

Owners Manual and Set-up Guide:

Genesis Reference Center Loudspeaker

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A Message from Genesis

Congratulations! You are now the owner of one of the finest loudspeakers in the world. Based on some of the technologies developed for our flagship Genesis 1, the Genesis Reference Center Loudspeaker (RC1) is designed to be the perfect multi-channel complementary “convertible” loudspeaker to extend existing Genesis legacy audiophile stereo systems into multi-channel.

We call it “convertible” because it can be used horizontally or vertically. While the Reference Center is designed primarily as a center channel speaker in a multi-channel music or home theater system, it is also designed to be as flexible as possible. It can also be used in a multi-channel system, where it can function as main left/right speakers, monopole surround or monopole rear channels.

Sound structural engineering principles have been applied to make the Reference Center cabinet rigid and well damped. The front baffle holding the transducers is made of a full 2-inches of MDF.

The box and even the internal braces are made of 1-inch MDF and have been “tongue and grooved” to ensure that the cabinet is the best environment on which to mount the transducers. This results in extremely low cabinet coloration, and excellent soundstaging and imaging.

Please read this Owners Manual and Set-up Guide to get the maximum enjoyment out of your purchase. Also, check out our website at www.genesisloudspeakers.com for the latest updates, tips & tricks and support for our owners.

Please write the serial number and purchase details of your Genesis Reference Center here for future reference. Remember to send in your warranty card as registration confers a 5-year transferable warranty to your new loudspeaker. Please see the warranty registration form for more details.

Purchased at: _____ Date: _____

1 A Quick Start Set-up Guide

Now that you have your new Genesis Reference Center, we realize that you can't wait to hook it up and start playing! However, please read this quick set-up guide (even if your dealer is setting it up for you) before you proceed.

1.1 Unpacking

Your loudspeakers will come to you in a large shipping carton weighing over 70lbs (32kgs). We suggest that two strong people move the speaker carton around and to lift the speaker out of its carton. Even then, use correct lifting techniques.

We will **not** be held liable for damage to either the speakers or your backs during unpacking and setting up.

1.2 Placement

Used as a center channel, the Reference Center can be placed below or above your screen. If you have a perforated, sonically transparent projector screen, you may place it behind the screen. In all cases, do not point the tweeter directly at the ears of the listeners. Angle the speaker so that the tweeter points 12 inches (30cm) below the ears or over the top of the head.

Used as main left/right speakers in a multi-channel set-up, mount them vertically on either side of the projection screen. Toe the speakers in slightly towards the listeners – by about 5 to 10 degrees – no more.

If you are using the Reference Center as monopole surround or rear speakers, and you are hanging them on the wall, you will need a qualified installer to mount them on very strong brackets. The speakers weigh over 70 pounds (32kgs) each, and can cause death or severe injury if it falls on someone!

1.3 Connections

The speakers should be connected directly to the speaker-level output of your power amplifiers using high quality speaker cables and the 5-way binding posts.

The high-level thru-put binding posts are for connecting to a subwoofer. We recommend the Genesis ServoSub™ 4/8 as the perfect



complement to this speaker as the center channel, the Genesis G928 when used as main left/right speakers, and the ServoSub 2/12t corner subwoofers when used as rear/surround speakers.

1.4 Adjustments



Don't be too worried by the knobs on the back of the Reference Center. Just set both knobs to the 12 o'clock position. That is a good place to start. The Reference Center will sound great, straight out of the box, set-up like this. As you play your system for the next hundred hours or so, the speaker will settle in and break in.

If you have at least 12 inches (30cm) of space between the back of the speaker and the rear wall, the rear tweeter should be left ON. Otherwise, turn the rear tweeter off with the tweeter defeat switch on the back panel.

Once you familiarize yourself with its performance, putting a little bit of additional effort into tuning the speaker properly for your system (which includes the room), will give you greater long-term enjoyment and benefits.

2 Setting up for Multi-channel

2.1 Positioning for Center Channel

A good starting position is for the Reference Center to be placed horizontally about 20 inches from the floor, and angled upwards by 3 to 5 degrees. This is assuming that the speaker doesn't block the screen in this position.

Use a good quality stand that is solidly built and as rigid as possible. The Genesis ServoSub™ 4/8 is a unique subwoofer that complements the Reference Center to turn it into a full-range absolute fidelity™ system, and also makes a perfect stand for the Reference Center.

An alternative is to place the speaker horizontally above the screen, and angle it downwards by 3 to 5 degrees. In either case, do not point the speaker directly at the head of the listener, but either over their heads, or at her chest.

With a perforated screen, the Reference Center can be placed behind the screen. In this case, do not angle the speaker so that the tweeter points directly at the head of the listeners.

As these speakers are dipolar with a rear-firing tweeter, there should be at least 12 inches (30cm) of space between the back of the speaker and the wall. If this space is not available, switch the rear tweeter off with the tweeter defeat switch.

