MODEL 639 as of 21.11.06 with CODE (ED5) Parameterizable special module (PSM)
MODEL 906 with CODE (ED5) Parameterizable special module (PSM)
MODEL 906 with CODE (ED8) Preinstallation for parameterizable special module (PSM)

The functional scope of the PSM control unit is comprised of the
following partial functions:
- "Functional scope - vehicle"
- "Functional scope - engine" (model 906)
- "Functional scope - logic functions (PLC)"
- "Functional scope - global functions"
- "Functional scope - PWM functions"
- "Functional scope - Taxi -functions" (model 639)

	Functional scope of vehicle, PSM, function		GF54.21-D-3006H
	Functional scope of engine, PSM, function	Model 906 General	GF54.21-D-3007H
		Model 906 Working speed control	GF54.21-D-3007HA
		Model 906 Power take-off (PTO)	GF54.21-D-3007HB
		Model 906 Speed limit (GB)	GF54.21-D-3007HC
		Model 906 Engine start/stop (MSS)	
	Functional scope of logic functions (PLC), PSM, function		GF54.21-D-3008H
	Functional scope of global functions, PSM, function		GF54.21-D-3009H
	Functional scope of PWM functions, PSM, function		GF54.21-D-3010H
	Functional scope of taxi functions, PSM, function	Model 639	GF54.21-D-3011H

**MODEL 639 as of 21.11.06 with CODE (ED5) Parameterizable special module (PSM)**
MODEL 906 with CODE (ED5) Parameterizable special module (PSM)
MODEL 906 with CODE (ED8) Preinstallation for parameterizable special module (PSM)

Discrete inputs and outputs

The PSM control unit has various discrete inputs and outputs. The inputs are debounced and stored as a signal in the signal pool. The logical status "1" means that the respective switch at the input is active, irrespective of whether the input is positive-active or ground-active.

The individual outputs are assigned signals by means of parameterization. In the case of outputs with special functions (half-bridge) and pulse width modulation (PWM), additional information regarding their use is required. If the respective signal is 1 (active), the output is activated. Activation is performed irrespective of the switched level (low-side or high-side).

[i] Further information on the inputs, e.g. internal wiring, can be found in the "Technical data" documents.

The "PSM interfaces" comprise the following interfaces:
- "Inputs interface"
- "Outputs interface"
- "CAN interface"
- "RS485 interface" (model 639)
- "Fleet management system interface"

	Input interface, PSM, function		GF54.21-D-3001H
	Outputs interface, PSM, function		GF54.21-D-3002H
	CAN interface, PSM, function	Controller area network bus class B (interior compartment) (CAN B)	GF54.21-D-3003H
		Controller Area Network bus Class C (body manufacturer) (body manufacturer CAN)	GF54.21-D-3003HA
	RS485 interface, PSM, function	Model 639	GF54.21-D-3004H
	Fleet management system interface, PSM, function		GF54.21-D-3005H

GF54.21-D-9999H	Overview of system components for parameterizable special module (PSM), location/task/design/function	10.1.06

MODEL   **639 as of 21.11.06 with CODE (ED5) Parameterizable special module (PSM)**
MODEL   **906 with CODE (ED5) Parameterizable special module (PSM)**
MODEL   **906 with CODE (ED8) Preinstallation for parameterizable special module (PSM)**

	Parameterizable special module (PSM) control unit component description		GF54.21-D-5005H
	Table of contents for function description of parameterizable special module (PSM)		GF54.21-D-0999H

MODEL 639 as of 21.11.06 with CODE (ED5) Parameterizable special module (PSM)
MODEL 906 with CODE (ED5) Parameterizable special module (PSM)
MODEL 906 with CODE (ED8) Preinstallation for parameterizable special module (PSM)
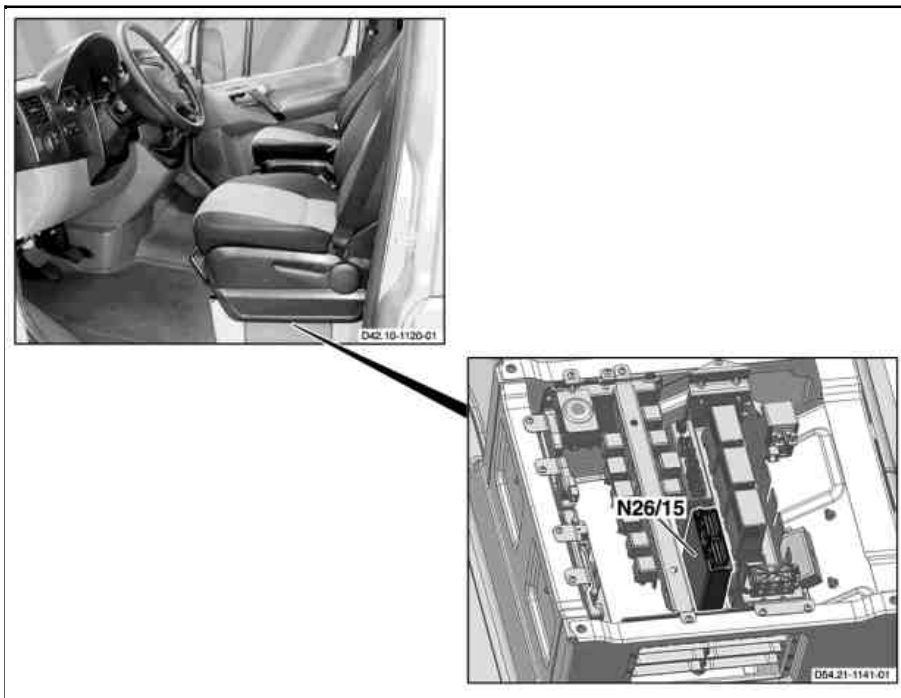
Shown on model 906

N26/15   PSM control unit

Location
The PSM control unit is located in the driver seat box.

