




## **PJB BRIEFCASE ULTIMATE**



**OWNER'S MANUAL**

**Thank you for purchasing the PJB BRIEFCASE ULTIMATE. 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 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 BRIEFCASE ULTIMATE 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.**
- **Do not install this equipment in a confined or building-in space such as a book case or similar unit, and remain a well ventilation conditions at 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 (such as the exclusive supply adapter etc).**
- **WARNING : Please refer the information on exterior bottom enclosure for electrical and safety information before installing or operating the apparatus.**
- **WARNING : To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing and that objects filled with liquids, such as vases, shall not be placed on apparatus.**
- **WARNING: The mains plug is used as disconnect device, the disconnect device shall remain readily operable.**
- **When not in use and during movement, please take care of the power cordset, e.g. tie up the power cordset with cable tie or something like that. It shall be free from sharp edges and the like that can cause abrasion of the power cordset. When put into use again, please make sure the power cordset being not damaged, If any damages found, please look for the service person to replace the power cordset specified by the manufacturer or have the same characteristics 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 BRIEFCASE ULTIMATE

We looked to see if there was any way that we could add to the Briefcase already stellar performance. This is the Briefcase on steroids called the Ultimate!

First we designed a more powerful amplifier from 100 to 200 watts. In order for the two 5 inch speakers to handle this we had to totally redesign a completely new 5 inch driver, no small feat considering that we have already been pushing the envelope in bass transducers. The new speaker not only has a larger and more efficient motor (it is 2dB louder!), it also has better high and low frequency performance too.

We changed out the vent and replaced it with the RALFR technology we put into the BG75. The result is richer, deeper more tuneful and organic bass.

