

# **Phil Jones Bass**

## **EAR-BOX (EB-200)**

### **MONITOR LOUDSPEAKER**



### **OWNER'S MANUAL**

**Thank you for purchasing the PJB EAR-BOX. A great deal of dedication and passion went into designing and building this no compromise, high performance micro-monitor loudspeaker. Reading this manual will enable you to get the best performance from it so that you may enjoy many years of service.**

### **READ THIS FIRST**

- **Before using the EAR-BOX please read ALL the instructions.**
- **On receipt of product, check for any signs of physical damage arising from shipping. If any damage is visible contact your dealer.**
- **Keep all original packing.**
- **Never let the EAR-BOX get wet. If water gets inside this unit it will destroy it.**
- **You will require a Speakon cable to connect this unit to your amplifier.**
- **Do not use a Boom type microphone stand with the Ear Box as this will greatly reduce the center of gravity and the stand may topple over.**

### **OVERVIEW OF THE EAR-BOX**

The **PJB Ear-Box** is the best solution specifically designed to solve this dilemma for ALL musicians who need to hear themselves more clearly on a stage.

The **Ear-Box** is simply a passive micro-monitor with utmost fidelity. It fits onto a microphone stand adjusted to ear level. It does not produce bass frequencies; it does not need to. It blends in naturally with your existing bass cabs to give an audible illusion that it is full range.

### **HOW TO USE THE EAR-BOX**

Simply connect the **Ear-Box** up to your amp or speaker link on cabinet with a Speakon cable.

You will require a Speakon cable to connect this unit to your amplifier. The ideal length is about 18- 20 feet or 6 meters but it can be as long as required. The unusually high impedance of the **EAR-BOX** means that even with long and thin cables, it will hardly affect the sound quality.

The Ear-Box screws onto a standard microphone and should be set at ear level. The best position is about 2-3 feet away from you and should be on the other side of where you main bass amp is. If your amp is behind on your left then place the Ear-Box stand on your right.

If you need to adjust the level simply move the **Ear-Box** closer or further away. Slightly angling the unit away from you will reduce the treble frequencies.

The power handling the **Ear-Box** can take signals from a 500 watt plus amp easily. Not only will this product benefit bass players, it is a universal problem solver across the whole range of amplified instruments. All musicians can benefit from the **Ear-Box** connected up to their equipment. It works great on Keyboards, Guitar and even vocals.

## Principles behind the Ear-Box Monitor

Ever wondered why your bass amp never seems to sound the same at different venues?

The answer is that the sound from your cabinet is heavily affected by the environment it is in. What you hear is the cabinet sound mixed with the reflected sounds in the room. Where you stand from your speaker causes a change in the sound; the position of where your cabinet is in the room affects its frequency response.

**EQ is not always the answer.**

Loudspeakers radiate sound two ways:

1. The lower frequencies, i.e. the bass fundamentals radiate sound in every direction because the sound wave is physically much larger than the cabinet. (It is similar to the pattern of dropping a stone in the middle of a pond.) It is these Omni-directional waves that are often the problem.
2. At the upper mid and high frequencies, the sound radiates like a car headlamp and becomes increasingly directional as the frequencies get towards the treble end.