ℹ️   The PSM control unit is installed on vehicles with code (ED5) Parameterizable special module (PSM).
    Only the PSM control unit CAN B preinstallation connector is fitted on vehicles with code (ED8) Preinstallation for parameterizable special module (PSM).
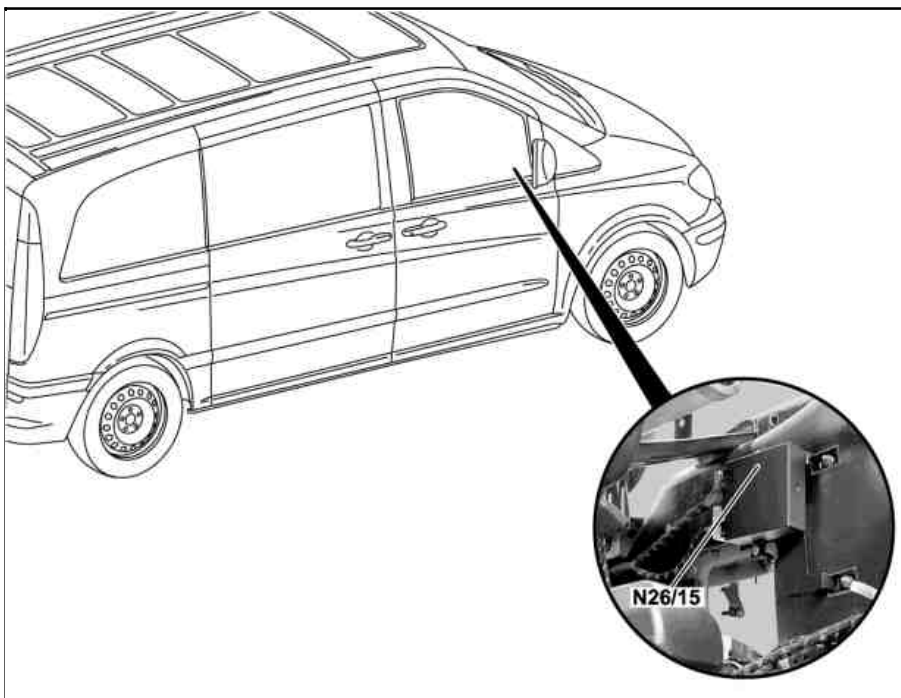

D54.21-1140-06

Shown on model 639

N26/15   PSM control unit

Location
The PSM control unit is located above the cable passage in the firewall.


N54.21-2095-06

Task
The task of the PSM control unit is to enable body manufacturers (ABH) to access vehicle information as well as to ensure that certain vehicle functions are available.
These vehicle functions can be merged into the following groups:
● Conversion of information from the Controller Area Network bus class B (interior) (CAN B) to digital and analog outputs of the PSM control unit as well as to the body manufacturer Controller Area Network bus Class C (CAN Body manufacturer). In addition the CAN B information can also be used for an internal application in the PSM control unit and can thus influence the output of CAN B signals.

● Conversion of information from digital and analog inputs of the PSM control unit and from the CAN Body manufacturer to CAN B as well as to discrete outputs and thus control of vehicle functions.
● Internal processing of signals in the PSM control unit by means of integrated programmable logic controller (SPS).
● Control of various vehicle functions corresponding to parameterization, as stated in the following as an example:
   - Working speed control (model 906)
   - Functions of tilting/sliding roof (SHD)
   - Functions of rear sliding roof unit
   - Functions of rotary light switch
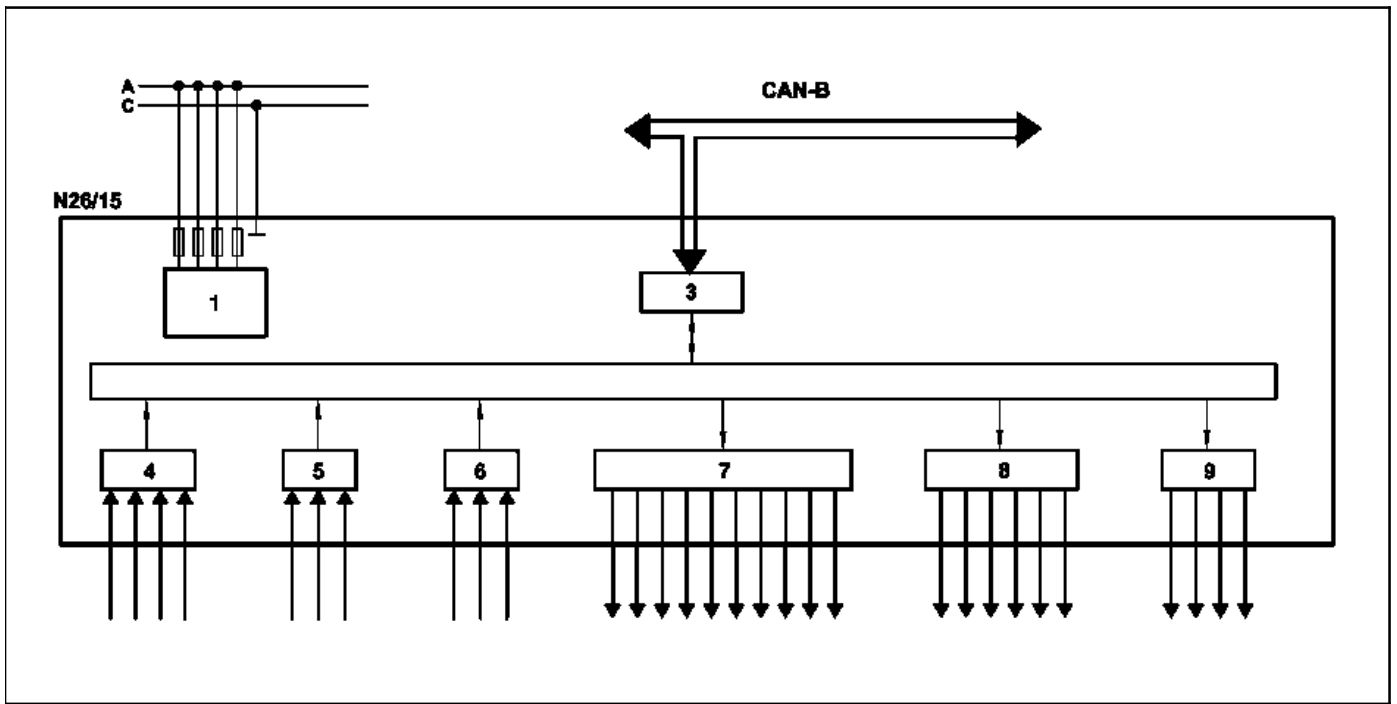
D54.21-1142-09

