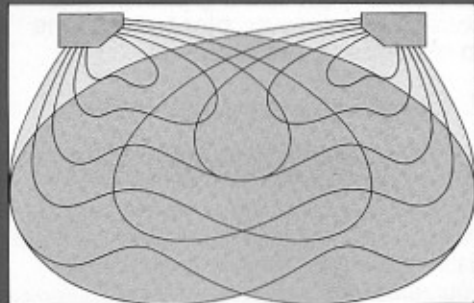


The Bose® 4.2™
Direct/Reflecting®
Speaker System



BOSE®
Better sound through research.

The Bose® 4.2™ Direct/Reflecting® Speaker System

Before you begin:

Congratulations on purchasing Bose speakers! We are confident that our advanced technology and quality construction will provide you a lifetime of musical listening pleasure.

The operating principles of the Bose 4.2 speaker system are **significantly** different from those of conventional speakers. To obtain the best results, **please take time to read this owner's manual.**

I. Unpacking the 4.2 System

Open the carton from the top, and remove all packing materials. Then **carefully** lift the speakers from the carton. We suggest that you save the carton and packing materials in case you ever need to transport your speakers.

If either speaker appears to be damaged, **do not attempt to use it.** Instead, repack the speakers in the original carton and notify your authorized Bose dealer immediately.

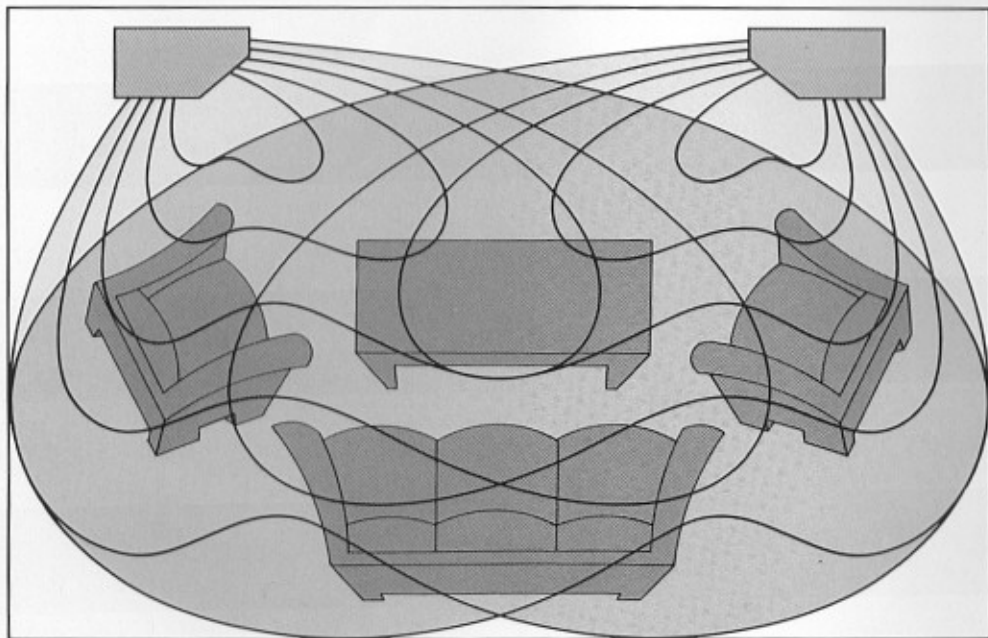


Figure 1A. Stereo Everywhere listening area produced by the Bose 4.2 speaker system.

II. Setting Up Your Speaker System

Unlike conventional speakers, the Bose 4.2 system uses Direct/Reflecting® technology to re-create an exceptionally realistic stereo

image. (See Figures 1A. and 1B.) Please note that **there is a distinct left and right 4.2 speaker.** To obtain maximum performance, please use the following guidelines.

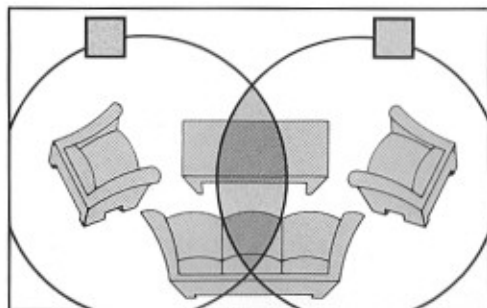


Figure 1B. Stereo listening area produced by conventional speaker systems.

- A. Unlike conventional speakers, the 4.2 Direct/Reflecting[®] system is designed to deliver excellent performance when located on either the long or short walls of your room.

