



**ALLNIC AUDIO**

**HPA-300B**

**STEREO HEADPHONE AMPLIFIER  
AND  
INTEGRATED AMPLIFIER**



**OWNER'S MANUAL**

## **ALLNIC AUDIO**

### **HPA-300B**

#### **STEREO HEADPHONE AMPLIFIER / INTEGRATED AMPLIFIER**

Thank you for purchasing this Allnic Audio HPA-300B Stereo Headphone Amplifier/Integrated Amplifier. We are certain your trust in Allnic Audio and its dealers worldwide, as well as your appreciation for the sound of this high-quality device, will be rewarded by its excellent operation for years to come.

*Please read this entire manual before you connect the HPA-300B to the other components of your system and the wall outlet. Failure to follow the guidance in this manual may result in voiding the warranty.*

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\*\*\* Information and specifications for the Allnic Audio product described in this manual are subject to change without notice.

<http://allnicaudio.com>

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Please read about **SAFETY** before you attempt to use the HPA-300B - we care about our customers and the equipment, and we want you to enjoy this product for a long time!

## INTRODUCING THE HPA-300B STEREO HEADPHONE AMPLIFIER / INTEGRATED AMPLIFIER

*Thank you for purchasing the HPA-300B Stereo Headphone Amplifier and Integrated Amplifier. The HPA-300B is a highly sophisticated piece of audio technology. It is intended for experienced vacuum tube audio enthusiasts who understand and have the patience to appreciate the virtues of an innovative but “no bells and whistles” approach to circuit design and the superior sonic and “vintage” characteristics of Single Ended Triodes and New Old Stock (NOS) tubes - and who also value the exceptional private listening experience that the very highest quality headphones provide. The HPA-300B is an example of Allnic’s “Tube Amp Done Right” guiding principle. Proper care and attention, partnering with other equally high-quality equipment, and following the guidance provided in this manual will facilitate easy use and a listening experience of immensely superior quality for many, many years.*

The HPA-300B is Allnic Audio’s first, and only, combined stereo headphone amplifier and integrated amplifier. It is based on the glorious 300B triode.

The HPA-300B has a voltage gain of +28dB, and a maximum output of 8 watts. It works best with headphones having an impedance from 10 to 600 ohms and with speakers having a nominal impedance of 4 or 8 ohms and a sensitivity of 90dB or greater.

The HPA-300B has the following features:

- **All new damper sockets for the tubes in the signal path.** Allnic has employed 9 pin tube damper sockets for decades, but in consideration of the importance of very low microphonic noise for headphone amplifiers, Allnic developed a new US 4 pin 300B damper socket. In the HPA-300B, all tubes in the signal path float on liquid rubber, greatly reducing chassis induced microphonic noise.
- **New special tube dampers.** The 300B tubes in the HPA-300B are equipped with specially designed tube dampers that both stabilize the 300B tubes in their damper sockets and further reduce the 300B tubes’ susceptibility to microphonic noise
- **Specialized output transformers.** For faster headphone response, Allnic developed a smaller output transformer than it uses for its standard integrated amplifiers. It provides faster response time and a wider frequency range and contributes to the HPA-300B’s beautiful 10KHz square wave reproduction.

- **Choke transformer drive.** For superior driving of the 300B output tubes, Allnic uses the choke transformer drive method in the HPA-300B. The choke transformer exhibits the best qualities of both CR and interstage transformer coupling, contributing further to the HPA-300B's accurate reproduction of a 10KHz square wave.
- **NOS tube rectification.** Vacuum tube audio purists generally prefer tube rectification to solid state. The HPA-300B uses an NOS 5U4G or 5U4GB tube rectifier. The user can try 5U4G/5U4GB tubes manufactured by different companies and of various vintages to tailor the sound of the HPA-300B. GZ34/5AR4 rectifiers and their exact equivalents will also work. *Others are too weak and not recommended.*
- **61-step Constant Impedance, single-silver contact, bridged "T" type Attenuator.** The HPA-300B's attenuator, the same as used in Allnic's top models, has fixed impedance and no ( $\pm$  0db) channel imbalance at any volume level. These qualities make a big difference. With a typical potentiometer-type volume control, music played at low levels can be reduced in scale and sound quality. With Allnic's C.I.A, music played at low volume levels remains full scale and lifelike.
- **Speaker outputs.** The HPA-300B has high quality speaker outputs (for banana connectors only) that allow it to be used as an excellent, high speed 300B integrated amplifier. Allnic recommends pairing the HPA-300B with very good, high efficiency loudspeakers. The speakers can be muted from the remote control.
- **High-quality, new and NOS tubes.**
- **Pure Class A operation.**
- **RoHS compliant.** As are all Allnic Audio products, the HPA-300B is fully RoHS (EU Reduction of Hazardous Substances Regulation) compliant in construction and materials.

