HEAD UNIT IDENTIFICATION 1995 - 2023

Head Unit Look-up Table - 1 Series, 2 Series, 3 Series, 4 Series

Model Year	1 Series			2 Series			3 Series / M3			4 Series / M4		
	Version	Basic	Professional	Version	Basic	Professional	Version	Basic	Professional	Version	Basic	Professional
1999	E82 / E88			F22 / F23 / F44 / F87*	HU-B	HU-H	E46**	CD53	BM53	F32 / F33 / F36 / F82 / F83	HU-B	HU-H
2000								CD53	BM53			
2001								CD53	BM53			
2002								CD53	BM53			
2003								CD53	BM53			
2004								CD53	BM53			
2005								CD53	BM53			
2006							E90 / E91 / E92 / E93	RAD2	CCC			
2007								RAD2	CCC			
2008		RAD2	CCC					RAD2	CCC			
2009		RAD2	CIC					RAD2	CIC			
2010		RAD2	CIC					RAD2	CIC			
2011		RAD2	CIC					RAD2	CIC			
2012		RAD2	CIC				F30 / F31 / F34 / F80***	RAD2	CIC			
2013		RAD2	CIC					RAD2	CIC			
2014		RAD2	CIC		HU-B	HU-H		HU-B	HU-H		HU-B	HU-H
2015					HU-B	HU-H2		HU-B	HU-H		HU-B	HU-H
2016					HU-B	HU-H2		HU-B	HU-H2		HU-B	HU-H2
2017					HU-B	HU-H2		HU-B	HU-H2		HU-B	HU-H2
2018					HU-B	HU-H2		HU-B	HU-H2		HU-B	HU-H2
2019					HU-B	HU-H2	G20 / G80		HU-H3		HU-B	HU-H2
2020					HU-B	HU-H2			HU-H3		HU-B	HU-H2
2021					HU-B	HU-H2			HU-H3	G22 / G23 / G82 / G83		HU-H3
2022				G42 / G87		HU-H3			HU-H3			HU-H3
2023						HU-H4			HU-H4			HU-H4
2024						HU-H4			HU-H4			HU-H4

ASK	Audio System Controler
BM53	Radio Professional w/ Board Monitor
CCC	Car Communication Computer
CD53	Business Radio with MID / MIR
CHAMP	Car Information Computer Basic
CIC	Car Information Computer
HU-B	Head Unit - Basic
HU-B2	Head Unit - Basic Version with Nav
HU-H	Head Unit - High
HU-H2	Head Unit - High Version 2
HU-H3	Head Unit - High Version 3
HU-H4	Head Unit - High Version 4
MASK	Multi Audio System Controller
CD83	Next Generation Radios
RAD2	Basic Radio 2

*Production of the E46 convertible continued into MY 2006 with the CD53 or BM53 head unit.

**Production of the E46 convertible continued into MY 2006 with the CD53 or BM53 head unit.

***Production of one or more these models extended another year past the shown range but retained the older style head unit.

HEAD UNIT IDENTIFICATION 1995 - 2023

Head Unit Look-up Table - 5 Series, 6 Series, 7 Series, 8 Series

Model Year	5 Series / M5			6 Series / M6			7 Series			8 Series / M8		
	Version	Basic	Professional	Version	Basic	Professional	Version	Basic	Professional	Version	Basic	Professional
1995									BM53			
1996									BM53			
1997	E39	CD53	BM53				E38		BM53			
1998		CD53	BM53						BM53			
1999		CD53	BM53						BM53			
2000		CD53	BM53						BM53			
2001		CD53	BM53						BM53			
2002		CD53	BM53						ASK			
2003		CD53	BM53						ASK			
2004	E60 / E61	MASK	CCC	E63 / E64		CCC	E65 / E66		ASK			
2005		MASK	CCC			CCC			ASK			
2006		MASK	CCC			CCC			ASK			
2007		MASK	CCC			CCC			ASK			
2008		CHAMP	CCC			CCC			ASK			
2009		CHAMP	CIC			CIC	F01 / F02		CIC			
2010		CHAMP	CIC			CIC			CIC			
2011	F10 / F07		CIC			CIC			CIC			
2012			CIC	F12 / F13 / F06		CIC			CIC			
2013			HU-H			CIC			HU-H			
2014			HU-H			HU-H			HU-H			
2015			HU-H			HU-H			HU-H			
2016			HU-H			HU-H	G12		HU-H2			
2017	G30 / F90		HU-H			HU-H2			HU-H2			
2018			HU-H2	G32		HU-H2			HU-H2			
2019			HU-H2			HU-H2			HU-H3	G14 / G15 / G16 / F91 / F92 / F93		HU-H3
2020			HU-H3						HU-H3			HU-H3
2021			HU-H3						HU-H3			HU-H3
2022			HU-H3						HU-H3			HU-H3
2023			HU-H3									HU-H3
2024												

ASK	Audio System Controler
BM53	Radio Professional w/ Board Monitor
CCC	Car Communication Computer
CD53	Business Radio with MID / MIR
CHAMP	Car Information Computer Basic
CIC	Car Information Computer
HU-B	Head Unit - Basic
HU-B2	Head Unit - Basic Version with Nav
HU-H	Head Unit - High
HU-H2	Head Unit - High Version 2
HU-H3	Head Unit - High Version 3
HU-H4	Head Unit - High Version 4
MASK	Multi Audio System Controller
CD83	Next Generation Radios
RAD2	Basic Radio 2