On the home theatre processor, set the speaker to "LARGE" as the Reference Center plays to below 60Hz even without a subwoofer. However, for a true full-range center channel, the perfect complement is the Genesis ServoSub 4/8 which is designed as a "vocal" subwoofer for the center channel. With four 8-inch woofers, it is phenomenally fast, and plays down to sub-20Hz.

2.2 Positioning as Main Left/Right Channels

The Reference Center can also be used as the main left/right channels of a multi-channel system. When used as such, place the speakers vertically with the tweeter on the INSIDE towards the video screen. As the Reference Center is shielded, they can be used beside a normal CRT television.

2.3 Loudspeaker Controls

2.3.1 Tweeter and Midrange Controls

The two knobs at the top of the plate on the back of the speaker tailor the mid- and high-frequency response of the Reference Center. They

are subtle controls, but they can make a great difference in gaining that last bit of additional performance in tuning your speakers for the room in which you are using them. They can turn your system from very good to exceptional, so take the time to work through this process.



The left knob marked TWEETER is a volume control for the front tweeter. Turning this control clockwise will increase the level of the tweeters. Use this control if you need a bit more treble, or to increase the apparent space of the soundstage. Too high a tweeter level, and you can feel that voices are too sibilant.

With music, crashing cymbals are leaping out at you, and nylon stringed guitars sound steely. Start with this control at the 12 o'clock position. There is about a \pm one dB range for this control.

The right knob marked MIDRANGE is used to adjust the level of the midrange. Start at the 12 o'clock position. Turning the control anti-clockwise will make the midrange sound leaner - turning it clockwise will make the midrange sound fuller. A fuller midrange can also make voices sound more forward. There is about a \pm one-and-a-half dB range for this control.

These two controls can also be used to fine tune the speaker when it is used behind a perforated screen, which typically attenuates the mid- to high- frequency response.

2.3.2 Tweeter Defeat

The Reference Center should be placed at least 12 inches (30cm) away from the wall behind the speaker. If this is not possible, turn the rear-firing tweeter off to configure your loudspeaker as a monopole. This is perfectly acceptable and will not compromise the performance for multi-channel surround movies.

2.4 Mastering the Refinements of the system

Fine tuning an audio system is an art that will take time and patience. It can be one of the more rewarding learning experiences you will have in the pursuit of music and its enjoyment.

One of the best pieces of advice we can offer is that you take advantage of your ear's ability to identify similarities in sound. This ability is useful in fine-tuning your system because, if every recording you listen to has a similarity of sound (too much or too little of a certain frequency for instance), then you can be fairly certain that you have yet to perfect your set-up. Keep at it, and remember to enjoy your music as you work on perfecting your set-up!

absolute fidelity™



If you have any questions, feel free to contact us at Genesis. Our website is the first place you can look to for more information, but you are welcome to either send us an email, or just give us a call!

3 The Technology used

3.1 Dipolar Configuration

What a lot of people don't realize is that the room is as big (if not bigger), a part of their music system as are the loudspeakers. At Genesis, we strive to get the loudspeakers and the room to work well together and hence, design loudspeakers that interact with the room and have enough of adjustment to make them work with most rooms in the world.

All rooms have floors, ceilings and sidewalls that distort sound because of lateral, early-arriving reflections. We aim to suppress undesirable contribution by reflected sound from these four surfaces (which is why a lot of people put sound absorbers or diffusers at the first reflection point of the room). In order to do that with a majority of rooms, we make our loudspeakers dipolar.

Dipoles radiate the same, but out-of-phase, waveform from the front and rear in "push/pull" fashion. Thus, the sound waves from the front and back of the speakers cancel out as they radiate from the sides and tops of the speakers which mean that there is minimum radiation of sound to the sidewalls of the room.

The Genesis Reference Center uses the wall behind the speaker to give more depth to the soundstage and "air" to the speaker without detail robbing room reflections from the sidewalls. Hence, it has the advantages of omni-directional speakers, without the disadvantages.

With fewer spurious reflections to confuse your hearing, the program source emerges more clearly. Imaging is stable, sharply focused, deeper and spacious. Transients are clearer and sharper.

3.2 The Transducers

The transducers in the 3-way Reference Center are all proprietary Genesis-designed drivers manufactured to our exacting standards:

3.2.1 The Genesis Ribbon Tweeter

Reviewers in the audiophile press have often remarked that the Genesis circular ribbon tweeter is the world's best. It is a one inch circular planar ribbon design crafted from an extremely thin membrane of Kapton® with a photo-etched aluminium "voice coil" that is a mere 0.0005 inch thick. The entire radiating structure has less mass than the air in front of it! That is why it will accurately reproduce frequencies beyond 36 kHz.

The result of this design is a driver that has a rapid and uniform response to high frequencies and has the speed of the best

ribbon/electrostatic designs, without the high distortion and poor dispersion that is typically associated with them.

The Reference Center uses two of these tweeters per channel. One is front-firing and the other rear-firing; wired to the crossover out of phase to the front tweeter, creating a dipole.

3.2.2 Titanium Midrange

We sometimes say that the midrange is a window into the mind of a composer or a singer. And indeed, the midrange is where the “magic” is in a well-recorded musical event.

