



**PHIL JONES BASS**

**ROADCASE**

**BG-800**



# OWNER'S MANUAL

Thank you for purchasing the PJB ROADCASE. A great deal of dedication and passion went into designing and building this high-performance compact-combo amplifier, without compromising on any aspect. It was specifically created to cater to the needs of discerning bassists. By reading and following this manual, you will be able to achieve the best performance from the amplifier and ensure its longevity.

## READ THIS FIRST

- **Before using the ROADCASE, please read all the instructions carefully.**
- Upon receiving the product, inspect it for any signs of physical damage that may have occurred during shipping. If you notice any damage, please contact your retailer immediately.
- Ensure that the amplifier is not installed in a confined or built-in space, such as a bookcase. The amplifier should be kept in an open area with good ventilation, and the ventilation openings should never be obstructed by items such as newspapers, tablecloths, or curtains.
- **Warning:** To avoid any potential hazards, use only attachments and accessories specified or provided by the manufacturer.
- **Warning:** To prevent the risk of fire or electric shock, keep the amplifier away from rain or moisture. The amplifier should not be exposed to dripping or splashing liquids, and no objects filled with liquids should be placed on top of it.
- When the amplifier is not in use or during transportation, take care of the power cord by tying it up with a cable tie. The power cord should be free from sharp edges that may cause abrasion. Before using it again, check that the power cord is not damaged. If any damage is found, replace it with a cord specified by the manufacturer or with the same specifications as the original. one.



-  The marking "Correct Disposal of this product" indicates that this product should not be disposed of with other household waste throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, it should be recycled responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.
-  **Warning:** The apparatus with CLASS I construction shall be connected to a MAINS socket outlet with a protective earthing connection.

## OVERVIEW OF THE ROADCASE

The ROADCASE is a compact yet powerful combo amplifier (950-watts) designed for the reproduction of all bass instruments. Although it is a dedicated bass amplifier, this unit is also suitable for other instruments, such as keyboards, due to its natural hi-fi sound character. The full power of this amplifier is utilized across the 12 internal loudspeakers, eliminating the need for an extension loudspeaker connection.

The control panel features two instrument channels, along with a separate auxiliary input for other devices, such as an MP3 player or drum machine. The twelve 5-inch proprietary PJB NEOPOWER drivers have been

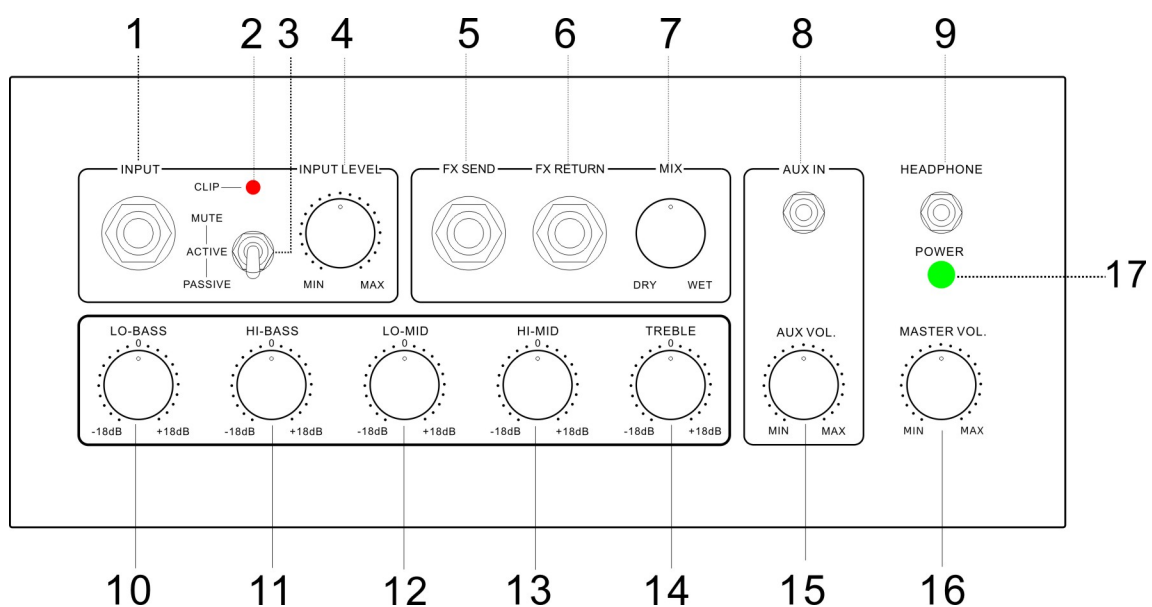
acoustically optimized through precise computer analysis to provide a full-range, dynamic sound that can effortlessly play down to an open B string and lower. When compared to other brand bass amplifiers in terms of the reproduction of fundamental tones, all PJB amplifiers provide significant bass extension. Since all 12 drive units operate across the full audio spectrum and there is no crossover to soak up amplifier power or horns to blow out, the reliability and sound quality of this unit is second to none. Additionally, two of the speakers are set at an angle, allowing the player to hear the same tone that emanates out to the audience or the rest of the band.

