

# GoldenEar Technology®

A Passion for Sonic Perfection®



## ***ForceField***

Powered Subwoofers

## OWNER'S MANUAL



## FORCEFIELD OWNER'S MANUAL

### CONGRATULATIONS!





*Congratulations and thank you for purchasing GoldenEar Technology's® ForceField Subwoofer! You are about to hear the spectacular difference these technically advanced low frequency reproducers will make in your music and/or home theater system!*

*Our engineering team's years of audio products design experience in developing leading-edge speaker systems has led to these extraordinary products. In order to ensure that you experience maximum performance, please take a moment to fully read this owner's manual and familiarize yourself with the unique installation and set-up procedures for your new ForceField Subwoofer.*

*Please visit our website at [www.GoldenEar.com](http://www.GoldenEar.com) for more information on the technology behind your new speaker system. If you have additional questions, contact your Authorized GoldenEar Technology® Dealer or visit the Q&A page in the Tech Support section of our website.*

### SAFETY PRECAUTIONS

#### READ THIS SECTION CAREFULLY BEFORE PROCEEDING!

 <b>WARNING</b> RISK OF ELECTRIC SHOCK DO NOT OPEN 	 The lightning flash with arrowpoint within an equilateral triangle warns of the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.	 The exclamation point within an equilateral triangle warns users of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING:** TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE, AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THIS APPARATUS.

**CAUTION:** TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

**CAUTION:** FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE THE FUSE ONLY WITH THE SAME AMPERAGE AND VOLTAGE TYPE. REFER REPLACEMENT TO QUALIFIED SERVICE PERSONNEL

**WARNING:** UNIT MAY BECOME HOT. ALWAYS PROVIDE ADEQUATE VENTILATION TO ALLOW FOR COOLING. DO NOT PLACE NEAR A HEAT SOURCE, OR IN SPACES THAT CAN RESTRICT VENTILATION.

#### RECYCLING AND REUSE GUIDELINES FOR EUROPE



In accordance with the European Union WEEE (Waste Electrical and Electronic Equipment) directive effective August 13, 2005, we would like to notify you that this product may contain regulated materials which, upon disposal, according to the WEEE directive, require special reuse and recycling processing. For this reason GoldenEar Technology (manufacturers of GoldenEar Technology speakers) has arranged with our distributors in European Union member nations to collect and recycle this product at no cost to you. To find your local distributor please contact the dealer from whom you purchased this product or go to our website at [www.goldenear.com](http://www.goldenear.com).

Please note that the product only falls under the WEEE directive. When disposing of packaging and other shipping material we encourage you to recycle through the normal channels.

## IMPORTANT SAFETY INSTRUCTIONS

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1. **Read Instructions** – All the safety and operating instructions should be read before the product is operated.
2. **Retain Instructions** – The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** – All warnings on the product and in the operating instructions should be adhered to.
4. **Follow Instructions** – All operating and use instructions should be followed.
5. **Cleaning** – Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp, soft cloth for cleaning base.
6. **Water and Moisture** – Do not use this product near water—for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
7. **Accessories** – Do not place this product on an unstable cart, stand, tripod, bracket or table. The product may fall, causing serious injury to a child or adult and serious damage to the product. Use only with a cart, stand, tripod, bracket or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.
8. **Ventilation** – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
9. **Power Sources** – This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
10. **Grounding and Polarization** – This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
11. **Power-Cord Protection** – Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
12. **Lightning** – For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and powerline surges.
13. **Overloading** – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
14. **Object and Liquid Entry** – Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.  
Do not expose this apparatus to dripping or splashing, and ensure that no objects filled with water, such as vases, are placed on the apparatus.
15. **Servicing** – Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
16. **Damage Requiring Service** – Unplug this product from wall outlet and refer servicing to qualified personnel under the following conditions:
  - a. When power supply cord or plug is damaged;
  - b. If liquid has been spilled, or objects have fallen into product;
  - c. If the product has been exposed to rain or water;
  - d. If the product does not operate normally by following the operating instructions.  
Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will require extensive work by a qualified technician to restore the product to its normal operation;
  - e. If the product has been dropped or damaged in any way;
  - f. If the product exhibits a distinct change in performance.
17. **Replacement Parts** – When replacement parts are required, be sure the technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
18. **Safety Check** – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
19. **Wall or Ceiling Mounting** – The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
20. **Heat** – The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.



## FORCEFIELD OWNER'S MANUAL

### SAFETY PRECAUTIONS SPECIFIC TO FORCEFIELD SUBWOOFER

The cautionary marking label is **located on back of subwoofer**.

### POWER SUPPLY

1. The fuse and power disconnect device are located on the back of the speaker.
2. The disconnect device is the power cord, detachable at either the speaker or the wall.
3. The power cord must be disconnected from the speaker before servicing.

