



MB1

Owner's Manual & Warranty

MEGA BASS

Digital Bass synthesizer
MODEL: MB1



Balanced
L Inputs R L Outputs R

Dash Remote

- BLACK GND
- ORANGE ANT
- RED B+



Earthquake Sound reserves the right to amend details of the specifications without notice.

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Table of Content

Page# 3.....Warranty Guidelines

Page# 4.....Focus Component Features, Specifications and Mounting Information

Page# 5.....Focus Component Included Items

Page# 6.....Focus Coaxial Included Items

Page# 7.....Focus Coaxial Speaker Features, Specifications and Mounting Information

Page# 8.....Custom and Factory Replacement Guide Lines

Page# 9.....Tweeter Installation

Page# 9.....Component set wiring diagram



Thank you for choosing Earthquake Sound's MEGA BASS digital bass synthesizer for superior enhancement of your vehicle's audio system. With proper installation and responsible listening, your bass synthesizer will give you years of phenomenal listening enjoyment.

We strongly recommend you to have your new bass synthesizer installed by an authorized Earthquake Sound dealer: Installation professionals employed by your dealer have the correct tools and knowledge to install your unit neatly and successfully. Also, when your new products are installed by an authorized dealer, your product will include a FIVE YEAR LIMITED WARRANTY. If you choose to perform your own installation, your warranty will be subject to limitations. Over the counter authorized dealer warranties may vary from one dealer to the next. Please read the warranty information in its entirety and use good judgment when making these vital decisions.

For Easy On-line registration, Go To "www.earthquakesound.com/form_reg.htm"

Five (5) year limited warranty:

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 bill of sale with serial number affixed/written on it). The five (5) year warranty period is valid only if an authorized Earthquake dealer properly installs the product and the warranty registration card is properly filled out and sent to Earthquake Sound Corporation. If a non-authorized party installs the product a ninety (90) day warranty period will be applied.

(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).
- **Second year:** Earthquake pays for labor and parts only, customer must pay freight both ways.
- **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(s) will not be covered by the five (5) year limited warranty. Customer will be charged a minimum of one (1) hour of labor (ongoing rates) plus shipping charges back to customer.

(C) Earthquake will repair or replace - at our option - all 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 or removed, or have been used in any way that is contrary to Earthquake's written instructions.

(D) Warranty Limitations:

Warranty does not cover products that have been modified or abused. Including but not limited to the following:

- Damages to speaker cabinet and cabinet finish due to misuse, abuse, or use of improper use of cleaning materials/methods.
- Bent speaker frame, broken speaker connectors, holes in speaker cone, surround & dust cap, burnt speaker voice coil.
- Fading, deterioration of speaker components & finish due to improper exposure to elements.
- Bent amplifier casing, damaged finish on the casing due to abuse, misuse, or improper use of cleaning material.
- Burnt tracers on PCB.
- 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 invoice.

(E) Service Request:

To receive product/s service, contact Earthquake service department at (510) 732-1000 and request an RMA number (Return Material Authorization), items shipped without a valid RMA number will be refused. Make sure you provide us with your complete/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(s) to minimize transport damage. Shipper claims regarding items damaged in transit must be presented to carrier. Earthquake Sound Corporation reserves the right to refuse product improperly packed. Original bill of sale must accompany product returned for service. We encourage you to include with the package a written description of the problem. Ship product to: Earthquake Sound Corp. 2727 Mc Cone Avenue, Hayward, CA 94545. Ph (510) 732-1000. 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.

Please keep this warranty information in your files for future reference if necessary. It is recommended that you stick your serial number here for future reference.

SERIAL NUMBER

Alternatively you may register your products online at http://earthquakesound.com/form_reg.htm

Congratulations on your purchase of the world's most powerful and accurate bass synthesizer. Whether this is your first Earthquake Sound product purchase, or you are already a supporter, you will thoroughly enjoy the MEGA BASS synthesizer.

