

powerbass®

X T R E M E



XEQ-4BT

MULTI-ZONE DUAL 4 BAND EQUALIZER with BLUETOOTH

Owners Manual

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

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EQUALIZER

Thank you and Congratulations

Thank you for your decision to purchase a PowerBass USA Premium Equalizer with Bluetooth, commonly called an EQ. This equalizer is a high fidelity audio control that automatically adjusts the bandwidth or “Q” as you change frequencies. The built-in preamplifier stage raises the signal level of your head unit and increases the dynamic range of your system. All this housed in an attractive ½ DIN chassis.



PREMIUM EQUALIZER/PREAMP

This installation manual contains valuable information on how to get the most out of your new PowerBass Premium Equalizer. Designed and engineered using the latest in signal processing technology, virtually any stereo system will benefit from the addition of this unique and versatile product.

Δ Caution Δ

High powered audio systems in a vehicle are capable of generating higher than "Live Concert" levels of sound pressure. Continued exposure to excessively high volume sound levels will cause hearing loss or damage. Also, operation of a motor vehicle while listening to audio equipment at high volume levels may impair your ability to hear external sounds such as horns, warning signals, or emergency vehicles—thus creating a potential traffic hazard. In the interest of safety, PowerBass USA highly recommends listening at lower volume levels when driving.

FEATURES

Main Volume Control With Three Independent Zone Output Controls

Connect up to three external amps with separate level output controls from the front panel with a master volume control for the entire system.

Front Panel Source Selector Main/Aux and Bluetooth

The front panel source selector control knob lets you switch between 3 different input sources (Bluetooth, Aux and RCA inputs).

4 Band Dual Equalization Bass, Mid-Bass, Mid and High (Zone 1 And Zone 2)

Each center frequency receives 18db of boost or cut to adjust bass (75 Hz) mid-bass (260 Hz) mid (2 kHz) and high (14 kHz).

Front Panel Tri-Illumination Selector

The front panel illumination control knob let's you change the backlighting from blue, red or green.

Front Panel Track Forward/Backward Selector

Let's you change track forwards or backwards from your Bluetooth device using the front panel track control knob.

USB Charging Port

2 amp output to charge your connected Bluetooth device.

High Voltage Line Driver

6 volts of pre-amp signal voltage to deliver plenty of clean output signal for your amplifiers. Up to 6 volts in Bluetooth mode and up to 10 volts in Aux / Main mode.

MOSFET PWM Power Supply

The PWM (pulse width modulated) power supply is used to provide steady voltage from the vehicle's charging system which can vary under normal driving conditions.

Marine Grade Conformal Coated PCB

Coated PC board to resist elements from dust, corrosion and moisture.

INSTALLATION EXPERIENCE

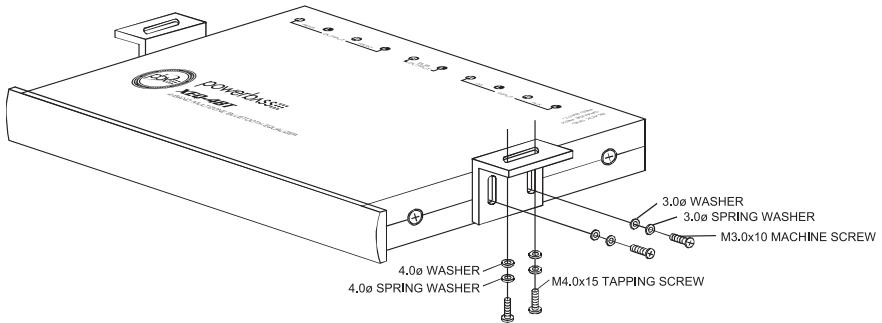
Installation of your PowerBass equalizer requires detailed knowledge of electronics wiring and proper installation skills. We strongly recommend installation by an authorized PowerBass dealer. This Owners Manual only provides general installation and operation instructions. If you have any reservations about your installation skills, please contact your local PowerBass dealer for assistance.

INSTALLATION PRECAUTIONS

NOTE: Proceed only if you are a qualified installer, otherwise; see your authorized Powerbass Dealer to professionally install this amplifier. Always wear protective eyewear when using tools.

