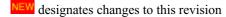


This Service Information Bulletin supersedes SI B 84 01 02 dated September 2004.



SUBJECT

Navigation System Operating Software

MODEL

E38 (7 Series) E39 (5 Series) E46 (3 Series) E53 (X5) E83 (X3) E85 (Z4) E65/E66 (7 Series)

SITUATION

With the introduction of navigation system operating software V24.1, there are currently 2 valid versions of navigation software.

- 1. Navigation system operating software V17.1 is used on MK III navigation systems without "Split Screen".
- 2. New Navigation system operating software V24.1 is used on MK I, MK II, all other MK III navigation systems, DVD navigation systems on I-Bus vehicles, NAVI01 and NAVI02.

CORRECTION

Navigation system operating software should be updated under the following circumstances:

- The Navigation computer has been replaced.
- CIP program prompts the navigation software to be updated.
- If instructed by a Service Information Bulletin or the Technical Hotline.

NEW FEATURES INTRODUCED FROM SOFTWARE V24.1

• No new features.

CHECKING SOFTWARE VERSION

MK I Systems

The software version is shown in the top right corner of the "setting" screen. The software/hardware version is displayed as "1-1/80". The numbers have the following meanings: first digit 1 - is a 1st generation navigation system (MK I); second digit 1 - is a 1st device variant (top navigation - MK Ic color screen); the last two digits 80 - are the software version of the graphic component (8.0).

MK II Systems

The software version is shown in the top right corner of the "setting" screen. The software/hardware version is displayed as "2-1/81". The numbers have the following meanings: first digit 2 - is a 2nd generation navigation system (MK II); second digit 1 - is a 1st device variant (top navigation - MK IIc color screen); the last two digits 81 - are the software version of the graphic component (8.1).

MK III Systems

The software version is shown in the top right corner of the "setting" screen. The software/hardware version is displayed as "3-1/63" or "3-2/63" (MK III with split screen). The numbers have the following meanings: first digit 3 - is a 3rd generation navigation system (MK III); second digit 1 - is a 1st device variant (top navigation - MK IIIc color screen), or 2 - is a 2nd device variant (radio navigation - MK IIIm monochrome display); the last two digits 63 - are the software version of the graphic component (6.3).

NEW DVD Navigation Systems for I-Bus vehicles

The software version is shown in the top right corner of the "setting" screen. The software/hardware version is displayed as "4-1/42". The numbers have the following meanings: first digit 4 - is a 4th generation navigation system (DVD); second digit 1 - is a 1st device variant (top navigation - DVD color screen), or 2 - is a 2nd device variant (radio navigation - DVD monochrome display); the last two digits 42 - are the software version of the graphic component (4.2).

E65/E66 Systems

- Enter the Service Mode of the Control Display.
- Select "MOST Devices".

- Scroll down and select "Navigation".
- Scroll down a few pages until "Software Version" is displayed
- Software Version for CD navigation (NAVI01) should be 7.2.8.
- Software Version for DVD navigation (NAVI02) should be 8.3.14.

Current Software Versions

Software version Application

| MK I - E39/E38 (up to 9/97) |
|--|
| MK II - E39/E38 (from 9/97), E46, X5 |
| MK II Radio Navigation - E52 (Z8) |
| MK III Radio Navigation - E52 (Z8) from 09/00 |
| MK III w/o Split Screen - E46 from 06/00, E39/E38 from 09/00, E53 from 10/00 |
| MK III with Split Screen |
| DVD Navigation |
| E65/E66 NAVI01 (CD-drive) |
| E65/E66 NAVI02 (DVD-drive) |
| |

*Included in Navigation software CD V17.1

LOADING SOFTWARE (ALL EXCEPT E65/E66)

For MK I, MK II, MK III, and DVD NAV systems (except E65/E66) use the following software loading instructions:

- 1. Turn ignition to position 1 (terminal R). Do not cycle the key or perform diagnosis while installing the new software. Make sure that the power supply is stable, i.e. do not switch on any electrical loads.
- 2. Activate "GPS-Navigation" and acknowledge the screen disclaimer by pushing the rotary knob.
- 3. <u>Remove the map CD from the Navigation computer by pressing "eject" button.</u>
- 4. NEW Insert the Navigation Operating Software CD (V17.1 P/N 01 59 9 789 299 index "x" for MK III without split screen, V24.1 P/N 01 59 0 141 891 index "p" for all other versions).

Mark I System (up to 9/97 production):

After a few seconds, the BMW roundel will appear on the board monitor and will be "filled in" clockwise to show the progress of loading (approx. 4-6 minutes).