The HPA-300B is a world-class, reference level, headphone amplifier and integrated amplifier. It offers superbly realistic, holographic sound-staging combined with incredible resolution, clarity, micro-dynamics, and drive. Instrument and vocal tones and timbres are breathtakingly lifelike, and the placement of instruments and bodies in three dimensions startling, life-size, and addictive. The HPA-300B is silent, except for the music emanating from the blackest of backgrounds. In addition, the stunningly realistic sonic quality is matched by the simple elegance, flexibility, and ergonomic functionality of the HPA-300B's casework and connection options. The HPA-300B is truly a first-class example of sophisticated, purist vacuum tube audio technology.

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## WHAT'S IN THE BOX?

Please check that the shipping box contains the following:

- One (1) Allnic HPA-300B Stereo Headphone Amplifier/Integrated amplifier – in natural aluminum or black, depending on your order
- One (1) remote-control (two AAA batteries NOT included due to Hazardous Materials shipping regulations)
- One (1) IEC type power cord
- One (1) Owner's Manual
- One (1) Hex/Allen key

Note:

1. The HPA-300B ships with the tubes installed.
2. **Be sure the HPA-300B is labeled for the AC voltage of your location (110/120 – 60 Hz, or 220/230 – 50 Hz). If it is not, DO NOT connect the HPA-300B to your AC mains. Contact your Allnic dealer immediately. Voltage cannot be changed. Any attempt to do so will void the warranty.**
3. The HPA-300B will work with most IEC type aftermarket power cords. The Allnic ZL-3000, ZL-5000 and ZL-8000 power cables will make an excellent match. Of course, only you can determine the power cord that works most synergistically with the HPA-300B in your system.

We advise that you keep the box and other packing materials that your HPA-300B came in. It will be useful if you sell your HPA-300B or in the unlikely event you need to ship it for service.

## SAFETY

- **Remove any protective cardboard/styrofoam around the tubes inside the tube chimneys before operation. Except for the 300B tubes' special tube dampers, the HPA-300B's tube chimneys should contain NOTHING except the tubes.**
- **DO NOT leave the HPA-300B turned on for extended periods of time – NEVER 24/7, even for (an unnecessary) "break-in" period. This will greatly increase the likelihood of premature tube and/or internal failures. Power on the unit and let it warm up for some minutes; then, when finished a listening session, do a complete power off.**
- Disconnect the power cord by pulling the plug, not the cable.
- Do not attempt any repairs. Do not remove the unit's chassis covers without specific authorization from Allnic Audio or its authorized representative.
- Keep the power cord away from heat sources.
- Keep the unit away from liquids – do not allow any liquid to enter the interior of the unit.
- When the unit is moved from a cold to a warm environment, allow sufficient time for any condensation to evaporate before plugging the HPA-300B into an AC connection.
- See the notes on "Location, Location, Location".

## CLEANING

### A. Chassis

Use only a soft, lint-free cloth dampened slightly with water only (NO cleaning fluids!) to clean the faceplate and chassis of the HPA-300B.

### B. Connectors

You may use any good quality contact cleaner recommended for such applications.

## INITIAL SET-UP

### A. LOCATION, LOCATION, LOCATION

Like all audio products using tubes, the Allnic Audio HPA-300B needs to be placed on a solid stand in a location that provides good air circulation around the headphone amplifier.

- **DO NOT cover the top of the HPA-300B headphone amplifier or tube chimneys. Make sure the unit is in a place with good ventilation. The HPA-300B is about 240mm (9.5 inches) tall and requires at least 127mm (~ 5 inches) clearance for good air flow above it.**
- DO NOT place the unit on carpet or foam.
- DO NOT subject the unit to knocks and shocks as you move it around. This advice is meant particularly for those who may want to place the HPA-300B on some kind of after-market isolation feet or similar devices. Dropping the HPA-300B may void the warranty.
- DO NOT place the unit near strong light or heat.
- DO NOT place anything heavy on the unit.
- DO NOT allow rubber or vinyl materials to rest on the unit's chassis for long periods of time. This could discolor the metal.
  
