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RADIO / NAVIGATION / HEAD UNIT IDENTIFICATION

TECHNICAL SERVICE BULLETIN

Reference Number(s): SI B65 09 16,Â Date of Issue:Â March 2016
BMW: All
GROUP: Audio, Navigation, Monitors, Alarms, SRS

SUBJECT

Radio / Navigation / Head Unit Identification

SITUATION

This bulletin outlines the different BMW head units and their nomenclature.

INFORMATION

OVERVIEW

The attachments to this bulletin provides a chronological overview of radio/navigation/head units used in recent BMW vehicles along with their option codes, model applications, service modes and other pertinent information.

SECURITY FEATURES

Early vehicles, up to E36, use radios that utilize a Security Code to ensure they cannot be used if stolen from a vehicle. For information on identification of these radios and how to obtain the Security Code please reference **SI B65 05 99** .

Vehicles starting with E38 use New Generation (NG) radios that utilize K/I bus security to ensure they cannot be used if stolen from a vehicle. These radios will only function when they see bus communication on the body bus communication line.

Starting with the Car Communication Computer (CCC) Head Unit we began using FSC Enable Codes to turn on different functionalities in a head unit. These head units are VIN burnt and if swapped into a different vehicle will cancel all loaded enable codes. You will have to contact technical service to create new enable codes for the head unit if it was swapped for testing.

NAVIGATION DATA

Please reference the SIB specified, in the following table, for information on the different available Navigation Software versions:

System Type	Reference Bulletin(s)
Mark I, Mark II, and Mark III Nav	**SI B65 21 02**
CCC Map installation	**SI B65 21 04**
CIC Map installation	**SI B65 04 10**
NBT / NBT-EVO / ENTRY Nav	**SI B65 13 12**
Â	**SI B65 10 15**
NBT EVO incremental Over the Air OTA	**SI B65 25 15**

WARRANTY INFORMATION

This bulletin is for information only

ATTACHMENTS

B650916 HEAD UNIT LOOKUP TABLE 1 2 3 4 SERIES

B65 09 16 Head Unit Lookup Table 1 2 3 4 Series

Model Year	1 Series			2 Series			3 Series / M3			4 Series / M4		
		Base	Nav		Base	Nav		Base	Nav		Base	Nav
1998							E46	CD53	BM MK-X			
1999								CD53	BM MK-X			
2000								CD53	BM53 MK-X			
2001								CD53	BM53 MK-X			
2002								CD53	BM53 MK-X			
2003								RAD2	I-Bus DVD			
2004								RAD2	I-Bus DVD			
2005								RAD2	I-Bus DVD			
2006							E90 E91 E92 E93	RAD2	CCC			
2007								RAD2	CCC			
2008	E82 E88	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	ENTRY C	CiC			
2013		RAD2	CiC					ENTRY C	CiC			
2014		RAD2	CiC	F22 F23	ENTRY	NBT		ENTRY C	NBT	F32 F33 F36	ENTRY	NBT
2015					ENTRY	NBT EVO		ENTRY	NBT		ENTRY	NBT
2016					ENTRY	NBT EVO		ENTRY	NBT EVO		ENTRY	NBT EVO
2017												

BM MK-X	Board Monitor BM I bus Navigation Computer
BM53 MK-X	Board Monitor BM-53 I bus Navigation Computer
CCC	Car Communication Computer
CD53	CD53 Business MID radio
CHAMP	Car Information Computer Basic
CiC	Car Communication Computer
ENTRY	Entry Head Unit Media
ENTRY C	Entry Head Unit Media by Continental
I-Bus DVD	I bus Navigation system used w BM-53
NBT	Car Infotainment Computer HU-H
NBT/EVO	Car Infotainment Computer Evolution HU-H2
RAD2	Radio 2

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B650916 HEAD UNIT LOOKUP TABLE 5 6 7 SERIES

B65 09 16 Head Unit Lookup Table 5 6 7 Series

Model Year	5 Series / GT / M5			6 Series / M6		7 Series			
		Base	Nav		Nav 100%		Base	CD Nav	DVD Nav
1995						E38	MID	BM MK-X	
1996							MID	BM MK-X	
1997	E39	MID + CD53	BM MK-X				MID	BM MK-X	
1998		MID + CD53	BM MK-X				MID	BM MK-X	
1999		MID + CD53	BM MK-X				MID	BM MK-X	
2000		MID + CD53	BM MK-X				MID	BM53 MK-X	
2001		MID + CD53	BM53 MK-X				MID	BM53 MK-X	
2002		MID + CD53	BM53 MK-X			E65 E66	ASK		I-Bus DVD
2003		MID + CD53	BM53 MK-X				ASK		I-Bus DVD
2004	E60 E61	MASK	CCC	E63 E64	CCC		ASK		I-Bus DVD
2005		MASK	CCC		CCC		ASK		I-Bus DVD
2006		MASK	CCC		CCC		ASK		I-Bus DVD
2007		MASK	CCC		CCC		ASK		I-Bus DVD
2008		CHAMP	CCC		CCC		ASK		I-Bus DVD
2009		CHAMP	CiC		CiC	F01 F02			CiC
2010		CHAMP	CiC		CiC				CiC
2011	F07 F10 F11	CHAMP2	CiC						CiC
2012		CHAMP2	CiC	F06 F12 F13	CiC				CiC
2013		CHAMP2	NBT		CiC				NBT
2014		NBT 100%			NBT				NBT
2015		NBT 100%			NBT				NBT
2016		NBT 100%			NBT	G12			NBT/EVO
2017					NBT/EVO				NBT/EVO

ASK	Audio System Controller
BM MK-X	Board Monitor BM I bus Navigation Computer
BM53 MK-X	Board Monitor BM-53 I bus Navigation Computer
CCC	Car Communication Computer

MID + CD53	CD53 Business MID radio
CHAMP	Car Information Computer Basic
CHAMP2	Car Information Computer Basic 2
CiC	Car Communication Computer
I-Bus DVD	I bus Navigation system used w ASK
MASK	Multi-Audio System Controller
MID	C53 Business MID radio
NBT	Car Infotainment Computer HU-H
NBT/EVO	Car Infotainment Computer Evolution HU-H2
RAD2	Radio 2

