

BOSE[®]

MODEL A1


PackLite[™]

POWER AMPLIFIER

Owner's Guide



Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources, such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wider blade or third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the apparatus.  When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. To prevent risk of fire or electric shock, avoid overloading wall outlets, extension cords, or integral convenience receptacles.
16. Do not let objects or liquids enter the product.
17. See product enclosure bottom for safety related markings.
18. Use proper power sources.

Information about products that generate electrical noise


This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.


This product complies with the Canadian ICES-003 Class A specifications.

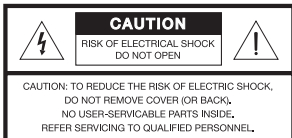
SAFETY INFORMATION


Please read this owner's guide


Please take the time to follow the instructions in this owner's guide carefully. It will help you set up and operate your system properly and enjoy its advanced features. Please save this owner's guide for future reference.

 **WARNING:** To reduce the risk of fire or electrical shock, do not expose the product to rain or moisture.


 **WARNING:** The apparatus shall not be exposed to dripping or splashing, and objects filled with liquids, such as vases, shall not be placed on the apparatus. As with any electronic products, use care not to spill liquids into any part of the system. Liquids can cause a failure and/or a fire hazard.




 The lightning flash with arrowhead symbol within an equilateral triangle alerts the user to the presence of uninsulated, dangerous voltage within the system enclosure that may be of sufficient magnitude to constitute a risk of electrical shock.

 The exclamation point within an equilateral triangle, as marked on the system, is intended to alert the user to the presence of important operating and maintenance instructions in this owner's guide.

 **WARNING:** No naked flame sources, such as lighted candles, should be placed on the apparatus.

 **Note:** Where the mains plug is used as the disconnect device, such disconnect device shall remain readily operable.

 This product conforms to the EMC Directive 89/336/EEC and to the Low Voltage Directive 73/23/EEC. The complete Declaration of Conformity can be found on **www.bose.com**.

 **Note:** The product must be used indoors. It is neither designed nor tested for use outdoors, in recreation vehicles, or on boats.

 **Note:** The product label is located on the bottom of the product.

For your records

A1 serial number: _____

Dealer name: _____

Dealer phone: _____ Purchase date: _____

PACKLITE™ POWER AMPLIFIER MODEL A1

Introduction

Thank you for purchasing the PackLite™ power amplifier Model A1 and joining the many thousands of musicians worldwide using the Personalized Amplification System™ family of products.

This small, lightweight, powerful, and easy-to-use amplifier interfaces quickly with the Bose® PS1 power stand and B1 bass modules to provide high bass output for demanding instruments such as bass guitar and drums.

The connections are quick and easy: plug in the AC cord, connect the A1 to the PS1 power stand, and play. When the A1 is used together with the Cylindrical Radiator® loudspeaker, no time-consuming adjustments are required. The components act as a system and automatically adjust bass output for more level and headroom, while maintaining consistent tone regardless of how many B1 bass modules are being used. In addition, the A1 can easily drive other passive loudspeakers such as bass guitar cabinets, subwoofers, studio monitors, and floor monitors (see “Using the A1 in other applications” on page 10 for details).

We trust you’ll enjoy another member of the critically acclaimed Personalized Amplification System™ family of products. This new amplifier, like every member of the family, is designed with the lives of working musicians in mind.

We would love to hear your comments! Please visit our friendly online Musicians Message Board at www.bose.com/musicians.

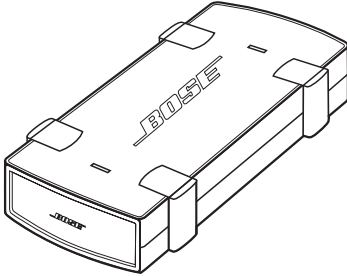


Unpacking

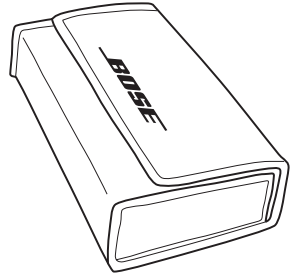
Carefully unpack the carton contents. Save all packing materials in the rare case you need to transport your product for service. For convenience, please record the serial number and date of purchase on page 3. Check that the shipping carton contains the items shown in Figure 1.

