

KMH WDX 300.4

KMH WDX 300.4g2 4 Channel Car Amplifier Instruction Manual

Model: WDX 300.4

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your KMH WDX 300.4g2 4 Channel Car Amplifier. Please read this manual thoroughly before attempting installation or operation to ensure optimal performance and safety. Keep this manual for future reference.

2. SAFETY INFORMATION

- Always disconnect the vehicle's battery negative terminal before starting any electrical work.
- Ensure all wiring is properly routed and secured to prevent damage or short circuits.
- Use appropriate gauge wiring for power, ground, and speaker connections as specified in the installation section.
- Avoid mounting the amplifier in locations exposed to direct sunlight, excessive heat, moisture, or dust.
- If you are unsure about any part of the installation process, seek assistance from a qualified professional car audio installer.
- Do not operate the amplifier if it is damaged or malfunctioning.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- KMH WDX 300.4g2 4 Channel Car Amplifier
- Instruction Manual
- Mounting Hardware (screws)
- Stickers/Decals (may vary)

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Video: Unboxing and initial overview of the KMH WDX 300.4g2 amplifier, showing package contents and the amplifier itself.

4. PRODUCT OVERVIEW

The KMH WDX 300.4g2 is a 4-channel car amplifier designed to enhance your vehicle's audio system. It features 2Ω stereo capability, variable low-level RCA inputs, and variable 12dB per octave low-pass crossovers for precise sound tuning. The amplifier also includes a blue LED power-on indicator and direct-connect speaker terminals for reliable performance.



Image: Front and rear panels of the KMH WDX 300.4g2 4 Channel Car Amplifier, illustrating the control panel with inputs, gain, crossover settings, and the power/speaker terminal block.

4.1 Control Panel Features

- **Low Level Input (CH 1/2, CH 3/4):** RCA inputs for connecting to your head unit's pre-amp outputs.
- **Gain (CH 1/2, CH 3/4):** Adjusts the input sensitivity to match the output of your head unit.
- **HPF (High Pass Filter) (CH 1/2, CH 3/4):** Variable filter to block low frequencies from reaching your speakers.
- **LPF (Low Pass Filter) (CH 1/2, CH 3/4):** Variable filter to block high frequencies from reaching your speakers, typically used for subwoofers.
- **X-OVER (Crossover Switch) (CH 1/2, CH 3/4):** Selects the crossover mode (Full, HPF, LPF).
- **Bass Boost (CH 1/2, CH 3/4):** Provides an adjustable bass enhancement at a specific frequency.
- **Power LED:** Illuminates blue when the amplifier is powered on.
- **Protect LED:** Illuminates red if the amplifier enters protection mode due to a fault.

4.2 Power and Speaker Terminal Features

- **Power Input (GND, REM, +12V):** Connections for ground, remote turn-on, and 12V power supply.
- **Speaker Terminals (CH 1, CH 2, CH 3, CH 4):** Direct-connect terminals for speaker wiring.
- **Bridge Switch:** Allows bridging channels for higher power output to a single speaker (e.g., subwoofer).



Image: Technical diagram showing the dimensions of the KMH WDX 300.4g2 amplifier in both inches and millimeters.

5. INSTALLATION

Proper installation is crucial for the performance and longevity of your amplifier. It is highly recommended to have this amplifier installed by a certified car audio professional.

5.1 Mounting Location

Choose a mounting location that is dry, well-ventilated, and away from direct heat sources. Ensure there is sufficient space around the amplifier for air circulation. Common locations include under a seat, in the trunk, or behind a panel.

5.2 Wiring Connections

1. **Power Wire (+12V):** Connect a heavy-gauge power wire directly from the positive terminal of your vehicle's battery to the +12V terminal on the amplifier. Install an appropriate fuse holder (not included) within 18 inches of the battery.
2. **Ground Wire (GND):** Connect a heavy-gauge ground wire from the GND terminal on the amplifier to a clean,

unpainted metal surface on the vehicle's chassis. Ensure a solid electrical connection.

