ALLNIC AUDIO

M-10000 Titan *Signature*

KT170 MONOBLOCK POWER AMPLIFIER

OWNER'S MANUAL

ALLNIC AUDIO
M-10000 TITAN *SIGNATURE* MONOBLOCK AMPLIFIER

Thank you for purchasing the Allnic Audio M-10000 Titan *Signature* Monoblock Power 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 M-10000 Titan Signature Monoblock Amplifier 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 M-10000 Titan *Signature* - 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 M-10000 Titan *Signature* monoblock power amplifier. The M-10000 Titan *Signature* monoblock power amplifier is a highly sophisticated but "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. M-10000 Titan *Signature* monoblock power amplifier is not a "plug, play and forget", mass-market device aimed at the home audio market 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.

INTRODUCING THE M-10000 TITAN *SIGNATURE* MONOBLOCK POWER AMPLIFIER

The M-10000 Titan *Signature* monoblock is Allnic Audio's flagship, top of the line and most powerful power amplifier. A quad-parallel push-pull design delivering 480 watts, designer and Allnic founder K.S.Park considers it the top representative of his legacy in the design and manufacture of vacuum tube power amplification. Like all Allnic Audio products, the M-10000 Titan *Signature* has Permalloy (iron and nickel alloy) for its output transformer core. 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.

The M-10000 Titan *Signature* is an updated version of the original Titan. It uses the new, powerful and musical KT170 power tube, with requisite changes to transformers and circuit elements, as well as new features for user convenience. The M-10000 Titan *Signature* has the following features:

- The M-10000 Titan *Signature* delivers 480 watts of high-power output from eight KT170 beam tetrodes arranged as four push-pull pairs of power tubes wired in parallel.

- Powerful Driving Circuitry. Allnic believes in the importance of using high-quality, low noise and powerful driving circuitry in all its amplifying devices. Therefore, in the M-10000 Titan *Signature*, we employ the powerful 12A4 triode tube as the second stage driver tube. The listener can easily hear and even "feel" the differences between this design and other, more conventional, ones. Please imagine,

as you listen to the M-10000 Titan *Signature*, its sound compared to the sound of an amplifier with conventional 12AU7 or 12BH7 tubes used as drivers.

- “Full Engagement" Output Transformers. Conventional output transformers use pre-set secondary windings to accommodate 4, 8 and 16 ohm loudspeaker loads. However, these conventional transformers utilize only one secondary winding at a time, while the other secondary windings remain "idle". This approach has two adverse effects. First, the output transformers are not working at their maximum efficiency, reducing their output relative to their potential. Second, the "idle" windings are not actually "idle"; they are subject to parasitic oscillations, producing their own "signal". This undesirable electrical information is additive to the transformer's output, distorting the amplified signal going to the loudspeaker. Allnic's "Full Engagement" transformers address these issues by having 4 independent, secondary windings that are always fully connected, never "idled". This means that all secondary windings are always connected to your loudspeakers, regardless of which output switch position you use (4 ohms or 8 ohms or 8 ohms or 16 ohms, depending on the factory configuration you have selected). The result is that there is neither a loss of transformer output efficiency, nor the introduction into the output signal of distortion from parasitic oscillations of the secondary windings.

- Large Nickel/FeSi Core Output Transformers. As with our other models, Allnic uses very large output transformers (133.2mm 80mm stack) with nickel, mixed with FeSi, cores. This provides for higher inductance with fewer windings than other designs can provide and results in the great benefit of an extremely wide range of output frequencies.

- "Soft-start" Circuitry. Allnic uses soft start circuitry that, after sufficient warm-up only, provides the high voltage supply to the plate of each tube. This protective design results in prolonged tube life and fewer and less frequent issues with tube performance.

- Analogue Power Tube Current Monitors and easy bias controls. To provide constant current (bias) monitoring of the power tubes, Allnic uses a separate analogue current meter for each channel. The meters make it exceptionally easy to see the status of each tube at any time by selecting each of the tubes from the amplifier’s front panel, and to respond immediately to any variation in bias by the bias control knob for each channel, also easily accessible on the M-10000 Titan *Signature’s* front panel. The meters offer a simple, unambiguous indication of each tube's status compared to conventional LED bias monitors.

- Sophisticated solid-state rectification, providing quiet operation, high reliability and safety.

- Beautiful 20KHz square wave response. See Figures 1-3.

