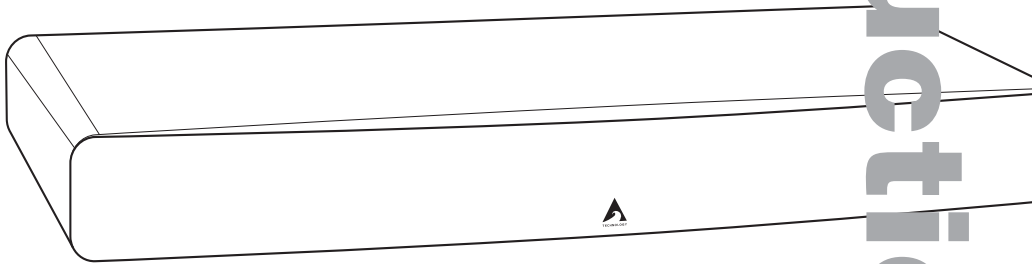


3.1 HSB

High Performance
Front Channel Speaker Base
with powered H-PAS Subwoofer



**AVAILABLE AT
DIGITAL CINEMA**

Atlantic
TECHNOLOGY

H-PAS™

Instruction Manual

Model: 3.1 HSB H-PAS SPEAKER BASE SYSTEM

Thank you for choosing Atlantic Technology products. Your new speaker is precision-crafted to give you years of enjoyable, trouble-free service. This manual covers the Atlantic Technology 3.1 HSB H-PAS Speaker Base system. It will show you how to incorporate this speaker into your home theater setup.

The 3.1 HSB can be used with current and past sound formats from Dolby, DTS and Auro.

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For Future Reference

Record the serial number and date of purchase for the speaker here.
The serial number is found on the back of the enclosure.

Serial Number

Date of Purchase

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U.S. Patent: 8,094,855 B2 H-PAS is a trademark of Atlantic Technology International, Corp. All rights reserved.

Specifications are those in effect at the time of printing. As part of our ongoing program of continuous product improvement, Atlantic Technology reserves the right to change specifications or appearance at any time without notice or obligation to modify existing product.

Important Safety Information

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

1. **Read Instructions.** All the safety and operating instructions should be read before the system is operated.
2. **Retain Instructions.** The safety and operating instructions should be retained for future reference.
3. **Heed Warnings.** All warnings on the appliances and in the operating instructions should be adhered to.
4. **Cleaning.** Unplug the appliance from wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
5. **Attachments.** Do not use attachments not recommended by the product manufacturer as they may cause hazards.
6. **Water and Moisture.** Do not use this appliance near water: for example, near a bath tub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.
7. **Accessories.** Do not place this appliance on an unstable stand, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product.
8. **Power Sources.** This product should be operated only from the type of power source indicated on the marking labels. If you are not sure of the type of power supply to your home, consult your dealer or local power company.
9. **Grounding or Polarization.** This product may be equipped with polarized alternating-current line plugs (plugs having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
10. **Power Cord Protection.** Power-supply cord should be routed so that it is not likely to be walked on or pinched by items placed upon or against it, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliances.
11. **Lightning.** Unplug the product from the wall outlet for added protection during a lightning storm, or when it is left unattended and unused for long periods of time. This will prevent damage to the product due to lightning and power-line surges.
12. **Overloading.** Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
13. **Object and Liquid Entry.** Never push objects of any kind into this product through openings, as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on this product.
14. **Servicing.** Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
15. **Damage Requiring Service.** Unplug this product from wall outlets and refer servicing to qualified service personnel under the following conditions:
 - a. When the power supply cord or plug is damaged.
 - b. If liquid has been spilled, or objects have fallen into the product.
 - c. If the product has been exposed to rain or water.
 - d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
 - e. If the product has been dropped or the

cabinet has been damaged.

f. When the product exhibits a distinct change in performance this indicates a need for service.

16. **Replacement Parts.** When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or that the parts have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
17. **Safety Check.** Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
18. This product is not intended for use outdoors.



CAUTION: To prevent electric shock, match wide blade of plug to wide slot, insert fully.



CAUTION: No naked flame sources, such as candles, should be placed on the product.



PRODUCT DISPOSAL: Certain international, national and/or local laws and/or regulations may apply regarding the disposal of this product. For further detailed information, please contact the retailer where you purchased this product or the Atlantic Technology Importer/Distributor in your country. A listing of Atlantic Technology Importer/Distributors can be found on the Atlantic Technology website www.atlanticttechnology.com or by contacting Atlantic Technology at: 343 Vanderbilt Avenue, Norwood, MA 02062, USA. Phone: 781.762.6300.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, and can radiate radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this

equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced technician for help.