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## UNPACKING YOUR FORCEFIELD SUBWOOFER

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### Please Inspect for Shipping Damage

Each Subwoofer leaves our plant in perfect condition. Any visible or concealed damage most likely occurred in handling after it left our plant and should be reported at once to your GoldenEar Technology Dealer and/or the delivery company that delivered your Subwoofer. Please unpack your system carefully.

Save all cartons and packing materials in case you move or need to ship your system. Record the serial number found on the back of the ForceField Subwoofer here:

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(Serial Number)

Please go to <http://www.goldenear.com/support/registrationandwarranty> and use the serial number(s) above to complete your warranty registration.

## SUBWOOFER INSTALLATION

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Your new ForceField subwoofer contains a built-in amplifier and electronic crossover. Of the several ways to install your subwoofer, none is considered "better" than another; rather, each is best depending on what type of entertainment system you own and how you plan to integrate your subwoofer. Read these installation suggestions below to determine which options best suit your needs. *Please take care to perform all wiring procedures with your system completely off.*

### Power Requirements

The 'Watts' (W) rating indicated on the rear panel of your GoldenEar Technology ForceField subwoofer is the maximum a/c power the subwoofer will draw when producing its maximum power output. However, the actual wattage draw will vary with the bass content of the program material and is typically MUCH less (below 100 watts in normal audio playback use).

### Subwoofer Placement

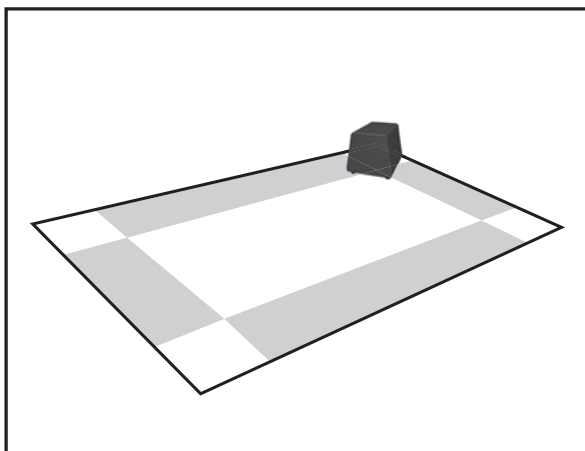
Bass is less and less directional as it goes down in frequency, so your subwoofer can be located almost anywhere in your listening room. (Your GoldenEar Technology subwoofer has been designed to operate at frequencies generally below 150 Hz.) For best sonic integration, locating your subwoofer between your front speakers or beside one of them and close to the front wall will usually provide the best bass performance. If this location is not possible your subwoofer may be placed anywhere in the room without affecting the image and soundstage of your stereo or multichannel speaker system. (See additional notes below about installing your subwoofer in a cabinet.)

Here are some principles to keep in mind when deciding on your subwoofer's placement:

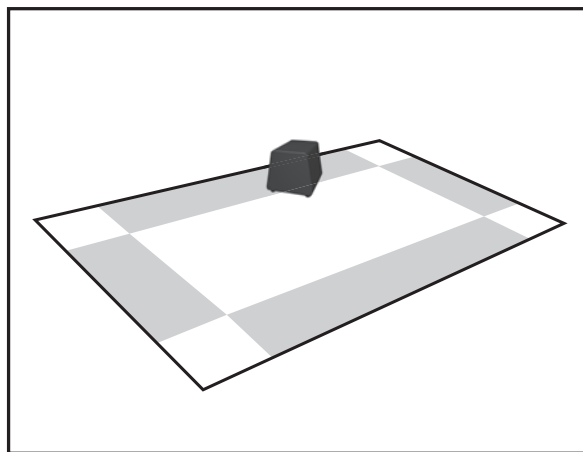
1. For maximum output, the subwoofer should be placed close to a wall. Corner placement will increase the subwoofer's output, but may exaggerate room nodes (peaks in frequency) causing muddy, ill-defined bass performance in the room.
2. While one GoldenEar Technology subwoofer will always sound great, the use of two subwoofers will definitely enhance your system's performance by providing a smoother and more consistent room response. With two subs, it is recommended that you locate the subwoofers out of the corners on the same side of the room as the main speaker of the same channel -or- one in the front of the room and one in the rear of the listening room.
3. Always remember that frequency response and output level are greatly influenced by the subwoofer's placement. A movement of even a foot or two can dramatically change your room's bass response characteristics. We recommend you experiment with placement in your particular listening room in order to achieve the highest performance from your ForceField subwoofer.



4. This figure highlights how bass output is generally affected by room placement. When seated in a typical listening area of your room, placing the subwoofer inside the "shaded" areas will typically result in best bass performance. Corner placement provides the most bass, but at the expense of accuracy. A subwoofer placed near a wall usually provides a good balance of quantity and accuracy. Controls on the back panel of your subwoofer are provided to align your subwoofer's output to the other speakers in your system, see section below on "Fine Tuning."



