

Nucleus Reference 3.5



Owner's Manual



www.roundsound.com

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Name:	Nucleus Reference 3.5 Serial #		
Address:			
City:	State:	Zip:	
Telephone:	Email:		

Where did you first hear about the Reference 3.5?

- Magazine
 Web
 Dealer
 Other

How influential was your dealer in your decision the Reference 3.5?

- Very
 Somewhat
 Not At All

What type of system did you purchase?

- Stereo
 Home Theatre

What other speakers did you listen to before choosing Reference 3.5s? _____

What is the name and address of your Gallo Acoustics dealer? _____

Please rate the following as:

	Excellent	Very Good	Good	Fair	Poor
Appearance					
Build Quality					
Size					
Sound Quality					
Ease of Set Up					
Mounting Options					
Esthetic Design					
Owners Manual					

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Introduction

IMPORTANT MANUAL NOTE:

If you take a few minutes to read through the manual, the result will be easier system set up and better in-room sonic performance. It will also acquaint you with several features that are unique to Anthony Gallo Acoustics (AGA) loudspeakers. At any point if you have questions, don't hesitate to contact your AGA dealer or you can call us directly from the US at 1-800-459-4183, ext.102. Outside the US call 01-818-341-4488, extension 102, or if you'd rather e-mail us, send it to techsupport@roundsound.com.

Welcome to the Anthony Gallo Acoustics family!

This elegant loudspeaker builds on the success of our original floor standing Reference 3.0 and 3.1 models, but utilizes all-new proprietary AGA technologies to connect the listener with their entertainment on a uniquely emotional and visceral level. Although the Reference 3.5 may resemble previous Reference models, it is the result of more than six years of psychoacoustic research and development culminating in one of AGA's finest loudspeakers since the company's inception in 1994.

Reference 3.5 Technology and More

The Reference 3.5 loudspeaker features the latest technology from Anthony Gallo Acoustics, including:

- Optimized Pulse Technology (OPT® Level 1): Ensures strict timing relationships between all system transducers in the mechanical domain.
- OPT Level 2: Similar to Level 1, but corresponding to the electrical domain.
- Upgraded 10-inch ceramic-coated aluminum cone woofer: Much quicker rise time than the original paper cone woofer. Without this augmentation, OPT Level 1 would not be a reality.
- CDT™ 3 tweeter: This upgrade to the tweeter is necessary for the OPT Level 1 enhancements.
- S2™ Technology is our internal dampening material that improves low frequencies and makes OPT possible.

For more information on these cutting-edge developments in design, please visit www.roundsound.com.

System Set-Up and Operation

Unpacking

The easiest and safest way to get the speakers out of the packing materials is to first carefully turn the box over onto its top. Cut the bottom tape and open the flaps. Then carefully turn the box right side up, making sure to keep all the bottom flaps turned out, not under the box. Then you can simply lift the box off the Reference 3.5s and place it off to the side. *When lifting and moving the Reference 3.5, grasp it only by the aluminum backbone and bottom plate.*

We recommend saving the boxes and packing materials so you can easily ship or transport your Reference 3.5's should you need to in the future. It may be easier to store the boxes if you flatten them first.

Grilles

If you purchased the optional Reference 3.5 grilles, carefully unpack them, slip them over the top of the speakers, and attach them to the backbone of the Reference 3.5 with the supplied bolts. These are designed so that they can be adequately tightened with your fingers. If you use a tool, you might over-tighten and strip them.

Bases

The Reference 3.5 base is made of Garolite, a resin laminate that is dense and inert. Using Garolite helps damp resonances that might otherwise adversely impact the sound of the speaker. The somewhat mottled appearance of the material is normal and should not be considered a cosmetic defect.

You will note that underneath the bases there is an area that contains a viscoelastic substance. This gel material helps to decouple the Reference 3.5 from the floor. We have found that using the gel is superior to typical spike systems, hence its presence here.

Note: Be careful to lift the speakers when moving them, as you can pull the gel away from the base if you don't. If you are concerned about the gel material leaving residue on your flooring, do not remove the protective plastic covering the gel on the bottom of the base.