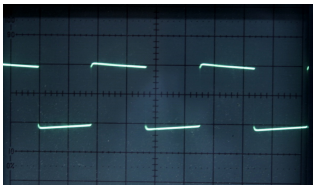

Fig.1 Square Wave 50Hz*

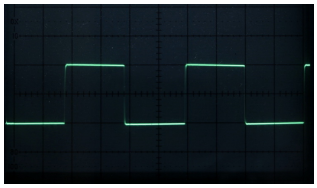

Fig.2 Square Wave 1KHz*

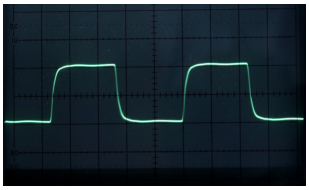

Fig.3 Square Wave 20KHz*

*Measured by LEADER LAG-126 Audio Signal Generator and KENWOOD CS-4125 Oscilloscope.

- As are all Allnic Audio products, the M-10000 Titan *Signature* is fully RoHS (EU Reduction of Hazardous Substances regulation) compliant in construction and materials.

WHAT'S IN THE BOX?

Please check that the shipping box (or each one of them if you purchased a pair) contains the following:

- One (1) Allnic M-10000 Titan *Signature* monoblock power amplifier
- One (1) 15 amp female IEC power cord
- One (1) Owner's Manual
- One (1) Hex/Allen key (for tube chimneys)

Note:

1) The M-10000 Titan *Signature* ships with the tubes installed.
2) The M-10000 Titan *Signature* will work with most IEC type aftermarket power cords. Allnic's 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 M-10000 Titan *Signature* in your system.
3) **Be sure the M-10000 Titan *Signature* is labeled for the correct AC voltage of your location (110/120 volt 60Hz or 230/240 volt 50/60Hz) above the IEC inlet. If it is not, DO NOT connect it to the AC outlet and please contact your Allnic Dealer.**

We advise that you keep the crate, boxes and other packing materials that your M-10000 Titan *Signature* came in. It will be useful if you sell your M-10000 Titan *Signature* or in the unlikely event you need to ship it for service.

SAFETY

- **AT LEAST three strong people are required to safely unbox and move the M-10000 Titan *Signature*. DO NOT attempt to unbox or move the amplifier with one or two people only.**
- **Remove ALL protective cushioning material (cardboard around the tubes), if any, inside the tube chimneys before operation. The tube chimneys should contain NOTHING except the tubes (It is optional to leave the "O" rings on the small tubes, *if any*; some prefer the sound with the O rings on).**
- **Use properly fitting gloves and ensure clothing buckles and zippers are covered to avoid dropping or marring the finish of the M-10000 Titan *Signature***
- Disconnect the power cord by pulling the plug, not the cable.
- Do not attempt any repairs. Do not remove the unit's chassis cover without specific authorization from your Allnic dealer.
- 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.
- **DO NOT leave the M-10000 Titan *Signature* 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.**

CLEANING

A. Chassis and glass

Use only a soft, lint-free cloth, dampened slightly with water only (NO cleaning fluids!), to clean the faceplate, chassis and tube chimneys of the M-10000 Titan *Signature*.

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 M-10000 Titan *Signature* needs to be placed on a solid stand capable of safely supporting its weight of 68 kg (150 lbs), in a location that provides good air circulation around, above and below the monoblock.

- DO NOT cover the top of the M-10000 Titan *Signature*.
- DO NOT place the M-10000 Titan *Signature* 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 M-10000 Titan *Signature* on some kind of after-market isolation feet or similar devices. Dropping one side of the M-10000 Titan *Signature* or the whole of the unit may cause damage and void the warranty.
- DO NOT place the unit near a strong light or heat source.
- DO NOT place anything heavy on the unit.
- DO NOT allow rubber or vinyl materials to rest on the chassis for long periods of time. This could discolour the metal.
- DO NOT attempt any repairs.

- DO place the unit on a solid, well-ventilated shelf or stand that is stable, capable of supporting the M-10000 Titan *Signature*'s 68 kg/150 lb weight, and not subject to vibration or sudden shock.
- DO consider using a high-quality power cord, inter-connects and speaker cables. The M-10000 Titan *Signature* 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 M-10000 Titan *Signature*.
- DO try to place M-10000 Titan *Signature* away from major sources and potential receivers of RFI and EMI. Though well shielded, the M-10000 Titan *Signature* will function best away from large power transformers and other sources of such interference and from other equipment that could be susceptible to such forms/sources of interference.
- DO allow sufficient time for any condensation to evaporate before plugging the M-10000 Titan *Signature* into an AC connection when the unit is moved from a cold to a warm environment.

