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› PEMP Ultra-Thin 12.3-inch Display User Manual for BMW 5 Series E60 CCC (2005-2010) - CarPlay, Android Auto, Mirror Link Head Unit

## PEMP PP-5823-11

# PEMP Ultra-Thin 12.3-inch Display User Manual

For BMW 5 Series E60 CCC (2005-2010) - CarPlay, Android Auto, Mirror Link Head Unit

## 1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and troubleshooting of your PEMP Ultra-Thin 12.3-inch Display Head Unit. Please read this manual thoroughly before installation and use to ensure proper functionality and safety.

## 2. SAFETY INFORMATION

- **Power Off:** Ensure the vehicle's power is completely off before beginning any installation or wiring procedures.
- **Professional Installation:** If you are unsure about any part of the installation process, it is recommended to seek professional assistance.
- **Cable Management:** Secure all cables to prevent interference with vehicle operation or damage.
- **Compatibility:** This unit is specifically designed for BMW 2005-2010 E60 3 Series vehicles with the CCC Original 10 PIN LVDS system. Verify your vehicle's compatibility before installation.

## 3. COMPATIBILITY

This PEMP Ultra-Thin 12.3-inch Display Head Unit is compatible with:

- **Vehicle Models:** BMW 5 Series E60 (2005-2010)
- **Original System:** CCC Original 10 PIN LVDS system.

**Important:** Please confirm your OEM display has the Aux Audio Menu. If not, an activator (ASIN: B08XXF2T5Q) may be required to activate Aux Audio first.

## Applicable Models

Please confirm whether the product is applicable according to the following features



Figure 3.1: Applicable Models - Confirm your vehicle has the 10 PIN CCC UI, not the 4 PIN CIC UI.

## 4. PRODUCT FEATURES

- **Ultra-Thin Design:** 12.3-inch large display with an 82.3% screen-to-body ratio, metal material shell, and Non-Airgap process for realistic picture quality.
- **Connectivity:** Supports Wired and Wireless CarPlay and Android Auto.
- **Operating System:** Linux System for quick boot-up and fast access to CarPlay/Android Auto interface.
- **OEM Integration:** Supports factory monitor information display. Long press the Menu button to switch between the factory OEM interface and the CarPlay interface.
- **Controls:** Supports steering wheel button functions.
- **Display Quality:** Multi-Point Capacitive Touch Screen, 12.3-inch HD IPS Display Screen with a resolution of 1920 x 720.
- **Camera Support:** Supports the car's reversing camera and radar information display. Compatible with OEM cameras and aftermarket cameras (720P or less). Provides clear reversing picture.

# Support for OEM and aftermarket front and rear view cameras

You can select the camera option in the settings  
the after-market camera only  
support CVBS or 720P AHD format



Figure 4.1: Key features including wireless connectivity and display specifications.

**You can switch between OEM info and the new system.**



Figure 4.2: Internal components and design of the ultra-thin display.

Video 4.1: A demonstration of the ultra-thin screen's design and functionality.

## 5. SETUP AND INSTALLATION GUIDE

**Safety First:** Ensure your car is completely powered off before starting installation.

### 5.1. General Installation Overview

**Before**



**After**



Figure 5.1: Visual comparison of the car's interior before and after installing the PEMP display.

### Automatic switch to AUX



1: Select "Car Settings" in "setup" and find "Automatically switch to AUX".

2: You can choose "Harman Head Unit" or "Alpine Head Unit" according to your car.

### Manual AUX Setting Method



1: Go to "Main menu" and select "Multimedia".



2: Then select "External devices"



3: We long press the number key "8", when we hear the tone ringing, we are set!