Figure 1

Carton
contents



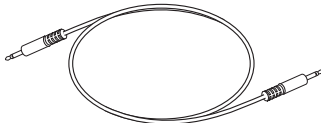
PackLite™ power amplifier Model A1



Carrying pouch



AC power cord*



1/4" TRS (balanced) cable
(20 inches, 0.5 m)



Owner's guide

*The appropriate power cord for your region is provided.

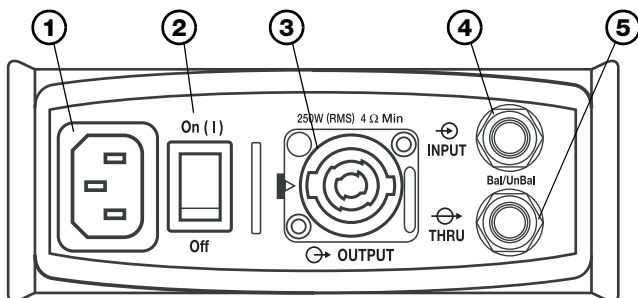
PACKLITE™ POWER AMPLIFIER MODEL A1

The connector panel

The A1 connector panel includes the features described in Figure 2.

Figure 2

A1 connector panel



- 1 AC power connector:** Accommodates the supplied AC power cord to connect your amplifier to the appropriate AC (mains) outlet. Check the product label of your amplifier for the voltage rating: 120V or 230V.
- 2 Power switch:** In the ON (I) position, applies power to your amplifier. When ON, the power indicator (Figure 3) should be BLUE.
- 3 OUTPUT connector:** Accommodates both 2- and 4-wire Neutrik® Speakon® connectors.
OUTPUT can be connected to any of the following:
 - B1 bass module.
 - 4-ohm loudspeaker with a power rating of at least 250W RMS.
 - 8-ohm loudspeaker with a power rating of at least 125W RMS.
- 4 INPUT connector:** Accommodates a 1/4" TRS (balanced) or TS (unbalanced) plug.
INPUT can be connected to either of the following:
 - Bass-Line OUT jack on the PS1 power stand using the supplied 1/4" TRS cable.
 - THRU connector of an "upstream" A1 amplifier when used in series.
 - Other line-level source output using either a 1/4" TRS or TS cable.
- 5 THRU connector:** Accommodates a 1/4" TRS or TS connection. Used for sending the INPUT signal to another A1 amplifier.

Note: Do not use the THRU connector as a second input, as it could damage any interconnected equipment. Use THRU only as an output to another A1 amplifier.

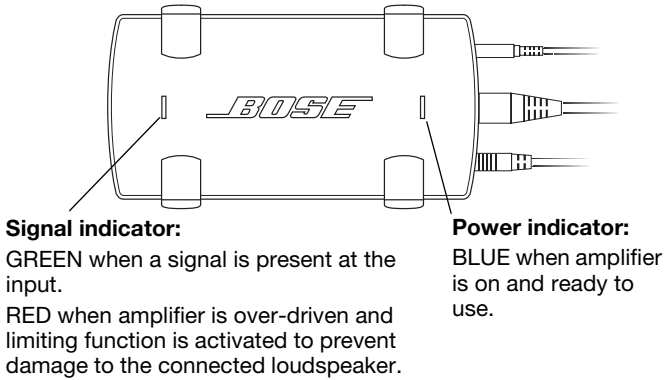
Note: The THRU connector will only relay the type of input (balanced or unbalanced) present at the INPUT connector.

Top panel indicators

The top panel of the A1 has two indicators that tell you the state of the amplifier.