3. **Remote Turn-On Wire (REM):** Connect a remote turn-on wire from your head unit's remote output to the REM terminal on the amplifier. This wire turns the amplifier on and off with your head unit.
4. **RCA Input Cables:** Connect RCA cables from your head unit's pre-amp outputs to the Low Level Input terminals (CH 1/2, CH 3/4) on the amplifier.
5. **Speaker Wires:** Connect your speakers to the corresponding speaker terminals (CH 1, CH 2, CH 3, CH 4). Observe correct polarity (+ to + and - to -). For bridged operation, refer to the diagram on the amplifier or consult a professional.

6. SETUP AND CONFIGURATION

After installation, configure the amplifier settings for optimal sound quality.

6.1 Gain Adjustment

The gain control matches the amplifier's input sensitivity to your head unit's output voltage. Start with the gain set to minimum. Play a familiar music track at about 75% of your head unit's maximum volume. Slowly increase the amplifier's gain until you hear distortion, then reduce it slightly until the sound is clear. Avoid setting the gain too high, as this can cause distortion and damage to speakers.

6.2 Crossover Settings (HPF/LPF)

The crossover filters allow you to direct specific frequency ranges to your speakers.

- **Full:** No filtering applied. All frequencies are passed.
- **HPF (High Pass Filter):** Use for full-range speakers or tweeters to prevent low frequencies from reaching them, which can cause distortion. Adjust the frequency knob to the desired cutoff point.
- **LPF (Low Pass Filter):** Use for subwoofers to prevent high frequencies from reaching them. Adjust the frequency knob to the desired cutoff point.

6.3 Bass Boost

The bass boost control provides an increase in bass output. Use this feature sparingly and adjust it carefully to avoid distortion or damage to your speakers/subwoofers.

7. OPERATING INSTRUCTIONS

Once properly installed and configured, the amplifier will automatically turn on when your head unit is activated and turn off when the head unit is powered down. The blue POWER LED indicates normal operation. If the PROTECT LED illuminates, refer to the troubleshooting section.

8. MAINTENANCE

The KMH WDX 300.4g2 amplifier requires minimal maintenance. Keep the amplifier clean and free from dust and debris. Periodically check all wiring connections to ensure they are secure and free from corrosion. Do not use harsh chemicals or abrasive cleaners on the amplifier's surface.

9. TROUBLESHOOTING

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
No power (Power LED off)	Blown fuse, poor power/ground connection, no remote signal.	Check inline fuse, verify power and ground connections, check remote wire connection to head unit.
Protect LED on	Short circuit in speaker wiring, speaker impedance too low, amplifier overheating, DC offset.	Check speaker wiring for shorts, ensure correct speaker impedance, allow amplifier to cool, consult professional if issue persists.
No sound output	RCA cables disconnected, gain too low, speakers disconnected/damaged, head unit settings.	Check RCA connections, adjust gain, verify speaker connections, check head unit volume and source.
Distorted sound	Gain set too high, improper crossover settings, damaged speakers, poor signal source.	Reduce gain, adjust crossover settings, inspect speakers, check head unit output.
Engine noise/whining	Poor grounding, RCA cables too close to power wires, faulty ground loop isolator.	Improve ground connection, reroute RCA cables away from power wires, install a ground loop isolator if necessary.

10. SPECIFICATIONS

Feature	Specification
Brand	KMH
Model Number	WDX 300.4
Number of Channels	4
Item Dimensions (L x W x H)	22 x 18 x 5.6 Centimeters (8.66 x 7.08 x 2.22 Inches)
Item Weight	2.43 kg (2 kg 430 g)
Mounting Type	Surface Mount
Material	Metal
Power Source	Corded Electric
Stereo Capability	2Ω Stereo Stable
Crossover	Variable 12dB Per Octave Low-Pass X-Over
Input	Variable Low Level RCA Input
Indicator	Blue LED POWER-ON Indicator
Terminals	Direct-Connect Speaker Terminals

11. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the warranty card included with your product or visit

the official KMH website. Keep your purchase receipt as proof of purchase for any warranty claims.