ALLNIC AUDIO

L-6500 LINE-STAGE PREAMPLIFIER

OWNER'S MANUAL

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Thank you for purchasing the Allnic Audio L-6500 Line-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 L-6500 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.**

TABLE OF CONTENTS:

Please read about **SAFETY** before you attempt to use the L-6500 Line-Stage Preamplifier - we care about our customers and the equipment, and we want you to enjoy this product for a long time!

INTRODUCING THE L-6500 LINE-STAGE PREAMPLIFIER

Immerse yourself in the original recorded space. The L-6500 is a single gain stage, transformer-coupled, remote-controlled line-stage pre-amplifier.

The L-6500 is silent, except for the music emanating from the blackest of backgrounds. The outstanding sonic quality is matched by the simple elegance, flexibility and ergonomic functionality of the casework and connection options. Few pre-amplifiers can compete at any price.

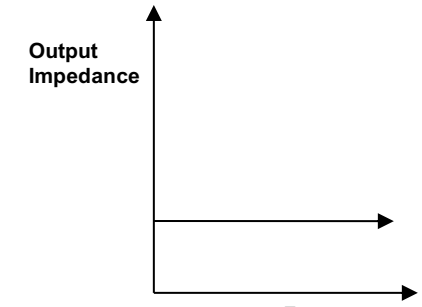
Like all Allnic Audio products, it uses permalloy (iron and nickel alloy) for its transformer cores. Allnic is grateful to Mr. G.W. Elmen of Western Electric for inventing permalloy for transformer core use, and in so doing, providing an enormous service to recorded music listeners everywhere.

The L-6500 has the following features:

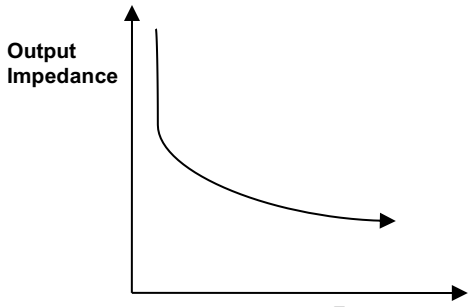
- Line output transformer coupling – The L-6500 is “transformer coupled. In tube amp circuitry, there are two coupling methods; one is capacitor coupling and the other is transformer coupling. Capacitor coupling is the traditional, low cost method. It is somewhat stable but transfers only voltage, not wattage (i.e., not real energy). With transformer coupling, about 90% of real wattage is transferred (there is still a transformer loss of about 10% of wattage – voltage is not affected).

  Transformer coupling is superior to capacitor coupling. However, all the advantages of transformer coupling depend on the quality of the transformer and on the choice of tubes. Allnic Audio manufactures its own transformers and uses what it views to be the best core material, Permalloy. Allnic Audio's unprecedented, wide (16Hz ~ 75kHz, -3db), low distortional, and ultra-flexible (up to 50kHz square wave response) output transformer helps Allnic Audio to realize the ideal transformer coupled preamplifier. Of course, gain tubes are also carefully selected for three critical factors for function with the Permalloy output transformers: high gm, low internal resistance and high mu.

  Constant and low output impedance – One of the benefits of transformer coupling is that it facilitates constant low output impedance. Low output impedance is critical to the design of a good preamplifier. The L-6500 has a 150 ohm (150Ω) constant output impedance at all frequencies. In capacitor coupling (C-R coupling), a “cathode follower circuit" is usually used to lower output impedance. Unfortunately, this method of lowering output impedance is accompanied by high distortion and has an "L" shaped output impedance curve. Please compare the two graphs below, especially for low frequency response.



(Allnic LCR Output Impedance Curve)



(Traditional CR Type Output Impedance Curve)

- No negative feedback design

- Advanced tube technology voltage regulation - For quieter and more dynamic operation, the L-6500 has an ultra-high speed automatic voltage regulation circuit, utilizing vacuum tubes. This also protects the amplifying tubes from change in the AC line supply and copes with any abrupt, internal current demand.

- Precision attenuator volume control – The L-6500 does not employ a digital IC volume control or a low- cost carbon film volume control with a motor. Allnic Audio has developed a precision oil clutched motorized attenuator; the L-6500 has no (± 0db) channel unbalance at any volume level.

- Pure Class A operation

- Pure balanced output stage

- As are all Allnic Audio products, the L-6500 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 contains the following:

- One (1) Allnic L-6500 Preamplifier – in natural aluminum or black, depending on your order specification
- One (1) power cord
- One (1) remote control
- Two (2) x AAA batteries for the remote control
- One (1) Owner's Manual
- One (1) Hex/Allen key

Note:

1) The L-6500 ships with the tubes installed.
2) The L-6500 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 L-6500 in your system.