The amplifier has a corner handle at the rear of the control panel and tilt-back wheels for ease of movement. There is also a recessed handle on the bottom, which allows two people to carry the unit up or down a staircase with ease.

## FEATURES

- A switchable input for active (high-output) and passive (high pickup impedance) basses with mute function.
- Auxiliary input for other audio sources with volume control.
- Dedicated 5-Band EQ for total tonal control of instrument.
- A Balanced Line Output with ground lift.
- Line In.
- Line Out.
- EXT-Speaker Out.
- Sophisticated protection circuitry.
- Power output 600W on internal speakers 950W with 8-ohm speaker connected.
- Ultra low noise pre-amplifier circuit.
- IEC universal AC input 100-240 volts AC. (Operates on all world voltages)

### TOP PANEL OVERVIEW



### TOP PANEL DESCRIPTION

## **1.INPUT JACK**

This is a high impedance input and is designed for all passive and active instruments.

## **2.CLIP LIGHT**

When the amplifier output is clipping, the LED will light up in red. When the amplifier is muted, the LED will light up in green.

## **3. INPUT SWITCH**

**MUTE:** mute the input stage, when switch on, the clip LED will light up in green.

**ACTIVE:** lower sensitivity input setting for guitars with onboard electronics.

**PASSIVE:** higher sensitivity, high impedance input for passive guitars.

## **4. INPUT LEVEL CONTROL**

Factors of different instruments, playing styles, and players all can affect the signal level. Adjust this control accordingly, so that the signal overload clip light does not light up. This optimizes the best signal to noise ratio between the amp and instrument, and will give you the full extent of the amplifiers tone and power.

## **5. FX SEND SOCKET**

Connect the FX send to auxiliary FX unit input.

## **6. FX RETURN SOCKET**

Connect the FX Return to auxiliary FX unit output.

## **7.MIX CONTROL**

## **8.AUX INPUT**

Stereo input for Drum machine or I-pad/ digital audio player.

## **9. HEADPHONE SOCKET**

This jack accepts 3.5mm stereo headphone jacks.

When a headphone is connected to the jack, the speakers will be muted.

## **10. LOW BASS EQ CONTROL**

This will adjust the fundamental tones of E and A strings on 4 string basses and B, E & A on 5 string basses.

## **10. HIGH BASS EQ CONTROL**

This will adjust the fundamental tones of D and G-strings on 4 & 5 string basses.

## **12. LOW MID EQ CONTROL**

## **13. HIGH MID EQ CONTROL**

## **14. TREBLE EQ CONTROL**

## **15. AUX INPUT VOLUME CONTROL**

Control the level of backing/rhythm track.

