



PHIL JONES BASS


BASS CUB II
BG-110



OWNER'S MANUAL

Thank you for purchasing the PJB BASS CUB II. A great deal of dedication and passion went into designing and building this no-compromise, high-performance 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 II, 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, tablecloths, 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.
-  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 II

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 II is 110 watts of pure tone in a “shoebox” size package and so light, it can be lifted even with a finger!

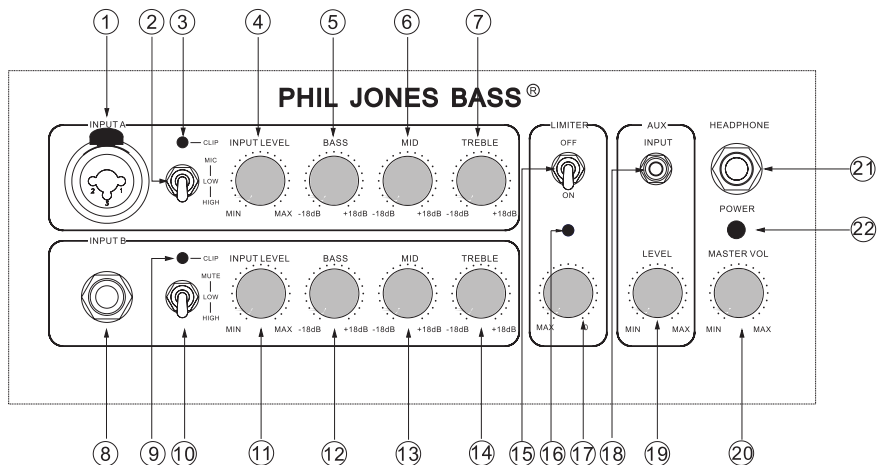
It can sit on the floor or on top of a desk. Two independent channels can accept two instruments or one microphone. It also has a stereo input for Drum machine or I-pod/MP3 player. Practicing can be done with the 2 internal speakers or headphones.

With these features and great sound there is no longer an excuse you can not practice.

AMPLIFIER FEATURES

- Dual-channel switchable high impedance/high gain input OR low impedance/low gain stage with mute function.
- One stereo input for Drum machine or I-pod/MP3 player.
- 3 Band EQ.
- A Balanced Line Output with ground lift.
- Tuner Out.
- Line Out.
- Sophisticated protection circuitry.
- 110watt RMS Amplifier.
- Ultra low noise pre-amplifier circuit.

FRONT PANEL OVERVIEW



FRONT PANEL DESCRIPTION

1. INSTRUMENT INPUT JACK CHANNEL A

This is a combo socket accepts both standard ¼ inch mono jack and XLR plug. This input is not suitable for high impedance piezo pickups.

2. INPUT GAIN SWITCH CHANNEL A

High: Higher sensitivity, high impedance input for passive basses with magnetic pickups

Low: Lower sensitivity input setting for guitars/basses with onboard electronics.

MIC: Switch to this when plugging in a microphone. This input is for dynamic low impedance balanced line microphones. If you need to use a condenser microphone that requires phantom power, you will need an optional phantom power unit.

3. CLIP INDICATOR

When the amplifier output is clipping, the LED will light up with red.

4. INPUT LEVEL SENSITIVITY CHANNEL A

5. BASS EQ CONTROL

6. MID RANGE EQ CONTROL

7. TREBLE EQ CONTROL

8. INSTRUMENT INPUT JACK CHANNEL B

This is a standard ¼ inch mono jack socket. This is a high impedance input that can be used with Piezo pickups on double basses. Channel A is not high impedance and will not work well on Piezo pickups.

9. CLIP/ MUTE INDICATOR

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

10. INPUT GAIN SWITCH CHANNEL B

High: Higher sensitivity, high impedance input.

Low: Lower sensitivity input setting for guitars with onboard electronics.

Mute: mute the input stage, when switching on, the clip LED will light up with green.

11. INPUT LEVEL SENSITIVITY CHANNEL B

12. BASS EQ CONTROL

13. MID RANGE EQ CONTROL

14. TREBLE EQ CONTROL

15. LIMITER IN/OUT SWITCH

This switch sends the signal through limiter or bypass.

16. LIMITER INDICATOR

This blue LED (Light Emitting Diode) will light up when the signal is being compressed. This will vary on how hard the instrument is played and how the threshold is adjusted

17. COMPRESSION ADJUSTMENT LEVEL

This will vary the “level” the limiter threshold. The compression ratio is 3dB to 1. Adjust this to suit your playing style and output power of instrument. Note that turning this control clockwise increases the threshold level and so reduces compression. More compression is added by turning the control counter-clockwise, like backing off the volume control.

18. AUX INPUT

Stereo input for Drum machine or I-pod/MP3 player.

19. AUX INPUT VOLUME CONTROL

Use to control the level of backing/rhythm track.

20. MASTER VOLUME CONTROL

This is the master volume control and it controls how much power you send to your 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 keep this control at a low level. All instruments are different when it comes to how much output is from the pickups. Likewise for players, depending on how hard or soft you play.

