



The Power Of Clarity

Owner's Manual and Setup Procedures

Z-Series.....Z-1 / Z-5 / Z-7 / Z-Sub

Introduction

Congratulations and thank you for selecting Z-Series loudspeakers from BG Corp. We have assembled your loudspeakers with the greatest care using the finest materials available. This craftsmanship, combined with our patented planar ribbon technology, delivers sound unmatched by conventional loudspeakers.

The Z-Series, BG's most affordable line of freestanding loudspeakers, is ideal for either stereo or home theater applications. The line is comprised of the Z-1 Compact Monitor, Z-5 LCR and Z-7 Floorstanding model as well as the Z-Sub, are all offered in grain matched, hand rubbed real cherry wood veneer or real black ash finish.

Models Z-1, Z-5 and Z-7 feature our famous planar ribbon tweeters, coupled with high performance aluminum cone woofers, that deliver the amazing clarity, musicality and imaging that BG has become known for.

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Read and Follow Instructions – Please read this entire manual *before* unpacking and setting up your BG Z-Series loudspeakers. For maximum performance and years of trouble-free enjoyment, all operating and use instructions should be followed.

Retain – DO NOT discard any factory packing material. The packing and shipping materials may be required in the unlikely event your loudspeakers need to be moved or shipped to our service center at BG.

Cleaning – Use a wax-free cleaning substance only (i.e. Pledge™) with a soft, dry polishing cloth, not a paper-based chamois. DO NOT apply any cleaning solutions to the grill cloth.

Liquid – DO NOT place BG loudspeakers near an open source of liquid that may spill on the loudspeaker surfaces.

Heat – DO NOT place BG loudspeakers near a direct heat source.

Tipping – Place your loudspeakers on a smooth flat surface and with the Z-7 Tower, use the enclosed spiked feet on carpeted surfaces. A loudspeaker tipping over can pose a hazard for small children and pets.



General Information

Unpacking Your BG Loudspeakers

1. Place the shipping box on its side. Open the end of the box that is opposite to the end that says, "open other side".
2. Remove the metal spikes (used with floorstanding models) or the rubber feet that are taped to one of the cardboard flaps or tucked into the packing materials.
3. Place the box vertically on the floor with the top flaps opened out so that the loudspeaker stands upside down on the top foam cap.
4. Pull the carton box up carefully, supporting the loudspeaker vertically.
5. Holding the loudspeaker steady, remove the foam cap from under the loudspeaker. Pull off the protective plastic bag.

Assembly Instructions: Screw in spiked feet or peel off rubber feet and position according to installation application.

Proper Hookup: Red terminal post to the positive (+) amplifier post
Black terminal post to the negative (-) amplifier post
Most BG loudspeakers can be bi-wired or bi-amped by simply removing the gold plated jumper to allow separate wires to be run to the low and high pass section of your system.

Break-In Times: Typically a BG loudspeaker requires not less than 48 hours of operation at moderate sound level before reaching its optimum sound quality. This improvement may be rather subtle but noticeable for a trained listener. **Note:** Do not play your loudspeakers excessively loud to try to accelerate this process!

Amplifier: BG loudspeakers are extremely accurate and deliver a high degree of detail and resolution. Therefore a good 100-150 watt per channel amplifier or receiver will deliver adequate power for a typical system and room size. Your authorized BG dealer can recommend an amplifier best suited to your needs.

Setting Up Your BG Loudspeakers for Optimum Sound

Home Theater and Stereo Applications

Refer to the diagram on page 7 that depicts a recommended layout for BG loudspeakers. This diagram is an overhead view of a typical listening room with the video screen located at the top of the diagram (the front of the room). Keep in mind that the room is a part of the sound reproduction system and has a significant effect on sound you experience. This is especially true at lower frequencies (see subwoofer setup on page 9).

Locating your loudspeaker close to the wall increases bass output. It may also increase the boominess of the bass and artificially alter the loudspeaker's tonal balance. We recommend that you spend some time adjusting the position of the loudspeakers, moving them in and out gradually, to get the sound you prefer. You may toe them in or out (rotate them around their vertical axis towards or away from your listening position) to improve high frequency balance (as indicated by the dashed lines on the diagram). In general, best results are obtained when the front left and right loudspeakers have their axis intersecting slightly behind the position of the listener.

The relative location of your listening position to the loudspeakers is important as well. If possible, do not select a listening position less than three feet (one meter) from the rear wall of the room. As with adjusting the placement of your loudspeakers, you can also adjust your listening position to get the most desirable bass reproduction and high frequency resolution.

If you place your BG loudspeakers on a shelf or in a wall unit make sure the loudspeakers are not recessed too deeply and nothing is in front of or in close proximity to the drivers to obstruct the sound.



Optimum Setup

Setting Up Your BG Loudspeakers for Optimum Sound *Multi-Channel Audio for Music and Home Theater*

If you plan to use your BG loudspeakers for home theater or multi-channel audio, here are some additional recommendations.

