

# **PHIL JONES BASS**

# BASS CUB PRO BG-120



**OWNER'S MANUAL** 

Thank you for purchasing the PJB **BASS CUB PRO**. A great deal of dedication and passion went into designing and building this no-compromise, highperformance compact-combo amplifier. It was conceived to be a dedicated amplifier for the "connoisseur" bassist. Reading and following this manual will enable you to get the best performance from the amp and ensure its longevity.

## **READ THIS FIRST**

- Before using the **BASS CUB PRO**, 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 retailer.
- Do not install this equipment in a confined or building-in space such as a bookcase or similar unit. The amp should remain in well ventilation conditions at an open site. The ventilation should not be impeded by covering the ventilation openings with items such as newspaper, table-cloths, curtains, etc.
- WARNING: Only use attachments/accessories specified or provided by the manufacturer.
- WARNING: To reduce the risk of fire or electric shock, do not expose the amp to rain or moisture. The amp shall not be exposed to dripping or splashing. Objects filled with liquids such as a coffee cup shall not be placed on top of the amp.
- When not in use and during movement, please take care of the power cord, e.g. tie up the power cord with cable tie. It shall be free from sharp edges which can cause abrasion of the power cord. When put into use again, please make sure the power cord being not damaged. If any damages found, please replace it with one specified by the manufacturer or with the same specifications as the original one.
- Z Correct Disposal of this product. This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it 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 environmental safe recycling.

# **OVERVIEW OF THE BASS CUB PRO**

Sometimes all you need is an amplifier that can deliver true bass tones but without the hassle of getting out a big rig amplifier. The **BASS CUB PRO** has a power output of 120W at 8 Ohms or 240W at 4 Ohms. It delivers pure bass tone from a "shoebox" size package that weights only 15 lbs.

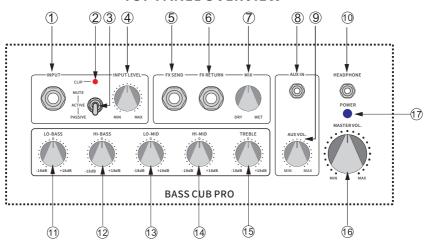
It can sit on the floor or on top of a desk. It also has a stereo input for Drum machine or iPod/Cell Phone.

Practicing can be done by using the 2 internal speakers or headphones.

With these versatile features and great sound, you no longer have excuses not to practice!

#### AMPLIFIER 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.
- FX Send/Return.
- A Balanced Line Output with ground lift.
- Line Out.
- Ear-Box Out.
- EXT-Speaker Out.
- Sophisticated protection circuitry.
- Power output 120W at 8 Ohms/240W at 4 Ohms (MAX).
- Ultra low noise pre-amplifier circuit.



#### 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 switching on, the clip LED will light up with 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 iPod/Cell Phone.

#### 9. AUX INPUT VOLUME CONTROL

Control the level of backing/rhythm track.

#### **10. HEADPHONE SOCKET**

This jack accepts 3.5mm stereo headphone jacks.

We recommend the PJB H850 headphones as they were designed for bass and high fidelity music reproduction.

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

#### **11. 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.

#### **12. HIGH BASS EQ CONTROL**

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

#### **13. LOW MID EQ CONTROL**

**14. HIGH MID EQ CONTROL** 

#### **15. TREBLE EQ CONTROL**

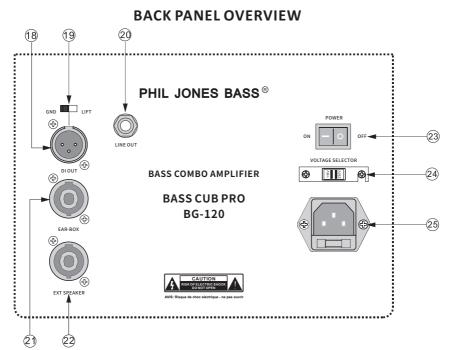
#### **16. MASTER VOLUME CONTROL**

This is the master volume control. It controls how much power you send to the speakers, as well as the line out socket on the back of the amp. When setting up your tone or plugging in your instrument, you should always start this control at low level. Output from the pick ups of different instruments all veries, and likewise, players may play soft or hard.