*Corner Placement Should Be Avoided*



*Place in Shaded Areas for Best Performance*

### Placement Inside a Cabinet Or Cavity

The ForceField subs, because of their unique low-frequency radiation properties, can be placed inside a cabinet or cavity and still provide excellent in-room performance. Just be sure to leave at least 2 inches of clearance on the front of the subwoofer.

### The Advantage of Using Two Subwoofers

Although a single GoldenEar Technology ForceField subwoofer provides exceptional performance and substantial output, the quality and quantity of bass can be further improved with the use of two (or even four) subwoofers. This allows you to randomize the standing waves within your listening room so that bass will be distributed in a more uniform manner. Two (or more) subwoofers also provide even lower distortion, especially at high output levels.

The extra care you take in correctly positioning the subwoofer will result in greater listening enjoyment. So, keep the following guidelines in mind when deciding on the best subwoofer placement:

## Placing Two Subwoofers in Your Listening Room

GoldenEar's ForceField subwoofers are engineered to be used singly or in stereo pairs. With a single subwoofer, both left and right signals are combined (either at the subwoofer or at the receiver/processor). With stereo subwoofers, the left and right low frequency signals can be reproduced by their own individual subwoofers. The use of one subwoofer achieves outstanding performance; however, the addition of a second subwoofer (one for the left and one for the right channel) clearly offers the highest level of performance achievable for both movies and music. Two subwoofers also couple much better to the air in your room (four times better) and of course offer double the power.

In addition to the above mentioned setup for stereo subwoofers, some state-of-the-art home theater installations have begun to use a separate subwoofer placed in the rear of the room and we recommend this for the absolute ultimate in movie bass performance. When using two subwoofers, placing one in the front of the room and the other in the rear of the room usually provides the best bass performance and sonic integration. If those locations are not possible or if you want to experiment with placement options using two subwoofers, the following procedure will be a helpful guide to achieving better bass performance. Refer to "Subwoofer Connection" then proceed as follows:

1. Temporarily turn all speakers off (either by turning your amplifier off or disconnecting them);
2. Connect and place one subwoofer in the central area of your listening room (follow directions for connection, as outlined in the following section);
3. At a moderately loud level, play music or a video soundtrack with extended bass that is repetitive or continuous;
4. Walk around your room and note where the bass sounds louder and where it sounds quieter;
5. Place the first subwoofer within a louder bass area of your room; then place the second subwoofer within a quieter bass area of your room;
6. Connect both subwoofers and switch all speakers back on; and switch the amplifier on, or reconnect it;
7. Now follow "Fine Tuning" instructions after the Subwoofer Connection section to optimize your system's overall bass performance.

**NOTE:** The preceding is only a guideline. You may want to use a bass test disc and SPL meter to more accurately determine the bass characteristics of your listening room (see dealer for more information). Remember that room acoustics vary, so it may take some experimenting with placement to achieve best performance.



## Subwoofer Connection



**SAFETY PRECAUTION:** Before proceeding with this section be sure to read and follow all safety precaution and instruction notices at the beginning of this manual.



Turn all components OFF before connecting the subwoofer.

**IMPORTANT:** To achieve all the superb bass performance that your ForceField subwoofer is equipped to offer, it is important that you become familiar with its comprehensive Input/Output and Control Facilities. Before connecting your subwoofer, read the following sections carefully.

We recommend the use of high-quality cables and connectors when hooking up your subwoofer (see your dealer).

## INPUT/OUTPUT FACILITIES

**Line-Level (RCA) Input** – Allows connection from the Sub/LFE Output of an A/V receiver, processor or other suitable low-passed, low-level source. PLEASE NOTE: The low pass crossover control does not function when using this direct-coupled input.

**High-Level Input/Output** – Allows connection from the Left/Right Main Speaker Terminals of your receiver or amplifier. Speaker-Level Output sends a high-passed signal to the Left/Right Main speakers.

## CONTROL FACILITIES

Your GoldenEar Technology ForceField subwoofer is equipped with operating controls on the back panel to ensure excellent flexibility and maximum performance in any installation. Most of them are the "set and forget" type, although you may occasionally find certain controls require minor adjustments.

**Subwoofer Level** – This is a volume control, use it to balance the subwoofer output level to best blend with your other speakers. For suggestions on setting the Subwoofer Controls once your subwoofer has been connected refer to the section on "Fine Tuning" below.

**Crossover Control** – Controls the subwoofer's upper-frequency cut-off. This control (low-pass filter) is continuously variable between 40 and 150 Hz. This low pass filter control is used to obtain the optimum transition between the subwoofer and your main speakers **when the subwoofer is connected using the Speaker-Level Inputs**. We receive many questions from subwoofer owners asking us where to set the filter controls in a variety of different setups. Although many people think that there is a specific frequency at which to set the controls in their system, this can only be determined by you. Experimentation is recommended (due to system placement and subjective variables) to obtain the best sound for you. See the "Fine Tuning" section below for some suggestions.



