



The Sound That Will *Move* You

# EQ-4000BT Equalizer Owner's Manual

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Thank you for choosing Earthquake Sound's EQ-4000BT equalizer for superior enhancement of your mobile audio system. With proper installation and responsible listening, your equalizer(s) will give you years of near perfect sound reproduction. We strongly recommend you to have your new equalizer(s) installed by an authorized Earthquake Sound dealer. Installation professionals employed by your dealer have the correct tools and knowledge to install your product neatly and successfully. Also, when your new products are installed by an authorized dealer, your product will include a FIVE (5) YEAR LIMITED WARRANTY.

If you choose to perform your own installation, your warranty will be subject to limitations. Dealer policies on handling warranty requests may vary from one dealer to the next. Please read the warranty information (page 11) in its entirety and use good judgment when making these vital decisions.

## CARE AND MAINTENANCE

Your Earthquake Stereo 4-Band Graphic Equalizer is an example of superior design and craftsmanship. The following advisories will help you care for your equalizer so you can enjoy it for years to come.

**CAUTION:** Earthquake products are capable of generating high sound pressure levels. You should exercise caution when operating these products. Long term exposures to high levels of sound pressure will cause permanent damage to your hearing. Sound pressure levels exceeding 85dB can be dangerous with constant exposure. Set your audio system to a comfortable loudness level. Earthquake Sound Corporation does not assume liability for damages resulting from the direct use of Earthquake amplifiers or other Earthquake products, and urges users to play their music at moderate listening levels.

<u>SOUND LEVEL</u>	<u>DURATION IN HOURS</u>	
90	8	This chart shows Permissible Noise Exposure according to the US Governments Occupational Safety and Health Administration (OSHA) regulations that were in effect at the time of this publication (as per 29 CFR 1910.95, Table G-16).
92	6	
95	4	
97	3	
100	2	
102	1 - 1 1/2	
105	1	
110	1/2	
115	1/4 or less	



Keep the parametric equalizer dry. If it gets wet, wipe it dry immediately. Liquids contain minerals that can corrode electronic circuits. Additionally, liquids can cause severe electrical shock.



Use and store the parametric equalizer only in normal temperature environments. Temperature extremes can shorten the life of electronic devices and warp or melt plastic parts.

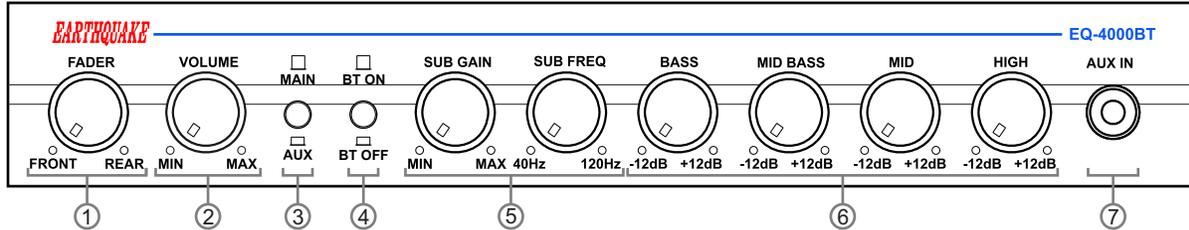


Handle the parametric equalizer gently and carefully. Dropping it can damage the circuits or cause components to break or become loose. These kind of actions can cause the units to work poorly or improperly.



Keep the parametric equalizer away from dust and dirt, which can cause premature wear of parts.

## EQ-4000BT FRONT PANEL OVERVIEW



① **FADER**

Use this rotary knob to blend more action into either the Front or Rear channels of the system.

② **VOLUME Control**

Push in once to eject button then rotate to adjust volume.

③ **AUX/MAIN Selector**

Push button to switch between the MAIN input and AUX input. Note that the EQ-4000BT has both front mounted and back mounted auxiliary inputs. If the front mounted auxiliary input is in use (when an audio source is plugged in through the front 3.5mm jack), the EQ-4000BT will automatically treat that audio source as the MAIN input.

④ **BT ON/OFF Switch**

Push button to switch turn on or off the Bluetooth® feature of the EQ-4000BT. To connect your device to the EQ-4000BT, pop the BT button, enable the Bluetooth® of your device and pair to the EQ-4000BT. You can then wirelessly play music from your device. If you want to switch back to the MAIN/AUX input, push the BT button in and the Bluetooth® feature will be disabled.

