



The Power of Clarity

Owner's Manual and Setup Procedures

Z-Series..... Z-1 / Z-5 / Z-7 / Z-62 / Z-92 / Z-Sub

Contents and Introduction

Contents

	Page
Introduction and Table of Contents.....	2
Quick Install Steps.....	3
Important Owner Information.....	4
General Information.....	4
Setup for Optimum Performance.....	5
Subwoofer Setup.....	9
Specifications.....	11
Radia Planar Ribbon Technology.....	12
Warranty.....	13

Introduction

Congratulations and thank you for selecting BG Corp's Z-Series line of loudspeakers. We have assembled your loudspeakers with the greatest care and using the finest materials available, for years of listening enjoyment. This craftsmanship, combined with our proprietary planar ribbon technology, embodies our commitment to quality and performance.

Ideal for both music listening and home theater applications, the Z-Series is comprised of voice matched models for complimentary performance and perfect integration. The line is comprised of models Z-1, Z-5, Z-7, Z-62, Z-92 and Z-Sub. All models have hand rubbed, grain matched real wood finishes and use high quality crossover components.

The award winning Z-1 compact monitor, Z-5 LCR and Z-7 floorstanding models use high performance cast frame 5.25" aluminum cone woofers and feature BG's planar ribbon tweeters.

Taking performance to higher levels, the next-generation Z-62 LCR and Z-92 freestanding models utilize a 3-way design featuring the latest BG technology. The driver compliment includes a unique coaxial planar midrange-tweeter design featuring our NEO10 reference midrange and powerful 6.5" aluminum cone woofers with advanced NEO magnet structures.

(Please refer to page 10 for more detailed specifications.)



Quick Install Steps

The purpose of this section is to provide a fast and easy overview of installation and setup for your BG loudspeakers. However, your speakers are high performance devices which will benefit from taking time and attention during set-up. Reading the entire manual will also greatly assist in achieving the best possible performance.

If you encounter any problems or difficulties in installation, please refer to the Installation portion of this manual.

If any questions are, please contact your authorized BG dealer, as they will provide you with the appropriate technical and field support.

Step 1 : Unpacking and Assembly

Open the package and remove your new BG speaker from its packing materials.

Screw in spiked feet or stick on rubber feet and position them as needed. Adjust them so that the speaker is stable and rests on all four feet.

Step 2: Placement

Place your Z-Series loudspeaker in the desired location. (Please refer to our setup guide on pages 5-10.)

Step 3: Signal Connection

Using the speaker cabling of your choice, connect the terminals on the rear panel of your speakers.

Pay attention to connect the speaker's red terminal post to the amplifier's positive (+) post and the speaker's black terminal to the amplifier's negative (-) post. Tighten down the terminals onto the connectors or wire.

Step 5: Configure and Calibrate

In multi-channel systems and when using a subwoofer, set the crossover, distance and level of each speaker. (Please refer to our setup guide on pages 5-10.)

Step 6: Enjoy!

General Information

Important Ownership information

Read and Follow Instructions – Please read this entire manual thoroughly 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 another location or be serviced.

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 Considerations

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.

Stereo Music and Home Theater

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 the sound you experience. This is especially true for 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 adjust the position of the loudspeakers, moving them in and out gradually (from the front and side walls), 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 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 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.

Installation

Multi-Channel 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 directly above or below your television.

NOTE: The Z1, Z5 and Z7 models are magnetically shielded and can be used in very close proximity to tube (CRT) television. When using the Z62 and Z92 with a CRT TV, do not place the speakers closer than 2 feet (0.6 m) to it, to avoid interference.

2. If you are using a projector, you will need a suitable stand to position the center channel loudspeaker on the floor below the screen or a bracket above or below the screen. Aim the loudspeaker so it is directed 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.