Design

1	Voltage supply	6	Ground-active inputs	A	Circuit 30
3	Bidirectional interface	7	High-Side outputs	C	Circuit 31
4	Analog or digital inputs	8	Low-Side outputs		
5	Positive active inputs	9	Outputs with extended functions	N26/15	PSM control unit

1   **Plug 1**
2   **Plug 2**

N26/15   **PSM control unit**

ℹ️   No outputs on the PSM control unit should be active when the plugs 1 or 2 are disconnected from the PSM control unit. First disconnect plug 1 (plug with tml. 30 supplies) and then plug 2.
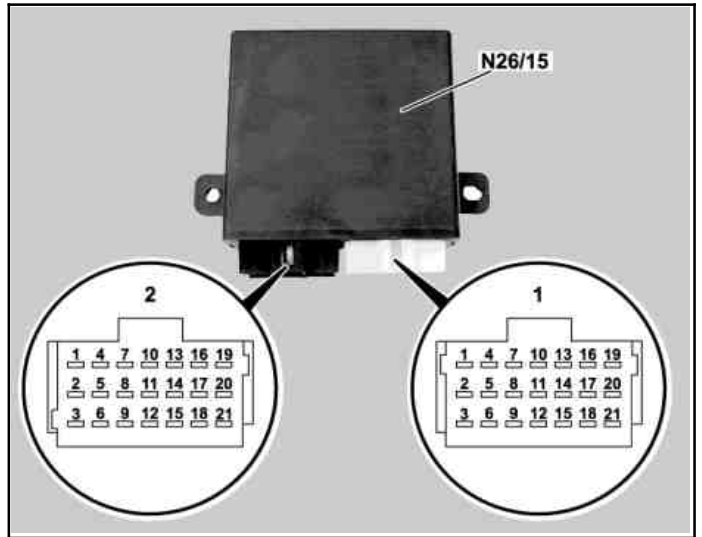
N54.21-2100-11

Plug 1

Pin no.	Use
1	Not assigned/reserve
2	Output 18 (negative/0.5 A)
3	Tml. 30.1
4	Output 07 (positive/5 A)
5	Output 17 (negative/0.5 A)
6	Tml. 30.1
7	Output 08 (positive/5 A)
8	Output 09 (positive/1 A, pulse-width-modulation (PWM) capable)
9	Output 16 (positive/0.5 A)
10	Output 05 (positive/5 A, capable of waking)
11	Output 10 (positive/1 A, PWM-capable)
12	Output 15 (positive/0.5 A)
13	Output 06 (positive/5 A, capable of waking)
14	Output 11 (negative/1 A)
15	Output 14 (positive/0.5 A)
16	Output 03 (positive/10 A, capable of waking)
17	Output 12 (negative/1 A)
18	Tml. 30.2
19	Output 04 (positive/10 A, capable of waking)
20	Output 13 (positive/0.5 A)
21	Tml. 30.2

Plug 2

Pin no.	Use
1	Input 06 (low active)
2	Input 04 (low active)
3	Circuit 31
4	Input 01 (high active)
5	Input 05 (low active)
6	Input 02 (high active)
7	Input 03 (high active)
8	Input 07 (analog)
9	Controller Area Network bus class B (interior) (CAN-B) low
10	Input 09 (analog)
11	Input 08 (analog)
12	CAN-B high
13	Output 01 (half-bridge/5 A)
14	Input 10 (analog)
15	Controller Area Network bus Class C (body manufacturer) (CAN-ABH)-Low
16	Output 02 (half-bridge/5 A)

17	Output 20 (negative/0.5 A)
18	Controller Area Network bus Class C (body manufacturer) (CAN-ABH)-High
19	Output 19 (negative/0.5 A)
20	Not used/spare (model 906) Input and output (positive) RS485P, not inverting (model 639)
21	Not used/spare (model 906) Input and output (negative) RS485N, inverting (model 639)

As the signal list of the PSM control unit is too extensive for a description in this documentation, the signal input and outputs of the PSM control unit can be looked at under http://abh-infoportal.mercedes-benz.com/portal/ on the Internet or in the Diagnosis Assistance System (DAS), as described in the following:

● In the DAS, select model 639 or model 906 and the PSM control unit, then select the "Help menu (F6)" key (the "Help menu (F6)" key is not available in every DAS menu mask).

● In the help menu the signal list is activated via the menu item "Signal list".

● In the signal list menu the signal list display can be selected as per "Signal categories grouped" or "total".

The signal list is grouped as per the following signal categories:
● Parameterizable special module (PSM) internal information

● Logic functions of programmable logic controller (SPS)
● Tilting/sliding roof (SHD) (model 906)
● Tilting/sliding roof (model 639)
● Rear sliding roof unit (SDE-H) (model 639)

● Discrete inputs
● Vehicle status
● Signals from "Engine CAN" (Controller Area Network bus class C (engine compartment) (CAN C))
● Pulse width modulation (PWM) functions
● Equipment features
● Light control and signaling horn
● Windshield wiping and washing (Wiping and heating the windshield)
● Central locking (ZV) and doors
● Various Control Area Network (data bus/CAN Bus) (CAN) signals
● A/D-converter (Analog/digital converter)
● Stages of analog inputs
● Working speed control (model 906)
● Power take-off (PTO) (model 906)
● Speed limiter (GB) (model 906)
● Engine start/stop (MSS), with transmission 711.6 (model 906)

● Controller Area Network bus Class C (body manufacturer) (body manufacturer CAN)
● Status of outputs
● Indicators and warning indicators

