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Operators Guide



MB-DBE2.1

Digital Bass Enhancement Processor
Waterproof Fully Potted

Thank you for purchasing the MB Quart MB-DBE2.1 Digital Bass Enhancement Processor. This unit has the ability to fine tuning bass width and sweep for increased sound performance. Please read the entire manual to ensure proper connections and application.

CAUTION

Always consider consulting a professional audio installer before installing any audio components. Be careful and take your time. Do not let wires make contact with metal edges or hot engine components.

Features

- IP67 Waterproof Fully Potted
- Enhances and restores the bass level
- Waterproof RCA Connections
- JST Connector Bass Remote
- Remote wire input, and output
- Mono adjustable output level (can be controlled by bass remote)
- Bass Width and Sweep fine tuning adjustments
- Small profile
- Balanced differential low level input (for noise reduction)

Mounting and Hardware

Prior to mounting, connect the wires to ensure proper operation.

MOUNTING

1. Select the desired mounting location that allows the unit to be mounted on a flat surface with room for connections.

2. Use the mounting brackets that are attached to the unit and use the provided hardware for mounting the unit. Make sure there is proper clearance for the mounting bracket screws when attaching to selected location. Use caution to ensure there are no wiring harnesses, mechanical or gas tanks under the location selected.

3. Route the power, ground and remote wires away from moving parts to prevent pinching or shorting the wires. Also keep in mind, anything that can create excessive heat.

WIRING

1. **Power Wire**: The power wire should connect to a constant or switched +12 volt source. We recommend that you use the radio constant or switch +12 volt source.

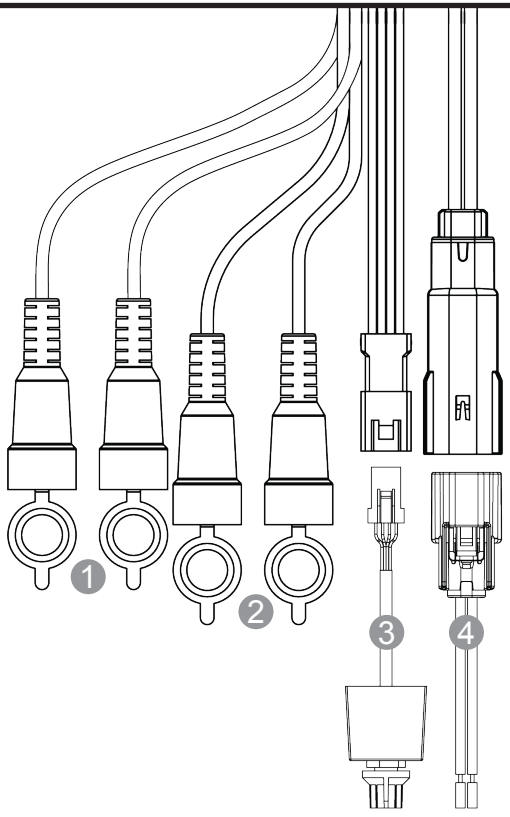
2. **Ground Wire**: Connect the ground wire to a clean chassis ground point. Be sure to remove all paint and primer to expose clean metal. Use a ring terminal and lock or star washer to secure the ground wire.

3. **Remote Wire Input (Blue)**: The remote wire input should be connected to the source unit remote wire (amplifier turn on or accessory wire) that provides +12 volts when the source unit is “on” and 0 volts when the source unit is turned “off”. (please note that some source unit’s antenna connections will only show + 12 volts when AM/FM is selected and 0 volts when other sources are selected).

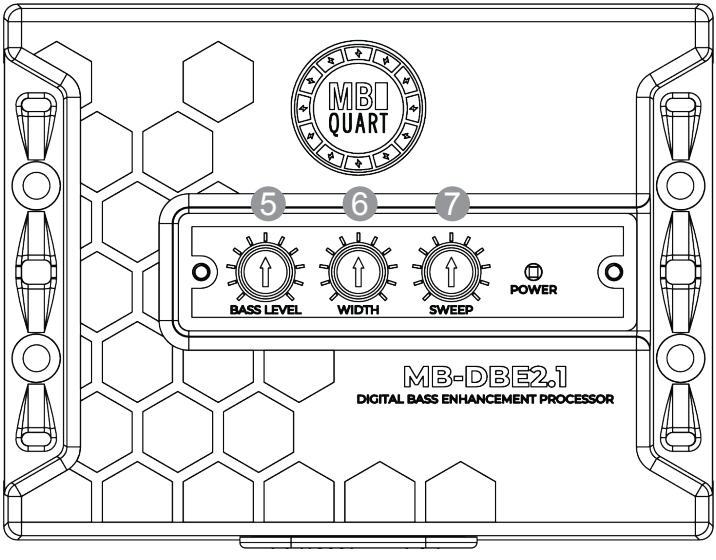
4. **Remote Wire Output (Blue/Black)**: The remote wire output should be connected to your amplifier(s) remote wire input.

