BMW Group
Aftersales Training

E63 Displays and Controls
Participant Manual
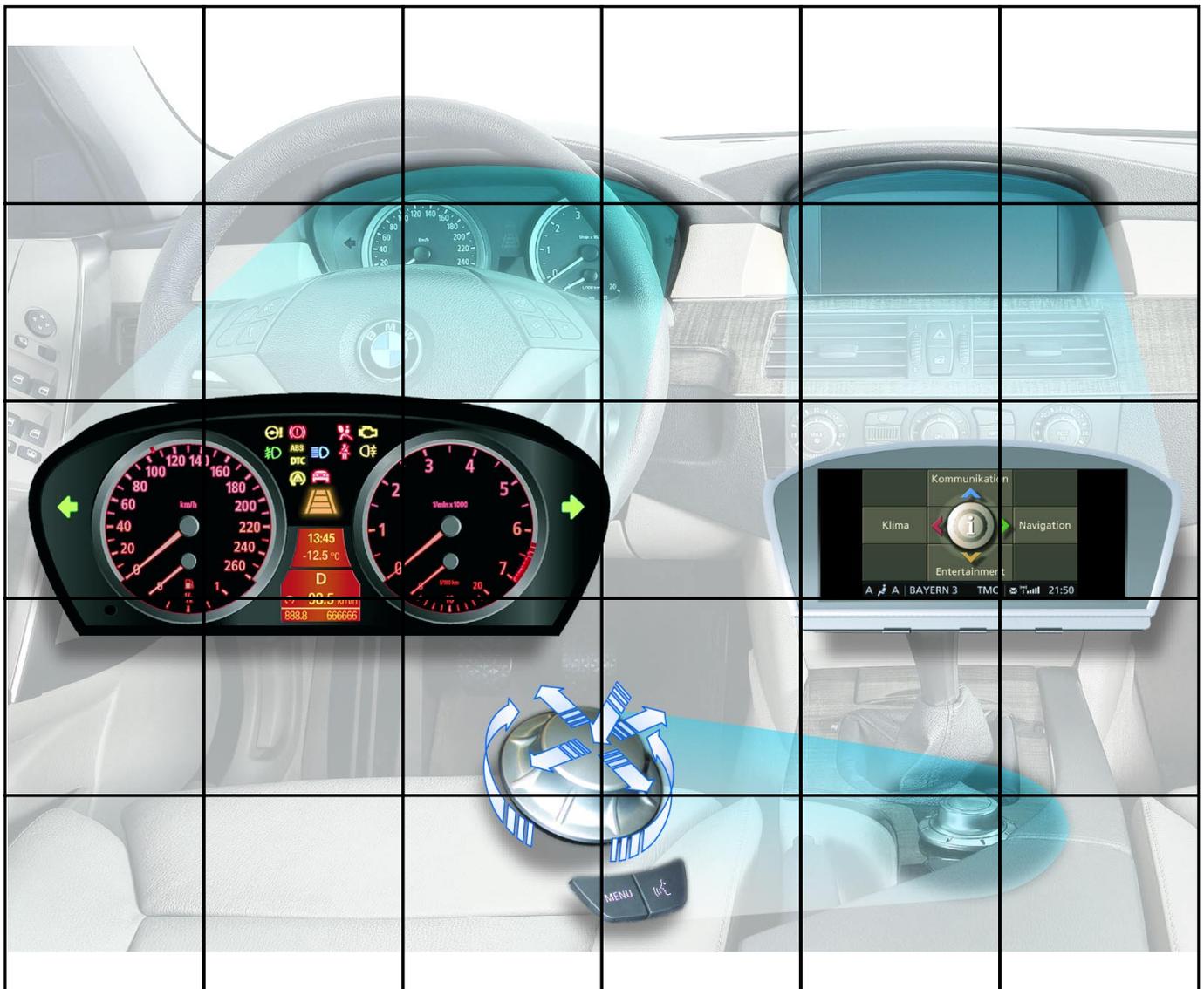
NOTE
The information contained in this participant's manual is intended for participants of the Aftersales Training.
Refer to the relevant "BMW Service" information for any changes/ supplements to the Technical Data.

Contents

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Displays and Controls

This participant's manual describes the display and control design for the new BMW 6 Series. It is divided into the following sections:

- Instrument cluster (changes compared to E60)

- Central Information Display (changes compared to E60)

- Head-up display

- ConnectedService (changes compared to E60).

Instrument cluster

All driving-related displays in the instrument cluster have been further optimized.
In the E63, the road speed is now displayed in the form of a detailed scale.
Furthermore, the economy control is replaced by the oil temperature gauge.

Central Information Display

The Central Information Display is the graphic display unit for the user interface of all convenience functions and some vehicle functions.

By contrast with the E65, the CID in the E63 has just four menu items in the global main menu, namely Communication, Navigation, Entertainment and Climate.

There are two versions of the controller for the E63, a basic variant and a High variant. The basic variant is only installed in conjunction with the mid-size 6.5" colour display.

Head-up display

For the first time at BMW, a head-up display is used in the E60/E63.

This display shows important information in the driver's direct field of vision. A projection unit integrated in the instrument cluster generates the virtual image and projects it onto the windscreen.

Corresponding to the vehicle equipment configuration, information on the navigation system, cruise control, active cruise control, the current road speed as well as check control warning messages is displayed.

ConnectedService

ConnectedService is made up of several modules; some of these are already in use while others have been further developed or introduced for the first time with the launch of the E60 and E63.

For instance, ease of servicing has been improved thanks to expanded or modified service options in the Condition Based Service (CBS) system.

The logical continuation of the innovative service concept is demonstrated by the new display functions, the service reception module, SAM 2, and the introduction of TeleService 1.

A detailed description of all TeleService functions and associated application examples can be found in a training and information program (SIP).

Instrument cluster

On the E63, the road speed is now displayed in the form of a detailed scale and the economy control is replaced by the oil temperature gauge.

The scales on the instrument cluster are specific to each country, vehicle and engine.

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Fig. 1:   E60 and E63 Instrument cluster

Display areas

The instrument cluster is divided into the following display areas:

- Instrument dials

- Indicator and warning lamps

- LC display

- Program and gear displays for automatic gearbox and SMG Sequential Manual Gearbox

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Fig. 2: Display areas in the instrument cluster E60 and E63

Instrument dials

The instrument cluster includes the following dials:

- Speedometer

- Rev counter

- Fuel gauge

- Fuel consumption (economy) indicator

- Oil temperature gauge (E63 only)

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Fig. 3:   Instrument dials E60

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Index	Explanation
1	Set speed for cruise control system
2	Speedometer E60
3	Rev counter
4	Rev counter speed warning zone
5	Economy control (oil temperature gauge on E63)
6	Fuel gauge

Engine speed warning zone

The maximum engine speed warning display is indicated by the rev counter as a function of engine temperature.

The following table lists the main engine speed warning zones:

Engine variant	Petrol engine	Diesel engine
Start of variable warning zone	4200 rpm	3500 rpm
End of variable warning zone	6300 rpm	4800 rpm
Start of fixed warning zone	6500 rpm	5000 rpm
End of fixed warning zone	7000 rpm	5500 rpm

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Fig. 4:   Rev counter warning zones for petrol engines E63

Index	Explanation
1	Start of variable warning zone
2	End of variable warning zone
3	Start of fixed warning zone
4	End of fixed warning zone

Oil temperature gauge

On the E63, the economy control is replaced by the oil temperature gauge. The DME control unit makes available the value indicated in the instrument cluster via the PT-CAN and K-CAN.

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Fig. 5:   Oil temperature gauge E63

Condition Based Service (CBS)

- Block diagram

All information that the CBS system requires is sent on the K-CAN bus. The instrument cluster is a subscriber on the K-CAN and acts as the CBS master control unit.

The CBS requests from all the control units are therefore sent via the K-CAN to the instrument cluster and to the Central Information Display.
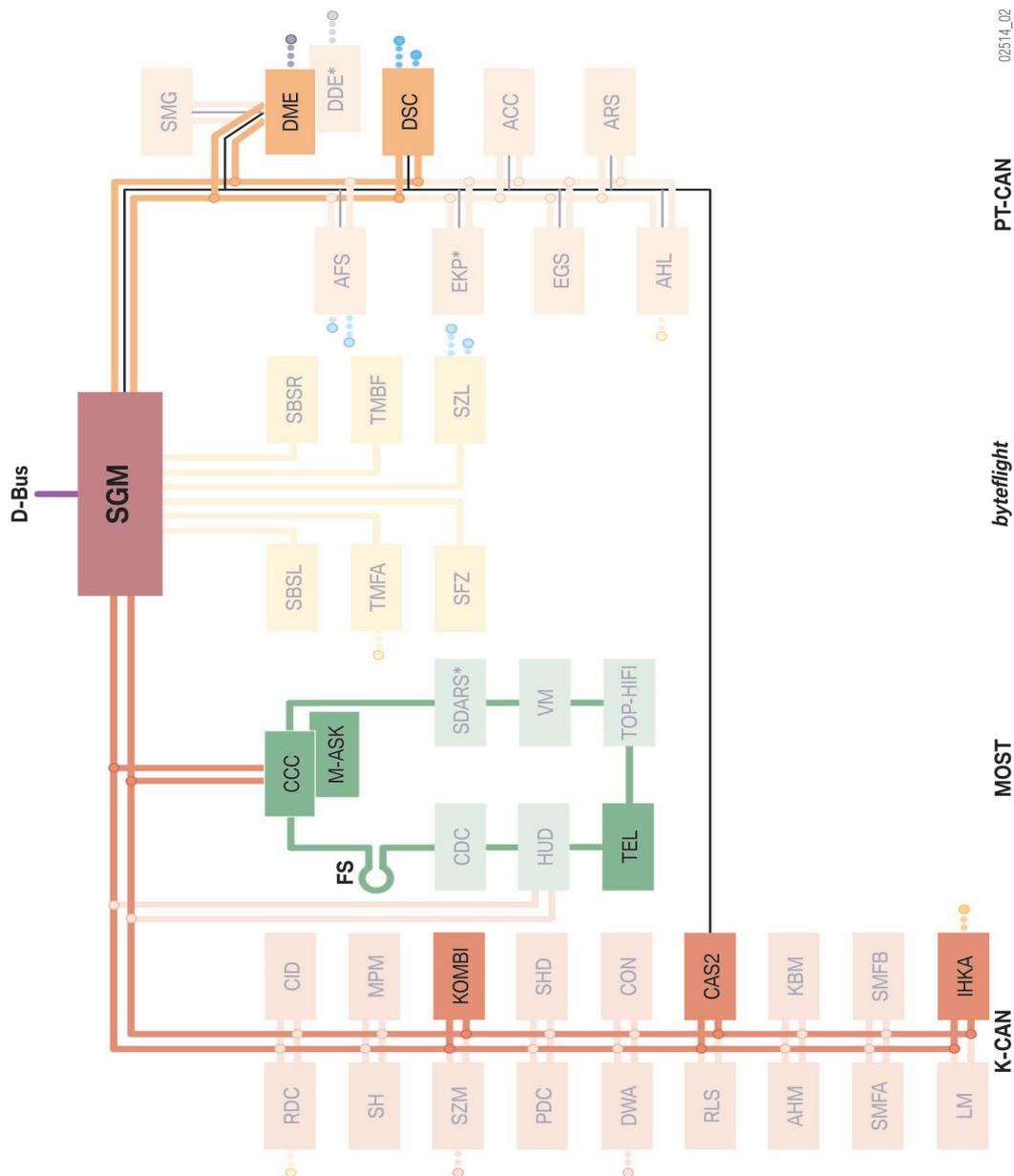
Fig. 6:   Block diagram of the Condition Based Service (CBS)