3) **Be sure the L-6500 is labeled for the AC voltage of your location. If it is not, DO NOT connect it to your AC outlet. Please contact your Allnic dealer.**

We advise that you keep the box and other packing materials that your L-6500 came in. It will be useful if you sell your L-6500 or in the unlikely event you need to ship it for service.

SAFETY

- **CAREFULLY and SLOWLY remove ALL cardboard and Styrofoam cushioning material inside the tube chimneys before operation.**
- **DO NOT leave the L-6500 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.
- Keep the power cord away from any heat source.
- 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 unit into an AC connection.
- Do not attempt any repairs.
- Do not remove the chassis cover without specific authorization from your Allnic dealer.
- See the notes on "Location, Location, Location".

CLEANING

A. Chassis and glass

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

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 L-6500 needs to be placed on a solid stand in a location that provides for good air circulation around the preamplifier.

- DO NOT cover the top of the preamplifier.
- 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 L-6500 on a set of after-market isolation feet or similar devices. Dropping one side of the L-6500, or the whole unit, is not a good thing.
- 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 unit's chassis for long periods of time. This could discolour the metal.

- DO place the unit on a shelf or stand with adequate ventilation, is stable and not subject to vibration or sudden shock.
- DO consider using a high-quality power cord and interconnects, both inputs and outputs. The L-6500 is a highly sensitive piece of electronic equipment designed for neutrality and will output what you put into it. Allnic's Zero Loss Technology cables will work synergistically with the L-6500.
- DO try to place the L-6500 away from major sources of RFI and EMI; though well shielded, the L-6500 will function best away from large power transformers and other sources of such interference.

B. POWER CONNECTION

The L-6500 uses a standard three prong male 15 Amp IEC connection for AC input. You need to use a power cord with a female three prong 15 Amp IEC connector at one end. The IEC connection is on the left-hand side of the chassis (facing the front), toward the chassis rear (See Figure 1). **Please note that use of a three phase AC power source or an AC regenerating power conditioner may cause hum.**

The L-6500 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 unit to confirm that your L-6500 matches your location's electrical system. For North American customers, the L-6500 is set internally for AC 110/120 volt – 50/60 Hz. For customers in other regions, the unit is set for 230/240V – 50/60 Hz operation. There is no way to change to another AC setting.

C. INPUTS

There are five (5) inputs. Line 1, 2 and 3 are balanced connections (XLR type connectors) on the rear panel (see Figure 2). The remaining two (2) line inputs are RCA type, single-ended connections. None of the inputs is intended especially for connection to any particular device. Turn the "Selector" switch located on the right of the front panel adjacent to the right meter or the remote control to select the desired input. A selected input is indicated by illumination of its identically numbered input light on the front panel (see Figure 4). Please note that each time the L-6500 is powered on it defaults to input "Line 1".

NO PHONO STAGE - The L-6500 is a line-stage preamplifier and does NOT have a built-in phono preamplifier section. You will need a phono preamplifier if you want to use a turntable with the L-6500. You can connect your phono preamplifier to any of the five inputs, provided you have the appropriate types of connections or adaptors.

The L-6500 has been designed and manufactured to work most synergistically with Allnic Audio phono preamplifiers, power amplification products, and ZL Technology cables.

D. OUTPUTS

The L-6500 has three pairs of outputs. The right channel outputs are on the right side of the chassis and the left channel outputs on the left, facing the rear panel (the reverse if facing the front panel - see Figure 2). One (1) output pair is balanced (i.e., separate ground), using XLR connectors; two (2) pairs are single-ended unbalanced, using RCA type connectors.

Near the rear of the top plate of the L-6500 chassis there is a switch to select either the balanced or single-ended connections. The switch is labelled "RCA OUT GROUND". (See Figure 5). Please set the output selection switch to the output connection you are want to use: for RCA OUT – switch toward rear. For GROUND (XLR out) – switch toward front. If you set the switch to balanced/XLR and then connect your cables to an RCA output (output 2 or 3), or vice-versa, audible hum will be introduced.

You may use balanced (XLR) and single-ended (RCA) outputs at the same time, for example, if you run one pair to your stereo amplifier and the other(s) to a powered subwoofer. In such a case, set the output selection switch to unbalanced (RCA OUT – toward rear). This will avoid the introduction of hum.