HEAD UNIT IDENTIFICATION 1995 - 2023

Head Unit Look-up Table - X1, X2, X3, X4

Model Year	X1			X2			X3 / X3 M			X4 / X4 M		
	Version	Basic	Professional	Version	Basic	Professional	Version	Basic	Professional	Version	Basic	Professional
1995												
1996												
1997												
1998												
1999												
2000												
2001												
2002												
2003												
2004							E83	CD83	CD83 w/ CID			
2005								CD83	CD83 w/ CID			
2006								CD83	CD83 w/ CID			
2007								CD83	CD83 w/ CID			
2008								CD83	CD83 w/ CID			
2009								CD83	CD83 w/ CID			
2010								CD83	CD83 w/ CID			
2011							F25	CHAMP	CIC			
2012								CHAMP	CIC			
2013	E84	RAD2	CIC					CHAMP	CIC			
2014		RAD2	CIC					HU-B	HU-H			
2015		RAD2	CIC					HU-B	HU-H	F26	HU-B	HU-H
2016	F48	HU-B						HU-B	HU-H2		HU-B	HU-H2
2017		HU-B2						HU-B	HU-H2		HU-B	HU-H2
2018		HU-B2		F39	HU-B2		G01 / F97	HU-B2	HU-H2		HU-B	HU-H2
2019		HU-B2			HU-B2			HU-B2	HU-H2	G02 / F98	HU-B2	HU-H2
2020		HU-B2			HU-B2			HU-B2	HU-H3		HU-B2	HU-H3
2021		HU-B2			HU-B2			HU-B2	HU-H3		HU-B2	HU-H3
2022		HU-B2			HU-B2			HU-B2	HU-H3		HU-B2	HU-H3
2023	U11		HU-H4		HU-B2			HU-B2	HU-H3		HU-B2	HU-H3
2024												

ASK	Audio System Controler
BM53	Radio Professional w/ Board Monitor
CCC	Car Communication Computer
CD53	Business Radio with MID
CHAMP	Car Information Computer Basic
CIC	Car Information Computer
HU-B	Head Unit - Basic
HU-B2	Head Unit - Basic Version 2
HU-H	Head Unit - High
HU-H2	Head Unit - High Version 2
HU-H3	Head Unit - High Version 3
HU-H4	Head Unit - High Version 4
MASK	Multi Audio System Controller
CD83	Next Generation Radios
RAD2	Basic Radio 2

*Production of one or more these models extended another year past the shown range but retained the older style head unit.

HEAD UNIT IDENTIFICATION 1995 - 2023

Head Unit Look-up Table - X5, X6, X7, XM

Model Year	X5 / X5 M			X6 / X6 M			X7			XM		
	Version	Basic	Professional	Version	Basic	Professional	Version	Basic	Professional	Version	Basic	Professional
1995												
1996												
1997												
1998												
1999												
2000												
2001	E53	CD53	BM53									
2002		CD53	BM53									
2003		CD53	BM53									
2004		CD53	BM53									
2005		CD53	BM53									
2006		CD53	BM53									
2007		CHAMP	CCC									
2008		CHAMP	CCC	E71	CHAMP	CCC						
2009		CHAMP	CCC		CHAMP	CCC						
2010	E70	CHAMP	CIC		CHAMP	CIC						
2011		CHAMP	CIC		CHAMP	CIC						
2012		CHAMP	CIC		CHAMP	CIC						
2013		CHAMP	CIC		CHAMP	CIC						
2014			HU-H		CHAMP	CIC						
2015	F15 / F85		HU-H	F16 / F86		HU-H						
2016			HU-H			HU-H						
2017			HU-H2			HU-H2						
2018			HU-H2			HU-H2						
2019	G05 / F95		HU-H3			HU-H2	G07		HU-H3			
2020			HU-H3	G06 / F96		HU-H3			HU-H3			
2021			HU-H3			HU-H3			HU-H3			
2022			HU-H3			HU-H3			HU-H3			
2023			HU-H3*			HU-H3*			HU-H4*	G09		HU-H4**
2024												

ASK	Audio System Controler
BM53	Radio Professional w/ Board Monitor
CCC	Car Communication Computer
CD53	Business Radio with MID
CHAMP	Car Information Computer Basic
CIC	Car Information Computer
HU-B	Head Unit - Basic
HU-B2	Head Unit - Basic Version w/ Nav
HU-H	Head Unit - High
HU-H2	Head Unit - High Version 2
HU-H3	Head Unit - High Version 3
HU-H4	Head Unit - High Version 4
MASK	Multi Audio System Controller
CD83	Next Generation Radios
RAD2	Basic Radio 2

*Listed Head Unit was installed until 4/2023 production.