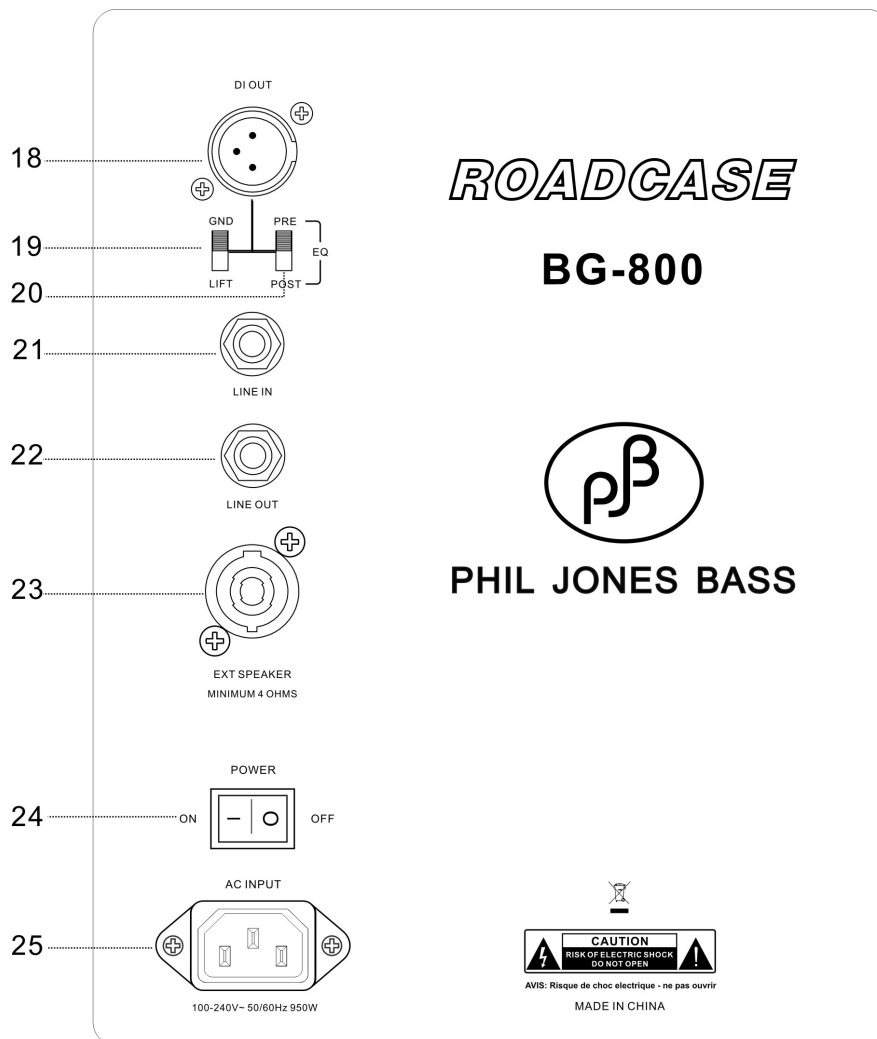
## **16. MASTER VOLUME CONTROL**

This is the master volume control, which determines how much power is sent to the speakers and the line out socket at the back of the amp. When setting up your tone or plugging in your instrument, it is recommended to start this control at a low level. Output from different instruments' pickups can vary greatly, and likewise, players may play softly or with great force.

## 17. POWER LED INDICATOR

When power is switched, on the LED light will turn bright green.

### BLACK PANEL OVERVIEW



### BACK PANEL DESCRIPTION

#### 18. XLR-DIRECT OUTPUT SOCKET

This is an ultra-low impedance ( $200\Omega$ ) balanced line output intended for use with recording or PA mixing consoles. Unlike the volume control, the level of this output is not adjustable. However, the level of the DI output will vary depending on the level of your instrument."

#### 19. BALANCED LINE OUT GROUND LIFT SWITCH

Sometimes AC hum is induced into a sound system when both the PA and bass amp are connected to different ground potentials, which is known as a ground loop. This switch can disconnect the amp's grounding from the PA or recording system to eliminate this hum. It allows the grounding of the balanced-out socket to be disconnected, which is useful if you are experiencing hum caused by grounding loop problems.

