## CONFIDENTIAL

Please see page 17 of 30(labeled 16/29) for FCC manual statements.

## NR-204 Outline manual

-Application-

Head Unit High US Changer (NR-204-6U)

Mitsubishi Electric Corporation

#### Introduction

#### **Total System**



	Function	
$\bigcirc$	COMAND-Display	
0	Display Swivel and Folding	
3	COMAND-HeadUnit	
4	COMAND-Controller (Central Control Element)	

#### Components of COMAND system

COMAND consists the following main functions

- Display for informations to customer
- the COMAND control unit with the single DVD drive assembly or the DVD changer drive.
- the COMAND CONTROLLER with back and erase key.

With COMAND you serve the following main functions

- Navigation system with voice guidance
- Audio system with Radio, Sirius, Disc(CD-Audio, DVD-Audio, MP3), PCMCIA-memory card (MP3), Music Register and Audio AUX.
- Hands free system for telephone and the communication of SMS and Address book. Via Bluetooth communication.
- DVD-Video
- The vehicle system settings.

#### Introduction

#### **COMAND-Display**

In the display of COMAND you see the momentarily selected function and the associated menus. The COMAND display is divided into several ranges. In the example you see the radio announcement.

TA			Vodafone.	de 💵 🛛 🛥
Navi	Audio	Tel	Video	System
· ·				
·hr4	C	2) 4.,	SWR1 BW	
sunst(3)				
	· REGNE	OGN	·SWA	21-PP
				4
Radio	Spe	icher	FM	Klang
			P	82.86-6210-31

- ① Status Line
- ② main functions
- ③ Main area
- ④ Sub menus

The COMAND display shows the function currently selected and its associated menus.

The COMAND display is divided into several rows. The active line is highlighted in white. Once you have selected a main function, the main area is active.

The status line ① shows current attitudes for radio, telephone status and current time.

Over the menu line  $\bigcirc$  you can call the desired main function.

The choice takes place with the COMAND CONTROLLER.

For example, if radio function in Audio application group is selected, the main area ③ become active and shows the application screen.

#### Menu Overview

After choice of a main function you find the associated menu in the COMAND display at the lower edge ④.

For the main functions navigation, audio and telephone, additional menus in the COMAND display are available if you select the main functions on ②.

### Control system COMAND



## Introduction

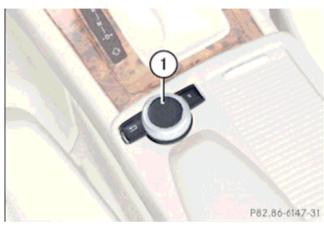
		-
	Function	
1	To select Radio functions And if Radio is active, select wave band.	
2	To select Disc functions, CD-Audio, DVD-Audio, MP3 files. Also for DVD-Video screen.	
3	Disc slot. CDs/DVDs, and Map update disc for Navigation system.	
4	Eject of CDs/DVDs	
5	Clear key for delete entries on spellers and PIN / Number entry.	
6	10 keypad for Enter telephone number PIN entry DTMF-Tone send Select preset stations Select Disc medias	

	Function	
Ø	Select Next track / First forward by long press.	
8	System Power switch	
9	PCMCIA-Card Slot for MP3 files, Address book.	
9	Eject button for PCMCIA-Card	
Ð	Select Previous track / Backword by longpress.	
12	Pin confirm	
	call accept	
	call establish	
	re-dialling	

	Function		
13	Call reject		
	Terminate active call		
	Reject waiting call		
	Terminate waiting call		
14	Initiate system menu		
15	Mute current sound source		
	Turn off microphone		
	Mute Traffic announcements /		
	Voice guidance of Navigation		
16	Initiate Telephone application		
$\overline{\mathcal{D}}$	Initiate Navigation application		

### Introduction Control system COMAND

#### COMAND-Controller



G COMAND-Controller

With the COMAND CONTROLLER you select the menu options on the COMAND display.

You move a selection bar.

In this way you can call menus or lists, within menus or lists move and menus or lists leave.



The COMAND controller can be:

- Pressed briefly or pressed and held
- Tuned clockwise of anti-clockwise
- Slide to the left, to right, up, down or diagonally.

This allows you to move within a menu, to select a menu item or to exit a menu. You can also move within a menu by tuning or sliding the controller.

## ۲

Press briefly

- Select a menu item
- Exit the full screen view

Press and Hold until the selected action is carried out

- Stores a channel/ station
- Accepts a destination for navigation

<0)

Turn

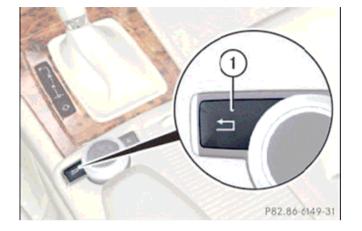
- Scrolls through vertical or horizontal menus
- Scrolls through text
- Makes settings
- `**†**⊙∓

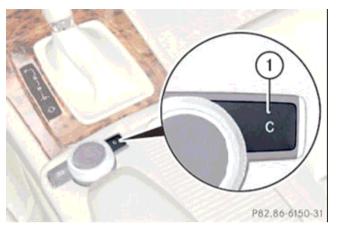
Slides (up/down/left/right/diagonally)

- Scrolls through menus
- Exit a horizontal menu (UP/Down)
- Moves Navigation map
- Exit a vertical menu (Left/Right)
- Fast-forward / rewind during CD or DVD/ PCMCIA playback.