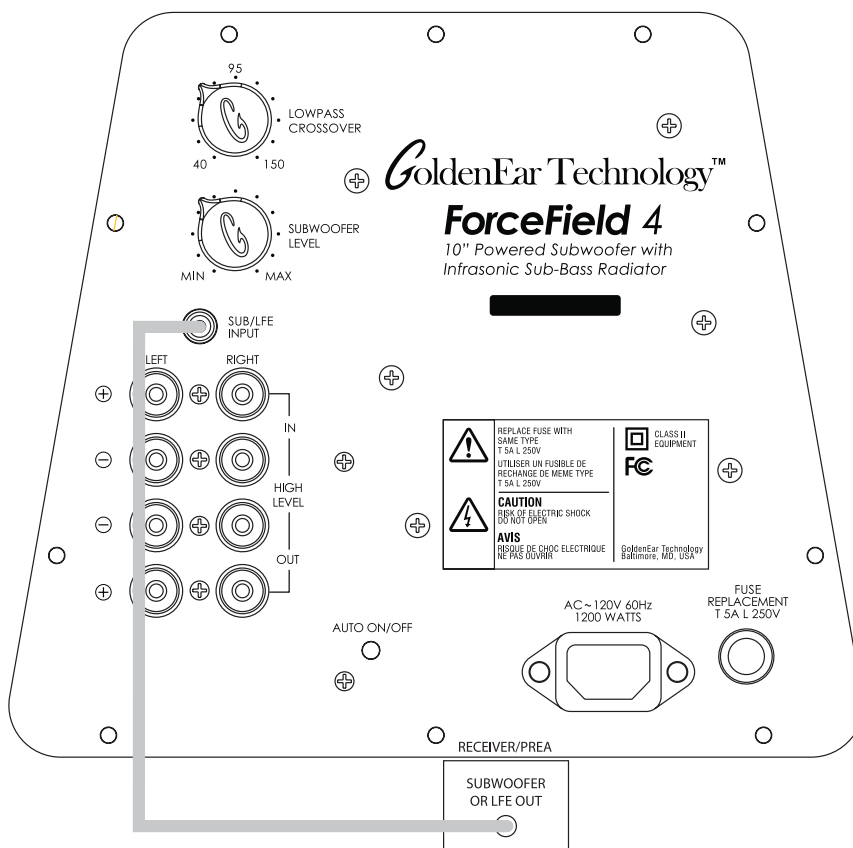
**Auto-On/Standby or Always-On** – Your subwoofer will turn on when it receives an input signal — eliminating the need for a power switch. If no signal is sensed for a period of time, the subwoofer will automatically switch off. See “Powering Up the Subwoofer” section below for more details.

**High Pass Filter** – Your subwoofer is equipped with a Speaker-Level high pass filter set at approximately 150 Hz (depends on the impedance of the connected speaker) which is used when you wire the Speaker-level inputs of your subwoofer and the Speaker-Level Outputs to your main Left and Right speakers.

## CONNECTION OPTIONS

Before connecting your subwoofer, please read this section to determine which setup option best suits your needs. (See your dealer if you require additional information or assistance.)

**Line-Level Input From Sub/LFE Output** – For use with a receiver, processor or subwoofer control unit that has a Sub-Out/LFE-Out jack - Using an RCA-to-RCA interconnect cable connect the subwoofer as shown. Most a/v receivers, preamps and processors feature a mono (line level) Sub/LFE output intended to be used with subwoofers. You can feed this Sub/LFE output of you're a/v receiver or processor to the Sub/LFE input on the subwoofer and achieve full performance. These outputs have their own low-pass filter built into the circuit as part of their bass management setup. The Sub/LFE inputs on your ForceField subwoofer are *direct coupled inputs which are not affected by the subwoofer's crossover control (low-pass filter)*. If the sub output on your receiver is full range (does not have a low-pass crossover - or you wish to use the ForceField subwoofer's low-pass crossover), then you must hook up using the Speaker-Level Inputs and Outputs.