E. REMOTE CONTROL

The remote control provides the ability to remotely:

- Select the line source input (1 to 5) using either the selector knob or the channel up/down arrow buttons on the remote control (Please see Figures 4 and 3).
- Control the volume level using the right (louder) and left (quieter) arrow buttons adjacent to the channel arrow buttons on the remote control.
- Mute the volume using the button labeled "MUTE". To raise the volume again after muting, press the Mute button to take the volume level to where it was prior to muting. In Mute mode, the "operate" on the front panel of the L-6500 will not be illuminated; it will illuminate when the L-6500 is unmuted again.

The red power on/off button in the top left-hand corner of the remote control is not functional with the L-6500 (the remote's power button is operational only with Allnic's larger preamps).

INITIAL POWER-ON

Once you have your L-6500 in place and all connections have been made to your sources and amplifier(s) and the power cord is installed and plugged into an AC receptacle, you are ready to turn on the power for your L-6500. Before you power up the L-6500, though, be sure you have:

- **CAREFULLY AND SLOWLY removed ALL the cardboard cushion materials from inside the tube chimneys**
- **ensured the batteries are in the remote control – if not, insert the batteries (by removing plate on the bottom of the remote control).**
- selected the output connections that you want to use, single-ended (RCA) or balanced (XLR), using the RCA OUT GROUND switch near the rear of the top plate of the preamplifier.
- turned the volume down on or muted the L-6500
- checked that all your system's connections are properly mapped and secure

Also, be sure you have checked to see that the volume control on the front panel is on the extreme counter-clockwise position (07 - minimum volume – see Figure 4).

Push in the power on-off switch on the left-hand side of the front panel adjacent to the left meter (see Figure 4) so it is in the "on" position. Once the power has been turned on, the following will happen on the front panel (Please see Figure 4):

- the light above the “power” button will illuminate
- the meters on the front panel will illuminate
- the light over the line source button that is depressed will illuminate
- the “operate” light adjacent to the Selector knob will illuminate
- the light for the default input “Line 1” will illuminate

The Allnic Audio L-6500 is now ready for operation. At this point, you can power on your sources and, finally, your stereo power amplifier or mono-blocks.

OPERATION

From this point on, operation is straight-forward. All functions are controlled from the front panel or the remote control. Set the input you will use with the remote control or the front panel input selector knob. 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 or streaming devices.

To avoid surges to the speakers when using the Selector knob or remote control to switch inputs, it is best to do so with the volume turned all the way down or the unit muted from the remote control (the “operate” light will not be illuminated when the L-6500 is muted).

When you are finished listening, turn off your stereo power amplifier or monoblock amplifiers. Then turn off the L-6500 by pressing the power button on the front panel. Turn off your sources last.

CURRENT METERS

These illuminated meters indicate the current supply to the gain tubes in the L-6500. They are indicators of failure or damage to the function of the unit. There is one meter for each channel. 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 L-6500’s channels is indicated by the needle on the meter for the respective channel moving out from between those two parallel lines.

- If the needle has moved far to the left of the parallel lines on a meter, it means that the gain tube (5842) for that channel is failing/has failed. Sound output for the channel will probably be lost.

- If the needle on either meter moves far to the right of the parallel lines, it means that one, or both, of the voltage regulator/error detector tubes (7233 and 5654) for that channel is failing/has failed. Sound output for the channel will probably be lost.

TUBES

The L-6500 uses the following tubes (see Figure 5):

- 5842 x two (2)
- 7233 x one (1) (2025 forward production will ship with 6C19P – **NOT equivalent to 7233; 7233 and 6C19P ARE NOT INTERCHANGEABLE.)**
- 5654 x one

Safety!! Disconnect the L-6500 from the AC before removing/replacing tubes and the mains fuse.

If a 5842 tube fails, replace it with a good one. To determine whether a 7233 or 5654 has failed, if you have access to an appropriate tube tester, you can test the tubes. Otherwise, first replace the 5654 tube with a good one, and if that does not remedy the issue, do the same for the 7233. This should resolve the issue. If it does not, please contact your Allnic dealer.

If your L-6500 has lost output completely, the mains fuse may have failed. Check and if necessary, 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.

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 L-6500 or any injury or loss incurred by the user resulting from the user changing or attempting to change tubes.