## **20. BALANCED LINE PRE/POST EQ**

By toggling this switch, you can activate or deactivate the EQ on the balanced line. This allows you to decide whether you want to use the tone settings on your amplifier for live performances or recordings, or if you prefer to apply external EQ adjustments on the mixing console that the signal is being sent to.

## **21. LINE IN**

This input allows for a high signal output from a source, such as the preamp out from another amplifier or a mixer output, so that the BG450 can function as a slave unit. It bypasses the internal preamp.

## **22. LINE OUT**

Can be used for driving a second amplifier or powered monitor speaker.

## **23. EXTENSION SPEAKER OUT**

This output is intended for use with an additional 8-ohm speaker, such as the PJB C4, C8 or C9 enclosures.. Please ensure that you do not connect a speaker with an impedance lower than 8 ohms, as this can cause the amplifier to overheat and shut down."

### **Why we use only Speakon connectors.**

There are several compelling reasons why using Speakon connectors is essential for ensuring the safety and optimal performance of audio systems. First and foremost, Speakon connectors are designed to handle much higher AC currents than a typical 1/4 inch guitar jack. This is particularly important in high-power audio systems that require a lot of current to produce the desired sound. Using a Speakon connector ensures that the connection can handle the current without overheating or causing damage to the equipment.

Another crucial advantage of Speakon connectors is that they offer greater safety compared to other types of connectors. High-power amplifiers can produce voltages to loudspeakers that can be lethal, and the Speakon connector does not leave any exposed conductors that could be potentially dangerous to handle. This greatly reduces the risk of electric shock or other injuries, making Speakon connectors the preferred choice for audio professionals.

Furthermore, Speakon connectors provide a more reliable and secure connection than other types of connectors. The locking mechanism of the Speakon connector ensures that the connection remains tight and secure, even in high-vibration environments. This helps prevent signal loss or interruption and ensures consistent sound quality.

In conclusion, using Speakon connectors is crucial for ensuring the safety and optimal performance of audio systems, particularly in high-power applications. With their ability to handle high AC currents, enhanced safety features, and reliable connection, Speakon connectors provide a superior solution to other types of connectors and are the preferred choice of audio professionals worldwide.

## **24. POWER ON/OFF SWITCH**

This switch controls the main power supply for the amplifier, allowing you to turn it on or off as needed. Upon turning on the power, there will be a 2-second delay to protect the speaker. To ensure the longevity of the amplifier and prevent any potential damage, avoid leaving it plugged into a power source for extended periods when not in use. It is recommended to unplug the amplifier or turn off the power switch when not in use.

## **25. AC INPUT SOCKET**

This accepts grounder IEC cables. This amp can work on any AC voltage from 100- 250volts.

## OPERATION & POSITIONING

Before plugging in your instrument, be sure to turn down the volume and switch the input on the ROADCASE to mute.

Please note that it is crucial to avoid extreme overload on the amplifier to prevent loudspeaker failure. While the ROADCASE is designed to provide optimal bass performance, it is essential to ensure that the amplifier is not pushed beyond its limits. If you hear any distortion from the speakers, immediately turn down the master volume control until the distortion disappears.

The amplifier is designed to produce a power output of 600 watts through its internal speakers without audible distortion. When an 8-ohm extension speaker is added, the amplifier is capable of delivering a maximum power output of 950 watts. It's important to understand that amplifiers have limits, and if they are pushed beyond their capacity, they can produce distortion in the sound. However, in certain cases, when intentionally overdriven, amplifiers can briefly produce an increased power output up to 150% of their rated output power before distortion occurs. It's crucial to note that this increased power output will result in audible distortion. Very often it is this clipped waveform the amplifier produces that can cause permanent damage to loudspeakers.

Please be aware that any damage resulting from misusing the amplifier by overloading it is not covered by the warranty. It is crucial to use the amplifier with care and avoid pushing it beyond its limits to ensure maximum performance and longevity of the equipment.