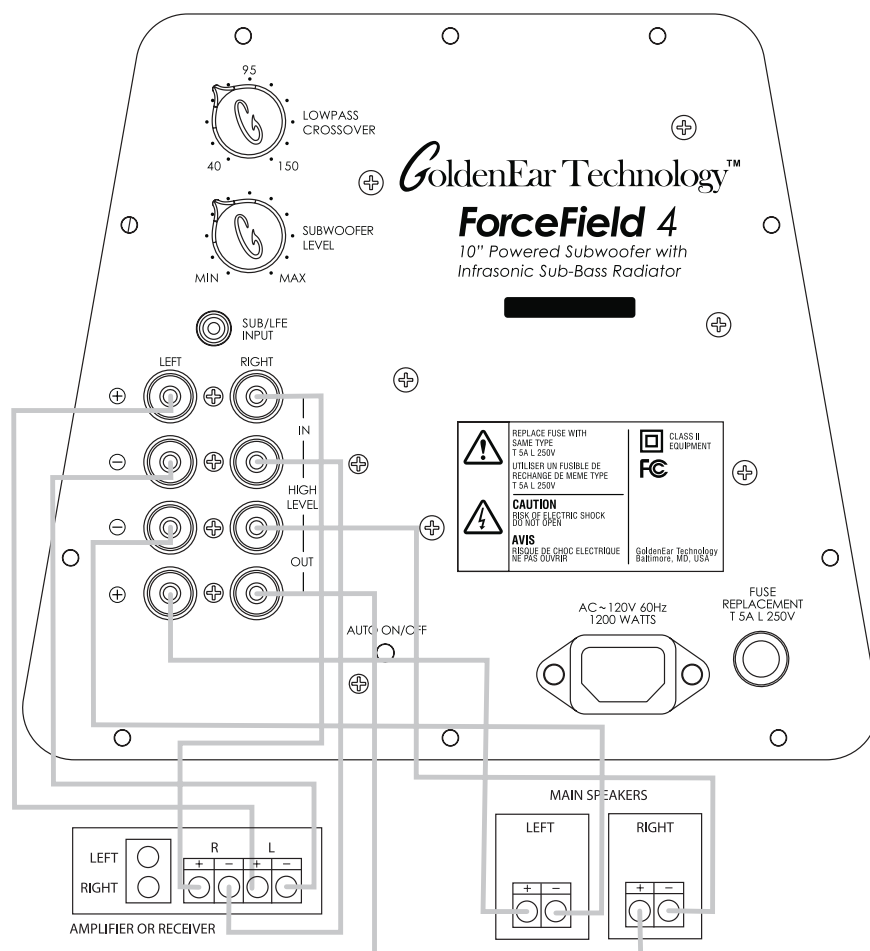


**High-Level (Speaker Wire) Input From L/R Main Speaker terminals of Receiver or Amplifier** – When your GoldenEar Technology ForceField subwoofer is hooked up via high level connections, you have the option of running your main speakers “full range” or rolling off the low end by using the high-pass filter built into the subwoofer. To hook up your ForceField subwoofer via the high-level connections simply run speaker cable from the right channel high-level input connector on the subwoofer to the right channel speaker connector of your receiver or amplifier, repeating this process for the left channel. (See figure below). Using appropriate quality speaker wire, hook up the left main/front channel red(+) terminal of your receiver or amplifier to the Left High-Level Input red(+) terminal of your Subwoofer and the left main/front channel black(-) terminal of your receiver or amplifier to the Left High-Level Input black(-) terminal of your Subwoofer. Connect the right channel main/front channel red(+) terminal of your amplifier or receiver to the right High-Level Input red(+) terminal of your Subwoofer and the black(-) terminal of the right main/front channel of your receiver or amplifier to the right High-Level Input black(-) terminal of your Subwoofer.

Your main speakers can now be connected in one of two ways. If you wish to utilize the high-pass filter built into your subwoofer and roll-off the bass to the main Left/Right speakers, simply connect your main speakers to the high-level out terminals on the subwoofer as shown: Hook up the left main/front speakers by connecting the left High-Level Output red(+) terminal of your subwoofer to the red(+) terminal of your left speaker and the left High-Level Output black(-) terminal of your subwoofer to the left speaker black(-) terminal. Connect the right High-Level Output red(+) terminal of your subwoofer to the right speaker red(+) terminal and the right High-Level Output black(-) terminal of your subwoofer to the right speaker black(-) terminal.

*It is essential that all speaker wire connections speakers be connected in the same way (in phase: “+” to “+” and “-” to “-”) to its own channel of the amplifier. This will ensure absolute phase throughout your system. If you experience a great lack of bass, it is likely that one speaker is out of phase (+ and – reversed) with the other. This connection will provide a smoothly contoured roll-off of the low frequencies going to your main speakers, starting at about 150 Hz.*

If you wish to run your main speakers full range with no low frequency roll-off, hook them directly to the main speaker output terminals or your receiver or amplifier as in any normal hi-fi system. This is recommended **ONLY** if your main Left/Right speakers are true full-range systems. If not, you may find that you are overdriving your main speakers. You will be able to play your system louder without overdriving your main speakers by using the built-in high-level high pass crossover.