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B650916 HEAD UNIT LOOKUP TABLE X1 X3 X4

B65 09 16 Head Unit Lookup Table X1 X3 X4

Model Year		X1			X3			X4	
		Base	Nav		Base	Nav		Base	Nav
2001									
2002									
2003									
2004				E83	CD83	CD-82 DVD			
2005				E83	CD83	CD-82 DVD			
2006				E83	CD83	CD-82 DVD			
2007				E83	CD83	CD-82 DVD			
2008				E83	CD83	CD-82 DVD			
2009				E83	CD83	CD-82 DVD			
2010				E83	CD83	CD-82 DVD			
2011				F25	CHAMP2	CiC			
2012				F25	CHAMP2	CiC			
2013	E84	RAD2	CiC	F25	CHAMP2	CiC			
2014	E84	RAD2	CiC	F25	ENTRY	NBT			
2015	E84	RAD2	CiC	F25	ENTRY	NBT	F26	ENTRY	NBT
2016	F48	ENTRY	ENTRY NAV	F25	ENTRY	NBT/EVO	F26	ENTRY	NBT/EVO
2017	F48	ENTRY	ENTRY NAV	F25	ENTRY	NBT/EVO	F26	ENTRY	NBT/EVO

CD-82 DVD	BMW Central Information Display Navigation
CD83	BMW Business Radio
CHAMP2	Car Information Computer Basic 2
CiC	Car Communication Computer
ENTRY	Entry Head Unit Media
ENTRY NAV	Entry Head Unit Navigation
NBT	Car Infotainment Computer HU-H
NBT/EVO	Car Infotainment Computer Evolution HU-H2
RAD2	Radio 2

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B650916 HEAD UNIT LOOKUP TABLE X5 X6

B65 09 16 Head Unit Lookup Table X5 X6

Model Year		X5			X6	
		Base	Nav		Base	Nav
2001	E53	MID + CD53	BM MK-X			
2002	E53	MID + CD53	BM MK-X			
2003	E53	MID + CD53	BM-53 DVD			
2004	E53	MID + CD53	BM-53 DVD			
2005	E53	MID + CD53	BM-53 DVD			
2006	E53	MID + CD53	BM-53 DVD			
2007		CHAMP2	CCC			

2008	E70	CHAMP2	CCC	E71	CHAMP2	CCC
2009	E70	CHAMP2	CCC	E71	CHAMP2	CCC
2010	E70	CHAMP2	CiC	E71	CHAMP2	CiC
2011	E70	CHAMP2	CiC	E71	CHAMP2	CiC
2012	E70	CHAMP2	CiC	E71	CHAMP2	CiC
2013	E70	CHAMP2	CiC	E71	CHAMP2	CiC
2014	F15 F85	NBT 100%		E71	CHAMP2	CiC
2015	F15 F85	NBT 100%		F16 F86	NBT 100%	
2016	F15 F85	NBT 100%		F16 F86	NBT 100%	
2017	F15 F85	NBT/EVO 100%		F16 F86	NBT/EVO 100%	

BM-53 DVD	Board Monitor 53 I bus Navigation Computer
CCC	Car Communication Computer
MID + CD53	CD53 Business MID radio
CHAMP2	Car Information Computer Basic 2
CiC	Car Communication Computer
ENTRY	Entry Head Unit
MK-X	Board Monitor Mark II or Mark III Navigation
NBT	Car Infotainment Computer HU-H
NBT/EVO	Car Infotainment Computer Evolution HU-H2
RAD2	Radio 2

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B650916 HEAD UNIT LOOKUP TABLE I Z

B65 09 16 Head Unit Lookup Table i Z

Model Year	i3			i8		Z4			Z8	
		Base	Nav		100% Nav		Base	Nav		100% Nav
2000									E52	C53 MIR
2001									E52	C53 MIR
2002									E52	C53 MIR
2003						E85 E86	CD83	CD-82 DVD	E52	C53 MIR
2004						E85 E86	CD83	CD-82 DVD		
2005						E85 E86	CD83	CD-82 DVD		
2006						E85 E86	CD83	CD-82 DVD		
2007						E85 E86	CD83	CD-82 DVD		
2008						E85 E86	CD83	CD-82 DVD		
2009						E89	RAD2	CiC		
2010						E89	RAD2	CiC		
2011						E89	RAD2	CiC		
2012						E89	RAD2	CiC		
2013						E89	RAD2	CiC		
2014	i01	ENTRY	NBT	i12	NBT	E89	RAD2	CiC		
2015	i01	ENTRY	NBT	i12	NBT	E89	RAD2	CiC		
2016	i01	ENTRY	NBT	i12	NBT	E89	RAD2	CiC		
2017										

C53 MIR	Multi Information Radio
CD-82 DVD	BMW Central Information Display Navigation
CD83	BMW Business Radio
CiC	Car Communication Computer
ENTRY	Entry Head Unit
NBT	Car Infotainment Computer HU-H
RAD2	Radio 2

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B650916 SERVICE MODE ASK E65 IDRIVE

Workshop Hints

Service Mode

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.

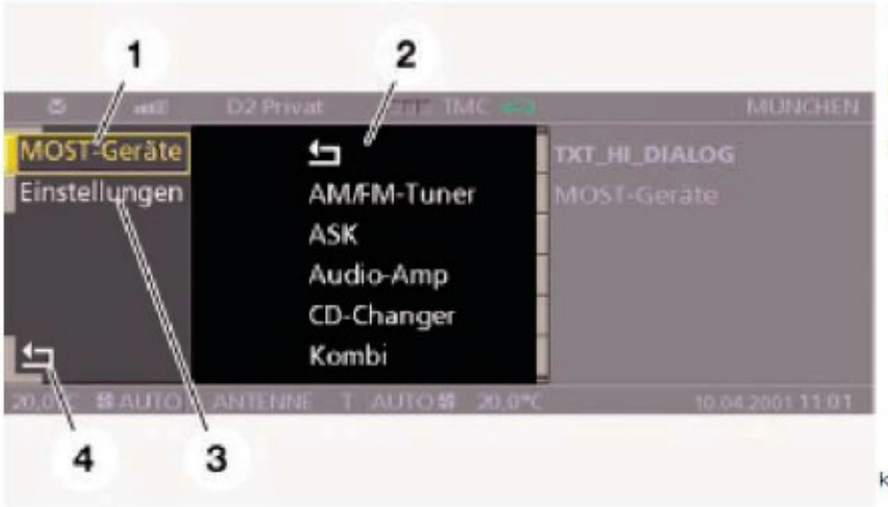
It is designed for use by Service Technicians and is not intended to be accessible to vehicle owners.