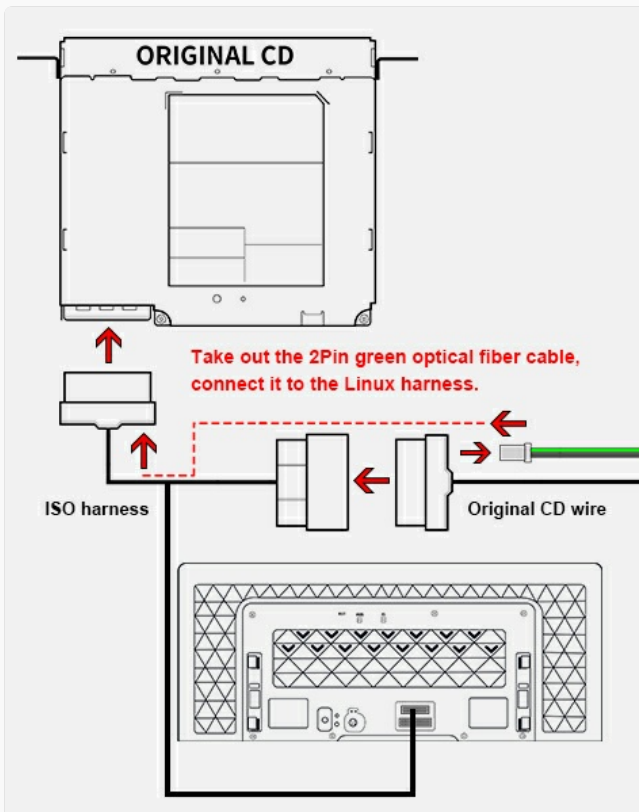


4: Press 8 every time before entering the new system, You'll get the CarPlay sound.

Figure 5.2: Product comparison highlighting the centered design of the PEMP display.

## 5.2. Fiber Optic Cable Connection

If your OEM ISO harness includes a fiber optic cable, it must be adapted to the PEMP ISO harness for proper functionality.



**NOTE: Please correctly transfer the 2P green optical fiber cable on the ISO plug of the original vehicle**



**Take out the 2Pin green optical fiber cable, connect it to the Linux harness.**



Figure 5.3: Diagram for connecting the fiber optic cable.

Video 5.1: Detailed instructions on how to connect the fiber optic cable and address potential sound issues.

## 5.3. Wired CarPlay and Android Auto Connection

For wired CarPlay and Android Auto, ensure your device is connected to USB IN 1.

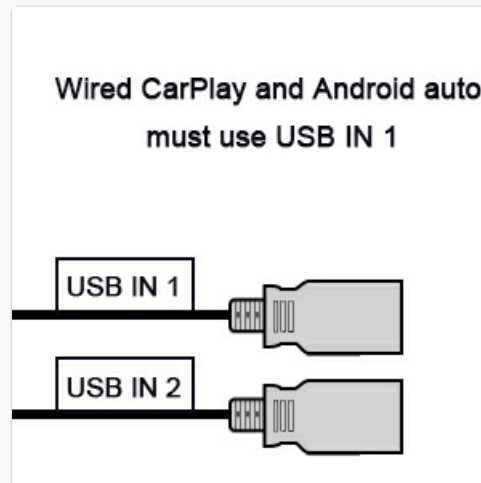


Figure 5.4: Connect wired CarPlay/Android Auto to USB IN 1.

## 6. OPERATING INSTRUCTIONS

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### 6.1. Switching Between OEM and New System

You can easily switch between your original BMW interface and the PEMP display's interface by long-pressing the Menu button on your iDrive controller.