Select the wall where you intend to place your speakers. Divide the length of the wall by four and place the speakers at the $\frac{1}{4}$ and $\frac{3}{4}$ divisions of the wall. The speakers will give best stereo coverage if they are placed fairly far apart. This is not a requirement, however. In most listening rooms, separations as great as 12 feet (4 meters) or as

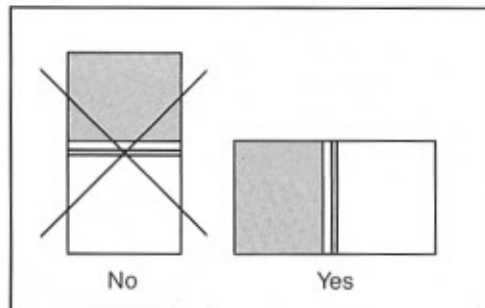


Figure 1C. Speaker positioning.

- small as three feet (1 meter) can still give excellent results. (Refer to Room Acoustics, page 4, for more information on speaker placement.)
- B. Once you have selected your speaker locations, place the left speaker (Part 1) on the left side of the wall and the right speaker (Part 2) on the right side.
- C. The Bose[®] 4.2 speakers are *bookshelf* speakers, and should be placed roughly at ear level, not on the floor. If placed on a shelf, keep books or other objects at least 6" away from the grilles.

IMPORTANT: The 4.2 speakers are designed to be played *horizontally only*. To obtain proper Direct/Reflecting[®] spatial balance, do not turn the speakers vertically (on their ends). **(Refer to Figure 1C.)**

The Bose® 4.2™ Direct/Reflecting® Speaker System

Room Acoustics

Where you place the 4.2 speakers in the room is important for getting the best sound. There is no **one** required placement position; rather, it is important to know that placement **does** affect sound. We recommend that you experiment with various locations and put the speakers where they sound best to you before determining final placement. The following tips will help you maximize the sound of your 4.2s.

General guidelines

1. The acoustics of your listening room can affect the overall sound quality of your speakers. One useful rule for getting the best sound is to reduce hard reflecting surfaces in front of the speakers. For example, you might put a carpet or area rug in front of the speakers.

2. Rooms with a lot of sound absorbing furnishings (upholstered furniture, wall-to-wall carpets, heavy drapes, etc.) may reduce the treble sound of your system, making it sound dull. The missing treble can be restored by slightly turning up the treble control on the receiver/amp.

3. Rooms with few sound absorbing furnishings, especially those with bare floors and walls, may sound overly shrill because of too much treble. Turning down the treble control or adding sound absorbers such as area rugs or drapes will usually solve this problem.

4. In general, the closer the speaker is to the wall, the more bass you will hear. Placing the speakers close to the corners of the room will increase bass even more. By keeping this rule in mind, you can tune your system to your room. So if your system seems to lack bass, try moving the speakers a little closer to the room's corners. If your system has too much bass, move the speakers away from the corners.

5. Many problems with acoustics can be solved by the judicious use of your tone controls (bass and treble). However, using tone and loudness controls may put greater power demands on your receiver/amp. **Excessive tone control use can cause an amplifier or receiver to run out of power and distort, potentially damaging your system.**

6. Outboard signal processors (such as graphic and parametric equalizers) can be used with the Bose 4.2 speakers if a greater degree of acoustic control is desired. Consult your Bose dealer for advice and recommendations.

PLEASE NOTE: The greatest chance of damaging a speaker occurs when the amplifier is being overdriven, which means you have asked the amplifier for more power than it is rated to deliver. An amplifier that is pushed beyond its operating limit will produce high frequency distortion which may damage the tweeters. This is called "clipping," and is heard as a fuzzy crackling sound. When an amplifier reaches the clipping point, turning up the volume results in more distortion, not more volume. If this happens, turn it down. This will protect both your speakers and your ears. Certain unusual recordings may exceed the bass power limit. This is audible as a popping sound during loud bass passages. If this occurs, reduce the volume.

III. Connecting the Bose 4.2 Speaker System

We recommend using standard zipcord or lampcord, the wire most commonly carried by audio dealers and electrical stores. 18 gauge zipcord is adequate for lengths up to 20 feet per speaker. Heavier gauges (14 to 16) should be used for greater lengths. Avoid thin wire commonly labeled "speaker wire" – this wire is generally not suitable for high-fidelity use. This table shows the **minimum** thickness of wire to use.

Length of wire	Minimum thickness
Under 20 ft.	18 gauge
20 – 40 ft.	16 gauge
40 – 80 ft.	14 gauge

- Measure and cut the amount of wire required to connect each speaker to the receiver/amp. If possible, use approximately the same length of wire for each speaker.
- Separate the conductors at the end of each wire. Strip off approximately $\frac{1}{2}$ inch (12mm) of insulation from each conductor.