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:

- 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.



kt-9039

1. **MOST devices menu**
2. **List of found 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.

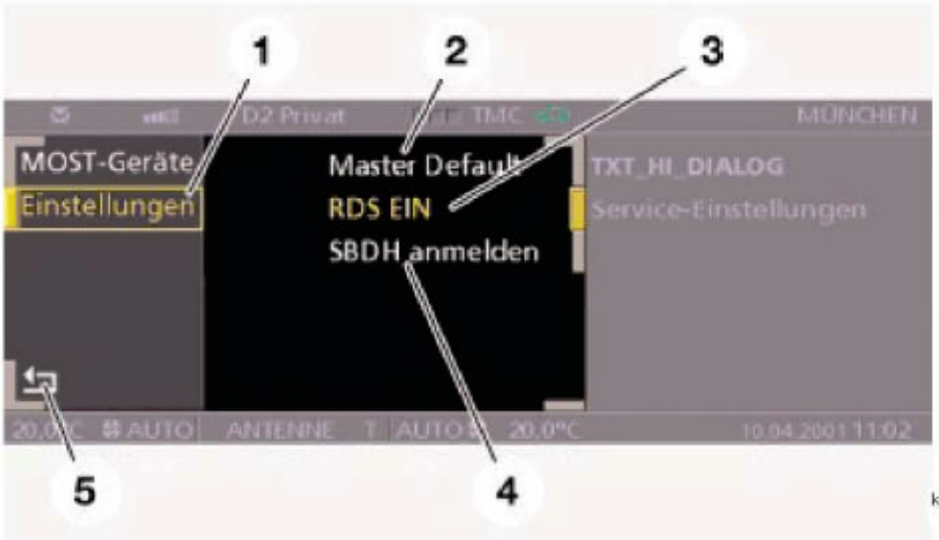
The navigation system control unit has two internal MOST nodes. The query which produces the list of MOST control units is answered by only one of the MOST nodes in the navigation system control unit.

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. phone.**
5. **Back-button.**

kt-9040

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.)

The service mode is exited by selecting the "Back" button (arrow symbol) at the bottom left of the display or by moving the Controller horizontally.

B650916 SERVICE MODE BM53 BOARD MONITOR

B65 09 16 Service Mode BM53 Board Monitor

Principle of Operation

The on-board monitor is an input and display device that performs no internal calculations.

Inputs from the control panel buttons and knobs are converted into I-bus (K-bus E46) signals by the BM control panel. All of the devices controlled by the BM are connected to the I/K bus interface.

The navigation computer contains the graphics stage integrated into the navigation computer housing. Request for on-board monitor displays are made to the navigation computer via the I/K bus. The navigation computer generates the RGB video signals and transmits them via 3 shielded wires.

Audio signals generated by the cassette drive are sent via traditional audio wires (4) to the radio (located in the trunk or cargo area) for output to the audio system amplifier.

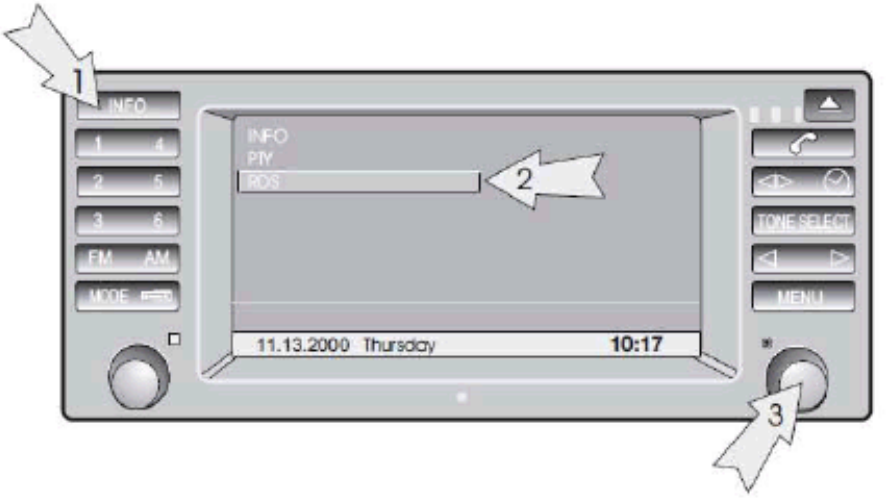
Workshop Hints

Service mode

Access for the radio, on-board monitor and navigation service modes is available through the on-board monitor screen.

To enter the radio service mode:

- Turn the ignition key to position 1 (KLR).
- Turn the radio on, then off, then on again.
- Press the "INFO" button. From the selection list choose "RDS".
- Press and hold the on-board monitor control knob for at least 8 seconds.
- The audio display window will show the radio serial number as the first display.
- The station search < > buttons are used to scroll through the various settings.
- Turn off the radio to "set" any changes made.

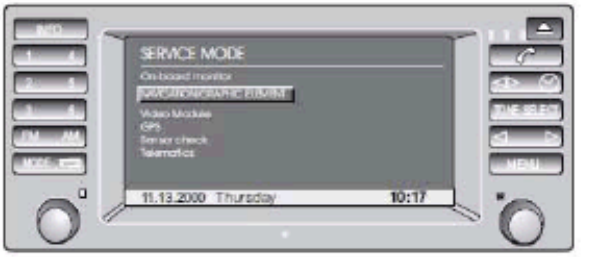


Note: See the "NG" Radios module for a list of the tests and settings available in the radio service mode.