- DO place the unit on a shelf or stand that is stable and not subject to vibration or sudden shock.
- DO consider using a high-quality power cord and interconnect cables. The HPA-300B is a highly sensitive piece of electronic designed for neutrality and will output what you put into it. Allnic's Zero Loss Technology cables will work synergistically with the HPA-300B.
- DO try to place the HPA-300B away from major sources of RFI and EMI; though well shielded, the HPA-300B will function best away from large power transformers and other sources of such interference.

### B. POWER CONNECTION

The HPA-300B uses a standard three prong male IEC connection for AC input. You need to use a power cord with a female three prong IEC connector at one end (See Figure 1). **Please note that use of a three phase AC power source or an AC regenerating power conditioner may cause hum.**

The voltage of the power supply of the HPA-300B is set internally. The setting cannot be changed. Any attempt to do so will void the warranty.

### C. INPUTS

There are three (3) pairs of Unbalanced (single-ended - RCA) inputs and two (2) pairs of Balanced (XLR) inputs. These input pairs are arranged by channel and located in the center of the rear of the HPA-300B (See Figure 1).

The HPA-300B has been designed and manufactured to work most synergistically with Allnic Audio electronic products and ZL Technology cables.

#### D. HEADPHONE AND SPEAKER OUTPUTS

The HPA-300B is equipped with four headphone outputs or “jacks”. All are located on the right side of the front panel between the right current meter and the input indicators. The top two are one-quarter inch (1/4 inch) RCA headphone output connections. The bottom two are balanced, XLR connections. There is a headphone icon located in the center of the four headphone outputs (See Figure 2). When the HPA-300B is powered on, all 4 outputs are “live”, and they cannot be muted except by reducing the volume using the volume control on the front panel or the remote control. The HPA-300B works well with headphones having an impedance between 10 and 600 ohms.

The speaker outputs are on the rear of the HPA-300B (See Figure 1). Due to space constraints, the speaker connections accept banana plugs only. The HPA-300B is compatible with speakers having a nominal impedance of 4 to 8 ohms. The speaker output connections are always live, but they can be muted by using the mute function on the remote control (See Figure 3). With its 8 watts of output power, the HPA-300B will match well with highly efficient speakers. Allnic recommends speaker sensitivity of no less than 90dB.

*Use of headphone cable adaptors is at owner's sole risk. Issues caused by ill-fitting cable adaptors are not covered by warranty. In addition, Allnic strongly recommends NOT using adaptors for headphone connections for reasons of sound quality: adaptors increase the number of connections and, therefore, resistance and distortion; and many adaptors may be of lower quality or different sonic character than your headphone cable and alter or diminish performance.*

#### E. VOLUME CONTROL

The HPA-300B's volume control is the large knob in the center of the HPA-300B's front panel (See Figure 2). It rotates clockwise (gain increased) and counterclockwise (gain reduced). Below the knob is a “wedge” icon indicating that the furthest extent of the counterclockwise turn is the lowest gain, while the furthest extent of the clockwise turn is the highest gain. The numbers correspond to the hours on a clock for easy gain setting reference and recall.

NOTE:

BE CAREFUL about differences in gain between your sources. Generally, disc players, streamers, DACs, and tuners will have greater gain than phono pre-amplifiers. That means the volume setting for listening to your turntable might be too high for listening to other source devices.

Please set the HPA-300B's volume control at “0” when switching between inputs.

#### INITIAL POWER-ON

Once you have your HPA-300B in place and all connections have been made to your source, you are ready to turn on the power for your HPA-300B. Before you power up the HPA-300B, though, be sure you have:

- **removed any protective cardboard/styrofoam around the tubes inside the tube chimneys before operation. Except for the 300B tubes' special tube dampers, the HPA-300B's tube chimneys should contain NOTHING except the tubes.**

- turned the volume control of the HPA-300B down to zero by rotating the single knob on the front of the HPA-300B counterclockwise until it stops.
- checked that all your connections are correctly mapped and snug.

