Diamond Boxx Des

PASUB15



Congratulations on your purchase of the first battery powered rechargeable PA SUBWOOFER! Our design goal was to build something that could add depth to the first 2 octaves of our PA15, PA10 or any other portable speaker that has an output jack. EVEN YOUR CAR!! As well as being completely portable, without need for nearby electricity.

We used the highest quality materials for each intended purpose, including a MDF wood enclosure and steel grille.

The PASUB15 contains a pro audio 15-inch woofer along with a powerful 300 Watt RMS (600 W Max) Class D power amplifier with user adjustable active crossover for the best sound possible in the lightest package with the longest battery life.

Your DiamondBoxx was hand-built and when cared for properly should provide you with years of listening pleasure.

Happy Listening!
Tony D'Amore, CEO

DiamondBoxx

DO NOT THROW AWAY YOUR PACKAGING it is required in case of return for WARRANTY ISSUES or REFUND. If it's too bulky, cut the tape on the bottom and fold it flat. Store foam endcaps next to it.







Battery Life

When fully charged the DiamondBoxx PASUB15 will play 4-40 hours. Battery life depends on volume level and music type.

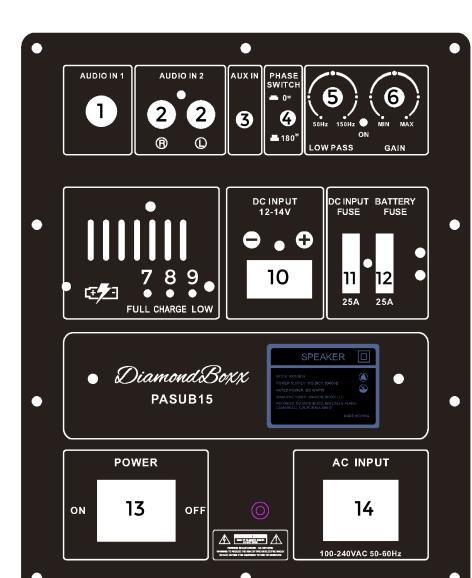
Charging is accomplished by plugging the speaker into AC mains power on the rear panel. DiamondBoxx CAN BE played while charging.

The LEDs on the rear panel will let you know when to charge, when it is charging, and when the battery is full.

If and when the battery is no longer able to be charged, it can be replaced by removing the speaker grille, removing the subwoofer driver, and loosening the bolts on the bottom of the rear panel to remove the battery clamp.

Tips for best sound

Ideally, you want the speaker or speakers producing the vocals and high frequency sounds to be at ear level. If used at an outdoor party or event with many people standing, you may want these speakers slightly above ear level so they can be heard through a crowd. The low frequency speakers on the other hand, like this PASUB15, need to be on the ground. They like boundaries to reflect the bass, the more boundaries the better. Ideally the PASUB15 would be on the floor in the corner of a room. If this isn't possible try on the floor against a wall. If outdoors, on the ground and against a wall if one is available. If not, then just on the ground is the best that can be done. If more bass is needed, additional PASUB15s can be connected using splitter cables. If you choose this option, the best bass performance will be had by placing them as close as possible to each other, on the ground. Also, read #4, #5, and #6 in the amplifier control panel section to adjust the amplifier for best sound.



The Amplifier Control Panel

- 1. **AUDIO IN 1** This is a 1/4 inch jack that supports TS mono or TRS stereo input from a main speaker like DiamondBoxx XL2, L, L2 or other portable speakers, or the output of a preamplifier/mixer/laptop
- AUDIO IN 2 These are stereo RCA input jacks, connect to aux out or subwoofer out of main speakers like DiamondBoxx PA10 or PA15 or a preamplifier/mixer/laptop/stereo receiver
- AUX IN This is a 3.5mm stereo input jack, connect to the output jack of a DiamondBoxx M3, L3 or preamplifier/mixer/laptop, or other portable speakers that need more bass
- 4. PHASE SWITCH This switch is used to blend the subwoofer with your other speakers. First adjust the Low Pass control #5 (see below) and then with music playing listen carefully to the bass and upper bass sounds while pressing the button. One setting will result in more bass output than the other, this means the subwoofer is blending better with your main speaker in this setting. Keep the switch in that setting. Note: If the speaker placement changes relative to the main speaker, you will have to repeat the process to find the best setting.
- 5. **LOW PASS** This used to select the frequencies that the subwoofer will reproduce. Generally, you do not want your main speaker and the subwoofer trying to reproduce the same frequencies. Therefore, if your main speaker has a frequency response down to 70Hz, you should set this control somewhere between 60 80 Hz. The control is not linear, 80Hz is the 12 o'clock or straight up position of the knob. Some recommendations to use with our other products are listed below for good starting points. After this is set, adjust Gain Knob #6 to a level that sounds like a good blend with the main speaker. When the crossover and gain level is set appropriately you shouldn't really notice that there is a Subwoofer... until you shut the subwoofer off.