Getting Connected -- Hooking Up your Nucleus Reference 3.5 Speakers

Caution: Failure to turn off the receiver or amplifier before connecting your speakers may result in damage to your system. You should always turn the receiver or amplifier off before making or changing any connections.

Connection and Set-Up

The Reference 3.5's speaker binding posts accept bare wire ends, connecting pins, "banana plugs" or "U"-shaped spade connectors.

Note: The dual sets of speaker connectors on the rear panel can easily be mistaken for "bi-wire" binding posts, but they are not. Please read below for further explanation.

The top two connectors are labeled "Speaker In" and provide a full-range connection to the Reference 3.5. These are the terminals you will use to connect the output of your full-range amplifier to the 3.5's.

The lower set of binding posts are labeled "Sub In" and are connected directly to the Reference 3.5 woofer's secondary "auxiliary" voice coil. They are intended to work with the optional Reference SA power amplifier to generate enhanced bass performance. The SA amp operates independently from your main amplifier, extending the Reference 3.5's deep bass performance down to the range typically associated with full-size subwoofers. For more information about the remarkable Reference SA amplifier, please contact your Anthony Gallo Acoustics dealer or us directly.

Note: Although it's possible to use another power amplifier with the "Sub In" connection it's very important that you contact us for further information regarding crossover settings, etc. There is the possibility of speaker damage if the proper conditions and steps are not followed, and should such damage occur it will not be covered under warranty.

Important Phasing Note: Start by connecting the positive and negative terminals from your amplifier/receiver to the corresponding positive and negative terminals on each speaker. However, once the system is fully broken in, we encourage you to reverse the polarity by switching the red and black inputs on each speaker (note: this must be done for every single speaker and your subwoofer will need to have its phase reversed, or the entire system will not sound right). You may find that this "absolute phase reversal" sounds better in your room, as we have found in many cases it does.

OPT Connection

The OPT Level 2 input (dielectric countermeasure technology) is located above the binding posts for mating with our optional Reference 3.5 loudspeaker wire. Inserting the banana plug attached to the end of this speaker cable into the OPT jack on the speaker effectively makes the connection much closer to the drive source, as it is shielding the speaker wire to maximize the benefit of this wiring scheme. This allows the end user to place the speaker wires directly on any type of flooring material - including carpet - without concern for dielectric interactions that can reduce definition in the sound.

Should you choose not to use AGA speaker wire, a slightly less effective OPT variation can be engaged by using the supplied jumper. Insert one end into the positive speaker input terminal on the 3.5 and the other end into the OPT jack above (Figure 1).

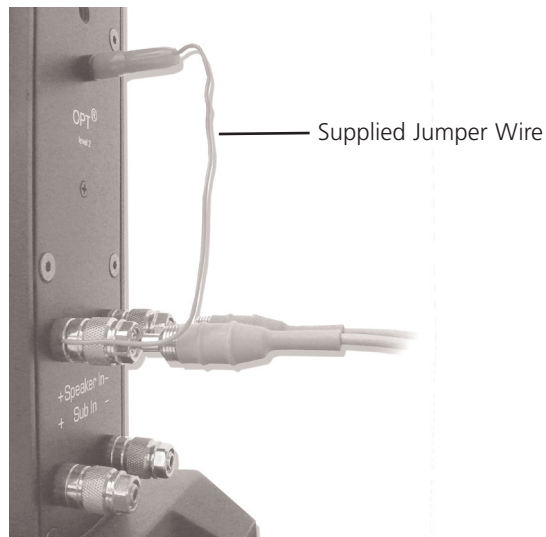


Figure 1. Connecting the Supplied Jumper Wire

Speaker Settings in a Surround Sound Receiver or Processor

If you are using a contemporary surround sound receiver or processor you need to set the speaker parameters properly to maximize your system's performance. After your speakers are properly connected, turn on the receiver or processor, enter the setup menu and navigate to the speaker settings menu. Adjust the speaker settings as follows:

Surround Sound Receiver or Processor Speaker Settings

Speaker Size - If you are using a separate subwoofer, we would generally recommend that you set the Reference 3.5's to "Large" initially in the receiver/processor speaker setup menu. This will allow them to run full range in conjunction with your subwoofer. In many cases, having multiple woofers producing high-quality bass in a system can result in smoother bass response throughout the room with more "good seats" for cinema or music reproduction. Our listening has convinced us that the Reference 3.5's deliver their best overall sound when they run full range.