Now that we have your attention please allow us to break down the basics of bass and how it can effect your systems performance. Regardless of your age or musical preference, adding low frequency extension to sound system is an experience that audiophiles can appreciate. Whether you listen to classical music, rock music, rap music or if your a pure bread competitor, bass will truly enhance the performance of your system. With that said, some people enjoy more bass than others and for that reason MEGA BASS comes with a dash mountable remote and also includes a bass management center for easy control of the bass potency. So no matter what music you prefer MEGA BASS is for you.

Moving on. Now that your ready to rock, we would like to recommend that read this manual in it's entirety so that you can fully understand the installation instructions and what that big red button does...before you go pushing it.

Features of the MEGA BASS Digital Synthesizer:

- Advanced Digital Bass Restoration System
- Subwoofer Maximization Control Center
- 100% Voltage Output Enhancement
- Dash-Mounted Remote Control
- Portable Music Enhancement
- Woofer Protection Circuitry

FEATURES SUMMARY

Advanced Bass Maximization:

The MEGA BASS Digital Synthesizer contains a bass maximization circuit that perfectly reproduces and pumps low frequency info back into the voltage line. Which means that the synthesizer will enhance bass impact when using CDs, Tapes and even portable media players, such as iPods and MP3 players.

Bass Circuit:

This is how MEGA BASS allows you to control your new found bass. This cool equalization circuit contours the restored bass to your speaker system.

Easy Access Dash Mount Control Center:

MEGA BASS is designed to be mounted anywhere in your vehicle, with the exception of the obvious things like the bumpers and in the gas tank. The MEGA BASS package comes with a dash mount control center which allows you to control the intensity of your systems bass output right from the drivers seat. In addition the dash mount unit comes with a built dual LED that dims and brightens as the bass increases and decreases.

DCF D.C. Filter:

The DCF over drive circuit allows the user to have massive bass while protecting the speaker from DC. failure that is typical in other bass enhancement device.

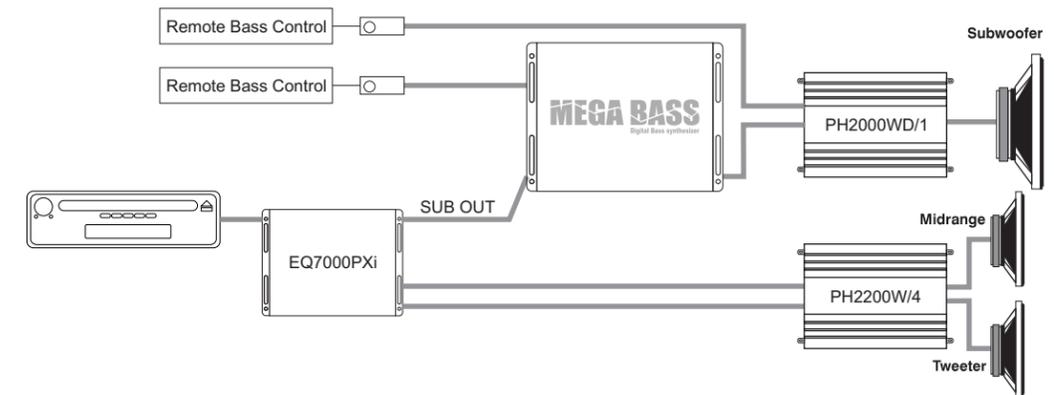
Bass Expander Limiter:

The MEGA BASS circuitry produces huge amounts of hard hitting, concrete shattering bass without damaging your speakers. The Bass Expander Limiter circuit allows MEGA BASS to enhance the bass output of any audio system while controlling damaging burps.

INSTALLATION

MEGA BASS Digital Synthesizers are required to be installed in the signal path between a head unit and an external amplifier. Additionally it can be installed after an equalizer, but must be installed before a crossover.

Now that this is complete, you just need to hook up the power, ground and trigger then run the wire to the dash remote and now you have instant bass at your finger tips. But with that said you should continue to read on. It will give you a more visual understanding of the product that you have just purchased.