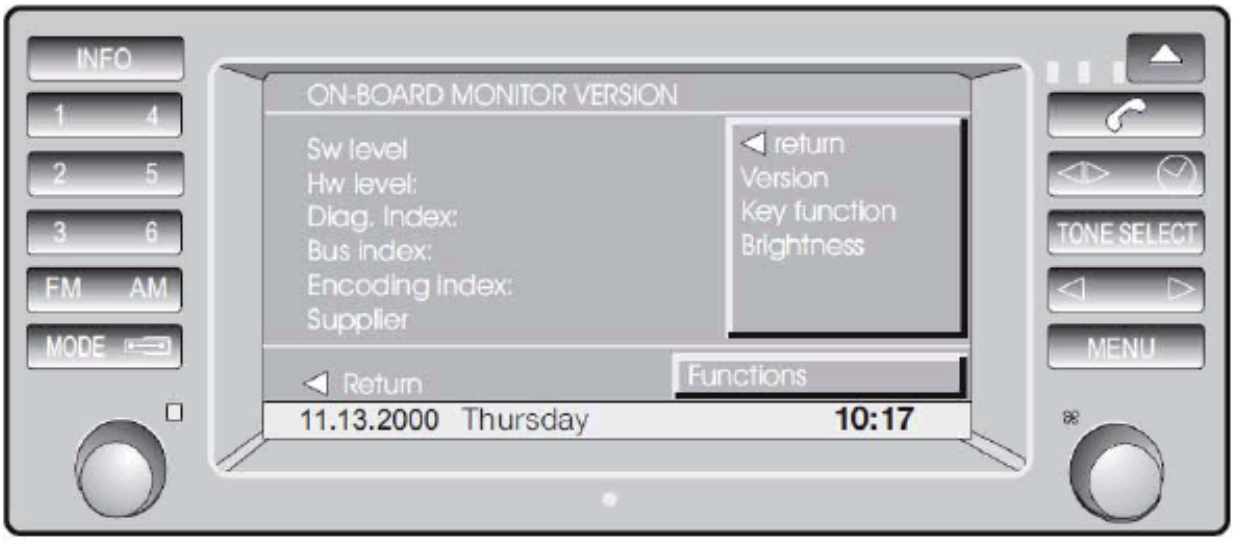
To enter the On-Board Monitor and Navigation Service Mode:

- Turn the ignition key to position 1 (KL R).
- From the Menu screen select "SET".
- Once in the Set screen, press and hold the "MENU" button for 8 seconds.
- The Service Mode menu will appear on the display.
- Select "On-board monitor" for monitor specific tests.

Press and hold for 8 seconds after entering the "SET" screen.



Service Mode main menu display



Tests and adjustments available for the on-board monitor are:

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

B65 09 16
Service Mode
C53 CD53 MID
BM53 BM53Wide

Workshop Hints

Service Mode for NG Radios

A service mode is available as on previous radios as a diagnosis tool and for changing radio settings. Entering the service mode varies by the device used to control the radio.

To enter the service mode:

C53/CD53 with and without 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.

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.

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.

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

Service Mode Functions

1. **Serial Number:** Display of the radio serial number.

2. **Software version:** Display of the radio software version. Displayed as (calender week, year, version)

3. **GAL:** Speed-sensitive volume control. Can be adjusted from level 1-6 using the 6 pre-set 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. An "F" (i.e. F15) number is used to indicate the strength of the signal being received by the radio. This is a good test of the antenna system, station signal, and the radio itself. A "Q" (i.e. Q-00) number is used to determine the quality of the radio station including both the audio and RDS signal if applicable.

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. **TP Volume:** Provides adjustment for traffic report minimum volume. Not used in the US.

7. **AF:** Alternative Frequency tracking setting. Not used in the US.

8. **Area:** Used to select the appropriate market setting (USA, Canada, Europe, Japan and Oceania). Adjust using the pre-set buttons.

9. **Index:** Display of the revision index.

B650916 SERVICE MODE CCC E70

B65 09 16 Service Mode CCC E70

Top-HiFi Amplifier

- Output of sinus tones by means of an internal sine-wave generator (configurable parameters: frequency, volume, speaker channel)
- Separate control of individual audio channels

Antenna Diagnosis

Antenna diagnostics on the E70 proceeds in the same way as diagnostics on the BMW 3 Series (E90, E91, E92), BMW 5 Series (E60, E61) and BMW 6 Series (E63, E64):

The self-diagnosis procedure for the diversity module is initiated in the diagnosis module of the BMW diagnosis system. The self-diagnosis comprises a check of the antenna inputs based on a DC measurement.

If the check proves positive, each individual FM antenna is switched on one after the other in a specified sequence and the signal quality evaluated (antenna scan). The AM reception can be evaluated in the LW, SW and MW range with the AM amplifier switched on and off. The diagnosis system evaluates the measurements and deduces the status when the self-diagnosis of the diversity module provides a positive result.

This procedure can also be carried out manually by switching the CHAMP into service mode:

The signal quality and field strength of the station currently tuned in can be displayed in service mode.

Service Mode

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.

B650916 SERVICE MODE CID E83 X3

B65 09 16 Service Mode CID E83 X3

Service Mode

BMW Business CD

The following procedure applies to BMW CD radio and Business CD:

- Switch on the radio
- Press the "m" button within 8 seconds and hold for at least 8 seconds
- The functions listed in the following table are now possible via the service menu
- Switch off the radio to exit service mode

CID Radio

The following procedure applies to BMW CID Radio:

- 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

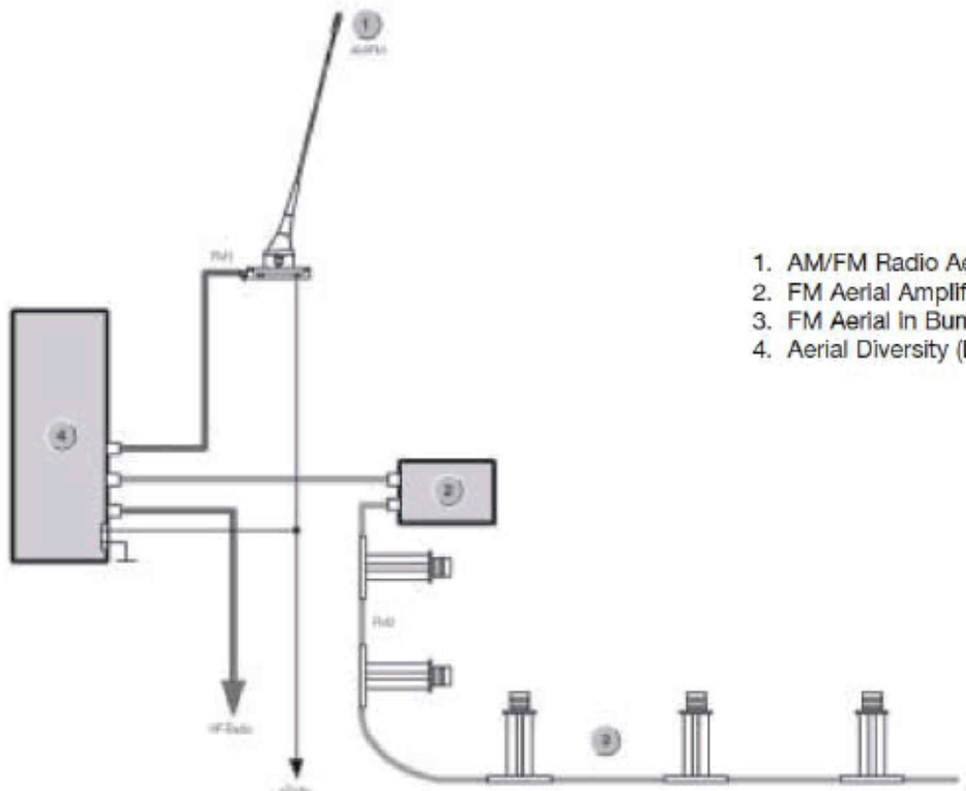
Car and Key Memory

The following functions are stored in car and key memory:

- Sound settings
- Audio source
- The last station accessed is stored

B650916 SERVICE MODE CID E85 Z4

B65 09 16 Service Mode CID E85 Z4



1. AM/FM Radio Aerial
2. FM Aerial Amplifier
3. FM Aerial In Bumper (Located LR Bumper)
4. Aerial Diversity (Located in LR Trunk)

Aerial amplifier
The aerial amplifier is designed for FM reception. The aerial amplifier is connected to the aerial diversity by means of a coaxial cable.

Service mode for Radios

Service mode is used for a quick check of the most important radio functions. In the event of a customer complaint or malfunction, several important functions can be checked directly at the radio with the aid of the service function. It is necessary to access service mode for this purpose.

Service Mode for Business-CD

- Switch on radio
- Press the "m" button within 8 seconds and hold for at least 8 seconds
- The functions listed in the following table are now possible via the service menu
- Switch off the radio to exit service mode

Service Mode for Radios CID

- Switch on radio
- Press the "SEL" button within 8 seconds and hold for at least 8 seconds
- The functions listed in the following table are now possible via the service menu
- 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

Notes for Service

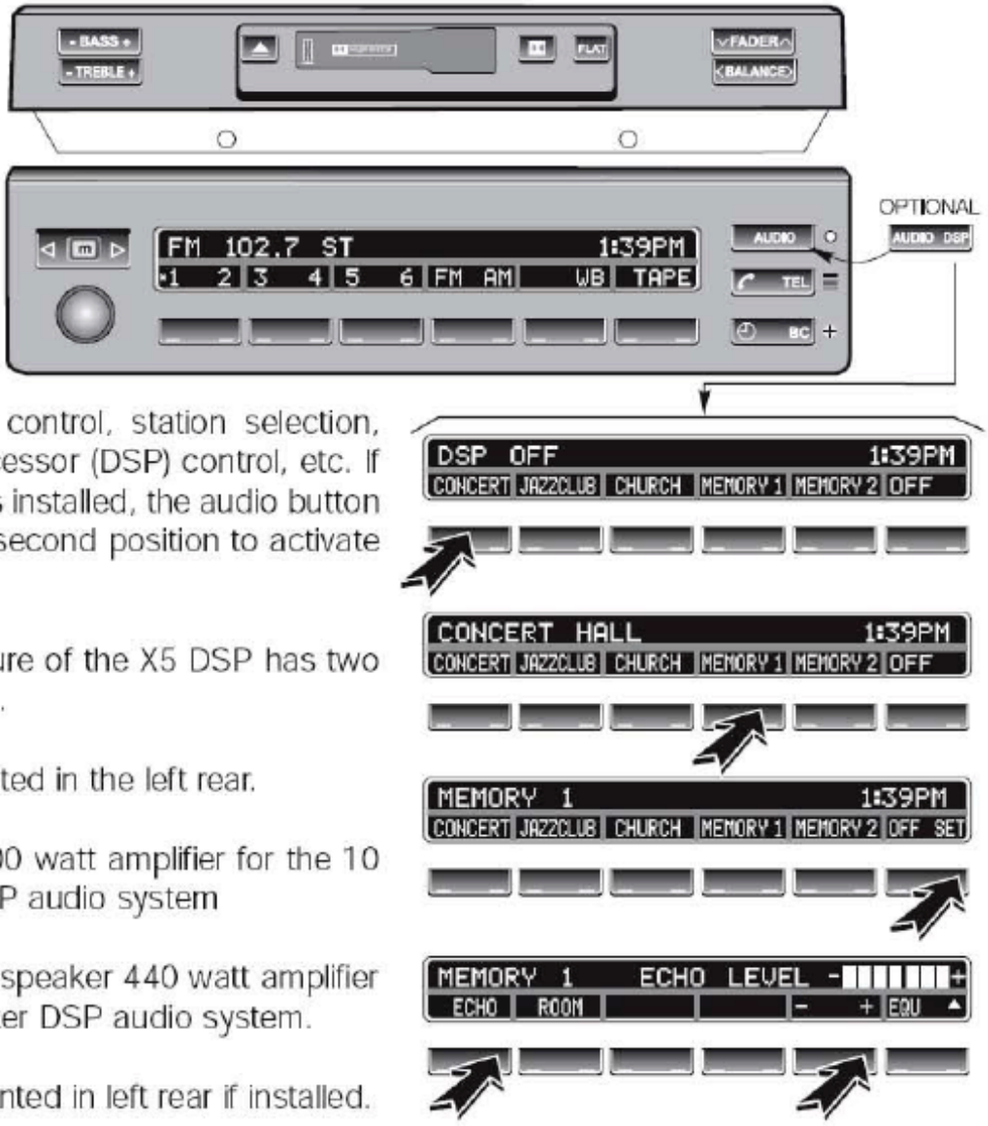
- FM aerial

The FM aerial must be checked in the event of damage to the bumper (accident). The aerial line must neither be shortened nor lengthened.
The correct position of the spacers for the aerial must be ensured. The aerial is matched to the metallic body structure. Changes to the body structure greatly influence the aerial function.