However, if you find the bass seems unacceptable, try setting the Reference 3.5's to "Small" in the receiver's setup menu. If the electronics allow, start with the crossover frequency set to 80Hz. And yes, that means you are bypassing the Reference 3.5's deepest bass capability. However, the best room location for midrange and high-frequency imaging and soundstaging is out, away from the back and sidewalls. And the best location for smooth, deep bass response in multiple locations in most rooms is typically up against the front or sidewalls, halfway or one-quarter way out from a corner (In this location you will get less overall bass impact from the sub(s) than if you place them in a corner. But you will enjoy good bass performance at more places in the room). This will let you optimize your system's imaging and bass performance by placing the subs accordingly, thereby getting the most from the Reference 3.5's by keeping them a reasonable distance from reflective walls.

We recommend that you experiment to determine the best configuration for your system and room. And of course, if you're using the Reference SA amplifier and/or you don't have an external subwoofer, set the Reference 3.5's to "Large" as outlined above.

To evaluate the bass performance, listen to well-recorded information with good bass content and pay particular attention to the deep bass and mid-bass, including the transition between the 3.5's and the subwoofer(s) at different crossover settings. If the sound is bass "bloated" and/or male voices sound thick and heavy, adjust the crossover frequency and/or adjust the subwoofer output level. This may reduce some of the excess bass energy. If you can, use an SPL meter to set the system levels if you are using a surround sound receiver or processor.

In any case, do not set the crossover any higher than 100 Hz. And remember, simply getting more bass or bloated, boomy bass is not the goal. Accurate, realistic, natural sounding bass is what you are after. Therefore, well-recorded music is typically the best source material to evaluate the system.

Note: Always follow the instruction manual for your surround sound receiver or processor when adjusting speaker settings.

Advanced Set-Up Information

Speaker Break In

Your new Nucleus Reference 3.5 loudspeakers will benefit from some operating time to develop their full sound potential. They should sound good right out of the box, but after a few hours of use the sound can become less cohesive, dull and/or lack dynamics. Don't worry, the speakers will gradually regain their extended frequency response. To hasten the break in process, if possible, leave a radio or CD playing overnight and/or when you are not home. You will hear a marked increase in bass and treble detail after approximately 100 hours of use. For optimal performance, you may want to complete the break in process before critically placing the speakers.

Speaker Placement Tips

If achieving maximum bass and sonic warmth is your goal, place your Reference 3.5's closer to a wall or other large surface (no more than a foot or two away). Note that positioning them further out from the walls will deliver better imaging and overall smoother response in most rooms. If you can position them at different distances from the side and back walls it will be beneficial as well (in other words, you don't want them the same distance from the wall behind them as from the wall to their sides). However, it is helpful to keep the speakers in similar locations in the room if possible. For example, try not to have one speaker right by an open archway and the other speaker directly adjacent to a sidewall.

For stereo, the speakers should be positioned so they are at the opposite ends of the base of an equilateral triangle, whose tip is at the prime listening position (Figure 2). General guidelines suggest a 30- to 45-degree angle from the prime listening position to the speakers.