## Introduction Return Key

## Clear Key





Back Key
 Short press:
 COMAND changes into the last higher menu level.

Long press: COMAND changes into the basic screen of last used application. ① Clear KeyShort press:Deletion of single indication

Long press: Deletion of whole indication

#### Introduction

#### Calling up the basic menu



#### Illustration; the basic Audio Menu

The basic menu for a main function can be called up as follows:

- > To move to the top line: slide \*
- > To select a main functions; slide

•©→or turn. 🔇 🌍

To confirm the selection: press

#### Vertical menus



#### Move within a menu



#### Selecting a menu item

Press <a>D</a>

## Exiting a menu without making a selection

Slide \* in the opposite direction to the direction of the list.

#### Horizontal menus



#### Move within a menu



#### Selecting a menu item

Press

Exiting a menu without making a selection

Slide \* I in the opposite direction to the direction of the list.



#### Switching to radio mode

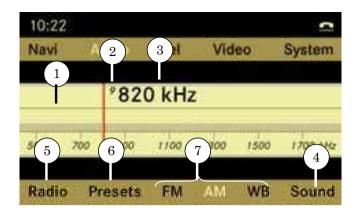
 $\succ$  Select "Audio"  $\Rightarrow$  "Audio"  $\Rightarrow$  "Radio" or

> Press .function button.

The radio display appears once you have switched to radio mode. You will hear the previously set station on the preciously set waveband.

The number of times you have to press the function button depends on the operating mode currently selected.

Wave band	Frequency	
FM	87.7-107.9MHz	
AM	530-1710kHz	
WB	162,400-162,550kHz	



- Main area showing station and frequency
- Preset position of selected station.
- ③ Frequency of the selected station.
- ④ For sound setting
- ⑤ Radio options
- 6 Preset options
- Display / switch wave band (depends on selected radio source)

### Switching wavebands

You can switch the radio between the FM, AW, WB wavebands.

- > Select "Audio"  $\Rightarrow$  "Audio"  $\Rightarrow$  "Radio"  $\Rightarrow$  "waveband display  $\bigcirc$
- > Select the desired waveband.

or

> Press .function button.

#### Tuning in stations

You can tune in stations from the station list or by manually entering the frequency.

Slide \* or <>> turn when the main area is selected.

or

> Press 🔊

The station list appears. The I in front of a list entry indicates the current selected station. A number in front of the list entry indicates the preset position in the station preset memory.

Select a station

or

Press or button on front panel.

## Safety notes

## A Risk of injury

COMAND is classified as Class 1 laser product. You must not open the casing. There is the risk of exposure to invisible laser radiation if you open the casing, or if the casing is faulty or damaged. COMAND does not contain any parts that can be serviced by the user. For safety reasons, have any necessary maintenance work carried out by qualified after sales technicians only.

## A Risk of accident

Do the following only the vehicle is stationary:

Loading the disc

Ejecting the disc

There is a risk of being distracted from the road and traffic conditions if this is done while vehicle is in motion.

## Notes about MP3 mode Permissible discs

- CD-R and CD-RW
- DVD+R and DVD+RW
- DVD-R and DVD-RW
- PCMCIA-Card

## Permissible file systems

- ISO9660/Joliet for CD-data writer
- UDF for DVD-data writer
- FAT16 or FAT32 for PCMCIA-Cards with storage medium

## Multisession CDs

For multisession CDs, the content of the first session determines ho COMAND will process the CD.

If the first session contains data in audio CD format, for example, and the second session contains MP3 tracks, COMAND will treat the CD as a conventional audio CD. This means that it is not possible to access the MP3 tracks.

If the first session contains MP3 tracks, for example, and the second session contains data in audio CD format, COMAND will treat the CD as an MP3 file. This means that it is not possible to access the audio CD tracks.

## File structure on a disc

When you create an MP3 discs, the MP3 tracks can be organized in folders. A folder can also contain other folders. A disc can contain a maximum of 255 folders.

Each folder can contain a maximum of 255 tracks and 255 folders. A disc can contain a maximum of 4,000 tracks.

### Track and file names

When you create an MP3 discs, you can assign names to the MP3 tracks and folders. COMAND uses these names for the corresponding display in MP3 mode. Empty folders or folders which contain data other than MP3 tracks are not displayed by COMAND.

If MP3 files are stored in the root directory itself, the root directory will also be treated as a folder. COMAND will then show the name of the root directory as the folder name.

You must observe the following when assigning track names:

- Track names must have at lease one character.
- Track names must have the extension "mp3"
- There must be a full stop between the track name and the extension.

Example of a correct track name: Track1.mp3

COMAND does not support ID3 tags.

#### Permissible MP3 formats

COMAND supports the MPEG1 Audio Layre3 format.

() This format is generally known as "MP3" in everyday usage.

## Permissible bit and sampling rates

- Fixed and variable bit rates from 32kBit/s to 320kBit/s
- Sampling rate from 8kHz to 48kHz.

Only use MP3 tracks with a bit rate of at least 128kBit/s and a sampling rate of at least 44.1kHz. Smaller rates can cause a noticeable deterioration in quality. This is especially the case if you have activated a surround sound function.

## Notes on copyright

The music tracks that you create for MP3 mode and can play back in MP3 mode are generally subject to copyright protection in accordance with the applicable international and national regulations.

In many countries, reproductions are not permitted without the prior consent of the copyright holder, not for private use.