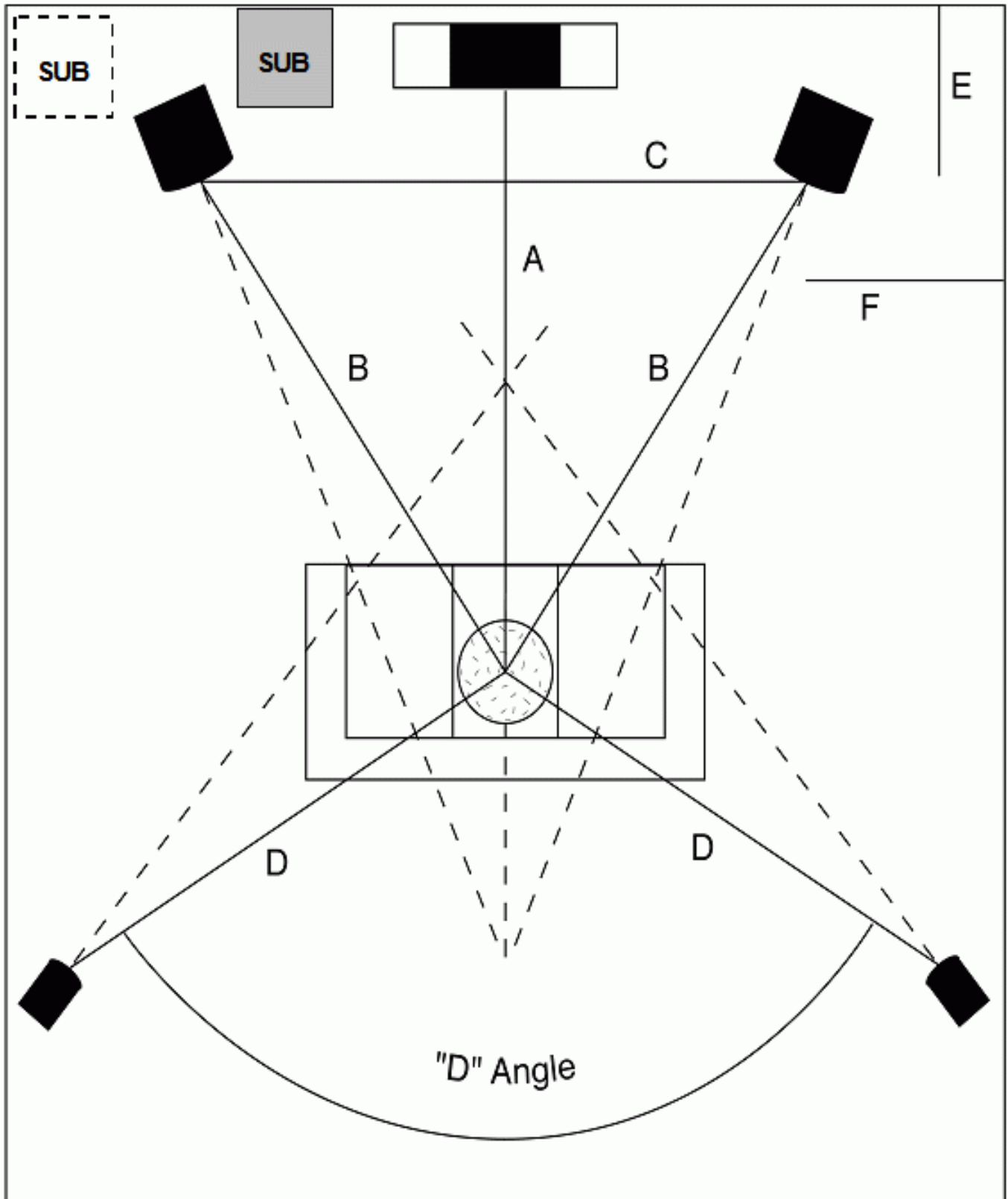
The optimum position for all five loudspeakers should be the same distance from the listening position (distance A, B and D are equal), see diagram on opposite page. If it is not possible, the delay and level adjustment functions available in most home theater processors can compensate for the differences 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 speaker. 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 nothing is 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 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.

Installation



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		

Subwoofer Setup

Optimal Setup for Your BG Z-Sub

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 our Z-Sub for use 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 (a.k.a. passive radiator) on the bottom that could be damaged with mishandling. 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 are provided as well. 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 the 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 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 5 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 recommended, experiment with both switch positions and choose the position where you experience fuller base.

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 loudspeaker's 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.

Specifications

Z-1	Z-5	Z-7	Z-62	Z-92	Z-Sub
> DESCRIPTION: Monitor/ Bookshelf	Multi-purpose LCR (left/center/right)	Floorstanding	Multi-purpose LCR (left/center/right)	Floorstanding	Active subwoofer
> FREQUENCY RESPONSE*: (-6 dB, half space) 55 Hz-25 kHz	(-6 dB, half space) 58 Hz-25 kHz	(-6 dB, half space) 45 Hz-25 kHz	(-6 dB, half space) 50 Hz-25 kHz	(-6 dB, half space) 32 Hz-25 kHz	25-150 Hz with variable 50 Hz-150 Hz low pass filter
> WOOFER: 5.25" Aluminum Cone, shielded	Two 5.25" Aluminum Cone, shielded	Two 5.25" Aluminum Cone, shielded	Two 6.5" Aluminum Cone, with advanced Neodymium magnet structure	Two 6.5" Aluminum Cone, with advanced Neodymium magnet structure	10" paper cone, rubber surround, 10" passive radiator and 2.5" voice coil
> TWEETER/MIDRANGE: Neo3 PDR	Neo3 PDR	Neo3 PDR	Neo3 PDR Neo10	Neo3 PDR Neo10	
> SENSITIVITY: 88 dB/2.83V/1m	89 dB/2.83V/1m	89 dB/2.83V/1m	91 dB/2.83V/1m	91 dB/2.83V/1m	
> IMPEDANCE: 8 ohm	4 ohm	4 ohm	4 ohm	4 ohm	8 ohm (woofer)
> POWER HANDLING: 100 watt	150 watt	150 watt	200 watt	200 watt	Amplifier RMS power 150 watt
> DIMENSIONS (HxWxD): 13" x 7.1" x 9.5"	6.8" x 19.7" x 9.5"	40" x 6.8" x 10.25"	26.8" x 7.7" x 11.5"	44.25" x 7.7" x 14"	18.1" x 12.6" x 16.54"
> WEIGHT: 13 lbs.	22 lbs.	42 lbs.	40 lbs	70 lbs	56 lbs.
> WARRANTY: Lifetime (limited)	Lifetime (limited)	Lifetime (limited)	Lifetime (limited)	Lifetime (limited)	Five-year (limited)