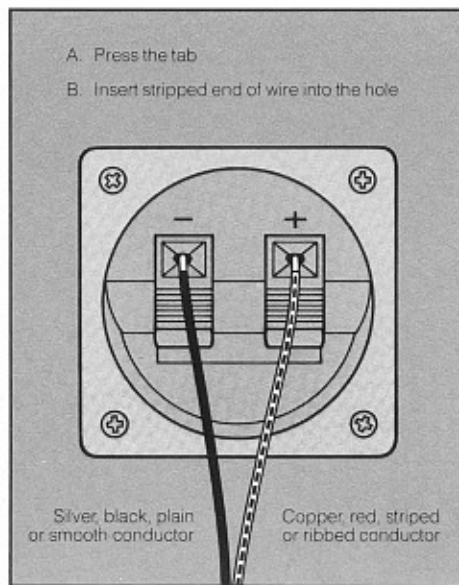


Figure 2. Connecting the speaker

- Examine the wire ends carefully. There will be some visible difference between the two conductors. If the wire is clear, one side may be silver and the other copper. Or if the wire is not color coded, then one side will be ribbed or striped.

In any event, **consider the ribbed, striped, or copper side to be positive (+). The remaining side (plain, smooth, or silver) is negative (-).**

- Locate the speaker terminals on the back of the left speaker (Part 1). Connect the positive side of the wire to the (+) red terminal, and the negative side of the wire to the (-) black terminal. **(Refer to Figure 2.)**

The Bose® 4.2™ Direct/Reflecting® Speaker System

Connecting Multiple Speakers

The Bose 4.2 is an 8 ohm system and may safely be connected in parallel with another 8 ohm speaker with most amplifiers. **Consult your amplifier or receiver's User Guide before connecting multiple speakers, or consult your Bose dealer.**

- E. **Make sure your receiver or amplifier is OFF and unplugged.** Connect the other end of the wire to the terminals marked LEFT on the back of the receiver/amp, making sure to connect the positive side of the wire to the receiver/amp positive terminal (marked + or colored red) and the negative side of the wire to the negative terminal (marked - or colored black). **Refer to Figure 3.** This assures that the speaker's positive terminal is connected to the receiver/amp's positive terminal, and the speaker's negative terminal is connected to the receiver/amp's negative terminal. Make sure all connections are secure.

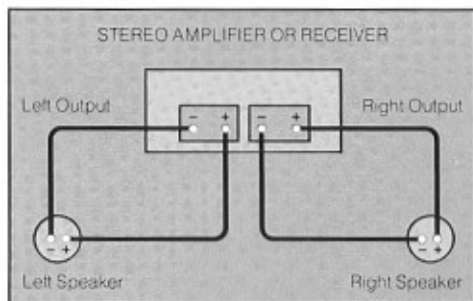


Figure 3. Connecting the speakers to the receiver/amplifier.

- F. Repeat Steps D and E for the right speaker (Part 2) and right receiver/amp side. Make sure all connections are secure.
- G. Finally, **check carefully** to make sure that no loose strands of wire are brushing against the other terminal on either the speaker or receiver/amp. **Such bridged wires create short circuits which can damage your amplifier.** Repair any loose wire strands **before** plugging in your receiver/amp.

PLEASE NOTE: Care is required if you intend to staple speaker wires. If a staple or other object pierces the wire, it could cause a short circuit.

- H. If you are not sure the speakers are hooked up correctly or **in phase** (positive to positive, negative to negative), try this test:
1. Set your receiver/amp to MONO (monophonic or L + R). Be sure that the balance control is in the normal or centered position.
 2. Move the speakers until they are **facing each other closely**.
 3. Play some music with deep bass. If the speakers are hooked up correctly, the sound will come from a point between the speakers and will have full, natural bass response.
 4. **If you do not hear much deep bass, shut the receiver/amp off.** Then reverse the + and - connections on **one speaker only** and repeat the test. **Use whichever connection produces the most bass.**

IV. Using the 4.2 Speaker System

Once set up and connected properly, your speakers will require very little attention. However, we suggest that you observe the following guidelines to get the most out of your speaker investment:

A. Fusing

Under normal operating conditions, the 4.2 speaker system does not require auxiliary overload protection devices. This system contains two internal overload protection circuits designed to handle normal overload conditions. However, any speaker can be damaged if the amplifier is driven to distortion.

Fusing provides extra protection for your speakers, and is recommended for use with amplifiers that do not have built-in speaker fuses.