- Turn off all stereo and other electrical devices before you begin.
- Disconnect the negative (-) lead from your vehicles battery.
- Locate all fuel lines, brake lines, oil lines, and electrical cables when planning the install.
- Check the mounting depth to make sure there is sufficient room around the EQ.
- When connecting ground points, make sure all paint is carefully scrapped away from the auto body and contact is made with bare metal.
- Use a utility knife to trim away fabric from hole locations before drilling or cutting.
- When running power cables through sheet metal, be sure to use grommets to properly insulate the metal edges from the wire insulation.
- If possible, use tubing through grommets.

MOUNTING THE EQUALIZER

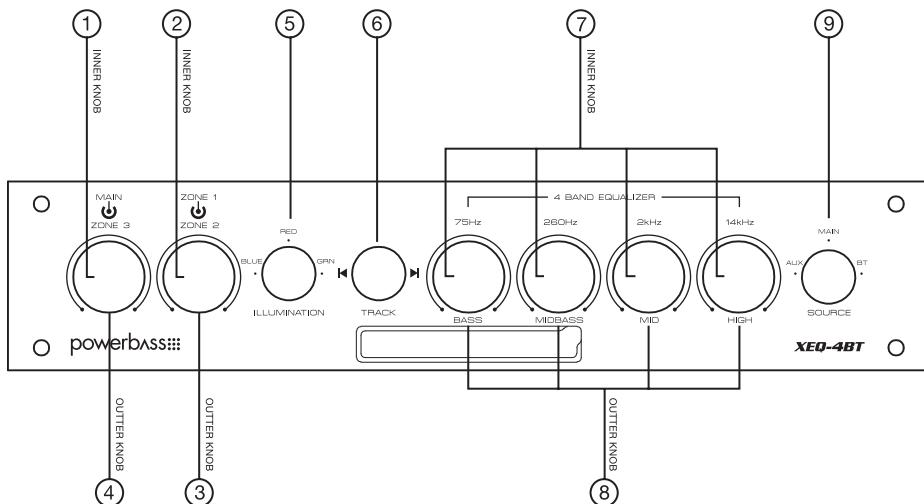


There are two basic mounting options for your PowerBass equalizer. One is to mount the unit under the dash with the supplied brackets as shown above:

The other option is to cut a hole through a suitable panel in the dash for a built-in look. If you choose the in-dash mounting method, be careful to cut the right size hole for the best appearance. Also take care not to let your EQ and/or its cables interfere with other in-dash components.

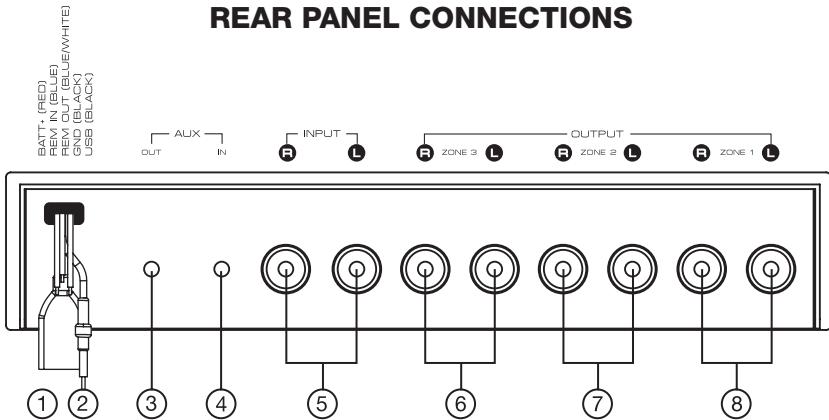
Some dash kit manufacturers make a special kit for some vehicle models that will allow the installation of the EQ with a DIN size head unit. Check with your local PowerBass dealer for additional information.

FRONT PANEL LAYOUT



- 1. MASTER VOLUME CONTROL KNOB-** This control adjusts the output for all zones.
- 2. ZONE 1 OUTPUT CONTROL KNOB-** This control adjusts the output of zone 1.
- 3. ZONE 2 OUTPUT CONTROL KNOB-** This control adjusts the output of zone 2.
- 4. ZONE 3 OUTPUT CONTROL KNOB-** This control adjusts the output of zone 3.
- 5. ILLUMINATION CONTROL KNOB-** This control will change the color of the back lighting from blue, red and green.
- 6. TRACK FORWARD/TRACK BACKWARD CONTROL KNOB-** This control will change tracks forward and backward from the connected Bluetooth device.
- 7. ZONE 1 EQUALIZER CONTROL KNOBS-** These controls will cut and boost bass, mid-bass, mid and high frequency's from the zone 1 output.
- 8. ZONE 2 EQUALIZER CONTROL KNOBS-** These controls will cut and boost bass, mid-bass, mid and high frequency's from the zone 2 output.
- 9. SOURCE INPUT CONTROL KNOB-** This control will change the input source from MAIN, AUX and BLUETOOTH.