Make sure that you know the applicable copyright regulations and that you comply with these.

If you own these rights yourself, e.g. for

your own compositions and recordings, or the copyright folder has granted you permission, these restrictions do not apply.

## Notes about CDs/ DVDs

Discs with copy protection are not compatible with the CD audio standard and therefore may not be able to be played by COMAND.

There may be playback problems when playing copied discs.

There is a large variety of discs, disc-writing software and writers available. This variety means that there is no guarantee that the system will be able to play discs that you have copied yourself. There may be playback problems if you play CDs that you have copied yourself with a storage capacity of more than 700MB. These CDs are not compatible with currently applicable standards.

Do not affix stickers or labels to the

discs, as they could peel off and damage COMAND.

COMAND is designed to hold discs which comply with the EN 60908 standard. You can therefore only use discs with a maximum thickness of 1.3mm.

If you insert thicker discs, e.g. those that contain data on both sides (DVD on one side and audio data on the other), they

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cannot be ejected and can damage COMAND.

Do not use discs of 8cm diameter, even with an adapter. Only use round discs 12cm in diameter.

## Loading CDs and DVDs

## A Risk of accident

Only load a CD or DVD when the vehicle is stationary. There is a risk of being distracted from the road and traffic conditions if this is done while the vehivcle is in motion.

() If the CD/DVD has a printed side, this must face upwards when the CD/DVD is loaded.

*If neither side is printed, the side to be played should face downwards.* 

CDs/DVDs with copy protection may not be able to be played the system.

Loading and eject the single DVD drive



- Disc slot
- Eject button
- Press eject button ②

If a disc is loaded, it will be ejected.

- $\blacktriangleright$  Take the disc out of slot
- Slide a disc into slot ① The drive draws the discs in and plays it, if it has been inserted correctly and is permissible.
- $\triangleright$

Loading and eject the DVD changer The DVD changer has a fixed magazine with six trays.



- Disc slot
- Eject button

#### Magazine menu:

Press eject button A menu shows the current magazine occupancy.

Magazine, which shows with Gold disc, are filled with discs, and the magazine with Silver disc and/or red magazine number is the current targeted magazine.

Magazine without the disc image is empty slot.



- Select magazine: slide \* or turn.
   to select target magazine.
- Eject disc: press
   Then target disc will be ejected.
- Load disc: slide \* or turn.
   to select empty magazine.
   Then slide a disc into slot ①
   The drive draws the disc in and plays it, if it has been inserted correctly and is permissible.

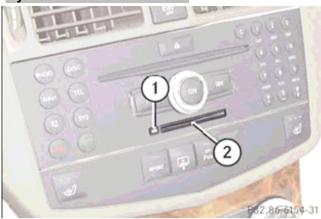
## Audio CD/ audio DVD and MP3 Loading a PCMCIA-Card

• Not all PCMCIA cards and storage media are designed for the temperatures which occur in the vehicle.

Due to wide range of PCMCIA cards available on the market, it cannot be guaranteed that playback will be possible with every make of PCMCIA card.



**Eject a PCMCIA-Card** 



- Eject button
- ② Slot for PCMCIA card.
- Press eject button ① twice. The PCMCIA card is ejected.
- $\blacktriangleright$  Take the PCMCIA card out of slot  $\odot$

Switching to audio CD, audio DVD or MP3 mode.

Load a CD/DVD or PCMCIA card

or

> Select "Audio"  $\Rightarrow$  "Audio" , then "CD" or "DVD-A" or "MP3"

or

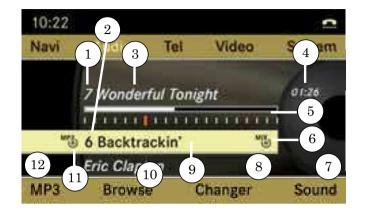
> Press the 
button once or twice.

The function button takes you directly to the previously set disc mode.(audio CD, audio DVD, MP3 CD or video DVD). The number or times you have to press the function button depends on the previously set mode.

 $\bigcirc$  Slot for PCMCIA card.

 Insert the PCMCIA card into slot ① The side with the contact must point towards the slot.
 If the PCMCIA card contains a storage medium with MP3 tracks, COMAND switched to MP3 mode.

## Example display in audio CD mode



#### Example display in audio DVD mode

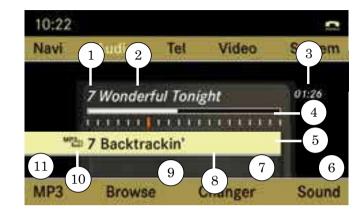


- Track number
- Disc number (for DVD changer only).
- ③ Track name
- ④ Track time
- ⑤ Graphic time and track display
- 6 Random play mode
- $\odot\,$  Sound settings
- Medium selection ("Medium" display on single DVD drive)
- Disc name
- To call up track listing (In CD mode, "TrackList"
- ① Disc type
- Playback options

### Track number

- ⑦ Track name
- ③ Track time
- ④ Graphic time and track display
- S Random play mode (if set)
- 6 Sound settings
- Medium selection ("Medium" display on single DVD drive)
- B Disc name
   Disc n
- ④ To call up track listing
- Disc type
- Playback options

#### Example display in MP3 mode



- ① Track number
- Track name
- ③ Track time
- Graphic time and track display
- ⑤ Random play mode (if set)
- 6 Sound settings
- Medium selection ("Medium" display on single DVD drive)
- B Disc name
- To call up track listing
- ⊕ Disc type (<sup>™</sup>® or □)
- Playback options

#### Media List

In CD-Audio, DVD-Audio and MP-3 mode: select "Changer" or " Media".

