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AINAVI L12.3-X5-CIC

AINAVI 12.3-inch Touch Screen User Manual

Model: L12.3-X5-CIC

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your AINAVI 12.3-inch Touch Screen for BMW X5/X6 E70/E71 (2011-2013) CIC systems. Please read this manual thoroughly before installation and use to ensure proper function and to maximize your product experience.

2. PRODUCT FEATURES

- **Display:** 12.3-inch QLED display with 1920x720 HD resolution, offering a clear visual experience.
- **Audio:** Built-in DSP processing chips and 16-band EQ for enhanced sound quality.
- **Connectivity:** Integrated Wireless CarPlay and Wired Android Auto for smartphone integration.
- **System Integration:** Operates with dual systems, retaining original car CD system functions while adding Linux system features.
- **Original Features Retention:** Compatible with original iDrive Knob control, Bluetooth, Radio, OEM rear camera, Radar, and steering wheel controls. Displays vehicle information like speed, fuel level, oil pressure, and safety warnings.
- **Bluetooth:** v2.1 + EDR, v5.1 Low Energy (LE) increases the transmission rate and the effective working distance. Supports audio streaming, automatic phone book transfer, and hands-free calls.
- **Camera Support:** Supports AHD 720P backup cameras.

3. COMPATIBILITY

This unit is exclusively designed for:

- BMW X5 E70 (2011-2013)
- BMW X6 E71 (2011-2013)
- Vehicles equipped with the **BMW original CIC system** and a **4-Pin LVDS connector**.

Important Compatibility Notes:

- **Not compatible** with CCC systems (10-Pin LVDS).

- **Not compatible** with NBT systems (6-Pin LVDS).
- Only fits Left-Hand Drive (LHD) vehicles.

Before purchasing or installing, verify your vehicle's iDrive system and LVDS port type. Refer to Section 4.1 for guidance on identifying your iDrive system.

4. SETUP AND INSTALLATION

Professional installation is recommended. Ensure the vehicle's power is disconnected before beginning installation.

4.1 Identifying Your iDrive System

It is crucial to identify your BMW's iDrive system (CIC, CCC, or NBT) and the corresponding LVDS plug type before installation. This unit requires a CIC system with a 4-pin LVDS plug.



Image: This diagram illustrates how to identify your BMW's iDrive system by its main menu interface and the physical LVDS connector type. It shows examples of NBT (6-pin), CIC (4-pin), and CCC (10-pin) LVDS plugs.

To verify, carefully remove the original screen and inspect the LVDS port. Compare it with the images provided to confirm you have a CIC system with a 4-pin LVDS connector.

4.2 Wiring Diagram

The following diagram illustrates the connections for the AINAVI 12.3-inch Touch Screen. Ensure all connections are secure and correctly matched.

Glass to Glass 2.5D Touch Screen



High Performance

12.3 "

1920x720



Grade-A



IPS Technology



Touch Screen

Image: Detailed wiring diagram for the head unit. Key connections include: (1) ISO Wiring Harness 1, (2) ISO Wiring Harness 2, (3) 360-DET, (4) CAM-PWR (Aftermarket Back-up Camera Cable), (5) 5V-OUT, (6) GND, (7) CCD-CVBS Back-up Camera Input, (8) DVR-CVBS DVR Camera Input, (9) ACC-OUT, (10) AUX-OUT, (11) USB2 U Disk, (12) USB2 U Carplay, (13) LVDS Port.

1. Connect **ISO Wiring Harness 1** and **ISO Wiring Harness 2** to the corresponding vehicle connectors.
2. Connect the **LVDS Port (13)** to the vehicle's LVDS cable.
3. For aftermarket backup cameras, connect to **CAM-PWR (4)** and **CCD-CVBS Back-up Camera Input (7)**.
4. For DVR cameras, connect to **DVR-CVBS DVR Camera Input (8)**.
5. Utilize **USB2 U Disk (11)** and **USB2 U Carplay (12)** for USB devices and wired CarPlay/Android Auto connections.
6. Ensure **5V-OUT (5)**, **GND (6)**, and **ACC-OUT (9)** are correctly connected as per the vehicle's electrical system.
7. Connect **AUX-OUT (10)** for auxiliary audio output if needed.