**Listed Head Unit was installed until 8/2023 production.

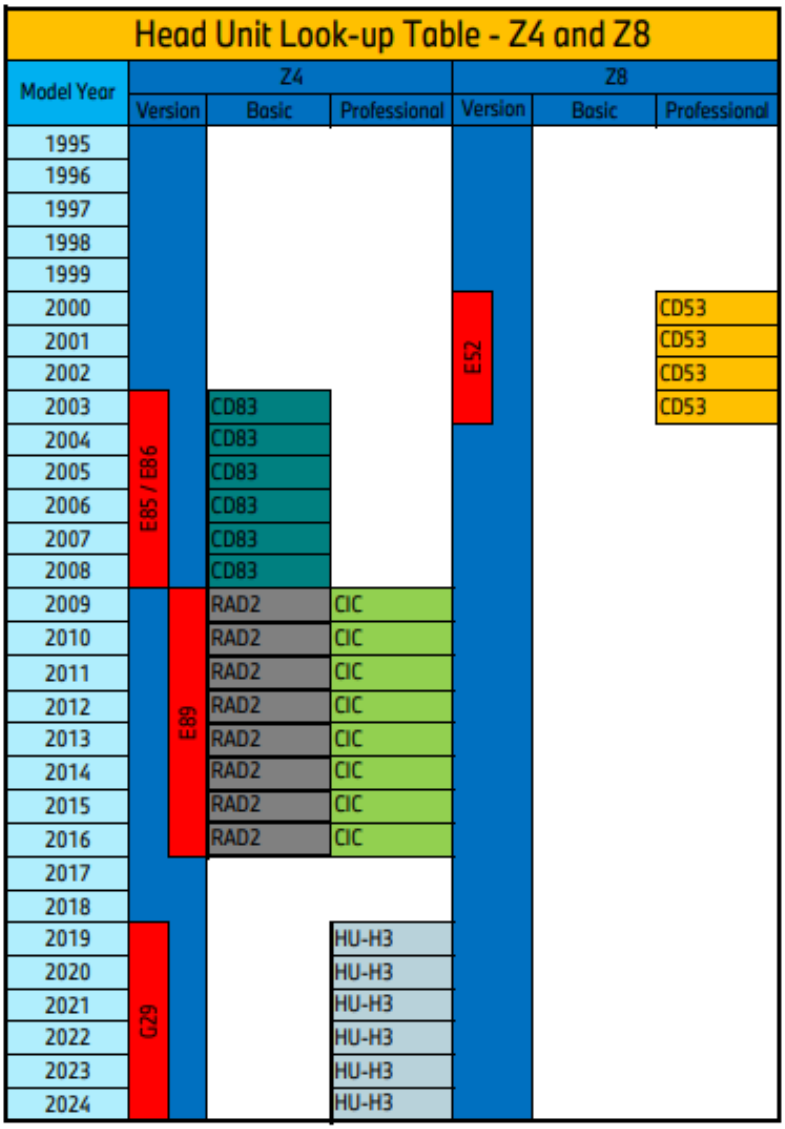
HEAD UNIT IDENTIFICATION 1995 - 2023

Head Unit Look-up Table - i3, i4, i8, iX												
Model Year	i3			i4			i8			iX		
	Version	Basic	Professional	Version	Basic	Professional	Version	Basic	Professional	Version	Basic	Professional
1995												
1996												
1997												
1998												
1999												
2000												
2001												
2002												
2003												
2004												
2005												
2006												
2007												
2008												
2009												
2010												
2011												
2012												
2013												
2014	I01		HU-H				I12		HU-H			
2015			HU-H						HU-H			
2016			HU-H						HU-H			
2017			HU-H						HU-H			
2018			HU-H2									
2019			HU-H2				I12 I15		HU-H2			
2020			HU-H2						HU-H2			
2021			HU-H2									
2022				G26		HU-H4				I20		HU-H4
2023						HU-H4						HU-H4*
2024												

ASK	Audio System Controler
BMS3	Radio Professional w/ Board Monitor
CCC	Car Communication Computer
CD53	Business Radio with MID
CHAMP	Car Information Computer Basic
CIC	Car Information Computer
HU-B	Head Unit - Basic
HU-B2	Head Unit - Basic Version w/ Nav
HU-H	Head Unit - High
HU-H2	Head Unit - High Version 2
HU-H3	Head Unit - High Version 3
HU-H4	Head Unit - High Version 4
MASK	Multi Audio System Controller
CD83	Next Generation Radios
RAD2	Basic Radio 2

*Listed Head Unit was installed until 3/2023 production.

HEAD UNIT IDENTIFICATION 1995 - 2023



ASK	Audio System Controler
BM53	Radio Professional w/ Board Monitor
CCC	Car Communication Computer
CD53	Business Radio with MID / MIR
CHAMP	Car Information Computer Basic
CIC	Car Information Computer
HU-B	Head Unit - Basic
HU-B2	Head Unit - Basic Version w/ Nav
HU-H	Head Unit - High
HU-H2	Head Unit - High Version 2
HU-H3	Head Unit - High Version 3
HU-H4	Head Unit - High Version 4
MASK	Multi Audio System Controller
CD83	Next Generation Radios
RAD2	Basic Radio 2

HEAD UNIT IDENTIFICATION 1995 - 2023

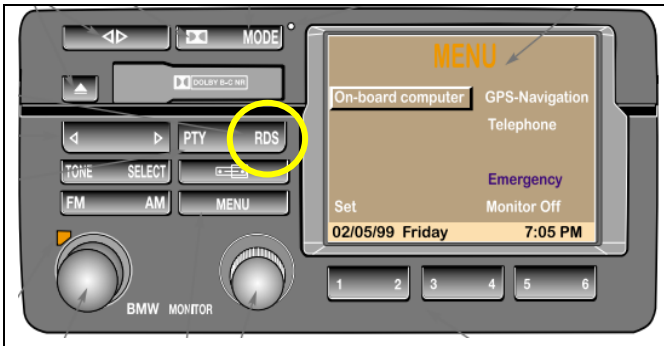
RADIO SERVICE MODES FOR BMW NG RADIOS (C53/CD53/BM53)

This iteration of radio head units was referred to as the NG Radios (Next Generation). The radios had multiple versions for different mediums (C = cassette tape, CD = compact disc, BM = board monitor). These radios required a signal from the I/K data line for operation. This was an early method of theft protection.

A service mode was available as both a diagnosis tool and also for changing radio settings. The method of entering the service mode varied depending on the device installed, but the functions were the same for all radios.

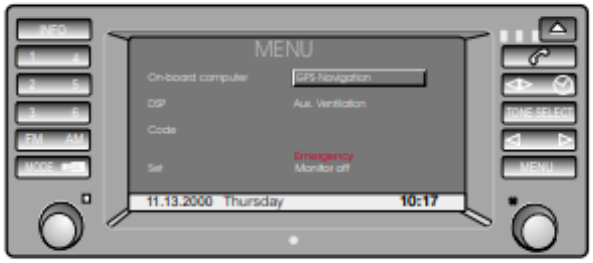
The BM53 and BM53 with Widescreen may have had additional Service Modes for Navigation and On-Board Monitor as listed below.

 	Radio Service Mode for C53/CD53 with and without Multi Information Display (MID): • Turn on the radio. • Within 8 seconds, press and hold the “m” button for 8 seconds. • Scroll through functions using the “+” and “-” keys or the station < > search buttons. • Turn off the radio to end the service mode.
	Radio Service Mode for C53 MIR: • Turn on the radio. • Within 8 seconds, press and hold the “SEL” button for at least 8 seconds. • Scroll through functions using the station < > search buttons. • Turn off the radio to end the service mode.



Radio Service Mode for BM53 with board monitor:

- Turn on the radio.
- Press and hold the “RDS” button for at least 8 seconds.
- Scroll through the functions using the station < > search buttons.
- Turn off the radio to end the service mode



Radio Service Mode for BM53 with Widescreen board monitor:

- Turn on the radio.
- Within 8 seconds, press the “INFO” button.
- From the info screen select RDS
- Press and hold the BM control knob for at least 8 seconds.
- Scroll through functions using the station < > search buttons.
- Turn off the radio to end the service mode

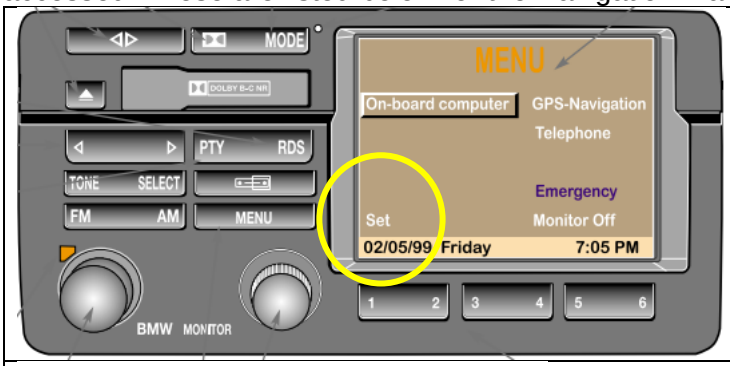
C53/CD53/BM53 Radio Service Mode Functions