### Positioning the ROADCASE for Best Sound

Your bass instrument's sound can often vary in different venues due to the acoustics of the space. The low-frequency waves emitted by your speaker can be influenced by the room dimensions, which can cause sound waves to reflect off walls, either adding together or canceling each other out. Since bass waves are larger, these reflections can have a more significant impact on them. Consequently, some fundamental notes (which you feel more than hear) may ring out louder than others, while some may be barely audible.

To help you better understand the fundamental bass frequencies' location, here is an overview of the estimated frequencies and corresponding acoustic wavelengths of open strings:

F# string	24Hz	46 feet: (Sometimes used on 7 or more strings)
B string	31Hz	36 feet: (lowest string on 5-string bass)
E string	41Hz	27 feet (lowest string on 4- string bass)
A string	55Hz	20 feet
D string	73Hz	15 feet
G string	98Hz	11 feet
C string	130Hz	9 feet

Often, the sound of your bass instrument can vary significantly in different venues due to the acoustics of the space. This can affect the low-frequency waves emitted by your speaker, as bass waves are larger and can be heavily impacted by the room dimensions. When sound waves reflect off walls, they can add together or cancel each other out, causing some fundamental notes (the ones you feel more than hear) to ring out louder than others, while some may be hardly audible at all. To improve your comprehension of the fundamental bass frequencies, here's an overview of the estimated frequencies and corresponding

acoustic wavelengths of open strings:

The frequencies of the open strings can provide insight into which notes might be causing excessive resonance or reduced volume compared to others. For instance, if you place your speakers five feet away from a wall, you might notice that the open A string sounds weak. This could be due to the reflected sound from the wall traveling the exact same distance as the direct sound from the speaker, resulting in cancellation of that frequency. Essentially, the reflected sound waves and the direct sound waves meet each other at the same point, which results in a decrease in the perceived volume of that particular frequency. To overcome this, you can try different solutions, such as moving the speaker or instrument to another location, or using sound-absorbing materials to minimize reflections. The best course of action is to experiment with different positions until you find the optimal spot where the bass response is balanced and even.

The position of the ROADCASE can impact its ability to produce low-frequency sounds. For the best sound quality, it's recommended that you place the ROADCASE on the floor. If you place the speaker on objects that are not on the floor, it can result in weaker bass sound and a lack of impact in the lower frequencies. However, if you place the ROADCASE with its back near a wall, it can help reinforce the lower notes, creating a more robust and powerful bass sound. Similarly, placing the speaker in a room corner can further enhance the low notes, providing an even more powerful and impactful bass experience. Therefore, the position of the speaker is crucial to obtaining the best possible sound quality from the ROADCASE. This reinforcement effect is due to the waveguide property of the corner, which channels the sound waves in a specific direction. The corner directs the bass frequencies towards the center of the room, where they can accumulate and create a more powerful and impactful bass sound.

Bass frequencies are omnidirectional, meaning they radiate equally in all directions from the source. This is because the longer wavelengths of bass frequencies can diffract around objects and fill a room more easily. In contrast, mid-range and high frequencies tend to be directional and beam-like, similar to headlights on a car. This is because the shorter wavelengths of these frequencies are less able to diffract around objects and are more easily absorbed or reflected by surfaces.

When you stand in front of your bass guitar amplifier, it can affect the sound for other people listening in the room. This is because your body can absorb and reflect sound waves, which means that the sound waves from your amplifier will be partially absorbed or reflected by you. As a result, the sound can be quieter and less clear for people standing farther away from you, especially in the mid-range and high frequencies. Fortunately, there's a solution to this problem: the EarBox (EB200) by PJB. It's a small loudspeaker that can be mounted on a straight microphone stand and positioned close to you at ear level. The EarBox fills in the critical mids and highs that you may be missing when you're not in the axis of the front of your amplifier. It's directly connected to the speaker out or link from your extension speaker,

## **TRANSPORTING AND STORING THE ROADCASE**

When transporting the amplifier in a vehicle, it is recommended that you use an external case, or a heavy-duty cover to prevent it from damage.