Mark II System (from 9/97 production),

Mark III System (E46 from 06/00 and E38/E39/E52 from 09/00 production),

DVD System (E46, E39, E52 from 09/02 and E53, E85 from 10/02 production):

After a few seconds, a menu of notes on loading procedure and "progress" bar appear on the board monitor. When the loading process has been completed, the message "Software has been successfully loaded" is displayed.

- 5. Remove the operating software CD and confirm the end of the loading process by pressing the rotary push-button on the board monitor. "OK" appears in the display.
- 6. Reinsert the map CD into the Navigation computer.

LOADING SOFTWARE (E65/E66 ONLY)

When programming any E65/E66 using CIP 13.3 or higher, you will be prompted by the CIP "Update NAV control module:" screen that "BMW Navigation CD Version 24.1" must be loaded prior to programming the vehicle.

Note: Connect an approved battery charger before loading software.

- 1. Turn on ignition to Term R or Term 15.
- 2. Using the iDrive enter into the Navigation Menu.
- 3. Remove the map CD.
- 4. NEW Insert the Navigation Operating Software CD (V24.1 P/N 01 59 0 141 891 index "p") into the navigation computer and use CIP 13.3 or a more resent version for NAVI02 (DVD navigation) and for NAVI01 (CD navigation).
- 5. Select "Yes" with iDrive Controller to install software.
- 6. The software will then load in two steps in approximately 10-15 minutes.
- 7. Do not touch the iDrive while the software is loading.

- 8. When the installation is finished the CD will be ejected. The message "Installation Successful, Remove Software loading CD and press OK" will appear. At this point select "OK" with iDrive Controller.
- 9. The Navigation system will then "reinitialize".
- 10. When prompted, insert map CD.
- 11. Refer to <u>SI B 09 05 01</u> (Coding, Individualization and Programming) for any necessary coding and programming. Note that CIP will automatically reprogram all programmable control units that do not have the latest software.

NAVIGATION COMPUTER REPLACEMENT MK III

When replacing a defective MK III computer, a configuration signal is required to allow the new computer to load the correct software for its respective application. This is generated by using DIS coding program "Coding ZCS C31.0" or higher and Navigation System Operating Software CD V17.1 or V24.1.

- 1. Connect DIS/GT1 tester to vehicle.
- 2. From the DIS Coding/Programming select "1 ZCS Coding".
- 3. Select appropriate engineering series (E38, E39, etc.).
- 4. Select "4 conversion".
- 5. Select "3 IKE/Kombi".
- 6. Select "2 Language".
- 7. At prompt "Is the CD-ROM present?" select "Yes", but do not insert Navigation CD into the Nav Computer yet!
- 8. First select the main language and then an additional language (the choices are: English, French, Italian, Spanish, German).
- 9. Select announcer's voice gender: male or female.
- 10. After activation of the automatic coding, the DIS tester tells you to follow the instructions on the monitor for Navigation CD installation.
- 11. Place the Navigation CD into the navigation computer CD drive.

Important: Do not switch ignition OFF during software loading procedure.

- 12. Once loading has been completed, remove the CD and then confirm completion by pressing the rotary push-button on the monitor.
- 13. Turn ignition OFF for 10 seconds, then turn it ON and conduct a functional check.
- 14. After this step has been finished, encode the Navigation computer in the regular manner using the path "1 Recoding".

TROUBLESHOOTING HINTS

The following problems may occur during the software loading procedure:

- The message "CD defective" appears on the display screen.
- The message "Fault during programming" appears on the display screen.
- The message "The system is restarting" appears on the display screen.
- The installation process has stopped and the display screen is blank and the power LED on the navigation computer is off. The CD will not eject.

These complaints are usually the result of a faulty Navigation Operating software CD.

- For points 1-3 for error messages that appear on the display screen, check for the correct software version and try loading a new Navigation CD.
- For a CD that will not eject from the Navigation computer follow the procedure below:
 - 1. Remove the Navigation computer.
 - 2. Unplug the voltage supply (blue connector).
 - 3. Reconnect the voltage supply and immediately press the eject button repeatedly until the CD in the drive is ejected.
 - 4. Insert a new Navigation CD and restart the installation process.

NEW PARTS INFORMATION

| Part Number | Description |
|-----------------|--|
| 01 59 9 789 299 | Navigation Software CD V17.1 Index "x" |
| 01 59 0 141 891 | Navigation Software CD V24.1 Index "p" |

Copies of the CD V24.1 will be shipped to every BMW Center through the Automatic Tool Shipment Program.

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