B. INPUTS

There are two (2) female inputs. One accepts a balanced cable with a male XLR connector; the other accepts a cable with a single-ended, RCA type male connector. These input connections are located on the right rear (facing the back) of the chassis, with the balanced input closest to the side edge. Between the inputs, there is a switch to select one of two pin configurations for a balanced cable (i.e., it changes the phase). The top position is for pin 2" hot" and pin 3 "cold"; the bottom position is for the reverse (in both cases, pin 1 is ground). See Figure 5.

C. SPEAKER TERMINALS

The M-10000 Titan *Signature* is equipped with one pair of high-quality speaker terminals. These terminals are located in the middle of the rear panel of the M-10000 Titan *Signature* chassis. On the chassis rear (facing the back), the terminal for the live connection marked positive "+" is on the right, and the return connection labeled negative "-" on the left. Between the plus and minus terminals is a switch that provides for either 8 or 4 ohm impedance, as your speakers may require. The upper position of the switch is for 8 ohm operation; the lower for 4 ohm operation. 8 and 16 ohm terminals are available by special order. The terminals accept bare wire (not recommended) and spade and banana type connectors. See Figure 5.

D. POWER CONNECTION

Connect the input interconnect and speaker cables before you insert the power cable into the receptacle at the left (facing the back) rear of the chassis (See Figure 5). The M-10000 Titan *Signature* uses a standard North American 15 Amp, three prong male IEC connection for AC input. You need to use a power cord with a female North American 15 Amp, three prong IEC connector at one end. **Please note that use of a three phase AC power source or an AC regenerating power conditioner may cause hum.**

Please check the setting for correct electrical input on the label above the IEC inlet on the M-10000 Titan Signature's rear panel (See Figure 1). Be sure the M-10000 Titan *Signature* is labeled for the AC voltage of your region: 110/120 volt 60Hz or 230/240 volt 50/60Hz. If it is not, DO NOT connect it to the AC outlet and please contact your Allnic Dealer. There is no way to change to another AC setting.

INITIAL POWER-ON

Once you have your M-10000 Titan *Signature* in place and all your system's connections are properly mapped and secure to your source(s) and preamplifier, you are ready to turn on the power for your M-10000 Titan *Signature*. Before you power up the M-10000 Titan *Signature*, though, be sure you have:

- **removed ALL the cushion materials (cardboard/styrofoam), if any, from inside the tube chimneys.** (It is optional to leave the "O" rings on the small tubes, if any; some prefer the sound with the O rings on.)
- ensured the input connections you are using, single ended (RCA) or balanced (XLR), are firm and secure, and if using the XLR, that the switch on the back of the chassis is set to the appropriate pin configuration

- turned on your source(s) and your preamplifier, and turned the preamplifier's volume control down to zero or otherwise muted its output
- securely and correctly fastened the speaker cables, ensured that they are also connected properly to the speakers, and that the speaker impedance switch is set to the position matching your speakers' impedance
- checked that all tubes are snug in their sockets

Turn on the M-10000 Titan *Signature* by pushing in the power rocker-switch button located at the top center of the front panel to the "on" position (See Figure 4). The "on" position is with the part of the switch marked with a vertical line depressed. The off position is the reverse, with the part of the rocker-switch marked with a "O" depressed. After a brief delay (the soft start), the M-10000 Titan *Signature* will be powered on. After warm-up and application of full plate voltage, not all tubes may bias at the same rate. Allow some minutes for all the tubes to reach full operating specification with the meters' needles between the two parallel lines on the meter face for each tube, using the front panel controls for the meters to check.

OPERATION

When the power is on, the two current meters on the front panel of the chassis will illuminate (See Figure 6). From this point on, operation is straight-forward. When you are finished listening, turn off your M-10000 Titan *Signature* monoblock(s) first; then, turn off your preamplifier and sources.

In the case of any failure, please contact Your Allnic dealer for assistance.

THE CURRENT METERS

These illuminated meters indicate the current supply to each of the eight KT170 gain tubes in the M-10000 Titan *Signature*. There is one current meter for each row, left and right, of four KT170 tubes (See Figure 4). There is also a fuse for each KT170 (See Figure 6).

