# 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 system to rain or moisture.

**WARNING:** To reduce the risk of electric shock, do not disassemble this system unless you are qualified. Refer servicing to qualified service personnel.





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.

**A** CAUTION: This product shall be connected to a mains socket outlet with a protective earthing connection.

A CAUTION: Make no modifications to the system or accessories. Unauthorized alterations may compromise safety, regulatory compliance, and system performance.

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

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

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

This product conforms to the EMC Directive 89/336/EEC and to the Low Voltage Directive 73/23/EEC.

C C This product conforms to the ENIC Directive of 300/EEC and to the Enic Lett to the Lett to the Conformity can be found at www.Bose.com/static/compliance/index.html.

# **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



When a cart is used, use caution when **we** 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 –** as they may touch dangerous voltage points or short-circuit parts that could result in a fire or electric shock.
- 17. See product enclosure bottom for safety-related markings.
- **18. Use proper power sources –** Plug the product into a proper power source, as described in the operating instructions or as marked on the product.
- 19. Apparatus shall not be exposed to dripping or splashing, and no objects filled with liquids, such as vases, shall be placed on the apparatus.

# 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.

## **Connections and controls**

The top panel of the power stand provides system connectors and controls (Figure 2).

#### Figure 2





A line-level analog input. Accepts a ¼" TRS phone cable. Used for an instrument or other audio source.

#### Signal/Clip LED

Indicates status of the analog input signal. Green = normal input Yellow = input approaching clipping Red = input clipping

## Positioning your system

Placing the power stand in the right location is an important part of setting up this product. Determining the best location for your performance depends on several things.

- · Size of staging area
- Number of performers
- Shared system (adding a T1 ToneMatch<sup>™</sup> audio engine and multiple instruments)

The following guidelines should get you started in setting up for a concert or show.

- Set up your system in the rear area of the performance stage.
- If possible, position your system behind the performer(s).
- If you are part of a group, avoid crowding together on stage. Allow some distance, ideally 7-8 feet (2.1-2.4 m), between you and the L1<sup>™</sup> model II system and another performer. This allows the sound to wrap around performers and reflect off adjacent surfaces of the room, creating a more pleasing room-filling sound.



Figure 3

Placement recommendations

## Setting up the L1<sup>™</sup> model II power stand

- 1. Holding the power stand vertically on the foor (Figure 4A), grasp one leg and swing it out as far as it will go. Notice that the other legs swing out automatically. **The legs must be fully open before you can plug the L1<sup>™</sup> bottom section into the power stand.**
- 2. Lay the power stand flat on the floor in the desired position (Figure 4B).



**WARNING:** DO NOT move the completely assembled system as a unit. This could result in personal injury and/or damage to the product. Position the power stand on the floor in the chosen location before assembling the system.

## Assembling the L1 model II Cylindrical Radiator<sup>®</sup> loudspeaker

This procedure tells you how to set up the loudspeaker sections in the power stand. If you plan to mount the T1 ToneMatch<sup>™</sup> audio engine on the L1 model II system, see "Adding a T1 ToneMatch<sup>™</sup> audio engine (optional)" on page 12 before installing the top section of the loudspeaker.

- 1. Hold the L1 bottom so that the grille faces front and plug it into the power stand (Figure 5A). Be sure to fully insert it into the socket to assure stability and a good connection.
- 2. Align the bayonet on the L1 top with the channel on the back of the L1 bottom, and lower the L1 top onto the L1 bottom until it is flush (Figure 5B).



Setting up the L1 model II Cylindrical Radiator® loudspeaker top and bottom



Figure 4 Putting the power stand on the floor

## **Connecting to AC power**

- 1. Make sure the power switch is off.
- 2. Plug one end of the AC power cord into the AC Mains connector on the power stand.
- 3. Plug the other end into a live AC (mains) receptacle (Figure 6).



**A CAUTION:** Bose recommends using a quality surge suppressor on all electronic equipment. Voltage variations and spikes can damage electronic components in any system. A quality suppressor, which can eliminate the vast majority of failures attributed to surges, may be purchased at electronics stores.

#### Figure 6

#### Connecting the B1 bass module

You can place the B1 bass module either vertically or horizontally on the floor. It fits neatly bewteen the legs of the power stand.

- 1. Plug one end of the B1 bass module cable into one of the B1 connectors. Rotate the plug clockwise to lock it in place. You should hear a soft click as it locks.
- 2. Plug the other end of the cable into the **Bass Module Out** connector on the power stand. Rotate the plug clockwise to lock it.
- Note: To disconnect a B1 cable, slide back the metal tab on the body of the plug, rotate the plug counterclockwise, and pull it out of the connector.