4.3 Initial Power-On and Testing

After installation, carefully power on the vehicle and test all functions:

- Verify the display powers on and shows the system interface.

- Test touch screen responsiveness.
- Check audio output from all sources (radio, media, CarPlay/Android Auto).
- Confirm original vehicle functions (iDrive, steering wheel controls, original radio, backup camera) are retained and operational.
- Test Wireless CarPlay and Android Auto connectivity.

5. OPERATING INSTRUCTIONS

5.1 System Switching

The unit supports dual systems, allowing seamless switching between the original BMW system and the new Linux-based system (CarPlay/Android Auto interface).



Image: This visual demonstrates the ability to switch between the original BMW vehicle system and the new CarPlay/Android Auto interface on the AINAVI screen.

Specific instructions for switching modes will be available within the unit's software interface, typically via a dedicated button or menu option.

5.2 Wireless CarPlay and Android Auto

This unit features built-in Wireless CarPlay and Wired Android Auto. To connect your smartphone:

Support Original BMW System



iDrive system



Amplifier System



Original System Display



Factory Rear View Camera



Steering Wheel Control



Retains Original CD Player



Original Radio Player



Retains Original Bluetooth

Image: This image illustrates the wireless connection of a smartphone to the head unit, showcasing both Wireless CarPlay and Wireless Android Auto interfaces on the screen.

1. For Wireless CarPlay:

- Ensure Bluetooth and Wi-Fi are enabled on your iPhone.
- On the AINAVI unit, navigate to the CarPlay section.
- Pair your iPhone via Bluetooth with the unit.
- Follow on-screen prompts to enable Wireless CarPlay.

2. For Wired Android Auto:

- Ensure Android Auto is installed on your Android phone.
- Connect your Android phone to the unit using a USB cable via the designated USB port (USB2 U Carplay).
- Follow on-screen prompts to enable Android Auto.

Once connected, you can access navigation, make calls, send/receive messages, and stream music directly from your smartphone.

5.3 Retained Original BMW System Functions

The AINAVI unit is designed to seamlessly integrate with and retain the functionality of your original BMW system. This includes:

Wiring Diagram



- ① ISO Wiring Harness 1
- ② ISO Wiring Harness 2
- ③ 360-DET
- ④ CAM-PWR (Aftermarket Back-up Camera Cable)
- ⑤ 5V-OUT
- ⑥ GND
- ⑦ CCD-CVBS, Back-up Camera Input
- ⑧ DVR- CVBS, DVR Camera Input
- ⑨ ACC-OUT
- ⑩ AUX-OUT
- ⑪ USB2 U Disk
- ⑫ USB2 U Carplay
- ⑬ LVDS Port

Image: This composite image highlights the various original BMW features that are retained and supported by the AINAVI unit, including the iDrive controller, amplifier, original display, backup camera, steering wheel controls, CD player, radio, and Bluetooth.

- iDrive Knob control
- Original Bluetooth functionality
- Original Radio
- OEM rear camera
- Radar display
- Steering wheel controls
- Original Amplifier System
- Original CD Player

Vehicle information such as speed, fuel level, oil pressure, and safety warnings will also be displayed on the new screen.

6. MAINTENANCE

To ensure the longevity and optimal performance of your AINAVI Touch Screen, follow these maintenance guidelines:

- **Cleaning:** Use a soft, lint-free cloth to clean the screen. For stubborn smudges, slightly dampen the cloth with water or a screen-safe cleaner. Avoid harsh chemicals or abrasive materials.
- **Temperature:** Avoid exposing the unit to extreme temperatures, both hot and cold, for extended periods.
- **Moisture:** Keep the unit dry. Do not expose it to water or other liquids.
- **Software Updates:** Periodically check for software updates from AINAVI to ensure the best performance and access to new features.
- **Physical Protection:** Avoid placing heavy objects on the screen or applying excessive force.

