

# *The Bose® Free Space® 51 Speakers*

*Owner's Guide*

### Before you begin

Thank you for purchasing your Bose® Free Space® 51 speakers. These high-performance outdoor speakers are engineered to provide sound quality far beyond that of most outdoor speakers. The speakers are also designed for permanent outdoor installation, and therefore can withstand nature's elements – so you can be confident they will perform for years to come (see “Environmental capabilities”, page 9).

### Unpacking the carton

Carefully unpack your Free Space 51 speakers and save all packing materials for possible future use. Check that your system contains all parts identified in Figure 1. Do not attempt to use your speakers if any components are missing or appear damaged. Instead, notify Bose Corporation or your authorized Bose dealer immediately.



**Note:** Now is a good time to record the serial numbers located on the bottom of each Free Space 51 speaker. Write both numbers on your warranty card and in the space provided on page 2 of this owner's guide.

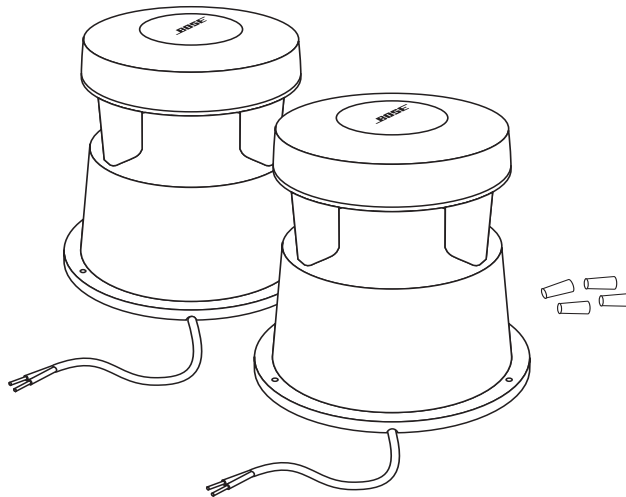


**WARNING:** To avoid danger of suffocation, keep plastic bags out of the reach of children.

**Figure 1**

Package contents:

- 2 Free Space 51 speakers
- 4 wire nuts



### Required tools

You need the following items to complete this installation:

- Speaker cord (see “Choosing the speaker cord” on page 5)
- wire strippers

### Optional tools

- Shovel or spade
- Phillips-head screwdriver (#2)

### Decide if you need a professional installer

If you have any doubts about using these tools, or handling or cutting cord, now is a good time to contact a professional installer. For customers who will install the speakers themselves, please follow the instructions provided in this owner's guide.



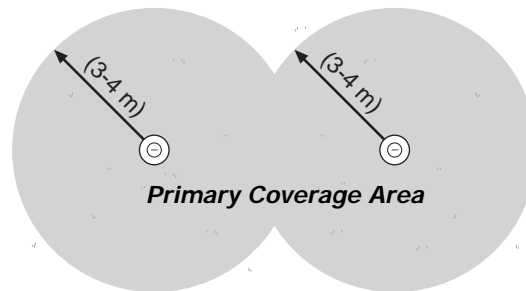
**CAUTION:** Please read this owner's guide completely before beginning the installation. Failure to follow the instructions in this guide voids all warranties on your speakers. If you are unsure of your ability to complete this process, consult a professional installer.

## Selecting the location for your speakers

Prior to installation, carefully select locations for your Free Space® 51 speakers. The speakers can be installed on almost any surface such as wood, concrete, or the ground. When choosing a location, please keep the following guidelines in mind:

**Figure 2**

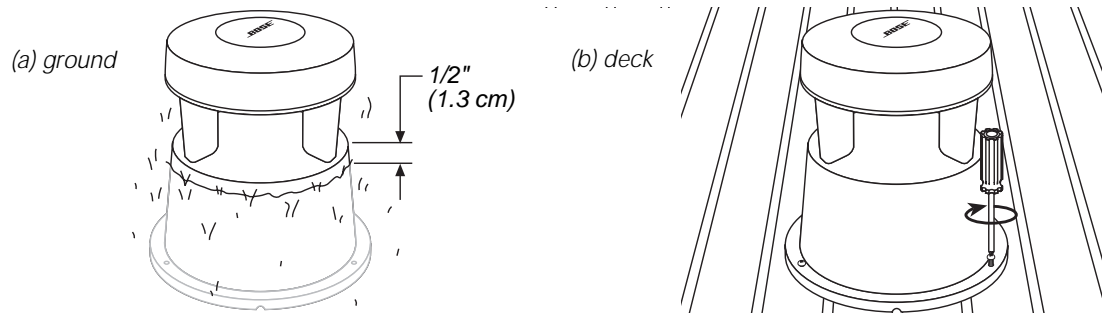
Speaker placement for optimal coverage



- Select a level surface for your speakers. This will prevent movement or vibration during use.
- Place your speakers where the speaker cord cannot be tripped over, pinched, or pulled.
- Do not place your speakers in an area where water tends to collect.
- Do not bury your Free Space 51 speakers deeper than 7 1/4 inches (18.4 cm) (Figure 3a).
- Use wood screws to fasten the speaker to a wood surface, such as a deck, if desired (Figure 3b).

