

December 2005 Technical Service

This Service Information bulletin supersedes S.I. B84 01 03 dated August 2005.

NEW designates changes to this revision

#### **SUBJECT**

## **CPT9000 Telephone**

#### **MODEL**

E46 (3 Series) from 9/03 to 3/05 production with Premium Package (ZPP) or BMW Assist (SA 639)

E83 (X3) from 9/03 to 3/05 production with Premium Package (ZPP) or BMW Assist (SA 639)

E85 (Z4) from 10/03 to 3/05 production with Premium Package (ZPP) or BMW Assist (SA 639)

E53 (X5) from 10/03 to 3/05 production with Premium Package (ZPP) or BMW Assist (SA 639)

E60 (5 Series) up to 3/05 production

E63, E64 (6 Series) up to 3/05 production

E65, E66 (7 Series) from 9/02 to 3/05 production

#### **SITUATION**

- 1. Starting with 3/05 production on all vehicles the CPT9000 phone can no longer be used. Please refer to SI B84 13 04 for information about Bluetooth handsets for these vehicles.
- 2. From January 2003 until 3/05 production, all 7 Series vehicles are equipped with the new CPT9000 portable phone and voice recognition system. These vehicles have a new TCU (Telematics Control Unit) with an embedded telephone transceiver for BMW Assist safety and service calls (automatic collision notification plus "SOS" manual emergency and roadside assistance requests). These calls will now be completed without requiring the telephone handset to be activated or connected. A map CD must be installed in the Navigation computer for the BMW Assist Response Center to receive the vehicle's location.
- 3. For early Model Year 2003 E65/E66 vehicles produced from 9/2002 to 12/2002, the CPT9000 may have been installed if the CPT8000 is not available at the time of delivery. For these customers that already have the CPT9000 handset, it is not included in the retrofit. The CPT9000 installation kit is available for these vehicles. Refer these cases to your Market Team for prior authorization. Follow the installation instructions that come with the installation kit. Refer to BMW Aftersales Parts Bulletin 84 06 03 for the correct part numbers needed for installation. For retrofit programming instructions, refer to the "Retrofit Programming Procedure" of this Service Information.
- 4. NEW All E60 (5 Series) and E63, E64 (6 Series) are now equipped with the BMW Assist TCU

(Telematics Control Unit) with an embedded telephone transceiver for BMW Assist safety and service calls (automatic collision notification plus "SOS" manual emergency and roadside assistance requests), TeleService and Customer Relations. These calls will now be completed without requiring the telephone handset to be activated or connected. An optional CPT9000 Portable phone may be installed in the vehicle up to 3/05 production.. For information about the functionality of the Portable Phone refer to Service Technology Bulletin (SBT) 840703056 available on the TIS Website. Refer to Aftersales Parts Bulletin 84 09 03 for installation instructions and general information about the Hands Free Phone System. In order for the Portable phone to work properly, a coding retrofit must be carried out. Refer to the "E60 (5 Series), E63/E64 (6 Series) Portable Phone Installation Procedure" later in this Service Information.

5. All E46 (3 series) from 9/03, E83 (X3) from 9/03, E85 (Z4) from 10/03, and E53 (X5) from 10/03, equipped with the Premium Package (ZPP) or BMW Assist (SA639), are now equipped with the BMW Assist TCU (Telematics Control Unit) with an embedded telephone transceiver for BMW Assist safety and service calls (automatic collision notification plus "SOS" manual emergency and roadside assistance requests). These calls will now be completed **without requiring the telephone handset to be activated or connected**. An optional CPT9000 Portable phone may be installed in the vehicle up to 3/05 production.. For information about the functionality of the Portable Phone refer to Service Technology Bulletin (SBT) 840703056 available on the TIS Website. Refer to the Portable Phone Coding Procedure later in this Service Information.

#### **GENERAL INFORMATION**



• The new CPT9000 Cellular phone system is trimode, dual band and operates at 1900MHz/800MHz digital and 800MHz analog. The following providers are currently available:

CDMA: Verizon Wireless and Alltel

TDMA: AT&T and Cingular

GSM: T-Mobile, AT&T and Cingular.

- The functionality of the CPT9000 phone is similar to the CPT8000 phone. Some of the changes are as follows:
- 1. Call Waiting may now be performed via the Phoneboard (7 Series only) by pressing the "send" key.
- 2. Call waiting on the E60 (5 Series), and E63, E64 (6 Series), may only be performed by opening the handset in the cradle and pressing the "send" key. If the MFL button is pressed, all calls will be terminated.
- 3. Hands free audio quality has been improved.
- 4. The mail message icon is now displayed in the upper left corner of the Control Display for E65 (7 Series) for missed calls only. On the E60 (5 Series), and E63, E64 (6 Series), this icon is displayed for missed calls and/or SMS (Short Message Service). The handset has to be connected to the

vehicle for this feature to work.

