Owners Manual and Set-up Guide:

Genesis 7 Samba floor-standing loudspeaker

Contents

A Message from Genesis

The first Genesis 7-series floor-standing loudspeaker, the G7.1f, won the prestigious Best of Innovations Design and Engineering award with the highest scores in its category. This award recognizes outstanding design and engineering in cutting edge consumer electronics products and is sponsored by the Consumer Electronics Association of the USA and endorsed by the Industrial Designers Society of America.

This new series follows in its illustrious footsteps.

The Genesis 7-series benefits from technologies and innovations developed over 30 years designing reference-quality loudspeakers. It was designed for the present and future generations.

Genesis owners often use their loudspeakers for their entire lives. This reduces waste of resources and money replacing loudspeakers through their audiophile journey. In addition, the G7-series are made from green, sustainable bamboo. Using water-based glues and zero VOC finishes, it also contributes to healthier indoor environments.

So that it will fit into the décor of any home, the cabinet design is a combination of acoustic, furniture, interior design and architectural principles. A large sweet-spot also increases value-for-money as it is enjoyed by the whole family, not just an individual audiophile.

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 7F here for future reference.

Purchased from: _____ Date: _____

1 Start-up Guide

Now that you have your new Genesis 7 Samba (G7S) loudspeakers, 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 cartons weighing 120lbs (55 kgs) each. They are double-boxed in a shipping carton and an inside carton to protect them during shipping. We have carefully designed the packaging to save our backs when packing and unpacking the speakers. So, we recommend following this process.

Stand the carton on the floor and open the flaps to the outside and inside cartons. The speakers will be in a cloth bag, and cushioned with two foam rings in the middle, with foam top and bottom caps. Pull and slide the speaker out of the carton on the bottom cap. It would be easier if you had a friend hold the carton while you pull the speaker out.

Remove the top cap, and slide the bag off the top of the speaker by pulling the middle rings off. The speaker is spiked to the bottom foam.

Lay the speaker on its side on top of the foam cap and middle ring. Remove the bottom cap, and then stand the speaker up.

Flatten the cartons and put them away together with the foam inserts. You will need them if you decide to transport the speakers in the future.

1.2 Placement

As a stereo pair of speakers, a good starting position for your G7S is at least 12 inches (30cm) into the room as measured from the front wall (the wall behind the speakers) to the back of the speakers, and about six feet (1.8 metres) apart. Point the loudspeakers straight ahead with zero toe-in.

You will want to sit eight to twelve feet (2.5 to 3.5 metres) away from the speakers. Once you have the speakers about where you want them, screw the spikes down to "ground" the speakers. You will want to barely lift the speakers off the surface on which they are sitting. There should be only about 1/8" (3mm) between the bottom of the suspension frame and the floor. If you have a carpet, just lift the weight of the speakers off the carpet with the spikes. A 3/16-inch hex key is supplied for the spikes.

1.3 Connections

The speakers should be connected directly to the speaker-level output of your power amplifiers using high quality speaker cables between the power amplifier and the 5-way Genesis binding posts. Red is positive and black is negative for correct polarity.

A power cord is needed (not included) to deliver power to the G7S. As the input voltage is not user-adjustable, be sure that the speaker is sold for the country you are in.

1.4 Adjustments

Don't be too worried with the tweeter level **SOFT/BRIGHT** knob on the speaker and the bass level **LIGHT/RICH** knob on the speaker. They should be at the 12 o'clock position pointing straight up. This is the *nominally flat* position, and it will work well in *most* cases, in *most* rooms.

The G7S will sound great, straight out of the box as it will already have been run-in at the factory. Nevertheless, as you play your system for the next few hundred hours, the speaker will settle down more and begin to sound even better.

1.5 Do Not Remove the Grills

The grills of the G7S are engineered into the crossover and must not be removed. Moreover, the tweeter control allows you tailor the high frequency to your room.

1.6 Integrated Loudspeaker Suspension

The G7S incorporates an integrated suspension system that decouples the loudspeaker cabinet from the floor of the listening room. This allows the G7S the freedom to sound the same on hardwood, granite, carpet and other flooring materials.