1. Serial Number: Display of the radio serial number.
2. Software version: Display of the radio software version. Displayed as (calendar week, year, version)
3. GAL: Speed-sensitive volume control. Can be adjusted from level 1-6 using the 6 preset audio buttons. Vehicles equipped with DSP do not use this feature.
4. Field strength and Quality (F/Q): The station currently displayed can be assessed for field strength and quality.
    a. An “F” (i.e., F15) number is used to indicate the strength of the signal being received by the radio.
    b. A “Q” (i.e., Q-00) number is used to determine the quality of the radio
5. DSP: This function provides information about whether the vehicle is fitted with DSP. The value is displayed as a one (fitted) or zero (not fitted) and is communicated by the DSP amplifier via the I/K bus.
6. Area: Used to select the appropriate market setting (USA, Canada, Europe, Japan and Oceania). Adjust using the pre-set buttons.
7. Index: Display of the revision index.

station including both the audio and RDS signal if applicable.	

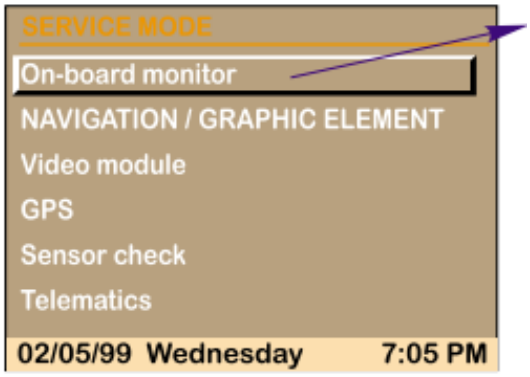
OTHER SERVICE MODES FOR BMW NG RADIOS (BM53 AND BM53 WIDESCREEN)

The navigation systems and on-board monitor will also have separate Service Modes that can be accessed. These are listed below for the Navigation Mark II and Mark III systems.



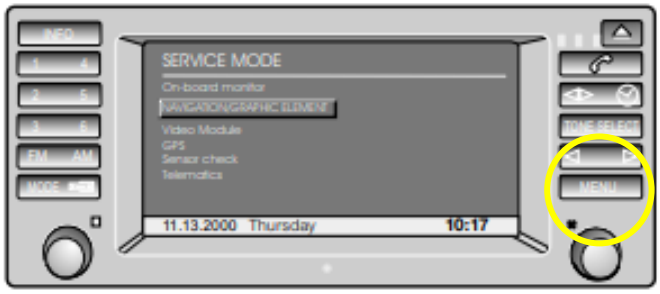
Mark II Navigation System and On-Board Monitor

1. From the Main Menu select “Set”.
2. Once in the Set function, press and hold the menu button for 8 seconds.
3. The next screen to appear is the SERVICE MODE menu.



A large number of functions can be tested from this menu.

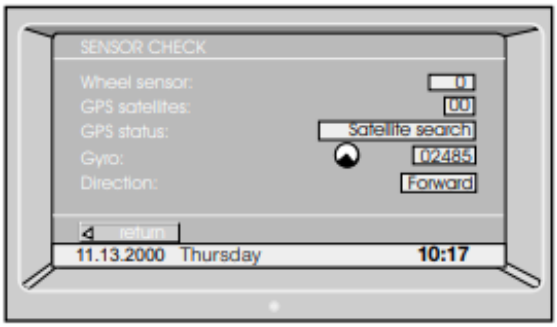
Please refer to the “E46 Complete Vehicle” training manual to find more in-depth data on the individual menus.



Service Mode main menu display

Mark III Navigation and On-Board Monitor:

1. Turn the ignition key to KL R.
2. From the Menu screen select “SET”.
3. Once in the Set screen, press and hold the “MENU” button for 8 seconds.
4. The Service Mode menu will appear on the display.
5. Select from the Service Mode menu for navigation specific tests



Tests and adjustments for the on-board monitor are:

- Version Information
- Key Function (button and rotary knob test)
- Screen Brightness Adjustment

A large number of Navigation functions can be tested from this menu.

Please refer to the “E46 Complete Vehicle” training manual to find more in-depth data on the individual menus.

HEAD UNIT IDENTIFICATION 1995 - 2023

SERVICE MODE FOR E83 AND E85 WITH NG RADIO AND CID

E83 (X3) and E85 (Z4) could come equipped with a modified NG Radio with a Central Information Display (CID). There were slight differences in appearances, but the method to enter the Service Mode was the same. For this attachment, the E83 will be the reference.

- Switch on the radio
- Press the “SEL” button within 8 seconds and hold for at least 8 seconds
- Switch off the radio to exit Service Mode

Menu	Screen Contents	Explanation
Serial Number	x1001035	Serial number of Device
Software Version	37-99 30	Software Statue WW/YY version
GAL	1-6	Stage of speed dependent volume adjustable with station buttons
FM	Frequency Station Identifier F... Q... D210	Frequency of Station Station Identifier being received Field Strength Quality of Station RDS identifier
DSP	0	Whether vehicle is equipped with DSP 1=DSP
TP volume	0	Not used in USA
AF (Alternate Frequencies	Auto	Not used in USA
Area	USA	2 = USA
Index	03	Revision index

The functions (and examples) listed in the adjacent table are now accessible in the service menu.

HEAD UNIT IDENTIFICATION 1995 - 2023

GENERAL INFORATION ON THE AUDIO SYSTEM CONTROLLER (ASK)

BMW began to see the need for a more thoroughly integrated infotainment system. With this need, BMW introduced the MOST BUS fiber-optic system in the audio/visual systems. This new faster BUS system and the additional audio features required a move away from a stand alone “radio” and towards a multi-component infotainment system. This began the iDrive Controller interface – versions ID1 and ID2 with the Audio System Controller (ASK).

SERVICE MODE FOR E65 IDRIVE (ASK)

The Controller can be used to gain access to Service mode functions of the Control Display. Service mode is a special function that provides information about the status of the display and MOST system.

It 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 control display and the control units in the MOST network.