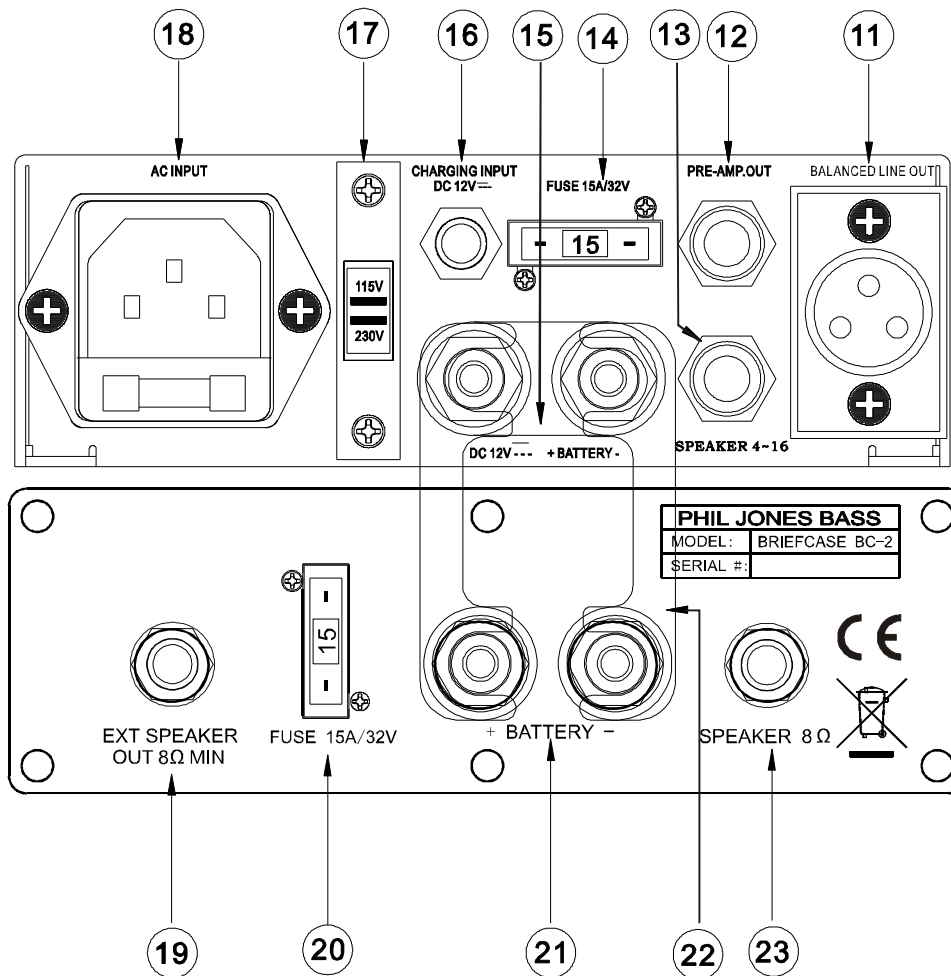
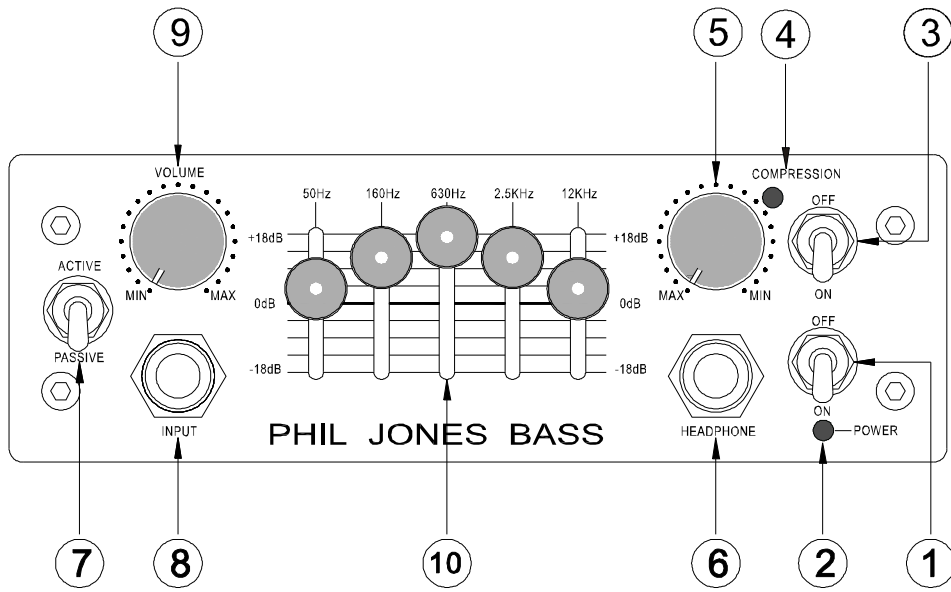
We kept the battery function here. This amp has all the bells and whistles of the original Briefcase. Thanks to the super efficient class D power the battery has the same duration of running time.

The amp will put out 150 watts on its own internal 8 ohm speaker and can provide 200 watts output with an external 8 ohm speaker.

### Features

- Switchable Active / Passive input.
- 5 Band Graphic EQ.
- Optical Limiter.
- Headphone Output.
- Pre-amp output.
- Balanced Line output.
- Drives speakers 4-16 ohms.
- Dual AC voltage operation.
- Works on 12V rechargeable Battery.
- 12V Charger input.
- Smart Battery Management.
- Sophisticated protection circuitry.
- Super efficient 150watt amplifier.
- Ultra low noise pre amplifier circuit.

# FRONT & BACK PANEL OVERVIEW



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

This switches the main power on and off in the amplifier.

### **2. POWER LED INDICATOR**

With power switched on the LED light is green. When the LED illuminated red, this indicates that the amplifier's protection circuits have switched it off.

### **3. LIMITER ON/OFF SWITCH.**

Sends signal through limiter or bypass.

### **4. LIMITER INDICATOR.**

This blue L.E.D (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

### **5. 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.

### **6. HEADPHONE OUTPUT JACK.**

This jack accepts ¼ inch stereo headphone jacks. When a headphone is connected to the jack, the speakers will still be connected to the sound. If you want to play on headphones only, then simply disconnect the speaker cord at the back.

### **7. PASSIVE/ ACTIVE BASS INPUT SWITCH.**

This switch allows you to match the BRIEFCASE ULTIMATE to match either active or passive basses.