⑤ **SUB GAIN & SUB FREQ Controls**

Gives you complete control of low musical frequency ranges. The Sub knob is equal to level control. It allows you to adjust subwoofer sound levels for a particular source type: Tape, broadcast, CD, etc.

The subwoofer frequency crossover control allows you to adjust the cross over point for your subwoofer system. The EQ-4000BT features separate dual RCA outputs for the subwoofer channel, so that the subwoofer(s) can run on a separate amplifier or separate channels of a multi-channel amplifier. The crossover is adjustable from 35Hz to 100Hz. Depending on the subwoofer frequency response, adjust this knob to the most desired setting.

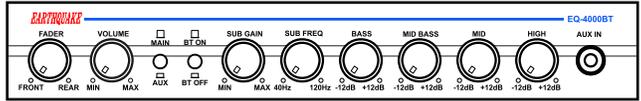
⑥ **4-BAND Controls**

Gives you control of the higher musical frequency ranges that most head units cannot accomplish.

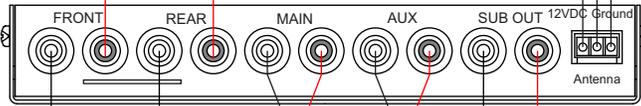
⑦ **AUX IN**

This unique feature is for easy iPod and MP3 hook up. Simply plug-n-play. Once this connection has been made, it will override the MAIN input plugged into the back of the unit.

# WIRING CONFIGURATIONS

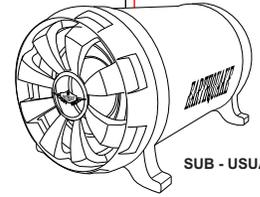
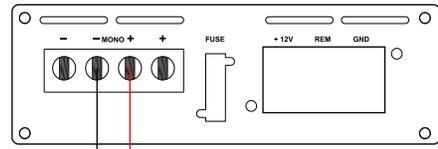
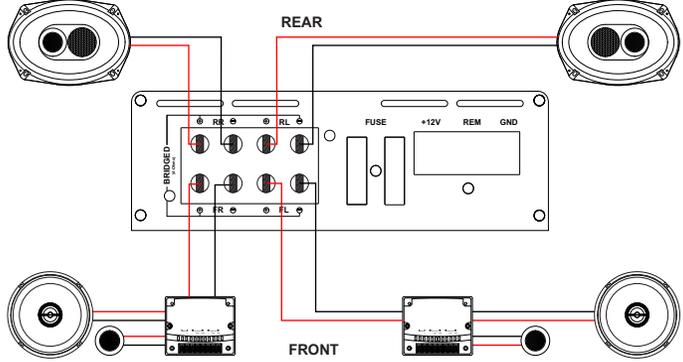
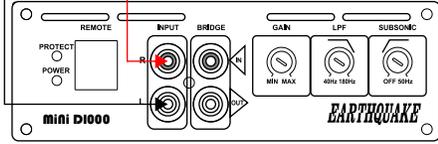
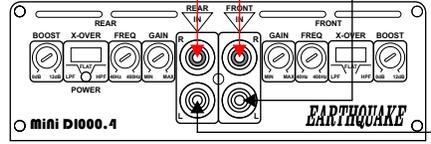