## DUAL SUBWOOFER CONNECTIONS

**Connection Using High-Level (Speaker Wire) Inputs:** Instead of running both speaker cables from your receiver or amplifier to the left and right high-level terminals on the subwoofer, you will run the left channel to the left channel subwoofer and the right channel to the right channel subwoofer. Again, take care to make red to red (+) and black to black (-) terminal connections. For further setup instructions, refer to Fine Tuning section further below.

**Connection using low-level Inputs:** From your receiver or preamp, attach a RCA-type "Y" connector to the Sub/LFE out (unless your receiver or processor has two Sub outs) and then run an RCA-type interconnect cable to each subwoofer's low-level input. In this setup, main speaker connections are made between your receiver or amplifier in a traditional manner. For further setup instructions, refer to Bass Management Systems Setup section below.

## BASS MANAGEMENT SYSTEMS SET UP (FOR MULTI-CHANNEL, 5.1, ETC., SYSTEMS)

Multi-channel surround sound systems have a critical speaker setup and channel balancing procedure for setting the level for all speakers and how bass is directed which must be followed if the system is to perform properly. Many problems relating to the overall sound of the system can be clearly traced back to improper system balance. Also note that multi-channel surround sound systems have bass management systems which vary from unit to unit. This bass management system must be properly adjusted. Many problems relating to the overall sound of the system can be traced back to improper bass management settings.

**Bass Management Settings when using High-Level (Speaker-Wire) Input:** On your receiver or A/V processor's Speaker Setup Menu\*, set Left and Right main speakers to "**Large**" and set Subwoofer to "**No**" to direct all bass and LFE information to L/R Main Speakers – and therefore the Sub(s).

**Bass Management Settings when using Low-Level (Sub/LFE) Input:** On your A/V receiver or processor's Speaker Setup Menu, set all speakers to "**Small\***" and set Subwoofer to "**Yes**" to direct all bass and LFE information to the Sub(s).

**Setting Channel Levels:** Using your receiver or A/V processor's Speaker Level Calibration Menu, set each speaker (channel) in the system to the same volume level. While you can get reasonable results doing this by ear, it is best to use an inexpensive Sound Pressure (SPL) meter to get better channel to channel balance. Some new receivers and processors have Auto Set Up functions that use a supplied microphone to set levels automatically. Also note that bass level should be set to individual taste, not just to a given reading on the SPL meter. Also note that most inexpensive SPL meters suffer significant roll-off when measuring bass frequencies, making it even more important to "adjust bass to taste."

**NOTE:** When using High-Level (speaker wire) connection, the subwoofer level will be set by the subwoofer's level control, not the bass management system of you're a/v receiver or processor.

(\*Small and Large settings on speaker setup menus determine the routing of bass information, see your dealer for more assistance on the correct settings for your specific speaker system and environment.)



### FINE TUNING

Once you have the rest of your speakers positioned in the room (and have set speaker distances and calibrated speaker levels with your Processor or A/V Receiver, if applicable) it's time for a little fine tuning.

(**NOTE:** Set tone or equalizer controls on your receiver or preamplifier to flat (or 0°) and switch any loudness controls off.) When setting up your subwoofer use music and video soundtracks that you know well. They should contain selections with extended bass that is continuous and repetitive. When you are adjusting your subwoofer, remember: Bass should not be overbearing — the subwoofer should not draw attention to itself — but the overall system sound shouldn't be "thin" or difficult to hear.

The following procedure is **only for set ups utilizing the High-Level (Speaker wire) connections** on the subwoofer, and are simply a suggested method to achieve the best results. (If using the low level Sub/LFE input with an A/V receiver or processor to control crossover setting and levels, skip this section):

1. Turn the **Subwoofer Level** control completely counter-clockwise to its minimum;
2. Turn the **Subwoofer Cut-Off Frequency** control to its highest frequency (i.e. 150 Hz);
3. While you listen to a music or movie selection in your primary listening area, have an assistant turn up the Subwoofer Level control until the subwoofer can be clearly heard;
4. Turn the **Subwoofer Level** control completely counter-clockwise to its minimum;
5. Turn the **Subwoofer Cut-Off Frequency** control completely counterclockwise (i.e. 40 Hz);
6. Slowly rotate the **Subwoofer Level** control until you match the subwoofer output level with the level of your front speakers. Bass should be clearly audible, but not intrusive;
7. Slowly rotate the **Subwoofer Cut-Off Frequency** control until you hear the best subwoofer/main speaker blend. If the sound is too "thin," you have not set the frequency high enough; if the sound becomes "boomy" you have set the frequency too high. Adjust until you find the most natural balance.

## COMPLETE HOME THEATER SYSTEMS

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We strongly suggest that you use a matching GoldenEar Technology Left, Right, Center channel and Rear/Surround speakers to complete your GoldenEar home theater system.