PASSIVE - Higher sensitivity, high impedance input (100mV/ 4.7MΩ). For bass instruments that do not have active electronics, suited for older 'vintage' basses. This setting is precisely matched to high impedance pickups enabling them to faithfully reproduce the true frequency and dynamic range of the instrument.

ACTIVE- Lower sensitivity input setting (250mV) for basses with onboard electronics. Input matched for low signal to noise ratio and optimum transfer function of electrical signal from modern high-end basses.

### **8. INSTRUMENT INPUT JACK.**

This is a standard ¼ inch mono jack socket.

### **9. 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.

If you bass have a high output, then it could be possible to achieve the maximum volume from the BRIEFCASE ULTIMATE with the volume control set in a low position. If you increase the level on this control, you will only add distortion and that can damage speakers.

#### **10. 5-BAND GRAPHIC EQUALIZER.**

This is a dedicated bass instrument equalizer designed to give you optimized tone of your instrument. The frequency bands have been set precisely so that your desired tone can be achieved with the minimum amount of sliders. The EQ filters are set at: 60Hz 160Hz 630Hz, 2.5KHz and 12KHz with 18dB of boost or cut. This EQ has a lot of control on your sound so do not use too much boost, particularly on the 60Hz or 160Hz bands as this will greatly limit just how much headroom you have.

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

This is an ultra-low impedance (200) 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.

#### **12. PRE AMPLIFIER OUTPUT JACK.**

These are used for driving a second amplifier such as another PJB M-500 or the D-600 amplifier and even a Tuner.

#### **13. LOUDSPEAKER OUTPUT JACK.**

The BRIEFCASE ULTIMATE will work on any load from 16 $\Omega$  down to 4 $\Omega$ , which is the safe maximum load for this amplifier. The internal speakers are 8 $\Omega$ . So if you are considering using an extension speaker, it should be lower than 8 $\Omega$ .

#### **14. LOW VOLTAGE FUSE.**

This is a 15amp 32 volt automotive fuse same as found on motor vehicles. It protects the low voltage DC circuits in the BRIEFCASE ULTIMATE. Never use a higher current rating fuse.

#### **15. 12 V DC- BATTERY INPUT TERMINALS.**

This is the DC power feed to the BRIEFCASE ULTIMATE amplifier. If you are using the internal battery then these terminals must be connected to the lower battery terminals with the link supplied. An external Heavy Duty 12volt battery can be connected to these terminals. The wire between battery and terminal must be at least 12 amp rating and connections secure and tight. The battery polarity + and – must be connected correctly.

#### **16. 12 V DC- BATTERY CHARGING SOCKET.**

This socket is for use when the BRIEFCASE ULTIMATE is utilizing an internal battery. The battery can be charged up in a vehicle from a standard 12 volt socket (cigarette type). A cable is supplied with the BRIEFCASE ULTIMATE for this purpose. **DO NOT ATTEMPT TO USE THIS SOCKET TO RUN THE BREIFCASE AMPLIFIER, ONLY USE IT FOR CHARGING PURPOSES ONLY.** The current drain of operating the amplifier is beyond the current capabilities of this socket.

**17. AC INPUT -VOLTAGE SELECTOR.**

Switches the amplifier to run on either 110-115 volt or 220-240 volt AC power. **Never try to run the amplifier on a 220-240 volt supply when switched to 110-115 volt. This can possibly cause major damage to the amplifier.**

**18. 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 rated at 1 amp 220-240V or 2amp fuse for 110-120V.

**19. EXTENSION LOUDSPEAKER OUTPUT JACK.**

For connect to another speaker, maximum load 8 $\Omega$ .

**20. INTERNAL BATTERY FUSE.**

When the BRIEFCASE ULTIMATE has the internal battery installed, this fuse protects the battery should it be overloaded caused by a short circuit.

**21. INTERNAL BATTERY TERMINALS.**

This is the output of the internal battery. Do not connect these terminals to anything other than the DC input terminals of the BRIEFCASE ULTIMATE amplifier.

**22. INTERNAL BATTERY TERMINAL LINKS.**

These connect the output of the internal battery to the DC input of the amplifier. Make sure these are never touching each other nor have any contact with other metal objects.