The spike screws on the suspension provide an easy means to adjust the height and tilt of the G7S. They are also long enough to securely spike the speakers through carpet. If your carpet is very deep, an option for longer spikes is available.

2 Fine-tuning the Set-up

With our design concept – sound is a pressure wave, not a beam into the listener's ears – the two loudspeakers work together re-create the recorded sound in the medium of air. Hence, the placement of the two speakers in relation to each other and to the room are critical to sound reproduction.

2.1 Positioning

Used as a stereo pair, the back of the G7S should be placed at least 12 inches (0.3m) from the front wall (the wall behind the speaker).

Start with the speaker cabinets about six feet (1.8m) apart. Do not toe-in the speaker as they perform best when firing straight ahead. The faces of the two loudspeakers should be perfectly aligned.

You will want to sit 8 to 12 feet (2.5 to 3.5 metres) away from the speakers (if you have the space). We will experiment with moving the speakers around later.

As these speakers are dipolar in the high frequencies, they are pretty room-friendly and you are free to move the speakers closer to, or further away from the front and side walls. We do recommend, however, that you give the speakers a little bit of breathing space around them.

If you have the speakers too close to the front wall, you will find that the image depth is not as good - the soundstage becomes a little two-dimensional. If you have the space to move the speakers away from the wall, do so.

If you have the speakers too close to the side wall, they will "beam", reducing the size of the sweet-spot and the soundstage.

You should be able to "see" the soundstage behind as well as in front of the loudspeakers. The sound stage will also extend outside the left and right sides of the speakers when they are properly set-up.

2.2 Loudspeaker Controls

The knob marked **SOFT/BRIGHT** on the plate on the back of the speaker tailors the high-frequency response of the G7S. It is a subtle control with a +/-6 dB range above 3,200Hz, but it 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. Start with this control at the "nominal flat" 12 o'clock position. It can turn your system from very good to exceptional, so take the time to work through this process.

Turning this control clockwise will increase the level of the front tweeter. Use this control if you need a bit more treble in a highly absorbent room, or to increase the apparent space of the soundstage. Too high a tweeter level, and you will feel that crashing cymbals are leaping out at you, and nylon-stringed classical guitars sound like steel-stringed acoustic guitars.

The knob marked **LIGHT/RICH** on the plate on the back of the speaker tailors the low-frequency response. It has a range of -3dB/+6dB below about 80Hz. Start with this control at the 12 o'clock position, which is nominally flat.

Every room is different, especially in the bass, and getting the level right pays great dividends.

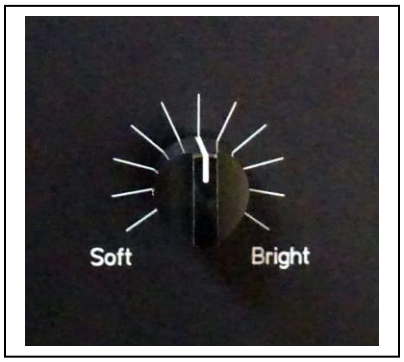
2.3 Reproducing Music

Music is the best way to begin your set-up procedure. There is no "perfect" setting for the G7S. Every listening room is different, and we recommend that you take the time to carefully tune the system for the environment in which it is placed.

Your Genesis loudspeakers should sound great straight out of the box. If you don't like the sound, several hundred hours of breaking-in will not change the sound of your speakers, although it may break-in your ears! Unfortunately, the extreme transparency of the G7S may highlight deficiencies up the reproduction chain.

2.4 One Small Change at a Time

One rule of thumb that you should always keep in mind: Make one change at a time! Do not, for instance, change position of the speakers and make adjustments to the tweeter all at once. Make each of these changes separately and note the difference - by listening with each adjustment - then make the next change.



When you make adjustments, make only small changes. For example, when locking in the "image" and tonality, move the speakers about ¼" (5mm) at a time. Changing the tilt and yaw of the speakers, turn the spikes up or down 45 deg to 90 deg at a time.

Changes to the tweeter and bass control should be far less than a mark. Adjust, listen, and then adjust again if needed.