Figure 3

A1 top panel



Signal indicator:

GREEN when a signal is present at the input.

RED when amplifier is over-driven and limiting function is activated to prevent damage to the connected loudspeaker.

Power indicator:

BLUE when amplifier is on and ready to use.

Setting up a single A1

The A1 amplifier is designed to add more bass output to a system that already has two B1 bass modules connected to the **Amp 3 OUT** connector on the PS1 power stand. The A1 amplifier can power up to two additional B1 bass modules.

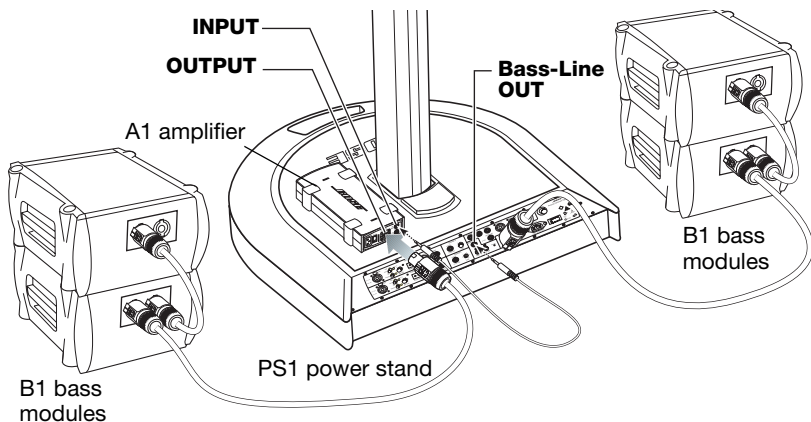
Follow these steps to set up the A1 as shown in Figure 4 on page 8.

1. Connect the AC power cord to an AC (mains) outlet.
2. Make sure the A1 amplifier Power switch is OFF.
3. Using the supplied 1/4" TRS cable, connect the **Bass-Line OUT** connector on the PS1 power stand to the **INPUT** connector on the A1 amplifier.
4. Connect a B1 bass module cable from the **OUTPUT** connector on the A1 to a B1 bass module. If desired, connect a second B1 to the first B1.
5. Set the A1 power switch to ON (I).

PACKLITE™ POWER AMPLIFIER MODEL A1

Figure 4

Typical setup



- ▲ **CAUTION:** Do not connect more than two B1 bass modules to an A1 amplifier.
- ▲ **CAUTION:** Be careful not to connect the A1 amplifier to a B1 bass module that is already connected to the **Amp 3 OUT** connector of a PS1 power stand, or to another A1 amplifier.
- 🎵 **Note:** Using the supplied ¼" TRS cable with your A1 amplifier is recommended. Using balanced cabling prevents common interconnect noise problems.
- 🎵 **Note:** Up to four (maximum) B1 bass modules can be stacked in a column. Stacking may improve acoustic output.

**Using multiple A1 amplifiers together**

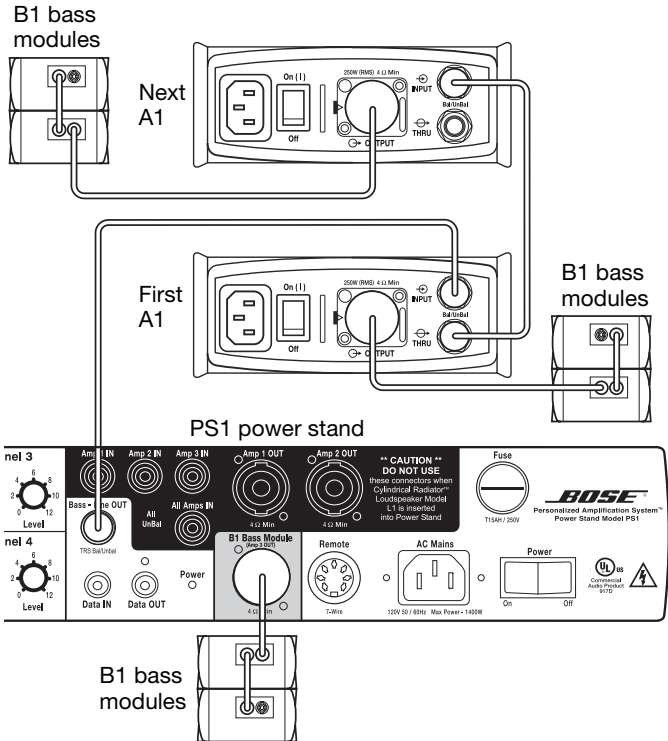
To add more bass capability to your system, you can connect multiple A1 amplifiers as shown in Figure 5 on page 9.

