



# Lehmannaudio<sup>®</sup>

## Silver Cube phono stage



High Precision Passive RIAA-Network  
Zero global feedback FET output stage

User manual

*Please read completely before operating device*

# IMPORTANT SAFETY INSTRUCTIONS





The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions..
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Connection to mains voltage/ disconnection from from MAINS voltage: the socket outlet shall be installed near the equipment and shall be easily accessible. Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable
16. An apparatus with CLASS I construction shall be connected to a MAINS socket outlet with a protective earthing

connection

17. This apparatus shall only be powered by the original power supply made for this apparatus.

18. The power supply of this apparatus shall not be used to power other manufacturer's products

	<p>WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THIS APPARATUS.</p>
	<p><b>Precautions</b></p> <p>Please read the following before operating your Black Cube / Black Cube SE phono preamplifier. Wherever applicable below, Black Cube / Black Cube SE also includes the external PWX power supply and its cable.</p>

#### *While Installing the Silver Cube*

- Be careful to use an appropriate cable for the connection between your power outlet and the Silver Cube external PWX power supply. Make sure that you have the appropriate version for your MAINS voltage.
- Be careful to prevent the Silver Cube from getting wet; do not allow water to enter the Silver Cube, especially when raining or snowing, or near a body of water. Otherwise fire or electrical shock may result.
- Do not place heavy objects on the power cord. If the cord is damaged, fire or electrical shock may result. In particular, it is possible that one might accidentally place a heavy object on a carpet that covers the cord; definitely avoid these situations!
- Do not install the Silver Cube in a place where it might be exposed to oil, smoke or steam (for example, near a cooking table or humidifier). Otherwise, fire or electrical shock may result.
- Do not place the Silver Cube on an unstable surface, such as an unstable bench or slanted surface. Otherwise, the device may fall or drop, resulting in an injury.
- Do not place the power cord near a heating device. Otherwise, the cord sheath may melt, resulting in fire or electrical shock.
- Do not locate the Silver Cube in a place subject to excessive heat, such as inside a car with all the windows closed, or in direct sunlight. Otherwise, fire may result.
- Do not handle the power plug with wet hands. Otherwise you may receive an electrical shock.
- When you remove the power plug, be sure to hold the plug. Never pull on the cord. Otherwise, the power cord may become damaged, resulting in fire or electrical shock.
- The Silver Cube offers superb sonic quality. To ensure best possible results, you should use the best quality connecting cables that you can afford. Regular maintenance involves keeping all connections clean using a quality contact cleaner.

## *Using the Silver Cube*

Do not touch the Silver Cube under the following circumstances:

- If you hear thunder, remove the power plug from the AC outlet as soon as possible. If you fear a lightning hit and the Silver Cube has been connected to an AC outlet, do not touch the power plug. Otherwise you may receive an electrical shock.
- Do not attempt to modify this equipment. Otherwise, fire or electrical shock may result. Warranty is void on modified devices. Exceptions: dip switch settings, fitting of custom input load when done carefully by a skilled person (trained technician). Normally this is your dealer.
- If you think the Silver Cube needs to be checked for maintenance or repair, consult your dealer.
- Do not place a container of water or any small metal object on top of the Silver Cube or the external power supply. If water is spilled or if the metal object gets inside, fire or electrical shock may result. This applies to vases, potted plants, glasses, cosmetic bottles, medicine, etc. Do not change the setting of the dipswitches with any tools that consist of metal.
- Do not damage, process, bend, twist, stretch or heat the power cord. If the cord is damaged, fire or electrical shock may result.
- When you are connecting other audio devices to the Silver Cube make sure that you first turn off the power to all devices to be connected. Refer to the user's guide for each device and use the specific cable for connection.
- Set the volume levels of all devices to minimum before connecting the Silver Cube to your actual setup and to the AC outlet. Otherwise, an extremely loud noise could damage your loudspeakers or even your hearing.
- If you plan not to use the Silver Cube for a long period of time (such as when you are on vacation), remove the power plug from the AC outlet. Otherwise, a fire could possibly result.
- If any abnormality occurs while using the Silver Cube, remove the plug from the AC outlet. In this case first shut off the power amplifiers or turn down the volume controls and so on to avoid possibly damaging transients
- If you notice any abnormality - such as smoke, smell, noise, etc. - remove the plug from the AC outlet. Confirm that the abnormality is no longer present, then consult your dealer for repair. If you continue using the Silver Cube under abnormal conditions, fire or electrical shock may result.
- If a foreign object or water enters inside the equipment, remove the Plug from the AC outlet and consult your dealer for repair. If you continue using the Silver Cube under this condition, fire or electrical shock may result.
- If the power cord is damaged (for example if it is cut or if the core wire is exposed), ask your dealer for a replacement. If you continue using the Silver Cube under this conditions, fire or electrical shock may result.
- If the Silver Cube or the external power supply is dropped, or if the case is damaged, remove the plug from the AC outlet and consult your dealer. If you continue using the Silver Cube under abnormal conditions, fire or electrical shock may result.