To turn on the HPA-300B, press in the button switch on the left-hand side of the front panel. Pressing the power button again will completely power down the HPA-300B (See Figure 2).

### **CURRENT METERS AND TROUBLESHOOTING TUBES**

The HPA-300B is Auto (self)-biasing. Auto-bias provides bias stability for the life of the power tubes. Matched pairs of 300Bs are not required. The illuminated meters on the HPA-300B's front panel indicate the current supply to the output tubes for each channel. The associated current meter for each 300B indicates the status of tube, providing a clear indication of the tube's status. The needles of both meters should be in about the same position between the two lines in the center of each meter. In conjunction with the auto-bias feature, the HPA-300B can utilize any brand of 300B and can also use tubes such as the 300B XLS, though it will not drive those tubes to their full capability and they will behave like a standard 300B. (see Figure 4).

#### **SAFETY!! In all cases:**

**POWER OFF and disconnect the HPA-300B from the AC source BEFORE!!! swapping and replacing tubes and checking/replacing the fuse.**

If a meter's needle falls below the left parallel line on the meter face during operation, likely with a loss of signal in that channel, a failure of the related 300B tube is indicated. You must turn off the HPA-300B, unplug its power cord and replace the failed tube. Be careful removing the 300B damper ring and putting it on the new tube. If you have any questions about doing this, please contact your Allnic dealer for assistance.

If a meter's needle falls below the right parallel line on the meter face during operation, likely with a loss of signal in that channel, a failure of the related 6DR7 tube is indicated. You must turn off the HPA-300B, unplug its power cord and replace the failed tube.

If your HPA-300B has lost output completely and the mains fuse has failed, replace the fuse with the spare in the IEC mount (see Figure 1) or first with an inexpensive one of the same rating to avoid risk if you are using a more costly aftermarket fuse.

If you have any questions about changing tubes or the fuse, please contact your Allnic dealer for assistance.

If a meter will not balance when a tube is replaced with a new one, try switching the tubes from one channel to the other. If the problem follows the tube, then there is an issue with the new tube. If a new tube does not solve the problem, or for assistance with the process, please contact your Allnic dealer.

## OPERATION

Operation is straight-forward. Volume is controlled by the volume knob and inputs are selected with the input selector button as explained above and in “The Remote” section which follows.

When you are finished listening, first turn off your HPA-300B by pressing the power switch on the left-hand side of the unit’s front panel; then turn off your sources. The remote control DOES NOT function to turn the unit on or turn off. You must use the button on the face of the HPA-300B to do so.

Whenever you power on the HPA-300B, be aware that it may take a little time for the current meters to settle to their proper position. Please be patient.

Because the HPA-300B is very powerful, you may have all four headphone outputs connected to headphones simultaneously. The speaker outputs may also be used simultaneously with the headphone outputs. As with any amplifier, however, the more power is demanded of it, the more sonic quality may suffer. A single pair of headphones with the speaker outputs also connected will not be problematic for the HPA-300B and provide stellar sound quality for both at the same time. However, best results will always be with either a single pair of headphones or just the speakers connected, particularly when the headphones are inefficient.

**As noted above under “Safety”, DO NOT leave the HPA-300B turned on for extended periods of time – NEVER 24/7, even for (an unnecessary) “break-in” period. This will greatly increase the likelihood of premature tube failure and, potentially, damage to internal components. Power on the unit and let it warm up for some minutes; then, when finished a listening session, do a complete power off.**

The HPA-300B is given “break-in” time at the factory. No special break-in time is required at home. Nevertheless, as with all electronics, the HPA-300B will likely improve over time with normal listening session use. Of course, as is well-known with any vacuum tube equipment, sound may degrade over time as the tubes decline in linearity toward the end of their life.

## THE REMOTE

Install two AAA batteries (not supplied) by opening the bottom of the remote. The remote controls all functions of the HPA-300B except complete power on/power off and headphone muting. Completely powering on and off must be done using the power button on the left side of the unit’s front panel (See Figure 2). Headphone “muting” is achieved by reducing the volume to zero.

The rows of numbered buttons at the top select inputs, as do the buttons on the bottom right with the up and down arrows. The two buttons on the bottom left with the “+” and “-” icons control volume (See Figure 3).

The “Mute” / “Standby” button is in the remote’s center and bears a crossed-out speaker icon. Pressing this button will stop passage of the audio signal to the speaker output connections only.