2.5 Adjusting the Bass

Smaller rooms have more bass gain, and you would tune lighter on the bass in the G7S. Large rooms may need a little more bass. Seldom will you need the maximum range that we have provided to deliver natural,

balanced music. Use a deep male voice (or a cello) and adjust until the mid-bass sounds right.

Do not be afraid to increase this control to give the sound more body or to make the balance "warmer". There is a balance between tailoring the sound you like and an unnatural boomy sound. Try to make it sound real and avoid making it sound impressive.

2.6 Imaging and Soundstage

We suggest that you start with a single vocal with simple instrumental accompaniment because the sound of the human voice is more easily recognizable than many instruments and is a less complex sound to deal with. Use a good recording that you know has atmosphere and low bass content.

The performer should appear to be positioned behind the loudspeakers and be at the appropriate height for a standing person. If it is not, there are several remedies that will address this shortfall.

If the vocal appears to be larger than life, you should first check the system volume. Is it a volume that would be appropriate for someone actually singing in your room? If there is too much volume the artist will appear too big and the opposite is true for too little volume. If the volume is set correctly and the image is still too big, place the speakers closer together and re-listen. Place the speakers no less than 5 feet apart. If the image is still too big, toe the speakers in a tiny amount. The overall toe-in is always less than one degree.

Conversely, if the image is too small, move the speakers apart. The speakers should be no more than nine feet apart. Repeat this process until you have it right.

The wider apart you have the speakers, relative to your seating position, the more you will have to toe the speakers in. However, this may result in "audiophile-titis" if you place the speakers too far apart. You get a huge soundstage, but only a tiny sweet spot and you have to sit exactly in between the speakers to enjoy any music, and you cannot move your head. Also, when the speakers are very far apart, you may have to play them louder before you can enjoy a realistic soundstage. The images are more diffuse, and seem larger than life.

If you have the speakers 18 inches into the room, and you are not getting enough front to back depth (the singer not appearing behind the speaker enough), pull the speakers away from the front wall a little bit at a time. However, slightly more than 1/3 of the way into the room is

about as far as you want to go. Pulling them halfway into the middle of the room or more than 8 feet from the front wall is unlikely to help.

Find the best compromise for your room, your tastes and your space requirements. If you are not getting proper focus on the voice, you may angle the left and right speaker up to about 2 to 3 degrees (toe-in) towards your listening position until you have a properly defined center image. If the speakers are too far apart, the mid-bass will de-couple and you will lose the side image. If they are too close together you will have too small and congested a center stage.

When properly set up, very little sound should appear to come directly from the speaker. Instead, the sound stage should extend far beyond the left and right edge of the loudspeakers and they should have tremendous front to back depth. When the recording is close-miked (when the instrument or performer is very close to the recording microphone), the music may appear to come directly from the loudspeaker. This is normal. Typically, however, the sound should appear to be detached from the loudspeakers in well engineered recordings.

A simple rule of thumb to follow is that focus will be achieved by placing the speakers closer together or farther apart, and front to back depth can be adjusted by the distance from the rear wall. Further, as the system “breaks in”, the depth and width of the soundspace will increase and so will the “smoothness” of the sound.

2.7 Defining the Image

Now that you have the general soundstage and image done, the next step is to define the image. If you have a recording of a vocal that is exactly in the middle – is the image left or right of center? Be careful that the music you are using has the image in the middle. Sometimes, the recording or mastering engineer will place an image to the left or right to reflect an artistic expression.

If the center image is to the left, you can move the right speaker forward by about 1/8 of an inch (3mm) to shift the image right. Conversely, with an image to the right, shift the left speaker forward. You will find that you can move an image by about 4-inches moving the speaker by 1/8 of an inch.

In order to achieve what the speaker is capable of, we suggest you focus your efforts on a proper balance of soundstage elements that includes information beyond the left and right sides of the speakers, front to back depth well behind the speaker, excellent focus of instruments and voices, with proper vertical information and mid bass fill.

A Genesis loudspeaker system correctly set up, can and should provide a soundstage that is wall-to-wall, with pinpoint image focus; the speakers disappearing completely on a recording containing such information.

