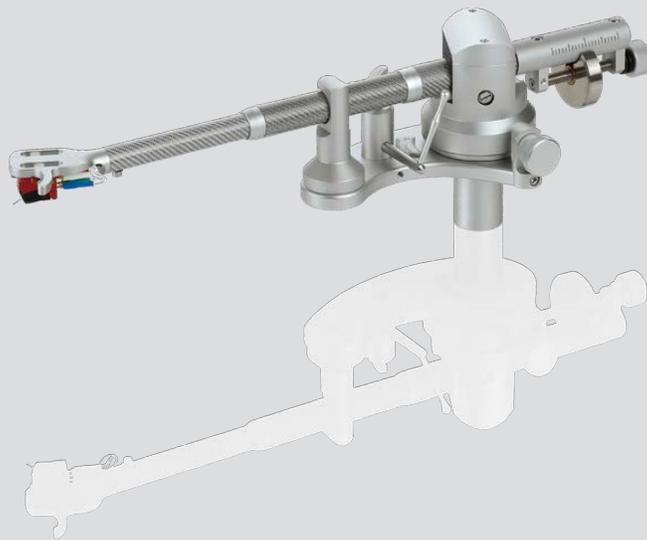




# Universal / Universal 12''

Loving music

User manual  
Bedienungsanleitung



## User manual / Bedienungsanleitung



**User manual** ..... 2 - 13



**Bedienungsanleitung**..... 14 - 25

Dear audio enthusiast,

Congratulations! You have purchased one of the best radial tonearm`s available in the World of High-End Audio. The *Universal* (optional: *with VTA-Lifter* and / or *Universal 12"*) tonearm is manufactured to the highest degree of tolerance and quality.

This genius tonearm comes with high precision bearings with lowest possible bearing clearance and with many options of fine adjustments of vertical tracking force (VTF), vertical tracking adjustment (VTA) and the azimuth.

To achieve the full performance and to avoid any damages to this product, please take your time to get familiar with your **Clearaudio** *Universal* tonearm.

Please enjoy listening to music with the *Universal* tonearm!

You're **Clearaudio** team

### Warning

- Do not expose the equipment to rain or moisture.
- Do not remove the cover from the equipment.
- Do not insert anything into the equipment through the ventilation holes.
- Do not handle the mains lead with wet hands.
- No naked flame sources, such as lighted candles, should be placed on the equipment.
- Only for use on turntables.

### CE-MARKING





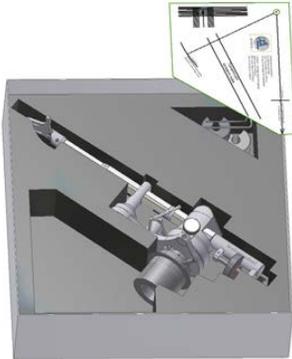
## Contents

<b>1. List of components .....</b>	<b>4</b>
<b>2. <i>Universal</i>/tonearm mounting.....</b>	<b>5 - 10</b>
<b>3. <i>Universal</i>/tonearm adjustment.....</b>	<b>10 - 11</b>
<b>4. Special notes .....</b>	<b>12</b>
<b>5. Technical data .....</b>	<b>13</b>
<b>Warranty.....</b>	<b>26 - 27</b>

## 1. List of components

The **Clearaudio** *Universal* tonearm is delivered in a customized packing to ensure its safe transport. Please check the contents as shown in the pictures below:

List of components for *Universal* tonearm (9" and 12") (optional: with *VTA-Lifter*):



**Pic. 1:** List of components with *VTA-Lifter* (Picture similar)

1.	<i>Universal</i> tonearm (optional: with pre-assembled <i>VTA-Lifter</i> <i>Universal</i> tonearm base)	5.	<i>Universal</i> tonearm base and screws: - 1 x M6 x 8 (Stainless steel) - 3 x M4 x 10
2.	3x hex wrench - # 1.5 - # 2 - # 3	6.	Paper alignment gauge
3.	Counterweights for <i>Universal 9"</i> : - 18.3 gram (Aluminium) - 31.5 gram (Aluminium) - 49 gram (Stainless steel) - 66 gram (Stainless steel) - 85 gram (Stainless steel)  Counterweight for <i>Universal 12"</i> : - 49 gram (Stainless steel) - 66 gram (Stainless steel) - 85 gram (Stainless steel)	7.	Not shown: Warranty card, <b>Clearaudio</b> Quality Card, user manual, sales return paper
4.	Aluminium screw driver		

Recommended Tools:

- **Clearaudio** Cartridge alignment gauge (Art. No. AC005/IEC)
- **Clearaudio** Weight Watcher (Art. No. AC094)

Both items and more accessoires are available at [www.analogshop.de](http://www.analogshop.de).