B650916 SERVICE MODE MID E53

AUDIO SYSTEM

The X5 Audio system consists of:



- **Radio/Tape player** - houses radio electronics, tape player, treble, bass, fader, balance adjustments.
- **MID** - for ON/OFF, volume control, station selection, digital sound processor (DSP) control, etc. If the DSP system is installed, the audio button in the MID has a second position to activate the controls.

  The memory feature of the X5 DSP has two memory positions.
- **Amplifier** - Mounted in the left rear.

  - The standard 200 watt amplifier for the 10 speaker non DSP audio system

  - The optional 12 speaker 440 watt amplifier for the 12 speaker DSP audio system.
- **CD Player** - mounted in left rear if installed.
- **MFL Controls**

RADIO TEST FUNCTION: To activate the test switch the radio on and within 8 seconds press and hold the "m" button for more than 8 seconds. The displayed tests include:

- Radio Serial Number • Radio Production date • DSP Recognition (1/0)
- Station signal Strength • Road speed dependent volume control (GAL 1-4)
- Area Use Control - ECE, US, Canada selections • AF - Manual or Off (Audio freq.)
- TP-V (Traffic Program Volume)

Adjusting the GAL makes the volume increase more noticeable (4) or less noticeable (1).

B650916 SERVICE MODE MK2 MK3 NAVIGATION

Service Mode

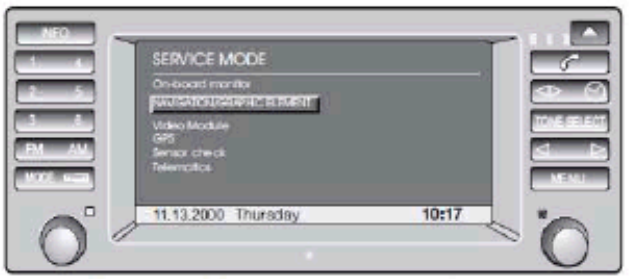
Just as Mk-2, Mk-3 provides an on-screen service mode for diagnosis. The service mode provides five different test screens:

- On-board monitor
- Navigation/Graphic element
- GPS
- Sensor Check
- Telematics

To enter the Navigation Service Mode:

- Turn the ignition key to position 1 (KL R).
- From the Menu screen select "SET".
- Once in the Set screen, press and hold the "MENU" button for 8 seconds.
- The Service Mode menu will appear on the display.
- Select from the Service Mode menu for navigation specific tests.

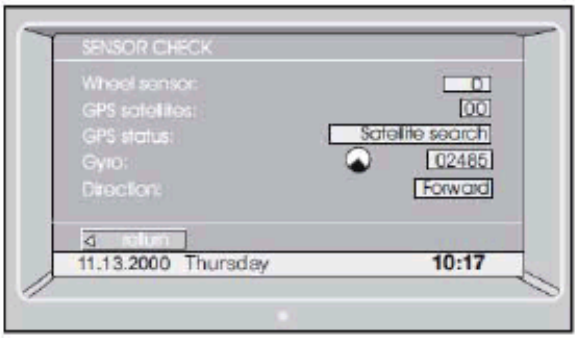
Press and hold for 8 seconds after entering the "Set" mode

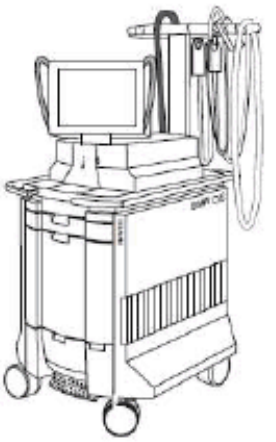


Service Mode main menu display

Diagnosis

Diagnosis is carried out using Test Modules in the Diagnosis Program as well as on-screen in the Service mode.The Sensor Check display is intended to be used while test driving the vehicle. The following pages contain charts with explanations of the Service Mode display.





Service Information

Radio Service Mode

In the case of customer complaint or malfunctions, certain important functions can be checked directly at the radio with the aid of service mode. This service mode can also be used to implement settings that are not intended for the customer. For this purpose, it is first necessary to enter service mode. This procedure differs for the RAD2 and CCC.

Accessing Service Mode - Rad2

- Switch on radio
- Within 8 s, press and hold the "m" button for at least 8 s
- The various menus can be selected in service mode
- Switch off the radio to exit service mode

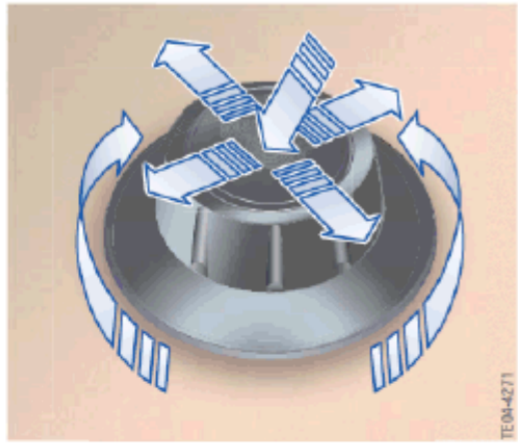
Information Available

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	ECE	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 soft-key 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

Accessing Service Mode - CCC

The only information available in the CCC are software, hardware, and system status numbers. The information is primarily intended for equipment development purposes. More is planned for the future.

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



To exit Service mode press the Menu button.

Reset

The RAD2 can only be reset by the following procedures:

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

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

The 'Professional' navigation system (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 s. The CID becomes blank. The CCC is then restarted.