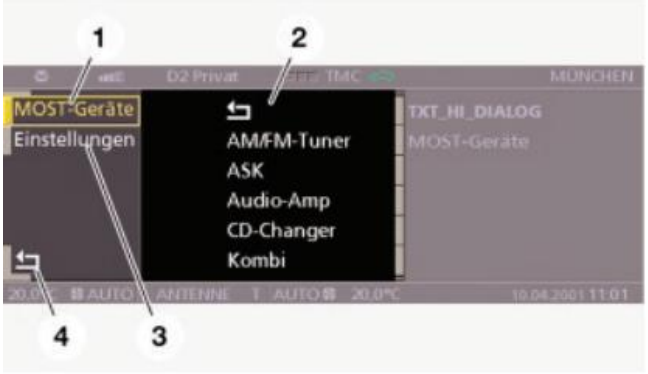
As an addition to the Test Modules of the Diagnosis Program, Service mode is a simple means of quickly accessing control module data without the need for a diagnosis tester.

Starting the service mode is somewhat like opening a safe. See as follows:

	• In the Basic menu display, press down the Controller for approximately 6 seconds. This step initializes the tactile feedback of the motor. (Hint: The help text flashes briefly when it is ready) • Turn Controller 3 increments clockwise (to the right). • Turn Controller 3 increments anti-clockwise (to the left). • Turn Controller 1 increment clockwise (right). • Turn Controller 1 increment anti-clockwise (left). • Turn Controller 1 increment clockwise (right). • Depress Controller to confirm.

Two menus are available in the Service Mode:

- MOST Devices
- Settings



1. MOST Devices Menu
2. List of Active MOST Nodes
3. Settings Menu
4. Back Button

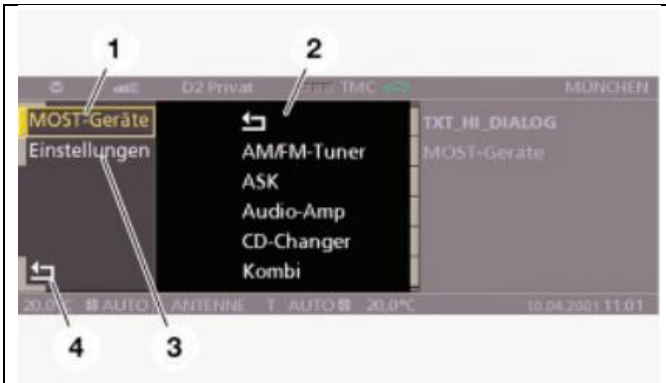
The Control Display knows how many MOST nodes there are, i.e., how many MOST nodes there are on the MOST ring bus. When retrieving the list of MOST control units fitted, the Control Display waits for a response from each MOST node. Every control unit on the MOST bus contains a MOST communication chip.

The navigation system control unit has two internal MOST nodes. The query which produces the list of MOST control units is answered by only one of the MOST nodes in the navigation system control unit.

The responding MOST node is represented as "Navigation" and the other MOST node as "Wait." This entry is not an error.

The function "MOST devices" provides a list of all nodes on the MOST network. When a control unit is selected, a scrollable list containing the following information appears:

- Part number
- Hardware number
- Coding Index
- Diagnosis index
- Variant index
- Date of Manufacture
- Manufacturer number
- Message catalog version
- Software version
- Operating system version



1. Settings Menu
2. Master Default
3. Enable/Disable RDS
4. Not used for U.S.
5. Back Button

The function "Settings" provides access to the following service settings:
- Reset all Vehicle and Key memory functions to default settings (Master default).
- Enable/disable audio system RDS (Radio Data System) function.

- Register/de-register cordless handset (SBDH). (not used in the U.S.)

To exit the service mode, select the "Back" button (arrow symbol) at the bottom left of the display or move the Controller horizontally.

HEAD UNIT IDENTIFICATION 1995 - 2023

GENERAL INFORMATION ON THE “PROFESSIONAL” RADIO (RAD 2)

The RAD 2 is the base head unit for many BMW models from 2006 to 2014. It allows for a quality sound experience from the audio system without the Navigation and Video functions included with other options.

The RAD 2 utilizes the MOST BUS system for smoother information communication as well as other K-BUS connections for integration into the vehicle systems. The radio combines the following features:

- Player for CD/MP3/WMA files
- Built in single radio tuner
- Most bus gateway to the K-CAN
- Liquid crystal display
- Board computer readout
- Personal profile management

The MP3 directory structure is the same as that of a PC. Up to 8 directory levels can be represented. A maximum of 255 directories and a total of 999 music tracks per CD can be managed.

SERVICE MODE FOR RAD 2

With the use of service mode, certain important functions can be checked directly at the head unit without the need for ISTA diagnosis. In addition, service mode can also be used to change head unit settings that are not intended for customer access.

To enter Service Mode, perform the following procedure.

This specific information and a deeper explanation of systems can be found on TIS under the “Training” tab. Reference the “E90 Complete Vehicle” manual.

Accessing Service Mode – RAD 2

- Switch on radio
- Within 8 seconds of radio activation, press and hold the "m" button
- Continue to press the “m” button for at least 8 seconds
- The various service menus can be toggled in service mode to display various menus
- Switch off the radio to exit service mode

The following service menus are available in the Service Mode:

Menu	Display content (example)	Explanation
Serial number	AL87013SPL0122	Serial number of device
Type	MC57CD72	Radio type
SW Ver	H8S 00-0000 4.25.1 ST10 18-3203 4.40.4	Device software status
Revision index	02	Revision index
GAL	3	Set level of speed-dependent volume control
ANT	AUTO	Aerial selection: ANT1 = FM1 aerial ANT2 = FM2 aerial ANT3 = FM3 aerial ANT4 = FM1 and FM2 aerials AUTO = Automatic selection of FM aerial with best reception
F/Q	FM1 / 1 / 89.3 / 5 / 11	Current FM memory Current memory location Current frequency Field strength of current station Signal quality of current station

DSP/Volume	DSP 1 V4	DSP 0 = No DSP installed DSP 1 = DSP installed V = Volume setting increment
TP-V	0	Traffic information setting, minimum volume Setting range: -9 to +9
Display check		Display check
Area	USA	Country-specific version: ECE = Europe USA = United States JPN = Japan OCE = Oceania
AF	Auto	RDS and alternative frequency tracking: RDS Off = RDS function not available as softkey button. AF Off = RDS function available, alternative frequency tracking off AF Man = RDS function available, alternative frequency tracking only active in mute pauses (e.g. station selection via station buttons, frequency band change, telephone muting) AF Auto = RDS function and automatic alternative frequency tracking active
Key memory	ON	To switch car and key functions on and off

RESETTING THE RAD 2

The RAD2 can only be reset by the following procedures:

- Switch system ON/OFF
- Disconnect the vehicle electrical system
- BMW diagnosis system

There is no button or key combination on the device for performing a reset.