# Product Features

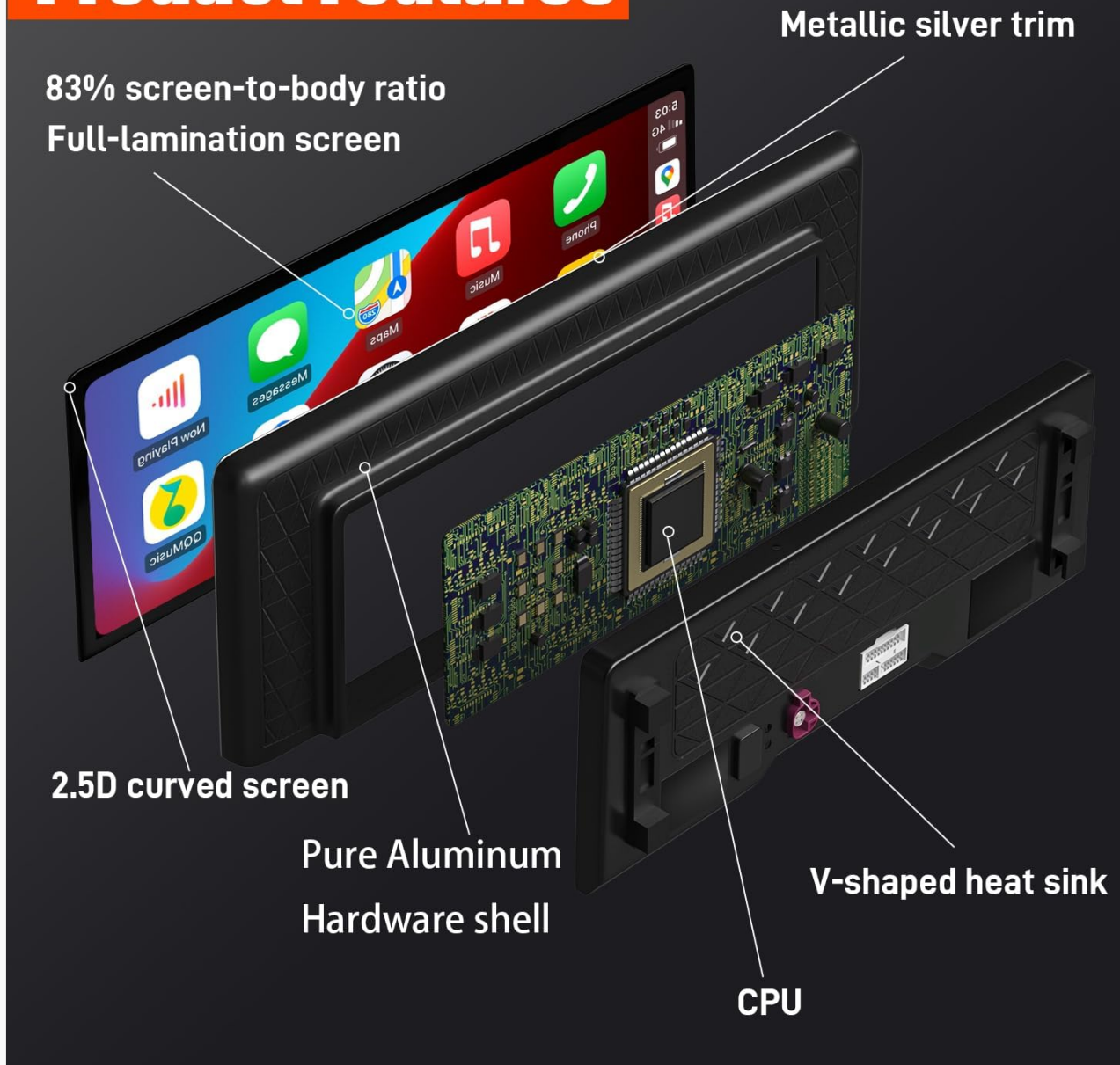


Figure 6.1: Seamless switching between OEM and new system interfaces.

## 6.2. Camera Settings

The unit supports both OEM and aftermarket front and rear view cameras. You can select the camera type in the settings menu.

1. Go to **Setup**.
2. Select **Car settings**.
3. Choose **Reversing Settings**.
4. Select **Camera type** (Original Camera or Aftermarket Camera).

# Support for OEM and aftermarket front and rear view cameras

You can select the camera option in the settings  
the after-market camera only  
support CVBS or 720P AHD format



Figure 6.2: Camera settings interface and visual representation of camera support.

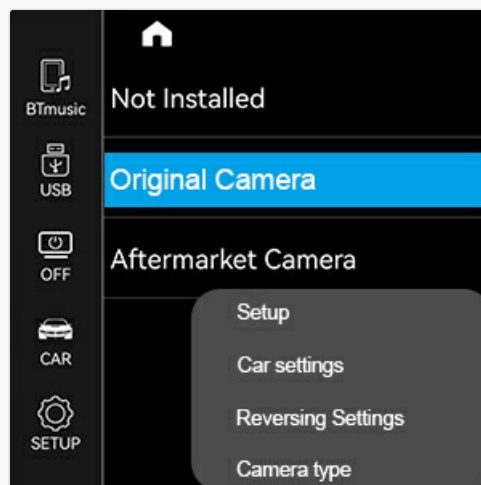


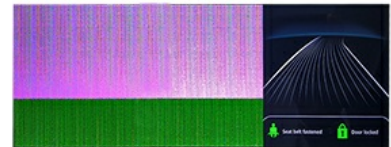
Figure 6.3: Camera Type selection in settings.