#### **17. POWER LED INDICATOR**

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

NOTE: When power is on, the indicator will light up. If no signal comes in after 30 minutes, the standby mode will activate, and the power indicator LED will light up in red. When a signal comes in from INPUT or AUX socket, the amplifier will restart in about 2 seconds.



# **BACK PANEL DESCRIPTION**

#### **18. XLR-DIRECT OUTPUT SOCKET**

This is an ultra-low impedance  $(200\Omega)$  balanced line out for use with recording or PA mixing consoles. This output is not controlled by the volume control. Changing the level on your instrument will, however, change the DI output.

#### **19. GROUND LIFT SWITCH**

This allows the grounding of balanced out socket to be disconnected. This is useful if you are experiencing hum caused by ground loops/problems.

#### 20. LINE OUT

Can be used for driving a second amplifier.

#### 21. EAR-BOX OUT

You can connect a PJB EarBox to this socket. The EarBox is a micro high impedance, ear level, monitor speaker than can fit onto a microphone stand. Only use this output for a PJB EarBox loudspeaker.

The socket supports both Speakon and 1/4" Jack connectors.

#### 22. EXTENSION SPEAKER OUT

This output is for driving an additional 8 ohm speaker such as the PJB Compact-2. Do not use a speaker with an impedance of less than 8 ohms as the amplifier will get too hot and shut down.

The socket supports both of Speakon and 1/4" Jack connectors.

#### 23. POWER ON/OFF SWITCH

This switches the main power on and off in the amplifier. When you turn on the power, it will have about 2 seconds delay to protect the speaker.

Do not leave the amplifier plugged into a power source for a long period of time when not in use.

#### 24. AC INPUT-VOLTAGE SELECTOR

Switches the amplifier to run on either 110-120 volt or 220-240 volt AC power. Never try to run the amplifier on a 220-240 volt supply when the switch is set on 110-120 volt. This can cause irreversible damage to the amplifier.

#### 25. AC INPUT SOCKET & FUSE

Connects the amplifier to AC power supply. Always use a grounded plug and make sure the AC cable is more than 3A rating at 250-volt AC. If you require a longer AC power cord, we recommend the PJB heavy duty 20 foot power cords. These are available as an accessory. Use a slow blow  $\frac{3}{4}$  inch fuse.

<u>BEFORE SWITCHING ON POWER</u>-Check that the voltage selector is set to the correct voltage in your country. (110volt-120 volt USA / Japan or 220-240V Europe/Australia.)

ALWAYS USE A HIGH QUALITY GROUNDED AC POWER CABLE. NEVER USE THIS AMPLIFIER WITH THE GROUND CONNECTION REMOVED. We recommend that you use original PJB cables.

# **OPERATION & POSITIONING**

# $\underline{\text{TURN THE VOLUME DOWN}}$ on the BASS CUB PRO before plugging in your instrument.

**CAUTION:** Extreme overload on the amplifier can cause the failure of the loudspeakers. The **BASS CUB PRO** is designed for optimal bass performance. Care must be given not to push the amplifier beyond its limits. If you hear any kind of distortion on the speakers, immediately turn down the master volume control until the distortion disappears. The amplifier is rated power output of 120W at 8 Ohms/240W at 4 Ohms with no audible distortion. This does not mean that the amplifier is limited to 120W at 8 Ohms / 240W at 4 Ohms; in fact the power with distortion could be double the wattage. Distorted sound waves from overdriven amplifiers are very often the cause of loudspeaker failures. This type of speaker failure is regarded as mis-use and not covered by warranty.

