



Vito/Viano Taxi supplement



Mercedes-Benz

Order no. 6462 2526 02 Part no. 639 584 12 81 EN Edition A 05/03

Thank you for choosing a Mercedes-Benz vehicle with special taxi equipment.

Before you operate the taxi-specific equipment and systems, familiarise yourself with your taxi's special equipment and read this supplement. This will help you to obtain the maximum pleasure from your vehicle and to avoid endangering yourself and others.

Items of special equipment are marked with an asterisk *.

The taxi-specific equipment in your vehicle may vary, depending on the model, the country specifications and availability.

Mercedes-Benz is constantly updating its vehicles to the state of the art and therefore reserves the right to introduce changes in design, equipment and technical features at any time. Claims based on the data, illustrations or descriptions in this supplement cannot, therefore, be entertained.

The nearest Mercedes-Benz Service Centre will be happy to help should you have any questions.

This supplement is an integral part of your vehicle. You should always keep it in the vehicle and pass it on to the new owner if you sell the vehicle.

The technical documentation team at Mercedes-Benz wishes you safe and pleasant motoring.

Risk of injury



This supplement in no way replaces the detailed Owner's Manual. This is especially important with regard to warning notes. Before you drive off, please read with the detailed Owner's Manual, particularly the "Safety" section.

You may otherwise fail to recognise dangers and injure yourself or others.

Introduction	
The aim of this supplement	3
Symbols	4
Operating safety	5
Retrofitting electrical and electronic equipment	5
Operation of mobile phones and two-way radios	7

1 At a glance	
Cockpit	10

2 Controls in detail	
Two-way radio with hands-free facility	14
Transmitter button	14
Electret microphone	15
Two-way radio loudspeaker	15
Taxi roof sign illumination	16
Activating power supply	17
Switching off.	17
Two-way radio operation.	18

3 Practical advice	
Troubleshooting	20
Messages in the multifunction display (High-Line)*	20
Changing the batteries	24
Changing the radio remote control batteries	24
Fuses	26
Installing the taximeter	27
Installing a taximeter in the lower section of the centre console*	27
Installing the mirror taximeter*	29
Installing the two-way radio	31
Installing a two-way radio in the lower section of the centre console*	31
Installing the two-way radio in the centre console	32
Connecting peripherals	35
Fitting the taxi roof sign	37
Fitting the taxi roof sign	37
Connectors	39
Connector socket for taxi roof sign	39
Connector for two-way radio aerial	39

Connector for two-way radio	40
Connector for taximeter	41
Connectors for mirror taximeter.	42
Connectors for peripherals and HALE CEY system	43
Roof aerial.	44
Tuning the aerial rod to the transmitter frequency	44
Removing and refitting the aerial housing	45

4 Technical data	
Order numbers	48
Order numbers for electrical connection components	48
Road speed signal	50
Output signal for taximeter	50
Electret microphone	52
Coupling electronics	52
Technical data	53

5 Glossary and index	
Technical terms	55
Index	57

The aim of this supplement**▼ The aim of this supplement**

This supplement is intended to assist you in operating the taxi-specific equipment in your vehicle.

Each section has its own colour code to help you find the information you require quickly.

1 At a glance

Here you will find an overview of all the taxi-specific controls which can be operated from the driver's seat.

2 Controls in detail

This is where you will find more detailed information about the taxi-specific equipment in your vehicle.

3 Practical advice

Here you will find help for any problems which might arise in connection with the installation of items of special taxi equipment.

4 Technical data

All the important technical data for the special taxi equipment is contained here.

5 Glossary and index

The glossary of technical terms explains the most important taxi-specific technical terms.

The table of contents and the index are intended to help you find information quickly.

Symbols

You will find the following symbols used in this supplement:

- * Optional equipment is identified with an asterisk. The equipment in your vehicle may differ from some of the descriptions and illustrations you see here as not all models have the same standard equipment.

Warning



A warning note draws your attention to possible risks of accident or injury to yourself or others.

Environmental note



An environmental note gives you tips on the protection of the environment.



This note draws your attention to possible hazards to your vehicle.



This tip contains advice or further information you may find useful.

- ▶ This symbol means that you have to do something.
- ▶ A number of these symbols one after the other indicates a sequence of actions.
- ▷ Page This symbol indicates on which page you can find further information on the subject.
- ▷▷ This continuation symbol indicates an interrupted sequence of actions that will be continued on the next page.

▼ Operating safety

Retrofitting electrical and electronic equipment

Electrical and electronic equipment which has been retrofitted can affect the operational safety of your vehicle. If equipment of this kind is retrofitted, it must be type-approved and bear the **e**-mark.

If you wish to have mobile phones, two-way radios or fax machines installed in the vehicle, you must obtain formal approval.

Risk of accident 

Work carried out incorrectly on electronic equipment and its software could stop this equipment working.
The electronic systems are interconnected through interfaces.
Since the electronic systems are interconnected, intervention in these systems could also affect systems that have not been modified.
Malfunctions such as these could jeopardise the operating and road safety of your vehicle.

They could also alter the driving and braking characteristics of your vehicle.
You could cause an accident and endanger or injure yourself or others as a result.
Other work on or modifications to the vehicle which are carried out incorrectly may also impair the vehicle's operating safety.
For this reason, always have taximeters, control systems, printers or other electrical or electronic equipment retrofitted at a qualified specialist workshop which has the necessary specialist knowledge and tools to carry out the work required.

Operating safety



Only operate electrical or electronic equipment using the connection points fitted as standard. The equipment could otherwise interfere with the vehicle electronics.

The installation of mobile phones, two-way radios or fax machines should only be carried out if the maximum transmission outputs listed below are not exceeded.

Frequency range	Maximum transmission output
2 m band	6 W
70 cm band	20 W

Always have this type of equipment professionally installed in accordance with the instructions in this supplement, and fitted with an external aerial which has been tuned to be reflection-free.



When retrofitting

- mobile phones
- two-way radios
- fax machines

observe the appropriate Mercedes-Benz installation specifications. Failure to observe these may invalidate the vehicle's operating permit (EU Directive 95 / 54 / EC).

For reasons of safety and the electromagnetic compatibility of the vehicle, Mercedes-Benz recommend that you only operate electrical or electronic equipment which fulfils these conditions.

Operation of mobile phones and two-way radios

Risk of accident



The operation of mobile phones, two-way radios and fax machines without an external aerial in the vehicle interior may cause malfunctions in the vehicle electronics.

This would jeopardise the operating and road safety of your vehicle.

You could cause an accident and endanger or injure yourself or others as a result.

Risk of accident



To reduce the risk of an accident, only use mobile phones and other equipment when road and traffic conditions permit.

- Only make a telephone call using a permanently installed hands-free device
- Only use the two-way radio with hands-free facility for radio operation

You could otherwise be distracted from the traffic conditions.

Remember that at a speed of just 30 mph (50 km/h), your vehicle is covering a distance of around 50 feet (14 m) every second.