- TO HEAD UNIT POWER/12VDC
- TO AMP REMOTE
- TO HEAD UNIT GROUND OR VEHICLE CHASSIS



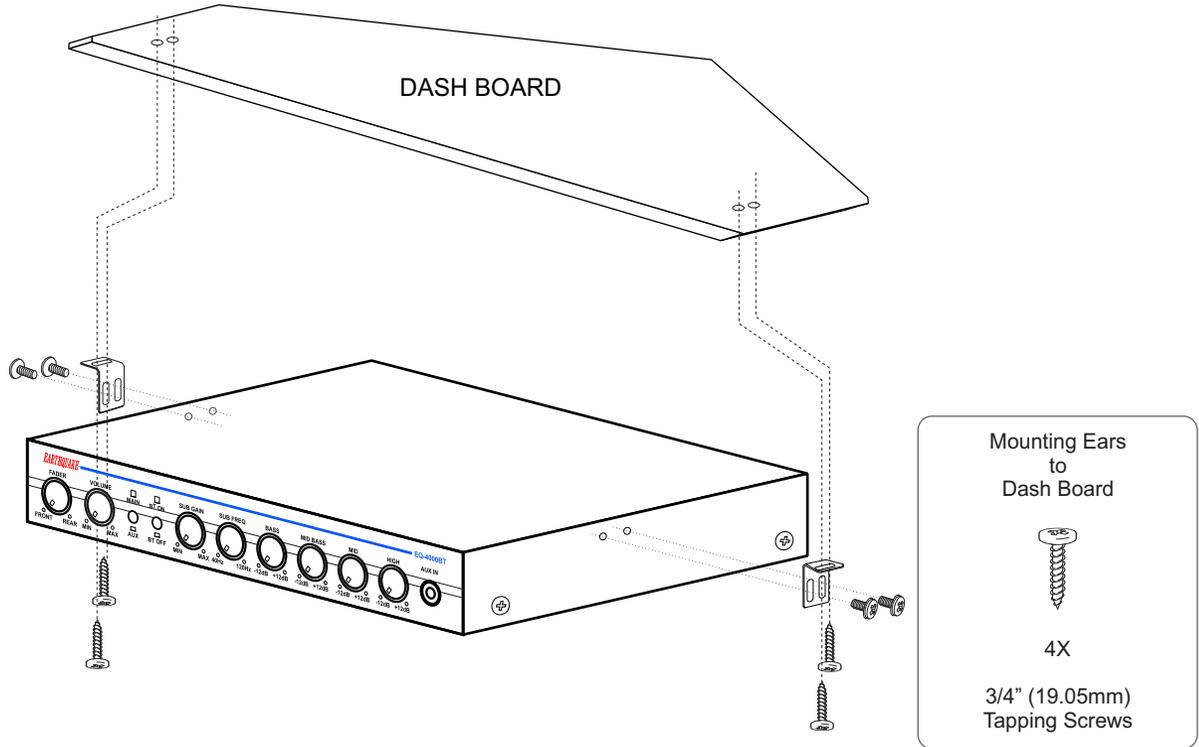
STOCK OR AFTER MARKET HEAD UNIT (RADIO, STEREO)

AUXILIARY SOURCE



SUB - USUALLY PLACED IN THE TRUNK

## MOUNTING INSTRUCTIONS



## **INPUT GAIN SETTINGS**

Designed to set the maximum upper volume level, the Input Gain is a tool for installer to protect the system from excessive high volume. Note that the Input Gain level depends on the sources' maximum signal strength (expressed in Voltage). Your installer will need to know the output voltage of the source unit(s) in order to set the Input Gain accordingly.

Below, please find sample settings of the Input Gain according to the source units' output voltages:

### **EQ-4000BT**

<b>Input Gain's Position</b>	<b>Source Voltage</b>	<b>Volume Control Position</b>	<b>Front &amp; Rear Output V @ 0.1% THD</b>	<b>Subwoofer Output Voltage (Sub Gain @ MAX)</b>
9 O'clock	>13V	MAX	4.2V	5V
12 O'clock	2V	MAX	4V	5V
3 O'clock	1V	MAX	3V	5V
MAX	200mV	MAX	600mV	1.6V

## **TECH SUPPORT**

US Toll Free  
E-mail

1-800-576-7944  
tech@earthquakesound.com

## WARRANTY GUIDELINES

Earthquake warrants the original purchaser that all Factory Sealed New Audio Products be free from defects in material and workmanship, under normal and proper use, for a period of **five (5) years from the date of purchase** (as shown on the original sales receipt with serial number affixed/written on it).

The five (5) years warranty period is valid **only if the product is properly installed by an Earthquake authorized party**, and the warranty registration card is properly filled out and sent to Earthquake Sound Corporation.

**If the product is installed by a non-authorized party, a ninety (90) days warranty period applies.**

(A) Five (5) years limited warranty plan coverage guidelines:

- First year: Earthquake pays for labor, parts, and ground freight (only in US mainland, not including Alaska and Hawaii) back to customer.
- Second third, fourth & fifth year: Earthquake pays labor only. Customer must pay for parts and freight both ways.