Unpacking the Speaker

Use care when unpacking the speaker. Remember to save all packing materials until you are certain that the speaker has not suffered damage in shipment. If you find such damage, either visible or internal, contact your dealer immediately.

We recommend you save the carton, packing pieces and plastic bags that came with your speaker. They may be useful if you move or need to ship your speaker for any reason.

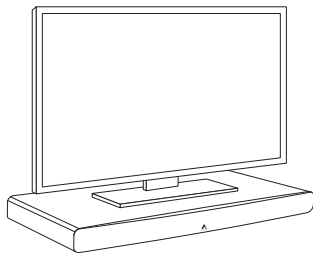
Description

The 3.1 HSB Speaker Base is an integrated high-performance loudspeaker system containing all three front channel speakers (LCR) and a powered subwoofer in a single elegant, slim enclosure. Used in tandem with any A/V receiver and you have a spectacular full featured home theater system. The subwoofer is powered by an internal 80 watt amplifier that uses the SUB line level output from the A/V receiver. The subwoofer also incorporates H-PAS technology to produce the lowest frequency response possible from a cabinet this size, down to room shaking 35 Hz. The front channels require the external amplifiers, found in all A/V receivers to power them. All this is wrapped up in a 4 3/4" tall cabinet designed to fit directly under your flat screen TV.

The 3.1HSB is designed for use with the latest generation of flat screen video displays. The advanced design of this speaker base delivers detailed, articulate sound for a dramatic viewing experience. Each of the three separate internal chambers contains a complete speaker system. Each speaker system is comprised of two 3 1/2-inch (89mm) composite paper cone woofers, and an advanced 3/4-inch (19mm) ferrofluid-cooled, damped soft-dome tweeter.

The drivers are mounted in an acoustically inert, heavily braced MDF enclosure that will support a flat screen display weighing up to 100lbs.

Placement

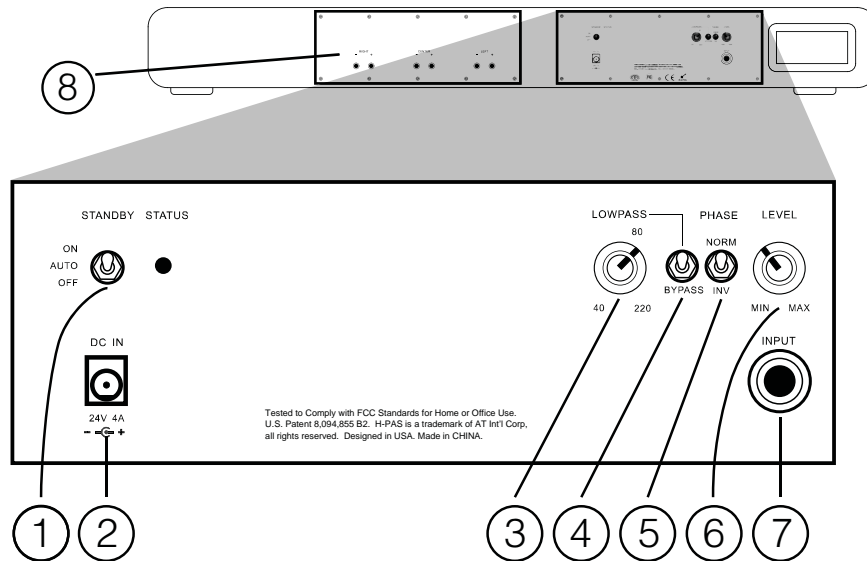


The 3.1 HSB Speaker Base is designed to support the weight of today's flat-panel video displays, in sizes up to 65 inches weighing up to 100 lbs (45kg), and must be placed upon a flat, level, and sturdy surface, capable of safely supporting the total weight involved.

Cautions:

- The video display's stand or feet must rest fully within the flat area of the top of the 3.1 HSB speaker base, and not on its grille. This flat area is 33 x 14 5/8" (838 x 372mm).
- As recommended by many display makers, we also strongly suggest that you tether the display to the wall, especially if there are children in your home.
- Do not place objects between the speaker base and the surface it sits on - they could interfere with the downward firing woofer.
- This unit contains non-magnetic shielded speakers. Do not place magnetically sensitive items (hard disk drive, CRT TVs, etc.) near the unit.