For the latest CPT9000 parts information refer to Parts Bulletin 84 04 04 and 84 03 04, which can be found on CenterNet.

Please refer to the Accessories Electronics Portal for information and troubleshooting for the CPT9000 telephone. To access the portal, follow the path as outlined below:

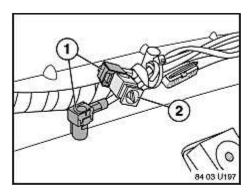
- 1. Log into CenterNet
- 2. From the "Menu" tab select "Aftersales"
- 3. In the Aftersales page select "Accessories" then "Electronics Portal".
- 4. Select the "CPT9000 Phone System" tab.
- 5. This will take you directly to the "BMW Wireless" site.
- 6. Select "System Overview".
- 7. The next page will display all the applicable models that use the CPT9000 telephone. Select one of the models that you need information on.
- 8. A pop up box will then display the following selections:
  - System Overview
  - Component Location
  - o TCU Connection
  - o Pin Layout

For further information on the functionality of the telephone consult the BMW Owner's Manual.

Refer to the attached document "E65 Retrofit Wiring" for an overview of the system.

# E60 (5 SERIES) E63, E64 (6 SERIES) PORTABLE (MOBILE) PHONE INSTALLATION PROCEDURE UP TO 3/05 PRODUCTION

- 1. Install the eject box per the installation instructions attached to Aftersales Parts Bulletin 84 09 03.
  - 2. Remove the left rear trunk trim panel (E60). For the E63/64 this connection is located behind the driver's side rear seat back panel.
  - 3. Locate the vehicle harness that runs down the left side of the trunk.



- 4. Remove the protective cap (2) from one of the antenna cables.
- 5. Connect both antenna cables (1) together and resecure the cables to the harness. If this connection is not made, the mobile phone calls will fail to make a connection.
- 6. Reinstall the left rear trunk trim panel.
- 7. Start CIP 12.0 or later and select "Load Software".
- 8. If the "Status Report" indicates Control Modules need to be programmed, then update the vehicle before performing the retrofit procedure. Refer to <u>SI B09 05 01</u> for programming/coding information.



- 9. Select "Retrofits" at the bottom of the control module list.
- 10. Select "Retrofits".



- 11. Select "Telephone Professional" or "TEL Pro" from the list on the "Retrofitting SELECTION" screen.
- 12. Select "Added," indicating that you have added the portable phone hardware already.
- 13. Continue with the on screen prompts and finish the retrofit procedure. Note: the TCU maybe included in the "Measure Plan" as needing to be programmed.
- 14. After the Retrofit programming is successful,

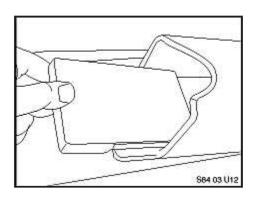


select "Vehicle", "Complete Vehicle Coding".

15. Test the operation of the portable phone.

Refer to the attached document "E60 Telephone Wiring" for an overview of the system.

### E65 (7 SERIES) HANDSET INSTALLATION PROCEDURE UP TO 3/05 PRODUCTION



• The eject box no longer has a coil cord and accepts the handset directly with the help of a "thick" spacer (P/N 84 21 6 922 575) which is required for the standard battery. If an extended battery is used with the handset a "thin" spacer (P/N 84 21 6 922 574) will need to be installed in the cradle. The spacer slides into the bottom of the cradle. Without this spacer the handset will not properly engage the connector inside the cradle. Early production vehicles were shipped without the spacers installed. BMW automatically sent the "thick" spacer, along with an instruction card, for dealer installation.

## E65 (7 SERIES) RETROFIT PROGRAMMING PROCEDURE (CPT8000 TO CPT9000)

Note: Update the vehicle to the current software level before attempting the retrofit procedure as per SI B61 01 04.

The TCU (Telematics Control Unit) must be properly programmed/coded using CIP 12.0 or higher after installing the Installation Kit along with the TCU. Follow the procedure as outlined below:

- 1. New Before installing the new TCU, remove from it one copy of the Electronic Serial Number (ESN) label and place a copy on the repair order for reference during warranty claim entry. You will be asked for the new TCU "ESN" when submitting a claim in DCS net.
- 2. Start CIP (make sure CIP 12.0 or higher is being used).
- 3. Select "Load Software".
- 4. At the "Status Report", select "Cancel Update".
- 5. Select "Retrofits" button at lower right hand corner.
- 6. Select "Retrofits".
- 7. Select "Telephone".