MODEL 639 as of 21.11.06 with CODE (ED5) Parameterizable special module (PSM)
MODEL 906 with CODE (ED5) Parameterizable special module (PSM)
MODEL 906 with CODE (ED8) Preinstallation for parameterizable special module (PSM)
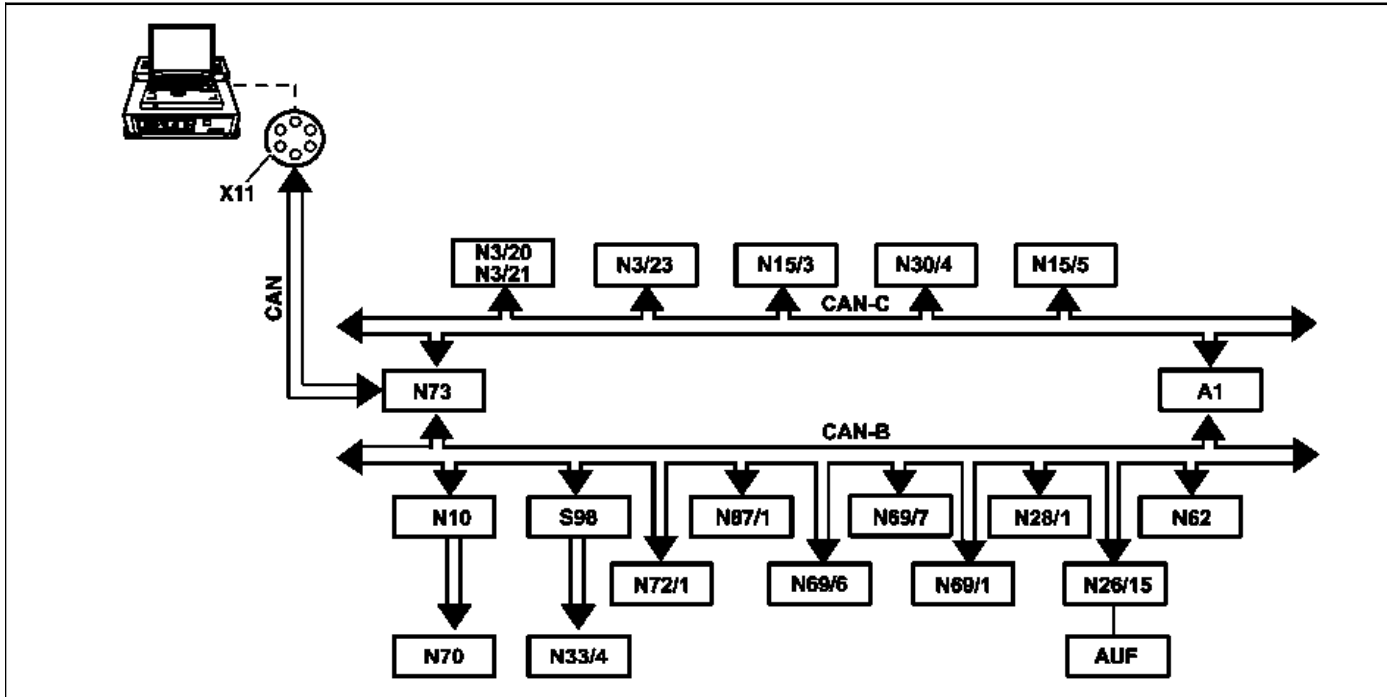
D54.21-1139-09

Connection, shown on model 906 with code (ED5) Parameterizable special module (PSM)

OPEN Body electronics   N26/15   **PSM control unit**   X11   *Diagnostic socket, 16-pin*

The PSM control unit forms the interface between the vehicle and the body manufacturer electronics.

Thanks to the body manufacturer electronics vehicle information can be read in by means of the PSM control unit via the Controller Area Network bus class B (interior) (CAN-B) and vehicle functions controlled (e.g. the central locking system (CL)).

For this there are digital and analog inputs and outputs (10 discrete inputs and 20 discrete outputs; the latter can likewise be used as inputs). For complex bodies, which require more inputs or outputs, the Controller Area Network-Bus Class C (body manufacturer) (body manufacturer CAN) is available as a further interface. A multitude of vehicle signals are transmitted on this. In addition there are some "free messages" which can be freely assigned with arbitrary contents.

The type and direction of information and interfaces with the aid of STAR DIAGNOSIS. Only through this parameterization is the usability of the PSM control unit established and adapted to the corresponding body. For SA codes available from the plant, parameterization of the PSM control unit can be performed at the touch of a button via the menu standard coding. Parameterization via the expert coding is required for all other adjustments.

The PSM control unit can thus convert information, which it receives via Controller Area Network (data bus/CAN bus) (CAN) messages, to discrete outputs or the body manufacturer CAN. In exactly the same way the PSM control unit can pass on discrete inputs or information from body manufacturer CAN to CAN B. Over and above the interfaces internal functional units are available in the PSM control unit, e.g.:

● Access to motor functions (working speed control, engine start/stop)

● Programmable logic controller (SPS) usability (logic gatings AND, OR etc. of signals)

● Undervoltage detection

The SA codes available from the plant are:

● Retarder with code (BR9) preinstallation for Telma retarder

● Working speed control:
   - with code (MT4) Electronic variable rpm regulator
   - with code (MT4) Electronic variable rpm regulator and with code (N05) Power take-off countershaft (2c) without flange
   - with code (MT4) Electronic variable rpm regulator and with code (N07) Power take-off countershaft (2b) with flange
   - with code (M53) Constant rpm control
   - with code (M53) Constant rpm control and with code (N05) Power take-off countershaft (2c) without flange
   - with code (M53) Constant rpm control and with code (N07) Power take-off countershaft (2b) with flange

● Westfalia with code (ZL9) "James Cook" touring camper

● Preinstallation for crash data recorder with code (JV5)

| | Parameterizable special module (PSM), technical data | Discrete inputs and outputs | GF54.21-D-0002-02H |
| | | Internal wiring of inputs and outputs | GF54.21-D-0002-02HA |