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## User manual / Bedienungsanleitung

### 2. *Universal* (9" and 12") tonearm mounting

Please keep in mind that the following instructions are covering the mount of the *Universal* tonearm on any **Clearaudio** turntable.

#### 2.1 *Universal* tonearm with *VTA-Lifter*:



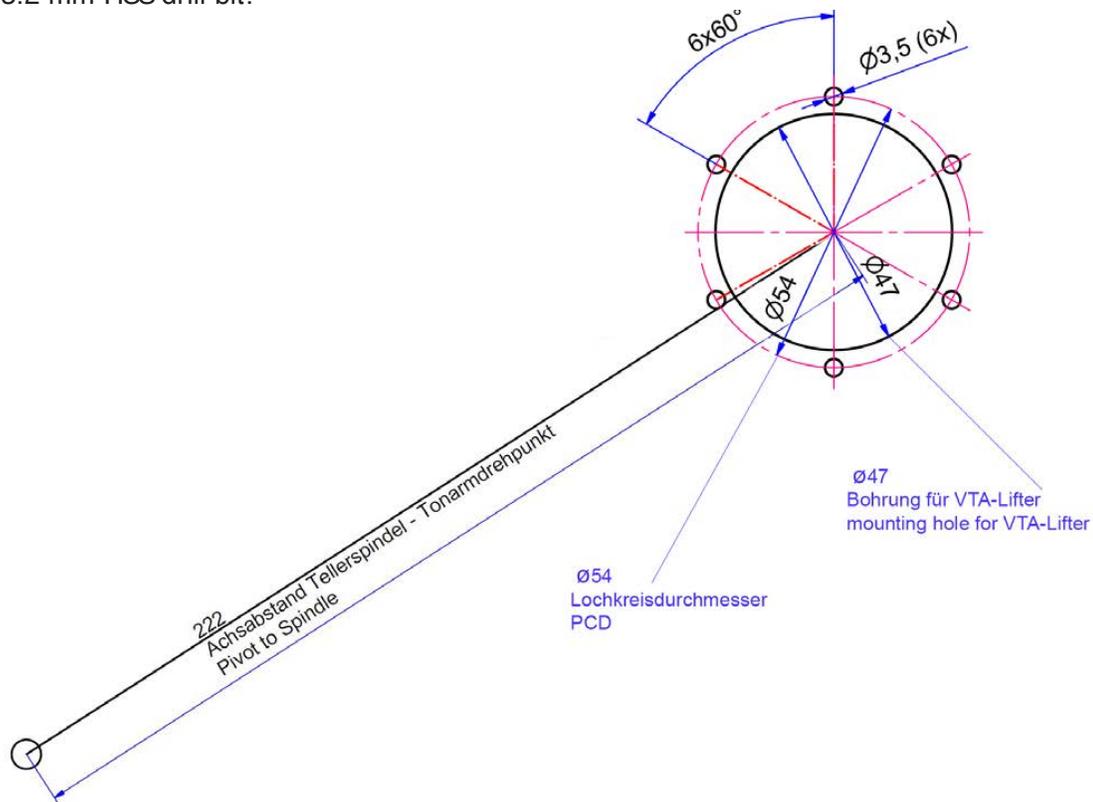
Pic. 2: *Universal* with *VTA-Lifter*

#### Mounting the VTA-Lifter on a non-Clearaudio turntable:

To install the VTA-Lifter on the turntable chassis, you will need to drill the required holes. Please refer to the drilling template shown below (Picture 3) for the measurements to mark the exact drilling holes.

**Please be informed, that this drawing is not suitable for use as a mounting tool.**

Use a 3.2 mm HSS drill bit.