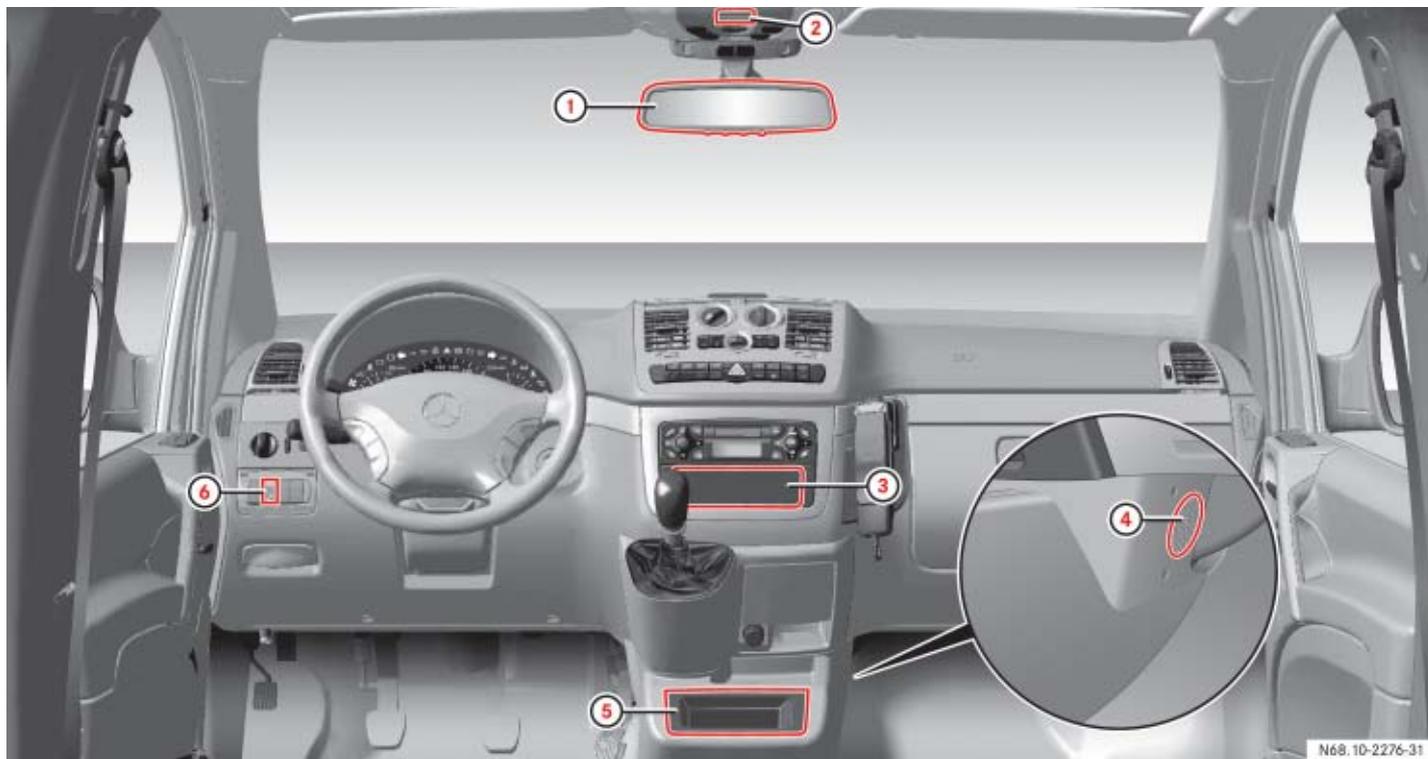
In the Federal Republic of Germany, it is forbidden to use a mobile phone while driving and when the vehicle's engine is running unless the vehicle has a permanently-installed hands-free facility.

Observe the legal requirements in all countries concerned.



Do not place bank cards, credit cards or other cards with magnetic strips in the vicinity of the telephone bracket and loudspeaker.

The magnetic field around the equipment could delete or corrupt the data stored on the cards.



	Function	Page
①	Taximeter / trip meter in the rear-view mirror*	
②	Electret microphone	15
③	Installation space for two-way radio	32
④	Two-way radio loud-speaker	15

	Function	Page
⑤	Installation space* for taximeter or for two-way radio	27 31
⑥	<ul style="list-style-type: none"> • For speaking / transmitting with two-way radio with hands-free facility • Activates power supply for the taxi 	14 16

Controls in detail

Two-way radio with hands-free facility

Taxi roof sign illumination

Two-way radio operation

Two-way radio with hands-free facility

The two-way radio with hands-free facility consists of:

- the combination pushbutton switch for speaking / transmitting and switching on the taxi roof sign illumination
- the electret microphone in the overhead control panel
- the two-way radio loudspeaker in the front-passenger footwell

Risk of accident



Only use the two-way radio with hands-free facility and only operate the two-way radio when road and traffic conditions permit. You could otherwise be distracted from the road and traffic conditions.

Bear in mind that at a speed of just 30 mph (50 km / h), your vehicle is covering a distance of around 50 feet (14 m) every second.

Transmitter button

The transmitter button is combined with the pushbutton switch for the taxi roof sign illumination. The button is located under the light switch between the driver's door and the steering wheel.



- ① Indicator lamp
- ② To speak and transmit

Speaking

- ▶ Press and hold pushbutton switch ② until you have finished speaking.

Indicator lamp ① lights up, the switches to mute and the two-way radio transmits the signal.

Receiving

- ▶ Release pushbutton switch ②.

Indicator lamp ① goes out and the two-way radio is ready to receive.

Two-way radio with hands-free facility

Electret microphone

The electret microphone is in the overhead control panel.



① Electret microphone



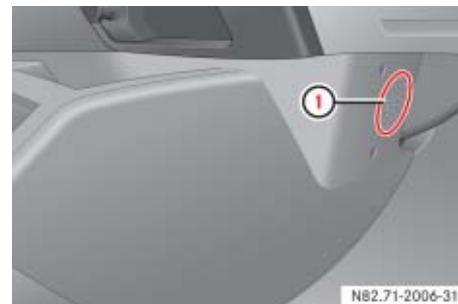
You must have electret microphone ① adapted to the two-way radio unit.

Electret microphone coupling electronics (▷ page 52).

Electret microphone technical data (▷ page 53).

Two-way radio loudspeaker

The two-way radio loudspeaker is in the front-passenger footwell in the centre console.



① Two-way radio loudspeaker

Taxi roof sign illumination

The taxi roof sign illumination is directly connected to the taximeter.

If the taximeter is in counting mode, the taxi roof sign illumination cannot be switched on.



The taxi roof sign illumination is switched on and off using the taximeter control buttons (see the taximeter operating instructions).

If you lock the vehicle with the remote control while the taxi roof sign illumination is switched on, the taxi roof sign illumination switches off automatically.

If you then unlock the vehicle using the remote control, the taxi roof sign illumination is switched on again.

You can have this setting changed at a qualified specialist workshop, e.g. at a Mercedes-Benz Service Centre.