Rear View



1. Standby/Status: Controls and indicates the power and auto sensing circuit
2. DC IN: Input connector for power supply
3. Lowpass Control: Controls the internal low pass filter
4. Bypass switch: Activates the Lowpass control
5. Phase switch: Controls the phase of the subwoofer
6. Level control: Controls the subwoofer output level. (volume control)
7. Input: Subwoofer input (RCA connector)
8. Front Left, Center, Right Speaker Inputs

Connecting Your System

Follow the SYSTEM WIRING DIAGRAM to connect the 3.1HSB to your system.

SUBWOOFER: Use a quality RCA cable to connect from the SUB output on your A/V receiver to the subwoofer INPUT (7) on the back of the 3.1 HSB.

FRONT CHANNEL SPEAKERS: Using high quality dual conductor stranded wire of 16 gauge or heavier, connect the speaker wires from the output terminals on the A/V Receiver to the appropriate speaker input terminals on the back of the 3.1 HSB. The lower the gauge number, the heavier the wire. Use heavier gauge wire for runs over 25' (7.62m).

Remove ½ inch (6mm) of insulation from the end of each wire. Push down on the terminal connector and an opening will appear in the connector that is capable of holding heavy gauge wire. Insert the bare wire into the opening and release the terminal. Be sure to observe correct polarity, connecting the positive (+) leads to the red terminals and

the negative (-) leads to the black terminals. Look carefully at the wires you are using and note that one of the conductors of each pair will typically be identified by color printing on the outer jacket, ridges on the outer jacket, or a thread intertwined with the wire strands. By convention, the marked wire is connected to the red (+) terminal. Also be sure that no stray strands of wire touch across any terminals.

WARNING: To prevent risk of electrical shock or damage to your equipment, always switch off the amplifier or receiver when making any system connections.

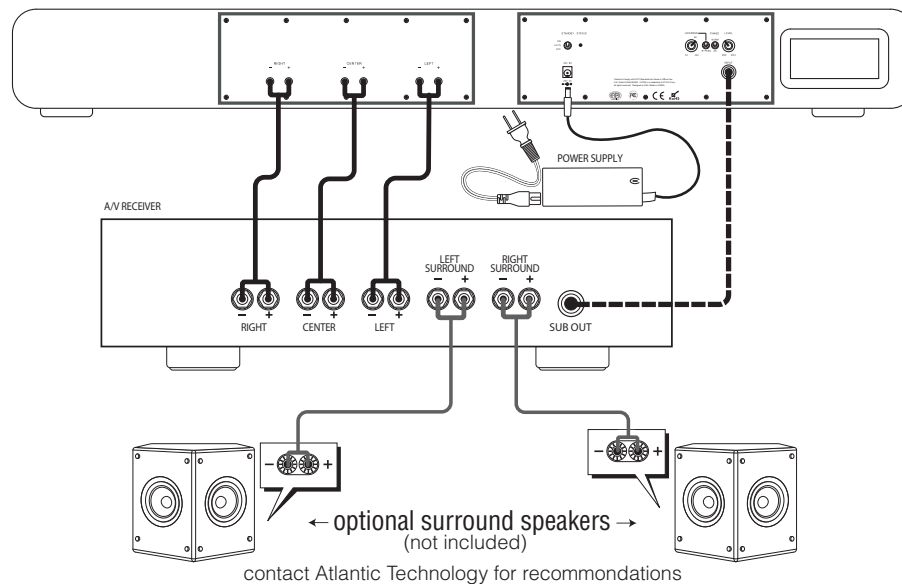
POWER SUPPLY: A separate power supply and power supply cable have been included with your system. After the audio connections have been made, connect the cable from the power supply to the DC IN jack on the rear of the speaker base. Then connect the power supply cable to the power supply and plug it into an active outlet.

NOTE: The power supply provided is capable of operating from 100-240 volts 50-60Hz.

WARNING: Before turning on the A/V receiver, be certain that no stray wire strands are touching across any terminals as this might damage it.

Finally, recheck the polarity of your front speakers by listening to some music with good bass content. If the sound seems “hollow”, unusually spread out, or seem to have weak bass, reinspect your connections for proper polarity and correct any out of phase connections.

SYSTEM WIRING DIAGRAM



RECOMMENDED SETUP

Use your A/V receiver to handle all the low and high-pass functions.

Set the 3.1 HSB's subwoofer amp settings as follows:

Standby:	Auto
Lowpass	Bypass
Phase:	Normal
Level:	11 o'clock position

Refer to your A/V receiver's instructions to set its speaker configuration as follows:

L, C, R, SR size:	Small
L, C, R, SR Hi-pass:	125Hz
Subwoofer:	ON
Subwoofer Low-pass	125 Hz

ALTERNATE SETUP

Should you wish to fine-tune the subwoofer manually, begin with the above settings, then:

- Change the A/V receiver's subwoofer lowpass frequency to its highest setting.
- Enable the 3.1 HSB's lowpass filter by moving its rear-panel switch to the LOWPASS position.
- Adjust the Lowpass Frequency and Phase controls on the 3.1 HSB.