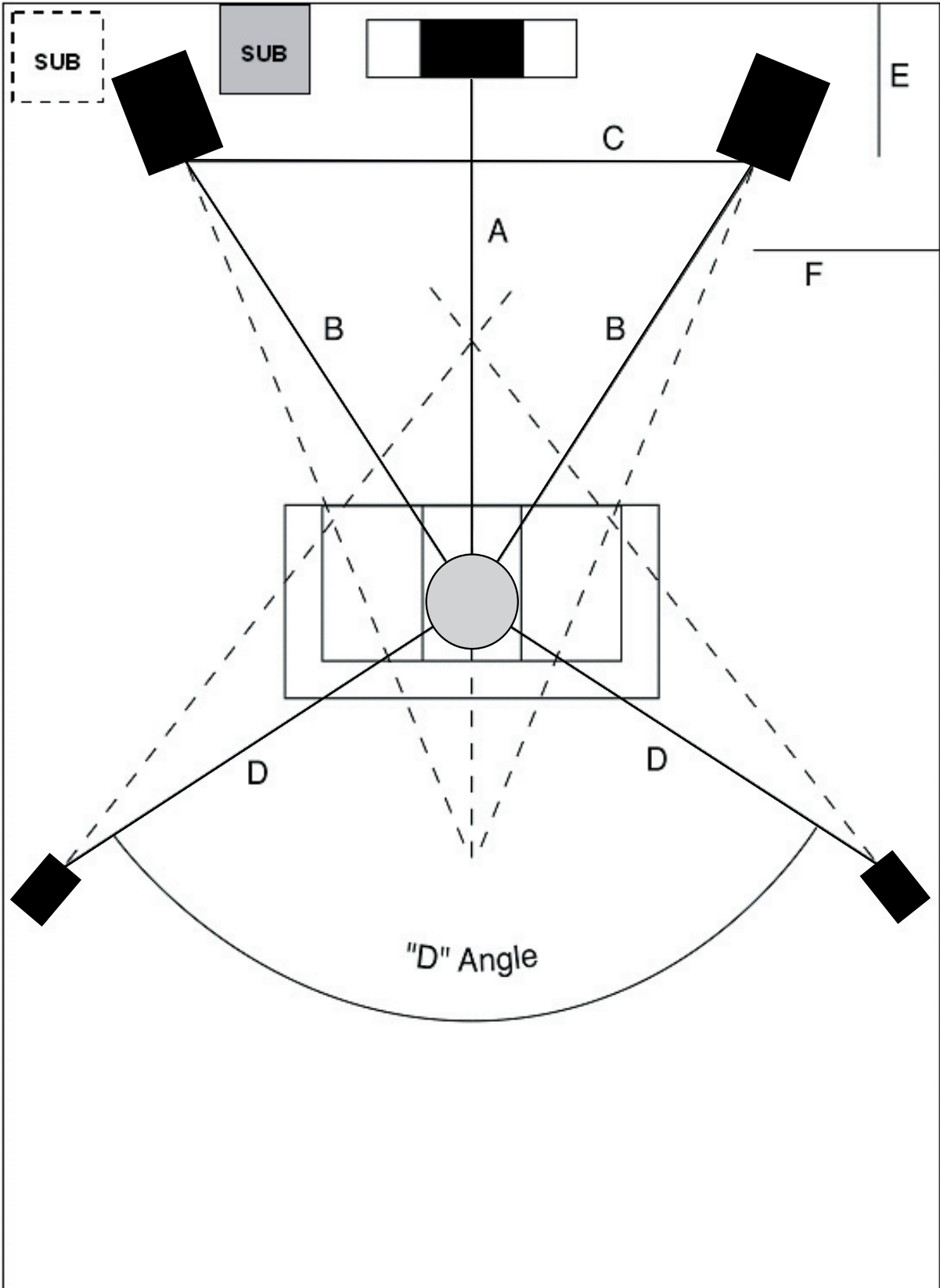
1. The center channel loudspeaker should be positioned on top of your television or a shelf directly above or below it. **NOTE:** All Z-Series loudspeakers are magnetically shielded.
2. If you are using a projector, you will need a suitable stand to position the center channel loudspeaker on the floor in front of the screen or a bracket above or below the screen. Aim the loudspeaker so it is pointed at your listening position. The center channel loudspeaker should be as close as possible to the screen so the voice soundtrack appears to come from the video image.

The optimum position for all five loudspeakers requires the same distance from the listening position (distance A, B and D are equal), see diagram on opposite page. If it is not possible to get the distances equal, you can use the delay and level adjustment functions available in most home theater processors to compensate for the differences in distances. The diagram shows the optimum placement for the rear loudspeakers. The subwoofer should be placed beside or behind either the left or right front loudspeaker. For multiple subwoofers see your authorized BG dealer for advanced setup procedures.

If you place BG loudspeakers on a shelf or in a wall unit make sure the loudspeakers are not recessed too deeply and there is nothing in front of or in close proximity to the drivers to obstruct the sound.

Processor Setting - We recommend using the small loudspeaker mode on your processor to protect your loudspeaker's low frequency drivers from extremely low bass signals. This setting will also allow you to achieve higher dynamic range and cleaner sound at louder levels.

This manual addresses 5.1 surround sound systems. Where 7.1 or higher systems are being utilized see your authorized BG dealer for advanced setup procedures.