SPECIFICATIONS
FOR THE ALLNIC AUDIO L-6500 LINE-STAGE PREAMPLIFIER

- Inputs: Line level × 5 pairs:
  Balanced (XLR) × 3
  Unbalanced (RCA) × 2
- Outputs: 3 pairs:
  Balanced (XLR) × 1 pair
  Unbalanced (RCA) × 2 pair
- Input Impedance: 100k ohms (RCA), 100k ohms (XLR)
- Frequency Range: 20Hz ~ 20kHz (FLAT)
  16Hz ~ 75kHz (-3dB)
- Voltage Gain: +20dB
- THD (1kHz): Output 0.3V, 0.06%
  Output 1.0V, 0.15%
- S/N Ratio: -90dB (CCIR, 1kHz)
- Maximum Output: 15V RMS (Non-clipping)
- Output Impedance: 150Ω Constant
- Power Consumption: 30W at 110/120V / 60 Hz
- Tubes: 5842 x 2 (equivalent to WE417A, CV3789, F7004) (gain stage)
  7233 x 1 (no equivalent) voltage regulator (2025 forward production will ship with 6C19P – **NOT equivalent to 7233; 7233 and 6C19P ARE NOT INTERCHANGEABLE.)**
  5654 x 1 (equivalent to 5654W, 6AK5, 6AK5W, CV4010, M8100, 6096, E95F, EF95, E905F) (voltage error detector)
- Fuse: AC 3A, 250V slow-blow for 110/120V regions
  AC 2A, 250V slow-blow for 230/240V regions
- Tube chimney screws: 2mm Allen head
- Dimensions: 410mm (16.93 inches) (W)
  290mm (11.42 inches) (D)
  170mm (6.69 inches) (H)
- Weight: 10kg (22 lbs) unpacked.
  12kg (26.45 lbs) packed in original shipping material.

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 – L-6500 Left Side Panel View