### Powering Up the Subwoofer

Your ForceField subwoofer contains a built-in, active powered subwoofer section as well as an electronic crossover. Each ForceField subwoofer must be plugged into an electrical socket (use an unswitched outlet if possible) of the appropriate voltage (as indicated on the back of your unit) using the plug on the end of the black cord attached to the electronics module on the back of the subwoofer. The ForceField subwoofer has a special circuit which automatically turns the powered subwoofer section on when a signal is fed to the loud-speaker and does not require an on/off switch. (When the Subwoofer is first plugged in, the LED will flash for 30 seconds while the sub conducts a self-test, initializing the software and hardware. After 30 sec, if there is no audio signal, the LED will turn off and the subwoofer will go into standby mode drawing a low amount of power while waiting for an audio signal.)

The LED on the back panel will light up when a signal is sensed and the amplifier will turn on. After you stop listening, it may take up to an hour for the amplifier to actually turn off. *(Please note: In some instances, because of RF presence in your area, the LEDs may not turn off. However, this is nothing to be concerned about as the amplifiers draw almost no power when they are idling.)* **Please note: It is normal to hear a slight pop from the subwoofer when the amp powers up.**

**NOTE: To prevent accidental damage to your subwoofer from overdriving the system, the subwoofer features an internal overload protection circuit, which will turn the subwoofer off or down when overdriven or overheated and will then resume normal operation after a few minutes.**



### TROUBLESHOOTING

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If you experience any difficulties with your ForceField speakers, try the suggestions described below. If you are still having problems, please consult your GoldenEar Technology Authorized Dealer for assistance.

1. Make sure all your system interconnects and power cords are solidly in place.
2. Should you experience any level of ground hum or noise, try plugging the power cord into the same circuit as your amplifier.
3. The system is provided with sophisticated internal protection circuitry. If for some reason the protection circuitry is tripped, please turn down your system's volume and wait five minutes before trying the system again. If the amplifier should overheat, the system will turn off until the amplifier cools down and resets.
4. Check to be sure that your power cord has not been damaged.
5. Check that no foreign objects or liquid has entered the subwoofer.
6. Check the fuse on the back panel (replace only with the exact matching value fuse)
7. If you cannot get the subwoofer to turn on or if no sound comes out and you are sure the system is set up properly, please bring the Subwoofer to your GoldenEar Technology Authorized Dealer for assistance. But make sure you **Call First**.

### SERVICE

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Service and warranty work on your GoldenEar Subwoofers will normally be performed by your local GoldenEar Technology dealer. If, however, you wish to return the speaker to us, please contact us first, describing the problem and requesting authorization as well as the location of the nearest factory service center.

**Please note that the address given in this booklet is the address of our office P.O. Box only. Under no circumstances should Subwoofers be shipped to our offices or returned without contacting us first and obtaining return authorization.**

GoldenEar Technology Offices  
P.O. Box 141  
Stevenson, Maryland 21153  
Phone: 410-998-9134

### TECHNICAL ASSISTANCE

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It is our pleasure to offer assistance if you have any questions regarding your ForceField subwoofer or its set-up. Please contact your nearest GoldenEar Technology dealer or contact us directly at 410-998-9134.

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## SPECIFICATIONS

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### ForceField 3

<b>Dimensions:</b>	11½" (29.2 cm) W x 15¾" (40 cm) D x 11" (27.9 cm) H* *(height is with feet installed)
<b>Weight:</b>	26 lbs. (11.8 kg)
<b>Frequency Response:</b>	18 Hz – 250 Hz
<b>Driver Complement:</b>	One 8" long-throw high-output bass driver One 9" x 11" quadratic planar infrasonic radiator
<b>Amplifier:</b>	1000 Watt ForceField digital amplifier
<b>Speaker Level High-Pass Filter:</b>	6 dB per octave at 150 Hz (approx.)
<b>Speaker Level Low-Pass Filter:</b>	12 dB per octave continuously variable (40-150 Hz)
<b>Low-Level Input:</b>	Unfiltered (no low pass), direct-coupled
<b>Fuse Size:</b>	5-amp 250-volt slow blow fuse (110-volt version) 3.15-amp 250-volt slow-blow fuse (240-volt version)
<b>Power Requirements/Consumption:</b>	Low Voltage Version - 120 V at 50 or 60 Hz / 1000 Watts High Voltage Version - 240 V at 50 or 60 Hz / 1000 Watts (Approved for NA (TUV) and the CE market.)