LOWPASS FREQUENCY

We recommend using an initial setting of 125Hz (around 2 o'clock) for the 3.1 HSB, and adjusting from that point. The goal is to obtain a smooth transition between the subwoofer and the front channels, and produce a cohesive and well integrated sound "picture."

To do this, play something with a "walking bass line", where some of the bass notes are played by the front channels, and some by the subwoofer. A good example of this is Van Morrison's "Into the Mystic."

While listening, adjust the lowpass control to avoid excessive overlap (too-loud notes) or acoustic gap (missing or weak notes) in the cross-over area.

In the end, a little time spent fine-tuning will generally result in dramatically better bass response.

PHASE CONTROL

This switch allows precise acoustic matching of the subwoofer with the front channels. Try in both positions, and use the position that results in the strongest bass output, especially in the front channel-to-subwoofer cross-over area.

Care of Your Speaker

Clean your cabinet using a soft, lint-free cloth. If you wish, you can slightly moisten the cloth with plain water. Do not use any other cleaning agents or chemicals. Be careful not to get any water on the driver cones or tweeter domes. After carefully removing the grille from the speaker, gently clean it with a very slightly damp, lint-free cloth. To remove the grille; gently pull the grille straight forward from the cabinet starting at both ends working towards the middle until it is fully free from the cabinet. Do not use a tool or pick as this may cause damage.

Troubleshooting Guide

Once your speaker base is set up, you should have many years of maintenance free enjoyment from your system. However, if you should encounter a problem, refer to the following guide to help you find the solution. If a problem persists, you should contact your local authorized Atlantic Technology dealer.

Problem	Possible Cause	Possible Solution
No output from Left, Center or Right channel	Input wire dislodged.	Reconnect wire and move speaker base away from wall.
No bass output	Standby switch in the OFF position	Move switch to either AUTO or ON position.
	AC power cord unplugged or plugged into a non-working outlet.	Plug into a working outlet.
	Input cables not securely connected or defective.	Check all connections, then try another input cable.
No bass or weak bass output	LEVEL control set too low.	Turn LEVEL control up.
Audible buzz or hum	Input cable not securely connected or defective.	Check all connections, then try another input cable.
	Ground loop through antenna or cable TV system input.	Test by disconnecting antenna and/or cable system input leads. If hum goes away, install isolation balun(s) at that point.

Specifications

Front Channels

Woofers (6)	Heavy-duty 3 1/2" (115mm) composite paper cone
Tweeters (3)	3/4" (19mm) soft dome, Ferrofluid cooled
Frequency Response	125Hz-20kHz
Nominal Impedance	6 Ohms per channel
Crossover frequency	3.75kHz, 2nd order
Sensitivity	89dB
Recommended Amplifier Power	10 - 150 Watts RMS per channel
Magnetic Shielding	No

Powered Subwoofer

Subwoofer	Down firing 6 1/2" (165mm) long-throw composite paper cone
Amplifier Power	Internal; 80 Watts RMS <.2% distortion
Frequency Response	35 Hz - 220 Hz
Peak Output	106dB SPL
Input (1)	RCA line level
Power Requirements	110-240V, 50/60Hz 2.5A (24VDC 4A Power Supply included)

System

Dimensions (WxHxD)	35 3/4" x 4 3/4" x 16 3/4" (including grille) 910mm x 120mm x 426mm
Weight	29 lbs.

IMPORTANT NOTE:

The power recommendation for this speaker assumes that you will not operate your amplifier/receiver in a way that produces distortion. Even rugged speakers like ours can be damaged by an amplifier driven into audible distortion. The harsh amplifier distortion ("clipping") that occurs in this situation will eventually cause damage to the speaker system. This type of damage may be cumulative and can build up over time, as the amplifier is driven into overload again and again. Such damage is easily identifiable through examination of the damaged speaker's voice coil and is not covered by the warranty

Specifications are those in effect at the time of printing. Atlantic Technology International, Corp. reserves the right to change specifications or designs at any time without notice and without obligation to modify existing units.

Warranty

Thank you for purchasing an Atlantic Technology product. We wish you many years of enjoyment and satisfaction from it.

You do not need to send in anything to be covered by the Limited Warranty. All you need to do is keep your original Invoice or Bill of Sale for proof of purchase, meet the stated requirements, and follow the instructions listed within the Warranty. Please attach your Original Invoice or Bill of Sale to this manual as proof of purchase and keep them in a safe place.