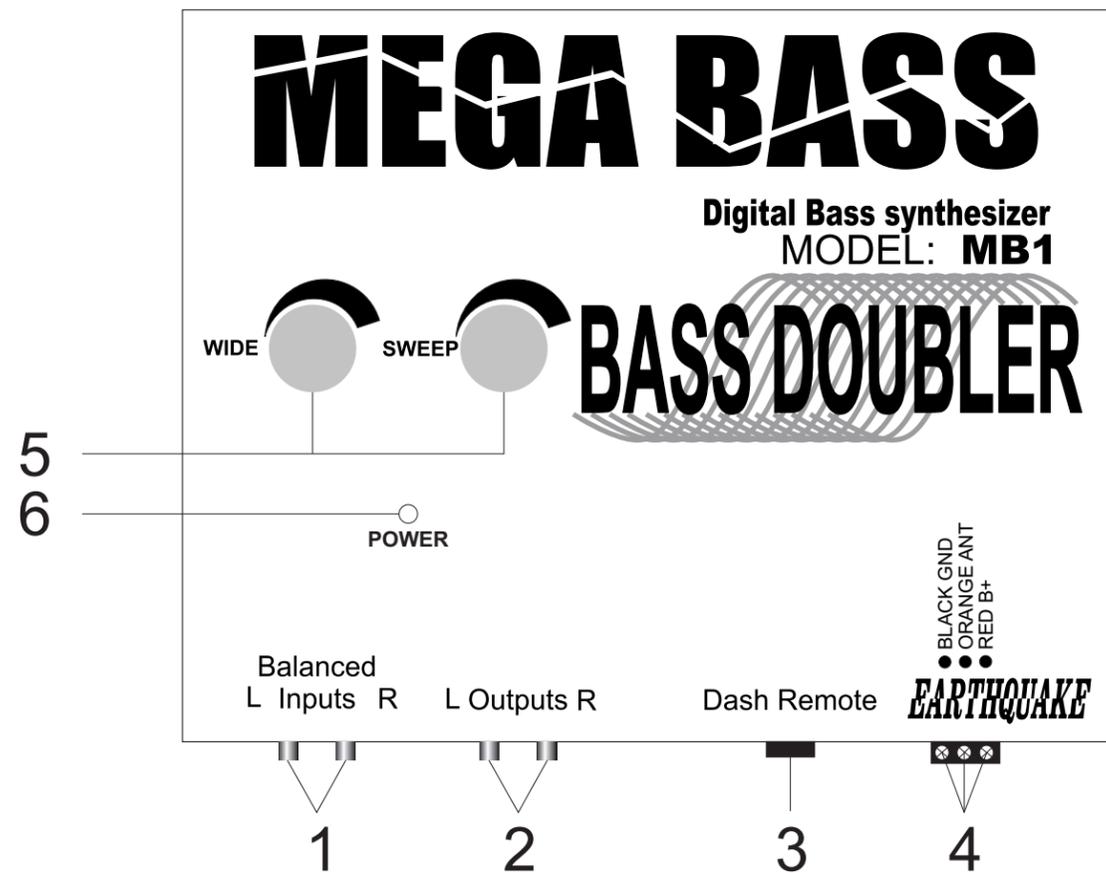
Factory Settings	Shipped	Options
Bass Frequency	40Hz	27Hz - 63Hz
Bass Bandwidth	Wide	Range from 30Hz - 250Hz
Bass Output Control	5 volts	7.5 or 10 volts
Input Circuit	Balanced	Unbalanced
Ground Isolation	Isolated	200 Ohm or Ground
Subsonic Filter	33Hz	25Hz, 30Hz, 35Hz, 40Hz, 45Hz