**Figure 3**

Free Space 51 installation



## Choosing the speaker cord (not provided)



**WARNING:** Before running speaker cord through a wall or under ground, check your local building code requirements, or contact an electrical installer.

- Use the proper gauge (thickness) of speaker cord. See "Cord recommendations" under "Technical Information" on page 9 for proper gauge, or check with your authorized Bose® dealer.
- If your installation requires the cord to be buried in the ground, use direct-burial rated cable or run the cord through a PVC piping channel. Always use moisture-resistant speaker cord.
- Place speakers and run cord before digging holes or burying cord.
- If you think your speaker cord may be exposed to salt water or water containing chemicals such as chlorine or fertilizers, you may use a silicone caulking material as added protection for the speaker connections.

### Making the connections



**WARNING:** Before making any connections, turn off your receiver or amplifier and unplug it from the AC power (mains) outlet.

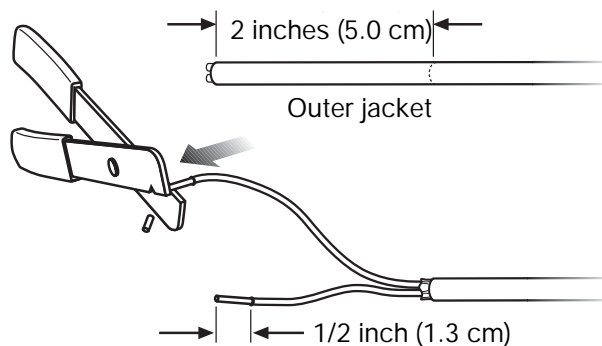
#### Preparing the speaker cord

Speaker cord consists of two insulated wires. Usually one is ribbed or red (+), and the other plain or black (-). Direct-burial cable has a protective outer jacket around the wires. Consider the following guidelines before cutting any cords:

- Measure the length of cord needed to connect each speaker to your receiver/amplifier
- Strip the outer jacket back 2". Strip the inner insulation on both wires back  $\frac{1}{2}$ " (1.3 cm) (Figure 4).

**Figure 4**

Stripping the wires

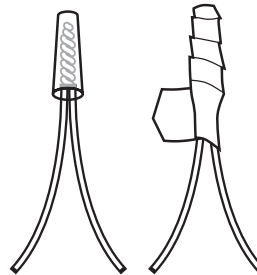


#### Connecting the speaker cord to the speakers

1. Connect the positive (ribbed or red) speaker wire to the positive (red) wire from the speaker cable. Twist the stripped wires together.
2. Secure the wire nuts with a twisting motion. If you prefer to reinforce the wire nuts, use electrical tape (Figure 5).

**Figure 5**

Reinforcing the wire nuts



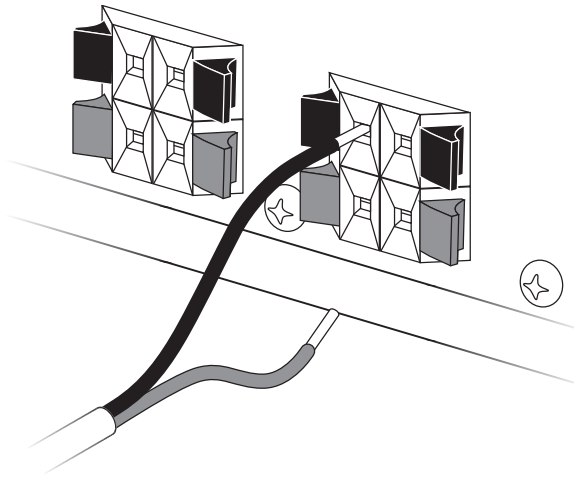
3. Connect the negative (plain or black) wire to the negative (black) wire from the speaker cable, as in steps 1 and 2 above.

#### Connecting the speaker cord to the receiver/amplifier

1. Connect the speakers on the left side of the listening area to the left channel of your receiver/amplifier (Figure 6).
  - a. Attach the positive (ribbed) wire to the red (+) terminal.
  - b. Attach the negative (plain) wire to the black (-) terminal.
2. Connect the speaker on the right side of the listening area to the right channel of your receiver or amplifier, as above.



**Note:** If your Free Space® 51 speakers are being connected to your receiver/amplifier as a secondary set of speakers, be sure to make the appropriate connections to the "B" channel.