HEAD UNIT IDENTIFICATION 1995 - 2023

GENERAL INFORMATION ON THE CHAMP AND CCC

The Car Communication Computer Basic (CHAMP) was the base head unit for the E60, E70 and E71. The Car Communication Computer (CCC) was the high-end head unit for many BMW models from 2004 to 2009.

These head units run the iDrive Interface – version ID3.

Index	Explanation	Index	Explanation
1	favorites buttons	4	CD drive slot
2	Rotary knob	5	Rocker switch for station selection/CD track skip
3	CD drive eject button		

CHAMP combines the following control units in the one housing:

- RDS double tuner
- Audio system controller
- Gateway between MOST and K-CAN
- Interface to the Central Information Display.

Only one CD Drive is housed in this unit.

Index	Explanation	Index	Explanation
1	DVD drive slot	5	CD drive eject button
2	favorites buttons	6	Rocker switch for station selection/CD track skip
3	Rotary knob	7	DVD drive eject button
4	CD drive slot		

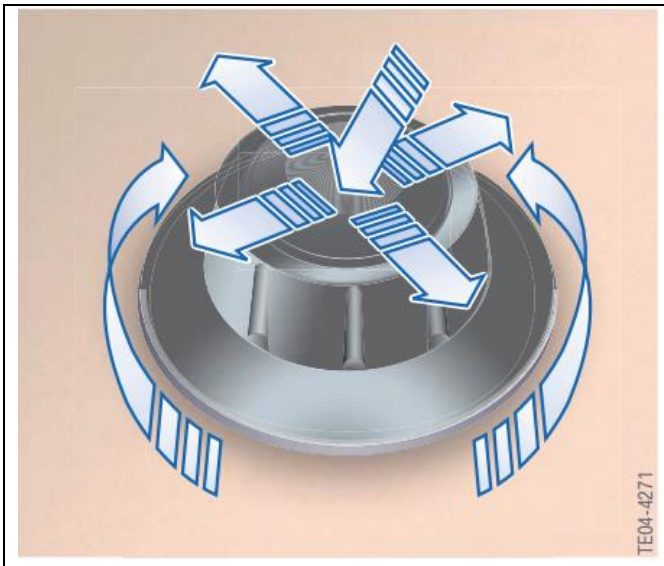
The CCC combines the following control units in one housing:

- Navigation computer/GPS module; map view and/or cursor view in the CID
- RDS double tuner
- Audio system controller (ASK)
- Gateway between MOST and K-CAN
- Interface to control display (LVDS).

Two drives are integrated in the housing:

- DVD player
- CD player

SERVICE MODE FOR THE CHAMP AND CCC



Service Mode is Accessed as Follows:

- Open Start menu
- Press and hold the controller for at least 10 seconds
- Move the controller 3 stops to the right
- Move the controller 3 stops to the left
- Move the controller 1 stop to the right
- Move the controller 1 stop to the left
- Move the controller 1 stop to the right
- Press the controller once.

Note: To exit Service mode press the Menu button.

RESETTING THE CHAMP AND CCC

All head units can be reset by following the procedure described below:

- Switch system ON/OFF
- BMW diagnostic system
- Disconnect from vehicle electrical system.

There is no specific button or button stroke combination on the CHAMP for performing a reset.

The CCC can be reset by simultaneously pressing and holding the eject buttons on the DVD and CD player and the rotary push button for approximately 10 seconds. The CID becomes blank. The CCC is then restarted.

Note: The MOST gateway (CHAMP, CCC) is muted for 2 seconds when a MOST control unit is reset.

HEAD UNIT IDENTIFICATION 1995 - 2023

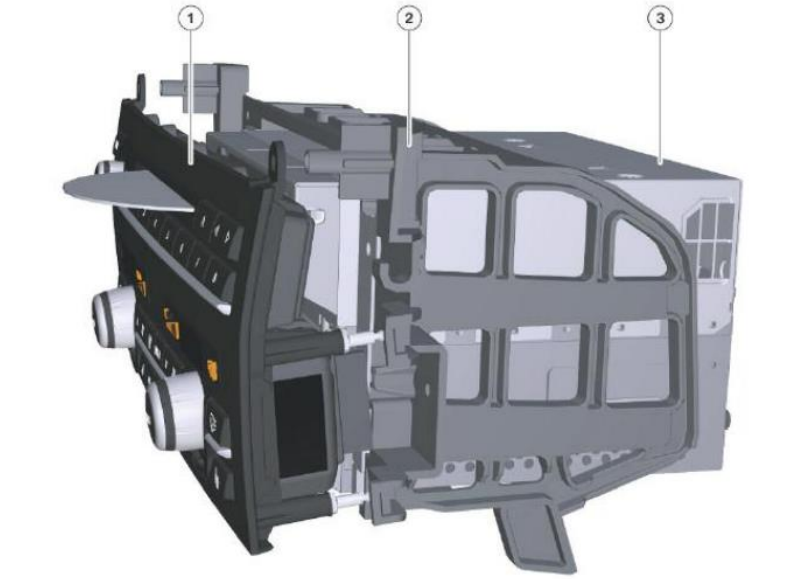
GENERAL INFORMATION ON THE CIC

The Car Information Computer (CIC) was the next step in head units after the CCC. With the CIC, audio files can be converted (ripped) or copied on the hard disk. Stored on the CIC-dedicated hard disk, fast access to these audio files is ensured. A choice of up to 3700 music files (12 Gigabytes) is also possible.

In terms of audio, the digital tuner (IBOC) and satellite tuner (SDARS) digital radio systems are now integrated into the head unit. The CIC also provides for connection and playback of tracks on a mobile phone music player, making it possible to access music tracks stored on a mobile phone.

The CIC utilized iDrive System – Version ID4.

