

BELVA BB200ABv2

BELVA BB200ABv2 500W Peak Class A/B Monoblock Amplifier

User Instruction Manual

INTRODUCTION

Thank you for choosing the BELVA BB200ABv2 500W Peak Class A/B Monoblock Amplifier. This amplifier is designed to deliver powerful and clear bass for an enhanced car audio experience. This manual provides essential information for proper installation, operation, and maintenance of your amplifier. Please read it thoroughly before use to ensure optimal performance and safety.

IMPORTANT SAFETY INFORMATION

- Always disconnect the vehicle's battery negative terminal before starting any installation.
- Ensure all wiring is properly routed and secured to prevent damage or short circuits.
- Use appropriate gauge wiring for power and ground connections as specified in the installation section.
- Mount the amplifier securely in a location that allows for adequate ventilation and is protected from moisture and excessive heat.
- Do not operate the amplifier if it is damaged or malfunctioning. Refer to the troubleshooting section or contact customer support.
- Prolonged exposure to high volume levels can cause hearing damage. Adjust volume to a safe level.

PACKAGE CONTENTS

Verify that all items are present in the package:

- BELVA BB200ABv2 Monoblock Amplifier
- Wired Remote Bass Control Knob
- High-Level Input Harness
- Mounting Hardware

- User Manual (this document)

KEY FEATURES

- **Powerful Monoblock Amplifier:** Delivers up to 500W peak power for strong and clear bass.
- **Stable & Efficient Performance:** Designed for 2-ohm stability, outputs 200W RMS at 4Ω and 500W RMS at 2Ω.
- **Customizable Audio Control:** Features adjustable gain, a low-pass filter (40Hz-300Hz), and bass boost (+0-12dB).
- **Versatile Connectivity:** Equipped with high-level/speaker-level inputs for factory stereo integration and preamp outputs for system expansion.
- **Remote Bass Knob Included:** Allows easy adjustment of bass levels from your dashboard.
- **Durable & Reliable Design:** Built with high-quality components and protected by a 25A fuse.

CONTROLS AND CONNECTIONS

Input/Control Panel

This section details the various inputs, outputs, and control adjustments located on the amplifier.



Image: Rear view of the BELVA BB200ABv2 amplifier showing the High Input, RCA Output, RCA Input, Gain control, LPF (Low-Pass Filter) control, Bass Boost control, and Remote port.

- **HIGH INPUT:** Connects to your factory stereo's speaker outputs. Use the included harness.
- **OUTPUT (RCA):** Provides a full-range signal for connecting additional amplifiers.
- **INPUT (RCA):** Connects to your aftermarket head unit's RCA pre-outs.
- **GAIN:** Adjusts the input sensitivity of the amplifier to match the output of your head unit.

- **LPF (Low-Pass Filter):** Controls the upper frequency limit for the subwoofer, adjustable from 40Hz to 300Hz.
- **BASS BOOST:** Increases the bass output at a specific frequency, adjustable from 0 to +12dB.
- **REMOTE:** Port for connecting the wired remote bass control knob.
- **POWER/PROTECTION LEDs:** Indicators for amplifier status.

Power and Speaker Terminals

This panel contains the connections for power, ground, remote turn-on, and speaker outputs.



Image: Front view of the BELVA BB200ABv2 amplifier showing the power input terminals (+12V, REM, GND) and speaker output terminals, along with the fuse holder.

- **FUSE:** Contains a 25A fuse for protection. Always replace with a fuse of the same rating.
- **+12V:** Main power input from the vehicle's battery.
- **REM (Remote):** Connects to the remote turn-on lead from your head unit.
- **GND (Ground):** Connects to a solid chassis ground point in the vehicle.
- **SPEAKER:** Output terminals for connecting your subwoofer(s).

INSTALLATION GUIDE

Proper installation is crucial for optimal performance and safety. If you are unsure about any part of the installation process, consult a professional car audio installer.

Mounting Location

- Choose a dry, well-ventilated location away from direct sunlight and heat sources.
- Ensure the mounting surface is sturdy enough to support the amplifier's weight.

- Allow sufficient space around the amplifier for air circulation.
- Avoid mounting the amplifier where it could be exposed to moisture or excessive vibration.