## Maintenance



Before cleaning the Silver Cube, remove the power plug from the AC outlet for safety. Otherwise, an electrical shock may result.



NEVER open the external power supply of Silver Cube. There are hazardous voltages inside that might result in an injury or an electrical shock.

Valued customer,

Congratulations for buying the Lehmann audio Silver Cube phono RIAA preamplifier. The Silver Cube is manufactured in Germany using highest quality components and carefully constructed to give you many years of musical pleasure.

This unit is made only for being inserted between a turntable's passive cartridge output and any audio amplifier's high level input. The Silver Cube will handle nearly any system cartridge from high-level to low-level MM or MC and is made to fulfill the demands of audiophiles who enjoy analog music reproduction.

Please keep this manual nearby the Silver Cube so that you can refer to it for further use.

## *Description*

Phono stages by **Lehmannaudio** have been well known worldwide for many years. There have been numerous requests to finally develop a top-of-the-line phono stage following a cost no object design.

**Lehmannaudio** is proud to present the new and improved Silver Cube phono stage to sophisticated listeners who really feel the longing for true sound reproduction of their vinyl records. With the Silver Cube audiophiles will get maximum space, air and soundstage depth and width, paired with stunningly fast attack response. Pace, timing, swing and dynamics of the Silver Cube will not leave anyone untouched. Owners of the Silver Cube phono stage will hear an open and natural sound with a full body.

The Silver Cube is capable of drawing the listener into the music like only real music can do! What's more: **Lehmannaudio** is known to always aim at the highest goals at a real world budget.

## *Technical details:*

### **AUDIO SECTION**

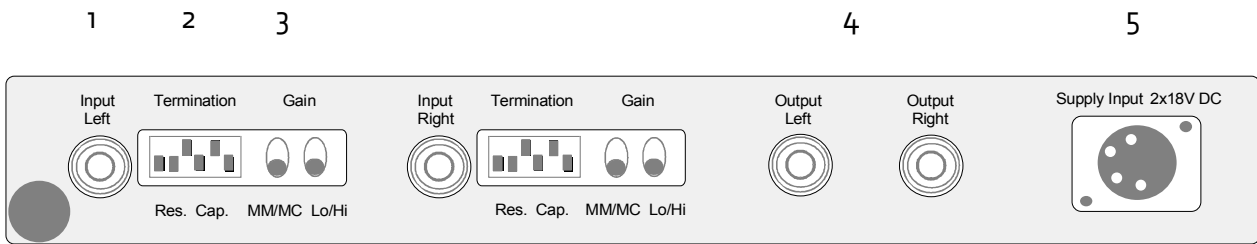
- Special operational amplifiers for professional audio use to realize enough gain for even the lowest output cartridges available.
- Only Mundorf tin foil MKP caps in the passive RIAA filter network
- NEW: non magnetic resistors in the small signal path
- Discrete FET output stage without any negative feedback highly buffered with high grade electrolytic capacitors and MKPs
- Strictly built dual mono audio layout
- Each gain stage has its own extremely fast parallel voltage regulators buffered with three different capacitors for each voltage
- Impedance load and capacitors adjustable from the rear side for practically any cartridge on the planet
- Gain up to 67dB in four steps also accessible from the rear side
- Additional choke filtering of supply voltages on the audio board
- Case milled out of one block of massive aluminium acts as a heatsink
- WBT audio connectors
- Neutrik Power supply connector with gold plated contacts
- NEW: WBT Nextgen RCA connectors
- NEW: SSC absorption feet underneath the unit