The pushbutton switch for the taxi roof sign illumination is combined with the transmitter button for the two-way radio with hands-free facility. The pushbutton switch is located under the light switch between the driver's door and the steering wheel.



- ① To activate power supply for the taxi roof sign illumination
- ② Indicator lamp

Taxi roof sign illumination

Activating power supply

- ▶ Press the upper section of pushbutton switch ①.

Indicator lamp ② lights up and the taxi roof sign illumination can be switched on via the taximeter.

On vehicles with a multifunction display (High-Line)*, indicator ③ also appears.

Indicator lamp ② and display ③ do not light up when the taximeter is in counting mode or there is a malfunction (▷ page 20).



- ③ Roof sign illumination status



If the vehicle battery voltage falls below 11.2 V, the taxi roof sign illumination switches off automatically.

Switching off

- ▶ Press the upper section of pushbutton switch ①.

Indicator lamp ② and, if appropriate, indicator ③ go out. The taxi roof sign illumination is switched off.

Two-way radio operation

To enable practically interference-free radio communications, set the noise suppressor in the two-way radio to between $-7 \text{ dB}\mu\text{V}$ and $-6 \text{ dB}\mu\text{V}$ (450 to 500 nV at 50Ω).



Interference may occur in radio operation if a two way radio is used with the noise suppressor set to below $-7 \text{ dB}\mu\text{V}$ (50Ω).

Risk of accident



Only use the two-way radio with hands-free facility and only operate the two-way radio when road and traffic conditions permit. You could otherwise be distracted from the road and traffic conditions.

Bear in mind that at a speed of just 30 mph (50 km/h), your vehicle is covering a distance of around 50 feet (14 m) every second.

Practical advice

Troubleshooting

Changing the batteries

Fuses

Installing the taximeter

Installing the two-way radio

Connecting peripherals

Fitting the taxi roof sign

Connectors

Roof aerial

Troubleshooting

Messages in the multifunction display (High-Line)*

The operating system shows warnings or malfunctions in the multi-function display (High-Line).

With certain messages you will also hear a warning signal.

Respond in accordance with the messages and observe the additional notes in the vehicle Owner's Manual.

Risk of accident



No messages will be displayed if the instrument cluster or the multi-function display fails. Systems could fail or already have failed without your knowledge. This could therefore jeopardise the operating and road safety of your vehicle.

You could cause an accident and endanger or injure yourself or others as a result.

In this case, stop the vehicle taking the road and traffic conditions into consideration and switch off the engine.

Inform the nearest qualified specialist workshop, e.g. a Mercedes-Benz Service Centre, immediately.



Malfunctions, faults and warning messages are only recorded for certain systems and are displayed to a predefined level of detail.

The fault and warning messages shown serve only as a backup, and do not relieve you of the responsibility to maintain the vehicle's operating safety.

The following tables show all the taxi-specific messages which could appear in the multi-function display (High-Line).

Display symbol	Display message	Possible cause	Possible solution
	<p>UNDERVOLTAGE ENGINE ON</p>	<p>The vehicle battery voltage has fallen below 11.2 volts while the engine was switched off.</p>	<p>► Switch off all electrical consumers which are not required. Start the engine as described in the "Getting started" section in the vehicle Owner's Manual.</p> <p>Note that after this warning message appears, the following consumers could be switched off:</p> <ul style="list-style-type: none"> • Roof sign illumination • Two-way radio power supply • Separate 12 volt power supply connection for taximeter peripherals <p>The taximeter is not switched off when undervoltage is indicated.</p>

Troubleshooting

Display symbol	Display message	Possible cause	Possible solution
TAXI	ROOF SIGN CHECK ROOF SIGN!	The taxi roof sign may not be connected.	▶ Plug in the connector (▷ page 37).
	ROOF SIGN CHECK LAMP!	One or more lamps are defective.	▶ Change the lamps.
	TAXI ELECTRICS DEFECT VISIT WORKSHOP!	<p>Short-circuit in at least one power supply outlet for:</p> <ul style="list-style-type: none"> • Two-way radio connection in the upper or lower section of the centre console* • Taximeter connection in the overhead control panel or in the lower section of the centre console* • Separate 12 volt power supply connection for taximeter peripherals <p>The taxi-specific electrics have failed.</p>	▶ Have the electrical system checked at a qualified specialist workshop, e.g. at a Mercedes-Benz Service Centre.

Display symbol	Display message	Possible cause	Possible solution
TAXI	ROOF SIGN OVERLOAD VISIT WORKSHOP!	Short-circuit in power supply outlet for taxi roof sign.	▶ Have the electrical system checked at a qualified specialist workshop, e.g. at a Mercedes-Benz Service Centre.
SOS	AL. SYS. DEFECT VISIT WORKSHOP!	The taxi emergency alarm system* has failed.	▶ Have the taxi emergency alarm system* checked at a qualified specialist workshop, e.g. at a Mercedes-Benz Service Centre.

Changing the batteries

When the radio remote control batteries (2 x 3 volts, 10 mAh) are discharged, you can no longer trigger the taxi emergency alarm from a distance.



Suitable batteries are available from a qualified specialist workshop, e.g. a Mercedes-Benz Service Centre.

You can also have the batteries changed there and return the old batteries. In many EU countries and in other countries, vendors are obliged to take back old batteries.

3

Risk of poisoning



Batteries contain poisonous and caustic substances. For this reason, keep batteries away from children.

If a battery is swallowed, consult a doctor immediately.

Environmental note



Do not dispose of batteries with the household rubbish.

They contain poisonous substances.

Return discharged batteries to a qualified specialist workshop, e.g. a Mercedes-Benz Service Centre or a special collection point for old batteries.

Changing the radio remote control batteries

Risk of explosion



There is a risk of explosion if you

- change batteries incorrectly
- try to recharge the batteries
- burn the batteries
- try to open the batteries with force

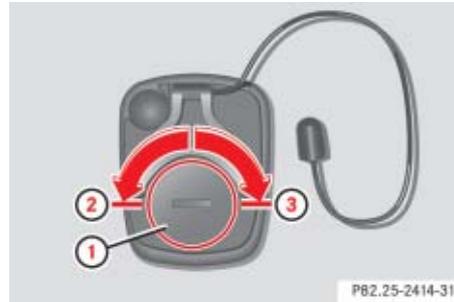
For this reason, observe the following instructions. Only replace the batteries in pairs and use batteries of the same specification as those recommended by the manufacturer.



Do not operate the remote control when changing the batteries.

Do not touch the contact surfaces of the batteries. Only touch the batteries with a clean, lint-free cloth or similar. Do not work with wet or greasy fingers.

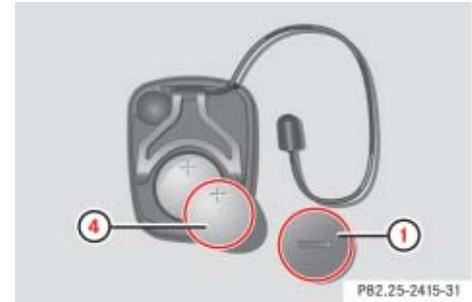
- ▶ Open cover ① by turning it with a coin in the direction of arrow ②.