REAR PANEL CONNECTIONS



1. USB CHARGING- Connect your Bluetooth device to charge the battery.

2. POWER CONNECTIONS

RED-12VDC (CONSTANT)- Connect this lead to a 12 volt (+) positive constant source.

BLACK-GROUND- Connect this lead to a solid good ground point.

BLUE-REMOTE TURN-ON INPUT- Connect this lead to the remote output of your head units remote turn-on output. If there is no remote output lead or no head unit connect this lead to a 12VDC switched power source. This lead turns the EQ on and off.

BLUE/WHITE- AMP REMOTE TURN-ON OUTPUT- Connect this lead to your amp(s) remote input connection to turn them on and off.

3. AUX OUTPUT- Connect this 3.5mm output to a second EQ, external amp or a soundbar. This is a variable output controlled from the master volume control knob with no EQ adjustments.

4. AUX INPUT- Connect this 3.5mm input to any second input source (DVD, etc.) This is selected from the input source control knob.

5. MAIN RCA INPUT- Connect this to your head units pre-amp output. This is selected from the input source control knob.

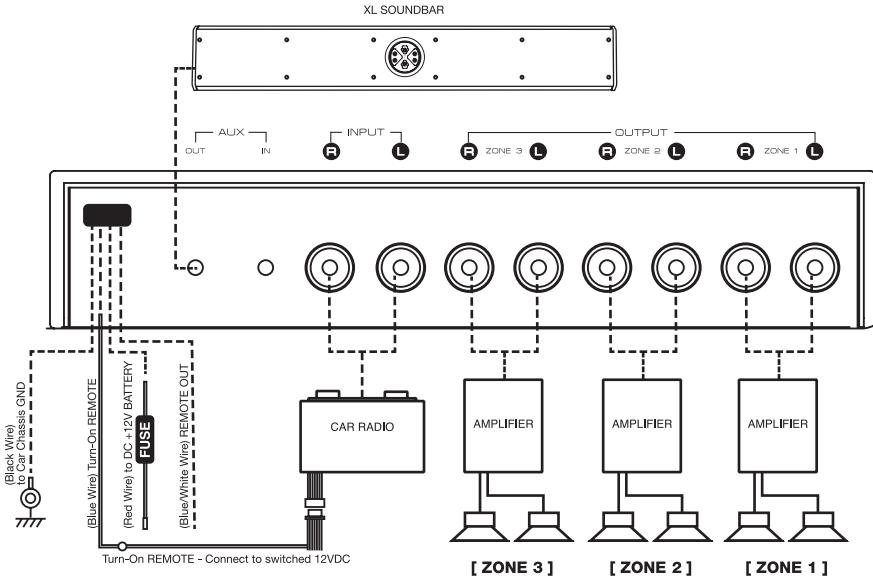
6. ZONE 3 RCA OUTPUT- Connect this to your zone 3 amplifier's RCA input connections. This is controlled from the zone 3 output control knob. Zone 3 has no equalization controls from this output and is a full range signal. If you are using subwoofer(s) in your system you will use this RCA output.

7. ZONE 2 RCA OUTPUT- Connect this to your zone 2 amplifier's RCA input connections. This is controlled from the zone 2 output control knob. Zone 2 equalizer controls (outer EQ knobs) will adjust the tone controls from this output.

8. ZONE 1 RCA OUTPUT- Connect this to your zone 1 amplifier's RCA input connections. This is controlled from the zone 1 output control knob. Zone 1 equalizer controls (inner EQ knobs) will adjust the tone controls from this output.