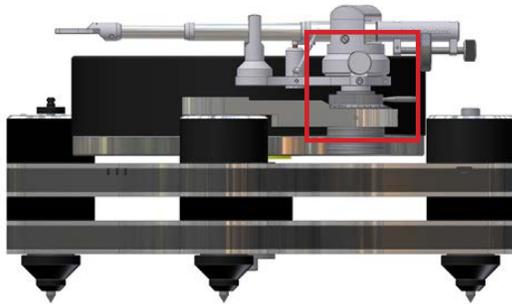
Pic. 3: Mounting the VTA-Lifter on a non-Clearaudio turntable

**Please note:**

**This drilling template is only for *Universal* 9 inch tonearms. You will find the the correct pivot to spindle for *Universal* 12 inch in the technical data on page 13.**

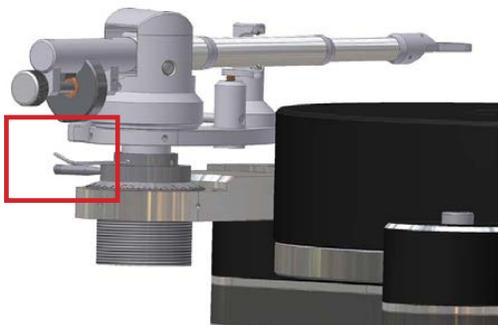
**1).**

Slide the *VTA-Lifter* into the drilling of the tonearm base. Lock the *VTA-Lifter* with the screws on the side of the tonearm base (pic. 4 and 5).



**Pic. 4:** Setup of tonearm base with *VTA-Lifter*

To adjust the height of the tonearm in the *VTA-Lifter* lift the *VTA-Lifter* up and loosen the screws. After adjustment of the tonearm height tighten the screw again.

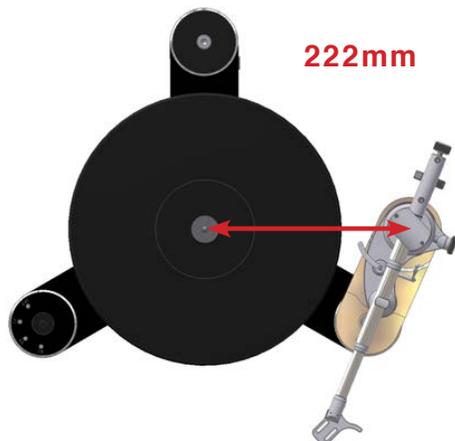


**Pic. 5:** Adjustment of the height of tonearm with *VTA-Lifter*

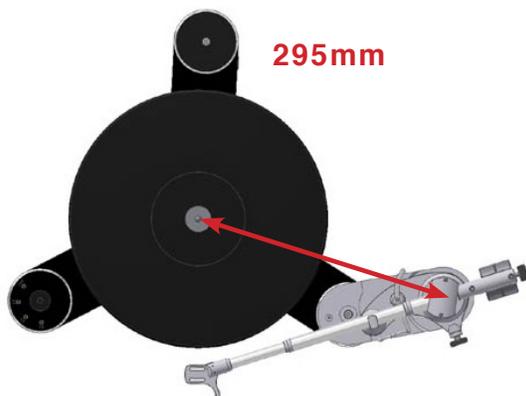
2.)

To adjust the pivot of the tonearm **Clearaudio** recommends the **Clearaudio IEC alignment gauge** (Art. No.: AC005/IEC; also available at [www.analogshop.de](http://www.analogshop.de)).

Make sure that the distance from the spindle to the pivot point (center) of the tonearm (9 ") is exact **222 mm (for Universal 12" = 295 mm)**. When moving the armboard in one or another direction you can set the correct distance. After distance is adjusted, tighten the screws of the armboard.



**Pic. 6a:** Distance from spindle to pivot 222 mm / *Universal 9"*



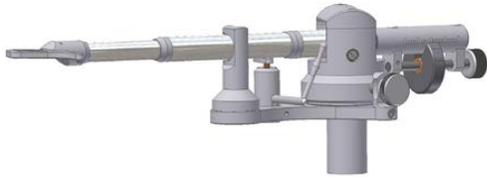
**Pic. 6b:** Distance from spindle to pivot 295 mm / *Universal 12"*

### **Adjustment of the tonearm height with *VTA-Lifter*:**

Please follow hereby the user manual of the *VTA-Lifter*.

The height of the tonearm ist adjusted correct, if the upper side of the mounted cartridge is parallel to the surface of the record (when the cartridge is lifted down).