P82.25-2414-31

- ① Cover
- ② To open
- ③ To close

- ▶ Remove the old batteries.
- ▶ Insert new batteries ④ in the radio remote control with the positive sign facing upwards.



P82.25-2415-31

- ① Cover
- ④ Batteries

- ▶ Place cover ① on the radio remote control.
- ▶ Close cover ① by turning it as far as the stop in the direction of arrow ③.

Fuses

The entire taxi-specific electronics and the separate 12 volt power supply connection (▷ page 35) are protected by the PSM module.

The two fuses (25 A) for the PSM module are located in the fuse box in the driver's seat.

You will find information on the fuse box in the driver's seat in the "Practical advice" section of the vehicle Owner's Manual.

Installing the taximeter

▼ Installing the taximeter

Risk of injury



You could injure yourself on sharp-edged frame parts or reinforcement materials during installation. For this reason, have the taximeter installed at a qualified specialist workshop, e.g. at a Mercedes-Benz Service Centre.

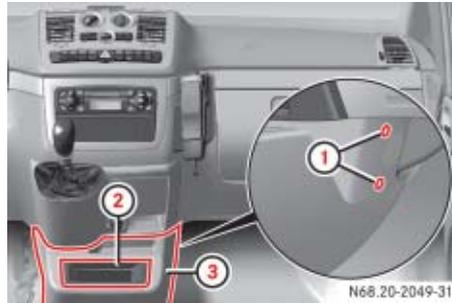


Before installing the taximeter, you must connect the quiescent current retention unit and disconnect the battery earthing line.



The equipment bracket in the lower section of the centre console* is designed to hold taximeters and two-way radios with DIN-compliant adapter.

Installing a taximeter in the lower section of the centre console*



- ① Torx screws
 - ② Installation space
 - ③ Lower section of the centre console
- Unscrew the four Torx screws ① on both sides of lower section of the centre console ③.

- Remove lower section of the centre console ③ to the rear. Take care not to damage the two-way radio loudspeaker in the front-passenger footwell when doing this (▷ page 15).
- Secure the DIN-compliant adapter of the taximeter / two-way radio in installation space ②.



- ④ Taximeter connection cable
- ⑤ Two-way radio connection cable



Installing the taximeter

- ▶ Guide taximeter connection cable ④ into installation space ② on lower section of the centre console ③.

i

To install a two-way radio in the lower section of the centre console, guide two-way radio connection cables ⑤ into installation space ②.

- ▶ Connect the taximeter / two-way radio in accordance with the manufacturer's wiring diagram.

Pin assignment for taximeter connector (▷ page 41).

Pin assignment for two-way radio connector (▷ page 40) and aerial (▷ page 39).

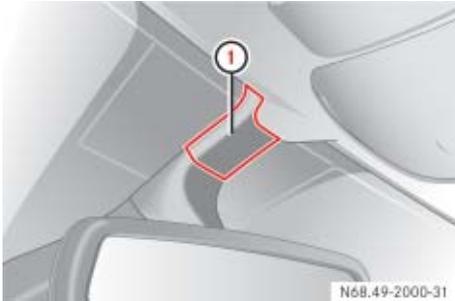
- ▶ Press the taximeter / two-way radio into the installation aid and make sure it is firmly seated.
- ▶ Refit lower section of the centre console ③. Take care not to damage the two-way radio loudspeaker in the front-passenger footwell (▷ page 15) and the routing of the connection cables under the console.
- ▶ Reconnect the battery.
- ▶ Disconnect the quiescent current retention unit.
- ▶ Carry out a function check on the taximeter / two-way radio.

Two-way radio operation (▷ page 18)

i

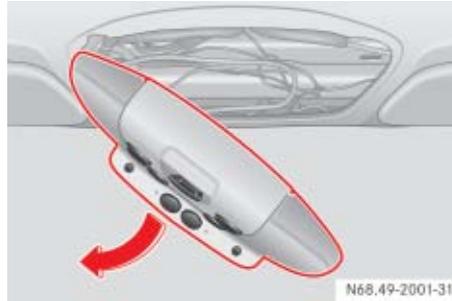
Information and documents about calibrating the taximeter can be obtained from any Mercedes-Benz Service Centre.

Installing the mirror taximeter*



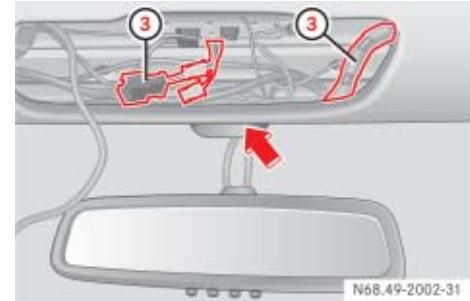
① Cover

- ▶ Remove cover ①.
- ▶ Grasp the rear-view mirror by the base and slide it up out of the bracket.



② Overhead control panel

- ▶ Lift off overhead control panel ② and fold it down to the side without disconnecting the cable plug connections.
- ▶ Grasp the mirror taximeter by the base and slide it into the bracket from above.



③ Mirror taximeter connection cables

- ▶ Lift up the roof lining (arrow) carefully and guide the connection cables under the roof lining to the overhead control panel.
- ▶ Connect the mirror taximeter in accordance with the manufacturer's wiring diagram.

3

▷▷

Installing the taximeter

- ▶ Install the connecting cables in such a manner that they cannot move about. Secure them in place with foam material if necessary.

Pin assignment for mirror taximeter connector (▷ page 42).

- ▶ Replace cover ①.
- ▶ Refit overhead control panel ②. When doing so, take care not to trap any cables.

3

- ▶ Reconnect the battery.
- ▶ Disconnect the quiescent current retention unit.

- ▶ Carry out a function check on the mirror taximeter.

After you have installed the mirror taximeter, you must have it initialised at a qualified specialist workshop, e.g. a Mercedes-Benz Service Centre.

▼ Installing the two-way radio

Risk of injury



You could injure yourself on sharp-edged frame parts or reinforcement materials during installation.

For this reason, have the two-way radio installed at a qualified specialist workshop, e.g. at a Mercedes-Benz Service Centre.



Before installing the two-way radio, you must connect the quiescent current retention unit and disconnect the battery earthing line.



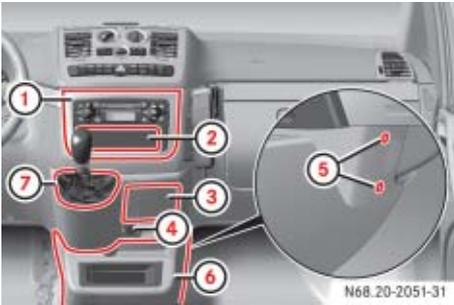
The equipment bracket in the lower section of the centre console* is designed for holding taximeters and two-way radios with DIN-compliant adapter.

