



PB-DBR1

DIGITAL BASS RESTORATION PROCESSOR

Owners Manual

Please read through this manual to familiarize yourself with your new processor. Should your PowerBass processor ever require service, you will need to have the original dated receipt.



Thank you and Congratulations

Thank you for your decision to purchase a PowerBass USA processor, This processor is a high fidelity bass restoration system that allows you to restore the missing lower frequencies for an exceptional listening experience. Your PowerBass Processor has been designed and engineered using the latest in signal processing technology and will afford you years of listening pleasure.



This installation manual contains valuable information on how to get the most out of your new PowerBass Processor. Virtually any car stereo system will benefit from the addition of this unique and versatile product.

To learn more about PowerBass Autosound, please visit us on the World Wide Web at
<http://www.powerbassusa.com>

Δ Warning Δ

To prevent injury and damage to the unit, please read and follow the instructions in this manual. If you feel unsure about installing this system yourself, have it installed by an Authorized PowerBass dealer or technician. Before attempting installation always disconnect the negative (-) battery terminal.

FEATURES

Digital Bass Restoration: Enhance your overall sound by restoring the missing low frequency parts that todays sound reproduction devices tend to filter out. Smaller subwoofers and door speakers come alive again when the PB-DBR1 is engaged.

2 Channel Preamp Input and Output Connect RCA's directly from your source unit to allow the full signal to pass through the PB-DBR1 for processing to the output RCA connection for your amplifier.

User Adjustable Center Frequency The Sweep adjustment allows you to set your center frequency. This is the middle of the frequency range you want to restore, once set you will need to adjust how wide of a range you want to be effected by the processor.

User Adjustable Frequency Range The Wide adjustment allows you to determine the width of frequency range that will be restored by the processor. A lower adjustment will result in a narrow range while a higher adjustment will result in a very wide frequency range.

User Selectable Output Voltage Range (2.5V-10V RMS*) By removing the top cover you can set the range of the output voltage from 2.5 up to 10V RMS or select a custom configuration for a higher minimum starting point or a lower maximum setting.

User Selectable Ground Isolation Configuration* If noise is presented by alternator wine or other outside factors adjusting the ground isolation can help remedy this. Select between reference ground, fully isolated, or 200Ω fixed. Please be sure that the PB-DBR1 is not turned on and the system is turned OFF before moving the jumpers.

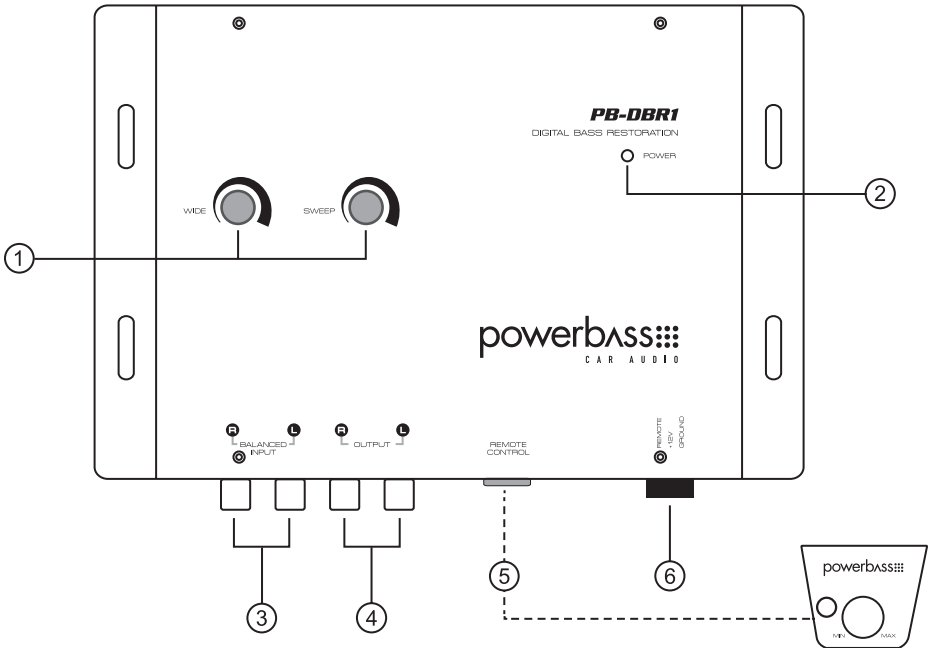
User Selectable Balanced or Unbalanced Preamp Inputs* Most audio systems will only require the balanced position however in the event that your audio system is attempting to reference ground via the RCA connection we recommend using the Unbalanced configuration. Please be sure that the PB-DBR1 is not turned on and the system is turned OFF before moving the jumpers.

