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Black Cube Statement

Phonoverstärker

Phono Stage/Amplificateur Phono Amplificador Phono/Amplificatore Acustico



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Although you may have had some experience with phono stages from other manufacturers, please read the manual carefully before putting the Black Cube Statement to service and keep it close to the device for future reference!

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Introduction

Dear Customer.

Thank you for expressing your confidence in us by purchasing the Black Cube Statement. The Black Cube Statement is a carefully engineered phono amplifier for connection to conventional record players with MM or MC systems. Like all of our products, it was developed and manufactured in Germany. Since the founding of the company in 1988, we have stood for outstanding devices that consistently produce an original sound and are produced with a love for details. By using the best components and a sophisticated circuit design, we can guarantee a listening experience of outstanding quality. The Black Cube Statement is superior to industrial mass products in every respect. It meets the highest standards for the detailed musical playback of your records. Thanks to its competitive price, it is the ideal entry-level model in the world of high-end phono amplifiers.

Further information is found in this operating manual and on our website at www.lehmannaudio.com.

Now your favourite records can truly come into their own, allowing you to experience the pleasure of listening to analogue music full of passion.

Yours, Norbert Lehmann Managing Director

Important safety notes

In this manual we use hierarchic 'red flags'. Warning notes are printed in bold and also marked and highlighted by a symbol (warning sign) in the text.

The warning notes are classified hierarchically according to the following scheme:

- 1. WARNING!
- 2. CAUTION!
- 3. NOTE!



This symbol points to important operation and maintenance notes in the accompanying documentation. Please refer to the manual.



This symbol warns of the presence of a non-insulated hazardous voltage inside the device and the risk of a potentially life-threatening electric shock.



This symbol refers to additional information in the manual. Here you will find supplementary information, recommendations and tipps regarding the use of the product.



CAUTION!

Read all safety and operation notes before putting the device to service

Storage

Keep the safety and operation notes for future reference.

Warning notes

Observe all warning notes printed on the device or contained in the manual.

Operation notes

Follow all operation notes and advice for users.

Heat

The device must not be placed near heat sources like radiators, heat accumulators, stoves or other heat-generating appliances (e.g. amplifiers).

Ventilation

Do not cover any ventilation slots on the device and when mounting it in a rack, make sure that there is sufficient air circulation. Always heed the appropriate manufacturer notes when installing the unit.

Water and moisture

Do not expose the unit to rain nor use it in close proximity to water (bath tub, swimming pool etc.) or in high air humidity (condensation).

Ingress of liquids

Make sure that no dripping or spray water can enter into the interior of the unit. Don't place objects filled with liquids (such as vases or drinking vessels) on the device.

Power cable

Use only power cables which are officially approved for your country. The power cable must be designed for the product and its corresponding power consumption (voltage/current) as stated on the device label and in the user manual.



CAUTION!

the protective conductor connection on the included power cord. If the plug of the included cable won't fit into your mains outlet, contact your local electrician.

Mains connection

Protect the power cord from footsteps and crushing, notably on the device plug, the extension cord and the cable outlet on the device.

Power supply

Only use the included power supply.

Thunderstorm

Disconnect the unit from mains to protect it from lightning strokes and excess voltage.

Electric overload

Do not exceed the maximum load current for power outlets, extension cables or integrated multi sockets. Overload may cause a fire.

Fire sources

Do not put any open fire sources (e.g. burning candles) on the device.

Accessories

Use only accessories/extensions with the device which have been approved by the manufacturer for this purpose.

Mounting

Use the device only in a safe, level position on a table, dolly or a special designed stand. Don't drop the unit, since this may cause personal injuries and damages to the device. When installing the device, make sure that the mains plug will remain easily accessible.

Cleaning

Use only a dry cloth for cleaning the device.

Non-use

Pull the mains plug if the unit is not used over prolonged periods of time.

Service

All service and repair works must be carried out by an authorised service technician. Service is required if the device has been damaged in any way, for instance

- the power cord or mains plug have been damaged,
- · liquid or some object has got into the unit,
- the device has been exposed to rain or moisture
- or if it does not function normally or after it has been dropped.