## 2.2 Universal tonearm without VTA-Lifter:



Pic. 7: *Universal* tonearm without VTA-Lifter

### **Mounting the aluminum clamping ring on a non-Clearaudio turntable:**

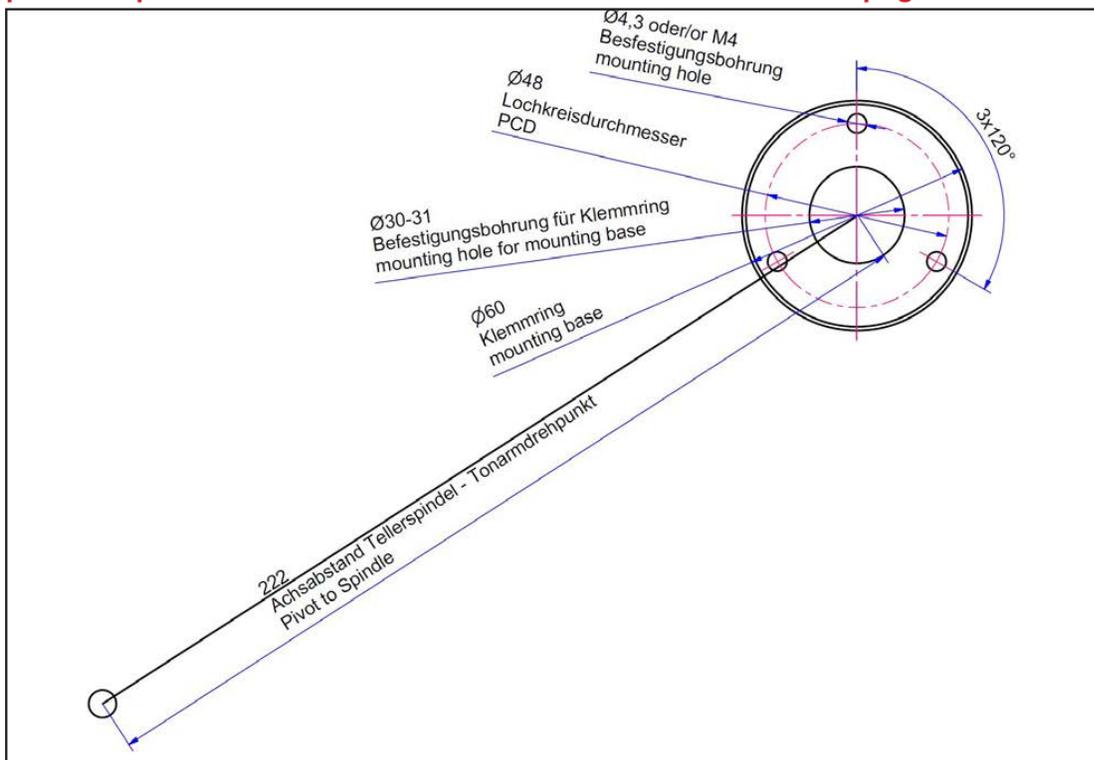
To install the aluminum clamping ring on the turntable chassis, you will need to drill the required holes. Please refer to the drilling template shown below (Picture 8) for the measurements to mark the exact drilling holes.

**Please be informed, that this drawing is not suitable for use as a mounting tool.**

Use a 3.3 mm HSS drill bit, then cut an M4 thread into each hole using an appropriate tap cutting tool. If the turntable chassis material is not suitable for cutting threads, please use a 4.5 mm HSS drill bit to drill the holes through the material. In this case use standard bolts and nuts to fix the arm base.

#### **Please note:**

**This drilling template is only for *Universal* 9 inch tonearms. You will find the the correct pivot to spindle for *Universal* 12 inch in the technical data on page 13.**



Pic. 8: Mounting the aluminum clamping ring on a non-Clearaudio turntable

## User manual / Bedienungsanleitung

## 1.)

Tighten the mounting plate for the *Universal* tonearm with the screws onto the mounted tonearm base. Please take the delivered screws.

Feed the tonearm cable through the mounting plate and slide the tonearm feet through the drilling of the mounting plate.



Fig. 9: Placing the tonearm

## 2.)

To adjust the pivot of the tonearm **Clearaudio** recommends the **Clearaudio IEC alignment gauge** (Art. No.: AC005/IEC; also available at [www.analogshop.de](http://www.analogshop.de)).