The "Changer" menu items is only diplayed if the systems has a DVD changer. The "Medium" menu items is only displayed for a system with a single DVD drive.

#### Or

Only in audio CD and audio DVD mode: press <sup>(1)</sup> when the main area is selected.

The media list appears. The • dot indicates the current medium.

Select a medium or folder: press <sup>(b)</sup>.
 COMAND changes the medium.

#### Select media direct from Keypad. Medium can select directly from the

Keypad.

- DVD-Changer (Discs managed by 1 to 6 magazines) or Single DVD drive.
   Press 1 to 6 on Front Panel 10 Keypad.
   If the magazine which is filled with disc, COMAND will switch to the selected magazine and start playing.
- Press "7" to select PCMCIA-Card if inserted.
- Press "8" to select music from HDDrive if already some sound file is stored.

10:22	* 1 Hartmann
Navi	"E 2 James Bond
	🕲 3 Ray of Light
7	0.4
6	** 5 Mercedes-Benz Mixed Tape
™© 6	• 🕫 6 Backtrackin'
	**2= 7 Card
MP3	10 8 HDDrive

## Selecting a track

To select from Track skipping

To skip forwards of backwords to a track: turn

or

Press or button on front panel briefly.

Skipping forwards through the tracks skips to the next track. Skipping backwards through the tracks skips to the beginning of the current track if the track has been playing for more than 8 seconds. If the track has been playing less than 8 seconds, it skips to the start of the precious track.

If you have switched on the "Random tracks" playback option, the order of the tracks is random.

### To select from Track list

- Select "track list" or "Brows"
- Select desired track from the list by turn

🚺 or Slide 🕇 🔘

Press

#### Fast forward / rewind

- To fast forwards of rewind a track: select the main ariea
- Slide and hold <sup>•</sup> I until the desired play position is reached.

or

Press and hold or
 button on front panel.

## Audio AUX

You can connect an external audio source (AUX) to COMAND. Please consult a Mercedes-Benz Service Center for further information.

### Switching to audio Aux mode

Select "Audio" ⇒ "Audio" ⇒ "Aux" The audio AUX menu appears. You will hear the medium inexternal audio source if it is connected and switched to playback.



#### Safety notes

## Risk of Accidents

You must observe the legal requirements in the country in which you are currently driving when operation a mobile phone in the vehicle.

If it is permitted to operate a mobile phone while the vehicle is in motion, you must only operate it when road and traffic conditions permit. You could otherwise be distracted from the traffic conditions, cause an accident and injure yourself and others.

For reasons of safety, only use hands-free mode if you use the telephone while the vehicle is in motion.

If you use hands-free mode to make a call, you must continue to drive carefully, close all the windows and prevent any disruptive noises.

If you wish to make a telephone call without using hands-free mode, you must stop or park the vehicle. Do not stop or park in area as where stopping and parking is forbidden.

### 🛆 Risk of Accidents

Mobile phones without exterior aerials may interfere with the vehicle electronics and thereby jeopardize the operational safety of the vehicle. You must therefore only use these devices when the are connected to a separate exterior aerial which has been approved by Mercedes-Benz.

### General notes

## You can use telephone over Bluetooth connection and Comfort telephone.

COMAND offers a two-stage telephone functionality to you.

In the basic equipment the connection with Bluetooth equipped mobile telephone the telephone function is to you over the Bluetooth interface.

Over the Bluetooth interface, you can use the Hands-free mechanism of the COMAND with the suitable mobile telephones and receive electronic visiting cards (vCards)

If your vehicle is equipped with the comfort telephone function, you can select and buy a cradle for certain mobile telephones in its Mercedes Benz service base. With a suitable mobile telephone with the comfort telephone function, not only the Hand free function but the phone book and SMS can import from mobile phone to your COMAND system.

If COMAND is equipped with the comfort telephone function, you can connect it also with an Bluetooth equipped mobile telephone by the Bluetooth interface.

Then the functions of the comfort telephone are not to you.

Detail information to suitable mobile telephones and for connecting Bluetooth equipped mobile telephones with the COMAND, you can contact to Mercedes Benz service base or over the InterNet (www.mercedes benz.com).

#### While Vehicles is in motion

Calls disconnected while the vehicle is in motion.

A call may be disconnected if :

- There is insufficient Mobile network coverage in certain areas
- You move from one base station / receiver area ( Mobile cell ) into another and no channels are free
- You use a mobile subscription, which is not compatible.

## **Operating Options**

If the mobile phone is inserted in the bracket or connected via Bluetooth, you can operate the phone using the following devices:

- Mobile phone keypad
- COMAND / Telephone keypad
- Multi-function steering wheel
- Linguatronic (Voice Control)

#### Function restrictions

In following situation, you may not able to use the telephone functionality.

- When telephone is not in the mobile phone network or not subscribed to the net.
- If no telephone network is available, you can not also make a emergency call. In this case, COMAND shows "NO service" if you make a phone call to ordinary telephone number.
- If the mobile phone is in restricted area.

#### FCC Notices

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Change or modification not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his or her own expense. CAUTION: This transmitter must not be co-located or operated in conjunction with any other antenna or transmitte

CAUTION: This equipment complies with FCC radiation exposure limits set forth for uncontrolled equipment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65. This equipment has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated with at least 20cm and more between the radiator and person's body (excluding extremities: hands, wrists, feet and legs).