Spare parts

Only such spare parts must be used exclusively for repair works which have been specified and approved by the manufacturer.

Important safety instructions for wide range wall power supplies

- The operating manual must be read carefully prior to use, stored in a safe place and followed.
- Only use the included power supply.
- In case of visible damage to the housing or cables, do not use the power supply.
- The wall power supply is not suitable for outdoor operation.
- Make sure that the wall power supply:
- Is properly plugged into the outlet
- Is easily accessible and in good condition
- Is only used within the allowable temperature range (ambient temperature of o°C to +40°C (up to 90% relative humidity, non-condensing). Storage temperature: -40°C to +70°C (10% to 95% relative humidity)
- Is not uncovered or exposed to sunlight for extended periods
- Is not overheated, and is adequately cooled
- The device should never be installed or stored in the following locations, since damage may occur during operation:
- Locations exposed to high moisture levels and/or condensation
- Locations exposed to various environmental influences
- Locations exposed to continuous vibrations
- Locations exposed to pronounced temperature fluctuations
- Only use accessories such as line adapters recommended by the manufacturer
- Disconnect the wall power supply from the outlet:
- When the device is not being used for a longer time
- During a thunderstorm
- Never pull on the cable to disconnect the device from the mains network.

- Only use the wall power supply with power sources that meet the specifications in the section "Technical data".
- Make sure that using the wall power supply does not overload the outlet or an extension cord. Otherwise there is a risk of fire or electric shock.
- The power supply does not require maintenance. Opening it is prohibited (risk of electric shock).
- Modifying the power supply is prohibited (voids the warranty).
- The device may only be repaired by authorised, qualified personnel.

Installation

This section tells you about the connections, control elements and application possibilities of your Lehmannaudio Black Cube Statement phono amplifier.

1 | Unpacking

After unpacking the Black Cube Statement check it for possible transport damages. If you notice visible damages, you must by no means connect the device to mains. In this case consult your dealer immediately.

Delivery includes the following components:

- Black Cube Statement device
 - Allen key (2 mm)
- Power supply with matching primary adapter
- Guarantee voucher

4 Jumpers

Operating manual



Note

We recommend keeping the entire packaging for later shipment. That way you will avoid transport damages. Use by no means 'foam chips' or similar packaging material. Otherwise the device will jolt through to the bottom of the cardboard box during transport and can be damaged! If the original packaging is no longer available, it's best to use bubble wrap in which to wrap up the device in a generous manner. Finally the whole should be put into a solid cardboard box.

2 | Setup

Always position the Black Cube Statement on a stable surface. Thanks to the compact dimensions and low weight, you can set up the Black Cube Statement directly next to the record player.

3 | Connecting

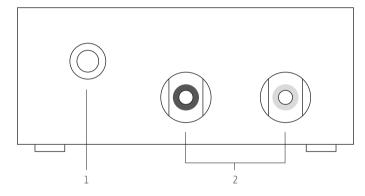
Check whether the included mains adapter is suitable for connection to the mains network used in your country. On the adapter, you will find information about the specified mains voltage for the device. Now connect the Black Cube Statement to the mains network using the external power supply and the connection on the rear of the device.

Note the safety instructions starting on page 32!

Functional description

In this chapter you will learn more about the connections, controls and also the application possibilities of your Lehmannaudio Black Cube Statement phono stage.

Input



1 | Ground terminal (GND)

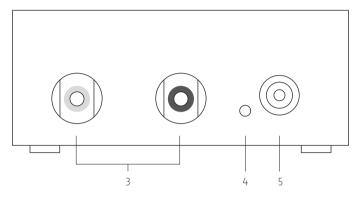
If your record player has a separate ground cable, please connect it here. The terminal is suitable for connecting a cable, flex, open cable ends, cable lug or 4mm banana plug.

2 | Input jacks (IN)

Connect the cables coming from your record player to these jacks. The left jack (black) is for the left channel, the right jack (red) for the right channel. Please be sure to connect the channels correctly.