Functions & Operations

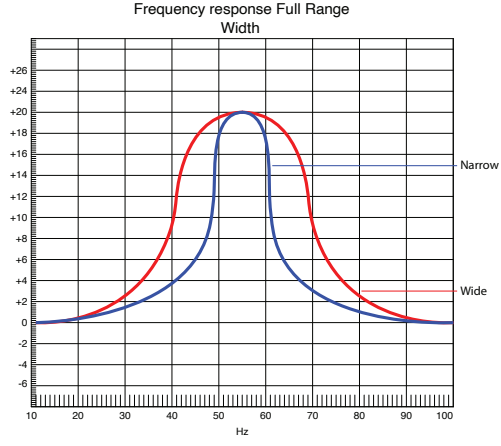
1. Low Level Input (RCA Level)
2. Adjustable Bass Enhancement Preamp Output
3. Bass Remote Input
4. Power Connector
5. Adjustable Bass Level Output
6. Adjustable Bass Width
7. Adjustable Bass Sweep



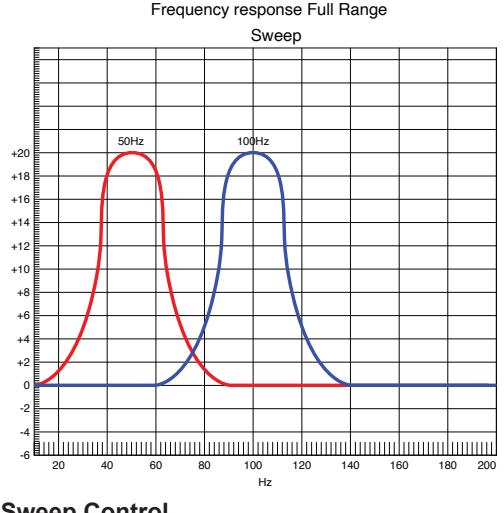
Functions & Operations



Frequency Response

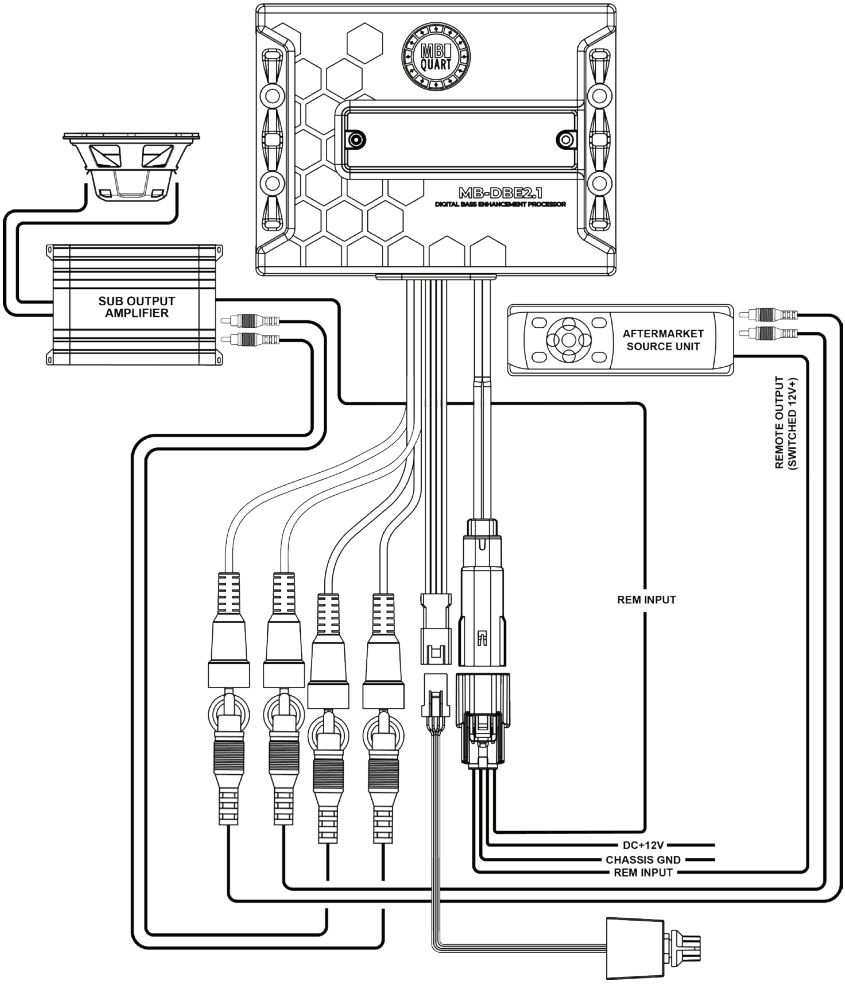


Width Control
Controls how wide the frequency range that is centered on the sweep frequency



Sweep Control
Allows you to select the center frequency the MB-DBE2.1 outputs

Unit Setup with Aftermarket Source Unit



Diagnostics & Trouble Shooting

The key to finding the problem in a troubled sound system is to isolate parts of that system in a logical fashion to track down the fault and correct the issue.

The diagnostic system will not shut down the crossover or the amplifier(s), although the amplifier(s) own protection circuitry may shut the amplifier(s) down, should a fault status occur. You will need to consult the owners manual for that particular amplifier.

Low Output Power	1) Check that level controls have been set up properly. 2) Make sure that the battery voltage, as measured at the amplifier(s) +12 volt and ground terminals, is 11 volts or more. 3) Check all +12 volt and ground connections.
Hiss, or White Noise	1) High levels of white noise usually occur when level controls are turned up too high – reduce the levels until the noise is no longer present. 2) Another problem that can cause excessive hiss, is a noisy head unit – unplug the input RCA's, and if the hiss level reduces, the source unit is at fault.
Electrical Interference	The inside of an automobile is a very hostile electrical environment. The multitude of electrical systems, such as the ignition system, alternator, fuel pumps, and air conditioners, create radiated electrical fields, as well as noise on the +12 volt supply and ground. To try and eliminate this noise, run a wire from the radio ground wire to the ground input on the bass enhancer.
