ALLNIC AUDIO

H-8000
DIRECT HEATED TRIODE PHONO-PREAMPLIFIER

OWNER'S MANUAL

ALLNIC AUDIO
H-8000 DIRECT HEATED TRIODE (DHT)
PHONO-STAGE PREAMPLIFIER

Thank you for purchasing the Allnic Audio H-8000 DHT Phono-stage Preamplifier. 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 H-8000 DHT Phono-stage Preamplifier 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.**

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Please read about **SAFETY** before you attempt to use the H-8000 DHT Phono-stage Preamplifier - we care about our customers and the equipment, and we want you to enjoy this product for a long time!

Thank you for purchasing the H-8000 DHT Phono-stage Preamplifier. The H-8000 DHT is a highly sophisticated and "purist" 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 New Old Stock (NOS) tubes. The H-8000 DHT is not a "plug, play and forget", mass-market device aimed at vinyl playback enthusiasts generally. Like all Allnic's top-tier products, it is first and foremost a state-of-the-art example of "Tube Amp Done Right". 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 essentially unequalled quality for many, many years.

ALLNIC AUDIO AND THE PURE DIRECT HEATED TRIODE BREAKTHROUGH

In the early years of the last century, the directly heated triode (DHT) was invented independently, and almost simultaneously, in the USA and Austria. This simple device, an anode, a cathode and a grid in a vacuum contained in a glass bottle, transformed the world. Over one hundred years later, the very first triode remains a favourite audio amplification device for devoted music lovers worldwide.

Debate about the quality of the DHT's sound reproduction potential continues even today. One of the interesting aspects of these debates is the degree to which they ignore analysis of common, fundamental assumptions about DHTs. Those assumptions are based on many decades of circuit and mechanical experimentation and compromise. Indeed, because of the difficulty of using DHTs for audio, many circuit design issues have evolved into assumptions about the audio characteristics of DHTs themselves.

Allnic's Mr. Kang Su Park has spent a lifetime studying and designing circuits and transformers for use of DHTs in audio reproduction. Mr. Park has questioned basic assumptions about DHTs, re-examined variations of DHT circuit designs, and researched and experimented rigorously. His work has resulted in some remarkable audio power amplification devices. For example, Allnic's 300B amplifiers produce significantly more power than normally expected. They do this without shortening tube life because the power increase is not achieved by increased bias. In conjunction with an increase in power, Mr. Park's 300B amplifiers also have exceptionally low distortion and wide bandwidth.

Mr. Park successfully combined elements of what he learned and invented over decades to the development and production of pure, direct heated triode (DHT) based amplifiers and preamplifiers. The main breakthrough was the design of a circuit, valve and transformer combination with astounding measured results. The purity of its square wave reproduction – as perfect as anything he had ever seen from a DHT valve amplification circuit – had him questioning what he was seeing! Of course, he replicated these tests many times and recorded them and their results before assuring himself that there was no mistake.

With such an unprecedented superior outcome for the circuit design, Mr. Park could not be satisfied placing a DHT stage after one or two stages using indirectly heated triodes. That approach is used in

a number of commercially available preamplifiers using DHTs, but it is a compromise. It does not result in PURE DHT amplification. It introduces the characteristics of indirectly heated triode sound into the circuit. The output DHTs are only amplifying a signal already determined by the initial stage indirectly heated triodes.

In contrast, Mr. Park created amplification devices that used DHTs at each amplification stage. In his designs, the output stage DHTs do not merely amplify the signal from indirectly heated triode stages. The Allnic Audio H-8000 is successor to the H-5000, the world's first commercially produced, pure DHT phono-preamplifier, from signal input to output.

Differences between the H-5000 DHT and H-8000 DHT:

Improvements have been made to the MC step up transformers, the output transformers and inter-stage units on the H-8000. In addition, the power transformers and diodes have been "beefed up" to allow for serious rectifier rolling of the excellent coveted choices from the 1930s, '40s and '50s. Both direct and indirect heated triode 5 Volt, octal-base rectifiers may be used in the H-8000. The H-8000 is shipped with 5U4G rectifier tubes, which are direct heated. While rectifiers can have audible effects, the rectifiers are not in the signal path; therefore, even with use of indirect heated rectifier tubes, the signal path in the H-8000 phono-stage remains pure DHT. Finally, the chassis has been redesigned to be even more pleasing to the eye.

THE DHT PHONO-STAGE AMPLIFICATION CHALLENGE

Over a century of research and experience, the grand masters of tube design concluded that only a well-made DHT amplifier can have absolutely the most natural and clear sound. In addition, only the DHT amplifier could combine that pure, undistorted sound with the ability to reproduce a true 3D sound stage occupied by life-size images of musical instruments, voices and other recorded sounds.

Successful creation of a complete, or pure, DHT phono-preamplifier has been the final goal, the dream, of tube master designers – now realized by Allnic Audio.

OVERCOMING THE DIFFICULTIES OF DHT PHONO-STAGE DESIGN

- Rarity of DHT tubes suitable for phono amplification

The essential DHT tubes for phono amplification should have high gain, low internal resistance and high mutual conductance. It is extremely difficult to make that kind of DHT tube. Among hundreds of kinds of DHT tubes, there are fewer than 5 that have the specific characteristics required for phono amplification. To find those tubes requires broad and deep knowledge of tube types and specifications and much time-consuming experimentation.

- DHTs' extreme sensitivity to micro-phonic noise

Due to their large, bulky and weak construction, DHT tubes tend to vibrate with the tiniest external stimuli, so it is almost impossible to use a DHT for phono reproduction without breakthrough engineering solutions to inhibit sympathetic vibration in the DHT tube. Allnic's

patented GEL tube damper socket, based on liquid elastomer, mitigate micro-phonic vibrations in the DHT tube.

- Difficulty of properly matching transformers to DHTs

There is no tradition of manufacturing DHT phono-stages, so there are no matching transformers available in the marketplace. It is, therefore, essential to have in-house capability to design and wind the transformers specifically required for production of a pure DHT phono-stage. Allnic has long experience with designing and winding custom transformers, so it is quite natural that a perfect DHT phono-stage could be made in the Allnic factory. In addition, Allnic has developed and produces a very small output transformer for DHT phono amplification. The smaller the transformer, the better sound will be reproduced due to the reduced size of the magnetic field of the core material, while still providing enough inductance for realistic low frequency reproduction.

- Designing a clean, strong but balanced power supply for noise-free DHT phono amplification

Since DHT amplification is so sensitive, and has the potential for extremely low noise reproduction, an all tube, high-speed, automatic voltage regulation (AVR) circuit is most appropriate for the power supply. AVR enhances the signal to noise ratio for noise free operation in dual mono mode. For the H-8000 phono-stage preamplifier, Allnic uses 300B tubes, a typical DHT, as a series regulator tube in an AVR circuit. This design results in a superior signal to noise ratio.