Functional description

Output



3 | Output jacks (OUT)

RIAA filtered high-level output. Connect the cables that either lead to the input of a downstream high-level pre-amplifier (high-level inputs are labelled 'Line', 'AUX', 'CD', 'Tuner' etc.) or directly to a power amplifier with volume control. Here too, please be sure to connect the cables to the correct channels. When the device is viewed from above, the respective matching channels are arranged in a line.



ATTENTION!

phono input of another device. This could damage the phono stage or speakers.

4 | Operating mode display (LED)

When the LED is lit up, the Black Cube Statement is operational. The device does not have a power switch.

5 | External power supply input

The included external power supply or an equivalent 24 V DC power supply is connected here. Do not connect or disconnect the power supply cable during operation.

Putting into operation

To put your Black Cube Statement into operation, you need information about your pick-up system.

Two details are important: Are we talking about an MM (moving magnet) or MC (moving coil) system? What is the required connection resistance? As a rule, you will find both pieces of information on the product packaging of your pick-up system. Please ask your specialist dealer for recommended values in case of doubt. Support for correctly configuring your Black Cube Statement will be gladly provided.

Once you have the required information, please proceed as follows:

- Set the volume on your system to minimum or turn your amplifier off entirely.
- 2 | Set the gain for your pick-up system (MM/MC) on the Black Cube Statement. The setting must be identical for both channels. Use the DIP switches on the bottom of the device and the gain Jumpers on the inside. Common amplifier settings for various types of pick-ups are found on the next page. The gain Jumpers are inserted at the factory.
- 3 | Set the terminating resistance on the Black Cube Statement. The setting must be identical for both channels. Use the custom impedances inside and the DIP switches on the bottom of the device. Further information is found on page 43.
- 3 | Connect the **record player to the input** on the Black Cube Statement.
- 4 Connect the output on the Black Cube Statement to a line input on the downstream amplifier. To largely exclude line losses, the signal cables should be kept short.
- **5** | Connect the **power supply**

Common settings

The switch/gain Jumper configurations for some systems are listed below. Please note that both channels must have the same setting in all cases.

System	Switch	Gain Jumper
ММ	ON	X
MM High output	1 2 3 4	-
MC 47 kOhm	ON	X
MC 47 kOhm Mid output	1 2 3 4	-
MC 1 kOhm	ON	X
MC 1 kOhm Mid output	1 2 3 4	-
MC 100 Ohm	ON DEPT	X
MC 100 Ohm Mid output	1 2 3 4	-
MC custom impedance	ON	X
MC custom impedance Mid output	1 2 3 4	-

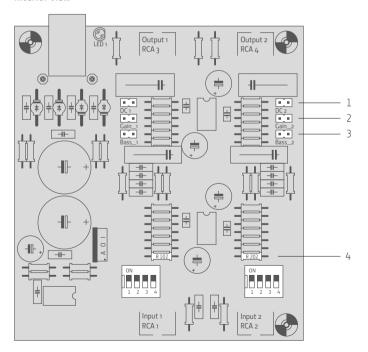
X = Jumper inserted (delivery condition)

Expert notes

The Black Cube Statement can be adapted to virtually all systems available on the market.

With the exception of the DIP switches, the adjustment mechanisms are located inside the device and should only be changed by experts. An Allen key to open the housing and Jumpers to change the amplification are included with the device.

Interior view



1 | DC 1/DC 2

The MKP output capacitors are bridged with these Jumpers so they are no longer in the signal path. These Jumpers are not activated at delivery.



ATTENTION!

When output capacitors are bridged, there may be DC voltage on the outputs. Before activating these Jumpers, it is therefore necessary to ensure that the downstream input stage has a DC voltage input filter since DC voltage can damage the speakers. In case of doubt, have your system checked by the dealer first.

2 | Gain_L/Gain_R

These Jumpers change the amplification by +10 dB and are activated at delivery. With the DIP switches accessible on the bottom of the device (respectively no. 1), you can switch the gain between 41 dB (MM) and 61 dB (MC). You can remove the Jumpers if this amplification is too high.