## TUBES

The HPA-300B uses the following tubes (See “Tubes” in “Specifications” and Figure 4):

- Two (2) x 6DR7
- Two (2) x 300B
- One (1) x 5U4G or 5U4GB

*As experienced users of vacuum tube equipment know, any tube can be carefully machine tested and selected and re-tested under real use conditions at the factory but still fail early. Because of their age, vintage tubes can be fragile and more prone to fail prematurely in use despite intensive testing. Included NOS tubes are guaranteed for the time and per the conditions in the Warranty section below. It may take shipping time, however, to transport replacements to you. As many experienced users do, you may want to acquire at your own cost and risk a set of back-up replacement tubes to have on hand for immediate use “just in case”.*

Allnic Audio and its authorized representatives make no representations nor any warranty regarding the quality of tubes obtained from third parties and are not responsible for any issues or losses relating thereto. All consequences of changing or attempting to change tubes are borne by the user unless by express agreement between the owner and the owner’s Allnic dealer. Allnic Audio and its authorized representatives are not liable in any way whatsoever for any damage to the HPA-300B or any injury or loss incurred by the user resulting from the user changing or attempting to change tubes.

**SPECIFICATIONS FOR:  
THE ALLNIC AUDIO HPA-300B  
STEREO HEADPHONE AMPLIFIER / INTEGRATED AMPLIFIER**

Inputs:	Three (3) pairs Unbalanced (RCA). Two (2) pairs Balanced (XLR)
Headphone Outputs:	Two (2) one-quarter inch (1/4"). Two (2) four-pin balanced (XLR)
Speaker Outputs:	One (1) stereo pair of bananas only connectors. Compatible with high sensitivity, nominal 4/8 ohm speakers.
Frequency Response:	20Hz ~ 20KHz ( $\pm 0.5$ dB)
Voltage Gain:	+28dB
Optimum Headphone Impedance:	Ten (10) to six hundred (600) ohms
Output Wattage:	Eight (8) watts
Maximum Input Voltage:	Three (3) volts RMS
THD (Total Harmonic Distortion):	Less than 0.1% (1KHz, Output 1V)
S/ N Ratio:	-90db (CCIR, 1KHz)
Power Consumption:	168 Watts
Tubes:	<ul style="list-style-type: none"><li>• One (1) 5U4G or 5U4GB – Rectifier (GZ34/5AR4 and exact equivalents will also work. Others are too weak and not recommended.)</li><li>• Two (2) 6DR7 - First gain stage and driver</li><li>• Two (2) 300B Power tubes</li></ul>
Fuse:	AC 3A, 250V, 5x20mm slow-blow for 110/120V regions AC 2A, 250V, 5x20mm slow-blow for 230/240V regions
Dimensions:	430mm (~17 inches) x 420mm (~16.5inches) x 240mm (~9.4 inches) (W x D x H)
Weight Unpacked:	23.64 Kg (~52.1 lbs.)
Weight Packaged:	29 Kg (~64 lbs.)

## **WARRANTY**

***FOR WARRANTY SERVICE, PLEASE CONTACT YOUR AUTHORIZED ALLNIC DEALER.***

Except for the tubes, this Allnic Audio product is warranted against materials and manufacturing defects only for two (2) years from date of purchase. The tubes in this product are warranted against materials and manufacturing defects only for six (6) months from date of purchase. Date of purchase is the date indicated on the invoice issued by Allnic Audio or its authorized representative for original purchase of the new product. The warranty does not cover any damage occurring during product shipment at any time, nor any damage occurring as a result of any of this product's owner's or owners' negligence or willful mistreatment. Failure to operate or care for this product in accordance with instructions in this manual will be deemed negligent. For the warranty to be valid, this product must be returned first to Allnic Audio's authorized representative for warranty service prior to any unauthorized attempt to repair or modify it. Any repair done to or modification of this Allnic Audio product at any time performed without specific authorization from Allnic Audio or its authorized representative will void the warranty. Allnic Audio and its authorized representatives shall be the sole determiners of whether the warranty has been voided. Provided that the warranty has not been voided, the warranty is transferable for the balance of the original purchaser's warranty period.