INTRODUCING THE H-8000 DHT PHONO-STAGE

The H-8000 is Allnic Audio's top of the line phono-stage. Like all Allnic Audio products, it uses Permalloy (iron and nickel alloy) for its signal transformer cores. Allnic is grateful to Mr. G.W. Elmen of Western Electric for inventing Permalloy for transformer core use, and in so doing, providing an enormous service to recorded music listeners everywhere.

Key Features of the H-8000 Phono-stage:

- **LCR TYPE PRE-RIAA AND RIAA EQUALIZATION:**

RIAA equalization is a specification for the correct playback of vinyl records, established by the Recording Industry Association of America. The purpose of the equalization is to permit longer playback times and improve sound quality. Before the establishment of the RIAA equalization standard, different production companies utilized different equalization curves.

Vinyl record production equalization is a form of establishing a flat frequency response for the playback of recorded music. The necessity for this equalization process arises from mechanical difficulties inherent in record production. In order to prevent the cutting needle from over-cutting into the next record groove in the bass, as a record is cut, some bass frequencies are attenuated. In the treble region, in order for high frequency sounds not to be masked by the

noise inherent in moving a stylus over and through a modulated vinyl surface, some treble frequencies are boosted. With the application of the correct filtering techniques on playback, the result is a flat frequency response with better signal to noise ratios.

The H-8000 is equipped with newly developed Allnic "Multi-Curve" LCR units (one for each channel) which have four (4) Turn-overs (frequency options) and four (4) Roll-offs (gain reductions in dB). These new units provide for the reproduction of various recording curves (both for bass attenuation and treble boost) used by different companies prior to the establishment of the RIAA standard. There are 4 Turn-over options, at: 250Hz, 400Hz, 500Hz RIAA and 700Hz. There are 4 Roll-off options (at 10KHz): -5dB, -11dB, -13.7dB RIAA and -16dB (See Figure 7).

- **Why LCR?**

There are four de-emphasis methods for equalization to that can be applied at playback:

A. Active filters (Negative feedback types):

Different quantities of negative feedback are applied, with deeper feedback to the high frequencies and shallower to the low frequencies. The benefits of this method are improved signal to noise ratios, low cost and consistent operation. Some of the shortfalls are looser bass reproduction and, possibly, a pinched and compressed high frequency playback due to excess feedback ratios.

B. Passive filters (CR type):

The frequencies are filtered to fit the RIAA specification by varying the amount of attenuation at different frequencies through a complex capacitor-resistor network. This technique results in no voltage overload, purer reproduction (because there is no feedback), and more accurate RIAA compensation. However, there are problems because the system provides no gain, and insertion loss and impedance matching issues arise.

C. Hybrid filters (use of both CR and negative feedback types):

In this method, both types of filters applied separately; an active filter is applied to the low frequencies and a passive filter to the high frequencies. Unfortunately, both the advantages and disadvantages of each of these two types of filters, already discussed, affect the playback system at the same time.

D. LCR filters, used in the H-8000:

Two pieces of a linear reactor (a kind of choke coil) comprise the main part of these filters, assisted by precise CR filters, in order to lower impedances and insertion loss.

In vacuum tube circuits, active and passive filters usually are operated on one hundred plus kilo-ohms of impedance. An LCR equalization filter's impedance is a constant 600 ohms.

Furthermore, an LCR equalization filter's series resistance is less than 13 ohms (as a comparative, some famous ones are 31 ohms). The lower the impedance, the more dynamic is the sound reproduction, with better bass response and speed.

But LCR equalization units have drawbacks as well. These drawbacks are high cost and the difficulty of impedance matching; the latter has been the primary hindrance to the commercialization of this superb method in the construction of phono-stage amplifiers. However, Allnic Audio manufactures high quality LCR equalization units in-house and has developed a 600 ohms impedance matching method.

In addition, the H-8000 also has the following features:

- The H-8000 Phono-stage is transformer coupled, with the exception of the first gain stage, the HL-2K tube.
- No negative feedback design with three gain stages
- A dual-mono (separate left and right channels) power supply unit separate from the pure DHT phono-stage itself
- High quality MC Step-up Transformers with Permalloy cores are used for the H-8000's dual MC inputs.
- New vacuum tube damping technology – Allnic Audio's patented "Absorb GEL tube damper" technology prevents harmful vibrations from reaching the signal / gain tubes and, therefore, prevents micro-phonic noise propagation in the tubes. The Allnic Audio Absorb Gel damper technology effectively solves a problem that plagues most tube amplification systems. Provided other tube components do not introduce micro-phonic noise into your system, with the Absorb Gel damping system, you will enjoy a degree of transparent sound that will surprise and please you.
- Pure Class A operation
- Pure balanced operation
- As are all Allnic Audio products, the H-8000 is fully RoHS (EU Reduction of Hazardous Substances regulation) compliant in construction and materials.

The H-8000 has been designed and manufactured to work most synergistically with Allnic Audio preamplifiers, amplifiers, active step-up, and Zero Loss (ZL) cable products.

WHAT'S IN THE BOXES?

Please check that the two (2) shipping boxes contain the following:

- One (1) Allnic H-8000 phono-preamplifier – in natural aluminum or black, depending on your order specification
- One (1) H-8000 power supply – in natural aluminum or black, depending on your order specification
- One (1) power umbilical cord (attached to power supply unit)
- One (1) IEC type power cord
- One (1) Owner's Manual
- One (1) Hex/Allen key

Note:

1) The H-8000 phono-preamplifier and power supply units ship with the tubes installed. BEFORE connecting the H-8000 to the wall outlet, please open the chimneys ON BOTH THE POWER SUPPLY AND THE PHONO-STAGE and remove ALL the paper and Styrofoam shipping materials from the tubes. It is optional to remove any O rings. Some customers prefer them on, others off.
2) The H-8000 power supply will work with most IEC type aftermarket power cords. The H-8000 is a highly sensitive piece of electronic equipment designed for neutrality and will output what you put into it. **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 H-8000 in your system.
3) Be sure the H-8000 power supply unit is labeled for the AC voltage of your location. If it is not, DO NOT connect the power supply to the AC wall receptacle and contact your Allnic Audio dealer.

We advise that you keep the boxes and other packing materials that your H-8000 units came in. They will be useful if you sell your H-8000, or in the unlikely event you need to ship the units for service.

SAFETY!!

- **BEFORE connecting the H-8000 power supply to the wall outlet, please open the chimneys ON BOTH THE POWER SUPPLY AND THE PHONO-STAGE and remove the paper and styrofoam shipping materials from the tubes; the paper packing materials are installed only to protect the tubes during shipping. It is optional to remove any O rings from the tubes. Some customers prefer them on, others off.**
- **DO NOT leave the H-8000 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 power cords by pulling the plug, not the cable.
- Do not attempt any repairs. Do not remove the units' chassis covers without specific authorization from your Allnic Audio dealer.
- Keep all cables away from heat sources.
- Ensure there is plenty of free space around and above both the phono-stage and power supply units.
- Keep the units away from liquids – do not allow any liquid to enter the interior of the units.
- When the units are moved from a cold to a warm environment, allow sufficient time for any condensation to evaporate in both units before plugging the power supply unit 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 H-8000 and its power supply.

