

Excalibur X600.2

Excalibur X600.2 2-Channel 1200W Car Audio Amplifier Instruction Manual

MODEL: X600.2

1. INTRODUCTION

Thank you for choosing the Excalibur X600.2 2-Channel Amplifier. This manual provides essential information for the proper installation, operation, and maintenance of your amplifier. Please read it thoroughly before use to ensure optimal performance and safety.

The Excalibur X600.2 is a powerful 2-channel amplifier designed for car audio systems, offering a peak power of 1200W. It delivers $2 \times 60\text{W}$ RMS at 4 Ohms and can be bridged to $1 \times 180\text{W}$ RMS for a subwoofer. Its adjustable high-pass and low-pass filters, along with a Bass Boost function, allow for precise sound customization. The compact design ensures easy installation in various vehicles.



Figure 1: Top view of the Excalibur X600.2 amplifier, showcasing its brushed silver finish and compact design.

2. SAFETY INFORMATION

- Always disconnect the vehicle's battery negative terminal before starting any electrical work.
- Ensure all wiring is properly insulated to prevent short circuits.
- Mount the amplifier securely to prevent it from becoming a projectile in case of sudden stops or accidents.
- Avoid mounting the amplifier in locations exposed to direct sunlight, excessive heat, moisture, or dust.
- Use appropriate gauge wiring for power and ground connections as specified in the installation section.
- If you are unsure about any installation steps, consult a professional car audio installer.

3. PACKAGE CONTENTS

Verify that all items are present in the box:

- 1 × Excalibur X600.2 Amplifier
- 4 × Mounting Screws
- 1 × Spare Fuse (25A)

4. SETUP AND INSTALLATION

4.1 Mounting the Amplifier

The compact design of the Excalibur X600.2 (240 × 220 × 48 mm) allows for flexible mounting options within your vehicle. Choose a location that provides adequate ventilation to prevent overheating and is protected from moisture and physical damage. Secure the amplifier using the provided mounting screws.



Figure 2: Example of the Excalibur X600.2 amplifier installed in a vehicle trunk, demonstrating a typical mounting scenario.

4.2 Wiring Connections

Refer to the diagram below for proper wiring connections. Ensure all connections are secure and correctly polarized.



Figure 3: The rear panel of the Excalibur X600.2 amplifier, detailing the power, ground, remote, fuse, and speaker output terminals.

- **Power (+12V):** Connect this terminal directly to the positive terminal of the vehicle's battery using an appropriate gauge power cable. Install an in-line fuse (not supplied, but recommended) within 18 inches of the battery.
- **Ground (GND):** Connect this terminal to a clean, unpainted metal surface of the vehicle chassis. Ensure a good electrical connection.
- **Remote (REM):** Connect this terminal to the remote turn-on output of your head unit. This wire turns the amplifier on and off with your car stereo.
- **Speaker Outputs:** Connect your speakers to the 'SPEAKER' terminals. For 2-channel operation, connect one speaker to L+ and L- and the other to R+ and R-. For bridged mode (subwoofer), connect the subwoofer to the BRIDGE terminals (L+ and R-).
- **Input (RCA):** Connect the RCA output from your head unit to the 'INPUT' RCA jacks on the amplifier.

5. OPERATING INSTRUCTIONS

The Excalibur X600.2 amplifier features several adjustable controls to fine-tune your audio system. These controls are located on the side panel of the amplifier.



Figure 4: The side panel of the Excalibur X600.2 amplifier, showing the adjustable crossover (HPF/LPF), input/output RCA jacks, treble, bass, and gain controls.

- **Gain Control:** This adjusts the input sensitivity of the amplifier. Start with the gain set to minimum and slowly increase it until the desired volume is achieved without distortion.
- **Crossover (HPF/LPF):**
 - **HPF (High-Pass Filter):** Allows frequencies above the set point to pass through. Useful for full-range speakers to prevent low bass distortion.
 - **LPF (Low-Pass Filter):** Allows frequencies below the set point to pass through. Essential for subwoofers to reproduce only bass frequencies.
 - **FULL:** Disables the crossover, allowing all frequencies to pass.
- **Bass Boost:** This control allows you to enhance the bass output at a specific frequency. Use sparingly to avoid distortion.
- **Treble Control:** Adjusts the high-frequency output.
- **Bridged Mode:** For increased power output to a single speaker (typically a subwoofer), the amplifier can be operated in bridged mode. Connect the speaker to the designated BRIDGE terminals (L+ and R-) and ensure the speaker's impedance is suitable for bridged operation (typically 4 Ohms minimum).

6. MAINTENANCE

- **Cleaning:** Periodically clean the amplifier's exterior with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners. Ensure ventilation fins are free from dust and debris.

- **Fuse Replacement:** The amplifier is protected by a 25A fuse. If the amplifier stops working, check the fuse. Always replace a blown fuse with one of the exact same rating (25A). Using a fuse with a higher rating can cause serious damage to the amplifier or vehicle's electrical system.

7. TROUBLESHOOTING

If you experience issues with your amplifier, refer to the following common troubleshooting steps:

- **No Power:**
 - Check the main power fuse (both the in-line fuse near the battery and the fuse on the amplifier).
 - Verify that the +12V, GND, and REM connections are secure and have proper voltage.
 - Ensure the remote wire is receiving a +12V signal from the head unit.
- **No Sound:**
 - Check all RCA input and speaker output connections.
 - Ensure the head unit is turned on and playing audio.
 - Adjust the amplifier's gain control.
 - Verify speaker wires are not shorted or touching the vehicle chassis.
- **Distorted Sound:**
 - Reduce the amplifier's gain control.
 - Check speaker impedance to ensure it is within the amplifier's specifications.
 - Adjust crossover settings (HPF/LPF) to match your speakers and subwoofer.
 - Reduce Bass Boost if it is set too high.
- **Amplifier Overheating:**
 - Ensure the amplifier has adequate ventilation and is not covered.
 - Check speaker impedance; very low impedance can cause overheating.
 - Reduce the gain setting.

8. SPECIFICATIONS

Feature	Specification
Brand	Excalibur
Model Number	X600.2
Maximum Power	1200W
RMS Power @ 4 Ohms	2 × 60W
RMS Bridged Power @ 4 Ohms	1 × 180W
Frequency Response	20 Hz – 20 kHz
Signal-to-Noise Ratio	>85 dB
Sensitivity	150 mV – 8 V

Feature	Specification
Crossover	Variable High-Pass / Low-Pass
Fuse Rating	25A
Dimensions (L × W × H)	240 × 220 × 48 mm
Voltage	12 Volts
Number of Channels	2
Material	Metal

9. WARRANTY AND SUPPORT

The Excalibur X600.2 amplifier comes with a **2-year manufacturer's warranty**. 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 technical support, warranty claims, or service inquiries, please contact your authorized Excalibur retailer or the Excalibur customer service department. Please retain your proof of purchase for warranty validation.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Example: How do I reset this device or fix this error?

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