WIRING CONFIGURATIONS USING MAIN INPUT

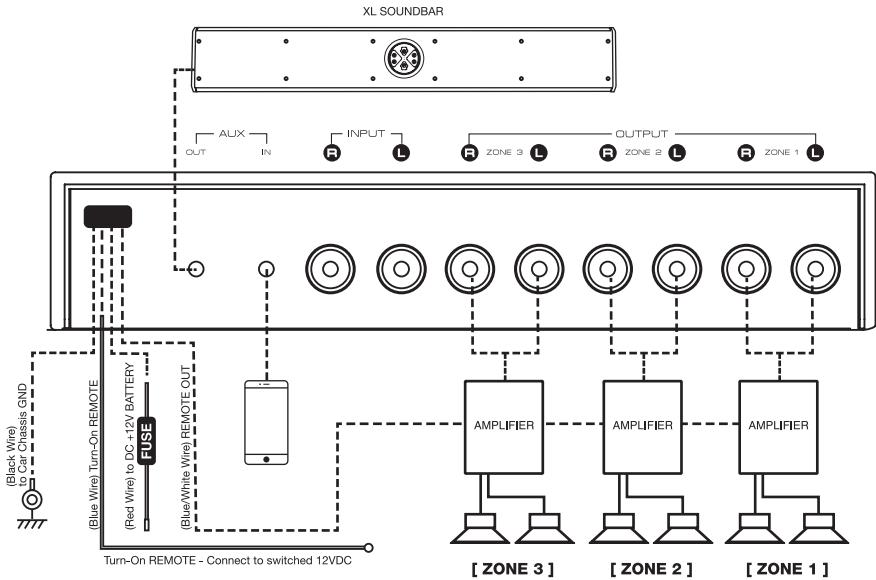
As you may have already guessed, there are numerous ways to configure your PowerBass EQ into your audio system. Spending a little time planning out your system will yield the most satisfying results. The following diagrams are just a few of the possibilities:



Set SOURCE INPUT control knob to MAIN.

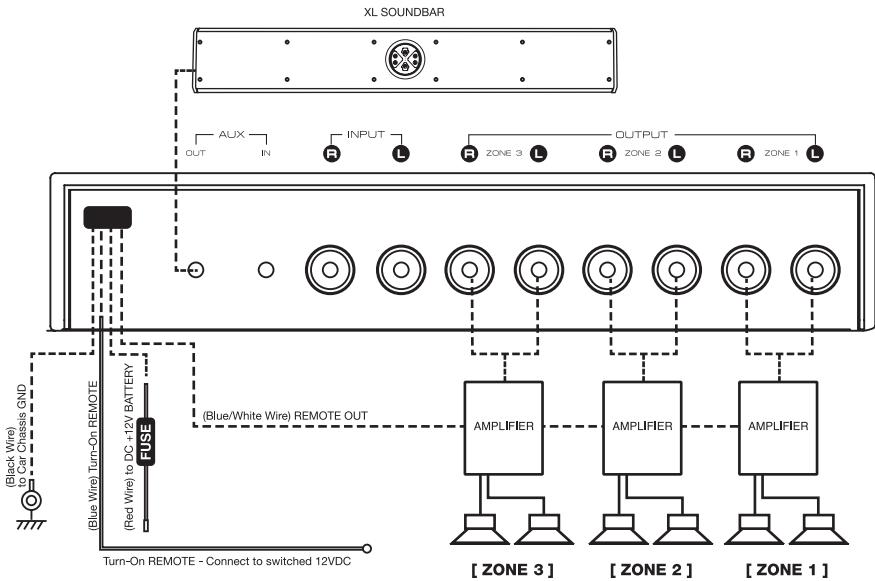
NOTE: If you are using a source unit that does not have RCA or 3.5mm output (low level) jacks, a optional Line Level (High/Low) Converter must be connected between the speaker output (high level) leads and the XEQ-4BT. Direct connection of high level (speaker) outputs to the XEQ-4BT will damage the source unit.

WIRING CONFIGURATIONS USING AUX INPUT



Set SOURCE INPUT control knob to AUX.

WIRING CONFIGURATIONS USING ONLY BLUETOOTH



Set SOURCE INPUT control knob to BT (BLUETOOTH).

TURNING ON THE POWER

The XEQ-4BT has internal ON/OFF circuitry which responds to turning ON or OFF the ignition or head unit (radio) of your car audio system. This requires that your head unit have a remote turn on lead available on the rear panel (which most aftermarket radios have). When not using an aftermarket head unit connect to the vehicles accessory or ignition wire that provides a switched output.

With this convenient remote turn-on/off feature, you never have to worry about turning off the power to the equalizer when you shut off the audio system.