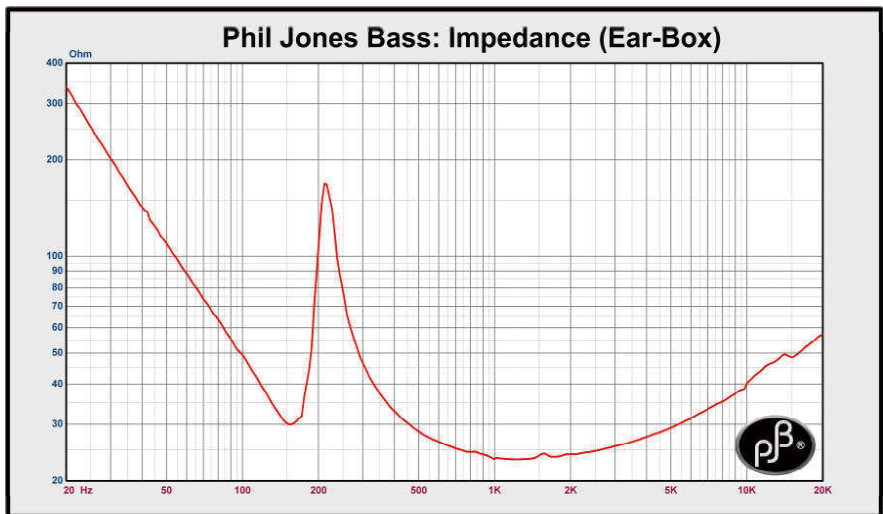
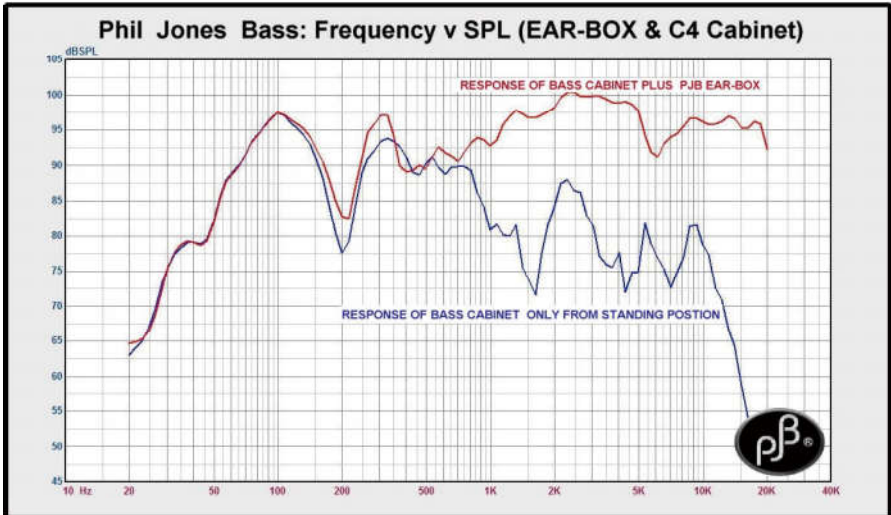
If you stand directly in front of your speakers, you may get the full range of your instrument. The closer you are, the less you hear the reflected sound from the room (like the benefit of near-field monitors in a studio). But at this position, your body would act like a sponge soaking up all the upper mid-range to treble frequencies, blocking them from your band members and audience, making the sound less defined, or muddy when combined with the room acoustics.

If you don't hear yourself right you can't play your best. We all know just how bad acoustics can screw up the overall sound quality, and it is a frustrating feeling knowing you don't sound as good as you could.

In ear monitors have become standard in large scale events because of these factors. But they are often uncomfortable and make you feel somewhat disconnected because you are hearing from the mixer.

Loudspeakers tend to have extremely high impedance at the upper frequencies produced by your instrument due to the parasitic inductive properties of the speakers voice coil: The additional load from the **Ear-Box** is un-noticeable by your amp. This is achieved by using "Zobel Network Filtering" ( ZNF).: A method of stabilizing the speaker impedance load to an amplifier For example: Even if your amp is already at the limit on a 4 ohm setting, adding the ear box will not affect your amplifier at all.. The connector cable can be as long as you like and you don't need to use a heavy duty cable gauge either to get the best results from the **Ear-Box**.

The graph below shows how much mid and highs you are missing when you are standing off axis to your rig. The blue graph show the response of a PJB C4 bass cab and the red graph shows the response of both Ear-Box and bass cab together. This measurement is done in a live room which depicts the uneven bass response. The peaks and dips are caused by ground and wall reflections. This is typical frequency response of every bass cabinet in a similar situation.



## **SPECIFICATIONS**

**Impedance:** Tapering from 340 ohms at 20Hz to 24ohms at 1000 Hz

**Size (WxHxD):** 3 ¾ inch x 6 ¾ inch x 4 ¾ inch  
95mm x 172mm x 120 mm

**Weight:** 2.2 lbs / 1 kg

**Speakers:** 2 x proprietary PJB 2.5 inch neodymium magnet transducers with a 1 inch (oversized) voice coils.

**Connector Socket:** Neutrik NL4 connector accepts Speakon plugs.

## SERVICE/WARRANTY INFORMATION

### IN USA ONLY

For Service issues please call 314 814 3383 or email [support@philjonesbass.com](mailto:support@philjonesbass.com)

### FOR OTHER COUNTRIES

Please contact the PJB distributor in your country. This can be found on our website.

<http://pjbworld.com/dealer.html>

**The EAR-BOX has a warranty period of 2 years, starting from the date of purchase. The buyer must complete and return the enclosed warranty card within 14 days of purchase.**

This warranty covers defect in materials or workmanship that occurs in normal use. Within warranty period PJB will repair or replace the defect unit free of labor and parts charge. It is the buyer's responsibility to use the unit strictly according to instructions written in this manual.

This warranty is not transferable; it is provided to original owner only. Damage/defects caused by the following conditions are not covered by this warranty:

- Improper handling, neglect or failure to operate the unit in compliance with the instructions given in user manual;
- Connection or operation of the speakers in any way that does not comply with the technical or safety regulations applicable in the country where the product is used;
- Repairs or modifications by anyone other than authorized PJB service agent;
- Damages/defects caused by force majeure or any other condition that is beyond the control of PJB.

Should you need any warranty service, please bring the **EAR-BOX** back to the dealer from whom you purchased, along with your sales receipt. Depending on the complexity of the repair work, your dealer may return the defect unit to PJB service center for repair or replacement.

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