

Genesis

Set up guide for The Genesis 800 Subwoofer System

Description

The Genesis 800 servo subwoofer system consists of six pieces. There are two woofer enclosures, one servo amplifier, two woofer connecting cables and a hand held remote control unit.

The servo amplifier is an 800 watt remote control two channel amplifier. Each of the woofer enclosures houses two 12 inch metal cone woofers.

Positioning

Set the Genesis 800 subwoofers where it is convenient. Set the 800's as close as practical to your main loudspeakers. The 800's are typically placed behind the main speakers in a music application. The same is true for video applications but it may not be as practical to do this.

It is important to note that sound comes out of both the front and the back of the loudspeaker. Therefore, do not place the rear of the woofer too close to a wall. We suggest you keep the rear of the 800 at **least** six to twelve inches from any wall.

Connect the woofer amplifier.

The Genesis 800 servo woofer system amplifier was intended to be placed near your audio video electronics and the woofers placed further away and connected through the supplied 30 foot cables. There are a set of large cables used to connect the woofers to the servo subwoofer amplifier. Each end of the cable is clearly marked, "amplifier" or "speaker". Connect these to the appropriate end of your Genesis subwoofer amplifier, and the rear of the Genesis 800 (the connector is located in the lower right hand corner as you face the rear of the Genesis 800).

One note: When you connect the subwoofer outputs pay close attention to the way our connector works. The connector is called a Neutrik, it only goes in one way. You cannot put it in wrong. However, you can fail to put it in all the way. When you look at the plug, one side has writing on it and an arrow. This is the right direction. Push the plug in, and twist it clockwise, and then turn the locking ring or wait for the finger lock to "click" in place (depending on the type of connector supplied with your system) to keep it there. By looking carefully, it will be obvious to you how it works.

Connect the input of the woofer amplifier to the output of your preamplifier. Choose either balanced or unbalanced for inputs. If your preamplifier has only one set of balanced outputs and one set of unbalanced (RCA) type outputs, choose your first preference of connection for the amplifier that is driving your main speaker. Use the remaining set of outputs to feed the subwoofer amplifier.

If your preamplifier does not have two outputs, use a "Y" connector to split the signal. The Genesis ervo subwoofer amplifier presents a high impedance very easy load to your preamplifier and can easily be used with the "Y" connector with no degradation to your main signal.

At this point, you can turn on the woofer amplifier. Using the **remote control**, turn on the subwoofer amplifier. Adjust the phase to 40 with the button marked "phase" on the remote control. Next, adjust the low pass filter (how high the woofer goes). Set this to 85 using the button marked "low pass" (on the remote control). Use the button marked "volume" to adjust to 20 to start with. The volume will always flash to identify itself. Make sure the woofers all work by playing some music. If, for some reason, one of the woofers does not work - check the plug of the Neutrik connector. Making sure they are connected properly usually solves any problems.

Making your music or video system sound correct

The Genesis 800 subwoofer system is perfect for both music and video. The setup for either is very similar and the goals should be quite the same too. In our opinion, the end goal of adding a high end subwoofer should be to not "hear" the subwoofer work, but rather to add the appropriate amount of low end that is currently missing in your system.

With music, the full frequency range of the orchestra should be reproduced with proper dynamic range and realism, from the lowest notes of a pipe organ to the whack of the timpani.

With video, the same goals should be sought after so the results are both realistic and exciting as the roar of jet planes rumble through your livingroom and prehistoric creatures shake the earth.

With proper setup and placement, you can achieve both stunning realism and musically correct and natural bass.

Roughing the system in

Music is the best way to begin your setup procedure. We suggest that video sources be used only after you have setup the system to properly reproduce music.

We suggest that you start with a single vocal with instrumental accompaniment because the sound of the human voice is more easily recognizable than many instruments and is the least complex sound to deal with.

Use the remote control to adjust the volume of the woofer first.

Turn the volume control of the subwoofer amplifier up or down until the voice sounds correct. Concentrate on the mid bass regions (as opposed to the very low bass in your recording) to achieve a natural blend. The voice and the music accompaniment should sound as if it were cut from one cloth, not separate.