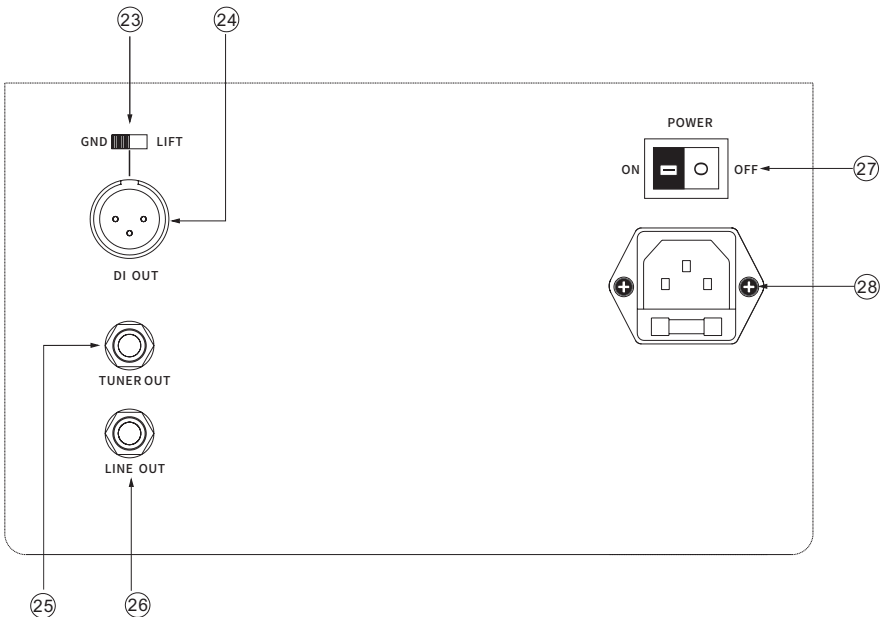
21. HEADPHONE OUTPUT JACK

This jack accepts ¼ inch stereo headphone jacks.

22. POWER LED INDICATOR

With power switched on the LED light will turn bright green.

BACK PANEL OVERVIEW



BACK PANEL DESCRIPTION

23. 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.

24. BALANCED LINE OUT

This is an ultra-low impedance (200Ω) 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, vary the DI output.

25. TUNER OUT

Connect to instrument tuner. This output can also be used as an additional line out.

26. LINE OUT

Can be used for driving a second amplifier.

27. 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 long periods of time when not in use.

28. AC INPUT SOCKET & FUSE

Connects the amplifier to the 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. If fuse needs replacing, use a slow blow ¾ inch fuse.

OPERATION & POSITIONING

TURN THE VOLUME DOWN on the BASS CUB II before plugging in your instrument.

CAUTION: Extreme overload on the amplifier can cause the failure of the loudspeakers. The BASS CUB II BG110 is designed for the highest performance possible so care must be used 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 at 110 watts with no audible distortion. This does not mean that the amplifier is limited to 110 watts; 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 failure is not covered by warranty.

Positioning the BASS CUB II for Best Sound

Often, playing in different venues will cause your bass to sound different. 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 not to be 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 may give 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. That could be because the path length of the reflected sound off the wall from your speaker is exactly corresponding to half a wavelength on the open A string causing at that particular note to cancel out.

Where you position, the BASS CUB II will ultimately affect your low-frequency limit. For best performance, keep the BASS CUB II on the floor. Placing it on objects off the floor will cause it to sound thin and lack bass punch. Placing the BASS CUB II with the back close to a wall will help reinforce the lower notes. Placing it in a room corner will further enhance the low notes.

Room size makes a large difference in 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 with room acoustics. The reproduced wavelengths of the notes you are playing often correspond to the room dimensions, in which case the reflected sound off the walls interferes with the sound from the speaker as you get further away from it.

Setting Up the Limiter

Although a limiter is not essential to bass amplification, it can be a useful tool in smoothing out the character of your instrument or playing style. The BASS CUB II limiter has a preset compression ratio of 3 to 1. For each additional increase of 3dB above the set threshold, the increase in level is actually 1dB. So the dynamic range of your instrument is reduced.

First set up the limiter by having the compression control (20) set fully clockwise. Now switch on the limiter (8). Start playing and turn control (20) counter-clockwise. You will see the blue light start to come on, and that is the indication that the limiter is now working. Set this control to suit your taste.

TRANSPORTING AND STORING THE BASS CUB II

When transporting in a vehicle, it is recommended that you use an external case or heavy-duty cover to prevent it being damaged by falling over or other objects falling on it.

When Storing:

- 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 II permanently connected to a power source.

SPECIFICATIONS

Amplifier

110 watt class D amplifier with digital switch-mode power supply.

Signal to Noise Ratio

≥85 dB(A) (EQ off, Volume on Full.)

Impedance

High Input: >2MΩ/22pF

Low Input: >100KΩ/22pF

Line Input: >40KΩ

Pre Amp Line Out: < 2KΩ

Bal. Out: <200Ω

Levels

High Input: 10mV-1.5V

Low Input: 20mV-4.5V

Tuner Out: 1.2V

Pre Amp Out: 1.2V

Bal. Line Out: Typical 500mV

Protection Circuits

1. AC line filter.
2. Slow-blow Fuse: 5A / 250V.
3. Loudspeaker Short-Circuit Protection.

Speaker

Computer Optimized Vented Enclosure

Speaker Frequency Response: 60Hz –15KHz

Speaker Compliment: 2 x 5inch proprietary, extended-range drivers

Speaker Sensitivity: 91dB/W/M

Internal Speaker Impedance: 4 Ohms

Dimensions: 12" W x 11" D x 7.8" H

Weight: 15.5 lbs

Included Parts

6 ft AC Power Cord

SERVICE/WARRANTY INFORMATION

The BASS CUB II 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 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.

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.

For servicing outside USA please contact our distributor in your country.

Information can be found on our website.

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Printed in China