Installing a two-way radio in the lower section of the centre console*

The two-way radio is installed in the lower section of the centre console in the same way as the taximeter and is described in the section entitled "Installing a taximeter in the lower section of the centre console*" (▷ page 27).

Installing the two-way radio

Installing the two-way radio in the centre console



3

- ① Trim
- ② Two-way radio mounting frame trim
- ③ Ashtray
- ④ Cigarette lighter
- ⑤ Torx screws
- ⑥ Lower section of the centre console*
- ⑦ Gear lever cover

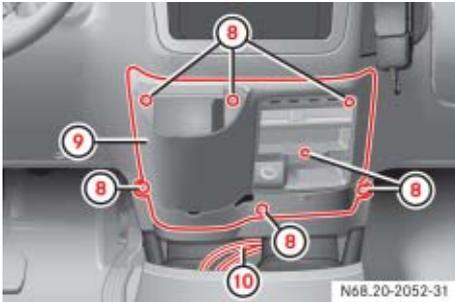
- ▶ Remove trim ① from the centre console.
- ▶ Remove trim ② from the radio mounting frame.
- ▶ Unscrew the four Torx screws ⑤ on both sides of lower section of the centre console* ⑥ or the footwell trim.
- ▶ Remove lower section of the centre console* ⑥ or the footwell trim to the rear. Take care not to damage the two-way radio loudspeaker in the front-passenger footwell when doing this (▷ page 15).
- ▶ Pull out cigarette lighter ④.

- ▶ Pull out the ashtray insert and remove ashtray ③. Take care not to damage the ashtray light when doing this.

You will find information on the ashtray in the "Controls in detail" section of the vehicle Owner's Manual.

- ▶ Pull the back of the bulb holder out of the ashtray housing.
- ▶ Lift gear lever cover ⑦ away from gear lever trim ⑨ in an upwards direction.

Installing the two-way radio



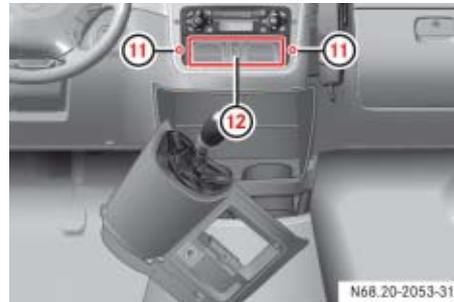
⑧ Torx screws

⑨ Trim

⑩ Two-way radio connection cable

- ▶ Unscrew the seven Torx screws ⑧ from trim ⑨

- ▶ Fit trim ⑨ over the gear lever and linkage. Take care not to damage the bulb holder in the ashtray light and the cigarette lighter connection cable when doing this.



⑪ Torx screws

⑫ Two-way radio mounting frame

- ▶ Unscrew both Torx screws ⑪ from two-way radio mounting frame ⑫.

i

If no radio is fitted in the centre console, you must remove a double mounting frame. This is secured by four screws.

- ▶ Remove two-way radio mounting frame ⑫ from the installation space.
- ▶ Secure the two-way radio using either a DIN-compliant adapter or a screw connection on two-way radio mounting frame ⑫.

3

▷▷

Installing the two-way radio

- ▶ Guide two-way radio connection cables ⑩ through the centre console upwards into the two-way radio installation space.

i

Tie back the connection cables and connector in the lower area of the centre console (▷ page 33).

- ▶ Connect the two-way radio in accordance with the manufacturer's wiring diagram.

Pin assignment for two-way radio connector (▷ page 40) and aerial (▷ page 39).

- ▶ Press two-way radio mounting frame ⑫ with the two-way radio into the installation space.

- ▶ Tighten Torx screws ⑪ on two-way radio mounting frame ⑫ or the double mounting frame.

- ▶ Fit trim ① on the centre console. Make sure that the clamps on the trim engage.

- ▶ Refit trim ⑨. Take care not to damage the bulb holder in the ashtray light and the cigarette lighter connection cable when doing this.

- ▶ Insert the bulb holder for the ashtray light into the ashtray housing.

- ▶ Refit ashtray ③ and the insert in the centre console.

- ▶ Re-insert cigarette lighter ④ in its socket.

- ▶ Replace gear lever cover ⑦ on trim ⑨.

- ▶ Refit lower section of the centre console* ⑥ or the footwell trim. Take care not to damage the two-way radio loudspeaker in the front-passenger footwell when doing this (▷ page 15).

- ▶ Reconnect the battery.

- ▶ Disconnect the quiescent current retention unit.

- ▶ Carry out a function check on the two-way radio.

Two-way radio operation (▷ page 18)

▼ Connecting peripherals

Risk of injury



You could injure yourself on sharp-edged frame parts or reinforcement materials during installation.

For this reason, have the peripherals installed at a qualified specialist workshop, e.g. a Mercedes-Benz Service Centre.



Before installing a device, you must connect the quiescent current retention unit and disconnect the battery earthing line.

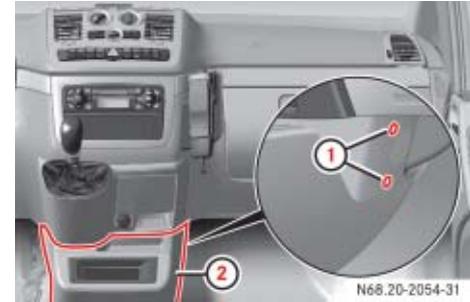
You can use a 12 volt power supply connection for accessories up to a maximum of 100 W.



The 12 volt power supply connection is only supplied with power by the battery when the key is in position **1** or **2**. The connection is protected by the PSM module.

If the vehicle battery voltage falls below 11.2 V, the 12 volt power supply connection switches off.

The tied-back connectors for the taximeter peripherals, the separate 12 volt power supply and the HALE CEY system are located in the lower section of the centre console* or in the footwell trim.



- ① Torx screws
- ② Lower section of centre console*

► Unscrew the four Torx screws ① from both sides of the lower section of centre console* ② or the footwell trim. ▷▷

Connecting peripherals

- ▶ Remove lower section of the centre console* ② or the footwell trim to the rear. Take care not to damage the two-way radio loudspeaker in the front-passenger footwell when doing this (▷ page 15).



- ③ Connection cable for taximeter peripherals
- ④ HALE CEY system connection cable
- ⑤ 12 volt power supply connection cable

- ▶ Connect the device in accordance with the manufacturer's wiring diagram.

Pin assignment for peripherals, separate 12 volt power supply and HALE CEY system (▷ page 43)

- ▶ Refit lower section of centre console* ② or the footwell trim. Take care not to damage the two-way radio loudspeaker in the front-passenger footwell (▷ page 15) and the routing of the connection cables under the console or trim.