## 7.1. No Sound Issue

If you experience no sound from the display, follow these steps:

1. **Check OEM Audio:** Press the FM/AM button on your original radio to confirm if the OEM radio has sound.
2. **Bluetooth Disconnection:** If the OEM radio has sound, go to **Settings > System** on the PEMP unit. Turn off "Use Car's BT Channel". Then, disconnect the original Bluetooth from your phone's settings.
3. **AUX Feature:** After disconnecting Bluetooth, go to the car's settings and select "Auto Switch to AUX" feature off.
4. **Adjust Volume:** Go back to the original car interface, select AUX Front. If there is still no sound, adjust the volume knob on your car's radio.
5. **AUX Harness:** If there is still no sound, you may need to connect the AUX harness. This involves connecting the provided AUX cable from the PEMP unit to your car's AUX-IN port, usually found in the center console.
6. **ISO Harness Check:** Ensure the ISO harness is securely plugged in. If it feels loose, unplug and re-plug it firmly.
7. **Power/LVDS Cables:** Check that the power cable and LVDS cables on the back of the PEMP machine are not loose. Re-plug them if necessary.

### Why can't get OEM car info and Sound?



**Please press the FM/AM button to confirm whether the OEM radio has sound?**

**A:** If the OEM radio has sound, you need to set the resolution, the setting path is: Setup>Car Settings> Original Car's Screen Resolution> Select the item

**B:** If there is no sound from the OEM radio, you will need to reconnect the socket on the back of the OEM radio, Refer to the picture on the right.

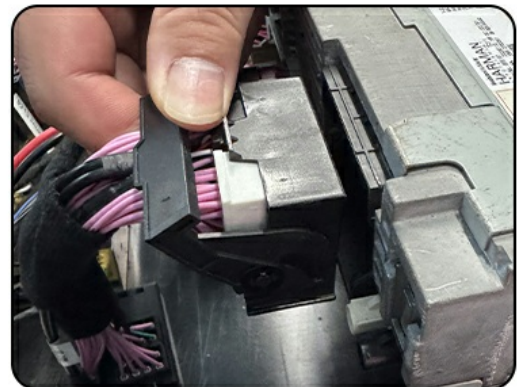


Figure 7.1: Automatic and manual AUX setting methods.



## WHY CAN'T HEAR the sound

### STEP:1



Check the car entertainment interface, whether there is an AUX AUDIO menu?

### STEP:2



Buy E60 AUX activator

### STEP:3



Activation is successful, check the original car entertainment interface, AUX Audio shows that it has been activated.

Figure 7.2: Troubleshooting steps for no AUX audio menu, suggesting an activator.

Video 7.1: A video guide on how to fix the no sound issue, including checking OEM Bluetooth and AUX connections.

## 7.2. Splash Screen / OEM Resolution Issues

If your screen displays a splash screen or distorted image, adjust the resolution:

1. Go to **Settings > Car Settings**.
2. Select **Original Car's Screen Resolution**.
3. Slide through the options to find your car's suitable resolution.
4. Select the correct resolution and return to the original car interface. The display should now be normal.

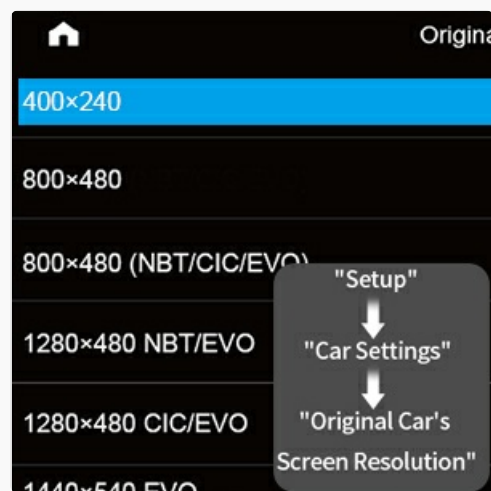


Figure 7.3: Screen Resolution Adjustment in settings.

Video 7.2: A video guide on how to resolve OEM resolution issues, including adjusting screen resolution settings.

## 8. SPECIFICATIONS

Feature	Specification
Model Number	PP-5823-11
Display Size	12.3 Inches
Display Resolution	1920x720
Operating System	Linux
Connectivity Technology	Bluetooth
Special Features	Bluetooth, Touchscreen, Built-in CarPlay and Android Auto
Audio Output Mode	AUX
Item Weight	7.33 pounds
Product Dimensions	12.99 x 5.12 x 1.06 inches

## 9. WARRANTY AND SUPPORT

For warranty information, technical support, or any inquiries regarding your PEMP product, please refer to the contact information provided with your purchase or visit the official PEMP website. Keep your purchase receipt as proof of purchase for warranty claims.

You can also visit the PEMP Store on Amazon for additional product information and support resources.