SERVICE MODE FOR THE CIC



Index	Explanation	Index	Explanation
1	IHKA/audio control panel	3	Car Information Computer
2	Center console unit carrier		

The procedure for starting the Service menu with the "safe grip" has changed compared to the CCC system:

- Call up Start menu
- Push controller in forward direction for at least 10 s
- Controller 3 notches to the right
- Controller 3 notches to the left
- Controller 1 notch to the right
- Controller 1 notch to the left
- Controller 1 notch to the right
- Press controller once

The “Service menu” is now added as the last sub-menu in “Settings”

In the Service Menu, there are four sub menus:

- Navigation Service
- Telephone Service
- TV
- Gracenote

Note: TV is not used in the US market.

Navigation	Screen content (example)	Explanation
GPS		
GPS	Status Latitude: 12°34'56"N	GPS position data
GPS	Tracking 01: 03 14,3, 02 xx, yy, z	GPS satellites
GPS	Version Receiver SW Version/Date	Software version and date of manufacture of GPS receiver
Sensor test	Wheel sensors, GPS satellites, Gyro	Check of input signals
Map version	Map Database: 1.067	Map version number Database: 1.067
Location entry	Location Entry: Entry	Loop same as destination entry
Voice output test		

Information available on the Navigation Service Menu

Telephone	Screen content (example)	Explanation
BT Name	BMW 57502	Bluetooth name of BMW vehicle for pairing
NAD	51 dBm	GSM signal level of built-in telephone module
MCC/MNC	262 01	Mobile Country Code + Mobile Network Code; unique code for country and network provider with which the phone is currently registered.
ICC ID	89490200000537151529	Integrated Circuit identifier = Identifier of SIM card
IMEI	351231004373763	International Mobile Equipment Identity (IMEI) is a unique 15-digit serial number of the telephone transceiver
Registration status	Registered	Registered = SIM card enabled and logged into network; Not registered = SIM card enabled but currently no
Reception		
Signal strength	20/100	Relative signal strength of the built-in telephone module in percent (max 100 %)
GPS T/D	14:41:57 27.05.2008	Assist cannot be enabled if time and date are incorrect

Information available on the Telephone Service Menu

The Gracenote Service Menu shows you the current version installed and allows for installation of newer versions.

SDARS ESN NUMBER

	The ESN number is always shown in the “Options menu” of the satellite radio.

RESETTING THE CIC

The Car Information Computer can be reset by pressing the rotary push button (ON button) for 25 seconds. After 25 seconds, the control display becomes blank as a confirmation that the CIC is being restarted.

HEAD UNIT IDENTIFICATION 1995 - 2023

GENERAL INFORMATION ON THE HU-B

The Head Unit Basic (HU-B) replaced the CIC Basic and CIC Basic 2 (CHAMP 2) at the start of 2014.

The HU-B is offered in two main variants – Media Basic and Navigation. The Head Unit Basic in the Media variant was a successor to the Radio Professional (RAD2).

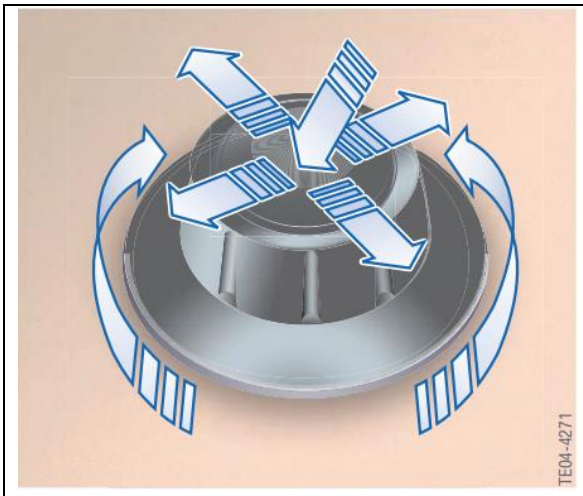
The HU-B with Navigation was offered with two navigation systems. The Navigation optional equipment (SA 6UN) or the Navigation Plus optional equipment (SA 6UP) with additional equipment, e.g. a Touch Controller and a larger CID. A larger flash memory with 32 Gigabytes is used for the navigation system, instead of the 4 Gigabyte flash memory for the media system. The reason behind this is for the permanent storage of map data.

With the HU-B, the customer benefited from better performance with more functions at an even more attractive price. Compared with previous versions of the Head Unit, the computing capacity had been increased by a factor of 2.5, and the graphics performance had been increased by a factor of 10.

For service, and especially for the workshop, this increase in size in the Head Unit family also brought an increase in complexity. The two HU-B variants were offered worldwide in 29 different hardware variants. This is explained by the significant increase in functions, compared with the previous Head Unit versions. The data storage is affected on flash memory devices.

	In addition, there is also a GPS module and a connection for the GPS aerial in the HU-B with Navigation. The yaw rate of the individual vehicles is no longer calculated for the HU-B using an internal yaw sensor. In vehicles with Integrated Chassis Management (ICM), the yaw rate is calculated by the ICM. The bus message is then conveyed to the Head Unit via FlexRay, central gateway module (ZGM) and K-CAN 2.

SERVICE MODE FOR THE HU-B



The Service Menu can be accessed by the following method:

- Start on the Main menu screen
- Shift up for 10 sec (hold controller in forward direction toward dashboard)
- 3 turns right
- 3 turns left
- 1 turn right
- 1 turn left
- 1 turn right
- Push down

“Service menu” can then be found under Vehicle Settings Menu all the way at the end.

HEAD UNIT IDENTIFICATION 1995 - 2023

GENERAL INFORMATION ON THE HEAD UNIT HIGH / HEAD UNIT HIGH 2 (HU-H / HU-H2)

The Head Unit High is equipped with a 1.3 GHz processor, 1 Gigabyte working memory, 8 Gigabyte flash memory and a 200 Gigabyte SATA hard disk. The flash memory and hard disk cannot be replaced separately.

The USB audio interface can also play video files as well as audio files. It is also used for importing/exporting data and updating navigation maps.

The Head Unit High has a modular design. The key systems for communication are integrated as modules in the Head Unit High. It includes the following components in a housing:

- 3 x tuner (FM)
- 2 x tuner (AM)
- Aerial diversity module
- IBOC decoder
- SDARS satellite tuner
- Audio system controller (ASK)
- Gateway
- Interface/Voltage supply CID (APIX).

