



Decade phono stage

High Precision
Passive RIAA-Network

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



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.



Precautions

Please read the following before operating your Linear headphone amplifier.

Valued customer,

Congratulations for buying the **Lehmannaudio** Decade phono RIAA preamplifier. The Decade is manufactured in Germany using very high 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 Decade will handle practically 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 Decade so that you can refer to it for further use.

Description

Features audio section

- The input stages used in the **Decade** can also be found in top notch mixing consoles or in well known professional microphone preamps.
- The passive filter network between two linear gain stages realized with high precision MKP caps (Epcos)
- Several resistive and capacitive loads as standard
- Front switchable gain (36dB - 66dB) and soft bass rolloff (6dB/oct. 60Hz)
- Onboard slot for custom impedance
- Zero global feedback Class A output stage technically identical with the highly acclaimed Black Cube Linear.
- High quality gold plated pcb mount RCA connectors for audio.
- High quality double sided printed circuit board for optimal signal routing and component placing.
- Neutrik connector with gold plated contacts for supply connection.

Features PWX II power supply

- 30 VA toroidal transformer of the PWX II power supply is a key component for the sonic performance achieved with the **Decade**. This transformer is not only overdimensioned but sports a grounded isolation coil between the primary and secondary coil.
- Neutrik connectors with gold plated contacts for supply connection (as Silver Cube).
- Chokes before and after the voltage regulation
- Downward compatible with PWX: Black Cube SE audio sections can be connected. Black Cube standard versions can be upgraded with an XLR plug.
- High quality double sided printed circuit board for optimal signal routing and component placing.
- Neutrik connector with gold plated contacts for supply connection

Please read this manual first before connecting the Decade to mains voltage!

Maintenance

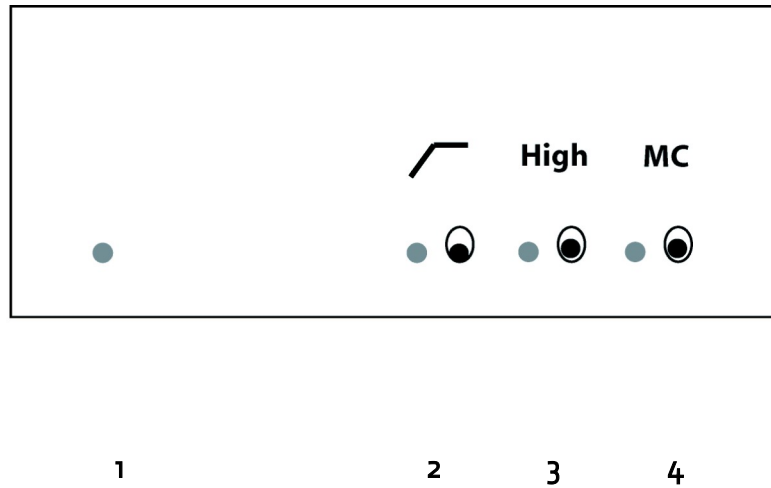


Before cleaning the Decade, remove the power plug from the AC outlet for safety. Otherwise, an electrical shock may result.



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

Face plate audio section: (simplified)



1. *Power control LED*

2. *Soft Bass Rolloff Filter*

Some records tend to have too much low frequency energy especially warped records. To protect your loudspeakers from this energy this Soft Bass Rolloff filter has been installed. The corner frequency is 60 Hz / 6dB per octave. The active filter is indicated by the lit LED.

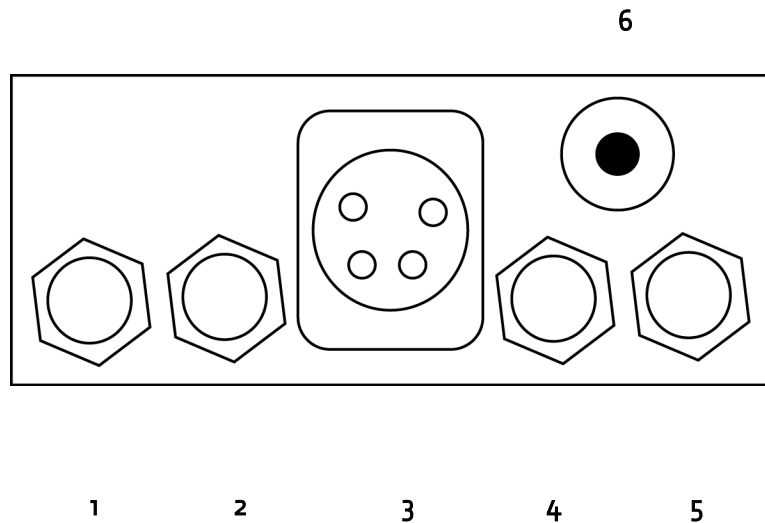
3. *High Gain switch*

This switch adds 10dB of gain to the selected mode MM or MC. High gain is indicated by the lit LED

4. *MC switch*

This switch selects between 36dB (MM) and 56dB (MC) gain. MC gain is indicated by the lit LED

Rear side audio section: (simplified)



1. *Signal input connector (In) Left Channel*
2. *Signal output connector (OUT) Left Channel*
3. *Input for the external PWX II power supply*

Please connect the power supply to the audio section first and then connect the complete unit to mains voltage!

4. *Signal output connector (OUT) Right Channel*
5. *Signal input connector (In) Right Channel*
6. *Ground connection*

If your turntable has a separate ground cable you should connect it here. You can connect any of 4mm plugs, open ends, or cable shoes

The signal output connectors are supplying RIAA-filtered high-level output signals. Please connect your output cables to the line input to be used. For example, to a line-level preamplifier, active loudspeakers with volume control or power amplifier input with volume control.

Be careful to preserve correct channel connections – left to left and right to right.

WARNING: You must not connect the output cables to a following phono input because 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!!!

Matching of input impedances

You can change input impedance (loading) by using the onboard Dual Inline Package (*DIP*) switches for each channel separately. These switches are accessible from the bottom of the unit. You may change the setting of the switches with the Decade connected to mains voltage and even to your stereo system however in that case please turn your volume knob to the minimum position because loud pops could occur during switching.

DIP switch Table	<i>input load</i>					
No.	1	2	3	4	5	6
ON	1nF	220pF	100pF	100 Ohm	1 kOhm	*** (custom load)

The Decade is highly flexible and also offers an insert point (slot 1) for inserting a resistor to accommodate cartridges which require special loading. Before you insert a custom load please do the following:

- Disconnect the power from the Decade's power supply.
- Place the Decade on a clean smooth surface.
- Carefully unscrew the four screws of the audio board's case with the tool included with the Decade
- After removing the top you can now insert your custom input load for each channel. Do not use any tools that could damage the electronic circuit. Please use high quality metal film resistors.
- The DIP switches are accessible from the outside at the bottom of the unit near the input RCA connectors. To activate your custom load you have to set the switches no. 6 to the "on" position.

Use only high quality resistors for custom load impedances. Install these resistors only if you know what you are doing. Otherwise please consult your dealer.



Before opening the Decade's audio section to install any custom load, remove the power plug from the AC outlet for safety. Otherwise, an electrical shock may result.



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

Notes

Manufacturer's address:

Lehmann*audio* Vertriebs GmbH
Dipl. Ing. Norbert Lehmann
Richard Zanders Str. 54
D-51469 Bergisch Gladbach
Germany
phone: +49 2202 280 6240
fax: +49 2202 280 6239
email: info@lehmannaudio.com
Web: www.lehmannaudio.com