

Power Acoustik BASS-12C

Power Acoustik BASS-12C Digital Bass Restoration Processor User Manual

Model: BASS-12C

1. INTRODUCTION

The Power Acoustik BASS-12C is a digital bass restoration processor designed to enhance the low-frequency output of your car audio system. This unit provides precise control over bass frequencies, allowing for customization and optimization of your audio experience. It features balanced inputs and outputs for seamless integration and a remote control for convenient adjustments.

2. PRODUCT FEATURES

- Illuminated badge for visual indication.
- PWM high-headroom power supply ensures stable performance.
- 27Hz–63Hz parametric bass boost for targeted frequency enhancement.
- Variable bandwidth adjustment for fine-tuning bass response.
- Maximum output level: 13.5V.
- Bass restoration with lighted display and chrome finish.
- Dash-mount remote control for PFM subsonic filter and bass level adjustments.
- Balanced inputs for optimal signal integrity.
- Frequency Response: 10Hz - 100KHz.
- Total Harmonic Distortion (THD): 0.002%.
- Signal-to-Noise Ratio (S/N Ratio): 132dB.
- Balanced Input Noise Rejection: 60 dB.

3. PACKAGE CONTENTS

Upon opening the package, verify that all items are present and in good condition:

- Power Acoustik BASS-12C Digital Bass Restoration Processor unit.
- User Manual.

- Dash-mount remote control.
- Wiring harness for power and remote connections.
- Mounting hardware.

4. SAFETY INFORMATION

WARNING:

This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Always handle with care and follow local regulations for disposal.

Ensure proper installation by a qualified professional to prevent damage to the unit or vehicle. Disconnect the vehicle's battery before installation.

5. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance. Refer to the diagram below for connection points.



Figure 1: Front and Rear Panel Overview of the BASS-12C. This image displays the unit's top panel with "WIDE" and "SWEEP" controls, "POWER" and "MAX BASS CONTROL" indicators, and the "POWER ACOUSTIK" logo. The side panels show "BALANCED INPUT" (L/R RCA), "OUTPUT" (L/R RCA), "+12V", "GROUND", "REMOTE" terminals, and "DASH REMOTE" port.

5.1 Mounting

Choose a secure, dry location for mounting the BASS-12C, away from direct heat or moisture. Ensure adequate ventilation around the unit. Use the provided mounting hardware to secure the processor.

5.2 Wiring Connections

1. **Power Connection (+12V):** Connect the +12V terminal on the BASS-12C to a constant +12V power source from the vehicle's battery. Use appropriate gauge wire and an inline fuse (not supplied) as close to the battery as possible.
2. **Ground Connection (GROUND):** Connect the GROUND terminal to a clean, unpainted metal surface of the vehicle chassis. Ensure a solid, low-resistance connection.
3. **Remote Turn-On (REMOTE):** Connect the REMOTE terminal to the remote turn-on output of your head unit or another switched +12V source. This will turn the BASS-12C on and off with your audio system.
4. **Audio Input (BALANCED INPUT L/R):** Connect the RCA outputs from your head unit or signal processor to the BALANCED INPUT L/R RCA jacks on the BASS-12C.
5. **Audio Output (OUTPUT L/R):** Connect the OUTPUT L/R RCA jacks from the BASS-12C to the RCA inputs of your amplifier(s).
6. **Dash Remote:** Connect the provided dash-mount remote control cable to the DASH REMOTE port on the BASS-12C. Mount the remote in an accessible location for easy adjustment.

6. OPERATING INSTRUCTIONS

The BASS-12C offers several controls to fine-tune your bass response. Familiarize yourself with these controls for optimal audio customization.

6.1 Front Panel Controls

- **WIDE Control:** This knob adjusts the width of the bass restoration effect. Turning it clockwise increases the perceived width of the bass, making it sound fuller.
- **SWEEP Control:** This knob allows you to select the center frequency for the bass restoration. Adjust this to target specific bass frequencies that you wish to enhance.
- **POWER Indicator:** A green LED that illuminates when the unit is powered on.
- **MAX BASS CONTROL Indicators:** These LEDs indicate the level of bass restoration being applied.

6.2 Dash Remote Control

The dash-mount remote control provides convenient access to key bass adjustments from your driving position.

- **Bass Level Knob:** This knob controls the overall output level of the bass restoration. Turn clockwise to increase bass, counter-clockwise to decrease.
- **PFM Subsonic Filter Switch:** This switch activates or deactivates the PFM (Programmable Frequency Match) subsonic filter, which helps protect subwoofers from damaging ultra-low frequencies.