B. Connectors
You may use any good quality contact cleaner recommended for such applications to clean the contacts from time to time, as you deem appropriate.

INITIAL SET-UP

A. LOCATION, LOCATION, LOCATION

Like all audio products using tubes, the Allnic Audio H-8000 and its power supply need to be placed on a solid base that is not subject to vibration or sudden shock, and that provides good air circulation around, above and below both the phono-stage and the power supply.

- **DO NOT** cover the tops of the H-8000 phono-stage or power supply tube chimneys.
- **DO NOT** drop the units! For those who may want to place the H-8000 or its power supply on some kind of after-market isolation feet or similar devices, dropping one side of either of the H-8000 units, or the whole of either unit may result in damage to the units that will not be covered by warranty.
- **DO NOT** place the units near a strong light or heat.
- **DO NOT** place anything heavy on the units.
- **DO NOT** allow rubber or vinyl materials to rest on either units' chassis for long periods of time. This could discolour the metal.
- **DO** place the units on a well-ventilated shelf or stand that is stable and not subject to vibration or sudden shock.
- **DO** consider using a high-quality power cord, as well as interconnects for both inputs and outputs. The H-8000 is a highly sensitive piece of electronic designed for neutrality and will output what you put into it. **Allnic's Zero Loss Technology cables, including the Mu metal shielded ZL phono cable and interconnects and the high current, low noise ZL-5000 and ZL-3000 power cords will work synergistically with the H-8000.**
- **DO** try to place the H-8000 and its power supply away from major sources of RFI and EMI; though well shielded, the H-8000 units will function best away from large power transformers and other sources of such interference.

B. POWER CONNECTIONS

The H-8000 power supply uses a standard 15 amp, three prong male IEC connection for AC input on the right hand of the rear of the unit's chassis. You need a power cord with a 15 amp female three prong IEC connector at one end (See Figure 5). **Please note that use of a three phase AC power source or an AC regenerating power conditioner may cause hum.**

The H-8000 power supply connects to the phono-stage itself using the supplied umbilical cable, fixed to the rear of the power supply. Connect the units to each other by connecting the umbilical cable to the phono-stage unit using the screw-on connection of the receptacle labeled "DC Source

Input" on the right rear of the phono-stage unit (See Figures 2 and 5). The umbilical cable has separate conductors for each channel.

The H-8000 will be set internally for your location's electrical system characteristics. Please check the setting for electrical input on the label on the rear of the power supply to confirm that your H-8000 matches your location's electrical system. The H-8000 power supply is set internally for AC 110/120 volt – 50/60 HZ operation or 230/240V – 50/60 Hz operation. There is no way to change this to another AC setting. **If the setting is incorrect, do not connect the H-8000 to the AC source - contact your Allnic dealer.**

C. INPUTS

There are two (2) sets of two (2) pairs of single-ended (RCA) inputs. Four tonearms can be connected at the same time. These two pairs are located on the left had side of the rear of the phono-stage (See Figure 2) and labeled "Input" between and above them. Each channel pair of inputs is aligned vertically, with the left channel input at the top, labeled "L" and the right channel input on the bottom, labeled "R".

The two left hand pairs of inputs (facing the back of the phono-stage) have an "MC" label between and above the two left channel connectors; these are the two input pairs for a moving coil cartridge. The right-hand pair of inputs has an "MM" label between and above the left channel connectors; these are the two input pairs for a moving magnet cartridge. Each pair of moving coil and moving magnet connections has a number label between the left and right channel input connections. The "1" pair is to the left of the "2" pair for both MC and MM pairs. These number labels correspond to the input numbers on the selector knob on the front panel of the phono-stage. All inputs can be connected at the same time. There are also two screw type, ground connection pins, one to the left and one to the right of the two sets of MC and MM input connections. Both ground connections can be connected at the same time.

When you are facing the front of the H-8000, the two pairs of MC connections are on the right of the unit, with the two MM connections immediately to their left.

To select the input you want to play, MC1 or MC2 or MM1 or MM2, use the MM or MC and Input 1 or 2 buttons on the right-hand side of the face of the phono-stage (See Figure 1). The left button selects MM and MC. MM is selected when the button is in the down position. MC is selected when the button is up. The right button selects input 1 or 2 for whichever cartridge type you have chosen. Input 1 for the cartridge type is selected when the Input button is in the down position. Input 2 for the cartridge type is selected when the Input button is up. **For both inputs and outputs, Allnic's Zero Loss Technology interconnects will work synergistically with the H-8000.**

D. OUTPUTS

The H-8000 is equipped with one pair of unbalanced or "single-ended" (RCA) outputs and one pair of true balanced (XLR) output connections. Each output pair is oriented vertically, with the left channel output connectors above the right channel output connectors. The left channel output connectors are labeled "L", and the right channel output connectors are labeled "R" (See Figure 2).

Each pair of output connections is numbered. The unbalanced (RCA) output connections are labeled "1", and the balanced (XLR) connections are labeled "2".

Immediately to the right of the two pairs of output connections is a switch for selecting either the balanced or the single-ended output connectors. The switch is labeled to indicate that the upper position is for the balanced (XLR) output connectors, with the lower position being for the unbalanced (RCA) output connectors. You may have both balanced and unbalanced outputs connected at the same time without introducing hum PROVIDED you have the output switch set to unbalanced output.

E. MOVING COIL (MC) TRANSFORMER CONTROLS AND IMPEDANCE

On the top of each channel's MC transformer, located on the right rear of the chassis deck of the phono-stage unit (if you are facing the front of the unit), there is a rotating control (see Figures 3 and 7). Turn the control knobs to select from four gain factors: +22dB, +26dB, +28dB and +32dB (x 13, x 20, x 26 and x 40). The four control positions are labeled as both gain and the turn ratio of the MC transformer; for example, the lowest gain position of +22dB automatically corresponds to a turn ratio of x13. You should use identical settings for both transformers to avoid channel imbalance.

Impedance for both MC inputs is fixed at 47 KΩ (Kilo-ohms) and cannot be independently adjusted. However, impedance varies with the gain adjustment on the transformers, from 29 to 278 ohms (see Table 2). The impedance values in Table 2 represent internal cartridge impedances, and the highest are at the very extreme of what would normally be expected for the internal impedance of any MC cartridge.

The MM input pairs are fixed at 47 KΩ impedance.

NOTE:
Please mute your H-8000, and/or reduce your preamplifier's volume control, during transformer gain adjustments. Be aware if you are increasing gain, that you may hit an uncomfortably loud volume level.