More information on loudspeaker set-up is available in the white paper on loudspeaker set-up on the Genesis website: www.genesisloudspeakers.com

2.8 Room Treatment

No room is perfect. To optimize your sonic presentation, it *may* be helpful to treat your room. Here are some guidelines:

Front walls. This loudspeaker is a dipole and therefore, there is sound coming from both the front and back of the speaker. How the front wall (the wall you face while listening), is treated or not treated is important. Generally speaking, Genesis loudspeakers prefer a live (hard or reflective) front wall.

By these terms, we mean the amount of reflection of sound. A typical wall of glass, brick, cement or drywall material is a reflective surface. A heavily curtained or sound-proofed wall would be considered a "dead wall" or a non-reflective wall. A normal thin curtain across a window causes only a small amount of absorption.

Sidewalls. Because the speaker is a dipole, it is less sensitive to the sidewalls. Treatment of the “first reflection point” is unnecessary with the G7S.

Rear wall. In many cases it will be unnecessary to do anything with the wall behind your listening position. However, if you are sitting very close to the back wall, you may want to experiment with diffusers or absorbers behind you for best sound. Absorption behind the listener is usually beneficial. An open space is even better. Do not be worried about the listening room opening out to the kitchen or dining room. You can then enjoy music listening while you are cooking or eating.

2.9 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.

In some problematic rooms a resonance may develop, at one or more frequencies, that is unnatural to the music. By moving the speakers closer to the front wall or farther from the front wall, the resonance may be reduced at the listener’s position. Another solution to try may be to

place the speakers asymmetrically in the room. They could be placed closer to one side of the room, or even at an angle to the room.

There are no absolute rules concerning problematic rooms, so do not be afraid to experiment with speaker placement to determine the best position of the speakers in your room. In a perfectly square room, we have even had good results by placing the speakers firing down a diagonal.

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.

A detailed process of fine-tuning the speaker set-up is given in the white paper on Genesis loudspeaker set-up available from our website.

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 many 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 design loudspeakers that interact minimally with the room. In order to do that, we make our loudspeakers dipolar. We also incorporate enough adjustments to tailor the sound tonally.

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 as they radiate from the sides and tops of the speakers, which means that there is minimum radiation of sound to the sidewalls and ceiling of the room.

With a rear tweeter, the G7S is a dipole in the high frequencies. Hence, it 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.

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 2-way G7S 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 tweeter is the world's best. It is a one inch circular planar-magnetic (often called "*ribbon*") design crafted from an extremely thin membrane with a photo-etched "voice coil" that is a mere 0.0005 inch thick.

The entire radiating structure is a 3mm-wide ring that has less mass than the air in front of it. The latest version of the Genesis ring-ribbon tweeter will accurately reproduce frequencies beyond 40 kHz with a true point-source dispersion pattern. (A 1-inch dome tweeter has a true point-source dispersion pattern only up to about 13kHz.)

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 true ribbon/electrostatic designs.

The same tweeter is used throughout the Genesis range – from the Genesis Prime all the way down to the G7-series. We do not use a cheaper tweeter in the cheaper models.

The G7S uses two of these tweeters per channel. One is front-firing and the other rear-firing; each controlled by a separate crossover with the rear tweeter out of phase to the front tweeter, creating a dipole.

3.2.2 Titanium Mid-Woofer

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. All our reference loudspeakers use a line-source ribbon midrange – which would be impractical and too expensive for an entry-level product.

The G7S uses a Genesis-designed proprietary 5.5-inch solid titanium-coned transducer 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 G7S to sound lifelike and effortless. Almost like the line-source Genesis midrange.

We often hear that metal drivers sound "metallic". To an extent, this is true. Every metal cone, will have an *oil-can resonance frequency*. This break-up mode frequency is determined by the material, thickness, shape, and size of the cone, and it is largely well understood.

However, outside of this resonance frequency, the metal cone acts as a perfect piston and has minimal distortion. When metal drivers sound "metallic" (or "zingy" in the case of metal tweeters) it is because this oilcan resonance frequency is excited.

Genesis uses exclusively metal drivers because outside the oilcan resonance frequency, the driver never sounds distorted or metallic. Hence, if the oilcan resonance is never excited, the driver has almost zero distortion. We use metal drivers far below their oilcan resonance, and hence are able to achieve a warm, distortion-free sound quality, but with huge macro- and micro-dynamics.