3 | Bass_L/Bass_R

These Jumpers activate the soft bass roll-off filter to prevent membrane flutter when playing back warped records. The cut-off frequency is 50 Hz, the filter slope is 6 dB/oct. These Jumpers are not activated at delivery.

4 | R102/R202

Available custom impedance plug connections for activation with the DIP switches for the channels (respectively no. 3). An impedance/capacity activated here is switched in parallel to all other impedances/capacities activated by switches and the 47 kOhm/100 pF.

Sound optimisation tips

The Black Cube Statement can only be as good as the signal supplied by the turntable or pick-up system. Since playing back a record consists of mechanical sampling with many important influencing variables, we provide some sound optimisation tips here. For high-end record players in particular, you should consult your dealer for the required service and adjustments.

- 1 Adjusting the pick-up arm geometry and system should always be performed by a specialist. In case of incorrect settings, the effects range from sound problems to one-sided and therefore premature wear of the system. Good specialist dealers have special measuring and adjusting equipment. It is much more accurate than what may be included with the pick-up system.
- 2 On record players with a sub-chassis, the vibration behaviour should also be optimised by an expert. Sound improvements are possible here as well.
- 3 Using a **decoupling mat** that contributes to better mechanical separation between the record and turntable can further improve the sound quite significantly.
- 4 | Special attention should also be paid to the chosen cable materials and **assembly**. This applies in particular to the system cables (headshell), the cables from the pick-up to the Black Cube Statement and the cables to the downstream pre-amplifier.

Technical specifications

	ММ	MC
Sensitivity for output level 775 mV/o dB (with activated high gain Jumper)	7.4 mV/1 kHz	0.74 mV/1 kHz
Gain 1 kHz	41 dB	61 dB
Maximum input level	58 mV	5.6 mV
Signal to noise ratio (RMS unweighted)	78 dB	57 dB
Gain	31 dB, 41 dB, 51 dB, 61 dB	
Channel separation	> 85 dB at 10 kHz	
Input impedance	47 kohms, 1 kohm, 100 ohms 1 x custom load	
Output impedance	< 100 ohms	
Input capacitance	100 pF	
Channel mismatch	typ. o.5 dB	
Bass filter	50 Hz, 6 dB/oct.	
Power consumption	арр. 1 VA	
Mains voltage	100 V to 240 V AC	
Outer dimensions W x D x H	103 mm x 108 mm x 45 mm	
Weight	o.28 kg netto	

Troubleshooting

Fault	Cause	Solution
Operating LED does not light up.	Power supply is not plugged in.	Plug the power supply into the outlet.
	Power supply is not connected to the device.	Connect the power supply to the device.
No signal.	Power supply is not plugged in.	Plug the power supply into the outlet.
	Power supply is not connected to the device.	Connect the power supply to the device.
	The input and output on the Black Cube Statement are connected incorrectly.	Check whether the cables coming from the record player are connected to the input and the cables leading to the amplifier are connected to the output of the Black Cube Statement, and connect them correctly if applicable.
	The incorrect input channel is selected on the downstream amplifier.	Select the correct input channel.
Signal on one channel only.	DIP switches are set inconsistently or only one gain Jumper is inserted.	Check the position of both DIP switches and/or gain Jumpers. Make sure that the settings are the same for both channels.

Signal on one channel only.	A connecting cable has a loose contact, is not properly inserted in the jack or is defective.	Check the connecting cable for bad contacts, loose plug connections and defects, and replace it if required. Possibilities: System cable (head shell), pick-up arm cable from the record player to the Black Cube Statement and line cable from the Black Cube Statement to the downstream input.
	The downstream input stage is defective.	Resolve by connecting to various line inputs.
The left and right channels are inverted.	The channels are inverted in the connecting cable.	Check the connecting cables and swap the channels here if applicable. Possibilities: System cable (head shell), pick-up arm cable from the record player to the Black Cube Statement and line cable from the Black Cube Statement to the downstream input.
Signal is too low.	Adjustment between the pick-up system and Black Cube Statement is not optimal.	Increase the amplification factor according to this user manual using the DIP switches under the Black Cube Statement and/or activate the high gain Jumper.
	The input resistance on the Black Cube Statement is too low.	Adjust the input resistance so it is higher than the system impedance of the pick-up by at least a factor of 10.