Ticking or Whine that changes with engine RPM	1) This problem could be caused by radiation pickup of RCA cables that are too close to a fuel pump or a distributor. 2) Check that the head unit ground is connected straight to the vehicle chassis and does not use factory wiring for ground. 3) Try to supply the head unit with a clean +12 volt supply directly from the battery +, instead of using a supply from the in-dash wiring/fusebox.
Constant Whine	This type of noise can be more difficult to pinpoint, but is usually caused by some kind of instability, causing oscillations in the system. 1) Check all connections, (especially for good grounds). 2) Make sure that no speaker leads are shorting to exposed metal on the vehicle chassis. 3) RCA cable are notorious for their problematic nature, so check that these are good, especially the shield connections.

Specifications

Size	5.16" x 3.94" x 1.26"
Waterproof	IP67 Potted
Adjustable Bass	Width and Sweep
Adjustable Bass Output Level	Up to +16.6dB via Wired Remote
RCA Low Level Input Voltage	>10.2v
RCA Pre-out Voltage	10.5v Max
Signal to Noise Ratio	> 94dBA
Frequency Response	<10 - >20kHz

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WARRANTY

Maxxsonics USA Inc. warrants this product, to the original consumer purchaser, to be free from defects in material and workmanship for a period of one (1) year from the date of purchase. Maxxsonics USA Inc. will, at it's discretion, repair or replace defective products during the warranty period. Components that prove to be defective in materials and workmanship under proper installation and use must be returned to the original authorized Maxxsonics USA Inc. retailer from where it was purchased. A photocopy of the original receipt must accompany the product being returned. The costs associated with removal, re-installation and freight are not the responsibility of Maxxsonics USA Inc. This warranty is limited to defective parts and specifically excludes any incidental or consequential damages connected therewith. To view the full warranty, please visit the website.

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