With metal drivers correctly applied, there is no necessity to place any damping material on the cones. We feel that damping the transducer cone is never a good idea as the damping material would not be able to differentiate between distortion and music. It indiscriminately damps the music as much as it does cone resonance and distortion.

Without this damping, Genesis loudspeakers are able to play softly, and yet convey all the richness of the music, without losing any detail when you want to listen quietly in the dead of the night when the rest of the family are asleep.

3.3 Ribbed-aluminum Woofer

The G7S uses the Genesis 8-inch Ribbed Aluminum Woofer with a servo-controlled feedback amplifier.

3.4 The Servo-bass Advantage

The 8-inch ribbed-aluminium woofers are a uniquely designed metal cone driver made for the Genesis servo system. 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.

While the servo system is able to ensure that the driver works linearly as a perfect piston, it is unable to correct for distortion caused by cone wobble, bending, and break-up. Hence, the drivers were designed to minimize these non-linear distortions, allowing the servo system to most effectively eliminate the linear distortions.

The lowest break-up mode (where there can be any chance of distortion at all) is at 6,000Hz – far above the 16Hz to 120Hz frequency range at which these drivers operate. Therefore, the driver is a perfect piston within the frequencies used.

Very few loudspeakers use servo drive, either because most designers think that it is too difficult to design, too expensive, or because of the extraordinary demands a servo system makes on the amplifier and the transducer.

The concept of the Genesis servo bass system is an easy one to understand: It employs, an accelerometer as a sensor, to constantly monitor the movement of the woofer cone and instantaneously compares it to the input signal. This comparison circuit identifies any deviation from the input and instantaneously applies a corrective signal to compensate, thus practically eliminating the inherent distortion of the woofer!

As an example, when you have a high-impact, low-bass signal that starts and stops suddenly (for example a tympani), the inertia of the woofer cone makes it slow to start moving, and then after it is moving, the momentum of the cone makes it continue moving even after the signal has stopped.

The sonic result is overhang, bloat, lack of tautness and definition, and a blurring of dynamic impact. With the servo system, the circuit senses

that the woofer is not moving as fast as it should, and it instantaneously applies much more current to make it move faster.

When the signal stops, it detects that the woofer will continue to move when it shouldn't and applies a counter-signal to stop the woofer faster and more effectively than an open loop woofer could possibly respond.

Thus, the servo-drive reduces distortion and improves transient response by making the woofer seem massless. Typical non-servo woofer systems have distortion levels that exceed 10% at even moderate levels. The Genesis servo bass system reduces this distortion to below one percent at almost any output level. It also drives the woofer to constant acceleration, which makes its frequency response totally flat!!

The servo system is a more proactive approach to controlling a loudspeaker than high-damping factor and high current in the normal amplifier.

3.5 Crossover

We believe that the crossover is the brain of the loudspeaker. In order to manage and maximize the performance of the extensive complement of transducers used in Genesis loudspeakers, we put a huge amount of time and effort on the crossover development.

Each crossover is designed by computer modelling plus years of knowledge and experience. The inductors are custom designed and made for Genesis with OFC copper windings. The capacitors used are also custom made for Genesis. Many of them using high-quality polypropylene-film and tin-foil (film & foil capacitors). Others are proprietary low time-constant metallized film.

More importantly, the crossovers are designed with many, many hours of music listening and constant refining, tuning and tweaking of the circuit. Many iterations of listening, tweaking, measuring and more tweaking result in the "magic" that is a Genesis-designed loudspeaker system. Our designer often says that there are things he can measure that he can't hear, but there are many more things he can hear that he does not yet know how to measure.

3.6 The Acoustic Suspension

Genesis has been designing loudspeakers with its own suspension system since the Genesis 5.3 in 2005. In 2011, we even published a white paper on loudspeaker coupling and decoupling (available on our website). Only recently, have we seen loudspeaker decoupling devices available for sale, and the audiophile community slowly becoming more

aware of the benefits of decoupling the loudspeaker from the listening room floor.