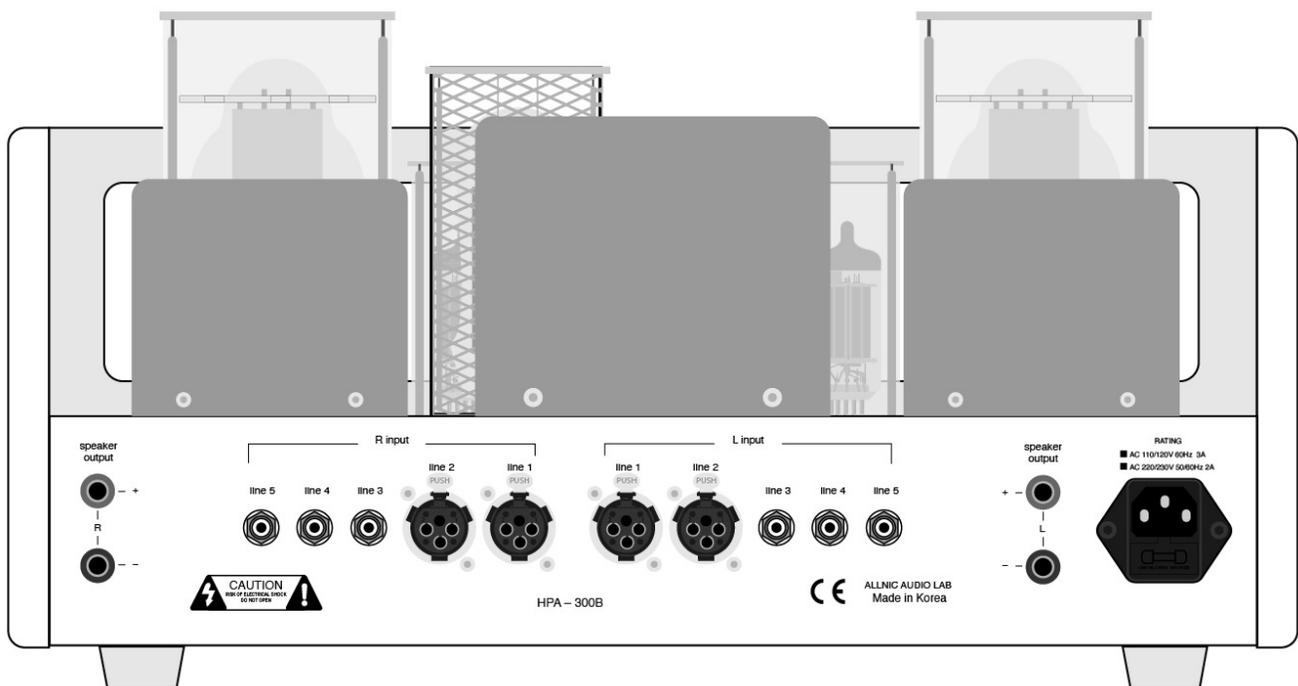
The warranty covers parts and labour only. If required for warranty service, shipping of this product to and return to product owner from an authorized Allnic representative will be at product owner's sole cost. In the case of required factory warranty service, shipping to Korea shall be at product owner's sole cost. Provided that Allnic has determined that the warranty is not void, Allnic will pay the cost of return shipping to product owner. If Allnic determines that the warranty is void, return shipping to product owner will be at product owner's sole cost.

After expiry of the applicable warranty period or if the warranty is void, Allnic Audio and its authorized representatives are not responsible for nor obligated in any manner whatsoever to undertake, or to cover or reimburse the costs of any repairs or modifications to this product.