US instrument cluster

The main difference between the US version and the one for EU LHD vehicles is the speed scale, which on the US version is shown in both mph (miles per hour) and in km/h (kilometres per hour).

There are also differences in the program and gear display in the instrument cluster, depending on which transmission is installed. The program and gear display is only used on vehicles with automatic gearboxes or SMG sequential manual gearboxes.

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Fig. 7:   Instrument cluster E63, USA version

There are also differences in the indicator and warning lamps:

- The general brake warning light symbol is replaced by the word BRAKE

- The indicator lamp for the rear fog lights is not activated

- The check engine symbol is replaced by SERVICE ENGINE SOON

Central Information Display (CID)

The CID is the graphic display unit for the user interface of the navigation, audio, climate control and communications systems. Unlike the E65, the CID has just four items in the main menu. It has therefore been adapted to the level of optional equipment for the E60 and E63.

As on the E65, it is operated from the central control element, the controller.

Components

The Central Information Display (CID) comprises the following components:

- LC display

- Controller

- Displays in the CID

LC display

In order to cope with the various equipment specifications, the following variants are used for the E60/E63:

- CID Mid with 6.5" colour LCD (400 x 240 pixels)
- CID High with 8.8" colour LCD (640 x 240 pixels)
  The LCD also features a help window

The casing is designed to be able to accommodate all screen variants offered.

The entire Central Information Display assembly is fixed to the dashboard by two screws.

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Fig. 8:   Central Information Display E60 and E63

Index	Explanation
1	6.5" Mid colour LCD CID
2	8.8" High colour LCD CID

Displays in the Central Information Display

The 6.5" colour LC display, with a resolution of 400 x 240 pixels (width x height), is divided into a display zone and a status bar.

The main menu display comprises the following four menu items:

- Communication

- Navigation

- Entertainment

- Climate

The four menu items are displayed in a cross pattern on the Central Information Display corresponding to the four main directions in which the controller can be moved.

In addition to these four main menu items, there is a fifth menu item used exclusively for individual user settings. The screen can also be switched on and off from this menu.

The menu can be called up by pressing the controller.

The following diagram is a schematic representation showing how the controller and the display of the individual menus on the Central Information Display interact.

All screen shots shown are derived from a simulation of a version with featuring a 6.5" Mid colour LC display and correspond to the status at the time of going to press. Further changes are possible to the contents and the layout.

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Fig. 9:   User interface of the Central Information Display for the E60 and E63

Status bar

The status bar displays the main information on the various functions, such as the telephone signal strength or the time; this information is permanently displayed after Ignition ON.

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Fig. 10:   CID status bar

Index	Explanation
1	Automatic air conditioning system activated
2	Audio source activated
3	TMC (Traffic Message Channel) activated
4	Unread text message (SMS)
5	Telephone signal strength
6	Time

COMMUNICATION menu

In this menu, entries in the telephone directory can be displayed and sorted according to various criteria. Here too, the user can query his SMS (Short Message Service) for incoming text messages or display any calls that were not answered.

This menu also contains the BMW services such as BMW Assist and BMW Online. Certain services are only available to customers after appropriate authorization.

In another menu bar, information about BMW Service and general traffic information can be called up and an emergency call made.

The main menu is activated as soon as terminal 15 is on.

Slide the controller forwards, the Communication menu will appear.

The following functions are available to the user:

-   First menu bar:
    The Phone, SMS, BMW ASSIST, BMW Online and Notepad functions can be selected from the first menu bar.
    Each menu item is linked with further entries or information. If, for example, BMW Assist is activated, further entries can be made or additional information can be called up.

-   Second menu bar:
    Once, for example, the menu item BMW ASSIST has been selected and activated, the second menu bar, BMW Info opens.
    Messages and information, e.g. about dates for your BMW Service, are listed in this bar and can then be selected.
    Each message is linked with further entries or information.

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Fig. 11:   COMMUNICATION menu

Index	Explanation
1	First menu bar - Phone, SMS (Short Message Service) - BMW ASSIST, BMW Online, Notebook
2	Second menu bar, e.g. of BMW ASSIST - BMW Info, Traffic information, Information Plus - BMW Services - Emergency call

NAVIGATION menu

This menu provides access to all functions necessary to operate the navigation system. The on-board computer can also be selected from this menu item. Certain services are relevant to specific equipment and are only available to customers after appropriate authorization. For example, on the 6.5" monochrome display, route guidance is shown in the form of an arrow display.

The main menu is activated as soon as terminal 15 is on.

Slide the controller to the right, the Navigation menu will appear.

If the navigation function is activated in the main menu, the user will have the following functions available:

- First menu bar:
  The Navigation, On-board info, Address book and Traffic information functions can be selected from the first menu bar. Each menu item is linked with further entries or information.
  If, for example, Navigation is activated, the usual entries such as Address input, Guidance, Route selection and Map display can be made.

- Second menu bar:
  Once, for example, the On-board info menu item has been selected and activated, the second menu bar, Computer opens.
  The Computer, Journey computer, Limit and Stopwatch functions can be selected from this bar.
  Each menu item is linked with further entries or information.

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Fig. 12:   Navigation menu

Index	Explanation
1	First menu bar - Navigation - On-board info - Address book - Traffic information
2	Second menu bar, e.g. On-board info - Computer, Journey computer - Limit - Stopwatch

ENTERTAINMENT menu

The Entertainment menu is a frequently used function. Certain services are relevant to specific equipment and are only available to customers after appropriate authorization.

The main menu is activated as soon as terminal 15 is on.

Slide the controller back, the Entertainment menu will appear.

- First menu bar:
  The functions FM/AM, Satellite radio, CD, MD, TV, Videotext, DVD and AUX can be selected from the first menu bar.
  Each menu item is linked with further entries or information.

- Second menu bar:
  Once, for example, the FM menu item has been selected and activated, the cursor skips to Set.
  Sliding the controller forwards will open the second menu bar and Manual frequency selection will be highlighted.
  The functions All stations, Autostore and Memorised stations can also be selected from this bar.
  Each menu item is linked with further entries or information.
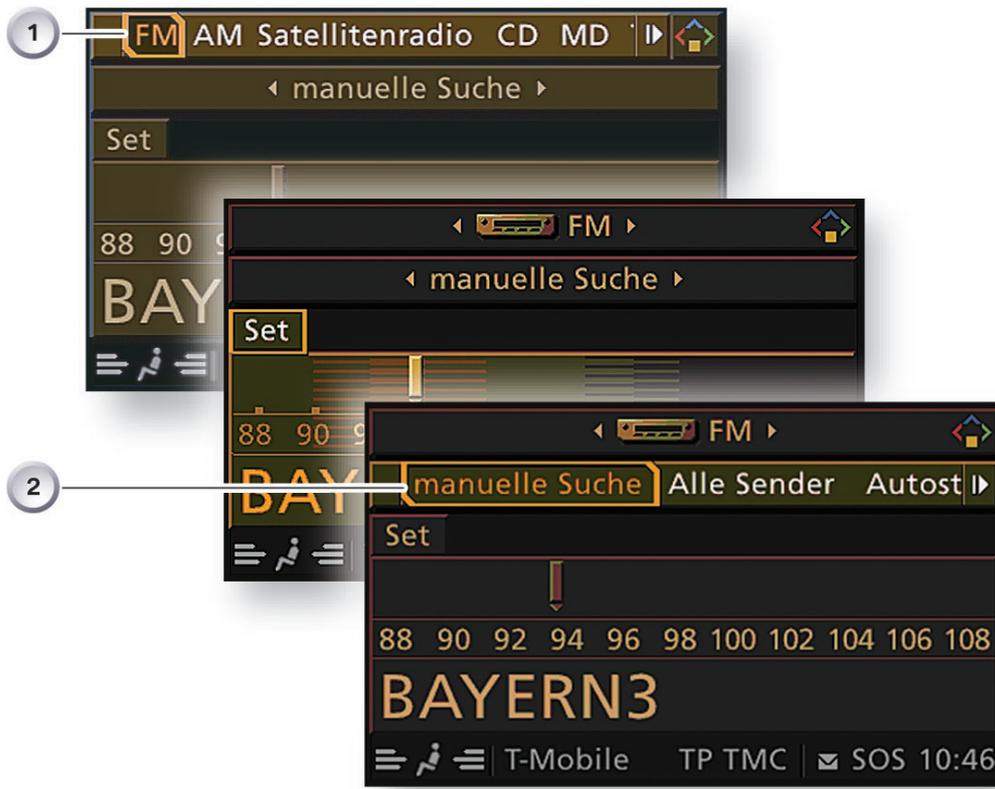
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Fig. 13:   Entertainment menu

Index	Explanation
1	First menu bar - FM/AM waveband, Satellite radio, CD, MD - TV, Videotext, DVD, AUX
2	Second menu bar - Manual frequency selection, All stations, Autostore, Memorised stations

Adjusting the tone

The following tone settings can be selected for tone and sound repro-
duction:

- Treble: amplifying or weakening the higher sounds

- Bass: amplifying or weakening the lower sounds

- Left/right volume distribution (balance)

- Back/front volume distribution (fader)

- Speed-sensitive volume control (speed volume)

- LOGIC7 spatial sound effect

- Frequency range (equalizer)

- Central settings (reset)

Once a waveband has been highlighted and activated in the first menu
bar, the second menu bar opens and Set is highlighted.