7. TROUBLESHOOTING

If you encounter issues with your AINAVI Touch Screen, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
No power/Screen blank	Loose power connection, blown fuse, incorrect wiring.	Check all wiring connections. Verify vehicle fuses. Ensure the unit is correctly installed.
No sound	Volume too low, incorrect audio source selected, loose audio cables.	Increase volume. Select the correct audio input. Check audio extension cable connections.
CarPlay/Android Auto not connecting	Bluetooth/Wi-Fi off (CarPlay), faulty USB cable (Android Auto), phone settings.	Ensure Bluetooth and Wi-Fi are active on iPhone. Use a certified USB cable for Android Auto. Check phone permissions for CarPlay/Android Auto. Restart phone and unit.
Original BMW functions not working	Incorrect LVDS connection, system not properly switched.	Verify LVDS cable is securely connected. Ensure the unit is in the correct mode to access original BMW functions.
Touch screen unresponsive	Software glitch, physical damage.	Restart the unit. If the problem persists, contact customer support.

If these steps do not resolve the issue, please contact AINAVI customer support for further assistance.

8. SPECIFICATIONS

- **Model Number:** L12.3-X5-CIC
- **Display Size:** 12.3 Inches
- **Resolution:** 1920x720 HD QLED
- **Operating System:** Linux
- **Connectivity:** Bluetooth (v2.1 + EDR, v5.1 LE), USB, Wireless/Wired CarPlay & Android Auto
- **Audio Output Mode:** Stereo
- **Voice Command:** Microphone, Touchscreen
- **Item Weight:** Approximately 4.58 pounds
- **Package Dimensions:** 16.22 x 8.82 x 6.97 inches
- **Included Components:** 12.3" Head Unit, ISO Wiring Harness Cable, Audio Extension Cable, USB Cable, Installation Instruction.

9. WARRANTY AND SUPPORT

9.1 Warranty Information

The AINAVI 12.3-inch Touch Screen comes with a **12 Months Manufacturer Guarantee** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by improper installation, accident, misuse, abuse, neglect, or unauthorized modification. For warranty claims, please retain your proof of purchase and contact AINAVI customer support.

9.2 Customer Support

For installation assistance, technical support, or any questions regarding your product, please contact AINAVI customer support:



For BMW X5/X6 E70/E71 2011-2013 CIC

Image: This image provides instructions on how to contact the seller, HomeCar, for installation and technical support through the Amazon platform by clicking "HomeCar" and then "Ask a question."

- **Online Support:** Visit the product page on Amazon and click on the seller's name (e.g., "HomeCar") to find the "Ask a question" option. Provide details, pictures, or videos of your technical or installation questions.
- **Hotline:** +1 (833) 858-5016 (Working hours: 01:00 PM to 00:00 AM PST)
- **Email:** info@ainavi.com

Please have your product model number (L12.3-X5-CIC) and purchase details ready when contacting support.

Related Documents - L12.3-X5-CIC

	<p><u>Ainavi Universal Installation Guide for Renault Clio 3 Car Radio</u></p> <p>Step-by-step installation guide for the Ainavi aftermarket car radio system in a Renault Clio 3. Includes wiring instructions, component identification, and dashboard connection details for Wireless CarPlay and Android Auto multimedia players.</p>
	<p><u>CIC Carplay MMI BOX - BMW Infotainment Upgrade Guide</u></p> <p>Comprehensive guide for the CIC Carplay MMI BOX, detailing its features, specifications, accessories, compatibility with BMW models, and step-by-step installation and connection instructions for Apple CarPlay, Android Auto, Airplay, and reverse camera integration. Includes troubleshooting FAQs.</p>



[PEMP User Manual: Navigating Your Device Interface and Settings](#)

Comprehensive user manual for PEMP devices, detailing interface navigation, setup options, connection methods for Carplay, Android Auto, Airplay, and Bluetooth, along with audio and display settings.