



Innovation

Loving music

User manual



Innovation

Picture: Package with Clearaudio tonearm „TT3“ and Clearaudio cartridge „Titanium V2 “.



Innovation Wood

Picture: Package with Clearaudio tonearm „Universal“ and Clearaudio cartridge „da Vinci V2 “.



reddot design award
winner 2009

User manual

Dear **Clearaudio** customer,

Congratulations to your choice of the *Innovation / Innovation Wood* (in the following: *Innovation* named) turntable, a world class turntable, handmade in Germany by **Clearaudio** electronic GmbH.

Resonance minimizing chassis construction in a sandwich in combination with the innovative motor unit (low noise level and high turning moments), guarantees total isolation of resonances from the turntable chassis, providing the best music reproduction and authentic High End imaging. A high precision, maintenance free sinter bronze bearing is completing the analogue pleasure.

The **Clearaudio** patented CMB-Bearing-Technology, an inverted bearing with jewelled and polished ceramic bearing shaft and a bronzed liner, provides frictionless analog enjoyment.

Please read this instruction manual carefully, to avoid any damages or loss of warranty. This manual will help you for an easy setup and guarantees the highest pleasure for a long time.

We wish you a lot of musical enjoyments with your new **Clearaudio** *Innovation* turntable.

Clearaudio electronic GmbH

This section must be read before any connection is made to the mains supply.

WARNINGS

Don't expose your turntable to rain or humidity.
Don't handle the mains leads with wet hands.
Don't place or insert anything into the equipment or through ventilation holes.
No naked flame sources, such as lighted candles, should be placed on the equipment.

CE-MARKING



The **Clearaudio** *Innovation* meets the regulations concerning electromagnetic disturbance (EMC) and low-voltage appliances.

EQUIPMENT MAINS WORKING SETTING

Your Clearaudio product has been prepared to comply with the household power and safety requirements that exist in your area. This product can be connected to 230 V or 110 V AC (50 Hz and 60 Hz).

COPYRIGHT

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- Copyright Act 1956,
- Dramatic and Musical Performers Act 1958,
- Performers Protection Acts 1963 and 1972,
- Any more recent legal regulations.



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1. Packing overview

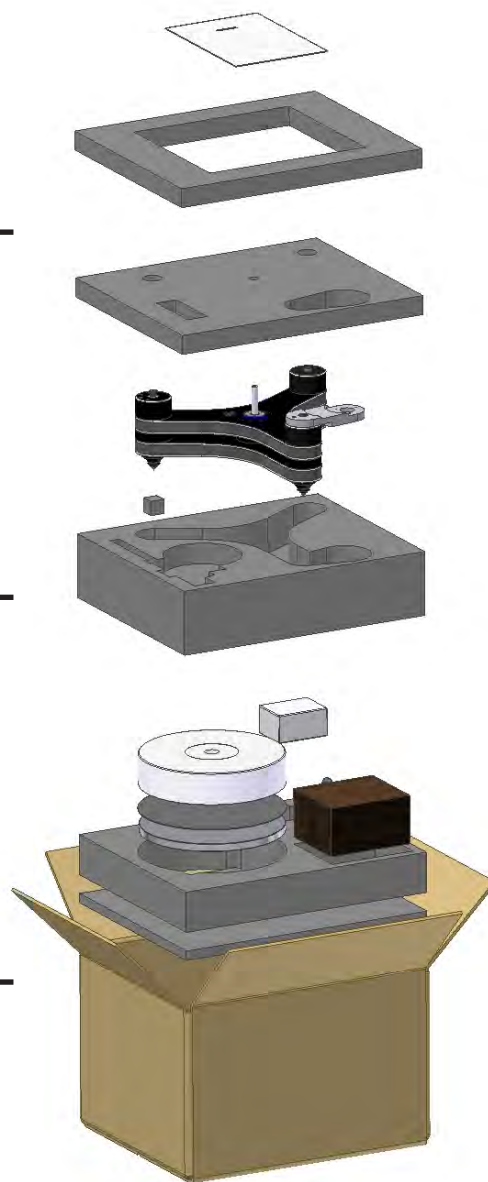
Accessories,
user manual,
warranty card,
Clearaudio Quality
Card,
Stroboscope
Testrecord