Fixed Subsonic Filter 30Hz 12/db Octave Subsonic filters help keep your speaker in control by filtering extreme low frequencies that might cause damage to your speaker.

Wired Remote Level Control Take control of your sound by adjusting the output level remotely. This can be mounted near the operator for easy adjustment from the listening area.

* Top Cover must be removed to access these features

CONTROL PANEL LAYOUT



1. WIDE Adjusting this controls the width of the frequency range that will be restored. Minimum setting provides narrow width, Maximum provides a wide range.

SWEEP Adjusting this controls the center frequency for restoration. 30Hz - 80Hz minimum to maximum setting.

2. STATUS LED Illuminates when the PB-DBR1 is powered on and operational. Blue indicates functioning normally, Red indicates there is a fault in the operation and the unit is in protection mode.

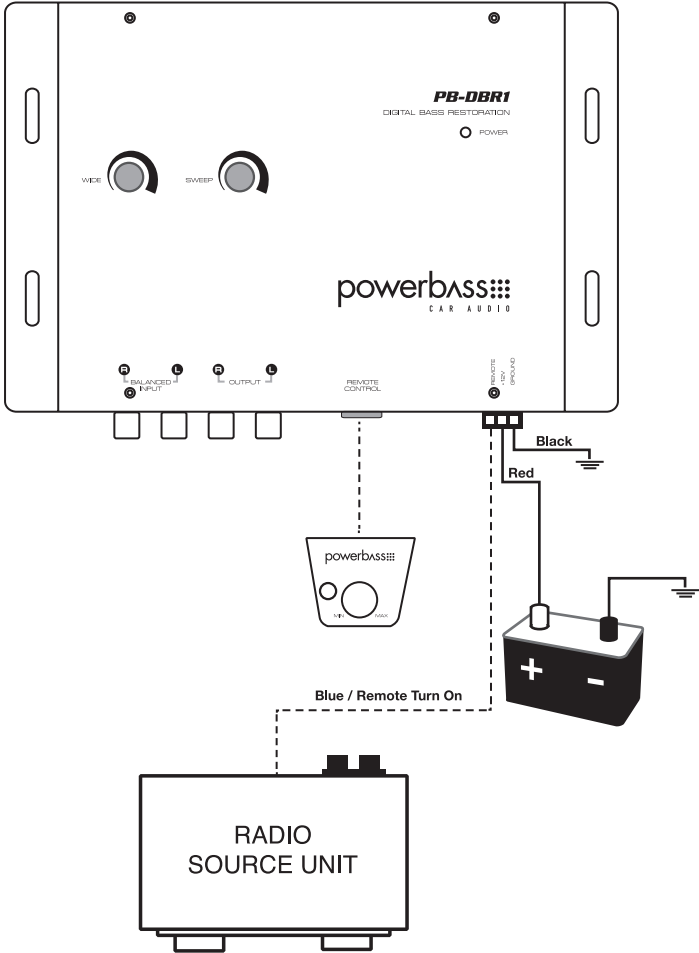
3. BALANCED INPUT RCA Input from your source unit by RCA cable connection.