Pressing the controller will open another window from which the Tone
function has to be selected and activated.

It is also possible to set the tone via the Entertainment settings menu.

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Fig. 14:   Tone settings menu

Index	Explanation
1	First menu bar - Audio/video
2	Second menu bar - Treble/bass, Balance/fader, Speed-sensitive volume, Equalizer - LOGIC7 room acoustics - Reset

TV settings

The picture quality can also be set from the tone and sound repro-
duction menu.

In the first menu bar, highlight and activate Video. Highlight a TV station,
e.g. ARD, and confirm.
Another menu window will open. With the controller, highlight Settings
and confirm. A second menu with the functions Brightness, Colour,
Contrast, TV standard and Reset will appear.
Each menu item is linked with further entries or information.

It is also possible to set the picture quality via the Entertainment
settings menu.

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Fig. 15:   TV settings

Index	Explanation
1	First menu bar - Audio/video
2	Second menu bar - Brightness, Colour, Contrast, TV standard, Reset

CLIMATE menu

Like on the E65 the expanded air conditioning functions such as mixture control and independent heating can be selected and activated from the Central Information Display.

The main menu is activated as soon as terminal 15 is on.

Slide the controller to the left, the Climate menu will appear.

- First menu bar:
  The Air distribution, Seat-heating distribution and Automatic heater/ ventilation functions can be selected.

- Second menu bar:
  Once the automatic heater/ventilation menu item has been selected, the second menu bar Switch-on Times will open.
  The Direct operation and Switch-on times functions can be selected from this bar.
  Each menu item is linked with further entries or information.

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Fig. 16:   Climate menu

Index	Explanation
1	First menu bar - Air distribution, Seat-heating distribution, Automatic heater/ventilation
2	Second menu bar - Direct operation, Switch-on times

SETTINGS menu

The individual user settings can be performed from this menu.

The main menu is activated as soon as terminal 15 is on.

Press the controller, the Settings menu will appear.

The following menu items can be selected:

- Screen on/off
- Entertainment settings
- Traffic information
- Display settings
- Vehicle settings
- Service
- Communications interface
- Central address book

Each menu item is linked with further entries or information. From the Vehicle settings menu, for example, further information on the vehicle systems such as Park Distance Control (PDC) can be called up.

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Fig. 17:   The Settings menu

Index	Explanation
1	Vehicle settings
2	Second menu bar - MFL button - Progr. cruise contr. - PDC - Light and door locks settings - A/C settings - Enable - Delete data

Service mode

The controller can be used to activate the Service mode functions.

Service mode is a special facility which provides information about the status of the display and user control system.
The function is designed for use by service technicians and is not intended to be accessible to vehicle owners.

Service mode provides access to details of the hardware/software versions for the Central Information Display and the control units in the M-ASK network, for example.

As an addition to the comprehensive facilities of the diagnosis system, Service mode acts as a a simple means of quickly accessing diagnostic data without the need for a diagnosis tester.

Activating Service mode

In the main menu, press and hold the controller. Tactile feedback will then be generated.

- Turn controller 3 increments clockwise

- Turn controller 3 increments anti-clockwise

- Turn controller 1 increment clockwise

- Turn controller 1 increment anti-clockwise

- Turn controller 1 increment clockwise

- Press the controller to confirm, Service mode will then appear in the CID.

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Fig. 18:   Service mode example: version check

In Service mode, information on the following functions can be queried
from the upper menu bar:

- TV

- Radio

- Version check

- Navigation

- GPS

- Sensor test

To return to the Main menu, slide the controller in any direction.

Head-up display

The HUD projects a virtual image into the driver's field of vision. Depending on the equipment installed in the vehicle, this virtual image contains information that is of relevance to the driver, such as e.g.:

- Cruise control FGR

- Active Cruise Control ACC

- Navigation

- Check Control messages

- Road speed

The size of the virtual image is approx. 200 mm x 100 mm.

Advantages of the head-up display

The virtual image in the driver's field of vision allows the driver to concentrate more on the road ahead than previously. Driving is thus rendered less fatiguing. The driver switches his vision between e.g. the instrument cluster and road traffic less frequently.

System overview
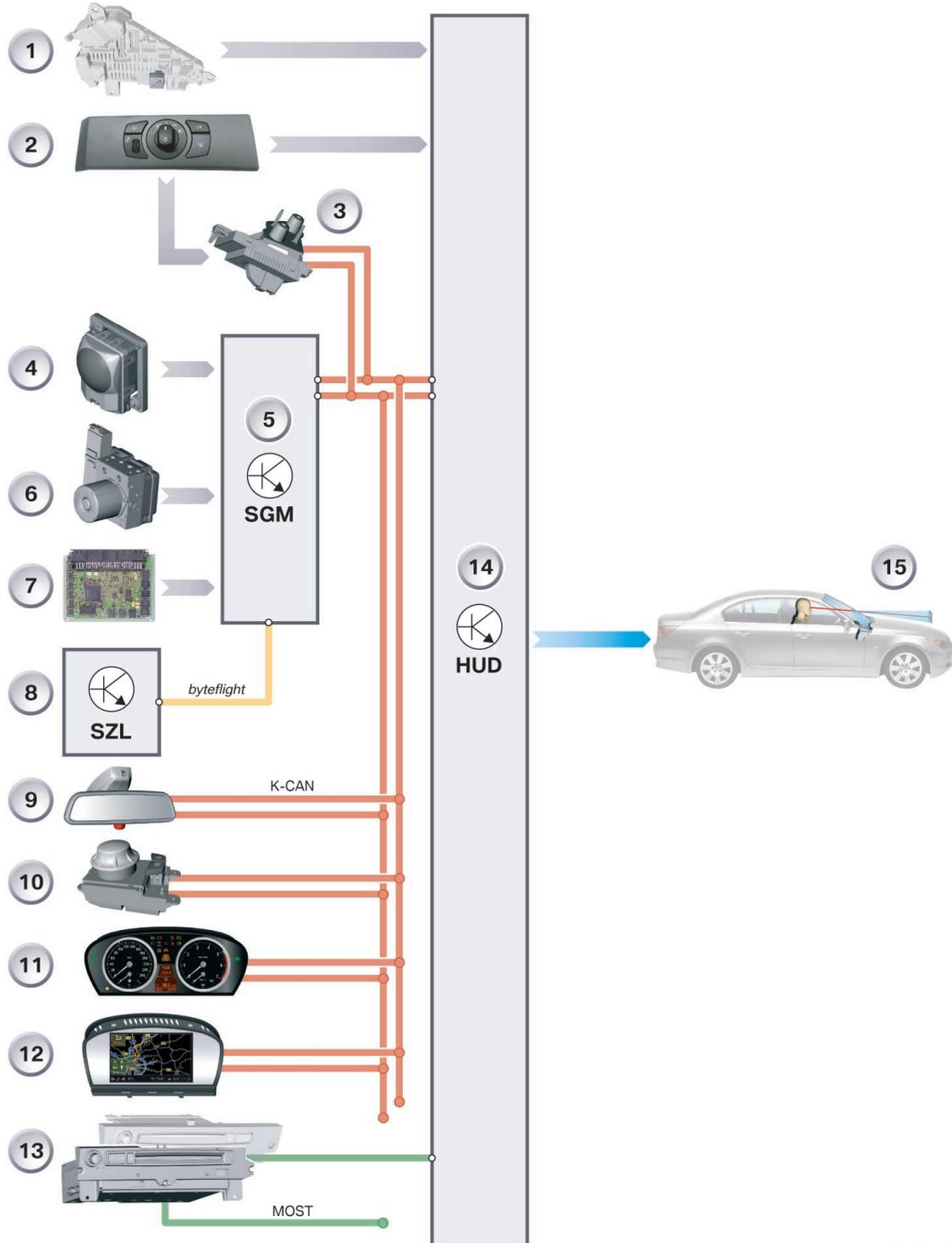
Fig. 19:   System overview of head-up display

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Index	Explanation	Index	Explanation
1	Current distributor, rear, terminal 30g relay	10	Controller
2	Operating unit with light switch	11	Instrument cluster
3	Light Module	12	Central Information Display (CID)
4	Active Cruise Control	13	Multi-audio system controller M-ASK/car communication computer CCC
5	Safety and Gateway Module SGM	14	Head-up display HUD
6	Digital Stability Control	15	HUD projection
7	Digital Motor Electronics	*byteflight*	*byteflight*
8	Steering column switch cluster SZL	K-CAN	Body CAN
9	Rain/light sensor	MOST	MOST bus