When you turn on the M-10000 Titan *Signature*, the needles of both current meters should be between the two parallel lines on the meter face for each KT170 tube. Any error of current supply for a KT170 tube is indicated by the needle on the meter moving out from between these two parallel lines.

TUBES AND TUBE BIAS

Each M-10000 Titan *Signature* monoblock uses the following tubes:

- Eight (8) x KT170
- Two (2) x 12A4
- One (1) x 5654

Because of the individual bias for each KT170, it is not necessary to use a matched octet of these power tubes in the M-10000 Titan *Signature*.

Each KT170's bias is shown on the meter by pushing the tube position button for that tube. When a tube position button is pressed, the LED indicator light above it will illuminate. The tube buttons and LED indicators of the left row's KT170s are located left of center of the front of the chassis. They are labeled V1, V2, V3, V4 representing the KT170s of that row from front to back. The tube buttons and LED indicators of the right row's KT170s are located right of center of the front of the chassis, representing the KT170s of that row from back to front. They are labeled V5, V6, V7, V8 (See Figure 6).

There are two Bias Control knobs, one to the left of the left row's tube position buttons and LEDs and one to the right of the right row's tube position buttons and LEDs.

If the needle of a current meter for a KT170 position has moved to the left of the parallel lines on the meter face, turn the Bias Control knob for that tube's row by turning it clockwise until the needle has returned to between the meter's parallel lines (See Figure 6). If the meter needle has moved to the right of the parallel lines on the meter face, turn the Bias Control knob counterclockwise to correct. Please be gentle and patient. **DO NOT attempt to turn a Bias Control knob past its point of resistance in either direction. Doing so may cause serious damage and will void the warranty.**

SAFETY! Before changing any fuse or removing and replacing any tube or fuse, you must power off the M-10000 Titan *Signature* amplifier and disconnect it from the electrical source.

If a meter's needle drops to the left limit of the meter's face during operation, this indicates a failure of the related KT170 tube. You must turn off the M-10000 Titan *Signature* and replace the KT170 tube and, if it has blown, the fuse for that KT170 (0.5A, 250V, 5x20mm Slow-Blow). To replace a fuse, using a screwdriver, simply turn the top of the black fuse cap counterclockwise (See Figure 6). It will spring out holding the fuse. Replace the fuse with one of the same ratings, at first using an inexpensive one to check function and avoid potential costly loss if you are using an aftermarket upgrade fuse. Push the fuse cap down and turn it clockwise; it will lock itself. If you have any questions about doing this, please contact your Allnic dealer for assistance.

If the AC mains fuse, located at the IEC input, has failed, it can be replaced with the spare fuse of the same ratings provided in the tray in the IEC mount, or at first to check function, a good, inexpensive one of the same ratings to avoid potential costly loss if you are using an aftermarket upgrade fuse. **POWER OFF and disconnect the M-10000 Titan *Signature* from the AC source to change the fuse** (15A 250V 5x20mm Slow-Blow for 110-120V regions; 10A 250V 5x20mm Slow-Blow for 230-240V regions - See Figure 5) . **You MUST unplug the M-10000 Titan *Signature* to replace an AC mains fuse.** Again, if you have any questions about doing this, please contact your Allnic dealer for assistance.

TROUBLESHOOTING TUBES

If you do not have access to an appropriate tube tester, you may use the following processes to identify a problem tube.

If output on a monoblock is reduced, check the meter reading for each KT179 tube. If a meter needle for a KT170 position has dropped to the extreme left, the associated KT170 has failed. Replace the failed tube(s). Again, if you have any questions about doing this, please contact Your Allnic dealer for assistance.

Of course, you may have to adjust the bias back into the area between the two parallel lines of the meter for a tube when it is replaced. When replacing a KT170, first reduce the bias slightly in case the bias is set too high for the new tube (since the old tube may have required additional bias). Bring the bias up gradually to the middle between the two lines on the meter.

If output on a monoblock is lost and the meter needles for that channel may have dropped to the right, a 12A4 or 5654 may have failed. After checking all upstream components, to identify the failed tube, simply swap one of the 12A4s on the affected monoblock with one from the working monoblock (or with a new one you know is functional). If that does not restore output, swap the other two 12A4s. If that does not restore output, swap the 5654s between the monoblocks (or with a new one you know is functional). Replace the failed tube(s). Again, if you have any questions about doing this, please contact Your Allnic dealer for assistance.