## Activation of Telephone

Mobile phone with Bluetooth Interface

#### Conditions at the mobile telephone

For telephoning over the Bluetooth interface with the COMAND you need a mobile phone, which equips Bluetooth interface.

**i** Not all mobile telephones available at the market are equally suitable.

For detail information to suitable mobile telephones and for connecting Bluetooth able mobile telephones with the COMAND, visit www.wireless4mb.com or call AutoWireless Solutions (800) 910-1021 to speak to a wireless specialist.

### **Bluetooth Activation**

j Even COMAND with comfort-

telephone, you can connect it also with Bluetooth equipped mobile telephone by the Bluetooth Interface. This connection remains active until switching off of the COMAND and switch back to the comforte telephone.

- Switch on the mobile phone and enter pin-code (See the manual of mobile phone).
- Activate Bluetooth functionality of mobile phone (See the manual of mobile phone)

At some mobile telephones not only the Bluetooth function must be activated, but be switched on additionally the Bluetooth visibility. Each Bluetooth equipment has a Bluetooth device name. You had better to assign a personal name with which you recognize your mobile telephone clearly.

If the function "Bluetooth" is switched off at the COMAND by system menu, the message "Bluetooth is not activated" will be shown in screen.

• Bluetooth connection at COMAND shall be activeated.

#### Authorization of Mobile phone

If you use your mobile telephone at the first time in the connection with COMAND, you must authorize your telephone to COMAND.

The connection is always established with the mobile telephone which connected at last if available. If you authorize new mobile telephone, then new connection will be established automatically.

You can switch between authorized telephones by menu.

### Looking for the mobile phone.



From submenu "Telephone"  $\Rightarrow$  "Telephone List"  $\Rightarrow$  "Update" selected.

COMAND start search of the Bluetooth Telephone around and shows found telephones in list.



#### Activation of Telephone



- ④ Authorized ✓
- Authorized, available (Dark Icon) and current connection (with Dotted mark)
- Available but not authorized (No check mark)

() If the devices list contains already ten authorized devices, you must de-authorize already authorized device.

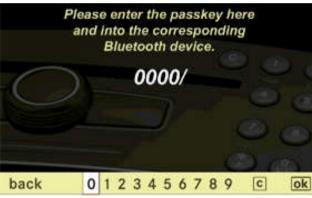
After that you must turn off this device and newly must start subsequently the search. Otherwise a device to be sought newly does not appear in the list.

Just after you turned on COMAND, these Icons will not shown. After you update the list, then the Icons will be shown and show current status of found devices.

### Pass key entry

- In the list ,select and press CCE on the not yet authorized device (The device not check marks).
- Select the not yet authorized device and select Option and press CCE at "Authorize"

#### Then passkey entry screen is shown.



The Passkey is one-digit until sixteen place number, that you yourself can determine. They must input the same number at the COMAND and at the device to be authorized.

Note to this also the references in the operating instructions of the mobile phone.

- Input at the COMAND: Select after each other the digits in the menu bar, or use panel 10 Key.
- > To erase one digit, press  $\overline{\mathbb{C}}$  short time.
- To exit Passkey screen, select and press "back".
- To finish the Passkey entry, select OK button and press it.

In successful Bluetooth-connection, you are requested at the mobile phone to input a same passkey to mobile phone (see operating instructions of mobile phone).

At the mobile phone input the same Passkey as well as at the COMAND.

After the successful Bluetooth authorizeation, screen will be changed and you can use COMAND telephone.



#### Authorize from external device

If the COMAND does not find your mobile phone, your mobile phone may in special security setting.

In this case, you can try to find COMAND from your mobile phone.

The Bluetooth "user friendly name " of COMAND is "MB Bluetooth".

- ➤ "Telephone" ⇒ "Telephone List" ⇒
   "Update" ⇒ "Option" ⇒ "Connect from external Bluetooth Device"
- Start Bluetooth device search from your mobile phone (see operating instructions of your mobile phone)
- Select "MB Bluetooth" at your mobile phone.
- Input the Passkey at the mobile phone and after that at the COMAND.



## De-Authorize the mobile phone

- $\succ$  "Telephone"  $\Rightarrow$  "Telephone List "
- Highlight mobile phone you want to de-authorize in list.
- ➢ "Option" ⇒ select and press "De-authorization"

Then you see a query whether the device de-authorization become actual.

➢ Select "Yes" or "No" and press.

## Activate other mobile phone

If you authorized several mobile phones, you can change between the other mobile phones.

If you authorize a new mobile phone, this automatically is activated.

It is always only a mobile phone active.

- $\succ$  "Telephone"  $\Rightarrow$  "Telephone List "
- Highlight mobile phone you want to switch to in list.
- > Press 🔊

Then selected mobile phone become active.

## **Convenience Phone**

For the utilization of the convenience telephone function\* you require an installed telephone cradle and a suitable mobile phone.

- Insert activated mobile phone to cradle.
   Or
- If mobile is off COMAND automatically turn on the mobile phone.
- Shows PIN entry screen and you must input your PIN number of your subscription in COMAND screen.

# Receipt and transmission volume settings

These settings are normaly not necessaly. Default settiing at the factory is suitable for ordinaly mobile phones.