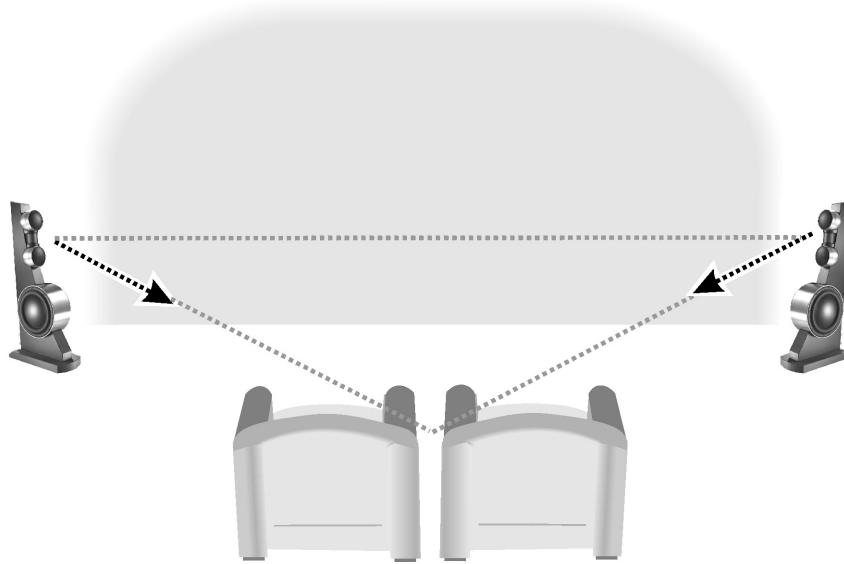


Figure 2. Positioning of the Speakers

Home theater positioning can mimic the above recommendations. However, try to keep the L/R speakers within two or three feet of the edge of the TV screen. The center channel should be centered on the screen, either above or below the TV.

The primary surrounds are best placed to the sides of the listening area and not directly behind the listeners. If they are small, wall-mountable speakers like the Reference Strada, mount them approximately two feet above seated ear height and even with - or a little behind - the seating area. If they are floor-standing models, try aiming them a little behind the listening position and not directly at the prime seating location. For movies, this will help create a more diffuse, non-localizable surround field. However, for music, aiming the surrounds directly at the listening position can be more satisfying. Try it both ways and see what is more desirable for your needs.

If the room is long or there are several rows of seating, more than one set of surrounds can be placed along the sidewalls. If you are installing secondary (rear) surrounds (i.e. a 7.1 system), place the secondary speakers at the back of the room, approximately 150 degrees from the screen but still about two feet above seated ear height if they're compact models.

For alternate placement recommendations, speak with your Gallo dealer or contact us directly.

The Nucleus Reference 3.5 speakers can be set up with their side-mounted woofers facing outwards towards the walls of the room or so the woofers are facing towards each other. We recommend starting with the woofers facing in towards one another. (The speaker's serial numbers are preceded by a #1 or #2. In the recommended configuration, the speaker marked #2 will be on the left side, and the speaker marked #1 will be on the right side.) Each room is different, so the safest approach is to try it both ways. Play a variety of recordings with substantial bass content and note which orientation yields the smoothest and most extended bass. If you have a large piece of furniture or massive rear projection TV between the speakers, they should always be in the outward facing orientation.

Sound Advice

While the Nucleus Reference 3.5 can handle substantial amounts of power, please use common sense when playing music or home theater programs at very high levels. If you hear "popping" sounds or distortion from the speakers, immediately lower the volume! No matter how good the speaker or what its power handling capability, if you are careless you can damage any speaker with any amplifier.

Adjacent Wall, Toe In and Straight Ahead Placement

Due to décor considerations you may need to position your Nucleus Reference 3.5s within just a few inches of the wall behind them, but the sound will be more "open" when the speakers are 12 to 36 inches out into the room. The Nucleus Reference 3.5's can fire straight ahead, or be angled (toed) inward (Figure 3) towards the listening position. Stereo imaging will be more specific when angled in, and upper bass will be more prominent and "faster" sounding.