The Reference Center uses a Genesis-designed proprietary 5 inch titanium-coned midrange to cover this critical frequency spectrum. Manufactured out of one of the lightest and stiffest materials known, this low mass cone driver is one of the best midrange transducers ever made, with nearly instantaneous transient response, enabling the Reference Center to sound lifelike and effortless.

3.2.3 Aluminum-cone Woofers

The Reference Center incorporates two front-firing 6.5 inch metal cone woofers. Made of a cone of solid aluminium, the suspension and voice-coil have been maximized for long, distortion-free excursion so as to increase dynamic range. Our aluminium cones are a magnitude stiffer than plastic or paper cones, and virtually eliminate the problems caused by cone bending and break-up.

3.3 Crossover

If the servo-controlled bass amplifier is the heart of the loudspeaker, the crossover is the brain. In order to manage and maximize the performance of the extensive complement of transducers used in Genesis loudspeakers, we spend more money on the crossover than many other manufacturers put in their entire speaker.

Each crossover is designed by computer modelling plus years of knowledge and experience. The inductors are made for Genesis with OFC copper windings. The capacitors used are also custom made for Genesis, using high-quality polypropylene-film and tin-foil. The crossover of each Reference Center weighs over five pounds (2.2kg)! L/C tuning is employed to extract the most bass out of the small cabinet.

More importantly, the crossovers are designed with many, many hours of music listening and constant refining, tuning and tweaking of the circuit. Out of this comes the “magic” that is a Genesis-designed loudspeaker system. For example, by going the more expensive route

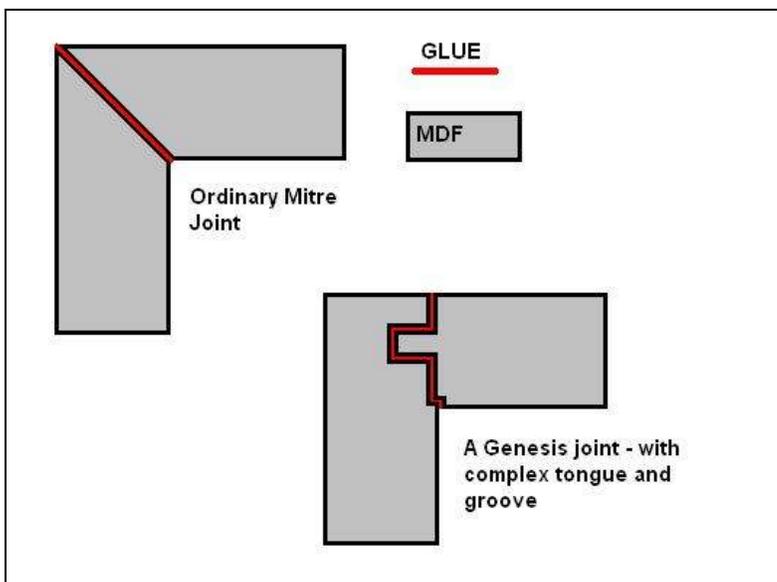
of using several smaller capacitors in parallel instead of a single big one, transparency and musicality were improved.

3.4 Vibration-free Cabinet

The cabinet was designed for aesthetics, but with an obsession to sonic quality, vibration control, structural strength and rigidity.

In some parts of the cabinet where vibration would have been the greatest, two inches (52mm) of multi-layer bonded MDF was used to provide damping, structural integrity and a rigid platform for the drivers to be located. Extensive bracing was carefully incorporated using 25mm slabs of MDF to eliminate cabinet flex and panel resonance.

Incidentally, MDF was chosen as the material of choice for its damping properties and its consistency in hardness, density and rigidity. It would actually have been cheaper and easier to make the cabinet of solid wood, but that would have been a compromise.



Genesis designed a unique tongue and groove joint in order to improve the structural rigidity of the cabinet.

Crystalline glue that dissolves into the mdf was chosen to ensure that the interfaces between two panel pieces becomes as one. This results in the entire enclosure behaving as a single unit, with seemingly no discontinuity in material.

This results in a joint so strong that when you try to rip the joint apart, it isn't the joint that would break. The mdf would break apart first.

4 Specifications

- Frequency Response: 48Hz to 36kHz, \pm 3dB
- Sensitivity: 89 dB, 1 watt 1 meter
- Min/Max Power (Tube): 75/500 watts per side
- Min/Max Power (Solid State): 100/1000 watts per side
- Input Impedance: 4 ohms (Nominal)
- HF Transducers: Two Genesis 1" Circular Ribbon Tweeters (front & rear)
- Midrange Transducers: One Genesis 5" titanium cone midrange
- LF Transducers: Two Genesis 6.5" aluminium cone
- Controls: Midrange Level, Tweeter level, Rear Tweeter Defeat
- Inputs: High-level with 5-way binding posts
- Throughputs: High-level with 5-way binding posts
- Dimensions: H 11 " x W 37 $\frac{3}{4}$ " x D 14"
- Weight: 70 lbs (32 kg)
- Finishes: Premium Rosewood
High Gloss Piano Black Lacquer