F. PHONO EQUALIZATION CONTROLS

The H-8000's phono equalization curve controls, of which there are two pairs, one for each channel, are on top of the transformers located on the left front corner of the phono-stage unit (if you are facing the front of the unit - see Figures 3 and 8). Use the rotary knobs to set the equalization for each record. The RIAA standard, which is used for most records, is a Turn-over of 500 Hz and Roll-off of -13.7 dB; this standard is indicated for each control knob (See Figure 3). Be sure to set the controls identically for both channels. A selection of some of the more common possible non-RIAA settings are found in Table 1 of this manual.

G. A NOTE ON PHASE

Phase issues generally will result in lack of bass and/or focus of the stereo image. You may need to reverse connections on your cartridge if you are having phase issues. As is usual in these circumstances, some trial-and-error experimentation may be required to find the correct position.

The process is simplified for you with the H-8000, as it has a phase control switch on the front panel of the phono-stage unit (see Figure 1). Switch down is normal; switch up is inverted.

INITIAL POWER-ON

Once you have your H-8000 phono-preamplifier and power supply units in place, the power supply is connected to the electrical source, and all connections have been made to your turntable and preamplifier and are secure, you are ready to turn on the power for your H-8000.

Before you power up the H-8000, though, be sure you have:

- **removed the packing materials from the tube chimneys ON BOTH THE POWER SUPPLY AND THE PHONO-STAGE UNITS**
- checked that all your system connections are properly mapped and secure
- selected the output connections that you want to use, single ended (RCA) or balanced (XLR), on the switch on the back of the phono-stage (See Figure 2)
- turned the volume down or muted your preamplifier
- pressed the button switch on the left-hand side of the front panel of the phono-stage, labeled "muting" below and having button in and out icons for operate and mute, respectively, to the out/up "mute" position (see Figure 1)
- pressed the button switch to the right of the mute button on the left-hand side of the front panel of the phono-stage to the appropriate phase position, either "normal" (pressed in) or "inverted" (out position). We suggest starting with "normal" (See Figure 1)
- set the MM / MC and the Input 1 or 2 buttons on the right side of the face of the phono-stage to the input you will use initially (See Figure 1), MC1 or MC2 or MM1 or MM2
- if you are using a moving coil cartridge, set the MC transformer controls on the top of the chassis to the factor that you will try initially
- set the Phono Equalization controls for both channels for the setting for the first record you will use

To turn on the H-8000, push down the top of the rocker switch on the left-hand panel of the power supply (facing the front of the unit) near the front of the unit. This is the "on" position. Of course, to turn the power off, push down the bottom of the rocker switch to its "off", position.

OPERATION

When the power supply is on, the LED in the top centre of the front panels of both the phono-stage and the power supply, and the two current meters on the front panel of the power supply will illuminate.

To avoid surges to the speakers, it is best to switch between MM or MC input, or between inputs 1 and 2 of either, only with the H-8000 in "mute" mode and with your preamplifier volume down or muted.

From this point on, operation is straight-forward. All functions except for the MC transformers' gain selection and the phono equalization controls are accessed from the front panel. The MC transformer and equalization controls are accessed from above (see Figure 3). Of course, BE

CAREFUL about differences in gain between your sources. Generally, disc players and tuners will have greater gain than phono-stages. That means the volume setting for listening to your turntable might be too high for listening to CDs.

When you are finished listening, turn off your power amplifier(s); then turn off your preamplifier, and then turn off the H-8000 last by pressing the on-off rocker switch on the right-hand panel of the power supply (facing it from the front) to its "off" position.

THE CURRENT METERS

These illuminated meters on the front panel of the power supply indicate the current supply to the single HL2K and the two RS242 tubes in each channel of the H-8000. There is one meter for each channel. The meters will indicate failure or damage to the function of the unit. The needle should be between the two parallel lines just left of centre on the meter face. Any failure of the tubes or circuits in one or the other of the H-8000's power supply or preamplifier channels is indicated by the needle on the meter for the respective channel moving considerably left or right, respectively, out from between these two parallel lines. A reduction or total loss of signal in the associated channel will occur with such a meter indication.

If all power has been lost, check the mains fuse on the power supply. If that has blown, it suggests an issue with the power supply unit.

SAFETY: ALWAYS POWER OFF AND DISCONNECT THE POWER SUPPLY UNIT FROM THE AC SOURCE WHEN REMOVING OR INSERTING TUBES IN THE POWER SUPPLY AND/OR PREAMPLIFIER UNITS AND/OR THE MAINS FUSE IN THE POWER SUPPLY UNIT!!

Where the mains fuse has blown, check the 5U4G tubes for damage. An appropriate tube tester will allow you to determine which 5U4G has failed – it may be both because of a surge, for example. if a 5U4G tube has failed, it will be obvious because the tube's filament will not glow, among other possible indicators. Replace the failed 5U4G(s) and then the mains fuse with the spare in the IEC mount or first with a good, inexpensive one to avoid risk if you are using a more costly aftermarket fuse.

If the mains fuse has not failed and there is still power to the units, first check the 5U4G for the affected channel with an appropriate tube tester, though the damage may be obvious from the same indicators mentioned above. Replace the failed 5U4G with a good one. If the 5U4G for the lost channel is functional and you do not have an appropriate tube tester, first swap the left and right channel 300Bs. If the failure moves to the other channel (follows the tube), replace the failed 300B tube. If swapping the 300Bs does not reverse the failure, then swap the 5654 tubes. Replace the failed 5654 tube.

If a meter falls partly to the right accompanied by loss or reduction of output in the associated channel, the problem is in the preamplifier unit. Again, an appropriate tube tester can help you identify the failed tube(s). If you do not have access to a tube tester, you should be able to identify the tube(s) causing the issue by swapping, first, the two tubes of the pair of the RS242 tubes closest to the front of the unit from one channel to the other. If the problem changes to the other channel, you have identified the problem. Replace the failed tube. If the problem does not change channels,

swap the left and right channel tubes of the other pair of RS242s, those closest to the rear of the chassis. If the failure changes to the other channel, replace the failed RS242. If the failure does not change sides, swap the HL2K tubes from one channel to the other. If the problem changes to the other channel, you have identified the problem. Replace the failed RS242 tube.

It is extremely rare but possible to lose signal in a channel with the associated meter still showing perfectly. In this case, there could be failure of an HL2 tube in the preamplifier unit or of a 300B or 5654 in the power supply for the affected channel. If you do not have a tube tester, use the swapping procedures above to determine the failed tube, starting with the 300Bs, then the HL2s and finally the 5654s.

The above processes can also be used to identify a problem tube where one has become noisy or microphonic.

If you require any assistance in the case of a failure indicated by a meter or loss of signal (please ensure all your connections are properly mapped and secure), please contact your Allnic dealer.