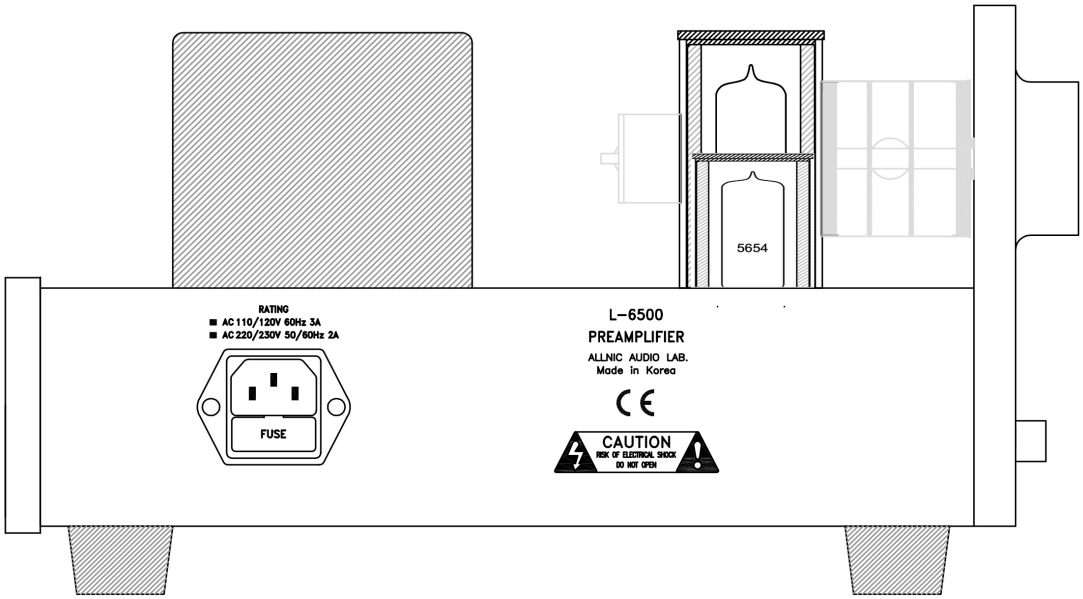


Figure 2 – L-6500 Rear Panel View

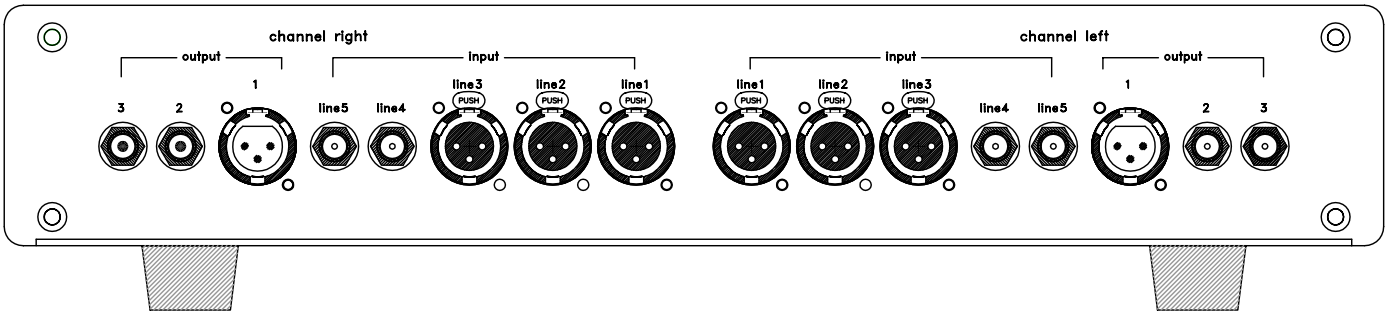


Figure 3 – L-6500 Remote Control

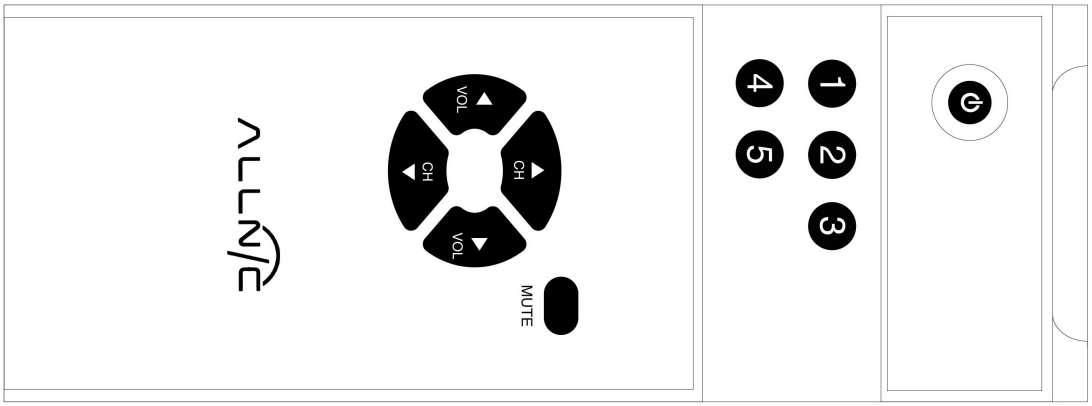


Figure 4 – L-6500 Front Panel View

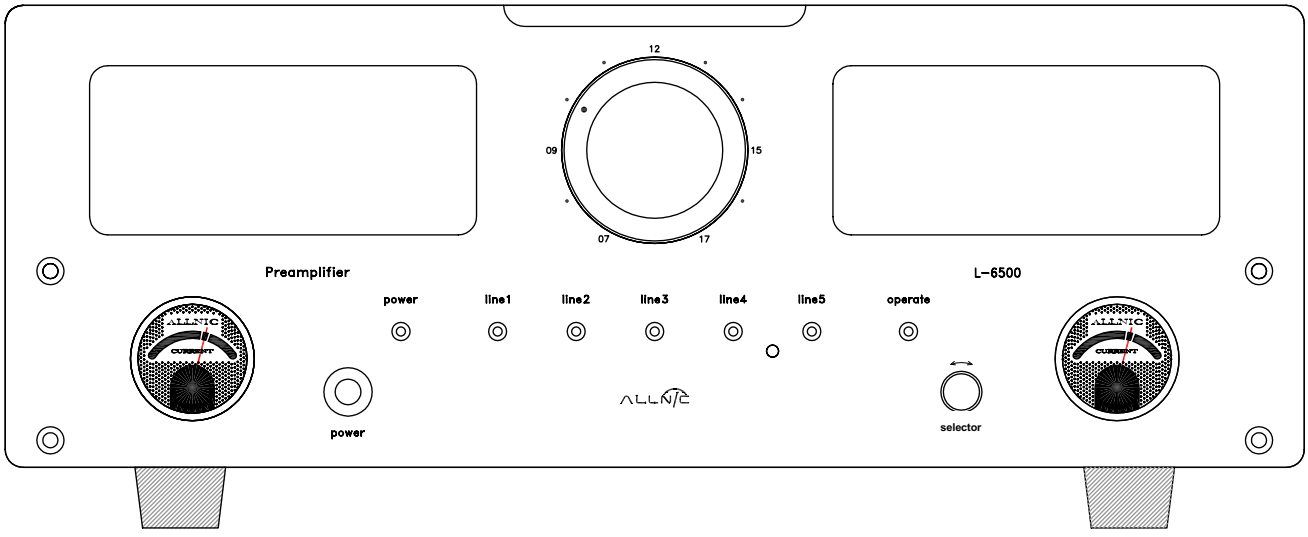


Figure 5 – L-6500 Top View