Make sure that the distance from the spindle to the pivot point (center) of the tonearm is exact **222 mm (Universal 9")** or **295 mm (Universal 12")**.

When moving the armboard in one or another direction you can set the correct distance. After distance is adjusted, tighten the screw of the armboard.

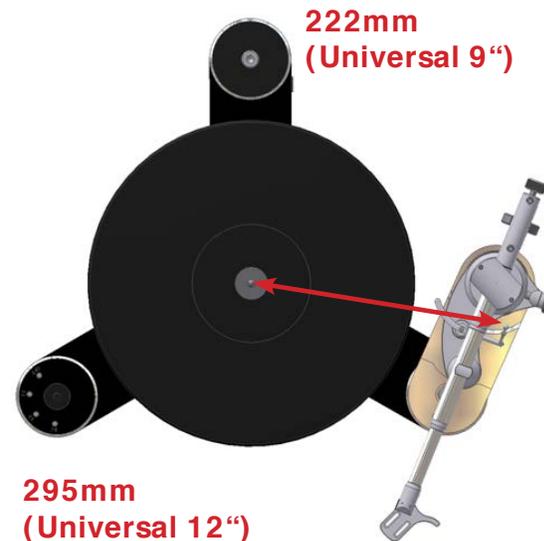


Fig. 10: Distance from spindle to the pivot (222 mm/ 295 mm)

### Adjustment of the tonearm height without VTA-Lifter:

By loosening the screws on the side of the mounting plate you can adjust the height of the tonearm. The height of the tonearm is adjusted correctly when the upper side of the mounted cartridge is parallel to the surface of the record (when the cartridge is lifted down).

### 3. *Universal* tonearm adjustments

The now following adjustments require an already mounted cartridge on the headshell. Therefore please follow the instructions in the user's manual of the cartridge manufacturer.

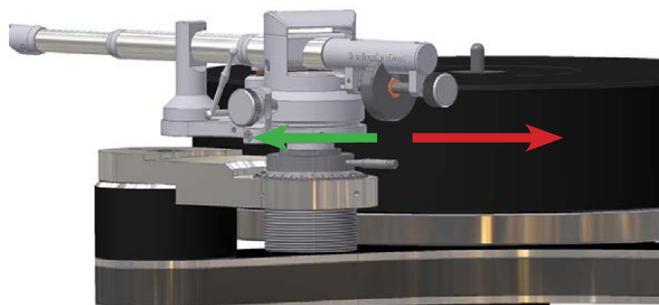
**Please handle with care!**

#### 3.1 Adjustment of the Tracking force

1.)

Set up one of the three (for *Universal* 12") / five (for *Universal* 9") delivered counterweights onto the bronze nut of the tonearm tube and tighten it on the bottom side.

Adjusting tracking force is accomplished by moving the counter weight towards or away from the pivot point on the shaft.



Green arrowhead = slower anti-skating  
Red arrowhead = stronger anti-skating

Pic. 11: Adjusting tracking force

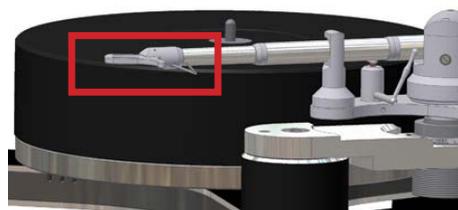
#### 3.2 Azimuth adjustment (vertical needle-position in the groove)

2.)

The azimuth is already pre-adjusted, when the *Universal* tonearm has left our factory:

If you need to change the azimuth, please loosen the screw on the side of the tonearm headshell. Now you can change the azimuth.

After the adjustment is finished, lock the screw in the headshell again.