DiamondBoxx M3: turn bass to minimum on M3, set this knob to 80Hz DiamondBoxx L, L2: set this knob to 70Hz

DiamondBoxx L3: keep bass knob at center 0 on L3, set this knob to 60Hz DiamondBoxx XL, XL2: set to SPL mode, set this knob to 50-60Hz DiamondBoxx PA10: bass knob at 12 to 3 o'clock, set this knob to 80Hz DiamondBoxx PA10: bass knob at 12 to 3 o'clock, set this knob to 60Hz

- 6. GAIN This is to control the volume level of the subwoofer relative to the main speakers. Adjust up or down to taste. Note if too high and excessive distortion is heard lower this control or the bass control on the main. Excessive distortion will drain the battery.
- 7. **FULL** This LED will illuminate when charging is complete
- 8. CHARGE This LED will illuminate when battery is charging
- LOW This LED will illuminate when the speaker is powered on and battery is low
- 10. DC INPUT This can be used to connect to another battery for extended playtime or to a DC charger. Do not apply more than 14.4 Volts DC to this connection. If these terminals are accidentally shorted fuse #11 will blow
- 11. **DC INPUT FUSE** This is a 25A fuse made to protect the DC input jack #10 from user error. This fuse is between the DC input jack and the battery electrically
- 12. **BATTERY FUSE** This is a 25A fuse made to protect the internal battery from the amplifier. This fuse is between the internal battery and the internal amplifier
- 13. **POWER** This is the main power switch, is does not need to be turned off to charge the battery.
- 14. **AC INPUT** This is the receptacle for the AC mains power. The power supply in the PASUB15 can accept universal mains voltage from 100V-240V and 50-60Hz, this covers most countries electrical grids

The DiamondBoxx Enclosure

The enclosure is made from Medium Density Fiberboard (MDF). This is what most great sounding speakers are made from. No plastic. As such, it is difficult to manufacture any crazy curvy shapes as possible with plastic, but it SOUNDS way better. Isn't that the point?

The DiamondBoxx enclosure is sealed using DURATEX speaker coating that will provide years of protection. If it should ever get damaged beyond your liking by knocking it into things, dropping it, scratching it and such, all is not lost. You can send it to us in the ORIGINAL PACKING or equivalent and we can replace the enclosure for a small fee.

As they are all hand built and rolled it is normal for there to be slight inconsistencies in the finish. Consider them like beauty marks, specific to your DiamondBoxx. To clean just wipe down with a water dampened cloth.

The top of the PASUB15 has a pole mount cup. A short pole can be mounted in this cup to fly a DiamondBoxx PA10, PA15, or other PA type speakers.

The Specifications

Dimensions 23 H x 16.7 W x 19 D inches

Weight 59lbs

Subwoofer Driver 15" pro audio subwoofer with 3" voice coil

Amplifier Power 300 Watts RMS 600W Max

Frequency Response 35Hz – 150Hz @-3dB

Battery 12V 40Ah SLA

Infrasonic Filter 12dB/octave @ 30Hz
Crossover 12dB/octave @ 50 – 150Hz

Items Included

PASUB15 powered subwoofer system USA style power cord This manual

Manuals, Tutorials & Troubleshooting

Visit our website DiamondBoxx.com for tutorials and troubleshooting tips.

Limited Warranty

DiamondBoxx warranties this product to be free of defects in materials and workmanship for a period of two years from the original purchase date. This warranty is not transferrable and applies only to the original purchaser from an authorized DiamondBoxx dealer. Should service be necessary under this warranty for any reason due to manufacturing defect or mal-function, DiamondBoxx will (at its discretion) repair or replace the defective product with new or remanufactured product at no charge. Damage caused by the following is not covered under warranty: accident, misuse, abuse, product modification or neglect, unauthorized repair attempts, misrepresentations by the seller. This warranty does not cover incidental or consequential damages. Cosmetic damage due to accident or normal wear and tear is not covered under warranty.

Any applicable implied warranties are limited in duration to the period of two years beginning with the date of the original purchase. No warranties shall apply to this product thereafter. Some states do not allow limitations on implied warranties; therefore, these exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

DO NOT THROW AWAY YOUR PACKAGING it is required in case of return for WARRANTY ISSUES or REFUND. If it's too bulky, cut the tape on the bottom and fold it flat. Store foam endcaps next to it.

Service

All warranty returns should be sent to DiamondBoxx in the original packaging (so it doesn't get more damaged on its way to us) accompanied by proof of purchase (a copy of the original sales receipt). Warranty expiration on products returned with- out proof of purchase will be determined from the manufacturing date code. Non-defective items received will be returned COD. Customer is responsible for shipping charges and insurance in sending the product to DiamondBoxx. Ship- ping damage on returns is not covered under warranty, USE ORIGINAL PACKAGING.



PASUB15 Owner's Manual Revision 1 Spring 2021 Camarillo, CA 93012