TUBES

The H-8000 uses the following tubes (See Figures 3 and 6):

Phono-stage:

- Two (2) x HL2K - first gain stage
- Four (4) x RS242 - second and third gain stages

Power Supply:

- Two (2) x 5U4G – Rectifiers
- Two (2) x 5654 – Voltage error detectors
- Two (2) x 300B - Voltage Regulators

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 especially fragile and more prone to fail prematurely in use despite intensive testing. Included 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 H-8000 or any injury or loss incurred by the user resulting from the user changing or attempting to change tubes.

SPECIFICATIONS FOR THE ALLNIC AUDIO H-8000 PHONO-STAGE

Inputs:
- Moving Coil (MC) × two (2) pairs unbalanced (RCA)
- Moving Magnet (MM) x two (2) pairs unbalanced (RCA)

Ground:
- Two (2) x screw type terminals

Outputs:
- One (1) pair x unbalanced (RCA)
- One (1) pair x balanced (XLR)

Frequency Response (RIAA):
- 30Hz ~ 20KHz (±0.5dB)

Voltage Gains:
- MM +44dB (1KHz)
- MC +74dB (1Khz)

Input Impedance:
- MC - up to 200 Ω
- MM – up to 47 KΩ or, upon request, up to 85 KΩ

Maximum Input Voltage:
- MM non-clipping:
- 30 Hz – 10mV
- 100 Hz – 45mV
- 1KHz – 200mV
- 10 KHz – 600 mV

Total Harmonic Distortion (THD):
- Less than 0.3% (1KHz, Output 1V)

Output Impedance:
- 300 Ω (Constant)

Signal to Noise (S/N) Ratio:
- - 80db (CCIR, 1KHz)

Power Consumption:
- 70W at 220 V / 110/120 V / 50 / 60 Hz

Tubes:

Phono-stage:

- Two (2) x HL2K - first gain stage: no equivalents
- Four (4) x RS242 - second and third gain stages: no equivalents

Power Supply:

- Two (2) x 5U4G – Rectifiers: equivalents - any 5V octal-base rectifier, indirectly or directly heated.
- Two (2) x 5654 – Voltage error detectors: equivalents are 5654W, 6AK5, 6AK5W, CV4010, M8100, 6096, E95F, EF95, E905F
- Two (2) x 300B - Voltage Regulators – no equivalents

Fuse:

- AC 3A, 250V, 5x20mm slow-blow for 110/120V regions
- AC 2A, 250V, 5x20mm slow-blow for 230/240V regions

WARNING. Note that the fuse above the IEC inlet may be misprinted. Notwithstanding what may be printed above the IEC inlet, the correct rating for the fuse is 3A 250V 5x20mm slow-blow for 110/120V regions and 2A 250V 5x20mm slow-blow for 230/240V regions.

Dimensions:

Phono-stage:

- 430mm (16.9 inches) x 360mm (14.3 inches) x 250mm (10 inches) (W x D x H)

Power supply:

- 430mm (16.9 inches) x 360mm (14.3 inches) x 250mm (10 inches) (W x D x H)

Weight:

Phono-stage:

- 15 Kg (33 lbs.) unpacked; 17.5 Kg (38.5 lbs. in original packing)

Power supply:

- 16.7 Kg (36.77 lbs.) unpacked; 19 Kg (42 lbs. in original packing)

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.

Table 1: Some Common Equalization Settings

RECORD LABEL	TURN-OVER	ROLL-OFF
HMV, EMI-ANGEL, WESTMINSTER, EPIC, & COLUMBIA	500Hz (Early versions 250Hz)	-16dB (Sometimes -13.7dB) (Early versions 0dB)
DECCA L'OISEAU-LYRE	500Hz *Early ffrr 700Hz	-11dB -11dB
ARGO, RCA (New Orthophonic), & BRUNSWICK (RIAA)	500Hz	-13.7dB
RCA (1949-51) RCA (1951-52)	700Hz 500Hz	-13.7dB -13.7dB
TELEFUNKEN & (German) DECCA	400Hz	-5dB
PHILIPS	400Hz	-5dB
MERCURY	400Hz	-11dB
MELODIYA, DG & ETERNA	500Hz (Sometimes 250Hz)	-13.7dB (Sometimes -11dB or -16dB)
NARTB	500Hz	-16dB
CAPITOL (1942)	400Hz	-11dB

* *This chart is for general reference only and can be changed without prior-notice as more information becomes available.*
* *Values are rounded in accordance with Allnic measurements.*
* *This Table of Common Equalization Settings has been assembled thanks to kind guidance of MR. SUNGJUN PARK, the well-known Korean conductor.*

Table 2: Impedance Combination Table

T / R[1.] / S R[2.]	**1 / 13 +22dB**	**1 / 20 +26dB**	**1 / 26 +28dB**	**1 / 40 +32dB**
47 K ohms	278 ohms	117 ohms	70 ohms	29 ohms