#### **A** CAUTIONS:

- DO NOT connect a B1 bass module to two power stands at the same time.
- DO NOT connect any bass module other than the B1 to the power stand.
- DO NOT substitute the supplied cable with a 2-wire speaker cable. Use only the supplied B1 bass module 4-wire cable to connect the B1 bass module to the power stand. The power stand uses the signals on two of the wires to automatically sense how many B1 bass modules are connected.

#### Adding a second B1 bass module (optional)

The bass module output of the power stand can adequately drive one or two B1 bass modules. When placed horizontally, the modules are stackable (Figure 9).

One or two additional B1 modules can be added with the use of a PackLite<sup>®</sup> power amplifier. Refer to "Adding a PackLite<sup>®</sup> power amplifier model A1 (optional)" on page 14.

**CAUTION:** Do not connect more than two B1 bass modules to the **Bass Module Out** connector on the power stand. Driving more than two B1 bass modules from this output improperly loads the amplifier in the power stand, resulting in less than full system performance.

- 1. Connect the first B1 to the **Bass Module Out** connector on the power stand.
- 2. Plug one end of the second B1 cable into the unused connector of the first B1. Plug the other end of the cable into one of the connecetors of the second B1.



#### Figure 9

Installation of two B1 bass modules

## Setting the analog input level



When connecting an audio source to the **Analog Input**, follow these steps to adjust the input **Trim** control.

- 1. Set the **Trim** control on the power stand to the 0 (zero) position.
- 2. Connect the audio source to the Analog Input.
- 3. Adjust the volume of the audio source to the desired level.



- While playing the source, increase the **Trim** level until the **Signal/Clip** indicator glows green or yellow.
  - 5. If the **Signal/Clip** indicator glows red, decrease the **Trim** level so that it glows only green or yellow.

#### Using a T1 ToneMatch<sup>™</sup> audio engine and an analog input source

The L1<sup>™</sup> model II system can operate with both a T1 ToneMatch<sup>™</sup> audio engine and an analog audio source connected to the power stand. However, keep in mind that the volume level of the audio engine and the analog audio source is adjusted independently.

- The power stand **Trim** control only affects the volume level of the analog audio source connected to the **Analog Input**. Therefore, the **Signal/Clip** indicator indicates the status only of the analog input signal.
- The T1 ToneMatch audio engine has a **Trim** control and signal/clip indicator for each input, a **Volume** control for each output channel, and a **Master** volume control that adjusts the level of the ToneMatch output sent to the power stand. These controls have no effect on the signal fed to the **Analog Input**.

#### **User scenarios**

There are many ways to set up and use this system with and without the T1 ToneMatch audio engine. The following pages show examples of some typical user scenarios. When using the T1 ToneMatch audio engine, refer to its owner's guide for more information on setup and operation.

#### Single musician

A solo musician might play a single instrument through the L1 model II system (Figure 11). A solo musician also might play an instrument and use a microphone for vocals (Figure 12 on page 16).



Single L1 model II system with keyboard

Figure 11

#### Figure 12

Single L1<sup>™</sup> model II system with guitar and microphone



#### Multiple musicians

In this scenario, a keyboard-guitar duo sings and plays through a single T1 ToneMatch audio engine and an L1 model II system.



Single L1 model II system with multiple instruments and T1 ToneMatch audio engine



#### Full band

A full band scenario is built around multiple T1 ToneMatch<sup>™</sup> audio engines and L1<sup>™</sup> model II systems. Each musician plays and sings through a single T1 ToneMatch audio engine and L1 model II system.



Multiple L1 model II systems, each with a T1 ToneMatch audio engine



#### **DJ** events

DJs use many types of input sources (CD player, turntable, MP3 player, etc.) plugged into a mixer. In this scenario, two mixer outputs can be fed into two L1<sup>™</sup> model II systems for stereo sound.



# Figure 15

Two L1 model II systems, a mixer, and input devices

## **Caring for your product**

#### Cleaning

- Clean the product enclosures 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.
- If necessary, you may carefully vacuum the grille of the L1<sup>™</sup> model II Cylindrical Radiator<sup>®</sup> loudspeaker.

#### **Getting service**

For additional help in solving problems, contact Bose<sup>®</sup> Live Music Customer Service Product and Technical Support Team at (877) 335-2673 or visit our support area online at www.Bose.com/musicians.

## Troubleshooting

If you experience problems while using this product, try the following solutions. If you still can't solve the problem, please call the Bose Live Music Product and Technical Support Team direct at (877) 335-2673 to arrange for service.

