

Basis 300 Powered Subwoofer
Owner's Manual

Basis 300

SNELL

SAFETY INSTRUCTIONS



Warning: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to 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.



The exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Read Instructions: All the safety and operating instructions should be read before the appliance is operated.

Retain Instructions: The safety and operating instructions should be retained for future reference.

Heed Warnings: All warnings on the appliance and in the operating instructions should be adhered to.

Follow Instructions: All operation and other instructions should be followed.

Water and Moisture: The appliance should not be used near water—for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

Carts and Stands: The appliance should be used only with a cart or stand that is recommended by the manufacturer.

Wall or Ceiling Mounting: The appliance should not be mounted to a wall or ceiling.

Ventilation: The appliance should be situated so that its location or position does not interfere with its proper functioning. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may obstruct the heat sink sur-

faces; or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air near the heat sink surfaces.

Heat: The appliance should be situated away from heat sources, such as radiators, stoves, or other appliances that produce heat.

Power Sources: The appliance should be connected to a power supply only of the type described in the operation instructions or as marked on the appliance.

Power Cord Protection: Supplies should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.

Cleaning: The appliance should only be cleaned as recommended by the manufacturer.

Non-Use Periods: The power supply cord should be unplugged from the outlet when left unused for long periods of time.

Object and Liquid Entry: Care should be taken so that objects do not fall into and liquids are not spilled into the inside of the appliance.

Damage Requiring Service: The appliance should be serviced if any of the following events occur:

- ▶ *The power supply or plug has been damaged.*
- ▶ *Objects have fallen, or liquid has been spilled into the appliance.*
- ▶ *The appliance has been exposed to rain.*
- ▶ *The appliance does not appear to operate normally or exhibits a marked change in performance.*
- ▶ *The appliance has been dropped, or the enclosure is damaged.*

Servicing: The user should not attempt to service the appliance beyond what is described in the operating instructions. For all other servicing, consult your dealer or contact Snell Acoustics.

SPECIFICATIONS

Specification	Basis300
Frequency Response (± 3 dB)	25-150Hz
Amplifier Power	300 watts
Crossover Low Pass for Subwoofer	Variable from 50 to 180 Hz
Crossover High Pass for Line Out	Fixed at 80Hz, 12dB/octave
Bass Unit	10-inch (250mm) custom-built bass unit with treated paper cone and die-cast aluminum chassis.
Cabinet Construction	$\frac{3}{4}$ -inch MDF. Internal Double-H bracing.
Controls	<ul style="list-style-type: none">▶ Phase Switch▶ Turn On switch with instant On, and ten-minute Off delay▶ Top mounted volume control
Dimensions (HxWxD)	15.5"x 15 x 15" 41cm x 40cm x 40cm
Weight	69lbs
Finish	Hand-sanded, hand-painted Black walnut or cherry veneer

INTRODUCTION

We designed the Basis 300 for maximum output in an incredibly compact enclosure. With bass extension to 25Hz (-3dB) and output over 105dB at a typical listening position in a 3,000 cubic-foot room, the Basis 300 meets the demands of digital 5.1 formats. Yet, the Basis 300 is so compact, it easily fits within a typical AV cabinet.

Tuned for Flexibility

We tuned the Basis 300 to match the speed and sonic presentation of the Snell K7 and LCR7. We included a system-specific electronic crossover that automatically adjusts the output of your front speakers, so you are assured of a seamless blend between the Basis 300 and your LCR7 or K7 speaker systems.

Plus, we incorporated a number of user-definable settings, giving you the flexibility to fine-tune the Basis 300 to match your existing system.

1 Low-Pass Filter/Crossover

This control sets the frequency of the low-pass filter, and is fully adjustable from 50 to 125Hz. If you choose to allow your processor to low pass filter the B300, use the "SUB IN" RCA connector. To use the internal lowpass, use the "Low Level In".