1. *Turn Ratio of Step-up Transformer*
2. *Secondary Load Resistor*

FIGURES

FIGURE 1 – H-8000 DHT Preamplifier Unit Front View

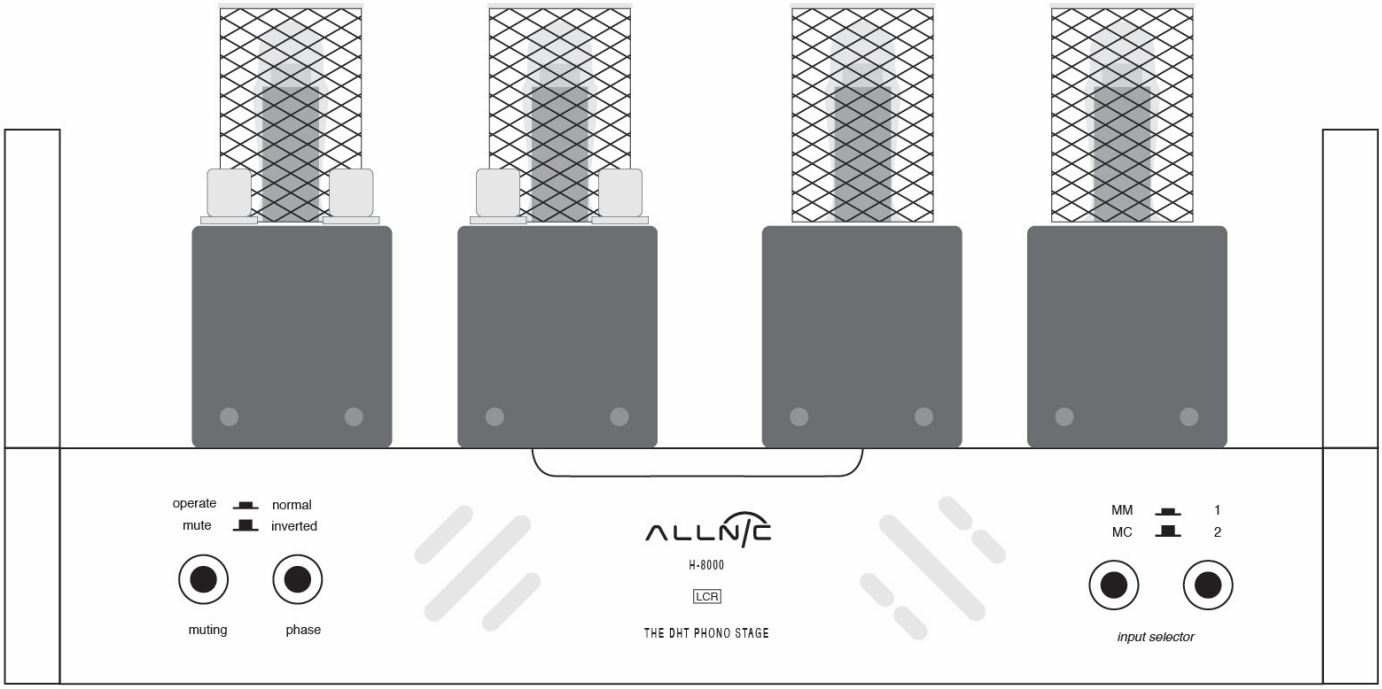


FIGURE 2 – H-8000 DHT Preamplifier Unit Rear View