Wiring Connections

1. **Battery Disconnection:** Disconnect the negative (-) terminal of your vehicle's battery before starting any wiring.
2. **Power Wire (+12V):** Run a power wire (minimum 8-gauge recommended) directly from the positive (+) terminal of the vehicle's battery to the amplifier's +12V terminal. Install an in-line fuse holder (25A) within 18 inches (45 cm) of the battery.
3. **Ground Wire (GND):** Connect a ground wire (same gauge as power wire) from the amplifier's GND terminal to a clean, unpainted metal surface on the vehicle's chassis. Ensure a good electrical connection.
4. **Remote Turn-On Wire (REM):** Connect a remote turn-on wire (18-gauge) from your head unit's remote output to the amplifier's REM terminal. This wire turns the amplifier on and off with your head unit.
5. **Signal Input:**
 - **RCA Input:** If your head unit has RCA pre-outs, connect them to the amplifier's RCA INPUT terminals using high-quality RCA cables.
 - **High-Level Input:** If your head unit does not have RCA pre-outs, use the included high-level input harness. Connect the speaker wires from your head unit to the corresponding wires on the harness, then plug the harness into the amplifier's HIGH INPUT port.
6. **Speaker Output:** Connect your subwoofer(s) to the amplifier's SPEAKER terminals. Ensure correct polarity (+ to + and - to -). Refer to your subwoofer's specifications for proper impedance matching. This amplifier is stable at 2 ohms.
7. **Remote Bass Knob:** Connect the wired remote bass control knob to the REMOTE port on the amplifier. Route the cable to a convenient location for the driver.
8. **Battery Reconnection:** Once all connections are secure and verified, reconnect the negative (-) terminal of your vehicle's battery.

OPERATION

Initial Power-Up and Gain Adjustment

1. Turn on your head unit. The amplifier's POWER LED should illuminate. If the PROTECTION LED illuminates, refer to the troubleshooting section.
2. Set all amplifier controls (Gain, LPF, Bass Boost) to their minimum settings.
3. Play a familiar piece of music with strong bass content. Set your head unit's volume to about 75% of its maximum level.
4. Slowly increase the amplifier's GAIN control until you hear distortion, then back it off slightly until the sound is clear. This matches the amplifier's input sensitivity to your head unit's output.

Adjusting the Low-Pass Filter (LPF)

- The LPF control allows only frequencies below the set point to pass through to the subwoofer.
- Adjust the LPF between 40Hz and 300Hz to blend the subwoofer's output seamlessly with your main speakers. A common starting point is 80Hz-100Hz.

Using the Bass Boost

- The Bass Boost control provides an additional boost to low frequencies.

- Use this feature sparingly and adjust carefully to avoid distortion or damage to your subwoofer.

Remote Bass Control

- The included remote bass knob allows you to adjust the subwoofer output level conveniently from the driver's seat.
- This control typically adjusts the overall output level of the amplifier, not the gain setting.

MAINTENANCE

- **Cleaning:** Periodically wipe the amplifier's exterior with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners.
- **Ventilation:** Ensure that the amplifier's cooling fins are free from dust and debris to maintain proper heat dissipation.
- **Connections:** Occasionally check all wiring connections to ensure they are secure and free from corrosion.
- **Fuse Replacement:** If the fuse blows, replace it only with a fuse of the exact same rating (25A). A blown fuse often indicates a problem, so investigate the cause if it happens repeatedly.

TROUBLESHOOTING GUIDE

If you experience problems with your amplifier, refer to this guide before contacting support.

| Problem | Possible Cause | Solution |
|--|--|--|
| No Power (POWER LED off) | Blown fuse; Loose power/ground/remote wire; No power from battery; Faulty remote turn-on signal. | Check and replace fuse (25A); Verify all power, ground, and remote connections; Test battery voltage; Check head unit's remote output. |
| Protection Mode (PROTECTION LED on) | Speaker short circuit; Overheating; Low impedance load; DC offset. | Check speaker wiring for shorts; Ensure adequate ventilation; Verify speaker impedance (minimum 2Ω); Disconnect speakers and test amplifier. |
| No Sound Output | No input signal; Incorrect gain setting; Muted head unit; Faulty RCA/speaker cables. | Check RCA/high-level input connections; Adjust gain; Ensure head unit is not muted; Test cables. |
| Distorted Sound | Gain set too high; Clipping from head unit; Damaged speaker; Incorrect LPF/Bass Boost settings. | Reduce gain; Lower head unit volume; Inspect speaker; Adjust LPF/Bass Boost settings. |
| Engine Noise/Whine | Poor ground connection; RCA cables too close to power wires; Ground loop. | Improve ground connection; Reroute RCA cables away from power wires; Install a ground loop isolator. |

SPECIFICATIONS

| Feature | Detail |
|--------------|-----------|
| Model Number | BB200ABv2 |

| Feature | Detail |
|------------------------|-----------------------------|
| Brand | BELVA |
| Amplifier Class | Class A/B Monoblock |
| Output Power (Peak) | 500 Watts |
| RMS Power (4 Ohms) | 200 Watts |
| RMS Power (2 Ohms) | 500 Watts |
| Number of Channels | 1 |
| Low-Pass Filter (LPF) | 40Hz - 300Hz |
| Bass Boost | 0 - +12dB |
| Fuse Rating | 25A |
| Maximum Supply Voltage | 14 Volts |
| Item Weight | 5.35 pounds |
| Package Dimensions | 11.46 x 10.79 x 4.41 inches |
| UPC | 818060018091 |

WARRANTY AND SUPPORT

For warranty information or technical support, please contact BELVA customer service. Keep your purchase receipt as proof of purchase.

Visit the official BELVA website for the most up-to-date support information and contact details: [BELVA Store on Amazon](#)