	Parameterizable special module (PSM) control unit connector assignment	General	GF54.21-D-0002-04H
		Model 906.633/635 with code (ZL9) "James Cook" touring camper	GF54.21-D-0002-04HA
		Model 906.133/135/153/155/233/235/253/ 255/633/635/637/653/655/657/733/735 With code (BR9) Preinstallation for Telma retarder	GF54.21-D-0002-04HB
		Model 906 with code (MT4) Electronic rpm regulator, variable	GF54.21-D-0002-04HC
		Model 906 with code (M53) Constant rpm control	
		Model 906 with code (JV5) Preinstallation for crash data recorder	GF54.21-D-0002-04HD
	Parameterizable special module (PSM) signals		GF54.21-D-0002-05H
	Signal concept, PSM, function		GF54.21-D-2000H
	Interfaces, PSM, function		GF54.21-D-2001H
	Functional scope, PSM, function		GF54.21-D-2002H
	Parameterization, PSM, function		GF54.21-D-2003H
	Signal lists, PSM, function		GF54.21-D-2004H

Discrete inputs
Positive active inputs

Signal name	Signal ID	Switching threshold (typical) at 25 °C	Switching threshold Minimum and maximum values	
			On	Off
Input 01 (high active)	1013	6.5 V	> 7.7 V	< 3.9 V
Input 02 (high active)	1014	6.5 V	> 7.7 V	< 3.9 V
Input 03 (high active)	1015	6.5 V	> 7.7 V	< 3.9 V

ⓘ   Switching thresholds = 9 V < Ub < 16 V
      Pull-down resistor = internal 470 Ω, with active PSM control unit
      Capable of waking = parameterizable, a flank change at the input wakes the PSM control unit out of rest mode

Ground-active inputs

Signal name	Signal ID	Switching threshold (typical) at 25 °C	Switching threshold Minimum and maximum values	
			On	Off
Input 04 (low active)	1010	6.1 V	< 3.7 V	> 7.3 V
Input 05 (low active)	1011	6.1 V	< 3.7 V	> 7.3 V
Input 06 (low active)	1012	6.1 V	< 3.7 V	> 7.3 V

ⓘ   Switching thresholds = 9 V < Ub < 16 V
      Pull-down resistor = internal 470 Ω, individually parameterizable (must be parameterized actively for wake capability)
      Capable of waking = parameterizable, a flank change at the input wakes the PSM control unit out of rest mode

Analog inputs

Signal name	Signal ID	Switching threshold (typical) at 25 °C
Input 07 (analog, low active)	1002	20 % U, tml. 30
Input 08 (analog, low active)	1003	20 % U, tml. 30
Input 09 (analog, low active)	1004	20 % U, tml. 30
Input 10 (analog, low active)	1005	20 % U, tml. 30

ⓘ   Switching thresholds = 9 V < Ub < 16 V
      Pull-down resistor = internal 470 Ω, individually parameterizable
      Capable of waking = parameterizable, a flank change at the input wakes the PSM control unit out of rest mode

Discrete outputs
Overvoltage and undervoltage at tml. 30.1 or tml. 30.2

Voltage range (V)	Debounce time	Reaction	Comments
U < 7 V	t > 70 ms	Outputs switch off.	Internal function and controller area network (data bus/CAN bus) (CAN) functions continue to be available.
7 V < U < 8.5 V	t > 1 s	Outputs are not deactivated. Further outputs are not activated.	Internal function and CAN functions continue to be available.
9 V < U < 15 V	t > 5 s	Outputs switch on again. Undervoltage and overvoltage inactive. Faults are reset.	
15.5 V < U < 16.5 V	t > 1 s	Outputs are not deactivated. Further outputs are not activated.	Internal function and CAN functions continue to be available.

U > 16.5 V	t > 70 ms	Outputs switch off.	Internal function and CAN functions continue to be available.

High-side outputs

Description	Permanent specification	Selectable specification	Rated load under resistive load	Overload limit
Output 03 (positive, 10 A, capable of waking, connection term. 30.1)	High side, short circuit recognition active	Capable of waking; output or input; pull-up; open-circuit detection	10 A	15 A
Output 04 (positive, 10 A, capable of waking, connection terminal 30.2)	High side, short circuit recognition active	Capable of waking; output or input; pull-up; open-circuit detection	10 A	15 A
Output 05 (positive, 5 A, capable of waking, connection terminal 30.1)	High side, short circuit recognition active	Capable of waking; output or input; pull-up; open-circuit detection	5 A	7.5 A
Output 06 (positive, 5 A, capable of waking, connection terminal 30.2)	High side, short circuit recognition active	Capable of waking; output or input; pull-up; interruption detection	5 A	7.5 A
Output 07 (positive, 5 A, tml. connection 30.1)	High side, short circuit recognition active	Output or input; interruption detection	5 A	7.5 A
Output 08 (positive, 5 A, connection tml. 30.2)	High side, short circuit recognition active	Output or input; interruption detection	5 A	7.5 A
Output 13 (positive, 0.5 A, connection tml. 30.1)	High side, short circuit recognition active	Output or input	0.5 A	1.5 A
Output 14 (positive, 0.5 A, connection tml. 30.1)	High side, short circuit recognition active	Output or input	0.5 A	1.5 A
Output 15 (positive, 0.5 A, connection tml. 30.2)	High side, short circuit recognition active	Output or input	0.5 A	1.5 A
Output 16 (positive, 0.5 A, connection tml. 30.2)	High side, short circuit recognition active	Output or input	0.5 A	1.5 A

ℹ️ The rated load must not be exceeded in steady-state mode.
The output could otherwise be irreparably damaged.