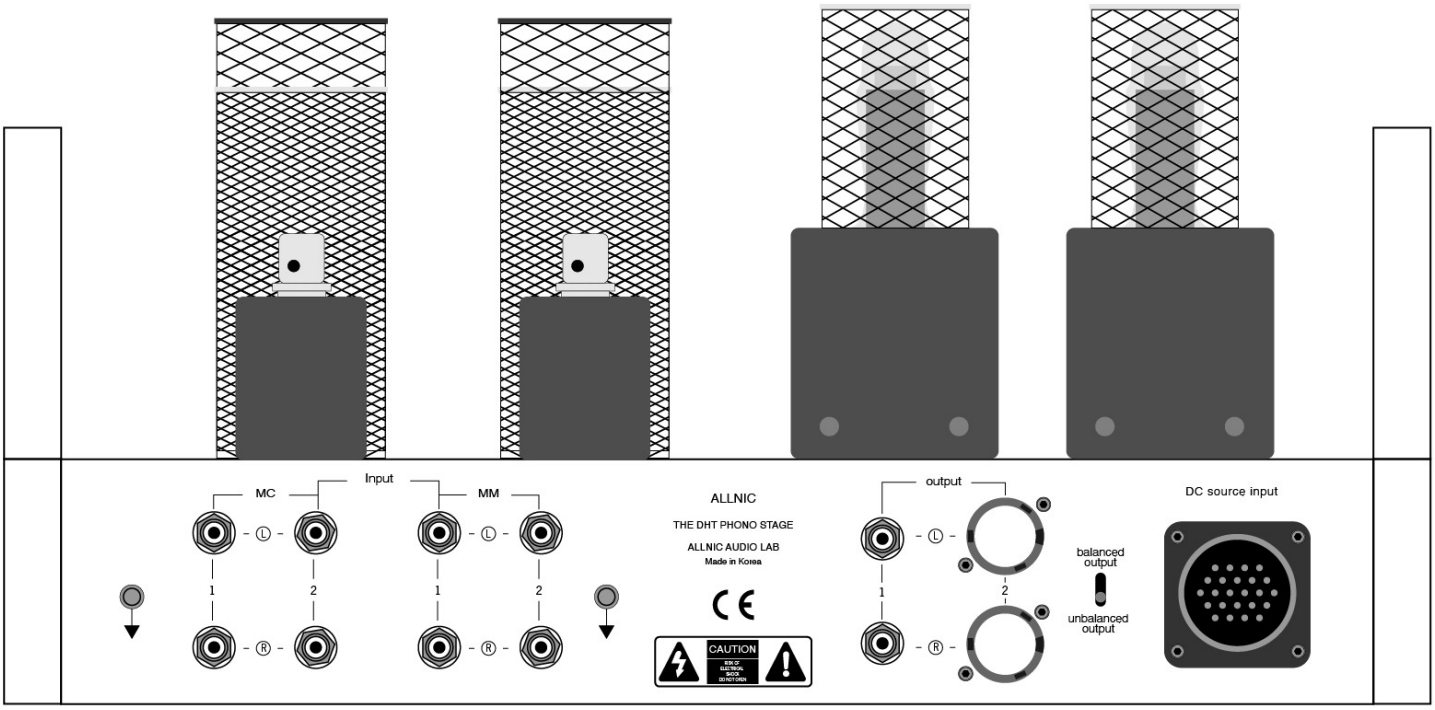


FIGURE 3 – H-8000 DHT Preamplifier Unit Top View

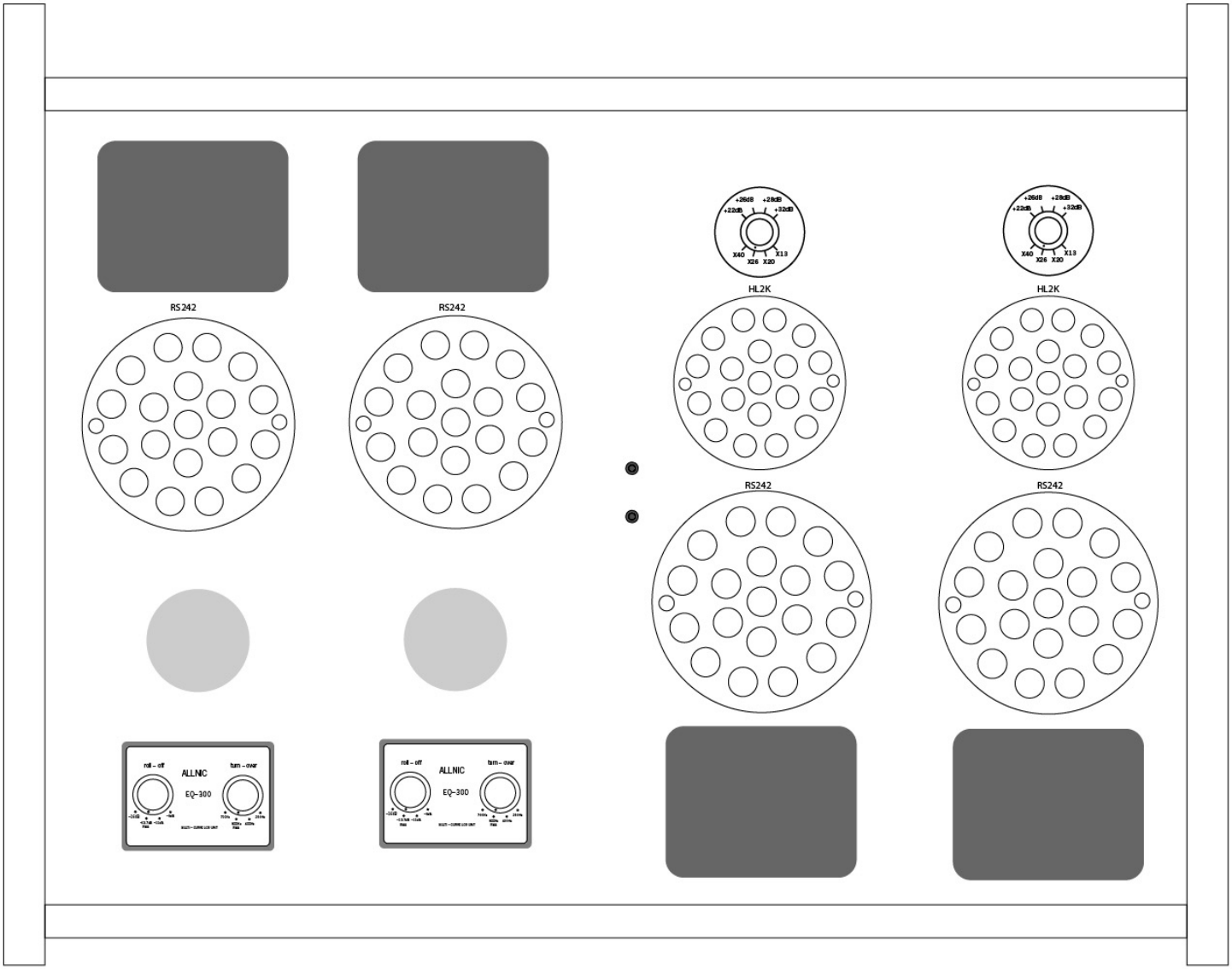


FIGURE 4 – H-8000 DHT Power Supply Front View

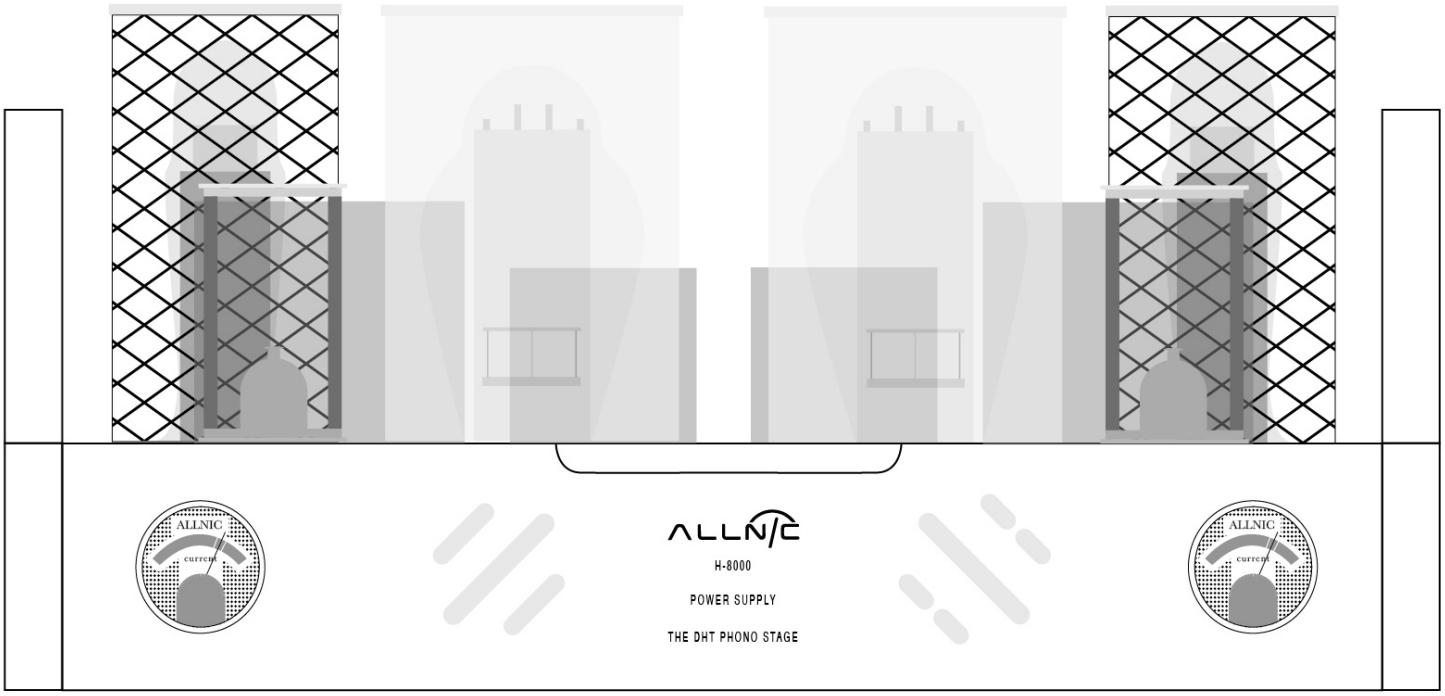
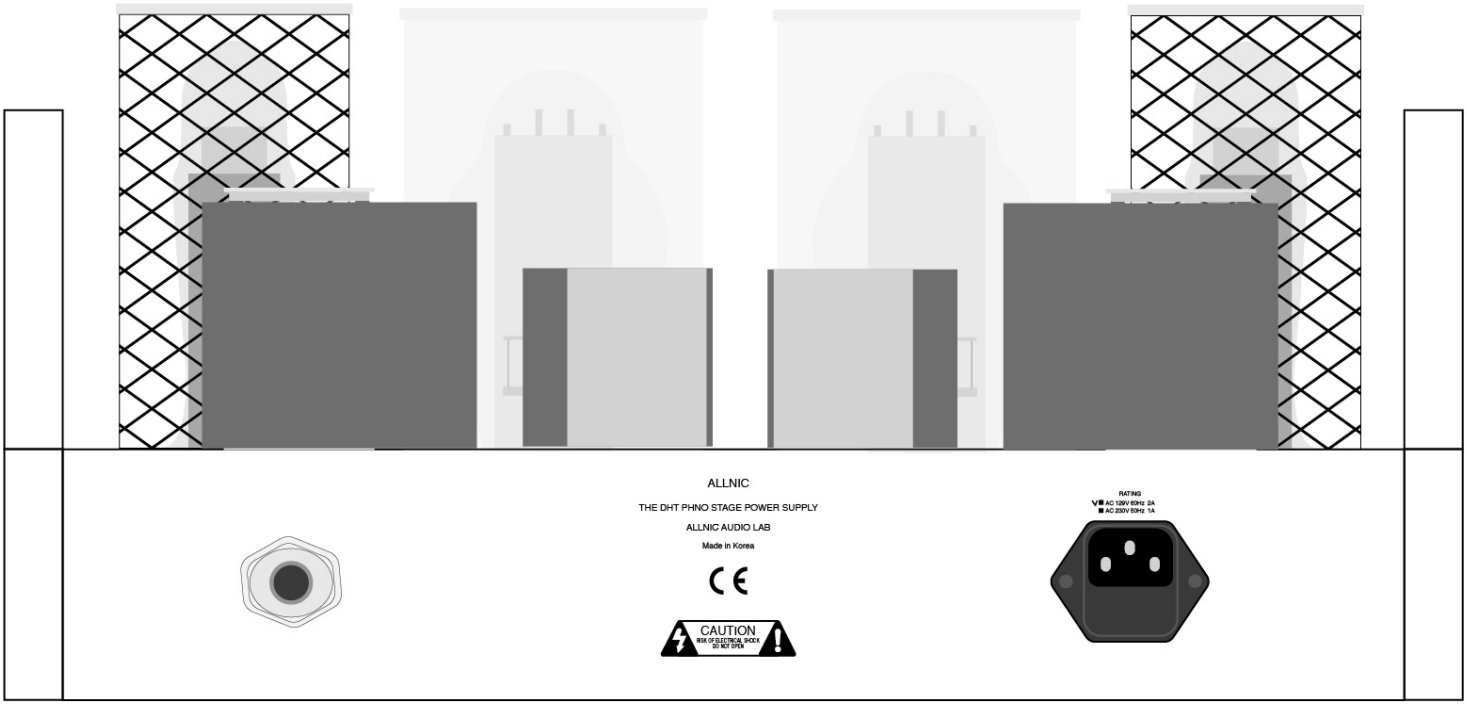