Optimal setting for your mobile tephone is available at Mercedes Benz service center or InterNet.

changes can lead to strong impairments of the transmission quality. These attitudes cannot be changed during an active telephone call.

- $\succ$  "Telephone"  $\Rightarrow$  "Telephone List "
- Highlight mobile phone you want to change settings.
- > Select "Option"  $\Rightarrow$  "Send volume " or "Receiving volume".

Then you can see "Slider bar" for changing the volume level.

PIN Entry (Convenient-Telephone)

#### Entering on COMAND

- Telephone on You see the message "request pin entering".
- Enter: Select all number in the PIN-speller.
- Number Delete:
   Select C and press CCE.
   Or
   Press C key on CCE.

The number in indication left of the cursor is deleted.

≻ Line Delete:

Select  $\bigcirc$  and long press CCE. Or Long press  $\bigcirc$  key on the front panel.

#### Pin confirm:

Select OK in the Number speller.

COMAND examines those pin. During correct input the telephone basic menu appears.

### Enter over the COMAND control unit

- Telephone on You see the message "request pin entering".
   Then you see the message "request pin" entering.
- Enter: Enter successively all numbers on the numerical keyboard.
- > Number Delete:

Press C Key short time.

OR

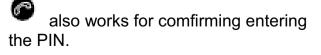
Line Delete
Solect C and long room

Select  $\underline{C}$  and long repress CCE.

Pin confirm:

After entering the whole SIM number, COMAND examines those pin. During correct input the telephone basic menu appears

After the successive entering number,



Some mobile telephones can be protected with a UNLOCK code from unauthorized use.

When Lockedtelephone is inserted to the cradle, COMAND requests UN-Lock-code tobe managed.

## **Emergency Call**

An emergency call without pin input or input of the UNLOCK code is possible only over the mobile telephone.

The proceeding you infer please from the manual of the mobile telephone.

### Telephone Basic Menu.

The telephone basic menu appears after input and confirmation the correct PIN.

#### Activation of Telephone Menu

Press Button of Panel key to select telephone base screen.

#### Or

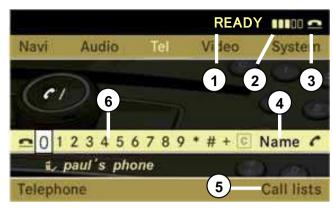
 $\succ$  "Tel"  $\Rightarrow$  "Tel"  $\Rightarrow$  "Telephone"

if the telephone function was last application, you only needs to select "Tel" in Menu.



> Press in the Panel.

*if press button when the basic telephone menu has already been called up, the "Calls dialed" Call list will appear.* 



- Network Status
- ② Field strength
- ③ Indicator for current status
- ④ Display COMAND Telephone book
- ⑤ To display Call List
- 6 Number Speller

#### CALL Lists

COMAND can display the following calls in a list:

- Missed calls
- Incoming calls
- Out going calls

#### Calling up a list

- Select "Call lists" from the basic telephone menu.
- Select "Calls missed" or "Incoming calls" or "Calls dialed".

Then corresponding list appears.

### Incoming call

Rejecting or accepting the call

To reject : select " reject" in popup menu.

or

- Press button on the front panel or the multi-function steering wheel.
- > To accept: Select "Accept"

or

Press lotton on the front panel or the multi-function steering wheel.

Once you have accepted the call, you can conduct your telephone conversation in Hands-free mode. The call volume can be adjusted with the Volume knob of front panel.

you can also accept a call if the COMAND display is showing other than the telephone mode. Once you have accepted the call, the COMAND display shows the telephone base screen.

To switch the display to telephone

**screen** : select "Tel"  $\Rightarrow$  "Tel"  $\Rightarrow$  "Telephone"

or

> Press @button on the front panel.

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## Making a outgoing call

## Entering the telephone number using the COMAND controller

- Call up the basic telephone menu
- To enter digits: Select all of the digits in sequence from number speller or panel 10 key.
- To delete individual digits: select C and press briefly.
- To delete entire telephone number : select C and press and hold until the telephone number is deleted.
- > To connect a call select " SEND"
- or Press or button on the front panel.

### Redialling

- Call up the basic telephone menu
- Use the COMAND controller to select
   "SEND" or Press button on the front panel.

Then the list of dialed numbers appears. The most recently dialed number is at the top of list.

- Select the desired call
- To connect the call: press

Connecting a call to an entry on a call list or in the COMAND telephone book

- > Call up a call list and select an entry
- or
- Call up the COMAND telephone book and select an entry
- > To connect a call: press



- Name and telephone number you are calling
- $\odot\;$  Field strength
- ③ Indicator for current status
- ④ To switch Hands-free microphone off and on.
- ⑤ Terminate current call
- 6 send DTMF tones.

## Switching the hands-free microphone on or off

- Call up the basic telephone menu.
- To switch off: select "Micro off"

During the microphone is switched off, the

- 🥙 icon appears in the main area.
- To switch on: select "Micro on"

The icon Ø goes out.

## Ending an active call

➤ To end a call: Select "Tel"  $\Rightarrow$  "Tel"  $\Rightarrow$  "Telephone"  $\Rightarrow$  press

or

Press button on front panel or the multi-function steering wheel.

The COMAND display switches to the last display selected if necessary.

### COMAND Telephone book

The COMAND phone book contains all address book entries that have at lease one telephone number. COMAND also reads the phone book entries stored in the phone book on the mobile phone and displays them in the COMAND phone book.