VERY IMPORTANT NOTE: PLEASE NOTE THAT ATLANTIC TECHNOLOGY PRODUCTS CARRY ONLY A 90 DAY LIMITED WARRANTY. YOU MUST MEET ALL THE FOLLOWING REQUIREMENTS AND REGISTER ONLINE IN ORDER TO BE COVERED BY THE FREE EXTENDED SERVICE AGREEMENT TO ASSURE EXTENDED FREE PROTECTION!!

Free Extended Service Agreement

Atlantic Technology offers a free Extended Service Agreement that provides enhanced protection against product defects. In order to qualify for the free Extended Service Agreement you must:

1. Have purchased your Atlantic Technology products from an Authorized Atlantic Technology Reseller or Installer.
2. Go to www.atlantictechnology.com and click on Support>Register Your Warranty. Fill out the required information. Be sure to have your home address, name, address and invoice from the business you purchased, and the serial numbers of all Atlantic Technology products purchased. **THIS MUST BE DONE WITHIN 30 DAYS OF PURCHASE.**

If you purchased multiple Atlantic Technology products you will be able to enter them all using one online form. Model and Serial numbers can be found on the back of each unit and on the outside of their respective boxes.

Once all the criteria have been met, you qualify for a free Extended Service Agreement that entitles you to additional coverage against defects in workmanship and manufacturing for a period of up to 5 years on non-powered product and up to 1 year on powered product. This coverage is in addition to the 90 Day Limited Warranty included with all Atlantic Technology products.

If you are not able to register your product using the internet, please call customer service at 781.762.6300.

Limited Warranty

Statement of Warranty: Atlantic Technology International Corp. warrants Atlantic Technology Products to be free from defects in material and workmanship for 90 days from the time of original purchase. This Warranty covers the original retail purchaser of this product only and is valid only in the Continental United States, Alaska, and Hawaii and all US Possessions.

Extended Service Agreement (only available in the Continental United States, Alaska, and Hawaii and all US Possessions): You must Register your Warranty online, and have purchased your product(s) from an authorized Atlantic Technology reseller to receive the Extended Service that covers your Atlantic Technology products beyond the standard 90 day Warranty.

To obtain Warranty service: Please contact your local Atlantic Technology reseller to determine if they are an Authorized Repair Center for Atlantic Technology products. You will need your original Invoice or Bill of Sale to prove Warranty eligibility. If your local dealer is not an Authorized Warranty Center you may contact us at 781-762-6300 for further help or to send the product to us for service and repair. You must first request a Return Authorization Number from us to ship the product back, so it is imperative that you call us first.

What we are responsible for: We will pay for all labor and parts for covered items. If the repairs are eligible for coverage under the terms of this Warranty we will also pay for return shipping charges to you.

What you are responsible for: You must pack the product properly for safe shipping to your Authorized Dealer or us. You are responsible to pay for all packing, shipping, and insurance costs to get the unit(s) back to Atlantic Technology or your Authorized Dealer.

Optional replacement: We, at our option, may replace rather than repair your Atlantic Technology product with a new or reconditioned one of the same or similar design. The repair or replacement will be warranted for 90 days from date of receipt back to you. All details in terms of eligibility for an Extended Service Agreement will carry over from the original purchase to the replacement item.

What this Warranty does not cover: This Warranty does not cover defects resulting from accidents, damage while in transit, alterations, unauthorized repair, failure to follow instructions, misuse, fire, flood, and Acts of God. This Warranty will be void if the product's serial number has been altered or removed or if the product has been modified or defaced.

Exclusions and Limitations: Implied warranties, including those of fitness for a particular purpose and merchantability (an unwritten warranty that the product is fit for ordinary use) are limited to the period of any Warranty granted hereby. We will not pay for loss of time, inconvenience, loss of use, or property damage caused by your Atlantic Technology product or its failure to work, or any other incidental or consequential damages.

State law rights: Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may have other rights which vary from state to state.

This Warranty is valid only when Atlantic Technology products are purchased from an Authorized Atlantic Technology Reseller in the Continental United States, Alaska, and Hawaii and all US Possessions. If you purchase Atlantic Technology products outside the United States please consult your local distributor or reseller for applicable Warranty coverage and restrictions.

Should you have any questions or problems please feel free to contact us at 781-762-6300 or through our web site, www.atlantictechnology.com.



343 Vanderbilt Avenue Norwood, MA 02062 (781) 762-6300 www.atlantictechnology.com