Top Over View

OVER VIEW OF MEGA BASS

The Outside

- 1) **Inputs:** The inputs of MEGA BASS use a balanced input circuit to help minimize feed back. They are also designed to handle very high signal voltage up to 15 volts.
- 2) **Outputs:** These RCA connectors should be connected to the next component after MEGA BASS, such as a crossover, equalizer or amplifier. Just remember that MEGA BASS should be in line before a crossover.
- 3) **Dash Input Control:** This allows you to connect MEGA BASS to the remote control knob. You can mount the knob anywhere you want, although somewhere in the front of the vehicle is most common. (Remote Must Be Connected For The Unit Operate Correctly)
- 4) **Power Connection:** This connector allows you to connect the Ground and Remote TURN-ON signals to MEGA BASS. Connect all of the wires to their appropriate locations in a well lit area and then plug it into MEGA BASS where ever you decided to mount it in your vehicle.
- 5) **Bass Controls:** These 2 knobs control the bass functions fo MEGA BASS. The SWEEP knob allows you to pick the center frequency that you want MEGA BASS's restoration circuit to maximize. The WIDE knob adjust how wide of a frequency range MEGA BASS will effect.
- 6) **Power:** When you have connected all of your wires correctly the POWER light should illuminate. If it does not then you need to check your wires.