5 Line-Level Inputs

The line-level inputs incorporate a fixed 80Hz high-pass filter. When used in conjunction with the line level outputs, these inputs will redirect all bass information below 80Hz from your main speakers to the sub. Use the "High pass out" to filter the mains.

2 Level Control/Volume

The Bass Level control adjusts the sound level output of the Sub300. It is located on the front (or top) of the cabinet.

6 Speaker-Level Inputs

The Sub300 utilizes high-level inputs. The A removeable wire block facilitates easy connection of bare wire.

3 Phase Switch

Determines whether the subwoofer adds or cancels in the crossover region. The proper setting changes based upon the current location of the speaker.

7 Bass Driver

The Sub300 uses a 10-inch (250 mm) custom-built bass unit with aluminum cone and a die-cast aluminum chassis.

4 Power

The main power switch is located next to the power cord socket. Push in the top side of the switch to turn on the main power to the system. Push in the bottom side to turn off the main power. Usually the only time the main power switch should be turned off is when the subwoofer will not be used for an extended period of time, such as when you are away on a vacation.

8 Handmade Cabinets

Our cabinet department hand assembles each unit, and then hand sands each several times. The result is a cabinet of exceptional workmanship, with sharp corners and smooth sides.

CONNECTIONS

Line-Level Input: Line level is the preferred choice in systems using a separate amp and preamp or in receivers that have a line level or preamp out. These inputs include a built-in fixed high-pass filter at 80Hz. You should use this input for "SUBWOOFER OUT" connections.

Speaker-Level Input: Use these inputs if your receiver does not allow access to the preamp.

GENERAL GUIDELINES ON WIRING

Warning: *To reduce the risk of electric shock, always switch off the subwoofer and the amplifier and or receiver when making connections to the subwoofer and speakers.*

When to use line connections in conjunction with the internal crossover:

As a general rule, the best results come from using the line-level connections, where sound is passed from the preamplifier's outputs to the subwoofer and on to the amplifier. Many receivers and integrated amplifiers include a "PREAMP OUT" and "AMPLIFIER IN" on the back panel. If this is the case with your electronics, or if you are using separates, use this input. Use the "Low Level in". Then set the variable low-pass

filter for an appropriate frequency.

When to use the line connection without the internal crossover:

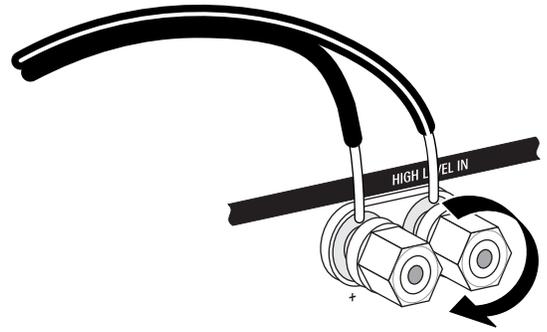
Most surround sound receivers and preamps now offer a "SUBWOOFER OUT" feature. When using this option, the subwoofer filter will most likely be set within the electronics. You should then use the Sub300 "SUB IN" connection.

When to use the speaker-level connections:

If your receiver does not offer a "SUBWOOFER" or "PREAMP OUT" option, or if you wish to run your main speakers full range, you should use the speaker-level connection.

Speaker-Level Wiring

The simplest way to wire the subwoofer is via the speaker connections. This does not present any additional load to your amplifier. The Sub300 is not sensitive to wire length, therefore you may want to use long wires at first to allow for experimentation with placement. There are three options for wiring using speaker-level inputs. Which option you select will probably be influenced by the placement of the speakers in relation to each other and the electronics. The resulting sound will be the same.



NOTE: Be sure to maintain a consistency of + to + (positive) to (positive) and - to - (negative) to (negative).

The 5-way binding posts permit easy connection to banana plugs, spade lugs, and bare wire.