4. OUTPUT RCA Output to your amplifier by RCA cable connection

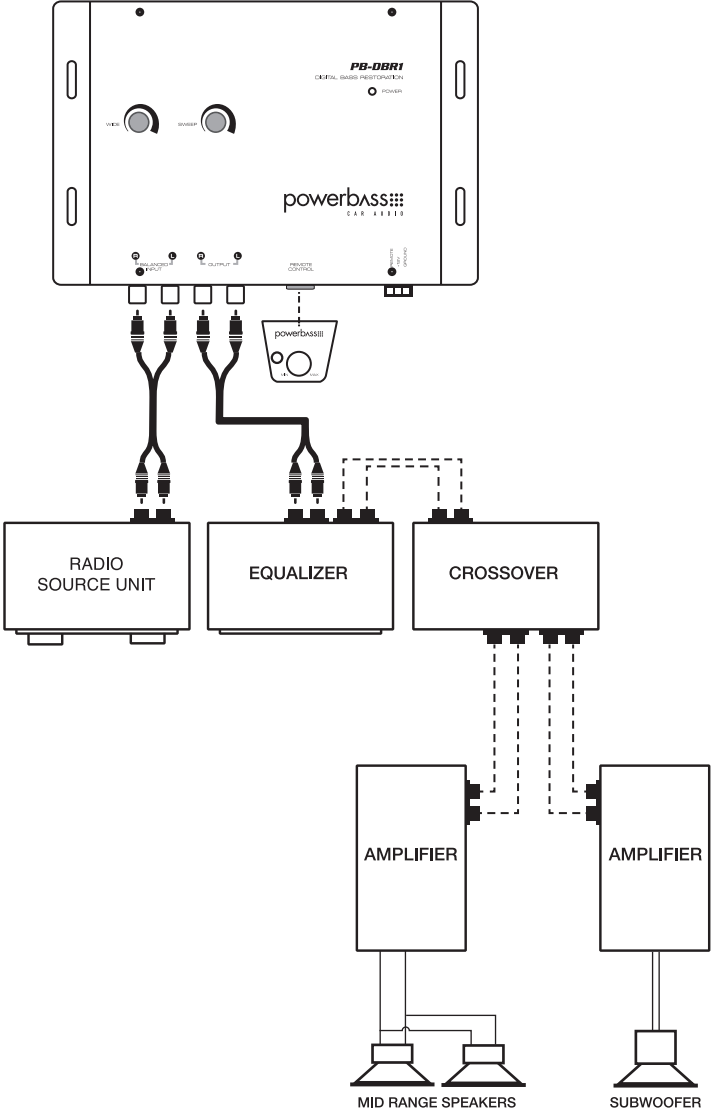
5. REMOTE CONTROL Attach the supplied remote volume control knob to adjust the output remotely from the listening area. Bracket Mount or Flush Mount with removable LED.

6. POWER INPUT PLUG All power connections 12V, Ground, and Remote Turn on (see pg. 5 for connection instructions)

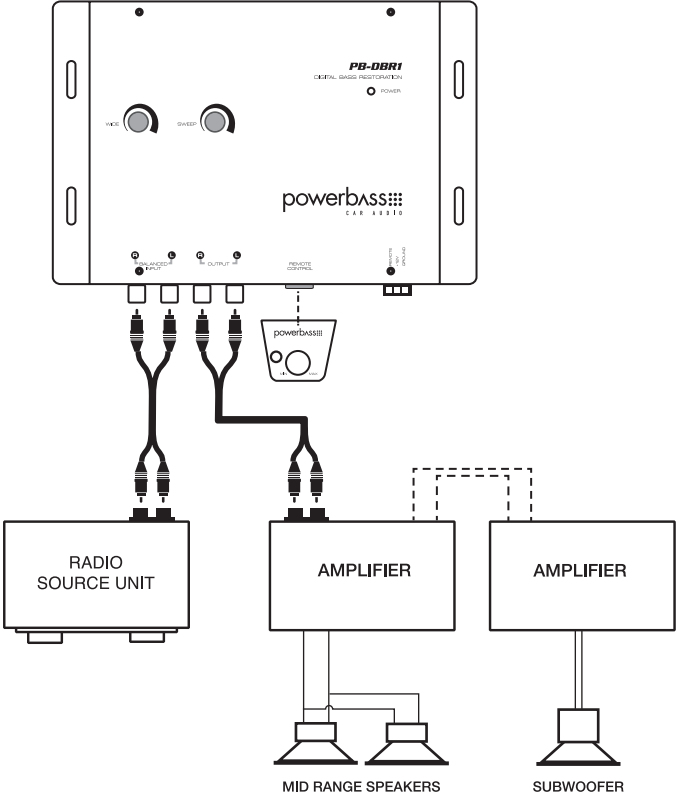
INSTALLATION INSTRUCTIONS



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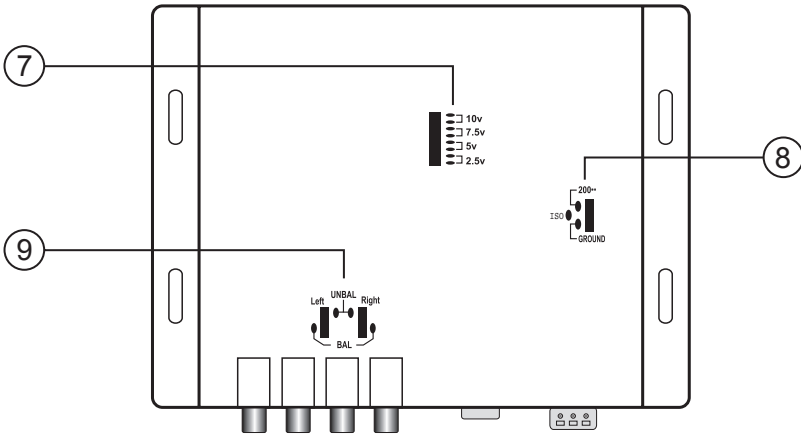


INSTALLATION INSTRUCTIONS (Direct to Amplifier)



INTERNAL SETTINGS INSTRUCTIONS

NOTE: The system must be powered OFF when making changes to the internal settings.
Do not remove or insert a jumper while the system is powered ON



7. OUTPUT VOLTAGE CONTROL JUMPERS: The PB-DBR1 can either increase or decrease the output voltage of the Bass Restoration Circuit. Depending upon your system, you may change these jumpers to a higher or lower setting to maximize your output while protecting your speakers. In most systems the factory setting will be best all around.