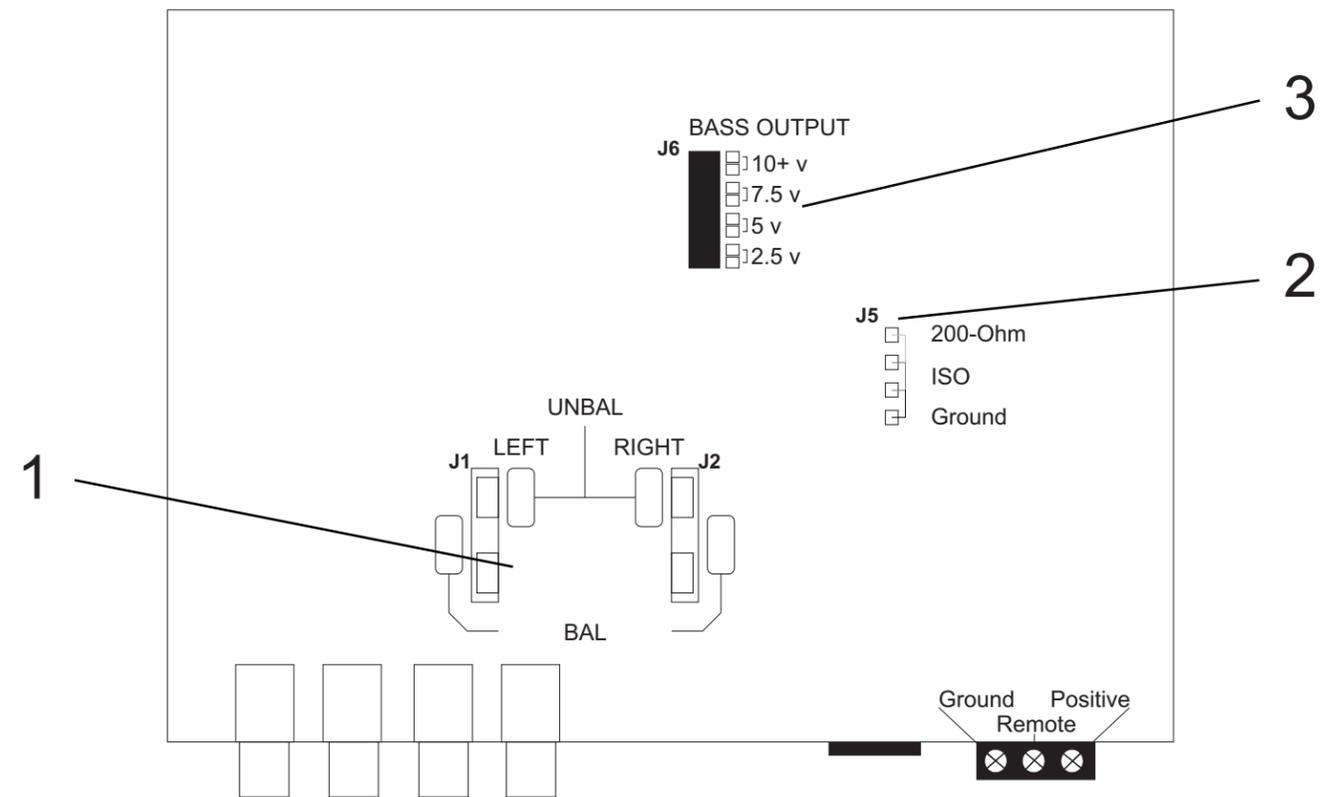


Internal Over View

INTERNAL VIEW OF MEGA BASS

The Inside

- 1) **Input Grounding:** For most systems you can leave this jumper set in the BALANCED position. In some systems, the source unit may look for a ground through the RCA connectors. In that event, you should go ahead and change the jumpers to the UNBALANCED position.
- 2) **Ground Isolation Jumpers:** Occasionally alternator whine may appear in a system because the source unit and amplifier may use different grounding. To help in this situation, we have provided alternative grounding connections. Make sure your system is turned OFF bore you move these jumpers.
- 3) **Bass Output Control Jumpers:** Not all systems are designed the same, some systems are designed strictly for SPL while other are for average use. MEGA BASS's maximizer circuit can either increase or decrease the signal voltage of the bass restoration circuit. Depending upon your system, you may want to change these jumpers to a higher or lower setting to maximize your bass output and protect your speakers. In most systems the factory setting will suit you fine. We recommend that you try the factory setting before any other.



INSTALLING MEGA BASS

Placement and Mounting

Placement: MEGA BASS needs to be installed in the signal path as close to your source unit as possible, but definitely before any crossover circuit. Although MEGA BASS is close to the source unit's signal, the chassis is usually mounted in the rear of the vehicle as close to the amplifiers as possible. We recommend connecting the MB1 to the EQ7000PXi SUB OUT and have it drive the bass amplifier.

Mounting: Once you have selected a permanent mounting location, position the unit and mark the appropriate mounting holes with a pen or pencil. Before doing anything else, make sure you are not about to drill a hole in a gas tank or pierce existing wires or cables. Now drill a small pilot hole and mount the unit.

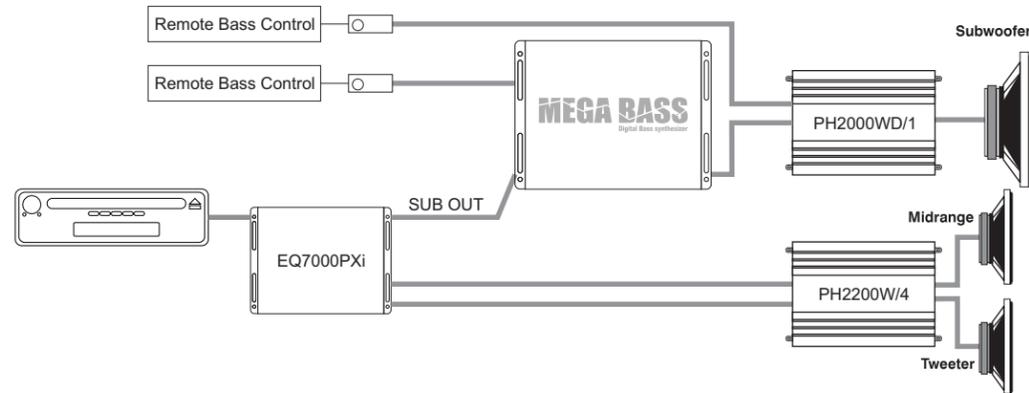
Electrical Connections

WARNING: Failure to disconnect the negative terminal of your battery prior to installation may result in severe shock or damage of you system components.

Remote In: Connect a 22 to 18 gauge wire from the head-unit's remote turn-on to the REMOTE-IN connector of MEGA BASS.

Positive(+12v) Connection: Insert and 18 gauge or larger wire into the connector labeled POWER on the connector of MEGA BASS. Connect it to a good constant source of 12 volts, fused at 1-amp.