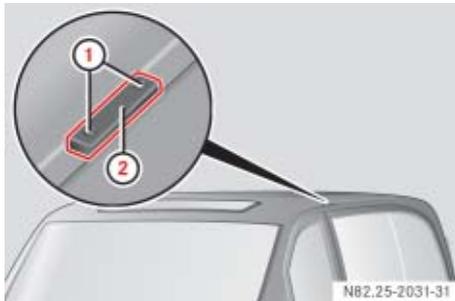
- ▶ Reconnect the battery.
- ▶ Disconnect the quiescent current retention unit.
- ▶ Carry out a function check on the device.

Fitting the taxi roof sign

▼ Fitting the taxi roof sign

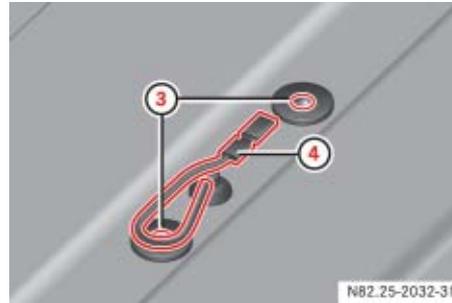
Fitting the taxi roof sign

The threaded holes and the connector sockets for the taxi roof sign are located on the driver's side beneath a cover behind the B pillar.



- ① Screws
- ② Cover

- ▶ Undo the two screws ①.
- ▶ Remove cover ②.



- ③ Threaded hole
- ④ Taxi roof sign connection cable



When refitting the cover, tighten the screws to a maximum tightening torque of 2.5 Nm.

- ▶ Screw the taxi roof sign adapter tightly onto the roof using both threaded holes ③. To prevent a short circuit, fit connection cable ④ in such a way that it does not chafe.



Tighten the taxi roof sign adapter securing screws by at least four turns. Check regularly that the taxi roof sign adapter is securely tightened.

3



Fitting the taxi roof sign



The taxi roof sign adapters are not included in the Mercedes-Benz scope of delivery. These adapters can be obtained from suppliers of taxi-specific accessories.

- ▶ Remove connector cap from connection cable ④.
- ▶ Connect the taxi roof sign to connection cable ④.

3

Connector socket assignment for taxi roof sign illumination (▷ page 39)



The connector for the taxi roof sign is included with the vehicle documentation.



The connector socket for the taxi roof sign illumination can carry a maximum load of 5 A.



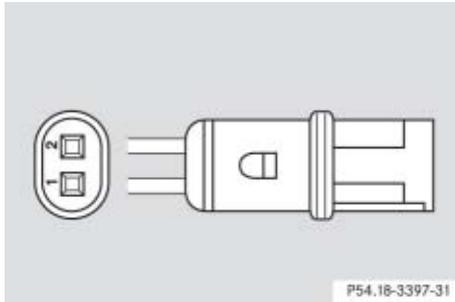
The taxi roof sign may become damaged if the vehicle is washed in an automatic car wash.

You should remove the roof sign before using an automatic car wash.

▼ Connectors

Connector socket for taxi roof sign

The connector socket for the roof sign is located under the cover on the roof (▷ page 37).



Pin	Assignment
1	Earth (terminal 31, black)
2	Power supply (terminal 30, white)

Maximum load: 5 A

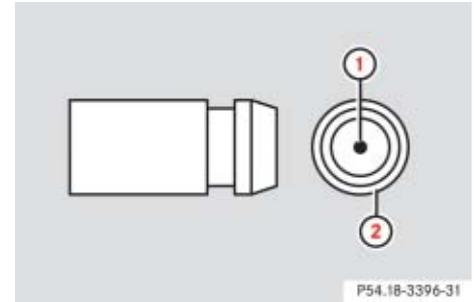


The connector for the roof sign is included with the vehicle documentation.

Order numbers (▷ page 48)

Connector for two-way radio aerial

The tied-back aerial connector is located in the lower section of the centre console* or in the footwell trim.

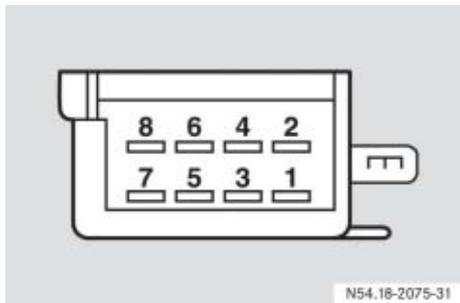


- ① Aerial (signal)
- ② Aerial (earth)

Connectors

Connector for two-way radio

The tied-back connector for the two-way radio is located in the lower section of the centre console* or in the footwell trim.



Pin	Assignment
1	Loudspeaker (earth)
2	Loudspeaker (signal)
3	Microphone (signal)
4	Microphone (earth)
5	Two-way radio actuation
6	Earth for triggered taxi emergency alarm system*
7	Power supply (terminal 30) Maximum load: 5 A
8	Earth (terminal 31)

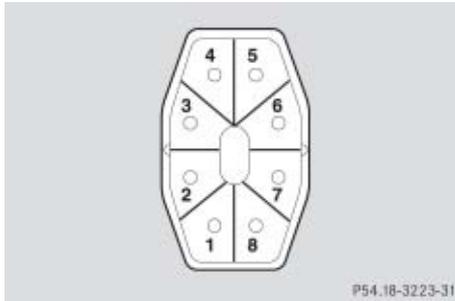
i

The coupling for the two-way radio connection, the power supply and the electrical connection components can be found with the vehicle documentation. They can also be obtained from any Mercedes-Benz Service Centre.

Order numbers (▷ page 48)

Connector for taximeter

The connector for the taximeter is located in the lower section of the centre console* or in the footwell trim.



P54.18-3223-31

Pin	Assignment
1	Power supply (terminal 30) Maximum load: 5 A
2	Road speed signal
3	Ignition (terminal 15)
4	Taxi roof sign power supply (terminal 30) Maximum load: 5 A
5	Taxi roof sign control lead
6	Not used
7	Not used
8	Earth (terminal 31)

i

The taximeter connection couplings and the electrical connection components can be found together with the vehicle documents.

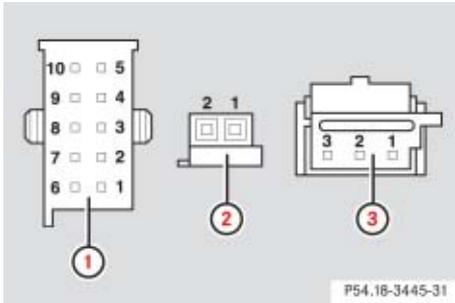
They can also be obtained from any Mercedes-Benz Service Centre.

Order numbers (▷ page 48)

Connectors

Connectors for mirror taximeter

The mirror taximeter connectors are secured under the overhead control panel.