- Input/Output
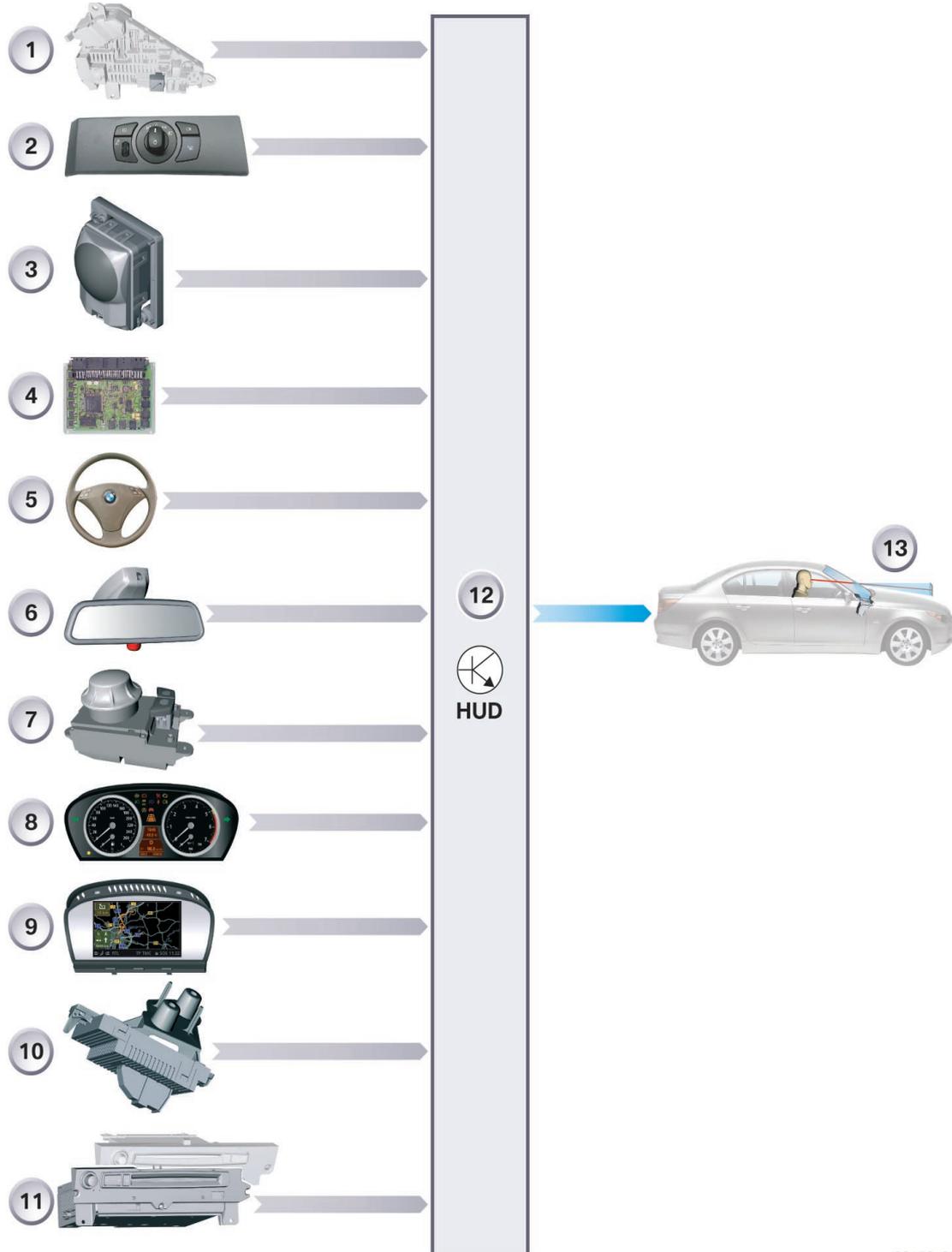
Fig. 20:   Head-up display inputs/outputs

Index	Explanation	Index	Explanation
1	Current distributor, rear	8	Instrument cluster
2	Head-up display switch/light switch	9	Central Information Display CID
3	Active Cruise Control	10	Light Module
4	Digital Motor Electronics	11	Multi-audio system controller, car communication computer
5	Steering column switch cluster SZL	12	Head-up display
6	Rain/light sensor RLS	13	HUD projection
7	Controller CON		

- System circuit diagram
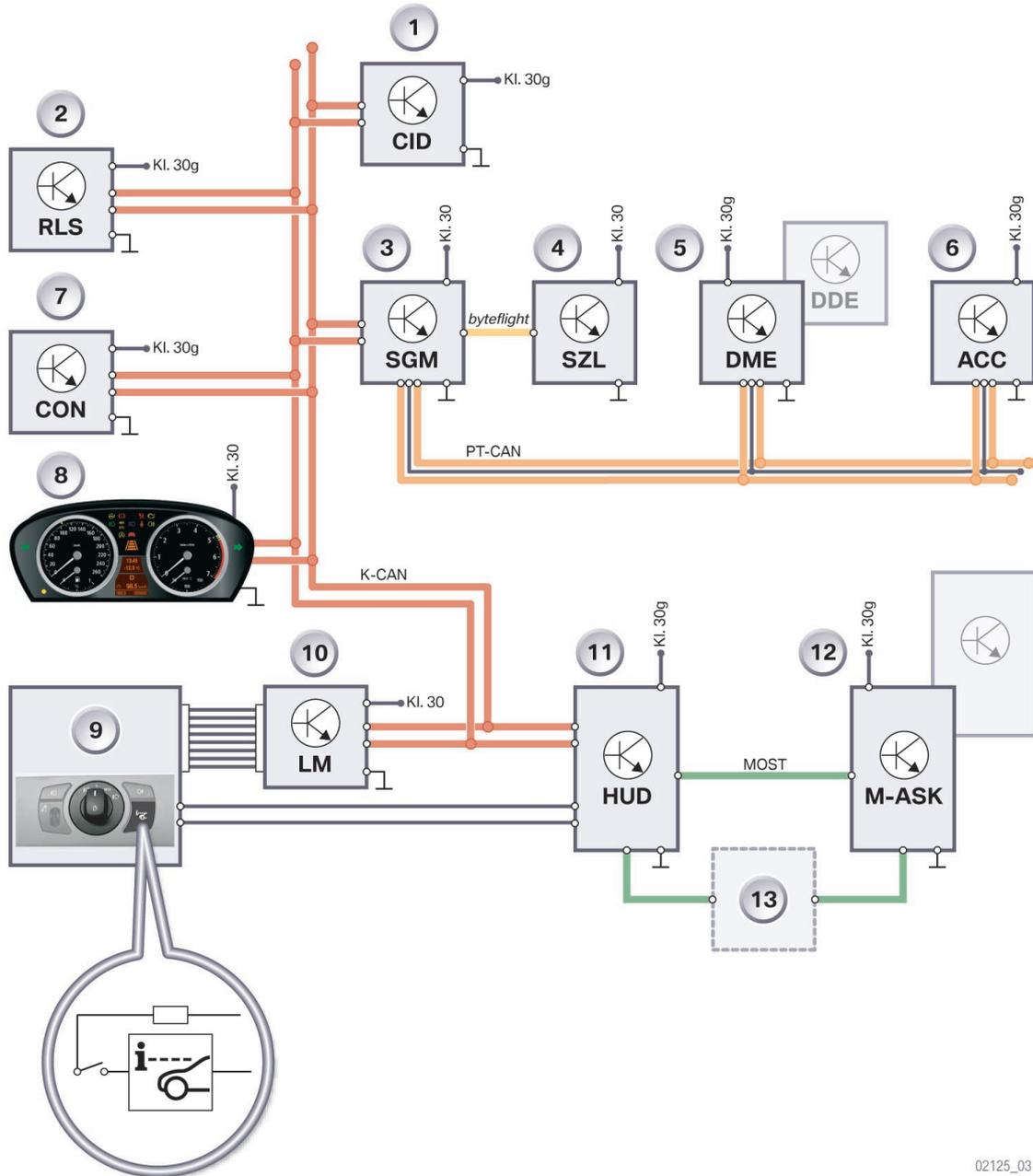
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Fig. 21:   Head-up display system schematic

Index	Explanation	Index	Explanation
1	Central Information Display CID	10	Light Module LM
2	Rain/light sensor RLS	11	Head-up display HUD
3	Safety and Gateway Module SGM	12	Multi-audio system controller M-ASK/car communication computer CCC
4	Steering column switch cluster SZL	13	Further components in MOST
5	Digital Motor Electronics DME Digital Diesel Electronics DDE	*byteflight*	*byteflight*
6	Active Cruise Control ACC	K-CAN	Body CAN
7	Controller CON	Kl. 30	Terminal 30
8	Instrument cluster	Kl.30g	Terminal 30g
9	Head-up display switch/light switch	MOST	MOST-bus media-oriented signal transport

Components

The HUD is made up of the following components:

- Cover glass

- Mirror

- LED power supply

- LED array

- Light well

- TFT projection display

- Shutter

- Master board

- Slave board

- Housing

Additionally required components

- Windscreen

- Light Module

- Rain/light sensor

- Safety and information module

Control elements

- HUDs control buttons and light switch

- Instrument-lighting dimmer

- Controller

Image sources

The following control units supply the necessary signals for the displays:

- Active cruise control ACC

- Multi-audio system controller M-ASK/car communication computer CCC

- Instrument cluster KOMBI

- Steering column switch cluster SZL

- Digital motor electronics DME/Digital diesel electronics DDE

Location

The HUD is mounted above the steering column on the cross-member of the cowl panel and on the front bulkhead. The influence of vibrations when driving over cobblestones for instance is not noticeable.