**23. LOUDSPEAKER INPUT JACK.**

This is the input jack to feed the BRIEFCASE ULTIMATE internal loudspeakers. The impedance is 8 $\Omega$ . These speakers must be connected via the short speaker link cable provided to the BRIEFCASE ULTIMATE speaker output jack. If you do not want sound from the speakers such as playing through headphones only, then disconnect these speakers from the amplifier.

## GETTING STARTED

### **Before switching on power:**

**Check that the voltage selector is set to the correct voltage in your country. (110volt-120volt 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 you use PJB cables.**

### USING THE BRIEFCASE ULTIMATE WITH AN INTERNAL BATTERY.

#### **Installing the Battery.**

Remove the plate underside of the BRIEFCASE ULTIMATE by unscrewing all the six Allen key screws with the Allen Key provided. Inside of the battery compartment are 2 wires held in place with a nylon tie. Cut this tie to release the wires and allow space for the battery as it is a tight fit.

Connect these wires to the battery by just pushing firmly the “Faston” tags of the wires on the battery terminals. **IT IS VERY IMPORTANT THAT YOU CONNECT THE WIRES WITH CORRECT POLARITY: THE BLACK WIRE IS CONNECTED TO THE BATTERY NEGATIVE TERMINAL. THE WHITE WIRE IS CONNECTED TO THE POSITIVE TERMINAL.**

Carefully insert the battery into the BRIEFCASE ULTIMATE battery compartment with the terminals facing upwards into the amplifier, not with the battery terminals touching the metal plate. Once the battery is correctly in location, the bottom steel plate can be screwed back in place with the 6 Allen keys. The battery will be resting on a rubber gasket so when the plate is tightened up, the battery will be secure in place. **DO NOT OVER TIGHTEN THE 6 ALLEN SCREWS!**



## Battery

The battery type is a SEALED LEAD ACID GEL type. 12 VOLT

Approximately 7 to 7.5 AH capacity

Battery Size in Inches 5.85 to 5.95 Length x 2.51 to 2.56 Width x 3.90 to 4.00 Height

Approximate weight 5.7 lbs.

**DO NOT USE ANY OTHER TYPE OF BATTERY OTHER THAN SPECIFIED.**

### Example of some Batteries and Suppliers

Part Number CLTXPA12-7.5F Batteries Plus [www.batteriesplus.com](http://www.batteriesplus.com)



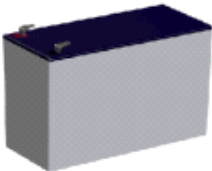
Part Number PM1270 Battery Planet [www.batteryplanet.com](http://www.batteryplanet.com)



Part Number PS-1270F1 [www.gotbatteries.com](http://www.gotbatteries.com)



Part Number 840320 [www.batterycountry.com](http://www.batterycountry.com)



### **Charging the battery.**

New batteries will need an initial charge of about 6-8 hours. It is recommended that you charge up for this duration before using the BRIEFCASE ULTIMATE on battery power.

To charge the battery, just plug the BRIEFCASE ULTIMATE into an AC power supply. No need to switch on the amplifier as battery will charge up on its own.

Do charge the battery immediately after use. Lead-acid must always be kept in a charged condition. The battery lasts longer with partial rather than full discharges. Over-cycling is not advised.

Lead-acid batteries must always be stored in a charged state. If you are storing the BRIEFCASE ULTIMATE, in order to prolong the life of the battery, a topping charge should be applied every six months.

### **Playing on battery power.**

When the BRIEFCASE ULTIMATE is being played on battery power the output power to the speakers will be less. It must first be understood that the battery operation performance will depend upon a few parameters.

1. How loud you are playing will determine how much playing time you will have. The louder this is the less time you will have on the battery before charging is needed. As you increase playing volume so you increase the drain on the battery. The internal battery has a limited amount of energy that it can store due to its physical size.

The batteries available energy is rated in ampere hours being approximately 7 to 7.5 ampere hours. This will vary slightly from each supplier and as the battery ages this will reduce. Older batteries will not have the same capacity as a new one. The more current drained from the battery, the less the capacity of energy stored will be available.