- ① Connector for taximeter functions
- ② CAN system connector (white)
- ③ Connector for display control

Connector 1:

Pin	Assignment
1	Power supply (terminal 30) Maximum load: 5 A
2	Earth (terminal 31)
3	Not used
4	RS 485 A+ (data)
5	RS 485 B- (inv.)
6	Key ground (Hale)
7	Key data (Hale)
8	Not used
9	Not used
10	Not used

Connector 2:

Pin	Assignment
1	CAN peripherals (high)
2	CAN peripherals (low)

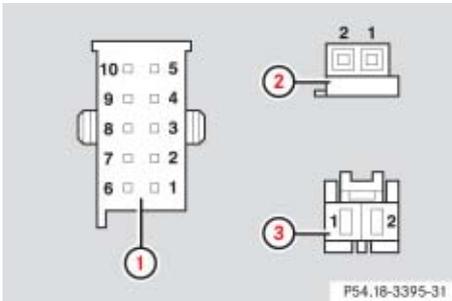
Connector 3:

Pin	Assignment
1	Ignition (terminal 15)
2	Pulse out
3	Earth (terminal 31)

Retrofitting a mirror taximeter*
(▷ page 29)

Connectors for peripherals and HALE CEY system

The connectors for the taximeter peripherals, the separate 12 volt power supply and the HALE CEY system are secured in the lower section of the centre console* or in the footwell trim.



- ① Connector for taximeter peripherals
- ② HALE CEY system connector
- ③ 12 volt power supply connector

Connector 1:

Pin	Assignment
1	Not used
2	Not used
3	Not used
4	Not used
5	CAN-Hale (high)
6	CAN-Hale (low)
7	Power supply (terminal 30) Maximum load: 5 A
8	Earth (terminal 31)
9	Not used
10	Not used

Connector 2:

Pin	Assignment
1	Data
2	Ground

Connector 3:

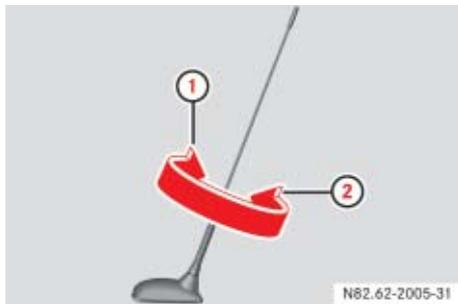
Pin	Assignment
1	Power supply (terminal 30) Maximum load: 10 A
2	Earth (terminal 31)



The electrical connection components can be found together with the vehicle documents. They can also be obtained from any Mercedes-Benz Service Centre.

Order numbers (▷ page 48)

Roof aerial



- ① To fit aerial rod
- ② To remove aerial rod

3



The roof aerial (D/E networks, GPS reception and radio in the 2 m or 70 cm waveband) may become damaged if the vehicle is washed in an automatic car wash. You must remove the aerial rod before using an automatic car wash.

Removing aerial rod

- ▶ Turn the aerial rod anti-clockwise ②.

Fitting aerial rod

- ▶ Turn the aerial rod clockwise ①.

Tuning the aerial rod to the transmitter frequency

The aerial rod must be tuned to the transmitter frequency of the two-way radio before it is used for the first time.



Have the low-reflection tuning of the aerial rod to the transmitter frequency carried out at a qualified specialist workshop.



A diagram for tuning the aerial to the transmitter frequency is enclosed with the vehicle documentation. Select an average length for the aerial rod if you wish to transmit on more than one frequency.



- ① Tip protection
- ② Aerial housing
- ③ Screws

- ▶ Remove tip protection ① from the aerial rod.
- ▶ Shorten the aerial rod according to the diagram provided.

i

Even more precise tuning is possible using an SWR power meter.

- ▶ Remove 10 mm of the heat-shrinkable sleeve on the aerial rod tip.
- ▶ Replace the tip protection on the aerial rod.
- ▶ Screw the aerial rod into aerial housing ②.
- ▶ Check the tuning of the aerial outside with the vehicle doors closed using an SWR power meter.

Removing and refitting the aerial housing

You can remove aerial housing ② if you wish to attach adhesive film to the vehicle.

- ▶ Unscrew screw ③.
- ▶ Remove aerial housing ② upwards.

!

When replacing aerial housing ②, make sure that the contact spring on the printed circuit board is not bent.

Retighten securing screw ③ to a maximum torque of 0.2 ^{+0.1} Nm.

- ▶ Proceed in the reverse order to refit aerial housing ②.



Technical data

Order numbers

Road speed signal

Electret microphone

Order numbers

Electrical connection components and a complete set of connectors and pins (Order number for set: 203 820 0237) are available from a Mercedes-Benz Service Centre.



A complete set of connectors and pins is supplied with every taxi when delivered from the factory.

Order numbers for electrical connection components

Taximeter connector

1	Connector housing:	017 545 5728
2	Internal connector part:	000 545 3540
3	Pin (connector pin):	017 545 6328

Taximeter coupling

1	Coupling housing:	017 545 5628
2	Internal coupling part:	000 545 3540
3	Coupling socket pin:	003 545 4826

Two-way radio connector		
1	Connector:	030 545 3628
2	Connector housing pin:	018 545 1928
3	Coupling:	030 545 3528
4	Coupling housing pin (2.5 mm ²):	003 545 5226
	Coupling housing pin (0.75 mm ²):	003 545 5126
	Coupling housing pin (0.35 mm ²):	005 545 1826

Peripherals connector		
1	Connector housing:	168 545 4328
2	Connector housing pin:	026 545 8328

HALE GEY system connector		
1	Connector housing:	033 545 6728
2	Connector housing pin:	026 545 8328

12 volt power supply connector		
1	Connector housing:	037 545 1128
2	Connector housing pin:	010 545 9526

Roof sign coupling		
1	Coupling:	046 545 6828
2	Coupling housing pin:	015 545 2026

Road speed signal

Output signal for taximeter

The output signal is a route and road speed signal for the taximeter.

Guaranteed speed range:

2.75 km/h to 250 km/h

Overvoltage protection:

Output is blocked if $U > 16.5 \text{ V}$.

Signal output:

- Open collector with a high-impedance pull-up resistor (10 k Ω)
- External low-impedance pull-down resistor $R_L = 470 \Omega$



The external pull-down resistor R_L is contained in the cable set fitted in the taxi.

Output current:

25 mA, protected against short circuits

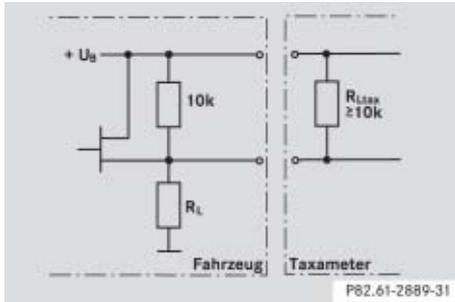


Special EMC measures must be taken with larger currents ($I_{\max} = 1 \text{ A}$).

Output level:

HIGH signal	$U_A \geq 8 \text{ volts}$
LOW signal ¹	$U_A \leq 1 \text{ volts}$

¹ The value depends on the input resistance of the taximeter ($R_{L_{\text{tax}}} \geq 10 \text{ k}\Omega$).



The illustrated circuit diagram shows the recommended wiring for the road speed signal output.