Brief functional description

The HUD can be compared to a projection device. An LED field is required as the light source for the purpose of projecting the HUD information. The image content is created by the TFT projection display. The TFT projection display can be compared to a filter which admits or blocks light.
An optical imaging element determines the shape and size of the HUD images. The image is projected onto the windscreen and appears freely suspended over the road surface.
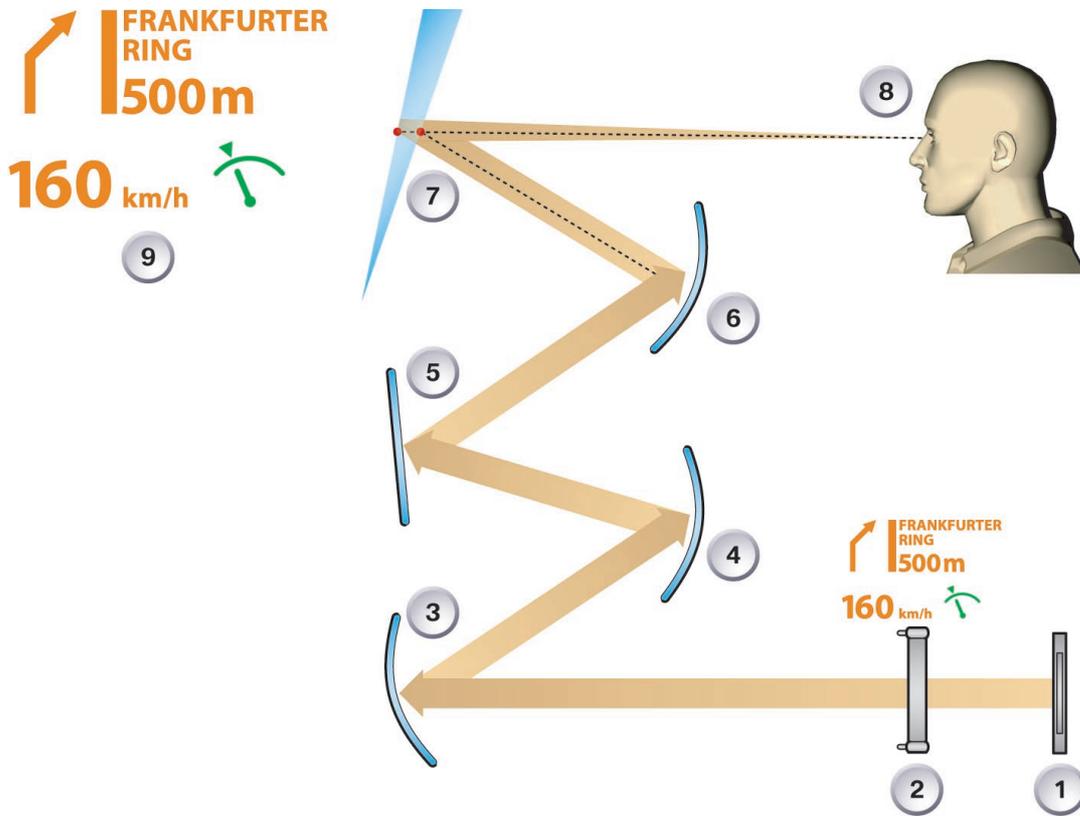
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Fig. 22:   HUD operating principle

Index	Explanation	Index	Explanation
1	LED array	6	Curved mirror
2	TFT projection display	7	Windscreen
3	Curved mirror	8	Observer's point of vision
4	Curved mirror	9	Projected image
5	Plane mirror		

- Head-up display

Exploded view
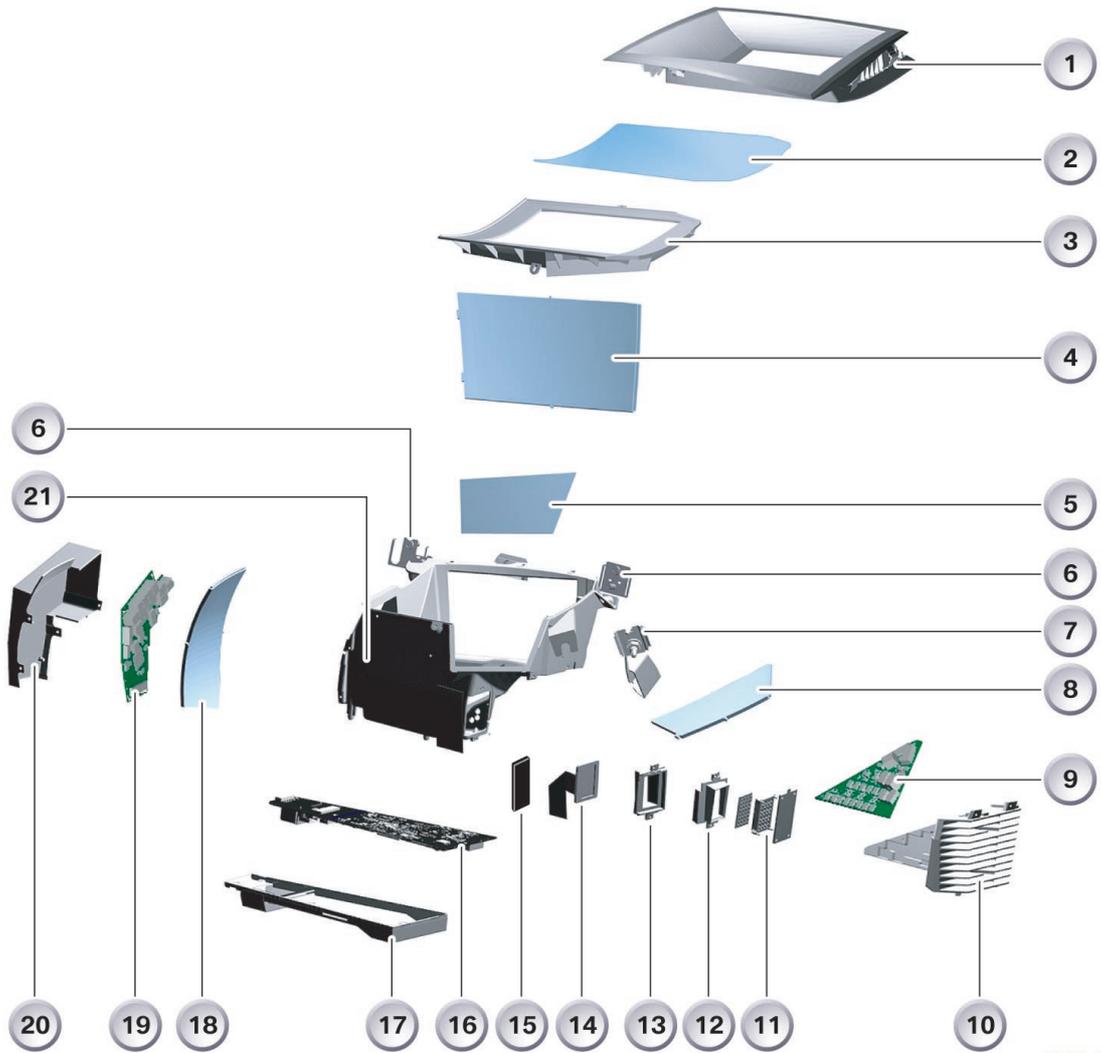
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Fig. 23:   Exploded view of HUD

Index	Explanation	Index	Explanation
1	HUD finisher	12	Light well
2	Cover glass	13	Fixture, TFT projection display
3	Housing frame	14	TFT projection display
4	Curved mirror	15	Shutter
5	Plane mirror	16	Master board Activation of LEDs
6	Mounting points, front bulkhead	17	Housing frame
7	Adjusting device	18	Curved mirror
8	Curved mirror	19	Slave board Activation of shutter
9	LED power supply	20	Housing section
10	Heat sink	21	Housing
11	LED array		

Mirror

The HUD incorporates four mirrors. These mirrors reflect the display content onto the windscreen. Three of the mirrors are curved. These mirrors adapt the display content to the screen.

This mirror determines the size and distance of the HUD projection.

The curved mirrors are made of plastic while the plane mirror is made of glass.

The course of projection is shown in the following illustration.
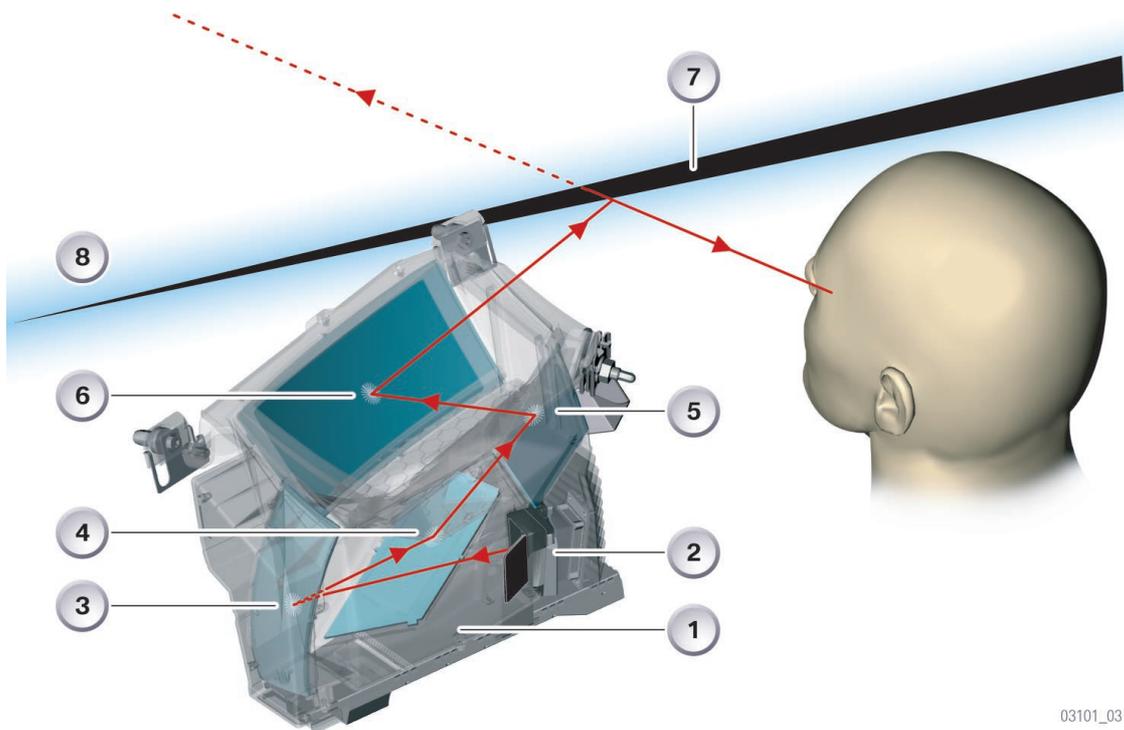
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Fig. 24:   Course of projection