Innovation
turntable chassis incl.
mounted lower
bearing part and
integrated motor unit;

optional: Tonearm

Stainless steel-sub-
platter; Delrin or
Acrylic platter;
power supply;
upper bearing part
and – cap

optional: Cartridge



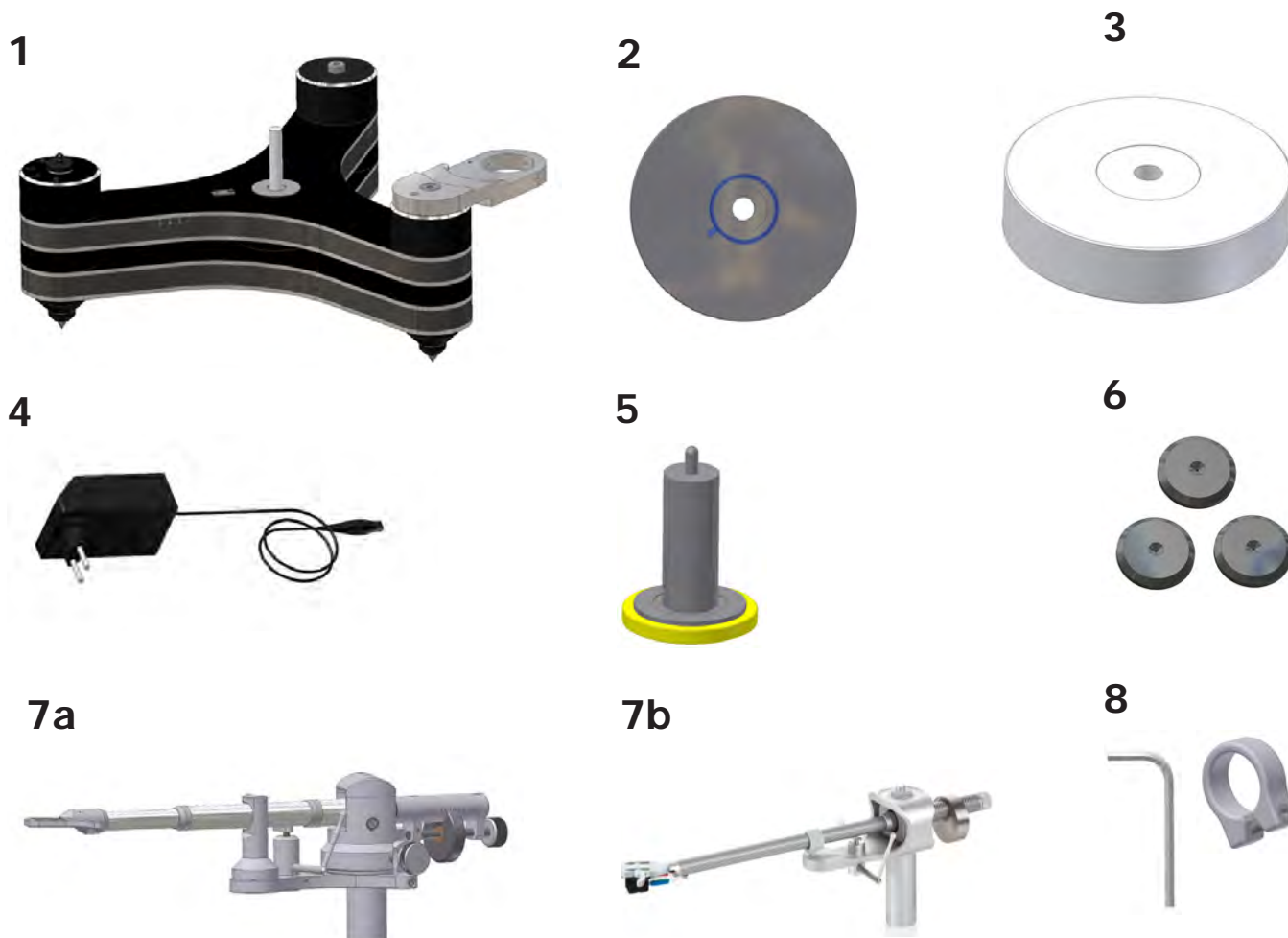
Pic. 1: Packing overview

User manual

2. List of components

Clearaudio has developed a special and secure packing for your *Innovation* turntable that ensures a safe transportation. Please keep this original packing, if you need to ship the turntable.