#### **Recommended troubleshooting tools**

- Portable voltmeter
   VLR and ¼" phone plug cables
- Cable tester
- B1 bass module 4-wire cable
- AC outlet tester
- Spare AC power cord

Problem	What to do
System is plugged in, power switch is on, but power LED is off	<ul> <li>Make sure you have power at the AC outlet. Try operating a lamp or other equipment from the same AC outlet or test the outlet using an AC outlet tester.</li> <li>Make sure the power stand's power cord plug is fully inserted into the AC outlet.</li> </ul>
Power LED is on (green), but no sound	<ul> <li>Make sure volume control is turned up on your instrument.</li> <li>Make sure the <b>Trim</b> level control is turned up on the power stand.</li> <li>Make sure your instrument is plugged into the <b>Analog Input</b> jack.</li> <li>Connect your instrument to the power stand using a different cable.</li> <li>Plug your instrument into a different amplifier to make sure the instrument is working.</li> </ul>
Power LED is red while the power stand is on	Please call Bose Live Music Customer Support at (877) 335-2673 for assistance.
House circuit breaker keeps tripping	<ul> <li>If more than one power stand is plugged into the same AC circuit, stagger the turn-on times. Each power stand has an inrush current of about 32 amps when turned on.</li> <li>If you have more than three power stands plugged into a single 15 amp circuit, move some systems to another AC circuit. Each power stand can draw 5 amps or more when playing at high volumes for long periods of time.</li> </ul>

#### CARE AND MAINTENANCE

Problem	What to do
With nothing plugged into the power stand, a slight <i>hum</i> or <i>buzz</i> is heard	<ul> <li>Using an AC outlet tester, test the AC outlet that the power stand is plugged into for reversed or open (hot, neutral, and/or ground) contacts.</li> <li>If using an extension cord, make sure that the cord is also tested as above.</li> </ul>
B1 bass module is plugged in, but no bass audio is heard	<ul> <li>Make sure you are using the included 4-wire B1 bass module cable.</li> <li>Make sure the B1 bass module cable is plugged into the Bass Module Out connector and the cable plug is fully engaged in the connector.</li> <li>Try a different 4-wire cable.</li> <li>If available, try a different B1 bass module.</li> </ul>
B1 bass module sounds out of balance with the system	<ul> <li>Make sure you are using the B1 bass module 4-wire cable included with the B1 bass module package.</li> <li>Make sure that the B1 bass module grille is facing forward toward the musicians and audience.</li> </ul>
No mid/high sounds heard from the L1 <sup>™</sup> model II Cylindrical Radiator <sup>®</sup> loudspeaker	<ul> <li>Make sure the L1 model II Cylindrical Radiator<sup>®</sup> loudspeaker top and bottom are firmly seated in their connectors.</li> <li>Make sure connections are not bent or broken.</li> <li>Try cleaning the contacts on the loudspeaker top and bottom with electronic contact spray cleaner.</li> </ul>
Instrument or audio source sounds distorted	<ul> <li>Make sure the Signal/Clip LED is not constantly red. If it is, lower the trim level.</li> <li>Try a different source or instrument.</li> <li>Try your source or instrument on another power stand.</li> </ul>
Third-party-powered sub- woofer sounds poor when connected to the <b>Bass -</b> <b>Line Out</b> connector on the power stand	<ul> <li>Unplug any B1 bass modules that may be connected to the power stand.</li> <li>The signal from the <b>Bass - Line Out</b> may be too high for the powered subwoofer; try attenuating the signal using commercially available direct boxes or in-line pad devices.</li> <li>Try different connections to the third-party-powered subwoofer, such as balanced or unbalanced cabling and/or a direct box.</li> <li>Check that the gain and input controls on the third-party-powered subwoofer are set appropriately.</li> <li>If using a powered subwoofer with an adjustable crossover, set the crossover to 180Hz.</li> </ul>
B1 bass modules powered by a third-party power amplifier and connected to the <b>Bass - Line Out</b> connector sounds poor	<ul> <li>Ensure that at least two B1 bass modules are directly connected to the Bass Module Out connector on the power stand using a B1 bass module 4-wire cable.</li> <li>Check the gain settings on the third-party power amplifier. The volume level of the B1 bass modules powered by the power stand should be similar to the bass modules powered by the external amplifier.</li> </ul>
Microphone is encountering feedback	<ul> <li>Orient the microphone so that it is not pointing directly at its respective L1 model II Cylindrical Radiator<sup>®</sup> loudspeaker.</li> <li>Try a different microphone.</li> <li>Try a different position for the loudspeaker and/or vocalist on stage.</li> <li>Increase the distance from the loudspeaker to themicrophone.</li> <li>If using a vocal effects processor, make sure it is not contributing to the feedback problem.</li> </ul>