* at -6 dB from average level

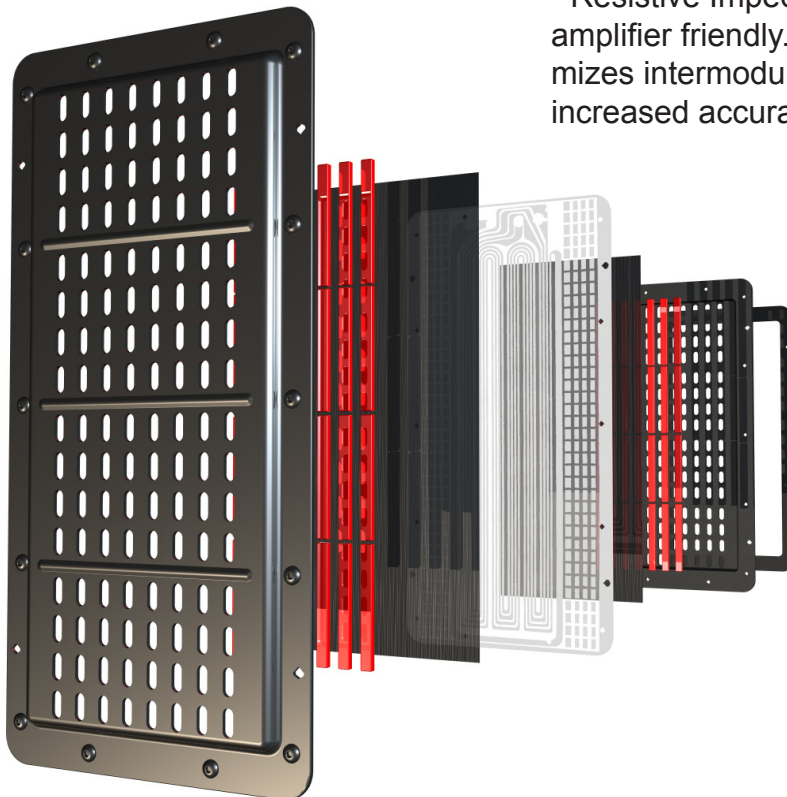
BG Planar Ribbon Technology

Concept

BG's Radia Planar Ribbon technology consists of an extremely thin, low mass, high-temperature polymer diaphragm as a carrier for flat aluminum conductors made via a special etching process. This is suspended within a symmetrical magnetic field created by a double sided (push-pull) Neodymium magnet structure. As the alternating electrical current of the musical signal flows through the conductors, the diaphragm moves in and out producing sound.

Key Benefits

- Low Mass, High Temp Diaphragm - for high power handling. outstanding transient response and damping,
- Push-Pull Symmetrical Magnet Structure – produces symmetric magnetic field for high sensitivity and extremely low distortion.
- High strength Neodymium Magnets – are 20 times stronger than ceramic magnets resulting in higher sensitivity, higher output and reduced size and weight.
- Patented PDR technology and patent pending NEO10 technology allow wider high frequency dispersion while maintaining extended bandwidth and new levels of output without audible distortion.
- Resistive Impedance - non-reactive load is amplifier friendly. Very low self inductance minimizes intermodulation and phase distortion for increased accuracy and coherency.



Warranty

WARRANTY: All BG loudspeaker systems are warranted to the original purchaser for life against defects in materials and manufacture when used in properly designed systems. The warranty is five years for the Z-Sub.

Please record your loudspeaker'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!

BG Corp
3535 Arrowhead Drive
Carson City, NV 89706

775-884-1900 ph
775-884-1276 fax

www.bgcorp.com
sales@bgcorp.com





The Power of Clarity