These entries can be imported from your mobile phone via Bluetooth.

These imported entries be preserved, also if you use the COMAND with one of other mobile phone.

You should delete these entries if necessary before delivery or sale of your vehicle.

Navigation system (introduction)

#### Safety Notes

## Risk of accident

For safety reasons, only enter a new destination when the vehicle is stationary. You may otherwise be distracted from the traffic conditions, cause an accident and injure yourself and others.

COMAND calculates the route to the destination without taking account of the following, for example:

- Traffic lights
- Stop and give way signs
- Parking or stopping prohibited signs
- Lane narrowing
- Other road and traffic controls and regulations.

COMAND may give incorrect navigation commands if the reality does not correspond to the data in the digital map. For example, if the traffic routing has been changed or the direction of a one-way road has been reversed.

For this reason, you must always observe applicable road and traffic controls and regulations during your journey. Road and traffic controls and regulations always have priority over the navigation commands generated by the system.

### Map software

The digital maps generated by the map software become outdate in the same way as conventional road maps. Optimum route guidance can only be provided by the navigation system in conjunction with the most up-to-date map software.

Information about new map software versions can be obtained from a Mercedes-Benz Service Centre.

### **General Notes**

#### GPS reception

Correct functioning of the navigation system depends amongst other things on GPS reception. In certain situations, GPS reception may be impaired, there may be interference or there maybe no reception at all, e.g. in tunnels, in multi-storey car parks or due to snow on the GPS aerial. If there is snow on the GPS aerial, you should remove it. The GPS aerial is at the back of the vehicle roof.

## Root guidance after vehicle transportation

COMAND has to redetermine the position of the vehicle if the vehicle has been transported.( e.g. by ferry, by motorail or after towing).

positioning take place automatically even when COMAND is switched off. The duration will vary from on e case to antoher.

Route guidance may be restricted as follows during vehicle positioning:

- Navigation announcements, route guidance displays and displayed street names are not consistent with the actual location of the vehicle.
- COMAND does not generate navigation announcements.
- Instead of the route guidance displays, you see the "Off road" display and an arrow. The arrow shows the compass heading to the destination.

When positioning is complete, route guidance is resumed using navigation announcements and route guidance displays.

# Interrupting the journey duration route guidance

The following applies if you interrupt the journey during route guidance and continue the journey later on:

- COMAND resumes route guidance automatically if you continue the journey within 2 hours.
- Route guidance is canceled if you continue the journey after more than 2 hours. It will be necessary to resume the canceled route guidance manually.

*i* Interrupting the journey means parking the vehicle and switching off COMAND.

## Hard disk errors

COMAND has an integrated hard disk on which the map software is stored.

If an area of the hard disk has an error, COMAND can no longer access the map data in this area, for example, when calculating a route.

The "Navigation Unavailable. Please observe the operating instructions" message then appears.

To delete the message: switch COMAND on and back on.

If you switch the navigation system off/on, it will be operational again until it has to access the faulty area of the hard disk again.

The message will then appear again. Consult a Mercedes-Benz Service Center.

#### Units of measurement

The units of measurement in navigation mode are identical to those set in the instrument cluster.

#### Input restrictions

On vehicles for certain countries, there is a restriction on entering data.

The restriction is active above a vehicle speed of about 5 km/h. The restriction is deactivated as soon as the vehicle speed drops below about 3km/h.

When the restriction is active it is not possible to enter specific items, e.g.town or road name.

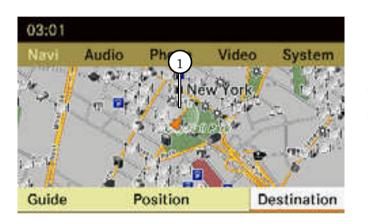
You will be aware of this because certain menu items cannot be selected.

## Calling up the map display and switching to navigateon mode

Press in function button.

or

Select "Navi" in the main function line.
 Both of these will call up the map display.
 You will see the map with the menu system either shown or hidden.



## Map with route guidance inactive, showing the menu system

 $\odot$  Current vehicle position



## Map with route guidance inactive and with the menu system hidden

- ① Current vehicle position
- $\odot$  Map orientation
- ③ Current Map scale.

## Hiding or showing the menu system

- To hide: Slide \* 
  The "Full-screen" menu item appears in the main area of the display, it is automatically selected.
- Press (8)

The menu system is hidden. The map can be seen in the full-screen.

To Show: Press lin the full-screen map display.



## Adjusting the map scale

*It is only possible to adjust the map scale with the menu system hidden (Full-screen map display)* 

Turn. (<sup>O</sup>) until the desired map scale is set.

As soon as you turn. (), the mapscale () appears. Turning clockwise enlages the map, tunring anti-clockwise reduces it.



- ① Current set map scale
- Currrently set map scale as indicate d by the needle on the scale bar
- ③ Previously set scale before calling up current scale.
- 4 Scale bar

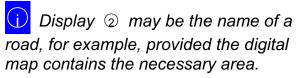
*It is only possible to adjust the map scale with the menu system hidden (Full-screen map display)* 

In certain countries, it is not possible to move the map freely if the vehicle is traveling at more than approximately 5km/h. As soon as the vehicle speed drops below 3km/h, it is possible to move the map freely again.

Slide ⊷⊙→, ↑ ⊙ ↓ | or > ⊙< | A crosshair appears on the map.