The suspension of the G7S comprises three elements:

1) The neoprene vibration absorbers are tuned to isolate and decouple the loudspeaker cabinet for optimal bass response no matter what surface the loudspeaker sits on. The result is that the loudspeaker sways like a skyscraper in an earthquake so that it is rigid in the frequencies that enhance clarity, imaging and dynamics, and yet passing the frequencies that detract from the bass.

2) The skeletal frame acts as a tuned absorber. This ensures that all midrange frequencies are "dumped" below the base of the cabinet so that floor-borne vibrations do not affect the imaging and soundstage of the loudspeaker.

3) The spikes rigidly couple the suspension system to the floor. If you have hardwood floors and do not want to make holes in the wood, use a copper penny (instead of expensive "spike cups") under the spike. (If using a US penny, make sure that it was issued prior to 1982 when pennies were actually made of copper. New pennies are copper-plated zinc and does not sound as good!!) We include 8 copper pennies of the proper vintage with every pair of loudspeakers.

   A pin-point suspension system is designed to pass ***all*** frequencies. Using a spike cup under the spike will defeat this system. A copper penny gets deformed – the spike making an indentation where it meets the penny, and a little "nipple" on the other side. This still performs the same function as a pin-point suspension system, but at the same time protects your hardwood floor.

4) The spikes allow for adjustment of the azimuth and tilt of the loudspeaker to optimize for floors that are not perfectly level and also to fine-tune the image of the soundstage.

3.7 Vibration-free Cabinet

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

We have spent years developing carbon-fiber constrained-layer sandwiches for our flagship loudspeakers. Unfortunately, that sandwich is exceedingly expensive and labor-intensive.

For the G7-series loudspeakers, we developed a bamboo/mdf composite that displays the characteristics of the constrained-layer sandwich without the cost or weight: consistency in hardness, density and rigidity, and vibration damping and resonance control.

In the G7S, the cabinet is asymmetrically braced to reduce standing waves inside the cabinet, as well as in the panels. The cavity is carefully sized and shaped to reduce internal standing waves to the frequencies that are not excited by the frequencies present in music. We learned this in the development of the Genesis Maestro. That has four woofers each in a different size and shape of cavity.

3.8 Environmentally Conscious

The Genesis 7 Samba was designed and built with the present and future generations in mind. We tried to use environmentally sustainable materials wherever possible.

The main cabinet structure is made of a composite of bamboo and mdf. Bamboo is the greenest of manufacturing materials. It is the world's fastest growing plant and unlike hardwood trees that can take decades to mature, reaches maturity in 4 years. Thanks to fast re-growth, it is also the best material to sequester CO2, captures more CO2 and releases 35% more oxygen to the air than a similarly sized stand of hardwood trees. It can be cultivated in places where other crops would require supplemental water to grow.

The cabinet is put together by craftsmen from the US in a facility that is local to the Genesis workshop. This reduces carbon generated by transporting cabinets from across the ocean.

The finish is a unique plant-based wax that is hand-rubbed and not sprayed on. It is Greenguard Gold and Indoor Air Comfort Gold certified. This helps reduce indoor air pollution and chemical exposure, aiding in the creation of healthier indoor environments. It emits zero volatile organic compounds and is Food Contact Compliant.

4 Specifications

▪ Musical Range:	A0 (27.5Hz) to Max
▪ Sensitivity:	88 dB, 1 watt 1 meter
▪ Input Impedance:	4 ohms (Nominal)
▪ HF Transducers:	Two Genesis 1” Ring-Ribbon Tweeters (front & rear)
▪ Mid/LF Transducers:	One Genesis 5.5” Titanium Cone
▪ LF Transducers:	One Genesis 8” Ribbed Aluminium Cone
▪ Controls:	Soft/Bright (+/- 6 dB) Light/Rich (+6/-3 dB)
▪ Servo-Bass:	250W Class D
▪ Input:	5-way binding posts
▪ Power:	IEC320 C14 (115V **or** 230V)
▪ Dimensions:	H 53” x W 14 ” x D 16”
▪ Weight:	102 lbs (46 kg)
▪ Finishes:	Hand-rubbed natural bamboo