1. Connect the AC power cord to an AC (mains) outlet.
2. Make sure the Power switch is OFF.
3. Using the supplied ¼" TRS cable, connect the **Bass-Line OUT** connector on the PS1 power stand to the **INPUT** connector on the first A1 amplifier.

- Using another ¼" TRS cable, connect the **THRU** connector on the first A1 amplifier to the **INPUT** connector of the next A1 amplifier.
- Connect a B1 bass module to the **OUTPUT** connector on each A1 amplifier. If desired, connect a second B1 to the first B1.
- Set power switch on both A1 amplifiers to ON (I).

Figure 5

Example of using multiple A1 amplifiers



CAUTION: Be careful not to connect the A1 amplifier to a B1 bass module that is already connected to the **Amp 3 OUT** connector of a PS1 power stand or to another A1 amplifier.

Note: Up to four (maximum) B1 bass modules can be stacked in a column. Stacking may improve acoustic output.




Using the A1 in other applications

The A1 amplifier can be used as a power amplifier in other system configurations. The A1 can drive other passive loudspeakers including subwoofers, floor monitors, studio monitors, and guitar cabinets. The A1 can amplify a balanced or unbalanced signal from a line-level device, such as a mixing console, and drive any loudspeaker load (4-ohm minimum) that is capable of handling 250W.

To set up the A1 with other systems:

1. Make sure the A1 amplifier Power switch is OFF.
2. Connect a line-level output connector from your source device to the **INPUT** connector of the A1 amplifier.
 - This could be the line-level output from an electronic crossover, mixing console, electric bass/electric guitar amplifier head unit, preamp, digital modeler, or studio console line output.
 - You can use either a balanced (TRS) or unbalanced (TS) connection. The amplifier will sense the type of connection and automatically adjust the overall level.
3. Connect the **OUTPUT** of the A1 amplifier to:
 - Any 4-ohm loudspeaker load capable of handling at least 250 watts RMS.
 - Any 8-ohm loudspeaker load capable of handling at least 125 watts RMS.
4. If you want to add an additional A1 for more bass, connect the **THRU** connector of the first A1 to the **INPUT** connector of another A1 amplifier using a ¼" TRS cable.
5. Set the A1 power switch to ON (I).
6. Adjust the source level so that the A1 signal indicator flashes green. At a maximum source level, the A1 signal indicator occasionally flashes red. If the indicator is constantly red, reduce the source level.

 **Note:** Using the A1 amplifier and its connected B1 bass modules with any source device other than the PS1 power stand is not recommended.