Output Voltage Settings

Settings	Amplifier Input Voltage	Minimum Speaker Size
2.5 Volts	3 Volts or less	8"
5 Volts	5 Volts or less	10"
7.5 Volts	7.5 Volts or less	12"
10 Volts	10 Volts or less	

8. GROUND ISOLATION JUMPERS: Occasionally alternator while may appear in a system because the source unit and amplifier may use a different ground reference. To help with this situation, the PB-DBR1 provides alternative grounding solutions.

9. INPUT GROUND ISOLATION JUMPERS: With most systems you can leave the jumper set in the BALANCED position. In some systems, the source unit may look for a ground through the RCA connectors. In this event, you should set the jumpers to the UNBALANCED position.

TROUBLESHOOTING TIPS

Problem	Solution
No Sound	<ol style="list-style-type: none">1. Check "Power" and remote turn-on for the proper voltage2. Check the Ground connections3. Check the RCA balance change to unbalanced if needed
Noise or Alternator Whine	<ol style="list-style-type: none">1. Turn down the amplifier gains2. Select a different ground isolation setting
Distorting Speakers	<ol style="list-style-type: none">1. Adjust the sweep and wide levels2. Lower the volume of the remote level control3. Lower the volume of the source unit

SPECIFICATIONS

Frequency Response: 20Hz-100kHz

Total Harmonic Distortion (THD): 0.001%

Signal to Noise Ratio: >120dB

Input Impedance: 10 k Ω

Output Impedance: 150 Ω

Fixed Subsonic Filter: 30Hz 12dB/Octave

Channel Separation: 96dB

Maximum Output Voltage: 13Vrms

Power Supply: 11-15V DC negative ground

Fuse: 1Amp (AGC type)

Dimensions: Chassis 5.5"W x 8"H x 1"D

(140mm x 203mm x 25mm)

(Due to continuing improvement, features and specifications are subject to change without notice)

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POWERBASS AUTOSOUND LIMITED WARRANTY POLICY

PowerBass USA, Inc. offers limited warranty on PowerBass products under normal use on the following terms:

PowerBass Autosound Electronics are to be free of defects in material and workmanship for a period of one (1) year.

This warranty applies only to PowerBass products sold to consumers by Authorized PowerBass Dealers in the United States of America. Products purchased by consumers from a PowerBass dealer in another country are covered only by that country's Distributor and not by PowerBass USA.

This warranty covers only the original purchaser of PowerBass product. In order to receive service, the purchaser must provide PowerBass with the receipt stating the consumer name, dealer, product and date of purchase.

Products found to be defective during the warranty period will be repaired or replaced (with a product deemed to be equivalent) at PowerBass's discretion and will not be liable for incidental or consequential damages. PowerBass will not warranty this product under the following situations:

- **Electronics received with apparent rust or corrosion**
- **Any evidence of liquid damage or exposure to excessive heat**
- **Attempted repairs or alterations of any nature**
- **Product that has not been installed according to this owners manual**

Any implied warranties including warranties of fitness for use and merchantability are limited in duration to the period of the express warranty set forth above. Some states do not allow limitations on the length of an implied warranty, so this limitation may not apply. No person is authorized to assume for PowerBass any other liability in connection with the sale of this product.

Please call (909) 923-3868 for PowerBass Customer Service. You must obtain an RA# (Return Authorization Number) to return any product to PowerBass. **The RA number must be prominently marked on the outside of the shipping carton or the delivery will be refused.** Please pack your return carefully; we are not responsible for items damaged in shipping. Return the defective product along with a copy of the original dated retail sales receipt, plus \$12.00 for handling and diagnostic evaluation to:

**PowerBass USA, Inc.,
Attn: Returns (RA# _____)
2133 S. Green Privado, Ontario, CA 91761**

Residents of HI, AK and US territories will be charged for return shipping. All inquires regarding service and warranty should be sent to the above address.

Removed or altered serial numbers will void this warranty



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