EQUALIZATION ADJUSTMENT

There are no strict rules to adhere to when setting the main equalizer controls. Common sense says to use your PowerBass EQ to make your system sound its best. However, don't try to push your system too hard by overdriving the amplifiers and speakers resulting in damage to some of the components.

BLUETOOTH PAIRING AND OPERATION

1. Turn the source selector knob to BT (Bluetooth).
2. Go into the Bluetooth settings of your device and search for XEQ-4BT and select to pair. Once paired now you can stream audio to the XEQ-4BT.
3. You can use either the Bluetooth device or the XEQ-4BT to change tracks and control the master volume of your system.
4. There is no visual or audio conformation from the XEQ-4BT to indicate your device is paired you must confirm this from your Bluetooth device.
5. There is no need to un-pair your device to listen to a different input source. Use the front panel source selector knob to change MAIN or AUX input.

EQUALIZER BAND RANGES

Each knob is essentially a tone control dedicated to a specific part of the audio spectrum from 20Hz to 20kHz. They can help your speakers match the environment of your vehicles interior. There are 4 knobs for ZONE 1 and 4 knobs for ZONE 2 that allow you to adjust the EQ setting for each zone separately. Start with all nine knobs in the 12 o'clock position, listen to a variety of musical passages. By rotating each of the knobs it will become apparent which knob affects which part of the audio spectrum.

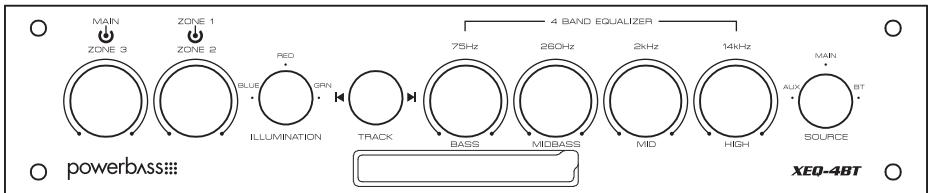
Each center frequency receives 18dB of boost and cut--rotating counter clock wise gives you the minimum boost while clockwise rotation provides the maximum boost. When it comes to music, everyone has their own particular taste. The following equalization guidelines should help you achieve the superior sound you want.

BASS (75Hz): Use this control sparingly since it can produce low bass punch but may force the speakers to reproduce sounds beyond their capability.

MID BASS (260Hz): Controls frequencies above sub bass and below the midrange.

LOWER MIDRANGE (2kHz): This range is responsible to musical instruments, vocals and midrange percussion.

TREBLE (14kHz): Considered the upper high range frequencies



TROUBLESHOOTING TIPS

Problem	Solution
No Sound	<ol style="list-style-type: none"> 1. Check "Power" and remote turn-on for the proper voltage. 2. Check the Ground connections 3. Check if the source knob is at the correct selection
Hiss	<ol style="list-style-type: none"> 1. Turn down the amplifier gains 2. Adjust the Source unit output 3. Check for kinked or faulty RCA interconnect cables
Distorting Speakers	<ol style="list-style-type: none"> 1. Adjust the equalization levels 2. Lower the volume of the Source unit 3. See your Dealer
Amplifier popping noise / turn-on and turn-off thump	<ol style="list-style-type: none"> 1. Equalizer BATT+ must be connected to a constant 12VDC source 2. Check wiring for proper hook up of Power and Remote leads

SPECIFICATIONS

Frequency Response: 10Hz-50kHz

Frequency EQ Center: 75Hz, 260Hz, 2kHz, 14kHz

Total Harmonic Distortion (THD): 0.02%

Signal to Noise Ratio: >101dB

Inputs: switchable, 3-source MAIN, AUX, Bluetooth

Equalization Boost/Cut: -/+ 18dB

Channel Separation: 85dB

Maximum Output Voltage: MAIN, AUX = 10Vrms @ 0.1%THD. Bluetooth = 6Vrms @ 0.1%THD

Power Supply: 11-15V DC negative ground

Fuse: 2Amp (AGC type included)

Dimensions: Chassis 7"W x 1.0"H x 4"D (178mm x 25.4mm x 102mm)

Mounting Depth: 4.625"D (117mm)

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

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POWERBASS ELECTRONICS LIMITED WARRANTY POLICY

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

PowerBass Xtreme 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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