6.3 Initial Setup and Tuning

1. Start with the WIDE and SWEEP controls at their minimum settings.
2. Play a piece of music with strong bass content.
3. Slowly increase the WIDE control until the bass sounds full and impactful without distortion.

- 4. Adjust the SWEEP control to find the frequency range where the bass restoration is most effective and pleasing to your ears.
- 5. Use the remote control's Bass Level knob to set the desired overall bass intensity.
- 6. Experiment with the PFM Subsonic Filter to determine if it improves bass clarity and protects your subwoofers in your specific setup.

7. MAINTENANCE

The Power Acoustik BASS-12C requires minimal maintenance. Keep the unit clean and free from dust and debris. Use a soft, dry cloth for cleaning. Avoid using harsh chemicals or abrasive cleaners. Ensure all connections remain secure over time.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
No power / Unit does not turn on.	No +12V power. Poor ground connection. No remote turn-on signal. Blown fuse.	Check +12V power wire and fuse. Verify ground connection is secure. Ensure remote wire is connected and receiving +12V when head unit is on. Replace fuse if blown (ensure correct amperage).
No bass restoration effect.	Incorrect input/output connections. WIDE or SWEEP controls set too low. Remote bass level set too low.	Verify RCA input and output connections. Adjust WIDE and SWEEP controls. Increase bass level using the dash remote.
Distorted bass.	Input signal too high. Output level too high. Amplifier gain set too high.	Reduce head unit volume or input sensitivity. Lower the bass level on the dash remote. Adjust amplifier gain settings.
Noise or hum in audio.	Ground loop. Poor quality RCA cables. Power wires too close to RCA cables.	Ensure all components are grounded to a common point. Use high-quality shielded RCA cables. Route power and audio cables separately.

9. SPECIFICATIONS

Product Dimensions	10.5 x 8.5 x 2.5 inches
Item Weight	2.08 ounces
Model Number	BASS-12C
Output Level	13.5 volts




Frequency Response	10Hz - 100KHz
THD	0.002%
S/N Ratio	132dB
Balanced Input Noise Rejection	60 dB
Color	Chrome
Material	Metal
Manufacturer	Power Acoustik




10. WARRANTY AND SUPPORT

Power Acoustik products are designed and manufactured to the highest quality standards. For specific warranty information, please refer to the warranty card included with your product or visit the official Power Acoustik website. Keep your purchase receipt as proof of purchase for warranty claims.

For technical support or service inquiries, please contact Power Acoustik customer service through their official channels. Do not attempt to repair the unit yourself, as this may void the warranty.

Related Documents - BASS-12C

	<p>Power Acoustik CPAA-70M RDS Firmware Update Guide</p> <p>Step-by-step instructions for updating the firmware on the Power Acoustik CPAA-70M RDS receiver. Learn how to download, prepare the USB drive, and perform the update.</p>
	<p>Power Acoustik SA-26 Spectrum Analyzer Installation and Powering Guide</p> <p>This guide provides instructions for installing and powering the Power Acoustik SA-26 Spectrum Analyzer, covering mounting options via double-sided adhesive or an angled bracket, and power connections via USB or direct wiring.</p>
	<p>Power Acoustik CP-71W AV Center Owner's Manual</p> <p>Comprehensive owner's manual for the Power Acoustik CP-71W AV Center, a 1-DIN car stereo with wireless Apple CarPlay. Includes installation, operation, functions, and troubleshooting.</p>

	<p>Power Acoustik CPAA-70M AV Center 2-Din Headunit User Manual</p> <p>This manual provides comprehensive instructions for the Power Acoustik CPAA-70M AV Center, a 2-Din Headunit with MP3/MP4/USB/SD/AUX, built-in AM/FM, Bluetooth, Apple CarPlay, and Android Auto support. It covers installation, wiring, panel functions, remote control, various applications, troubleshooting, and specifications.</p>
	<p>Power Acoustik CPAA-70D10M 2-DIN Headunit User Manual</p> <p>This manual provides comprehensive instructions for the Power Acoustik CPAA-70D10M 2-DIN Headunit, covering its features, installation, operation, and specifications. Learn how to use Apple CarPlay, Android Auto, Bluetooth, USB, SD, Radio, and AV IN functions.</p>
	<p>Power Acoustik RZR1-2500D RAZOR 1-Channel Digital Subwoofer Amplifier User Manual</p> <p>This manual provides detailed information on the features, specifications, power connections, input connections, output wiring configurations, pre-amp features, mounting instructions, gain setting, bass boost control, troubleshooting, and warranty for the Power Acoustik RZR1-2500D RAZOR 1-Channel Digital Subwoofer Amplifier.</p>