Low-side outputs

Description	Permanent specification	Selectable specification	Rated load under resistive load	Overload limit
Output 11 (negative, 1 A)	Low side, short circuit recognition active	Output or input; interruption detection	1 A	1.5 A
Output 12 (negative, 1 A)	Low side, short circuit recognition active	Output or input; interruption detection	1 A	1.5 A
Output 17 (negative, 0.5 A)	Low side, short circuit recognition active	Output or input	0.5 A	1.5 A
Output 18 (negative, 0.5 A)	Low side, short circuit recognition active	Output or input	0.5 A	1.5 A
Output 19 (negative, 0.5 A)	Low side, short circuit recognition active	Output or input	0.5 A	1.5 A
Output 20 (negative, 0.5 A)	Low side, short circuit recognition active	Output or input	0.5 A	1.5 A

ℹ️ The rated load must not be exceeded in steady-state mode.
The output could otherwise be irreparably damaged.

Outputs with extended functions

Description	Permanent specification	Selectable specification	Rated load under resistive load	Overload limit
Output 01 (half-bridge, 5 A), connection tml. 30.1	Short circuit recognition active	Full-bridge together with output 2; low side or high side active; output or input; interruption detection	5 A	6 A
Output 02 (half-bridge, 5 A), connection tml. 30.2	Short circuit recognition active	Full-bridge together with output 1; low side or high side active; output or input; interruption detection	5 A	6 A

Output 09 (positive, 1 A, pulse-width-modulation (PWM) capable), connection tml. 30.2	High side, short circuit recognition active	PWM or discrete output Discrete: ● With or without soft-start ● Without pull-down resistor Output or input; interruption detection	1 A PWM [pulse width modulation] = 100 mA (500 mA)	2 A
Output 10 (positive, 1 A, PWM-capable), connection tml. 30.2	High side, short circuit recognition active	PWM or discrete output Discrete: ● With or without soft-start Output or input; interruption detection	1 A PWM [pulse width modulation] = 100 mA (500 mA)	2a

ⅰ The rated load must not be exceeded in steady-state mode.
The output could otherwise be irreparably damaged.

MODEL   **639 as of 21.11.06 with CODE (ED5) Parameterizable special module (PSM)**
MODEL   **906 with CODE (ED5) Parameterizable special module (PSM)**
MODEL   **906 with CODE (ED8) Preinstallation for parameterizable special module (PSM)**

Parameterization of PSM control unit, aids
Basic training course
It is assumed that participants are familiar with the Diagnosis Assistance System (DAS).

Where to obtain STAR DIAGNOSIS
Available via the following channels:
- Daimler AG
  Global Service & Parts
  WEB: http://www.service-and-parts.net

Training courses
Available via the following channels:
- Daimler AG
  Global Training
  Telephone: +49 (0)7 11- 17 - 77120
  WEB:
  - http://global-training.daimler.com
  - http://e-training.daimler.com/SabaWeb

The parameterization of the PSM control unit is comprised of the following partial functions:
- Parameterizing control unit of parameterizable special module (PSM)
- Coding DAS PSM
- Preparation of a PSM coding

☞AR	Parameterizing control unit of parameterizable special module (PSM)		AR54.21-D-2001H
	Parameterization of DAS coding, PSM, function		GF54.21-D-3014H
	Parameterization, creation of coding, PSM, function		GF54.21-D-3015H

MODEL 639 as of 21.11.06 with CODE (ED5) Parameterizable special module (PSM)
MODEL 906 with CODE (ED5) Parameterizable special module (PSM)
MODEL 906 with CODE (ED8) Preinstallation for parameterizable special module (PSM)

Signal flow in PSM control unit, shown on model 906 with code (ED5)
Parameterizable special module (PSM)

10	*CAN B interface*
12	*Signal pool*
13	*Discrete inputs*
14	*Internal functions*
15	*Discrete outputs*
16	*CAN Body manufacturer interface*

CAN-ABH   Controller Area Network bus Class C (body manufacturer)
CAN B   Controller area network bus class B (interior compartment) (CAN B)
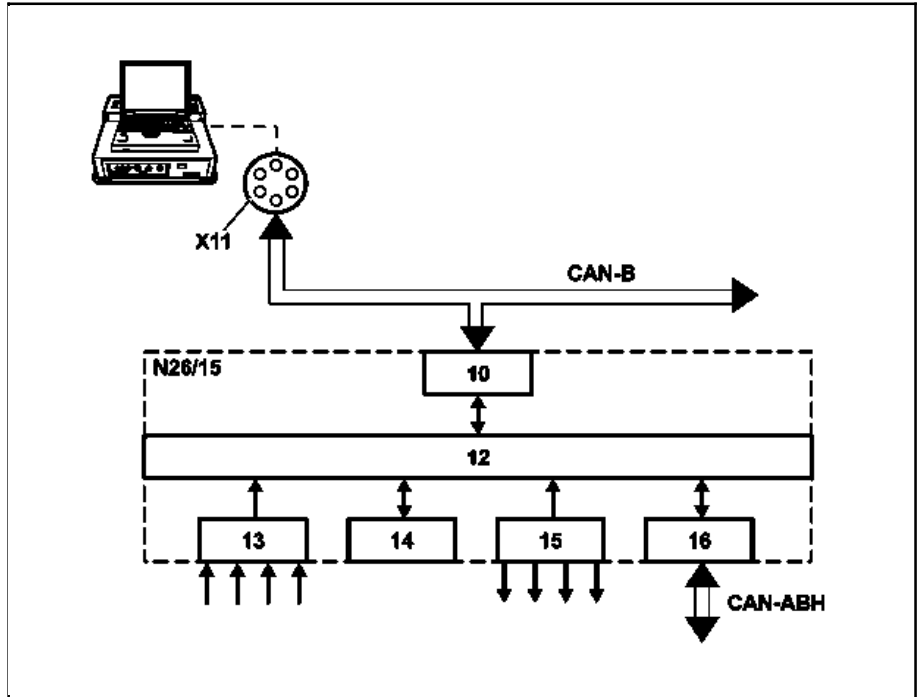
D54.21-1258-06

N26/15   PSM control unit

Signal pool
The signals are collected in a signal pool and have the following inputs and outputs:
● Discrete inputs and outputs
● Internal functional units
● The CAN B and CAN body manufacturer interfaces
● The RS485 interface (model 639)

Each signal has a unique ID in the form of a signal number. Each signal has parameters which can be set (parameterized) via the Diagnosis Assistance System (DAS).