- 8. Select "Telephone *Added*".
- 9. When the "Measures Plan" is displayed, select "Accept" and start programming/coding. It is very **important** that the TCU be programmed even though the Measures Plan indicates the same programmed number before and after programming.
- 10. The Final Report should state, "Retrofit, telephone, Added" and also show the programming and coding of the TCU as successful. Check for the proper coding of the TCU by placing a test call to the BMW Assist Response Center. Push the "SOS" button in the overhead console with the vehicle parked outside, the engine running, and the map CD installed. When the service representative answers, clarify that the call is a dealer test call, and then request the VIN number. Write down the VIN number and verify that it matches the vehicle's VIN. If the numbers don't match, the coding procedure was not successful and needs to be repeated. Note that the handset does not need to be connected to perform this procedure. If the VIN number is still not transmitted, refer to the Troubleshooting Section of this Service Information.
- 11. Check the functionality of the telephone.

PORTABLE PHONE CODING PROCEDURE FOR ALL E46 (3 SERIES) FROM 9/03, E83 (X3) FROM 9/03, E85 (Z4) FROM 10/03, AND E53 (X5) FROM 10/03, EQUIPPED WITH THE PREMIUM PACKAGE (ZPP) OR BMW ASSIST (SA639) ALL UP TO 3/05 PRODUCTION E46 (3 Series)

Follow the procedure as outlined below using CD37 or higher to perform retrofit coding:

- 1. Select "3. ZCS/FA Coding".
- 2. Select "7. E46 3 Series".
- 3. Select "2 Retrofit".
- 4. Select "Telephone Professional US".
- 5. "The TCU is recoded and the vehicle order in KOMBI automatically changed." Is displayed. Continue to next screen.
- 6. "TCU Start automatic coding?" answer "YES" and continue.
- 7. Once the coding is completed, print the new vehicle order and ensure that in the "HO-Wort:' section "TEPR" is present.
- 8. Turn ignition off for 10 seconds and install handset and check functionality of phone.

## E53 (X5)

The retrofit coding procedure now works properly with the release of DIS CD38 or higher.

- 1. Select "3 ZCS/FA Coding".
- 2. Select "8 E53 Series".

- 3. Select "2 Retrofit".
- 4. Select "26 Telephone professional US"
- 5. Continue until coding is complete and new ZCS code is displayed on screen.
- 6. In some instances an error message "Not possible to retrofit TCU according to coding code" is displayed. If this is the case then manually change the ZCS code according to the attached chart.
- 7. 2005 MY vehicles have Bluetooth activated from the factory. In order to retrofit a CPT9000 (V60) telephone and deactivate Bluetooth the ZCS code must be changed according to the attached chart for 2005 Model Year.
- 8. Turn ignition off for 10 seconds.
- 9. Install handset and check functionality of the phone.

## E83 (X3), E85 (Z4)

Install the eject box as per the installation instructions.

- 1. Using DISplus or the SSS (Software Service Station) start CIP 12.0 or higher and select the "Load Software" button.
- 2. Answer "No" to "Have control modules been replaced?"
- 3. Select "Retrofits".
- 4. Select "Retrofits".
- 5. Select "Select "Telephone Professional" or "TEL Pro".
- 6. Follow the on screen prompts to finish the coding.
- 7. Install the handset and check functionality of the phone.

## REPLACEMENT PROCEDURE FOR TCU

Whenever the TCU has been diagnosed as being defective, and needs to be replaced, the following procedure must be carried out in order to ensure proper registration and operation of the new TCU.

- 1. Before installing the new TCU, remove from it one copy of the Electronic Serial Number (ESN) label and place a copy on the repair order for reference during warranty claim entry. You will be asked for the new TCU "ESN" when submitting a claim in DCS net.
- 2. Install the new TCU.
- 3. Using CIP 12.0 or higher, program/code the TCU. Refer to SI B09 05 01 Procedure A.
- 4. It is very important that "Complete Vehicle Coding" be performed. Verify that programming/coding was successful by viewing the Final Report.