### **Storage**

- Keep in a dry location, preferably at room temperature.
- Do not store in temperatures below -20 Degrees C or above 40 Degrees C.
- Do not allow it to get wet. If this occurs, never turn it on in this condition.



- We recommend that you do not keep the ROADCASE amplifier permanently connected to a power source as a safety precaution, particularly during thunderstorms. While it is not a common occurrence, during severe weather conditions, there is a risk that the electrical grid may experience high voltage spikes due to lightning strikes, which can cause damage to the amplifier

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## **SPECIFICATIONS**

### **Amplifier**

A class D amplifier with digital switch-mode power supply.

Maximum Power output: 600W with internal speakers/ 950W total with 8-ohm extension speaker.

### **Signal to Noise Ratio**

≥85 dB(A) (EQ off, Volume on Full.)

### **Impedances**

Active Input: >100KΩ/22pF

Balanced Line Out: <200Ω

Line Input: >75KΩ

Passive Input: >2MΩ/22pF

Pre-Amp Line Out: <2KΩ

### **Levels**

Passive Input: 10mV-1.5V

Active Input: 20mV-4.5V

Pre-Amp Line Out: 1.2V

Balanced Line Out: Typical: 500mV

### **Protection Circuits**

1. AC line filter.
2. Loudspeaker Short-Circuit Protection.

### **Speaker Enclosure**

The 12x5 angled baffle enclosure is computer-optimized for efficient use with all types of basses, from 4-string to multiple-string basses, resulting in increased bass output and improved performance. Additionally, the angled baffle provides several advantages such as improved sound dispersion, reduced standing waves, and reduced interference between the two speakers in the cabinet, resulting in clearer and more defined sound.

Speaker Frequency Response: 30Hz–15KHz

Speaker Compliment: 12 x 5inch proprietary PJB, extended-range drivers

Speaker Sensitivity: 93dB/W/M

Internal Speaker Impedance: 8 Ohms

Dimensions: (WxHxD): 15x36.2x18.7inch (381x920x475mm)

Weight: 35.7kg / (78.5 lbs.)

### **Included Parts**

12 ft AC Power Cord

Protective slip-on cover

### **SERVICE/WARRANTY INFORMATION**

The ROADCASE comes with a 2-year limited warranty for parts and labor, which is only valid if the product is purchased from an authorized PJB dealer. To activate the warranty, the buyer must complete and return the enclosed warranty card within 15 days of purchase or register online at [www.pjbworld.com](http://www.pjbworld.com). This warranty covers any defects in materials or workmanship that occur during normal use. During the warranty period, PJB will repair or replace any defective unit free of charge for both labor and parts. However, the buyer must strictly adhere to the instructions provided in this manual and the amplifier manual to ensure warranty coverage.

**This warranty is non-transferable and is only provided to the original owner. Damage or defects caused by the following conditions are not covered under this warranty:**

- Improper handling, neglect, or failure to operate the unit in compliance with the instructions provided in the user manual are not covered under warranty.
- Connection or operation in any way that does not comply with the technical or safety regulations applicable in the country where the product is used may void the warranty.
- Speakers are not covered for damages caused by incorrect connection or operation beyond the limits described in the user manual. Manufacturing defects are usually detected during early usage and will be covered under warranty.
- Repairs or modifications carried out by anyone other than an authorized PJB service agent will void the warranty.
- Damages or defects caused by forces of nature or any other condition that is beyond the control of PJB are not covered under warranty.

### **IMPORTANT:**

- In all warranty issues, your first point of contact should be the retailer from whom you purchased the product, even if you bought it from an online source.
- When a local distributor is available, customers who prefer to purchase online from another country may be required to pay shipping charges to the retailer for service.
- Warranty policies may vary in countries outside of the USA. To learn about warranty information in your region, please check with local distributors. Registering with your local distributor, if available, will enable you to receive faster and better service when required.

**Further questions, please contact your local distributors or PJB by email**  
[info@philjonespuresound.com](mailto:info@philjonespuresound.com).

**PHIL JONES BASS**

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**For services outside the USA please contact our distributor in your country.**  
**Information can be found on our website.**



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