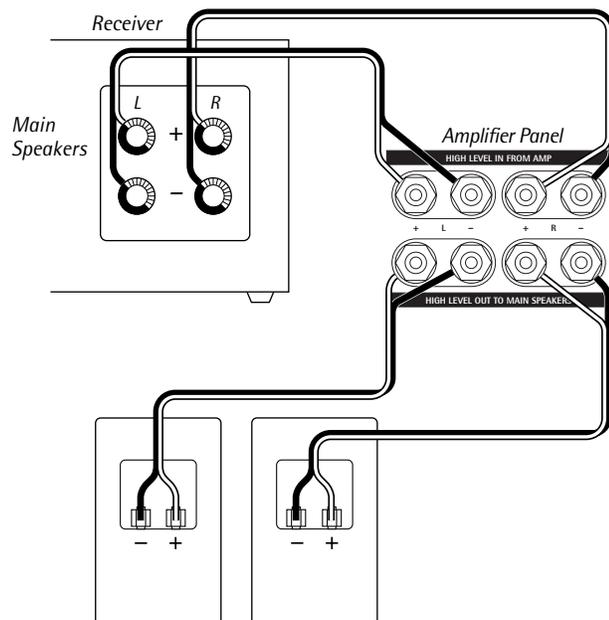
WIRING FOR 2-CHANNEL AUDIO

Using speaker-level wiring

Option 1

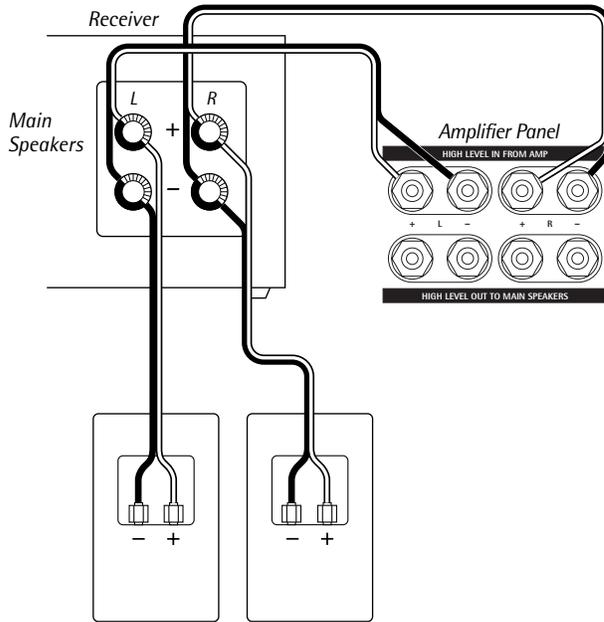
Connect from the main speaker out on the receiver to the sub. Connect the main speakers to the output of the subwoofer.

NOTE: The main speakers will be high pass filtered in this configuration.



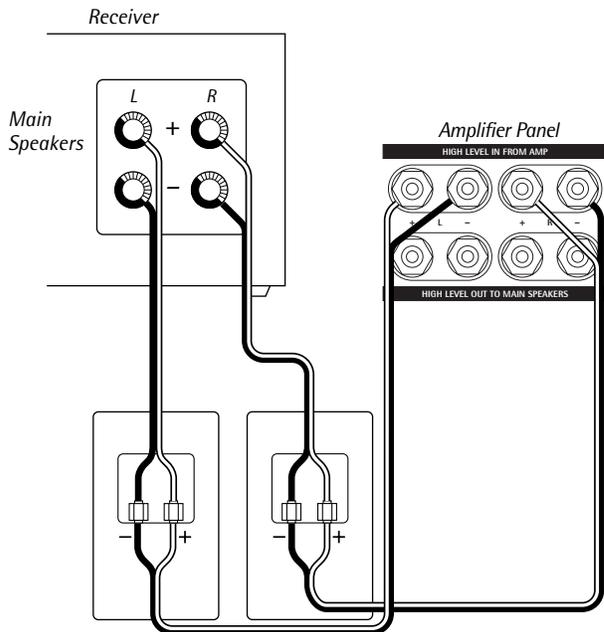
Option 2

Connect both the subwoofer and the main speakers to the back of the receiver.