Signal pool input
Each signal has just one source.

Special signals
The following special signals exist:
● "Permanent LOW" signal, gives a logical "0" at the input at which the signal is applied.
● "Permanent HIGH" signal, gives a logical "1" at the input at which the signal is applied.
● "Inquiry deactivated", deactivates the inquiry of this input (e.g. conditions for working speed control (model 906).

X11   Diagnostic socket, 16-pin

Signal pool output
Each signal can be assigned to one or more outputs by means of parameterization and used internally. Individual signals may be dependent on other signals, e.g. Tml. 15.

Signal types
The following signal types exist:
● Bit information (e.g. Tml. 15)
● 1-byte information (e.g. V-signal (vehicle speed signal)), (0 to 255)
● 2-byte information (e.g. motor speed), (0 to 65 535)
● Multi-byte information as pointer (e.g. vehicle identification number (VIN))

	Parameterizable special module (PSM) control unit component description		GF54.21-D-5005H

MODEL 639 as of 21.11.06 with CODE (ED5) Parameterizable special module (PSM)
MODEL 906 with CODE (ED5) Parameterizable special module (PSM)
MODEL 906 with CODE (ED8) Preinstallation for parameterizable special module (PSM)

The "Signal lists" function of the PSM control unit is comprised of
the following partial functions:

- "Calling of signal lists"
- "Signal list - discrete inputs"
- "Signal list - status of outputs"
- "Signal list - analog inputs"
- "Signal list - analog/digital converter"
- "Signal list - internal information"
- "Signal list - vehicle status"
- "Signal list - CAN"
- "Signal list - central locking"
- "Signal list - illumination and signaling horn"
- "Signal list - wiping and heating of windows"

- "Signal list - sliding roof"
- "Signal list - rear sliding roof" (model 639)
- "Signal list - various CAN signals"
- "Signal list - indicators and warning indicators"
- "Signal list - PWM functions"
- "Signal list - logic functions (PLC)"
- "Signal list - taxi (model 639)"
- "Signal list - seat adjustment (model 639)"
- "Signal list - working functions (model 906)"
- "Signal list - equipment"
- "CAN matrix"

	Calling of signal lists, PSM, function		GF54.21-D-3016H
	Signal list for discrete inputs, PSM, function		GF54.21-D-3017H
	Signal list for status of outputs, PSM, function		GF54.21-D-3018H
	Signal list for analog inputs, PSM, function		GF54.21-D-3019H
	Signal list for analog/digital converter, PSM, function		GF54.21-D-3020H
	Signal list for internal information, PSM, function		GF54.21-D-3021H
	Signal list for vehicle status, PSM, function	General	GF54.21-D-3022H
		Model 906	GF54.21-D-3022HA
		Model 639	GF54.21-D-3022HB
	Signal list for CAN, PSM, function	Controller Area Network bus, class C (engine compartment) (CAN C)	GF54.21-D-3023H
		Controller Area Network bus Class C (body manufacturer) (body manufacturer CAN)	GF54.21-D-3023HA
	Signal list for central locking, PSM, function		GF54.21-D-3024H
	Signal list for illumination and signaling horn, PSM, function		GF54.21-D-3025H
	Signal list for wiping and heating of windows, PSM, function		GF54.21-D-3026H
	Signal list for sliding roof, PSM, function		GF54.21-D-3027H
	Signal list for rear sliding roof, PSM, function	Model 639	GF54.21-D-3028H
	Signal list for various CAN signals, PSM, function	General	GF54.21-D-3029H
		Model 906	GF54.21-D-3029HA
	Signal list for indicators and warning indicators, PSM, function		GF54.21-D-3030H
	Signal list for PWM functions, PSM, function		GF54.21-D-3031H
	Signal list for logic functions (PLC), PSM, function		GF54.21-D-3032H
	Signal list for taxi, PSM, function	Model 639	GF54.21-D-3033H
	Signal list for seat adjustment, PSM, function	Model 639	GF54.21-D-3034H
	Signal list for working functions, PSM, function		GF54.21-D-3035H
	Signal list for equipment, PSM, function	Model 906 Working speed control Power take-off (PTO) Speed limit (GB) Engine start/stop (MSS)	GF54.21-D-3036H
	CAN matrix, PSM, function	Outgoing CAN signals FMS standard	GF54.21-D-3038H
		Outgoing CAN signals ISO 11992-2/3	GF54.21-D-3038HA
		Outgoing CAN signals Freely assignable signals	GF54.21-D-3038HB
		Incoming CAN signals ISO 11992-2/3	GF54.21-D-3038HC
		Incoming CAN signals Freely assignable signals	GF54.21-D-3038HD

MODEL 639 as of 21.11.06 with CODE (ED5) Parameterizable special module (PSM)
MODEL 906 with CODE (ED5) Parameterizable special module (PSM)
**MODEL 906 with CODE (ED8) Preinstallation for parameterizable special module (PSM)**