#### Positioning the BASS CUB PRO for Best Sound

Often, your bass instrument sounds different in different venues. This is partially due to the acoustics of the hall, influencing the low-frequency waves that are coming from your speaker. Bass waves are large, and room dimensions heavily influence them when the walls reflect the sound waves, causing them to collide by adding together or canceling each other out. This causes some fundamental notes (the ones you feel more than hear) to ring out louder than others, and some notes are not heard at all.

Here is an indication of where fundamental bass frequencies are, showing open string's approximate frequencies and acoustic wavelength:

F# string	24Hz	46 feet
B string	31Hz	36 feet
E string	41Hz	27 feet
A string	55Hz	20 feet
D string	73Hz	15 feet
G string	98Hz	11 feet
C string	130Hz	9 feet

This gives you some indication of the offending notes (frequencies) that may be booming or resonating louder or quieter than others. For example, if your speakers are five feet from a wall, the open A string may sound weak. The reason could be that the path length of the reflected sound from the wall is exactly corresponding to half a wavelength on the open A string, causing that particular note to cancel out.

Where the **BASS CUB PRO** is positioned will ultimately affect your lowfrequency limit. For best performance, keep the **BASS CUB PRO** on the floor. Placing it on objects off the floor will result in thinner bass sound and lacking in bass punch. Placing the BASS CUB PRO with the back close to a wall will help to reinforce the lower notes. Placing it in a room corner will further enhance the low notes.

Room size makes a big difference on how deep the bass will sound. The further the distance to the listener, the less the bass will be. This is due to the physics of acoustics, not the unit itself.

Unfortunately for bass players, low frequencies are always very difficult to control when room acoustic is present. The wavelengths of the notes you are playing often correspond to the room dimensions, in which case the reflected sound from the walls interferes with the sound from the speaker as you get further away from it.

# TRANSPORTING AND STORING THE BASS CUB PRO

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.
- Do not leave the **BASS CUB PRO** permanently connected to a power source.

## SPECIFICATIONS

#### Amplifier

A class D amplifier with digital switch-mode power supply. Power output 120W at 8 Ohms / 240W at 4 Ohms (MAX).

#### Signal to Noise Ratio

≥85 dB(A) (EQ off, Volume on Full.)

#### Impedance

Passive Input: >2MΩ/22pF Active Input: >100KΩ/22pF Pre Amp Line Out: < 2KΩ Bal. Out: <200Ω

#### Levels

Passive Input: 10mV-1.5V Active Input: 20mV-4.5V Pre Amp Line Out: 1.2V Bal.Out: Typical 500mV

#### **Protection Circuits**

AC line filter.
Slow-blow Fuse: 10A / 250V.
Loudspeaker Short-Circuit Protection.

#### Speaker

Computer Optimized Vented Enclosure Speaker Frequency Response: 50Hz –15KHz Speaker Compliment: 2 x 5inch proprietary, extended-range drivers Speaker Sensitivity: 91dB/W/M Internal Speaker Impedance: 8 Ohms Dimensions: 12" W x 11" D x 7.8" H Weight: 16.5 lbs

#### **Included Parts**

6 ft AC Power Cord

## SERVICE/WARRANTY INFORMATION

The BASS CUB PRO carries a 2-year limited warranty on parts and labor.

Products must be purchased from an authorized PJB dealer.

Buyer must complete and return the enclosed warranty card within 15 days of purchase, or register online by www.pjbworld.com

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 and amplifier manual.

#### This warranty is not transferable; it is provided to the 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 in any way that does not comply with the technical or safely 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.

#### **IMPORTANT:**

- In all warranty issues, your first line of communication should be to the retailer you purchased from, even if you have purchased product from an online source.
- When a local distributor is available, the customer who prefers to purchase across country online may be required to pay shipping charges to retailer in order to obtain service.

Warranty policies differ in countries outside of the USA. Please check with local distributors for warranty information in your region. Register first with your local distributor if available will give you better and quicker service when needed.

Further questions, please contact your local distributors or PJB by email info@philjonespuresound.com.

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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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