3 The MOST gateway ('Professional' radio, M-ASK or CCC) is muted for 2 s when resetting a MOST control unit. 1

Interference in Radio Reception

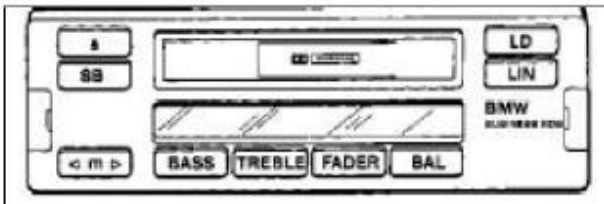
Check the following in the event of interference in radio reception:

- Power supply terminal Rad_On for the antenna amplifiers in the diversity module.
- Antenna connector at diversity module
- Antenna connector at radio or navigation system

Note: Care must be taken as the antenna plug connection may be damaged due to the restricted package space behind the CCC.

B650916 HEAD UNIT OVERVIEW

Radio / Navigation / Head Unit Identification



MID Radio – Multi- Information Display

SA**661** – Radio BMW Business

ETK splits this into multiple pieces:
-Information display
-Radio BMW Business (CD / cassette drive)

Utilized for the audio system, telephone, and board computer. Depending upon options the MID is coupled with an external CD or Cassette drive.

Used in vehicles:
E38 7 Series SOP to EOP
E39 5 Series SOP to EOP
E53 X5 SOP to 2002

BM - Radio & Navigation On-Board Monitor

SA**609** Navigation System Professional

Utilized for the audio system, Navigation, telephone, and board computer.

Used in vehicles:
E38 7 Series Mark I Nav 10/96 to 9/97
E38 7 Series Mark II Nav 9/97 to 9/00
E39 5 Series Mark I Nav 10/96 to 9/97
E39 5 Series Mark II Nav 9/97 to 9/00
E46 3 Series Mark II Nav SOP to 9/01
E53 X5 Mark II Nav SOP to 1/01

BM53_WIDE - Wide Screen Color On-Board Monitor – BM53-DVD

SA**609** Navigation System Professional

Utilized for the audio system, Navigation, telephone, and board computer.

Used in vehicles:
E38 7 Series Mark III 9/00 to EOP
E39 5 Series Mark III 9/00 to EOP
E46 3 Series Mark III 9/01 to EOP
E53 X5 Mark III 1/01 to EOP

CD53 – Business with in-dash CD
or
C53 – Business with Cassette

SA**650** CD Player
or
SA**661** – Radio BMW Business (cassette)

Utilized for the audio system

Used in vehicles:
E46 from 3/01

	CD53 MID– Business with MID control & in-dash CD or **C53 MID**- Business with MID control & cassette SA**661** – Radio BMW Business & SA**650** CD Player or SA**661** – Radio BMW Business (cassette) Utilized for the audio system <u>Used in vehicles:</u> E39 from 9/00 E53 from 10/00
	C53 MIR – Multi Information Radio Business MIR without cassette SA**645** Radio Control US ETK calls this Radio BMW Navigation Utilized for the audio system, Navigation, telephone, and board computer <u>Used in vehicles:</u> E52 Z8 from SOP to EOP
	ASK – Audio System Controller SA**609** – Navigation system & SA**650** – in dash CD player M.Y. 2001-2003 Vehicles with SA609 and without SA650 received an in-dash cassette player. M.Y. 2004 – EOP Vehicles defaulted to the CD

	ASK and did not contain SA650. Vehicles that were ordered with a cassette drive had additional SA**670** – Cassette Drive Utilized for the audio system, Navigation, telephone, and board computer in conjuncture with the I Drive system. **Map** – North American map DVD ***HIGH*** version Used in vehicles: E65 7 Series from SOP to EOP
	MASK – Multi-Audio System Controller SA**663** – Radio BMW Professional Utilized for the audio system, telephone, and board computer in conjuncture with the I Drive system. Used in vehicles: E60 5 Series from SOP to 3/2007 E61 5 Series wagon from SOP to 3/2007
	CHAMP – M-Audio System Controller SA**663** – Radio BMW CHAMP Professional Utilized for the audio system, telephone, and board computer in conjuncture with the I Drive system. Used in vehicles: E60 5 Series from 3/2007 to EOP E61 5 Series wagon from 3/2007 to EOP
	CCC – Car Communication Computer SA**609** - Navigation System Professional Utilized for the audio system, Navigation, telephone, and board computer in conjuncture with the I Drive system. **REQUIRES ENABLE CODES** FSC/SWT **Map** – North America map DVD ***Professional*** version (CCC)

Used in vehicles:
E60 5 Series from SOP to 4/08
E61 5 Series Wagon from SOP to 4/08
E63 6 Series Coupe from SOP to 4/08
E64 6 Series Convertible from SOP to 4/08
E70 X5 from SOP to 9/08
E71 X6 from SOP to 4/08
E90 3 Series Sedan from SOP to 4/08
E91 3 Series Wagon from SOP to 4/08
E92 3 Series Coupe from SOP to 4/08
E93 3 Series Convertible from SOP to 4/08
E82 1 Series Coupe from SOP to 9/08
E88 1 Series Convertible from SOP to 9/08

CIC High – Car Communication Computer

SA**609** - Navigation System Professional

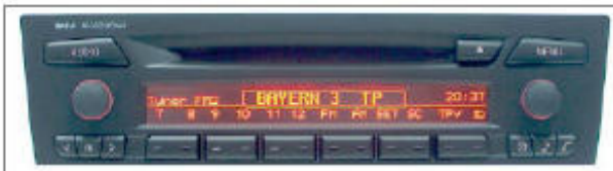
ETK calls this Car Infotainment Computer

Utilized for the audio system, Navigation, telephone, and board computer in conjuncture with the I Drive system.