Index	Explanation	Index	Explanation
1	HUD housing	5	Plane mirror
2	Projection display	6	Curved mirror
3	Curved mirror	7	Plastic wedge
4	Curved mirror	8	Windscreen

The projected HUD image content appears at a distance of approx. 2.2 m from the eye.
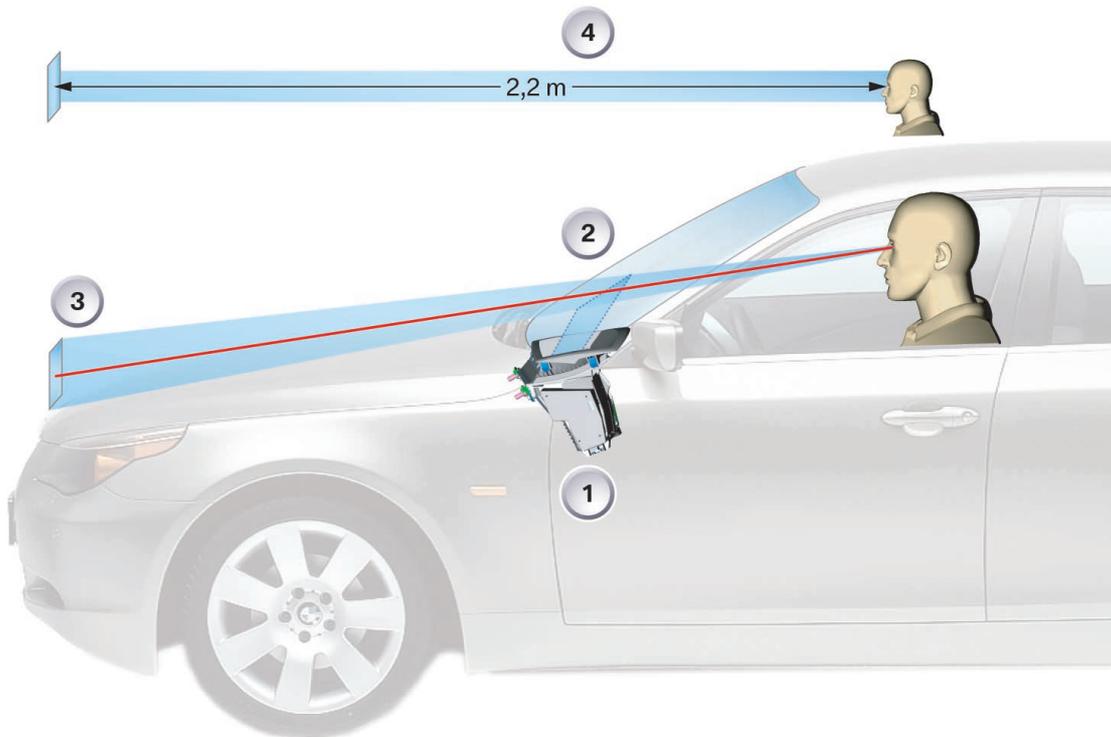
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Fig. 25:   Projection distance

Index	Explanation	Index	Explanation
1	Head-up display	3	Projected image
2	Windscreen	4	Projection distance

Eyebox

The eyebox is the movement space in which the driver can move without his view of the image in the HUD being impaired. The freedom of movement within the eyebox is roughly:

- 130 mm horizontally

- 90 mm vertically

Outside the eyebox limits the image in the HUD is no longer clearly visible.
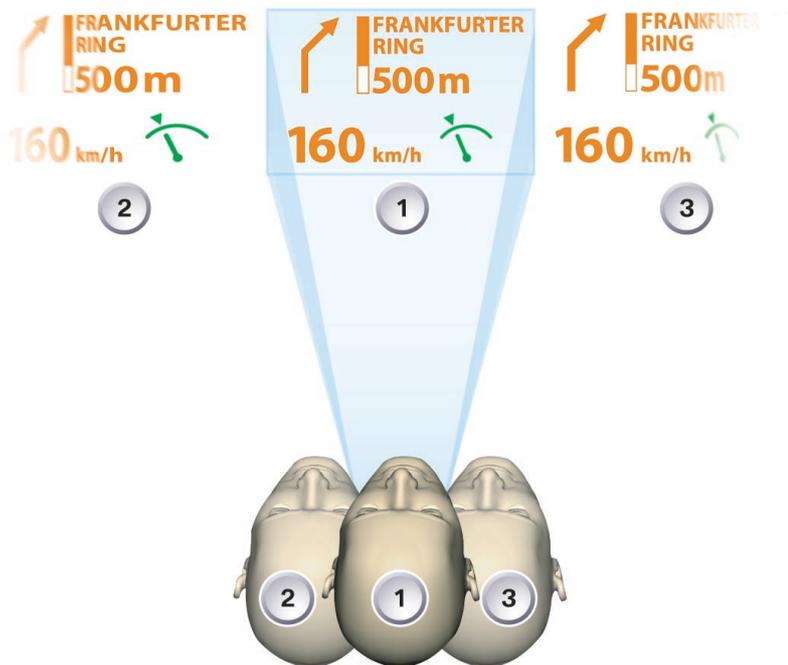
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Fig. 26:   Eyebox, shift left/right

Index	Point of vision	HUD image
1	Point of vision inside the eyebox	HUD image OK
2	Point of vision displaced to the left	HUD image distorted to the left
3	Point of vision displaced to the right	HUD image distorted to the right
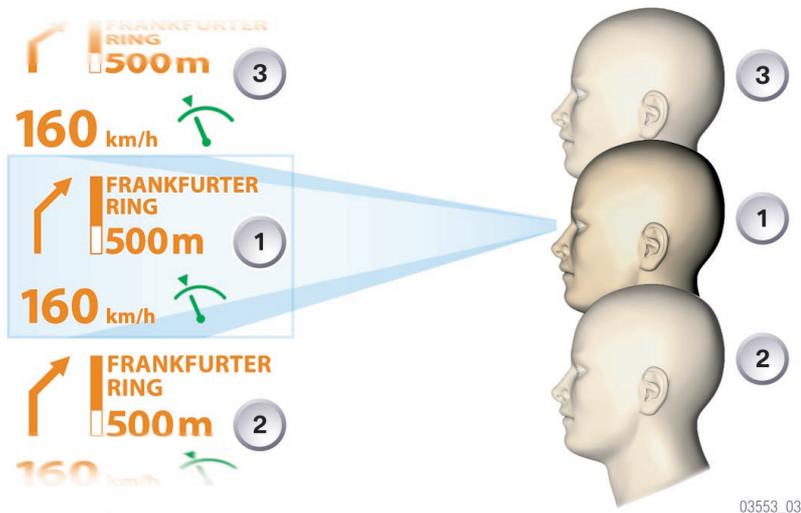
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Fig. 27:   Eyebox, shift up/down

Index	Point of vision	HUD image
1	Point of vision inside the eyebox	HUD image OK
2	Point of vision displaced downwards	HUD image distorted downwards
3	Point of vision displaced upwards	HUD image distorted upwards

Windscreen

The windscreen is a "special" windscreen and is an integral component vital to projecting the displays. The outer and inner glass panes are connected to a plastic film, which is wedge-shaped over the entire length of the windscreen.

The wedge-shape prevents double displays (ghosts) of the HUD by positioning both images one above the other. The wedge tip points downwards and starts at a distance of approx.10 cm to the bottom edge of the windscreen.

The end of the wedge is located at approx. $^2/_3$ windscreen height. In the top third of the windscreen, the plastic film runs parallel to the outer and inner glass panes. The thickness of the wedge tip is 0.8 mm. The thickness of the end of the wedge is 1 mm.
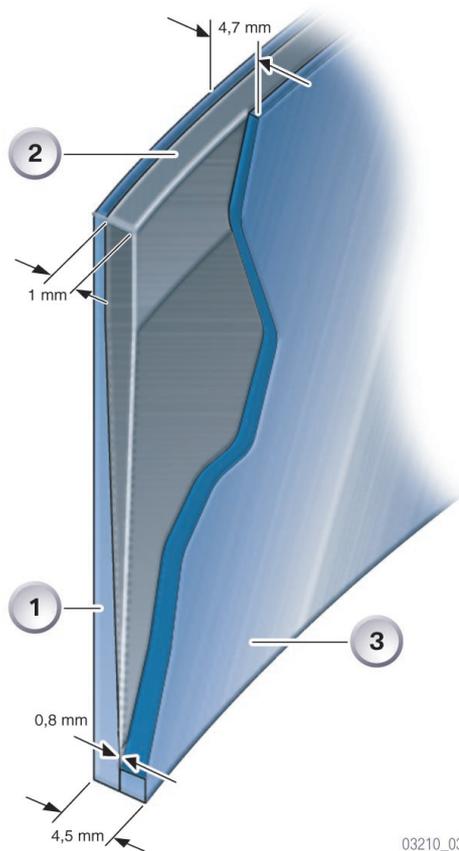
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Fig. 28:   Basic structure, cutaway through windscreen

Index	Explanation	Index	Explanation
1	Outer glass pane	3	Inner glass pane
2	Plastic film	mm	Unit of measurement in mm

If a non-specified (normal) windscreen is used, the image is reflected on both the outer and inner glass panes. Overlapping causes the image to be displayed twice.

The plastic wedge in the windscreen places the images of the outer and inner pane over each other thus preventing double displays (ghosts).