Signal is low and muffled.	MC impedance selected on MM system.	Deactivate all MC impedances per DIP switch. Note that a custom impedance may be inserted.
The signal is distorted.	The amplification in the Black Cube Statement is set too high.	Increase the amplification factor according to this user manual using the DIP switches under the Black Cube Statement and/or deactivate the high gain Jumper.
	The output on the Black Cube Statement is con- nected to the down- stream phono input.	Connect the output of the Black Cube Statement to a line input of the downstream amplifier.
The signal sounds hollow, without a proper bass and localisation.	The pick-up connection is phase-inverted (reverse polarity).	Connect the system cable with correct polarity.
Buzzing noise.	Pick-arm ground is not connected on the Black Cube Statement.	Connect the pick-up arm ground to the Black Cube Statement.
	Several connected devices create a buzzing loop.	Establish a proper ground connection. Consult an electrician if necessary.
	There is an interference from another device.	Disconnect all devices con- nected to the same circuit one by one and check the ef- fect. While listening to music, leave the device causing the interference switched off or connect it to the circuit using a line filter.

Buzzing noise.	Power transformer of a device set up close by crossfeeds into the input.	Maintain sufficient distance from the device causing the interference.
Radio inter- ference can be heard in the background.	Pick-arm ground is not connected on the Black Cube Statement.	Connect the pick-up arm ground to the Black Cube Statement.
	The standard input capacitance (100 pF) for MC is too low.	Have the custom impedance jack equipped with additional capacity by the dealer.

If a problem cannot be remedied with the help of this summary, please contact the specialist retailer where you purchased the device. If this is not possible, you can easily find another competent dealer in your area with the dealer search at www.lehmannaudio.com/service/dealers.

Legal notes

Warranty

Each device from Lehmannaudio is tested individually and subject to a comprehensive functional check. The use of only the very best components enables us to grant a warranty of two years.

The receipt/proof of purchase shall serve as warranty proof. A registration form is supplied with the product or can be downloaded at www.lehmannaudio.com/ service/register.html. Damages due to incorrect installation or inappropriate handling are not covered by warranty and will therefore be repaired at the owner's expense. Claims for damage of any kind, notably for secondary failures, are excluded. In addition we exclude any liability which exceeds the merchandise value of the device.

The general terms and conditions apply of:

Lehmannaudio

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State of technology

To ensure the highest audio quality, Lehmannaudio devices are constantly updated to the current state of the art. We reserve the right to make necessary alterations in design and circuitry without prior notice. Technical data and visual appearance may therefore differ from the present user manual.

Service

In any event all maintenance or repair works must be carried out by qualified technical staff. If you want to send back the device, please contact Lehmannaudio directly to discuss the procedure in detail.

For service works on the Black Cube Statement please contact the retailer where you purchased the device. If this is not possible, you can easily find another competent dealer in your area with the dealer search at www.lehmannaudio.com/ service/dealers.

Any modifications on the device are not permissible. In case of nonobservance the device will lose its CE conformity and warranty claims.

Trademark and copyright

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CE conformity

When properly installed in line with this handbook, this product complies with the following European directives:

Low-Voltage Directive 2006/95/EG: EN 60065

EMV Directive (electromagnetic compatibility) 2004/108/EG: EN 55103-1:2009, EN 55103-2:2009



The product has been manufactured in compliance with the directive 2002/95/EG.





WEEE Disposal of waste electronic equipment

The crossed-out trash bin is the EC symbol for the separate disposal of waste electronic equipment. The Black Cube Statement contains electric and electronic components which, after disposal of the device, will either be reused or salvaged and recycled. According to the directive 2003/108/EG it must therefore not be disposed of together with household waste. In case of disposal please take the junk device back your dealer or request further information there.

The Lehmannaudio Vertriebs GmbH is listed in the WEEE registry.

Norbert Lehmann, managing director

Cologne, January 30, 2018