BOSE®

151®

ENVIRONMENTAL

SPEAKERS

OWNER'S GUIDE

### **C**ustomer information

The serial numbers on my 151® speakers			
are:			
and			
I purchased them on:			
from	m:		
Retailer			
Address			
City State Zip			
Telephone			

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Thank you for purchasing Bose® 151® environmental speakers. Their proprietary Bose technologies and all-weather construction offer you listening enjoyment both indoors and out.

## How and where to use Bose 151 speakers

Bose 151 speakers are designed to meet the challenges of year-round outdoor use.

They can deliver Bose quality sound to areas where you work, play, and relax outside. From potting shed to workshop, patio to poolside, they will extend your musical pleasure. You can even install 151 speakers on board your boat.

You may also use these speakers indoors, in areas where high humidity is common, such as an indoor pool area or bathroom.

Once you decide where you will use your 151 speakers, consider the optional all-weather mounting and installation accessories from Bose. (Refer to "Accessories" on page 8.)

# **D**ecide where you want the speakers

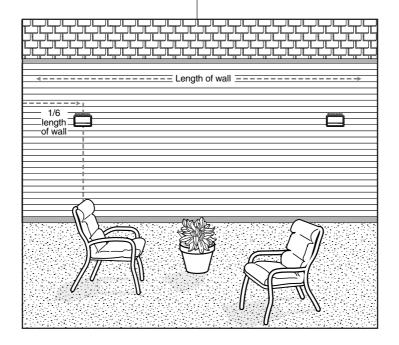
For best results, mount both speakers on the same wall, facing the listening area. Make sure they do not face each other. (Outdoors, if you are not using an existing wall, consider the length of your listening area as your "wall.")

Measure the length of the wall and divide that length by six. Place one speaker onesixth the length from the left end of the wall. Place the other speaker one-sixth the length from the right end (see Figure 1). If you place your 151° speakers outdoors, you will probably connect them to an amplifier or receiver that is inside.

**Note:** You may want to consult an electrical installer who can route wires underground or through walls if necessary.

Whether you mount them inside or out, consider the following:

- Measure the length of speaker cords you need to connect each speaker to your receiver or amplifier. To determine the wire gauge you will need, refer to the wire gauge recommendations under "Technical information" on page 10.
- It is important that the speaker cord not be tripped over, pinched, or pulled.
   Determine the best route to protect the wire.



### Figure 1

- Regardless of where you place your speakers, make sure they cannot fall and cause injuries. See "Accessories" on page 8.
- Bose 151® speakers are not magnetically shielded. Keep them at least 9 inches (23 cm) from any video screen or monitor.

**Note:** Magnets in the speakers will affect a boat compass. Consider this in choosing a speaker location, or make sure to correct for this deviation.

 On a boat, you can surface mount the speakers or mount them flush to the bulkhead. (Refer to "Accessories" on page 8.)

**Note:** To flush-mount 151 speakers in a boat, you must cut a hole in the bulkhead for each speaker. You may want to consult a marine electronics installer (employed by most boat yards) before cutting any holes.

### Unpack the speakers

Unpack each speaker carefully. Save the carton and packing materials for possible later use. If either speaker appears damaged, do not operate either one. Repack both speakers in the original carton and notify your authorized Bose dealer immediately.

## How to hook up Bose® 151 speakers

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

# Choose the speaker cord

Be sure to use the proper gauge (thickness) of speaker cord. Standard zip cord (2-conductor, 18-gauge wire found at electrical and hardware stores) works for most applications. If your speakers will be more than 30 feet (9 m) from the receiver or amplifier, see the wire recommendations under "Technical information" on page 10. Or check with your authorized Bose dealer.

If you decide to run the speaker cord through a wall or underground, check your local building code requirements, or contact an electrical installer before proceeding.

**Note:** Be sure to cut enough cord to reach from the receiver to each speaker.

## Use the cord properly

Speaker cord consists of two insulated wires. The insulation around one wire is striped, collared, or ribbed. This marked wire is always positive (+). The plain wire is always negative (-). These correspond to the red (+) and black (-) terminals on the back of the speaker, receiver, or amplifier. Be sure to connect each wire to the proper terminal (positive to positive, negative to negative).

• Prepare the ends of each cord

At the ends of each cord, strip approximately 1/2 inch (12 mm) of insulation from both wires. Twist the bare ends of each wire.

• Connect the cords to your speakers

At the back of your speaker, unscrew the hex knob on one terminal post. This reveals a small opening through the post. Insert the bare end of one wire into the opening. Tighten the knob to secure the wire. Now insert the second wire into the second terminal post (see Figure 2).

Protect the cord

To guard against weather wear on exposed wires, see "How to maintain Bose" 151" speakers" on page 8.