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Fig. 29:   Double display by HUD

- Display area of head-up display

The size of the virtual image is approx. 200 mm x 100 mm. The HUD is separated into 2 display areas. The individual fields are "optically" separated in the image so that they can be identified more easily.
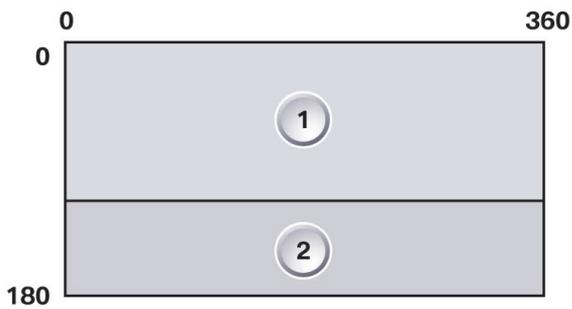
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Fig. 30:   Display areas in head-up display

Index	Explanation	Index	Explanation
1	Display area: navigation/CC	2	Display area: road speed/cruise control/ACC

The upper area shows navigation information in the form of symbol, bar display and text.

The lower area shows speed-related displays in the form of unit, current speed, cruise control and ACC.

Colour selection

The HUD background colour is transparent.

Symbols (such as e.g. warning symbols) are specified by the individual control units. This colour specification is adopted for the display in the HUD.

2D symbols are used for optimum visibility and legibility.

The colours are:

- Orange as the standard colour

- Red or yellow for warning messages

- Green for the setting speed

- Control elements

Light switch with operating unit

The HUD button is located in the operating unit.
The control button is resistance-coded and routed directly to the HUD.
The HUD can identify the button signals or a button fault using the resistance coding.

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Fig. 31:   HUD button in operating unit

Instrument-lighting dimmer

The dimmer setting is also used for the HUD with active headlights.
The dimmer signal is emitted by the light module.

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Fig. 32:   Instrument-lighting dimmer

- Adjusting HUD brightness

The brightness of the HUD can be individually adjusted. The CID is the display instrument and the controller the control element for brightness adjustment.

The brightness offset is adjusted from the main menu as follows:

The main menu is activated as soon as terminal 15 is on.

- Press the controller, the "Settings" menu will appear.
- Select "Display settings" and confirm
- Select "Brightness of head-up display" and confirm
- Set brightness and confirm the entry by pressing the controller.

Service information

Operating-hours counters

The HUD incorporates operating-hours counters for both the HUD and the LED array. When the HUD is replaced, the operating-hours counter must be initialized at 0.

Windscreen

Bear in mind when replacing the E60 or E63 windscreen that the HUD requires a special windscreen.

Replacing head-up display

A faulty HUD must be completely replaced. A new HUD must be adjusted once it has been installed. The CID must be removed for this adjustment work.

This adjustment is performed at a screw on the supporting tube. This screw incorporates an eccentric which serves to adjust the angle of the HUD in relation to the windscreen.

A special tool is required for adjustment.

Test functions

Different functions can be selected in service without the Service Tester.

Press the HUD button for 30 s to call up the test functions. As soon as the first test function is displayed, further test functions can be called up by briefly pressing the HUD button.

Press the HUD button for more than 2 s to terminate the function.

Function selection:

- Identification
- System test
- Unlocking
- Rain/light sensor
- Road speed
- Operating voltage
- Language
- Unit
- Car & key memory
- Reset.

Image defects

Incorrect installation of the HUD or of the windscreen may result in faulty HUD projections.
A few examples are shown below.
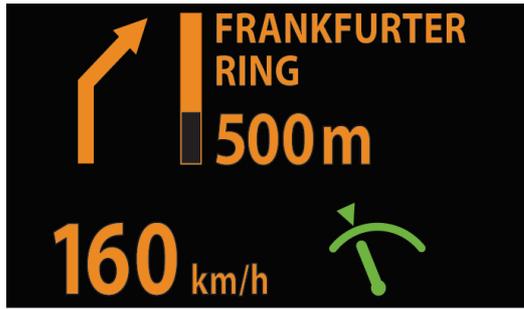
Fig. 33:   HUD image defects

The top left image is squashed widthways. The top right and bottom left images are distorted. The bottom right image is displayed twice (double).

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Fig. 34:   Image defect caused by incident light or excessive heat in HUD

The incidence of light onto the windscreen or into the HUD in an inconvenient situation causes the image to fade.

Excessive heat in the HUD will also cause the image to fade.

ConnectedService

ConnectedService means a "networked service" system and has been used in the service concept since the launch of the E65.

ConnectedService is an indication of how communications are increasing and how the vehicle and the service are better linked.

The vehicle-specific service requirements are automatically assessed.

TeleService1 can even make an automatic ServiceCall which informs the customer's home dealer that a service is due.

Condition Based Service (CBS)

- Displays in the Central Information Display (CID)

All information on the individual service operations can be displayed in the CID.

The CBS functions are stored in the "Settings" menu item which is used exclusively for individual user settings.

Press the controller, the Settings menu will appear.

Turn the controller until "Service" is highlighted, then press to activate the CBS menu.

The CBS menu window will appear; this is divided into the following control and display fields:

- Status bar

- First menu bar

- Second menu bar

- Display field for CBS symbol

- Display field for service operation

All screen shots shown are derived from a simulation of a version with featuring a 6.5" Mid colour LC display and correspond to the status at the time of going to press. Further changes are possible to the contents and the layout.

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Fig. 35:   Service menu

Index	Explanation
1	First menu bar - Service requirement, Check Control messages - Service
2	Second menu bar - Status - At present there is no information
3	Display field for CBS symbols
4	Status bar
5	Display field for service operation

The service operation display field always shows the first five messages.

The displays are marked in colour and are assigned an appropriate symbol.

The displays mean the following:

- Red > the service operation is overdue

- Yellow > the service operation is due shortly

- Green > no service operation required

Any overdue service operations and symbols marked in red in the list are always at the top of the list of messages.

You can scroll through the list of the service operations from top to bottom by turning the controller (left/right).

To display the information concerning a specific service operation on the CID, turn the controller to select the required service operation and confirm the selection by pressing the controller.

If e.g. the service operation "General inspection" has been selected and activated, the following display will appear in the CID:
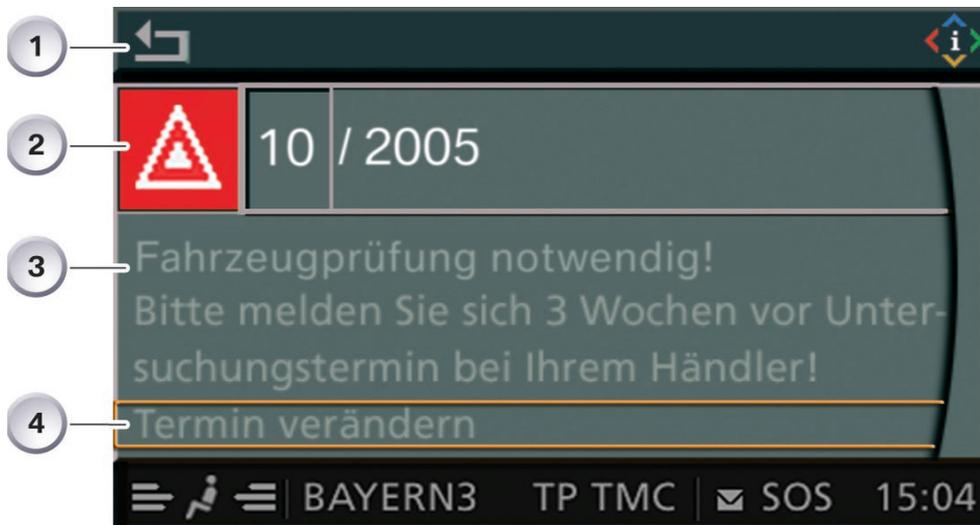
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Fig. 36:   Example "General inspection"

Index	Explanation
1	Exit display, return to last setting
2	Date for general inspection
3	Text field for further information
4	Set service date

Once the service date has been set and confirmed by pressing the controller, the priority of the service operation changes, e.g. from red to green and the service operation is sorted in the list.

- Resetting the service operations

When one or more operations have been carried out, e.g. front pads have been changed, these operations must be reset to their full service interval.

There are two options for resetting the service operations:

- Legally required service operations
  Legally required service operations such as the general inspection can only be reset in the "Service" menu, see "Entering deadlines."

- Maintenance service operations
  All service operations for the purpose of maintenance are reset by means of the reset button of the trip distance counter in the instrument cluster. If the reset button is pressed for longer than ten seconds, the reset mode opens automatically.

"Reset?" is displayed in the lower display window.

In the upper display window, the CBS symbol, e.g. for "engine oil service overdue" will be displayed.

Press the reset button until the time/distance-dependent displays in the lower display window are replaced with dashes.

If more than 80 percent of the interval has expired, a reset cannot be carried out. A reset lock will be shown in the display with "OK."

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Fig. 37:   E60/E63 Instrument cluster

Index	Explanation
1	Reset button for trip distance counter
2	Upper display window - CBS symbol
3	Lower display window - Gear indicator - Reset mode

- Entering deadlines

The deadlines for the legally required general inspection and emissions inspection can be entered in the Central Information Display with the aid of the controller.

Since different laws are applicable depending on the country, country-specific intervals can be defined.
For markets where no such regulation applies for general inspection and emissions inspection, this function can be suppressed by the software.

The service date is set as follows:

- Select "Service" from the "Settings" menu and confirm

- Select and confirm the service operation e.g. "General inspection;" "Schedule date for service" is highlighted.