FIGURE 5 – H-8000 DHT Power Supply Rear View



WARNING. Note that the fuse above the IEC inlet may be misprinted. Notwithstanding what may be printed above the IEC inlet, the correct rating for the fuse is 3A 250V 5x20mm slow-blow for 110/120V regions and 2A 250V 5x20mm slow-blow for 230/240V regions.

FIGURE 6 – H-8000 DHT Power Supply Top View

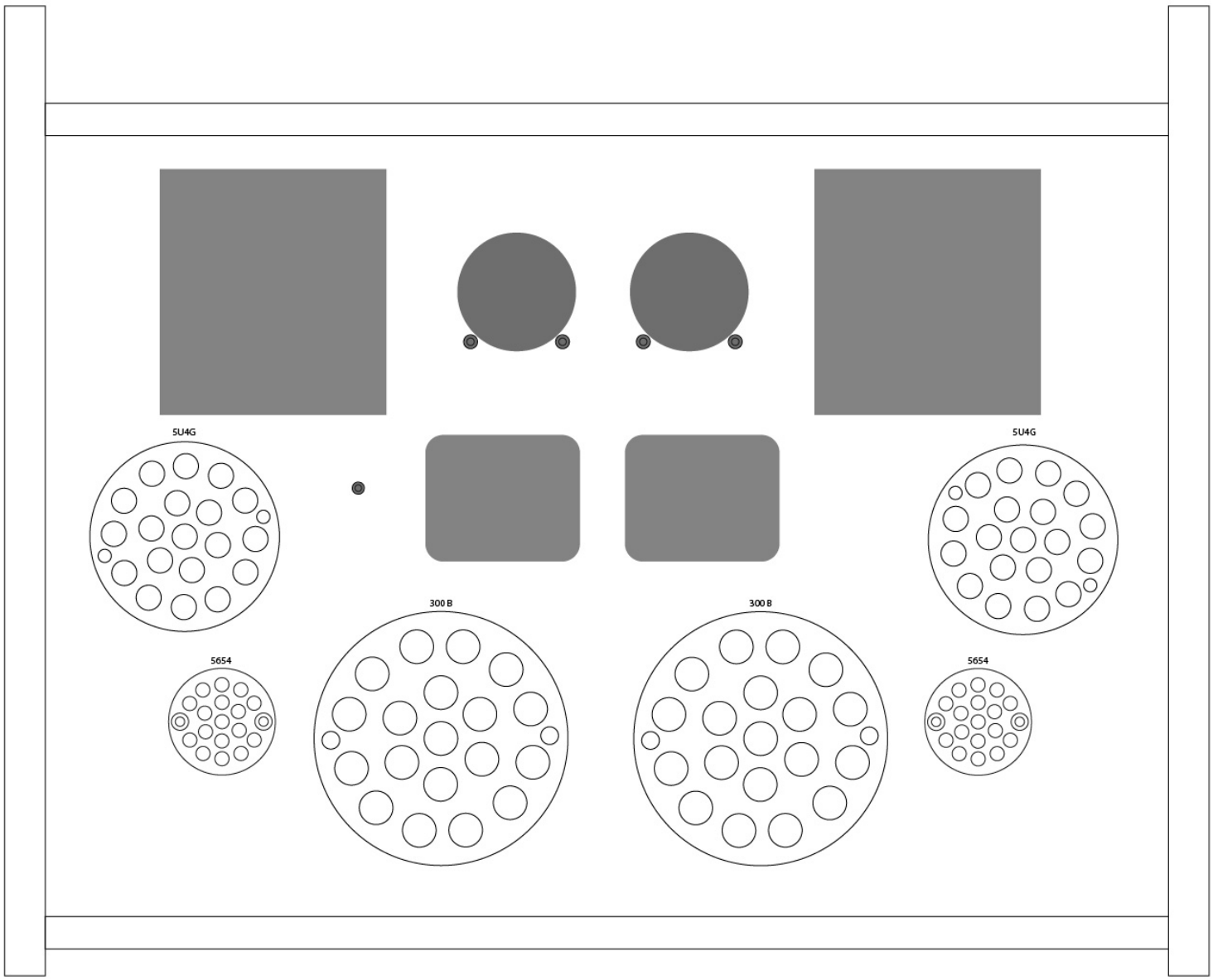


FIGURE 7 – H-8000 DHT Step-up Transformer Gain Controls

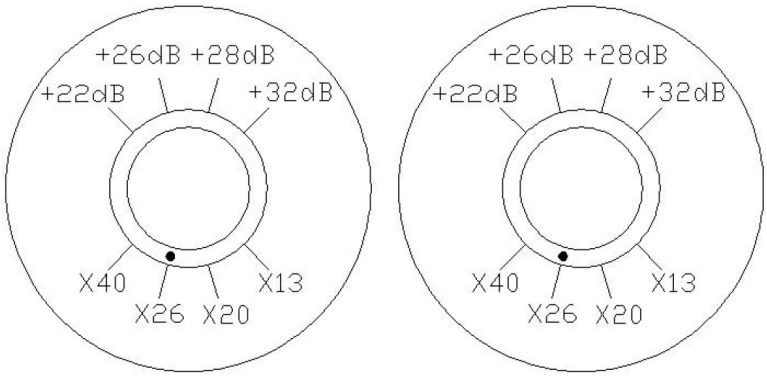


FIGURE 8 – H-8000 DHT EQ Controls