Option 3

Connect the amplifier to the main speaker system and the main speaker system to the subwoofer in.



PLACEMENT

Subwoofers often are smoothest when placed snugly against a side or back wall. Placement in a corner generally offers up the smoothest response. These positions will also increase the subwoofers' sensitivity, allowing you to run them at a reduced power. Experiment with subwoofer placement while at the same time adjusting crossover frequency, output level, and phase. (See section on Fine-Tuning Your Subwoofer below.)

Choose a source with a heavy and continuous bass line, repeat a short section until you have a firm impression of it in your mind then try another speaker location. Repeat this process until you are content with the bass response you are getting. Strive for a solid bass region with no undue emphasis on any frequency.

FINE-TUNING YOUR SUBWOOFER

Setting the Internal Crossover

If you are using a "sub in" the internal low-pass crossover is bypassed.

If you are using line-level inputs and returning the high-pass filtered signal to the amplifier, begin by setting the crossover at 100Hz. Some rooms naturally overemphasize bass in this region, creating an undesirable "bump" or "boomy" quality in the sound. If this is the case with your room, try turning the crossover down to 80Hz. On the other hand, some rooms have a natural tendency to "swallow up" the bass in the 100Hz region, causing the sound to appear thin. In rooms of this type, try setting the crossover at 125Hz. This may help to round out the overall sound.

If you are running your main speakers full range, set the crossover close to the cut-off frequency of your mains. This will help achieve a smooth, seamless blend between your speakers and the subwoofer. Experiment until you are happy with the mix you are getting.

Crossover versus Bass Level

Interplay between the crossover control and the bass-level control can affect the balance between upper and lower bass frequencies. If you are experiencing too much midbass, adjust the crossover frequency down while increasing the bass level. While decreasing midbass, this procedure will also increase the amount of lower bass energy. Conversely, turning down the bass level while slightly increasing the crossover frequency will increase the ratio of upper bass to lower bass. The result will be a sound with a "quick" quality. Experiment while listening to a variety of sources. If the subwoofer is identifiable as a separate entity, reduce the bass level and further experiment with the settings.

Setting the Phase

The proper setting for the Phase Switch changes based upon the current location of the speaker. To properly ascertain the correct setting for your room, use a source with a full and continuous bass line. Have a second person repeatedly switch the Phase Switch from one position to the other. You will notice that one position will deliver a fuller midbass. This is the proper position for the Phase Switch. If the midbass now seems too full, compensate by slightly lowering the crossover frequency or the output level.

LIMITED WARRANTY

During the warranty period, Snell Acoustics will repair, for the original owner, any defect in materials or workmanship that occurs in normal use of the speaker system, without charge for parts and labor. The warranty period for all parts of the Basis 300, except the amplifier, is five (5) years. The warranty period on the amplifier is one (1) year.

Your responsibilities are to use the product according to the instructions supplied, to provide safe and secure transportation to an authorized Snell Acoustics service representative, and to present proof of purchase from an authorized Snell dealer in the form of your sales slip when requesting service.

Excluded from this warranty is damage that results from abuse, misuse, accidents, shipping, repairs, or modifications by anyone other than an authorized Snell Acoustics service representative. This warranty is void if the serial number has been removed or defaced.

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

If Service Seems Necessary

Contact the dealer from whom you purchased the speaker system. If that is not possible, call us at 978-538-6262, or write to:

Snell Acoustics
300 Jubilee Drive, PO Box 3717
Peabody, MA 01961-3717

We will promptly advise you of what action to take. If it is necessary to return your speaker system to the factory, please ship it prepaid in the original factory packaging. Please note that Snell Acoustics will not be held liable for shipping damage due to improper packaging. After it has been repaired, we will return it freight-prepaid in the U.S. or Canada.

Snell

300 Jubilee Drive, PO Box 3717
Peabody, MA 01961-3717
978-538-6262 phone
978-538-6266 fax