Signal form:

Square wave

Pulse sequence:



The data below refers to wheels with a dynamic rolling radius of 0.33 m.

4 pulses per metre (pulse width = 4 ms)

The pulse duration is the same as the pulse pause above a speed of 69.9 mph (112.5 km/h) (1:1 pulse duty factor).

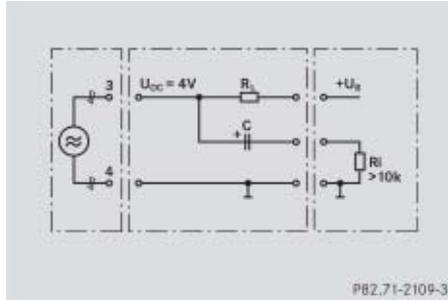
The ratio is maintained at higher speeds. The pulse duration and pause both become shorter.

Electret microphone

Coupling electronics



Have the coupling electronics for connecting an electret microphone to a two-way radio prepared by authorised radio installation specialists.



The illustrated circuit diagram (example) shows you how the electret microphone is adapted to a two-way radio.

For example:

Decoupling capacitor $C = 10 \mu\text{F}$

Coupling resistance $R_L = 680 \Omega$
(if $U_B = 8 \text{ V}$ and $I_{\text{max}} = 6 \text{ mA}$)

To calculate coupling resistance R_L for other supply voltages:

$$R_L = U_B / I_{\text{max}} \quad (\text{with } I_{\text{max}} = 6 \text{ mA})$$

For U_B you must refer to the technical data for your two-way radio.

Technical data

Microphone model	AKG / Q 400 MK II T	
Operating temperature	-25°C to +70 °C	
Transmission range	300 Hz to 6,500 Hz	
Directional characteristic	unidirectional	
Impedance	< 100 Ω	
Microphone operating voltage	$U_{DC} = 4.0 V_{DC} \pm 0.2 V$	
Current draw (if $U_B = 8 V_{DC}$ and $R_L = 680 \Omega$)	$I_{max} = 6 mA \pm 0.4 mA$	
Sensitivity (0 dB = 10 V / Pa; f = 1 kHz)	600 mV / Pa	
Microphone level with normal background noise¹	Voice level	Voice signal
Normal	70 dB SPL	50 mV
Maximum	90 dB SPL	400 mV

¹ Guidelines; the level depends greatly on the speech patterns of the individual and background noise.

e mark

Symbol to indicate certification in accordance with the relevant EU Directives.

EMC

(ElectroMagnetic Compatibility)

The electrical and electronic components of the vehicle are protected from interference fields, e.g. transmitters, radar systems, current conductors or radiophones.

GPS

(Global Positioning System)

Satellite signals supply information about the geographical location of the vehicle via suitable receivers. These signals can be compared with a digital map (e.g. on CD ROM) and may be used to determine the location of the vehicle and for navigation purposes.

HALE CEY system

(Driver cashing up system)

This system is used to download data from the trip meter / taximeter to a PC. This enables shift data to be analysed.

PSM

(Programmable Special Module)

The module provides a defined interface for vehicle data, parameters and power supply to equipment parts.

- A**
- Aerial**
- Aerial rod 44
 - Connector 39
 - Removing and refitting the housing . 45
 - Tuning to the transmitter frequency . 44
- C**
- Cockpit** 10
- Connector**
- Aerial 39
 - HALE CEY system 43
 - Mirror taximeter* 42
 - Taxi roof sign illumination 38
 - Taximeter 41
 - Taximeter peripherals 43
 - Two-way radio 40
 - 12 volt power supply 43
- Connector socket**
- Taxi roof sign 39
- Coupling electronics**
- Electret microphone 52
- D**
- Display messages***
- Battery/undervoltage 21
 - TAXI 22
 - Taxi roof sign illumination on 17
- E**
- e mark** 5, 55
- Electret microphone** 15
- Coupling electronics 52
 - Technical data 53
- Electrical and electronic equipment**
- Retrofitting 5
- Electrical connection components**
- Order numbers 48
- EMC** 55
- F**
- Fault messages**
- see Display messages*
- Fax machine**
- Installation 5
 - Operation 7
- Frequencies**
- Aerial comparison 44
 - Telephone/two-way radio 6
- Fuses** 26
- G**
- GPS** 55
- H**
- HALE CEY system** 55
- Connecting 35
 - Connectors 42, 43
- I**
- Installation**
- Electrical and electronic equipment . . 5
- M**
- Malfunction messages**
- see Display messages*
- Microphone**
- see Electret microphone
- Mirror taximeter***
- Connectors 42
 - Installing 29

Mobile phone

see Telephone

O**Operating safety** 5**Operation**

Fax machine 7

Mobile phone 7

Two-way radio 7, 18

Order numbers for electrical**connection components** 48**P****Peripherals**

Connecting 35

Connectors 43

Installation 5

Power supply, 12 volt

Connecting 35

Connectors 43

PSM 55**R****Radio remote control**

Batteries

Changing 24

Radio remote control batteries

Changing 24

Retrofitting

Electrical and electronic equipment .. 5

Roof aerial

see Aerial

Roof sign

see Taxi roof sign

S**Speed signal**

Taximeter 50

T**Taxi roof sign**

Fault message 22

Fitting 37

Illumination 16

Activating power supply 17

Switching off 17

Indicator in the display* 17

Pushbutton switch 16

Taximeter

Connector 41

Installation 5

In the lower section of the centre

console* 27

Mirror taximeter*

Connector 42

Installing 29

Peripherals

Connecting 35

Connectors 43

Speed signal 50

Telephone

Frequencies 6

Installation 5

Operation 7

- Transmission output**
 - Two-way radio 6
- Two-way radio**
 - Connector 40
 - Connector, aerial 39
 - Frequencies 6
 - Hands-free facility 14
 - Installation 5
 - In the centre console 32
 - In the lower section of the centre console* 27, 31
 - Noise suppressor 18
 - Operation 7, 18
 - Receiving 14
 - Transmission output 6
 - Transmitter button 14
- Two-way radio loudspeaker** 15
- Two-way radio with hands-free facility** 14
 - Electret microphone 15
 - Coupling electronics 52
 - Technical data 53
 - Receiving 14
 - Speaking 14
 - Two-way radio loudspeaker 15

W

- Warning messages**
 - see Display messages*

Contact

Mercedes-Benz will be happy to answer any questions you may have:

Mercedes-Benz Contact

Telephone: **00800 1 777 7777**

International: **+49 69 95 30 72 77**

Internet

Further information about Mercedes-Benz vehicles and DaimlerChrysler can be found on the following websites:

www.mercedes-benz.com

www.daimlerchrysler.com

Editorial office

You are welcome to forward any queries or suggestions you might have about this supplement to the technical documentation team at the following address:

DaimlerChrysler AG, HPC: R803,
70546 Stuttgart, Germany

As at: 20.03.2003

Title illustration: P00.01-2254-31

Not to be reprinted, translated or otherwise reproduced, in whole or in part, without written permission.