1. To insert the fuse into the speaker wiring, attach a fuseholder to the + (red) terminal of the speaker. **(Refer to Figure 4.)** Then connect the speaker wire to the

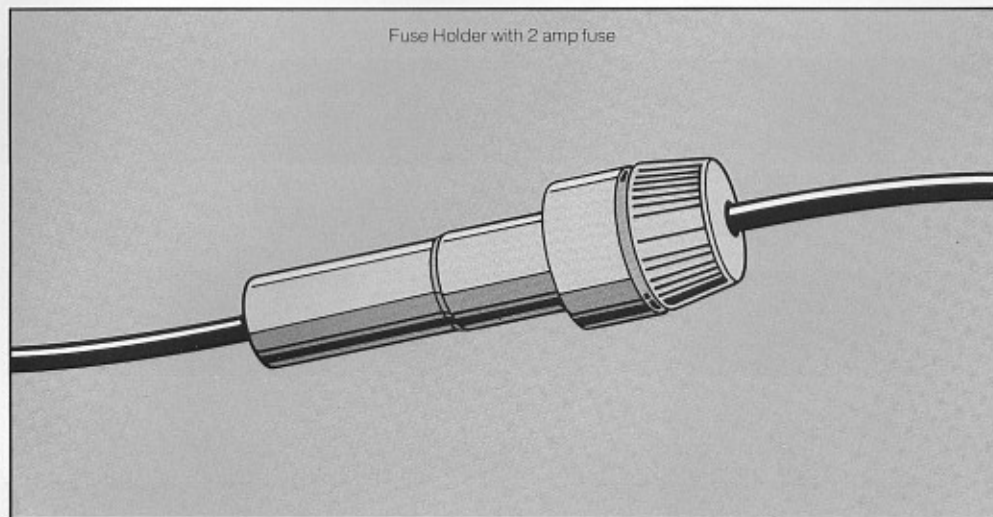


Figure 4. Fusing the speakers. Insert fuse holder between positive speaker wire end and positive speaker terminal.

- holder, putting the fuseholder between the speaker's + (red) terminal and the receiver/amp's + terminal.
2. When the fuse is inserted into the fuse holder, the fusing protection system is complete. A **2-ampere, fast-blow** AGC Series or Littelfuse AG Series fuse is recommended.

A fuse kit containing fuses and holder is available from the Bose® Technical Service & Parts Department, 78 Turnpike Road, Westborough, Massachusetts 01581, for \$7.50. Call (508) 366-9896 and ask for Part No. 108938-2.

Maintenance

The cabinet on the 4.2 speaker can be easily cleaned with a damp cloth and, if necessary, a mild detergent such as dish soap. Do not allow liquids to spill through the grille assembly or in any way enter the speaker.

Do not attempt to remove the 4.2 grille.

The grille is **not** designed to be removed by the owner and should be removed only by qualified service personnel.

Do not clean the 4.2 with any solvents or chemicals.

If necessary, the grilles may be **carefully** vacuumed. Please note that the tweeters are located directly behind the grille cloth and are easily damaged. Avoid applying any pressures with the vacuum nozzle.

V. If You Have a Problem

If you experience any difficulty with your Bose® 4.2 system, try the following tests first to determine if the speakers are at fault. In general, most problems occur in components other than speakers.

- A. **If one speaker sounds defective** (does not play or plays distorted sound), **shut the receiver/amplifier off.** Disconnect the defective speaker at the amplifier output terminals and reconnect it to the amplifier terminals

that were connected to the non-defective speaker. If the speaker that initially sounded defective now sounds correct, the problem is not in the speaker. Under no circumstances connect the normal-sounding speaker to a possibly defective receiver/amp channel or side.

- B. **If both speakers sound defective,** use the **same** wiring to connect them to another receiver/amp known to be working properly. If the speakers now operate correctly, the problem is not in the speakers or wiring.
- C. Check all accessible fuses. Replace any fuses that appear to be blown. If the fuses blow again, have the receiver/amp checked by qualified personnel.
- D. **If trouble persists in one or both speakers,** contact your authorized Bose dealer who will verify any defects and arrange for service by an authorized service agency or by the Bose factory. Bose Corporation will make every effort to remedy any problem within the terms of the warranty at minimum inconvenience to you.

VI. Technical Information

Features

Direct/Reflecting® Speaker
Technology
Stereo Targeting® System
Automatic Tweeter Protection
Circuit
Syncom® Computer Quality
Assurance Program

Driver Complement

One (1) 8" Woofer
One (1) 2 1/2" High-Sensitivity Tweeter

Nominal Impedance

8 ohms

Amplifier Power Guidelines

Minimum: 10 watts per channel
Maximum: 100 watts per channel

Power Handling

75 watts RMS continuous
conforming to IEC standard

Cabinet

Dual-Chamber Design, internally
sub-ported

Finish

Vinyl Veneer

Dimensions

18"W × 9 1/2"H × 10"D

Weight

15 lbs. (6.8 kg)

BOSE[®]

Bose Corporation, The Mountain,
Framingham, Massachusetts 01701-
9168 USA

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Canada, England, France, Germany,
Ireland, Italy, Japan, Netherlands, Spain,
Switzerland, United States.

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