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 M-10000 Titan *Signature* or any injury or loss incurred by the user resulting from the user changing or attempting to change tubes.

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.

SPECIFICATIONS FOR THE ALLNIC AUDIO M-10000 TITAN *SIGNATURE* KT170 MONOBLOCK POWER AMPLIFIER

- Output Power:
  - 480w (8Ω load, at 1KHz)
- Distortion:
  - 0.11% at 1KHz at 10w
- Frequency Response:
  - 20Hz - 20KHz Flat
- S/N Ratio:
  - -80dB (CCIR, 1KHz)
- Damping Factor:
  - 20 at 8Ω load at 1KHz
- Voltage gain:
  - +28dB
- Input Impedance:
  - 100KΩ (single-ended, unbalanced)
- Input Sensitivity:
  - 2.0V for rated power
- Fuses:

  Mains:

  AC 15A, 250V – 5x20mm slow-blow for 110/120V regions

  AC 10A, 250V – 5x20mm slow-blow for 230/240V regions

  KT170s:
  0.5A, 250V - 5x20mm slow-blow
- Tubes (per chassis):
  - KT170 X 8 (power tube – no equivalent)
  - 12A4 X 2 (second stage drivers - no equivalent)
  - 5654 X 1 (first stage driver – equivalent to 5654W, 6AK5, 6AK5W, EF95, E905F, EF905, CV4010, M8100, 6096)
- Dimensions:
  - (W x D x H) 480mm (18.89 inches) x 790mm (31.10 inches) X 240mm (9.44 inches)
- Weight:
  - 68 kg/150 lbs net per monoblock.
  - 90 kg/ 198 lbs shipping weight per monoblock