**Figure 6***Connecting cord to receiver*

## Checking the connections

Check the speaker connections carefully. Make sure no loose strands of wire touch across terminals. This could create short circuits and damage an amplifier or receiver.

Tighten any loose connections before you plug in the receiver/amplifier.

## Testing the connections

To make sure your speakers operate correctly, follow these steps:

1. Center the balance control on your receiver/amplifier.
2. Set the stereo/mono control to MONO.
3. Play some passages of music containing deep bass through the speakers.

The sound should seem to come from a point between the two speakers. The bass should be full and natural. If not, the connections may be reversed, causing the speakers to play out of phase. To correct the problem, make sure all the cords are connected positive to positive (+ to +) and negative to negative (– to –).

## Troubleshooting

Problem	What to do
No sound	<ul style="list-style-type: none"> <li>• Make sure the receiver is plugged in and turned on.</li> <li>• Check to be sure the AC power (mains) outlet is working.</li> <li>• Disconnect any headphones plugged into the headphone jack.</li> <li>• Make sure the receiver is not set to MUTE.</li> <li>• Refer to the owner's guide that came with your receiver.</li> <li>• Check connections to both the speakers and the receiver. Refer to "Making the connections" on page 6. Correct any connection errors.</li> <li>• If your Free Space® 51 speakers are connected as a second set of speakers to your receiver/amplifier, check that the connections have been made to the "B" terminals, and that the "B" speakers are selected to play.</li> </ul>
No sound from one speaker	<ul style="list-style-type: none"> <li>• Check that the balance control on your receiver/amplifier is centered.</li> <li>• Check the cord connecting the receiver/amplifier to the silent speaker.</li> <li>• Disconnect the working speaker from the receiver. Switch the cord of the silent speaker from its original receiver terminals to the other set of terminals (that the working speaker was originally attached to). If the speaker now works, the problem is in your receiver. If the speaker does not work, continue below: Remove the cord from the working speaker and connect it to the silent speaker and either set of receiver terminals. If the speaker now works, the problem is in the original speaker cord. If the speaker does not work, the problem is in the speaker.</li> </ul>
One speaker sounds distorted	<ul style="list-style-type: none"> <li>• Follow the same procedure for the problem of "No sound from one speaker," as outlined above.</li> </ul>
Not enough bass or treble	<ul style="list-style-type: none"> <li>• Check the tonal balance setting on your receiver/amplifier.</li> <li>• Adjust the bass and treble controls on the receiver.</li> <li>• Check the connections to make sure they are correctly in phase (+ to + and – to –). Refer to "Make the connections" on page 6.</li> </ul>

## Customer service

For additional help in solving problems, contact Bose® Customer Service. See the list of service centers and phone numbers enclosed in the shipping carton. Bose Corporation will make every effort to correct problems within the terms of your warranty.

## Warranty period

Free Space 51 speakers are covered by a limited five-year transferable warranty. Details of coverage are on the warranty card that came with your speakers. Please fill out the information section, detach, and mail it to Bose.

## Cleaning your speakers

Use a cloth dampened in mild detergent and water to remove dust or dirt from the outside of your Free Space 51 speakers. Or use a hose to rinse them thoroughly with fresh water. Do not use enough pressure to force water into the drivers or the acoustic ports.

## Protecting the speaker cord

The bare ends of the speaker cord can be affected by exposure to the elements. This is especially true of salt water or water containing chemicals such as chlorine or fertilizer. You may use a silicone caulking material, such as RTV adhesive, to protect the connections. It is commonly available at hardware stores. If you do use caulking, apply it only after the cords are connected. Check the connections annually, and reapply as needed.

## Technical Information

### **Protective features**

- Environmentally resistant hardware

### **Driver complement**

- One 4.5" (11.4 cm) environmental driver per speaker

### **Color**

- Green

### **Dimensions**

- 14½" (36.8 cm) diameter, 15" (38.1 cm) height

### **Weight**

- 12 lb (5.4 kg) each

### **Compatibility**

- Compatible with amplifiers or receivers rated 4 to 8 ohms
- 50W IEC continuous power-handling compatible with receivers and amplifiers rated 10-100W

### **Environmental capabilities**

Designed to withstand:

- Salt fog, sun, high humidity (rain and snow)
- Temperature extremes (-40°F to 158°F; -40°C to 70°C)
- Permanent outdoor installation

### **Cord recommendations**

Based on maximum frequency response deviation of  $\pm 0.5$  dB

Gauge	Length
18 (0.82 mm <sup>2</sup> )	20 ft (6 m) maximum
16 (1.3 mm <sup>2</sup> )	30 ft (9 m) maximum
14 (2.1 mm <sup>2</sup> )	50 ft (15 m) maximum
12 (3.3 mm <sup>2</sup> )	80 ft (24 m) maximum

Use direct-burial cable for outdoor installations.