### **POWER SUPPLY**

- 120W toroidal transformer with isolating coil between primary and secondary coil
- Chokes on the secondary side
- Additional filtering
- Separate set of ultra fast recovering diodes for each secondary coil
- Very low noise regulated voltages
- Neutrik connector with gold plated contacts
- Shielded cable between power supply and audio section
- Voltage selector 120V/240V
- NEW: SSC absorption feet underneath the unit
- NEW: AHP audiophile fuse supplied

**Please read this manual first before connecting the Silver Cube to mains voltage!**

## Rear side: (simplified)



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### 1: Input connector

WBT Nextgen RCA connector. Please be careful not to twist the cable while inserting the RCA plug.

### 2: Termination

Switches are activated by setting down towards the „on“ position. Terminations are added in parallel to 47 kOhms / 47 pF. This means that capacitance increases, resistance decreases.

*Switches:*

- 1 Cap. 1000 pF
- 2 Cap. 220 pF
- 3 Cap. 100 pF
- 4 Res. 100 Ohms
- 5 Res. 1000 Ohms
- 6 Res. - Custom -

### 3. Gain

*MM/MC Switch:* down = MM (37dB)  
up = MC (56dB)

*Lo/Hi Switch:* down = /  
up = +10dB

The gain switches allow easy adjustment of even very low output cartridges.

### 4. Output connectors

RIAA filtered Line level outputs. Please connect to your preamplifiers line level inputs. Please take care for correct connection of left and right channels.

WBT Nextgen RCA connectors. Please be careful not to twist the cable while inserting the RCA plug to avoid damage to the internal wiring.

**WARNING:** You must not connect the output cables from the Silver Cube to a following phono input because the RIAA-filtering and amplification would be done twice! You could damage the following phono stage or your power amplifier and loudspeakers! The resulting noise could even damage your hearing!!!

#### 5. Connector for external power supply

Please use only the cable supplied with the unit.

**Please connect always the power supply to the audio section first and then connect the complete unit to mains voltage! Keep the power supply at least 0,5m from the audio section to avoid magnetical interference (hum).**

#### 6. Ground-Connector

If your turntable has a separate ground cable you should connect it here. You can connect open ends or cable shoes.



## Settings:

### Gain:

<i>MM/MC</i>	<i>Lo/Hi</i>	<i>Gain</i>
Down	Down	37dB
Down	Up	47dB
Up	Down	56dB
Up	Up	66dB

### Termination:

<i>1</i>	<i>2</i>	<i>3</i>	<i>Capacitance</i>
Off	Off	Off	47pF
Off	Off	On	147pF
Off	On	Off	267pF
Off	On	On	367pF
On	Off	Off	1047pF
On	Off	On	1147pF
On	On	Off	1267pF
On	On	On	1367pF

<i>4</i>	<i>5</i>	<i>6</i>	<i>Impedance</i>
Off	Off	Off	47 kOhms
Off	On	Off	1000 Ohms
On	Off	Off	100 Ohms
On	On	Off	91 Ohms
Off	Off	On	Custom Impedance

Please have a look at the manual of your cartridge to get to know the recommended impedance .

**Again:** You can adjust the settings for gain and termination separately. So you can easily realize MC at 66dB gain and 47 kOhms termination.

Problems with radio frequency interference with an MC cartridge can normally be solved by using the cap switches. If the maximum capacitance is not enough, additional capacitors can be added by using the custom impedance slot. The maximum recommended capacitance can be up to 5 nF. This is highly dependant on the output impedance of the cartridge itself.

## Notes

Manufacturer's address:

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