The Head Unit High 2 is characterized by the following features:

- 1.5" DIN device (Head Unit High was a 2" DIN device)
- Texas Instruments® processor with 1.5 GHz and 2 cores
- 2 to 4 Gigabyte RAM
- Dirana III® AM/FM tuner
- Integrated DVD drive (not for BMW i and MINI vehicles)
- Hard disk with 200 Gigabyte storage capacity
- APIX-Data cable (new APIX standard 2)

With the introduction of the Head Unit High 2, there are now several ways to update the map data of the head unit:

- Update in BMW Service
- Updating by the customer
- Automatic updating.

The map data is updated up to four times a year. Here, a distinction is made between a full map update (update of all map data on the hard disk) and the automatic map update. The full map update (e.g. North America) can be carried out in the conventional way using a USB stick. The difference is that the data must be uploaded onto the USB stick (up to 2019).

The automatic map update takes place by means of the SIM card installed in the vehicle telematics module. The Nav map is updated only for the respective home region (e.g. North American Eastern Coast).

These Head Units operate on iDrive System – Version ID4+ through ID6.

SERVICE MODE FOR THE HU-H AND HU-H2

	• Start on the Main menu screen • Shift up for 10 sec (hold controller in forward direction toward dashboard) • 3 turns right • 3 turns left • 1 turn right • 1 turn left • 1 turn right • Push down “Service menu” can then be found under Vehicle Settings Menu all the way at the end. The “Service Menu” shows Navigation, Phone & Assist, TV, and Gracenote information.
	For the SDARS ESN: • Start in the Satellite Radio menu • Press OPTION button • Choose SHOW SUBSCRIPTION INFO It will show the ESN under RADIO ID and also the Sirius contact phone number.

HEAD UNIT IDENTIFICATION 1995 - 2023

GENERAL INFORMATION ON THE HEAD UNIT HIGH 3 (HU-H3)

The Head Unit High 3 HU-H3 has been installed in BMW vehicles model-specifically since 2018.
The user interface in the central information display is also adapted to the new head unit.

The display and operating concept are called BMW Operating System 7 (7th generation of iDrive).

No radio tuner (AM, FM, SDARS) is integrated in the head unit. The radio tuners are installed in a new control unit, the Receiver Audio Module (RAM).

For the first time, this head unit can not only be updated via the ISTA programming procedure, but also via a software update from the BMW back end. Via the Head Unit High 3 (HU-H3), the data is distributed to the respective control units during a Remote Software Upgrade (RSU).

Equipment	Head Unit High 3	Head Unit High 3 Flash HU-3_F
State of charge (SoC)	Intel Apollo Lake Premium	Intel Apollo Lake Premium
CPU Cores	4xAtom x7 2.4 GHz	4xAtom x7 2.4 GHz
DMIPS sustained/max	40 k/48.4 k	40 k/48.4 k
GPU	Gen 9, 18 cores, 750 Mhz	Gen 9, 18 cores, 750 Mhz
GFLOPS (FP32) sustained/max	173/216	173/216
RAM	6 GByte LP-DDR4 (4x12 Gbit)	6 GByte LP-DDR4 (4x12 Gbit)
RAM IF width (bit)	128	128
RAM frequency (MHz)	1,200	1,200
RAM transactions (MT/s)	2,400	2,400
RAM bandwidth (MB/s)	38,400	38,400
NAND (eMMC)	32 GByte	**128 GByte**
NOR (Boot Flash)	8 MB	8 MB
HDD	320 GByte	–

The specs for the HU-H3 and HU-H3 Flash are listed in the chart on the left.

SERVICE MENU FOR THE HEAD UNIT HIGH 3 (HU-H3)

Reach the Service menu as follows:

- Call up main menu
- Slide controller to the left for more than 10 seconds
- Turn controller 3 steps to the right
- Turn controller 3 steps to the left
- Turn controller 1 step to the right
- Turn controller 1 step to the left
- Turn controller 1 step to the right
- Press controller once.

The service menu is now added in the selection list of the setting as menu item "SERVICE MENU".

In the service menu for the Head Unit High only the selection menu Gracenote is still available.

HEAD UNIT IDENTIFICATION 1995 - 2023

GENERAL INFORMATION ON THE HEAD UNIT HIGH 4 (HU-H4)

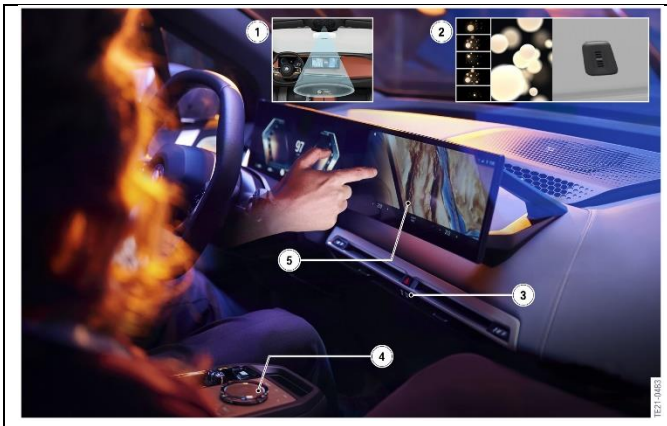
Since July 2021, control units from manufacturers Harman Becker and Alpine have been used as the Head Unit High 4 (HU-H4).

The Head Unit High 4 is equipped with service pack 2021, and is also offered at the factory with the optional equipment BMW Live Cockpit Professional (OE 6U3) and BMW Live Cockpit Plus (OE 6U2).

The HU-H4 also involves the implementation of the latest generation of the display and operating concept – BMW Operating System 8. This control system features a new “Apps” menu, for example, which enables access to all areas of the vehicle. This combines former smartphone apps with vehicle apps (from BMW Online) and apps related to the vehicle settings (e.g. interior lighting).

Features of the HU-H4:

- There is no longer a hard disk in the head unit. A flash memory, as in the Head Unit High 3 Flash, is installed instead.
- This head unit supports the “BMW Remote Software Upgrade” function in vehicles in BMW ConnectedDrive markets.
- There is no longer a “Service Menu” in the HU-H4 that can be accessed in the vehicle.

	HU-H4 enabled the upgrade of the BMW Operating System to the more interactive Multifunction Display.