### **Example of typical new battery capacity**

<b>Current Drain</b>	<b>Voltage</b>	<b>Duration</b>	<b>Capacity</b>
0.35 amps	10.5volts	20 hours	7.0 AH
0.65 amps	10.5volts	10 hours	6.5 AH
1.2 amps	10.2 volts	5 hours	6.0 AH
4.5 amps	9 volts	1 hour	4.5 AH
14 amps	9 volts	15 minutes	3.5 AH

When you play your instrument, although you may have the capacity of 100 watts available from the amplifier, you are not using all that power all the time. Each note played uses different amount of power. Further more when no notes are played, almost zero power is going to the speakers. A note may start out with high power but during its period of sustain it loses power (volume). It is actually hard to gauge just how long the battery can last because it depends on how loud you are playing and the style of playing. Generally, the BRIEFCASE ULTIMATE should run around 1 hour between charges or more. If you require a long duration of several hours playing, then it is possible to hook up an external battery with a greater capacity. The larger the battery the longer you can play but this will add more weight to your rig.

**ALWAYS USE A 12 VOLT BATTERY.**

More information about batteries can be found at [www.batteryuniversity.com](http://www.batteryuniversity.com)

**Keep volume down before plugging in your instrument.**

The amplifier needs a constant flow of cool air to maintain an optimal working temperature. If it does not get the proper cooling it needs, it is possible for the amplifier’s thermal protection circuits to operate and turn off the amplifier. The protection works on temperature and current workings in the amplifier’s output transistors and power supply. AC power can vary from region to region and time of day due to electricity demand. Also because the amplifier uses force air-cooling, the operating temperature of the amplifier will vary somewhat due to the room temperature you are playing in. If the amplifier can not get enough ventilation, the protection circuits could determine the amplifier to switch off.

**Positioning the BRIEFCASE ULTIMATE 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 strings’ approximate frequencies and acoustic wavelength.

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

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 5 feet from a wall, the open A string may sound lack of weight. 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 a cancellation.

Where you position the BRIEFCASE ULTIMATE will ultimately affect your low frequency limit. For best results keep the BRIEFCASE ULTIMATE on the floor. Placing it on objects off the floor will cause it to sound thin and lack the bass punch. Placing the BRIEFCASE ULTIMATE with the back close to a wall will help reinforcing 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. For the deepest and most powerful bass, the best results will be when the unit is placed on the floor with the back of the cabinet (vent) firing into a room corner.

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 BRIEFCASE ULTIMATE 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 (5) set fully clockwise. Now switch on the limiter (4). Start playing and turn control (14) anti-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 of the BRIEFCASE ULTIMATE.**

The BRIEFCASE ULTIMATE has been ergonomically designed to be completely balanced when using the handle. The heavy duty durable rubber feet will keep it protected underneath. 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. Keep the BRIEFCASE ULTIMATE in a dry location preferably at room temperature. Do not store the BRIEFCASE ULTIMATE 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 BRIEFCASE ULTIMATE connected to a power source.

### **Specifications**

Amplifier Type: PJB 150watt Class D amplifier

Speaker Frequency Response: 40Hz –15KHz

Speaker Sensitivity: 93dB/W/M

Speaker Impedance: 8 Ohms

Dimensions: 6.7” W x 17.3” D x 15.5” H

Weight: 31 lbs.

### **Included Parts**

6 ft AC power cord

12V DC charging cable

Speaker link cable.

Soft Cover.

Allen Key

## **SERVICE/WARRANTY INFORMATION**

**PJB amplifiers carry a 2 years 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.philjonespuresound.com/support/register](http://www.philjonespuresound.com/support/register)**

**This warranty covers defect in materials or workmanship that occurs in normal use.**

**Within warranty period PJB or its local distributor 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 the owner's 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 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, customer who prefers to purchase across country online maybe required to pay shipping charges to retailer in order to obtain service.**

**Further questions, please contact PJB by email [info@philjonespuresound.com](mailto:info@philjonespuresound.com), or call 314-814-3383.**

### **IN USA**

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