Optimum Setup

While rooms vary in size and acoustics, almost any room can be set up to produce excellent sound with BG loudspeakers. Using a tape measure, you can easily set up your system properly. The distances you will need to measure are as follows:

Dimension	Description	Minimum	Optimum	Comments
A	Distance to screen/center channel	7 feet / 2.25 meters	8-12 feet in a typical room - depends on viewing distance and room size	Recommend setting the same as B but as close to the screen as desired
B	Distance to main loudspeakers	7 feet / 2.25 meters	8-12 feet in a typical room. Up to 60% of room width in large rooms	A careful gradual adjustment is recommended
C	Distance between main loudspeakers	7 feet / 2.25 meters	Same as B	
D	Distance to surround loudspeakers			Recommend setting the same as B
"D" Angle	Angle subtended by surround loudspeakers relative to listening position center	90°	120°	Do not place surround loudspeakers to the sides of the listening area
E	Distance between main loudspeakers and front wall	1 foot / 0.3 meters	Should be incrementally adjusted based on degree of "toe-in"	Should be slightly greater than dimension F
F	Distance between main loudspeakers and side walls	10" / 0.25 meters	20% of room width in large rooms	
Room Width	Width of listening room	10 feet / 3 meters		

Setting Up Your BG Z-Sub for Optimum Sound

The Z-Sub Active Subwoofer by BG Corp is the perfect complement to the entire Z-Series line of loudspeakers. The Z-Sub is a compact yet powerful, active subwoofer designed to partner perfectly with our loudspeakers for use in stereo, high performance home theater or multi-channel audio. Or you may choose to use our Z-Sub with any high quality loudspeaker system.

The Z-Sub consists of one 10" long excursion composite cone woofer augmented with a 10" down-firing passive radiator, 150 watt RMS class AB power amplifier and detachable power cord. Features include input signal sensing Auto/On, phase switch, line-level input, speaker-level input/output, variable crossover and variable volume control.

Subwoofer Placement, Connection and Adjustment:

Placement – The Z-Sub should be placed beside or behind either the left or right front speaker (see diagram). When using more than one subwoofer consult with your authorized BG dealer for advanced setup procedures.

Care should be taken when handling the Z-Sub as it contains a bass driver (aka passive radiator) on the bottom that could be damaged. The feet included with the Z-Sub help protect the passive radiator and provide the required 1" (2.54 cm) clearance from the floor to the passive radiator.

Connections

- 1. L&R line-level input jacks.** These inputs are designed for low-level RCA component connections and interconnects derived directly from your receiver or processor. If your receiver or processor only has one subwoofer output plug it into the Right or Left low-level input.
- 2. L&R speaker-level / high-level five-way binding posts.** These inputs and outputs are designed for high-level subwoofer connections and pass-through loudspeaker interconnections. Five-way binding posts are provided to accept up to 14 AWG speaker cable.
- 3. Detachable power cord.** This subwoofer is supplied with a detachable power cord for ease of installation and transportation.



Subwoofer Setup

Adjustments

4. **On/off power switch.** Once the Z-Sub is positioned in the room and the proper cables are installed the On/Off switch should be engaged in the on position for initial power up. The LED turning red indicates the unit is powered on.
5. **Auto/On switch.** In AUTO position, the amplifier is in stand-by mode and turns on automatically when the signal arrives from the amplifier or receiver. It turns off after about 10 minutes when a signal is not present. In the ON position, the amplifier is always on regardless of the presence of a signal. The AUTO position is recommended for normal operation.
6. **Phase switch.** This switch is specifically designed to eliminate phase discrepancies between the Z-Sub as well as the primary LCR loudspeaker's phase. The phase relationship depends on the relative distance between the sub and loudspeakers. If your sub is located within five feet (1.5m) from either loudspeaker or between them, try the switch in the 0 degree position. If your sub is located further away than that, experiment with both switch positions and choose the position where you experience fuller bass.
7. **Low frequency cut-off control.** This allows adjustment of the cut-off frequency (within 50-150Hz) of the subwoofer's low pass crossover. When using the sub for two-channel stereo, the knob should be adjusted to match the primary loudspeakers' low frequency roll-off to create a seamless integration between them. For home theater, set the subwoofer at 150Hz while setting your processor/receiver to crossover the system at 80Hz or 100Hz.
8. **Volume control.** This control adjusts the loudness level of the subwoofer and matches it with the loudness level of the loudspeakers. Adjust the level to achieve a balanced sound between the subwoofer and the loudspeakers. your room, source material and your preferences will determine this.

Warranty Information

WARRANTY: All BG loudspeaker systems are warranted to the original purchaser for five years against defects in materials and manufacture when used in properly designed systems (two years for the Z-Sub and Radia 210i subwoofers).

Please record your speaker's information below for future reference.

MODEL: _____
SERIAL NUMBER: _____
PURCHASE DATE: _____
AUTHORIZED DEALER: _____

As part of our policy of continual product improvement, BG reserves the right to change or discontinue any specifications or parts associated with any of its products without advanced notice. Thank you again for choosing BG loudspeakers.

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