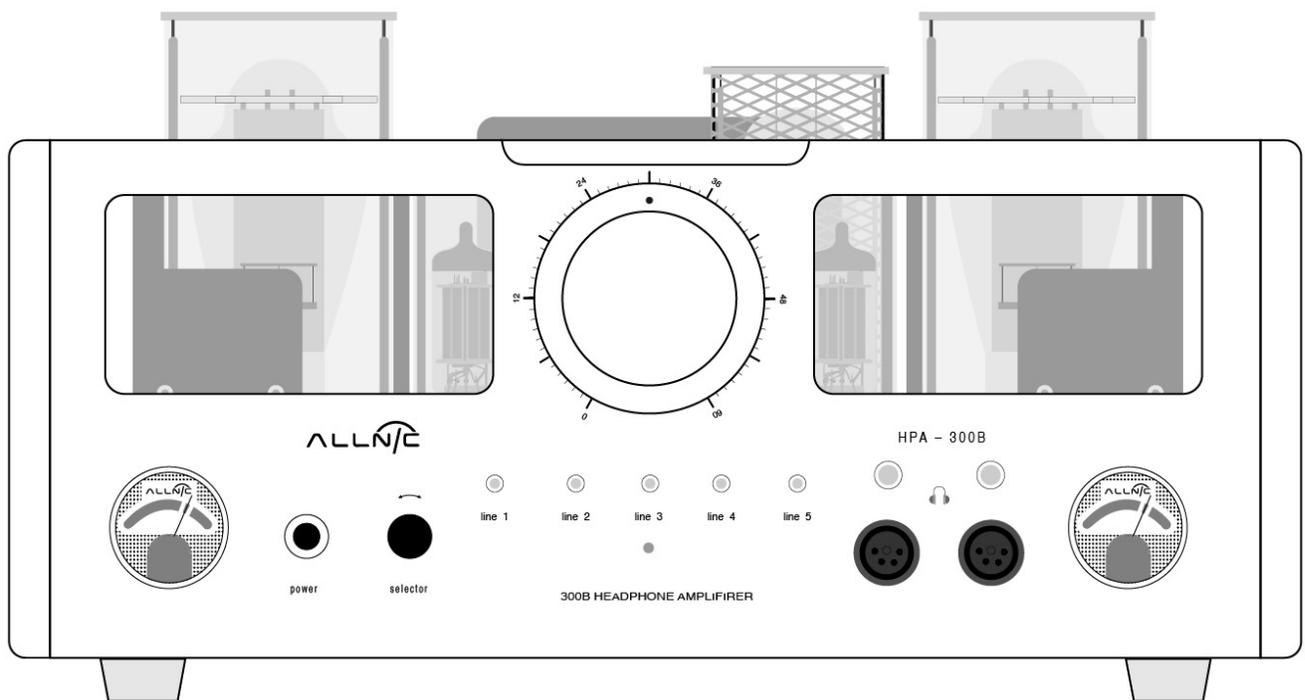
The warranty does not cover and Allnic Audio and its authorized representatives are not responsible for any incidental costs or damages to the person or property of original purchaser, any subsequent owner of this product, or any third party occurring as a result of any malfunction or misuse of this product however and whenever caused.

## FIGURES

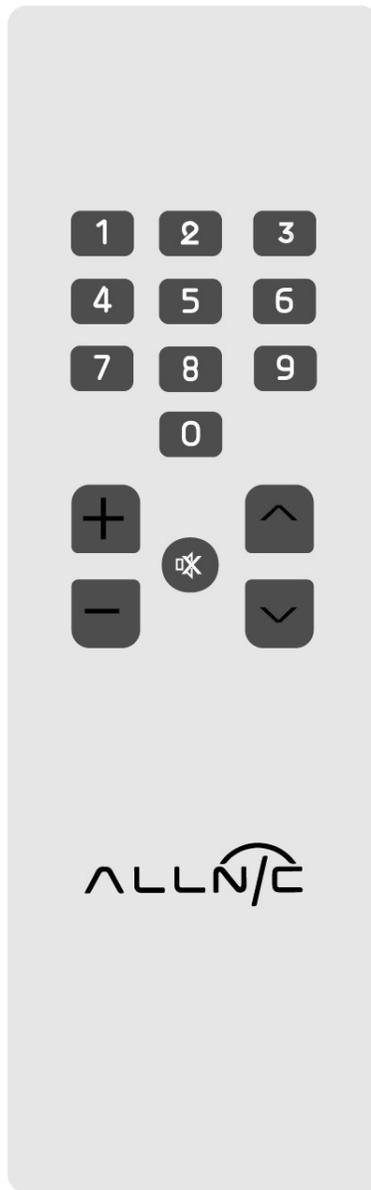
**Figure 1:**  
**HPA-300B Rear Panel View**  
(Note: tube dampers on 300B tubes)



**Figure 2:**  
**HPA-300B Front Panel View**  
(Note: tube dampers on 300B tubes)



**Figure 3:**  
**HPA-300B Remote**



**Figure 4:**

**HPA-300B Top View**  
(Note: 5U4G or 5U4GB)