If the voice sounds "thin" or does not have enough "chest" to its sound, turn the woofers amplifier's volume up till it does, or at this point, you may want to experiment with increasing or decreasing the low pass filter control. This control will raise or lower the frequency cutoff point of the woofer. If you find that the sound is "thin" or lacking in mid bass **and that turning the volume of the woofer amplifier up to "thicken" the sound creates too much low bass**, this is a good indication that you may want to turn the low pass filter up to a higher number instead. This will extend the upper bass regions without affecting the low bass level.

Next, set the woofers using more than just a voice. Select some music that you know to have good **deep** bass. Using the volume control on the servo amplifier's remote control, set the woofers for a **natural** and powerful bass sound. Use a symphonic piece of music if you can, or use a natural bass instrument for your guide. Try to make it sound real. You may have to return to the vocal to make sure you have not gone too far in one direction.

If, at this point, it does not have enough mid bass, turn the low pass number to a higher position or, alternately, position the speakers closer together in order to achieve better mid bass coupling between the speakers. If it sounds too "fat" turn the low pass control down or adjust the volume. At this point it is suggested to use the low pass filter control until you get to the refinement stage.

Low bass

With the speakers positioned in the recommended placement low bass in the room should not be a problem.

Should you have too much bass, simply turn the volume down on the remote control. Too little, and the opposite will apply. If the use of this control causes other problems (such as too much or too little mid bass) you can alternately position the speakers closer to the rear wall (more bass) or farther away from the rear wall (less bass).

Phase Control

We suggested in the beginning of this manual to set the phase to forty degrees. Now that you have roughed the system in, you may want to experiment with different phase angles.

Using the remote control you can adjust the woofer's phase angle in five degree increments.

The changes are subtle and they usually affect the imaging and soundstage. Listen carefully to the positioning (in acoustic space) of the orchestral players as you change the phase control. You may notice small shifts in their apparent relationship to the other members of the orchestra. Do not expect them to actually move. Expect minute changes in the soundstage, the apparent width of the stage, your ability to distinguish individual players etc. If you reach a phase shift of ninety degrees you have probably gone too far.

Note: once you have settled on the proper bass level for your system, please note that level will only be valid with the power amplifier it was set up with. If you change power amplifiers, the subwoofer bass level will most likely have to be adjusted once again.

Notes;

If you find there isn't enough deep bass, your first remedy is the volume control on the woofer amplifier. This has several limitations. First, turned up too high, you may get some distortion on very low frequencies or you may overheat the amplifier. Secondly, you may make the mid bass produced by the top of the woofer out of proportion with the mid bass produced by the bottom of the mid bass coupler. This would tend to sound "boomy" in the mid bass regions.

A good rule of thumb is to first set the volume control of the subwoofer for proper midbass rather than low bass. The theory is, if the midbass is correct, then the low bass should be very close to correct. If the midbass is proper and the low bass is still not right, here are some other suggestions.

Push the main speakers back towards the rear wall. This will increase the coupling of the main loudspeakers woofers to the room. Do this procedure in small increments (approximately one inch at a time) and return often to the recordings you have used to

adjust the front to back depth and soundstage properties of your system. It is easy, yet unproductive, to go too far in one direction.

A good balance between proper low bass extension and a deep and spacious soundstage needs to be established to optimize your new speaker's performance.

It should be noted that when you originally setup your main loudspeakers, you most likely made placement decisions based on the quality of imaging and proper bass levels. We would advise you to now think in terms of re-positioning your main speakers strictly from imaging and tonal balance, and let your new 800 subwoofers take care of the bass.

Note: Should your woofer amplifier unexpectedly turn off and you are unable to turn it back on, you have overheated the amplifier. It will take up to thirty minutes for the amplifier to turn back on. Be patient. The causes for this are poor ventilation or too much volume. If the amplifier is well ventilated (do not place the woofer amplifier in a cabinet) then you have the volume control turned up too high. Refer to the section on increasing the low frequency response of your speakers without turning up the volume control.