### Make the connections

- 1. Connect the first cord to the left channel of your receiver or amplifier.
  - **a.** Attach the marked wire at one end to the red (+) terminal.
  - **b.** Attach the plain wire at that end to the black (–) terminal.
- **2.** Connect the other end of the same cord to your left speaker.
  - **a.** Attach the marked wire to the red (+) terminal post.
  - **b**. Attach the plain wire to the black (–) terminal post.
- **3.** Connect the second cord to the right channel and right speaker, following the same procedure.

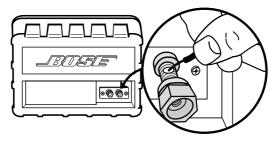


Figure 2

Insert the bare wire end into the opening on the terminal post.

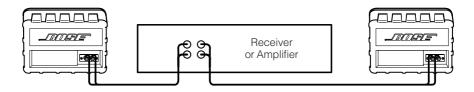


Figure 3

## Check the connections

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

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

### **T**est the connections

To make sure your speakers operate correctly:

- 1. Set your receiver or amplifier for MONO (monophonic) and turn it on. Set the balance control to normal (centered).
- 2. Place the speakers less than 6 inches (15 cm) apart, facing each other.
- **3.** Play some deep bass passages of music 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, your connections may be out of phase. Reverse the connections on the back of one speaker. Then repeat steps 1-3.

### **Accessories**

Bose Model SM-1 outdoor surface-mount brackets give sturdy support to 151° speakers attached to a shelf, wall, ceiling, roof overhang, or boat. You can mount the brackets horizontally or vertically, and change the angle to direct the sound.

Bose FM-1 outdoor flush-mount brackets securely anchor 151 speakers to the bulkhead of a boat. These brackets install through the bulkhead surface, so only the speaker face and bracket trim are exposed.

To order these brackets, or for more information about them, contact your authorized Bose retailer, or to contact Bose directly, see "Bose Corporation" on page 63.

## How to maintain Bose® 151 speakers

# Protect the connections

The bare wire ends of the speaker cord can be affected by exposure to the elements. This is especially true of salt water exposure.

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 wires are connected and the knobs tightened down. Check the caulking annually, and re-apply as needed.

# How to clean the speakers

Use a cloth dampened in mild detergent and water to remove dust or dirt from the outside of your 151 speakers. Or use a hose to rinse them thoroughly with fresh water. Do not use enough pressure to force water behind the grille and into the driver or the acoustic port.

# How to check out problems

If you have any problems with your 151° environmental speakers, the suggestions below may save you a call for service.

#### If neither speaker plays

 Check the settings on your receiver or amplifier. Refer to the owners guide that came with it for instruction on settings.

#### If the bass or treble is weak

 Check the tonal balance setting on your receiver or amplifier.

#### If only one speaker plays

- Check the balance control on your receiver or amplifier.
- Check the wires connected to the speaker that does not play. Make sure the wires are in good condition and are firmly connected. Review the "Hook up your speakers" section on page 5.

#### If one speaker still does not play

Disconnect the wires from the speaker and the receiver or amplifier. Disconnect the other cord from its speaker, and connect that end of the cord to the speaker that doesn't play.

- If the speaker still doesn't play, the problem is in the speaker.
- If the speaker now plays, continue checking for the source of the problem.

Disconnect the same cord from the amplifier or receiver. Connect it to the other outputs on the amplifier or receiver.

- If the speaker plays, the problem is in the original cord that was connected to that speaker.
- If the speaker does not play, the problem is in that channel of the receiver.

If the above solutions fail to solve your problem, contact your authorized Bose® dealer to arrange for service, or to contact Bose directly, see "Bose Corporation" on page 63. Bose Corporation will make every effort to resolve the problem, within the terms of your warranty .

## **W**arranty period

Bose 151 environmental 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.

### **Technical information**

#### **Protective features**

- Nickel-plated brass connection terminals
- Syncom® computer quality control

#### **Driver complement**

 One (1) 4.5" (11.4 cm) full-range environmental driver per speaker

#### **Enclosure**

- Dual-port molded polypropylene
- · Black or white

#### **Dimensions**

• 6.1"H x 9.1"W x 5.9"D (15.5 x 23.1 x 14.9 cm)

#### Compatibility

 Rated 40W IEC power handling; rated 4 ohms. Compatible with amplifiers or receivers rated 10-80 watts per channel

#### **Conditioned**

- Designed to withstand:
  - salt fog, sun, high humidity (100%RH)
  - temperature extremes (-22 to 140°F;
    - -30° to 60°C)
  - vibrations, mechanical shock

#### **Wire recommendations**

 Based on a maximum frequency response deviation of ±0.5 dB/

Gauge	Length
18 (0.75 mm²)	30 ft (9 m) maximum
16 (1.5 mm²)	45 ft (14 m) maximum
14 (2.0 mm²)	70 ft (21 m) maximum

#### Weight

• 9.5 lb (4.3 kg) per pair, in the carton

### **Bose Corporation**

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