Ground Connection: Use the same gauge wire you did for the 12v connector on MEGA BASS's NEGATIVE terminal of the battery, a ground bus, or a verified ground location. The factory head unit ground is not a good ground. When all connection are complete you may reconnect the negative battery terminal it's original state.



REMOTE BASS CONTROL INSTALLATION

Placement and Mounting

The remote bass control may be mounted under the dash using its own bracket or through a custom hole in the dash. It should be within reach of the driver.

Installation

The bracket is attached to the remote and mounts with two screws which attach to th underside of the dashboard, or where ever you prefer. Find your preferred location, mark holes, drill pilot holes and then mount the unit.

ADJUSTING THE BASS CONTROL CENTER

The bass response in a system is affected by four factors:

1. The acoustics of the vehicle
2. The locations of the speakers
3. The music on the tape, CD or source unit
4. The speakers and or speaker enclosures

Because of the variations in the recording process we developed MEGA BASS to help restore any low frequencies lost during the recording process or from source units, however, the acoustics of various environments are different. With this in mind our engineers developed this fantastic system.

The SWEEP control allows you to select a center frequency between 27 and 63Hz. The WIDE control then allows you to control the shape of the filter centered around the SWEEP frequency.

SETTING THE BASS OUTPUT CONTROL

MEGA BASS is the most powerful bass component on the market. It is able to leap to dramatically enhance any audio system to audiophile status or preference. MEGA BASS is equipped with several different bass output selections. If you should need to change the settings, please use the chart below for guidance. Before making any changes try listening to the factor settings...they may be just what your looking for.

RECOMMENDED SETTINGS

Setting	Amplifier Input Voltage	Minimum Speaker Size
2.5 Volt	3 Volts or less	8"
5 Volt	5 Volts or less	10"
7.5 Volt	7.5 Volts or less	12"
10 Volt	10 Volts or less	Some Kind of Beast

DPF D.C. Protection Filter

Many car audio systems truly push the limits of their subwoofer, without really knowing it. Tuned enclosures affect the roll-off of many speakers, yet lots of source material forces the speakers to play lower than expected. The net result i s wasted amplifier power and damaged speakers. MEGA BASS's DPF Overdrive is a programmable subsonic filter. It allows you to only let the speaker play as low as it should be played. Because every system is different, we allow you to change the DPF roll-off frequency to whatever you choose.

TROUBLE SHOOTING

No Power

If the LED on your dash remote is not on, check the POWER light on the chassis of MEGA BASS. If the POWER light is on you will want to check to make sure that the cable connecting the remote to the chassis is not pinched or disconnected. If th POWER light is off check to make sure that the power wire and remote turn on wires are connected or a fuse has not blown.

No Restoration

When your system is playing and yet you don't hear any difference in the sound, try turning the knob clockwise. If you still don't hear any affect, then you need to make sure that you have MEGA BASS in the right part of the signal chain.

Sound is Distorted

Should your system sound distorted or your speakers are moving way too much, you should decrease the amount of bass restoration by turning the dash control knob counter-clockwise. You should also raise the DPF frequency or lower the setting on you Bass Control.

Still No Good

Adjust the Bass controls by turning the sweep control clockwise to raise the center frequency. If you still have distortion, you should power down MEGA BASS, and change the bass output settings inside the unit (See Page 7).

MEGA BASS SPECIFICATIONS

Maximum input level.....	15 Vrms
Maximum output level.....	13.5 Vpeak
Frequency response.....	10Hz-80kHz; ±0.3dB
Total harmonic Distortion.....	0.001%
Balanced input noise rejection.....	> 60dB
Input impedance.....	10 Kohms
Output impedance.....	150 Ohms
Power supply.....	High headroom PWM
Power draw.....	160mA
Recommended fuse rating.....	1 Amp
Dimensions.....	H=1-1/8" W=8" D=5-1/2" + 1/4" For RCAs
Weight.....	1.70 Lbs

All specifications are measured at 14.4 VDC. As technology advances Earthquake reserves the right to continuously change our specifications.