- Activate entry by pressing the controller

- Select "Exit display" and confirm to return to the last setting
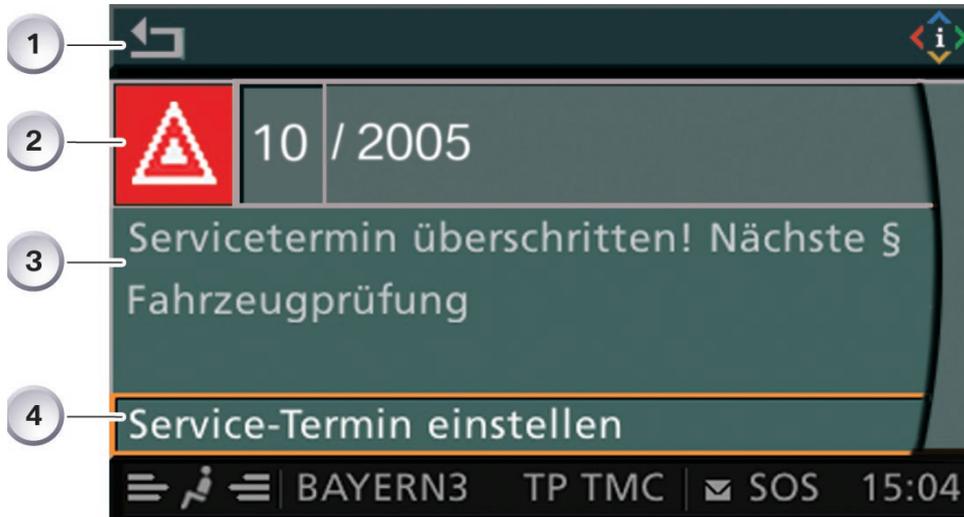
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Fig. 38:   Entering deadlines

Index	Explanation
1	Exit display, return to last setting
2	Date for general inspection
3	Text field for further information
4	Activate deadline in (2)

TeleService1

TeleService services are telematics services which are used to communicate with BMW service centres such as BMW dealers or the BMW Roadside Assistance, from the actual vehicle. Providing further information relating to the telephone call, TeleService supports communication between the customer and BMW Service Centres.

The service is a separate part of BMW Service and can be deployed in the following ways, depending on customer requirements:

- Manual transfer of information to the BMW dealer organization or the Mobile Service of the BMW Group by selection and confirmation in the Service menu of the on-board monitor.

- Automatic transfer of information to the BMW dealership network, via the instrument cluster when the Next Service indicator switches from phase green to phase yellow.

In both cases, the vehicle data which the customer has selected and confirmed from the menu is forwarded to the BMW service centre.

When a manual ServiceCall is activated, a telephone connection to the BMW service centre is made for the customer, in addition to transmission of the key data.
This function is specific to the country and is controlled by the service provider.

Diagram 39 shows an approximate schematic diagram of a TeleService process.
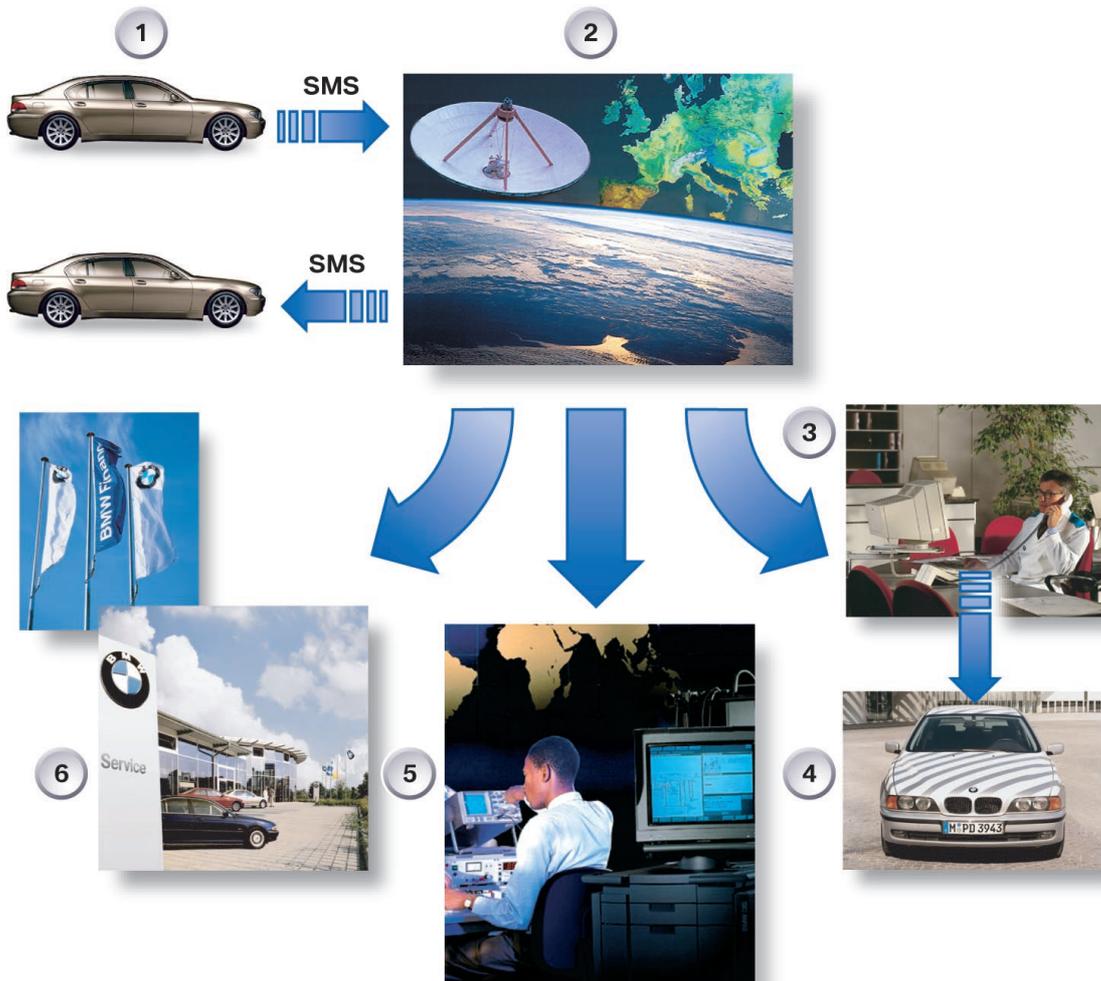
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Fig. 39:   A TeleService process

Index	Explanation
1	BMW customer
2	Service provider
3	BMW breakdown call
4	BMW Emergency Service
5	Call center
6	BMW dealer
	SMS = Short Message System

Initialising the "TeleService1" service

To be able to use the TeleService services, the system must first be initialized. A mobile phone network and the instructions for the country in question are required to do this.

The following operations have to be carried out for initialization:

- Press the controller, the "Communication interface" menu will appear

- Select "BMW ASSIST settings" and confirm

- Select "Service status" and confirm

- Select "Enable BMW ASSIST services" and confirm

The initialization phase is started, data is exchanged with the Service Centre.
Initialization takes a few minutes. The respective status will be displayed in the Central Information Display (CID). If another main menu is selected, initialization will continue in the background.

A detailed description of all TeleService functions and associated application examples can be found in a training and information program (SIP).
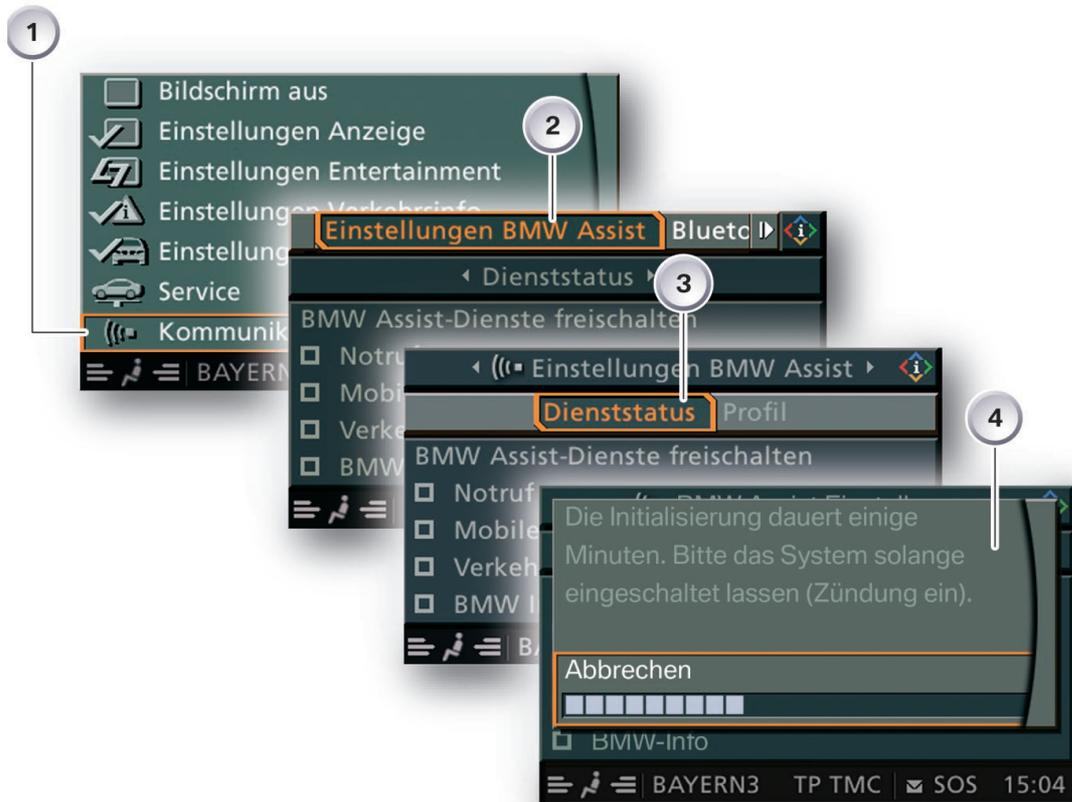
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Fig. 40:   TeleService initialization

Index	Explanation
1	Activate service
2	Activate BMW ASSIST settings
3	Activate service status
4	Display during initialisation