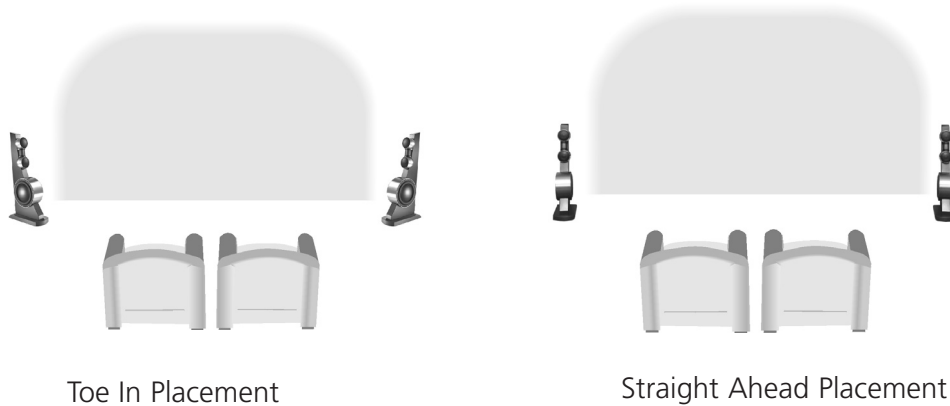


Figure 3. Placement of the Speakers

Nucleus Reference 3.5 Specifications

Frequency Response	34 Hz – 20 kHz \pm 3 dB
Nominal Impedance	8 Ohms
Sensitivity	88 dB at 1 watt and 1 meter
Power Handling, Continuous Undistorted	350 Watts RMS
Tweeter	CDT™ 3, 3 kHz to 20 kHz, 300° dispersion across full tweeter bandwidth
Midrange	Dual 4-inch, carbon fiber cone drivers optimized for crossover-less design
Woofers	Custom long-throw 10-inch ceramic-coated aluminum cone dual voice-coil driver
Dimensions	Height: 35 in. (88.9 cm) Width: 8 in. (20.3 cm) Depth: 16 in. (40.6 cm)
Weight	47 lbs. (21.3 kg)

Available with driver enclosures in Matte Black, or Brushed Stainless Steel with Matte Black composite base

Warranty and Extended Service Agreement

The Reference 3.5 speakers are covered by a one-year Limited Warranty against defects in workmanship and manufacturing. In addition, we offer registered AGA owners a free four-year Extended Service Agreement.

In order to qualify for the Extended Service Agreement you must fill out and return the warranty card or register on our web site: <https://www.roundsound.com/registration.php>. This will establish your ownership and activate the free four-year Extended Service Agreement for your loudspeakers. When you enter the information, you will need the serial number of each speaker. The serial numbers are located on the label at the rear of the speakers.

The one-year warranty is valid for the original purchaser only and is not transferrable or assignable. The Extended Service Agreement is also only valid for the original registered purchaser.

Statement of Warranty: Anthony Gallo Acoustics Limited Warranty

You must purchase AGA products from an authorized AGA dealer, GalloDirect.com or an authorized AGA distributor in order to qualify for warranty service and be eligible to receive the four-year Extended Service Agreement. If you purchased your product from any other source, your product(s) warranty is void and you are not eligible for the Extended Service Agreement.

AGA warrants this product to be free from defects in materials and workmanship under the specified terms stated above. AGA will, at its option, repair or replace this product and/or any parts proven to be defective in materials or manufacture. The original sales invoice must be presented along with the request for warranty repair by the original owner and the product must be registered with AGA in order to verify ownership.

Terms of the Extended Service Agreement are the same as those within this warranty policy.

This warranty and the Extended Service Agreement will be void if:

1. The defect is a result of abuse, misuse, damage in transit, defective associated equipment, faulty installation, the use of the unit with equipment for which it was not intended, or acts of God.
2. The unit has been operated contrary to instructions contained in this Owner's Manual.
3. The unit has been serviced by unauthorized personnel.

Service

If your speakers require repair:

1. Please contact the authorized AGA dealer from whom the product was originally purchased. It is necessary to have the original sales receipt available to confirm warranty eligibility. Most AGA dealers can help you with problems and repairs. If this is not the case please contact us directly.
2. If it is impractical or impossible to contact your original dealer, refer to the Dealer Locator section found on www.roundsound.com. Locate your nearest authorized dealer and contact the dealer to arrange for service.
3. If you choose to, you can send your product to AGA Factory Service. Carefully pack the product in its original carton, obtain a Return Authorization as detailed below and ship it to our service center. A copy of your receipt will be necessary to confirm ownership and warranty status. Please call the service center for the RA#. Have available a description of the problem you are experiencing, your return address, and daytime phone number. We suggest you choose a carrier that provides parcel tracking and be sure to insure the shipment for replacement value.

It is very important that you fill out the Warranty Information on the back of this card and return it to us. Or, go to <https://www.roundsound.com/registration.php> and register. This will ensure that you are eligible for our free four-year Extended Service Agreement.



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Place
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