REQUIRES ENABLE CODES FSC/SWT

Map – North America map ***Premium*** version (CIC) - uses map enable code **2D**

Used in vehicles:
F01 F02 7 Series Sedan from SOP to 7/12
F04 7 Series Hybrid from SOP to 7/12
F07 5 Series GT from SOP to 7/12
F10 5 Series Sedan from SOP to 7/12
F10H 5 Series Hybrid from SOP to 7/12
E60 5 Series from 4/08 to EOP
E61 5 Series Wagon from 4/08 to EOP
F06 6 Series GC from SOP to 7/13
F12 6 Series Convertible from SOP to 7/13
F13 6 Series Coupe from SOP to 7/13
E63 6 Series from 4/08 to EOP
E64 6 Series from 4/08 to EOP
E84 X1 from SOP to EOP
F25 X3 from SOP to 7/13
E70 X5 from 9/08 to EOP
E71 X6 from 4/08 to EOP
E72 X6 Hybrid from SOP to EOP
E90 3 Series Sedan from 4/08 to EOP
E91 3 Series Wagon from 4/08 to EOP
E92 3 Series Coupe from 4/08 to EOP
E93 3 Series Convertible from 4/08 to EOP
E82 1 Series Coupe from 9/08 to EOP
E88 1 Series Convertible from 9/08 to EOP
E89 Z4 from SOP to EOP

	CHAMP2-Car Information Computer Basic 2 Alpine SA**663** – Radio Professional **REQUIRES ENABLE CODES** FSC/SWT **Map** – Road map North America ***Move-*** uses map enable code **89** E70 X5 from 10/2006 to EOP E71 X6 from 10/2007 to EOP F10 5 Series from 1/2010 to 7/2013 F25 X3 from 1/2010 to 7/2013
	Radio BMW Professional CD **RAD2** by Alpine – from SOP to 9/2007 **RAD2** by Conti – from 9/2007-9/2009 **RAD2+** by Conti – from 9/2009-9/2010 SA**663** Radio BMW Professional Utilized for the audio system, telephone, and board computer in conjuncture with the I Drive system. **REQUIRES ENABLE CODES** FSC/SWT <u>Used in vehicles:</u> E90 3 Series Sedan from SOP to 9/2010 E91 3 Series Wagon from SOP to 9/2010 E92 3 Series Coupe from SOP to 9/2010 E93 3 Series Convertible from SOP to 9/2010 E82 1 Series Coupe from SOP to EOP E84 X1 SOP to EOP E88 1 Series Convertible from SOP to EOP E89 Z4 SOP to EOP
	CD-83 BMW Business Radio with in dash CD player SA **662** Radio BMW Business CD Utilized for the audio system. <u>Used in vehicles:</u> E85/86 Z4 from SOP to EOP E83 X3 from SOP to EOP
	CD-82 BMW Central Information Display Radio CID Radio with Navigation – CD-82 DVD **SA609** Navigation System Professional

	Utilized for the audio system, telephone, CD, and board computer in conjuncture with the I Drive system. Used in vehicles: E85 Z4 from SOP to EOP E83 X3 from SOP to EOP
	BMW CD Business with CD **SA662** In-dash CD player Used in vehicles: E85 Z4 from SOP to EOP E89 X3 from SOP to EOP
	ENTRY CONTI – Entry Media by CONTInental SA**663** Radio Professional CD Utilized for the audio system, telephone, and board computer in conjuncture with the I Drive system. **REQUIRES ENABLE CODES** FSC/SWT Used in vehicles: F30 from SOP to 7/2013
	ENTRY – Entry Media or Entry Navigation SA**650** In-dash CD player SA**663** Radio Professional CD SA**606** Navigation Business SA**6UP** Navigation with Touchpad Controller Utilized for the audio system, telephone, and board computer in conjuncture with the I Drive system. SA6UP/SA606 adds Navigation functionality **REQUIRES ENABLE CODES** FSC/SWT **Map** – North America Road Map ***Route*** - uses map enable code **B3** Used in vehicles: F10 5 Series from 7/2014

	F22 2 Series from 7/2014 F23 2 Series from 11/2014 F25 X3 from 8/2013 F26 X4 from 4/2014 F30 3 Series Sedan from 7/2014 F31 3 Series wagon from 7/2014 F32 4 Series coupe from 7/2014 F33 4 Series convertible from 7/2014 F34 3 Series GT from 7/2014 F36 4 Series GC from 3/2014 F48 X1 from 7/2015 I01 i3 from 3/2014

	NBT – Car Infotainment Computer HU-H SA**609** - Navigation System Professional Utilized for the audio system, Navigation, telephone, and board computer in conjuncture with the I Drive system. Also known as Head Unit High **REQUIRES ENABLE CODES** FSC/SWT **Map** - North America ***NEXT*** USB – uses map enable code **A8** <u>Used in vehicles</u>: F01 7 Series Sedan from 7/12 to EOP F06 6 Series GC from 3/13 to 3/16 F07 5 Series GT from 7/13 to 7/16 F10 5 Series Sedan from 7/13 to 11/16 F12 6 Series Convertible from 3/13 to 3/16 F13 6 Series Coupe from 3/13 to 3/16 F15 X5 8/13 to 8/16 F16 X6 8/14 to 8/16 F22 2 Series from 11/13 to 3/15 F25 X3 from 4/13 to 4/16 F26 X4 from SOP to 4/16 F30 3 Series Sedan from 7/13 to 7/15 F30H 3 Series Hybrid from 7/13 to 7/15 F31 3 Series wagon from 3/13 to 7/15 F32 4 Series coupe from 7/13 to 7/15 F33 4 Series convertible from 11/13 to 7/15 F34 3 Series GT from 7/13 to 7/15 F36 4 Series GC from 3/14 to 7/15 F85 X5 M from 11/2014 to 8/2016 F86 X6 M from 11/2014 to 8/2016 I01 i3 from 3/14 to 7/16 I12 i8 from 9/14

Version ID4:

Version ID5:

NBT EVO –Next Big Thing EVO HU-H2

SA**609** - Navigation System Professional

Utilized for the audio system, Navigation, telephone, and board computer in conjuncture with the I Drive system.

Also known as Head Unit High 2

REQUIRES ENABLE CODES FSC/SWT

Map – Road Map North America ***EVO*** -uses map enable code **F5**

Used in vehicles:

With ID4 Controller:

F32 4 Series coupe from 7/2015
F33 4 Series convertible from 7/2015
F36 4 Series GC from 7/2015
F30 3 Series from 7/2015
F31 3 Series touring from 7/2015
F34 3 Series GT from 7/2015
F22 2 Series from 3/2015
F23 2 Series convertible from 3/2014

With ID5 Controller:

F12 6 Series from 3/2016
F13 6 Series from 3/2016
F15 X5 from 8/2016
F16 X6 from 8/2016
F25 X3 from 4/2016
F26 X4 from 4/2016
F85 X5 M from 8/2016
F86 X6 M from 8/2016
G12 7 Series from SOP

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