- ① Crosshair
- $\odot\,$  Details of the crosshair position
- ③ Map scale selected.



If no data is available, display ② shows:

- the coordinates of the crosshair if the geo-coordintae display isswitched on and the PGS signal is strong enough.
- No display if the geo-coordinate display is switched off.

# *Storing the crosshair position as a destination in the list of previous destinations*

- If necessary, display the menu system : Press
- To store: select "Position" ⇒ "Save position"

COMAND stores the crosshair position as a destination in the list of previous destinations.

### Hiding the cross hair

• Press the **\_\_\_** back button.

or

 Press the function button The crosshair disappears and the map is set to the vehicle position.

or

• Set the map to the vehicle or destination position; see the explanation below.

# Centering the map on the vehicle or destination position

i If you have moved the map, you can use this function to rapidly return the map to the position of the vehicle or destination. It is only possible to center the map on the destination position when route guidance is active.

➤ To center on the vehcile's position: Select "Navi" ⇒ "Position" ⇒ "Vehicle position map".

Or

- Press the back button when the crosshair is displayed
- ➤ To center on the destination: Select "Navi" ⇒ "Position" ⇒ "Map on destination position".

## Navigation system (entering a destination)

## A Risk of accident

For safety reasons, only enter a new destination when the vehicle is stationary. You may otherwise be distracted from the traffic conditions, cause an accident and injure yourself and others.

*i* It is possible to enter a destination regardless of where route guidance is active or inactive.

The following destination entry options are available.

- Enter a destination by address
- Enter a destination from the destination memory.
- Enter a destination from the list of previous destinations.
- Enter a destination using the map.
- Enter an intermediate stop.
- Enter a special destination

#### Entering a destination by address

In certain countries, it is not possible to enter an address if the vehicle is traveling at more than approximately 5km/h. As soon as the vehicle speed drops below 3km/h, it is possible to move the function is available again.

When entering an address as the destination entry, you have the following options.

- Enter the country, town and street
- Enter the country, town and center
- Enter the country, town, street and house number
- Enter the country, town, street and junction.
- a destination by address

#### Calling up the address input menu

➢ Select "Navi" ⇒ "Destination" ⇒
 "Address input"
 The address input menu appears.

It shows the destination that was last used for starting route calculation.

04:36				
Navî	Audio	Phone	Video	System
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۸	ACORN D	R	<b>1</b> 1	Conception of the local division of the loca
ah	NEWBUR	GH,NY		
			-	
Мар	State	City St	reet N	o. Start
3 Z	P Cente	i liitera	idtion F	POI Save

#### Menu items in the address input menu

Depending on the sequence in which you enter the address and on the data status of the digital map, some menu items may not be available at all or may not yet be available.

Example: after selecting the country, the "Street", "No.", "Centre", "Junction", "Save" and "Start" menu items are not yet available. Also, the "Postcode" menu item will not be available at all if the digital map does not contain any postcode.

# Entering a destination from the destination memory

➢ Select "Navi" ⇒ "Destination" ⇒ "From memory"

The display shows either the destination memory list with input characters or without input characters. Whether or not the input characters are displayed depends on the number of entries in the destination memory.

## The destination memory always

contains an entry named "Own address". You may wish to assign your home address to this entry, for example. Like any other entry, the "Own address" entry can be selected using input characters or from the beginning of a list. This entry always appears at the top of the list.

# Destination memory list with input characters



- $\odot\,$  Characters entered by the user
- ② Characters automatically added by the system
- List entry that most closely matched to the current input string
- OK to finish the entry
- Characters not currently available for selection
- $\ensuremath{\boxdot}$  Characters available to select
- ③ Speller field
- ③ Current selected character
- Back" button to go back previous screen
- $\ensuremath{\textcircled{}}$  Destination memory list

With in characters (a), you can only select the characters that are currently available. Which these are depends on the current input string and the entries stored in the destination memory.

# Destination memory list without input characters



- To select the destination: Slide
  - 👔 🔘 🗊 or turn 🕻 🏹
- To cancel the selection: press the
   button.

or

- Select "Back and press (\*)
- > To confirm the selection: press (b)
- To start route calculation: select "Start".

# Entering a destination from the list of previous destinations

- ➤ Select "Navi" ⇒ "Destination" ⇒
   "From last destinations".
   The list of previous destinations appears. The most recent detination is at the top ot the list.
- Select the desired destination.
- To Start route calculation: select "Start"

#### Updating the map software

You can update the map software yourself using a DVD.

### Notes about handling DVDs

- Only hold discs by the edge.
- Handle discs carefully to prevent read problems.
- Avoid getting scratches, fingerprints and dust on discs.
- Use a commercially-available cleaning cloth to clean discs. Do not wipe them with a circular motion, but only in straight lines from the center outwards.
- Place discs back in cases after use.
- Protect discs from heat and direc sunlight.

switched off and the vehicle battery has insufficient power, COMAND may automatically switched off during the process in order to protect the battery. If this occurs, restart the update with the engine running.

## A Risk of poisoning

Never leave the engine running in enclosed spaces. The exhaust gases contain carbon monoxide. Inhaling exhaust fumes constitutes a health hazard and could lead to loss of consciousness or even death.

#### Updating process

The updating process has the following phases:

- Loading the DVD into the DVD drive
- Updating process

The Updating process can take up to 2 hours, depending on the size of the map updating software. If possible, carry out the update when the vehicle is stationary. If you carry out the update with the engine