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### ForceField 4

<b>Dimensions:</b>	13⅝" (34 cm) W x 17⅞" (45.4 cm) D x 12¼" (32.4 cm) H* *(height is with feet installed)
<b>Weight:</b>	32 lbs. (14.5 kg)
<b>Frequency Response:</b>	14 Hz – 250 Hz
<b>Driver Complement:</b>	One 10" long-throw high-output bass driver One 11" x 13" quadratic planar infrasonic radiator
<b>Amplifier:</b>	1200 Watt ForceField digital amplifier
<b>Speaker Level High-Pass Filter:</b>	6 dB per octave at 150 Hz (approx.)
<b>Speaker Level Low Pass Filter:</b>	12 dB per octave continuously variable (40-150 Hz)
<b>Low-Level Input:</b>	Unfiltered (no low pass), direct-coupled
<b>Fuse Size:</b>	5-amp 250-volt slow blow fuse (110-volt version) 3.15-amp 250-volt slow-blow fuse (240-volt version)
<b>Power Requirements/Consumption:</b>	Low Voltage Version - 120 V at 50 or 60 Hz / 1200 Watts High Voltage Version - 240 V at 50 or 60 Hz / 1200 Watts (Approved for NA (TUV) and the CE market.)

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### ForceField 5

<b>Dimensions:</b>	15" (38.1 cm) W x 18" (45.5 cm) D x 14⅞" (37.0 cm) H* *(height is with feet installed)
<b>Weight:</b>	42 lbs. (19.1 kg)
<b>Frequency Response:</b>	12 Hz – 250 Hz
<b>Driver Complement:</b>	One 12" long-throw high-output bass driver One 13" x 15" quadratic planar infrasonic radiator
<b>Amplifier:</b>	1500 Watt ForceField digital amplifier
<b>Speaker Level High-Pass Filter:</b>	6 dB per octave at 150 Hz (approx.)
<b>Speaker Level Low Pass Filter:</b>	12 dB per octave continuously variable (40-150 Hz)
<b>Low-Level Input:</b>	Unfiltered (no low pass), direct-coupled
<b>Fuse Size:</b>	5-amp 250-volt slow blow fuse (110-volt version) 3.15-amp 250-volt slow-blow fuse (240-volt version)
<b>Power Requirements/Consumption:</b>	Low Voltage Version - 120 V at 50 or 60 Hz / 1500 Watts High Voltage Version - 240 V at 50 or 60 Hz / 1500 Watts (Approved for NA (TUV) and the CE market.)

Specifications are subject to change without notice.



## LIMITED WARRANTY

### **5-YEARS FOR DRIVERS AND CABINETS, 3-YEARS FOR ELECTRONIC COMPONENTS**

GoldenEar Technology warrants to the original retail purchaser only that this GoldenEar Technology Loudspeaker Product (the "Product") will be free from defects in materials and workmanship for a period of five (5) years covering the drivers and cabinets, and three (3) years for the electronic components from the date of the original purchase from a GoldenEar Technology Authorized Dealer. However, this warranty will automatically terminate prior to the expiration of five (5) years for the drivers and cabinets and three (3) years for the electronic components if the original retail purchaser sells or otherwise transfers the Product to any other party. The original retail purchaser shall hereinafter be referred to as "you." Defective Products must be shipped, together with proof of date of purchase, prepaid insured to the Authorized Dealer from whom you purchased the Product, or to the nearest factory service center. Product(s) must be shipped in the original shipping container or its equivalent; in any case the risk of loss or damage in transit is to be borne by you. If, upon examination at the Factory or a GoldenEar Technology Authorized Dealer, it is determined that the unit was defective in materials or workmanship at any time during this Warranty period, GoldenEar Technology or the GoldenEar Technology Authorized Dealer will, at its option, repair or replace this Product at no additional charge, except as set forth below. All replaced parts and Product(s) become the property of GoldenEar Technology. Product(s) replaced or repaired under this Warranty will be returned to you, within a reasonable time, freight collect.

This Warranty does not include service or parts to repair damage caused by accident, misuse, abuse, negligence, inadequate packing or shipping procedures, commercial use, voltage in excess of the rated maximum of the unit, cosmetic appearance of cabinetry not directly attributable to defects in materials or workmanship, or service, or repair or modification of the Product which has not been authorized by GoldenEar Technology. GoldenEar Technology makes no Warranty with respect to its Products purchased from dealers or outlets other than GoldenEar Technology Authorized Dealers. This Warranty is in lieu of all other expressed Warranties. If this Product is defective in material or workmanship as warranted above, your sole remedy shall be repair or replacement as provided above. In no event will GoldenEar Technology be liable to you for any incidental or consequential damages arising out of the use or inability to use the Product, even if GoldenEar Technology or a GoldenEar Technology Authorized Dealer has been advised of the possibility of such damages, or for any claim by any other party. Some states do not allow the exclusion or limitation of consequential damages, so the above limitation may not apply to you.

All implied warranties on the Product are limited to the duration of this expressed Warranty. Some states do not allow limitation on how long an implied Warranty lasts, so the above limitations may not apply to you. This Warranty gives you specific legal rights, and you also may have other rights which vary from state to state.



This product complies with the essential requirements of the EMC directive 89/336/EEC

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