Troubleshooting

Problem	What to do
Power LED is not lit; the amplifier does not seem to operate.	<ul style="list-style-type: none"> • Be sure power switch is ON. • Make sure the power cord is fully inserted into the unit and an AC outlet. • Be sure the AC outlet is live. Try operating a lamp or other equipment from the same AC outlet or test the outlet using an AC outlet tester.
Power LED is RED, not BLUE.	<ul style="list-style-type: none"> • Amplifier is in the Protect mode: <ul style="list-style-type: none"> – Thermal overload: Lower the level of the input signal. Be sure the amplifier is on a hard, flat surface to aid in heat dissipation. – Output is short-circuited: Check output connections/wires. – Driving too many speakers in parallel: Make sure you connected no more than two B1 bass modules to one A1 amplifier. – Impedance is too low: Make sure you connected only one 4-ohm or up to two 8-ohm speakers of other brands. – Input level is too high: Lower the level of the input signal. • The red light should no longer illuminate when a fault condition is removed. In the case of thermal overload, the amplifier may have to cool for a few minutes.
Signal LED is flashing RED.	<ul style="list-style-type: none"> • The input signal is near limit. Lower the input level so the red light flashes only occasionally, at peak volumes.
No audio, signal LED is GREEN.	<ul style="list-style-type: none"> • Speaker not connected properly. Check that output connections are correct and connectors are fully seated.
No audio, signal LED not lit.	<ul style="list-style-type: none"> • Power not connected. Check the power LED. It will shine BLUE when power is connected and the unit is turned on. • No signal going into the amplifier. Check input connections and input level. • Replace input cable.
A hum or buzz can be heard from the loudspeaker.	<ul style="list-style-type: none"> • If you are using a 1/4" TS (unbalanced) cable, use a 1/4" TRS cable (supplied with the A1 amplifier) between the source device and the A1 amplifier. • Plug the power cord of the PS1 or source device into the same AC (mains) power circuit as the A1.

Customer service

For additional help in solving problems:

- In the U.S. and Canada, contact the Bose® Live Music Customer Service Product and Technical Support Team at 877-335-2673 or visit the support area online at www.bose.com/musicians.

Or,

- Visit the Bose website of your country or call the corresponding support number as listed below. If your country is not listed here, please inquire with the dealer where you bought the product.

Germany: 0800 - 2673 222 (Mo. - Fr.: 8.30 - 20.00 Uhr, Sa.: 10.00 - 14.00 Uhr)
www.musiker.bose.de

The Netherlands: 0800 - 022 6980 (Ma. - Vr: 8.30 - 20.00 Uur, Za: 10.00 - 14.00 Uur)
www.muzikanten.bose.nl

Cleaning your product

- You may clean the product enclosure using only a soft, dry cloth.
- Do not use any solvents, chemicals, or cleaning solutions containing alcohol, ammonia, or abrasives.
- Do not use any sprays near the product or allow liquids to spill into any openings.

Limited warranty

Your PackLite™ power amplifier Model A1 is covered by a limited, transferable warranty. Details of the warranty are provided with your product.

You can register your product online at www.bose.com/register or call 800-905-1044 (U.S. and Canada only). Failure to do so will not affect your warranty rights.

Specifications

Electrical

Power, 4-ohm load	250 watts RMS (1 kHz, 0.1% THD)
Power, 8-ohm load	125 watts RMS (1 kHz, 0.1% THD)
Minimum loudspeaker load	4 ohm
Signal to noise	100 dB (20 Hz to 20 kHz)
Voltage gain	30 dB
Input sensitivity	1.15 V (+3.4 dBu)
Input sensing	Automatic, balanced/unbalanced level adjust
Input impedance	55k ohms unbalanced, 110k ohms balanced
Input clipping	10 Vrms (+22 dBu)
Frequency response	20 Hz to 20 kHz \pm 0.5 dB
THRU output type	Balanced/unbalanced, dependent on INPUT connection type
Output circuitry	Class D
Protection types	Self-resetting thermal, output short circuit, and over-current
Typical AC power requirements	1.8A, 110VAC; 0.9A, 230VAC
Peak inrush current	28A (100-120VAC)

Mechanical

Dimensions	5.6" W x 2.3" H x 10.3" D; 140 mm W x 56 mm H x 258 mm D
Weight	3.0 lbs (1.4 kg)
Max. operating temperature	122°F (50°C)

These specifications are preliminary and subject to change.



287546

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Better sound through research[®]

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