Pic. 12: Adjustment of the azimuth

**Classification counterweights to different cartridges (at tracking force 2.8 gram) for *Universal 9*“:**

Counterweights in gram:	Range of adjustable cartridge weights:	
	From...	...to
18.3 gram (Aluminium)	2.9 gram	5.3 gram
31.5 gram (Aluminium)	5.1 gram	8.9 gram
49.0 gram (Stainless steel)	7.7 gram	14.9 gram
66.0 gram (Stainless steel)	11.2 gram	19.9 gram
85.0 gram (Stainless steel)	15.0 gram	24.8 gram

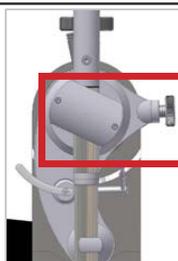
**Classification counterweights to different cartridges (at tracking force 2.8 gram) for *Universal 12*“:**

Counterweights in gram:	Range of adjustable cartridge weights:	
	From...	...to
49.0 gram	2.9 gram	11.3 gram
66.0 gram	5.6 gram	16.2 gram
85.0 gram	8.5 gram	21.0 gram

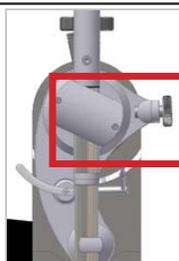
**3.3 Antiskating adjustment**

By turning the antiskating – screw (see red box on picture 13 you can adjust the antiskating. The adjustment also depends on the tracking force of the cartridge.

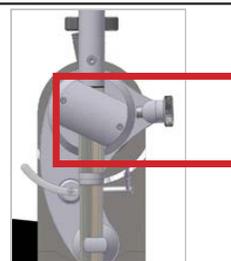
Adjustment antiskating:	Tracking force	Position of antiskating screw
Minimal antiskating >	10-15mN >	see picture 1
Medium antiskating >	15-20mN >	see picture 2
Maximum antiskating >	20mN and more >	see picture 3



Picture 1  
(minimal antiskating)



Picture 2  
(medium antiskating)



Picture 3  
(maximum antiskating)

**Pic. 13:** Adjustment of the antiskating

**Attention:**

Before the first use or after a long storage, please apply the lift unit up and down approximately 4-5 times, so that the oil inside can dissolve in order that the lift unit can move smoothly.

The general set-up is now finished.

**Clearaudio** wishes you a lot of pleasure with your new *Universal* tonearm!

## 4. Special notes

### 4.1 Maintenance

If you don't use your *Universal* tonearm for a longer time, please move the tonearm lifter in regular intervals. This avoid that the tonearm hang in a position when you listen to the music again.

### 4.2 Transportation

Should further transportation of the *Universal* tonearm be necessary, please always use the original packing material. Otherwise serious damage could occur.

### 4.3 Service

If any servicing or repair of a **Clearaudio** product is necessary, please first contact your dealer or distributor. Alternatively contact **Clearaudio** directly and we will advise you of your nearest service location.

PLEASE RETAIN ALL ORIGINAL PACKAGING. You will need it if this product has to be transported and/or shipped. Any further questions you may have about this product should be directed to your local dealer or direct to **Clearaudio**.



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## User manual / Bedienungsanleitung

### 5. Technical data

	9 inch	12 inch
<b>Construction details:</b>	Radial tonearm using ultra low friction bearings. Fine adjustments of the azimuth. With carbon tonearm tube.	Radial tonearm using ultra low friction bearings. Fine adjustments of the azimuth. With carbon tonearm tube.
<b>Cartridge balance range:</b>	2.9 – 24.8g	2.9 – 21g
<b>Null points:</b>	Inner: 66.04 Outer: 120.9	Inner: 66.04 Outer: 120.9
<b>Overhang:</b>	16.5mm	13.0mm
<b>Wiring:</b>	<b>Clearaudio</b> Sixtream Super Wire (1.1m) terminated with RCA connector	<b>Clearaudio</b> Sixtream Super Wire (1.1m) terminated with RCA connector
<b>Distance from pivot to stylus:</b>	222mm	295mm
<b>Offset angle:</b>	25.45°	20.61°
<b>Maximum of tilt angle according to the radius:</b>	0.123 °/cm	0.109 °/cm
<b>Middle skating factor at a radius of 133 mm and 83.9 mm:</b>	0.49	0.41
<b>Effective Tonearm length:</b>	9.4 inches (exact 239.3mm)	10 inches (exact 265.45mm)
<b>Overall length:</b>	300mm	335mm
<b>Mounting style:</b>	<b>Clearaudio</b> (diameter of bore 24.85mm)	<b>Clearaudio</b> (diameter of bore 24.85mm)
<b>Weight:</b>	approx. 740g (incl. counterweight)	approx. 772g (incl. counterweight)
<b>Warranty:</b>	5 years*	5 years*

\* Provided that the warranty card is correctly completed and returned to **Clearaudio** within 14 days of purchase.

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