- 5. E60 (5 Series), and E63, E64 (6 Series), vehicles need to have the BMW Assist Enabled again. Refer to SI B84 15 03 for this procedure.
- 6. New Before placing a test call, contact BMW Assist Customer Care. BMW Assist Customer Care is available Mon ~ Fri from 6:00 AM ~ 10:00 PM CT and on Saturday from 7:00 AM ~ 9:00 PM CT. The telephone number is (888) 333-6118. Choose option #4. Please provide them with the new ESN and MIN numbers.
- 7. New Check for the proper coding of the TCU by placing a test call to the BMW Assist Response Center. Push the "SOS" button in the overhead console with the vehicle parked outside, the engine running, and the map CD installed on vehicles equipped with SA609 (Navigation System). When the service representative answers, clarify that the call is a dealer test call, and then request the VIN number. Write down the VIN number and verify that it matches the vehicle's VIN. If the numbers don't match, the coding procedure was not successful and needs to be repeated. Note that the handset does not need to be connected to perform this procedure. If the VIN number is still not transmitted, refer to the troubleshooting section of this Service Information.
- 8. On 5 and 6 Series call 888-333-6118, #4, and advise the BMW Assist Response Center that the TCU has been replaced. Print the MIN and VIN from the TCU Control Module functions and give this information to the BMW Assist representative.
- 9. Check the functionality of the telephone.

#### **INFORMATION ON BMW ASSIST**

- For information on E60 (5 Series) BMW Assist refer to SI B84 15 03.
- New Subscribers will receive BMW Assist services at no charge for one year from the original vehicle in-service date. Customers must complete an ESA (Electronic Subscriber Agreement) with the Client Advisor in the BMW Assist section of CenterNet to receive the BMW paid period of service.
- The owner may decline this service and must complete the Waiver/Decline of Service form with the Client Advisor in the BMW Assist section of CenterNet if they do not wish to receive this service.
- New It is essential that the BMW Assist subscriber be registered with BMW (using the ESA or Waiver/Decline of Service form) at retail delivery. If this registration is not received within 15 days, after delivery, the vehicle owner will be contacted by BMW and the service will be deactivated remotely 45 days after delivery.
- NEW On E65 and E66 vehicles up to 3/05 production, the "Customer Relations" and "Your BMW center" calls require the CPT9000 handset to be activated and the handset connected to the vehicle cradle. The customer will pay airtime charges for these calls. Please ensure that these two phone numbers are programmed by the Service Department using DIS CD V36 or higher, per SI B84 14 01.
- NEW After completing the ESA, make an acquaintance call to the BMW Assist Response Center with the customer during the delivery process. Just push the "SOS" button in the overhead console with the vehicle parked outside, the engine running, and the map CD installed. The CPT9000

handset does not need to be installed in the vehicle to make this call on vehicles equipped with SA609 (Navigation System).

• For more information on BMW Assist, please refer to the BMW Assist menu on CenterNet.

## **TROUBLESHOOTING**

- If the VIN number is not transmitted to the BMW Assist Response Center, follow the steps as outlined below:
- 1. Perform a battery reset.
- 2. Reprogram the TCU via "Special Measure" programming. Refer to SI B09 05 01 (Situation 4).
- 3. Perform "Complete Vehicle Coding."
- 4. Perform another BMW Assist test call and confirm that the VIN has been transferred.
- 5. If the VIN number still is not being transferred to the BMW Assist Response Center, contact the BMW Technical Hotline via PuMA to obtain modified Vehicle Order (VO). Include in the PuMA Case a valid email address.
- 6. Using DISplus or the SSS (Software Service Station) start CIP and select the "Vehicle" button.
- 7. Select "Vehicle Order" and then "Adapt VO".
- 8. After the new VO has been adapted, perform "Complete Vehicle Coding".
- 9. Perform another BMW Assist test call and confirm that the VIN has been transferred.

#### WARRANTY INFORMATION

Update the vehicle to the current software level before attempting the retrofit procedure. Refer to SI B61 01 04 for warranty information.

- Warranty claims will not be paid without the old and new ESN information. You will be asked for the old and new TCU "ESN" when submitting a claim in DCS net.
- Defective TCUs must be returned to the WPRC in order to receive the Core payment.

**Defect Code** Refer to market team for

authorization

Labor Operation: Replace Transceiver

Labor Operation Labor Allowance

84 11 528 6 FRU

Labor Operation: Replace Cradle

Labor Operation Labor Allowance

84 21 550 4 FRU

Labor Operation: Modify Wiring

Labor Operation Labor Allowance

84 99 000 5 FRU WT

Labor Operation: Labor to install additional antenna

cable if required (9/02 and 10/02

production only).

An additional 8 – 10 FRUs

may be added to the above

Labor Operation 84 99 000

Labor Operation: Program Transceiver without CAS

Labor Operation Labor Allowance

61 00 800 4 FRU

## **ATTACHMENTS**

view PDF attachment **B8401032005MYE53ZCSCodes\_Handset**.

view PDF attachment **B840103E53ZCSCodingChart**.

view PDF attachment **B840103E60Telephone**.

view PDF attachment **B840103E65Retrofit**.

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