FIGURES

Figure 4 – Front View

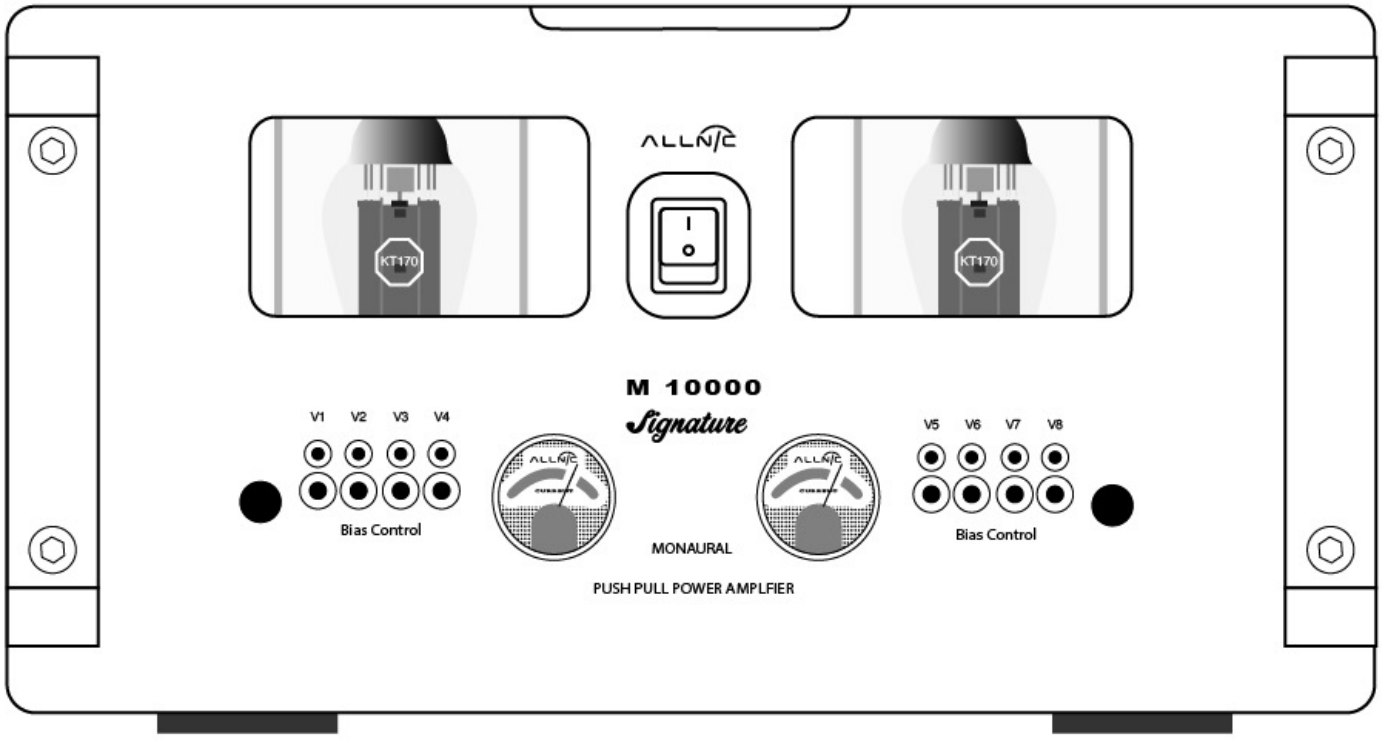

Figure 5 – Rear View

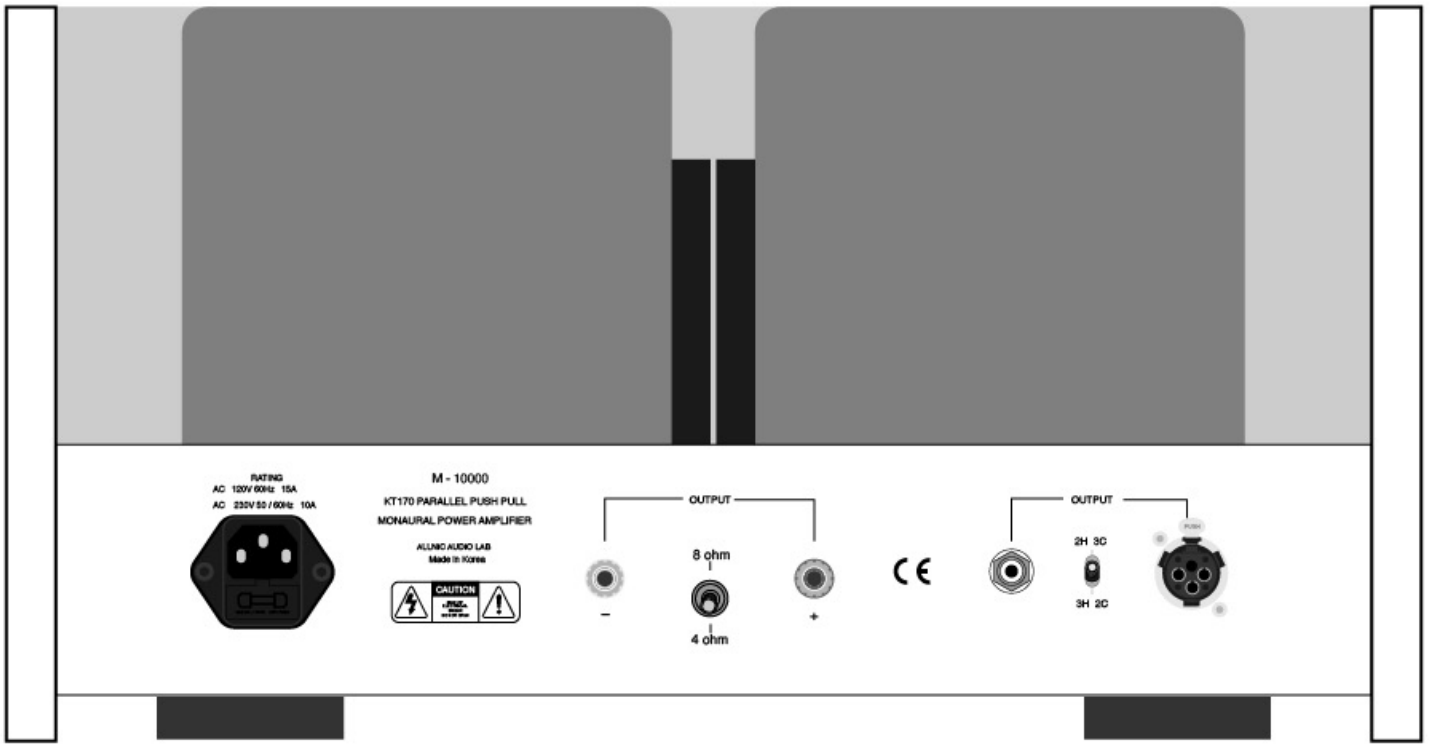

Figure 6 – Top View