module.	>20 kΩ	Wiring.
12.0	Left/right front door IR receiver (A26/1, A26/2) Voltage supply			Remove both A26/1 and A26/2	4.5 – 5.5 V	Wiring, N69/1, N69/2
13.0	Left/right front door IR receiver (A26/1, A26/2) Control wire IR signal -//-			Disconnect connector (3) from N69/1, N69/2 Remove A26/1 and A26/2	<1 Ω	Wiring.






Electrical Test Program – Test

⇒		Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
13.1		Left/right front door IR receiver (A26/1, A26/2) Control wire IR signal Γ1+	N69/1 N69/2 2 — ◀   (3)	Disconnect connector (3) from N69/1, N69/2 Remove A26/1 and A26/2	>20 kΩ	Wiring.
13.2		Left/right front door IR receiver (A26/1, A26/2) Control wire IR signal Γ1-	⊥   N69/1 N69/2 2 — ◀ (3)	Disconnect connector (3) from N69/1, N69/2 Remove A26/1 and A26/2	>20 kΩ	Wiring.
14.0		ESC control module (N26/5) Voltage supply	2 — ◀   N26/5 1	Disconnect connector from N26/5	11 – 14 V	Circuit 30, Circuit 31

Electrical Test Program – Test

15.0	B1156 B1157	ESC control module (N26/5) Data lines -//-	<p>N26/5 3 — </p> <p>N26/5 4 — </p>	<p>N73 4 (B)</p> <p>N73 5 (B)</p>	<p>Disconnect connector from N26/5 and connector (B) from N73.</p> <p><1 Ω</p> <p><1 Ω</p>	Wiring.
15.1	B1156 B1157	ESC control module (N26/5) Data lines ΓΓ-	<p>⊥ </p> <p>⊥ </p>	<p>N26/5 3</p> <p>N26/5 4</p>	<p>Disconnect connector from N26/5.</p> <p>>20 kΩ</p> <p>>20 kΩ</p>	Wiring.
15.2	B1156 B1157	ESC control module (N26/5) Data lines ΓΓ+	<p>N26/5 3 — </p> <p>N26/5 4 — </p>	<p> +</p> <p> +</p>	<p>Disconnect connector from N26/5.</p> <p>>20 kΩ</p> <p>>20 kΩ</p>	Wiring.

Electrical Test Program – Test

16.0	B1148	Electronic ignition lock control module (N73) Circuit 50 wire -//-	N73 9 —  (B)	K40/2 10 —  (C3)	Disconnect connector (C3) from driver-side fuse and relay module box (K40/2) and connector (B) from N73	<1 Ω	Wiring.
16.1	B1148	Electronic ignition lock control module (N73) Circuit 50 wire Γ1-	⊥	K40/2 10 —  (C3)	Ignition: OFF Disconnect connector (C3) from K40/2	>20 kΩ	Wiring, N73
16.2	B1148	Electronic ignition lock control module (N73) Circuit 50 wire Γ1+	K40/2 10 —  (C3)	 +	Ignition: OFF Disconnect connector (C3) from K40/2	>20 kΩ	Wiring, N73

Version Coding

- The electronic ignition lock control module (N73) must be version coded.
- The version coding is menu-driven.

Entry into the version coding is via:

Body and accessories - Electronic ignition lock - Control module adaption -

Version coding

Possible version coding

Version	
Vehicle version	W202/S202/C208/W210/S210
Left hand/right hand steering	LHS/RHS
Auxiliary fan A/C system	Yes/No
Rain sensor	Yes/No
Speed relative wiper control	Yes/No
Special vehicles multi-function control module	Production, panic alarm/Police, authorities/Taxi with emergency alarm/Taxi without emergency alarm
Multi-function control module, special vehicles	Yes/No
Electric seat adjustment, driver's seat with memory	Yes/No
Electric seat adjustment, passenger seat with memory	Yes/No