(B) Warning:

Products (sent for repair) that are tested by Earthquake technicians and deemed to have no problem, will not be covered by the five (5) years limited warranty. Customer will be charged a minimum of one (1) hour of labor (ongoing rates) plus shipping charges back to customer.

(C) Earthquake agrees to repair or replace - at our option - all such defective products/parts subject to the following provisions:

- Defective products/parts have not been altered or repaired by other than an Earthquake factory approved technician.
- Products/parts are not subjected to negligence, misuse, improper use, or accident, damaged by improper line voltage, used with incompatible products, or have its serial number or any part of it altered, defaced, removed, or have been used in any way that is contrary to Earthquake's written instructions.

(D) Warranty Limitations:

Earthquake warranty does not cover products that have been modified and/or abused, including but not limited to the following:

- Damages to enclosure or part due to misuse, abuse, or improper use of cleaning materials/methods.
- Bent frame, broken speaker connectors and burnt tracers on PCB.
- Fading, deterioration of components and finish due to improper exposure to elements.

- Product/part damaged due to poor packaging or abusive shipping conditions.
- Subsequent damage to other products.

A warranty claim will not be valid if the warranty registration card is not properly filled & returned to Earthquake with a copy of the sales receipt.

(E) Service Request:

To receive product(s) service, contact Earthquake Sound's service department at (510) 732-1000 and request an RMA number (Return Material Authorization), item(s) shipped without a valid RMA number will be refused. Make sure you provide us with your complete and correct shipping address, a valid phone number, and a brief description of the problem you are experiencing with the product. In most cases, our technicians might be able to resolve the problem over the phone, thus eliminating the need to ship the product.

(F) Shipping Instructions:

Product(s) must be packaged in its original protective box(es) to minimize transport damage. Shipper claims regarding item(s) damaged in transit must be presented to the carrier. Earthquake Sound Corporation reserves the right to refuse improperly packed product(s). A copy of original sales receipt must accompany product(s) returned for service. We encourage you to include a written description of the problem inside the package. Ship product to:

Earthquake Sound Corp.  
2727 Mc Cone Avenue.  
Hayward, CA 94545

You are responsible for the cost of shipping the product to Earthquake Sound Corporation.

(G) Disputes Resolution:

All disputes - between clients and Earthquake Sound Corporation - resulting from the five (5) years limited warranty policy must be resolved according to the laws & regulations of the county of Alameda, California.

## EQ-4000BT FEATURES

- 4-band Parametric Equalizer with Bluetooth streaming capability
- Fully retractable controls
- iPod/MP3 Ready
- Fader Action
- 6-channel RCA Outputs (front/rear/subwoofer)
- Adjustable Master Volume Level Control
- Adjustable Subwoofer Level Control
- 3 Input Sources
- Input Gain (it Sets The Maximum Volume Level Achievable By The Front Controls)
- Gold Plated RCAs
- Easy Snap On Connector
- Blue Background LED

## EQ-4000BT SPECIFICATIONS

**Operating Voltage:** 10.5---16VDC

**Idle:** 280 mA

**Recommended fuse size:** 1 Ampere

**Input sources:** 2 stereo RCA sources, 1 Phono source

**Input sensitivity:** Adjustable from 100mVrms up to 14 Vrms

**Input impedance:** Variable from 8 kOhm up to 10.2 kOhm

**Output Impedance:**

**Sub channel:** 510 Ohm

**Front & Rear channels:** 6.3 kOhm

**Output Level:**

**Subwoofer channel:** 5 Vrms @ 0.1% THD

**Front & Rear channels:** 4 Vrms @ 0.1% THD

**T H D @ 3 Volts output:** 0.05%

**Frequency response:** 15 - 34000Hz @ -3dB

**Subwoofer frequency control range:** 35 to 120Hz (@ -3db, 18dB/oct.)

**Subwoofer upper cut off frequency:** 100Hz

**Channel separations:** 68dB

**Signal to noise ratio:** 92dB

**Center frequencies (in Hz):** 50, 200, 2000, 15000

**Control Range:** 30~40dB (12 O'clock is the Bypass position)

**Dimensions(H x W x D):** 1" x 7" x 4-1/4" (Without Face Plate)