	Signal list for status of outputs, PSM, function		GF54.21-D-3018H
	Signal list for analog inputs, PSM, function		GF54.21-D-3019H
	Signal list for analog/digital converter, PSM, function		GF54.21-D-3020H
	Signal list for internal information, PSM, function		GF54.21-D-3021H
	Signal list for vehicle status, PSM, function	General	GF54.21-D-3022H
		Model 906	GF54.21-D-3022HA
		Model 639	GF54.21-D-3022HB
	Signal list for CAN, PSM, function	Controller Area Network bus, class C (engine compartment) (CAN C)	GF54.21-D-3023H
		Controller Area Network bus Class C (body manufacturer) (body manufacturer CAN)	GF54.21-D-3023HA
	Signal list for central locking, PSM, function		GF54.21-D-3024H
	Signal list for illumination and signaling horn, PSM, function		GF54.21-D-3025H
	Signal list for wiping and heating of windows, PSM, function		GF54.21-D-3026H
	Signal list for sliding roof, PSM, function		GF54.21-D-3027H
	Signal list for rear sliding roof, PSM, function	Model 639	GF54.21-D-3028H
	Signal list for various CAN signals, PSM, function	General	GF54.21-D-3029H
		Model 906	GF54.21-D-3029HA
	Signal list for indicators and warning indicators, PSM, function		GF54.21-D-3030H
	Signal list for PWM functions, PSM, function		GF54.21-D-3031H
	Signal list for logic functions (PLC), PSM, function		GF54.21-D-3032H
	Signal list for taxi, PSM, function	Model 639	GF54.21-D-3033H
	Signal list for seat adjustment, PSM, function	Model 639	GF54.21-D-3034H
	Signal list for working functions, PSM, function	Model 906 Working speed control Power take-off (PTO) Speed limit (GB) Engine start/stop (MSS)	GF54.21-D-3035H
	Signal list for equipment, PSM, function		GF54.21-D-3036H
	CAN matrix, PSM, function	Outgoing CAN signals FMS standard	GF54.21-D-3038H
		Outgoing CAN signals ISO 11992-2/3	GF54.21-D-3038HA
		Outgoing CAN signals Freely assignable signals	GF54.21-D-3038HB
		Incoming CAN signals ISO 11992-2/3	GF54.21-D-3038HC
		Incoming CAN signals Freely assignable signals	GF54.21-D-3038HD
	Overview of system components, parameterizable special module (PSM), location/task/design/function		GF54.21-D-9999H

AN54.21-S-0002-01S	Wiring harness for Programmable Parameter Special Module (PSM) field installation		

1   Lift up floor covering in footwell on the right-hand side of the vehicle.

2   Route electrical wiring harness (1) from the right-hand side of the vehicle to the driver's seat console.

3   Route the electrical wiring harness (1) along the front passenger seat console via the entry to the right-hand side of the vehicle to the installation point of the parameterizable special module (PSM) control unit on the A-pillar.

4   Position the floor covering in the footwell on the right-hand side of the vehicle and press on.

5   Install ground line (2) on right hand firewall ground (W43/2).

6   Detach interior CAN bus connector (X30/26) from CAN bus distributor rail (13).
[i]   Unlock side catches.
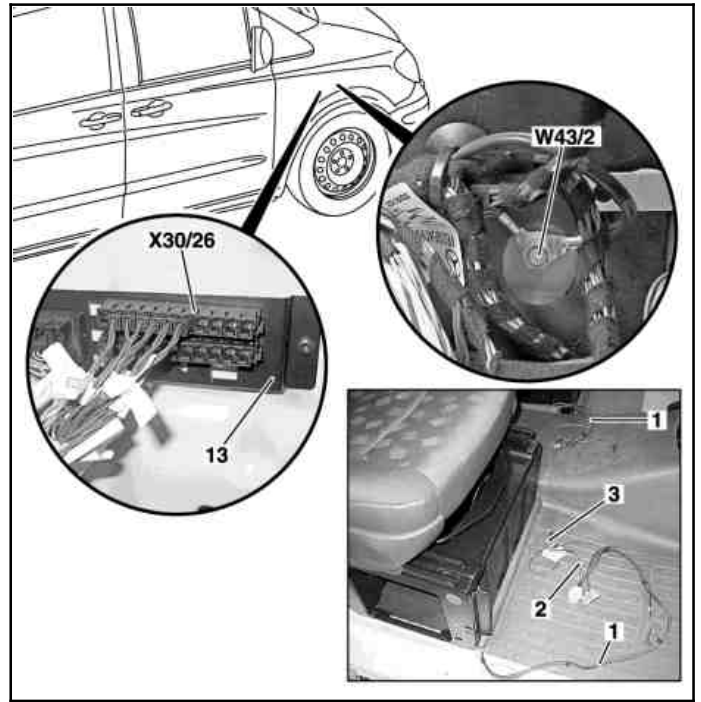
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7   Install CAN lines (3) in interior CAN bus connector (X30/26).
[i]   The plug must latch.

8   Install interior CAN bus connector (X30/26) on CAN bus distributor rail (13).
[i]   The side catches must latch.

9   Insert supply lines (4) and supply line (11) through the side opening in the driver's seat console (arrow) and route up to the fuse block (9-fuses) (F7).

10   Detach retaining frame (9) with fuse block (9-fuses) (F7) from driver's seat console.
[i]   Unscrew plastic nuts.

11   Unlock catch (10) in fuse block (9-fuses) (F7) using a suitable tool and remove.

12   Insert cable lugs of red electrical lines into chambers "5" and "6", insert cable lugs of red/black electrical lines into chambers "7" and "8" and insert dual cable lug of red electrical line into chamber "fuse connector (2-fuses) (F7-b2)" and press in as far as the stop.
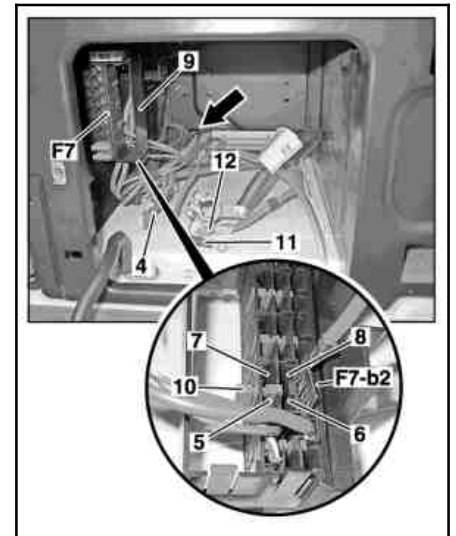
13   Install catch (10) in fuse block (9-fuses)(F7)
[i]   The cable lugs must seat firmly.

14   Install fuses for parameterizable special module (PSM) control unit in plug positions "3" and "4" of the fuse block (9-fuses) (F7).

15   Install retaining frame (9) with fuse block (9-fuses) (F7) in driver's seat console.
[i]   Screw on plastic nuts.

16   Install supply line (11) on positive terminal (12) of battery.

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