Below you find the part list of the **Clearaudio** *Innovation* turntable:



Pic. 7a: Clearaudio *Universal* tonearm

Pic. 7b: Clearaudio *Magnify* tonearm

Pic. 2: List of components

1.	Turntable body with mounted lower bearing part	5.	Bearing part
2.	Stainless steel sub-platter	6.	3 x Flat Pads
3.	Delrin or Acrylic (Wood version) turntable platter	7.	Optional: Clearaudio <i>Universal</i> (7 a) or <i>Magnify</i> (7 b) tonearm with counterweight to adjust the tracking force
4.	Power supply	8.	Mounting clip for stainless steel sub-platter and hex wrench

User manual

Continuation of components list

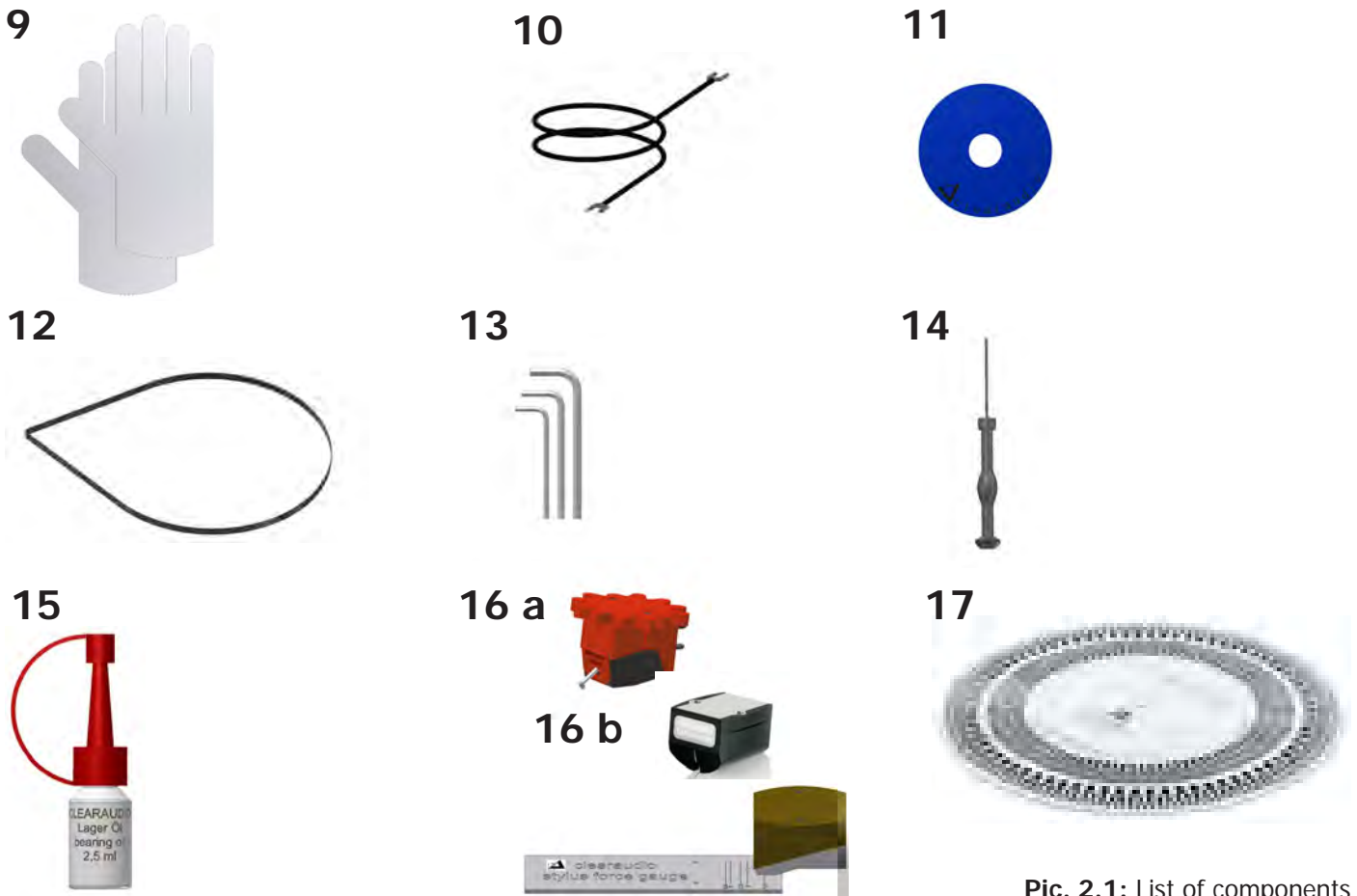


Fig. 2.1: List of components

9.	1 Pair of white gloves	15.	Bearing oil for occasional use
10.	Grounding - wire for the Innovation turntable (to connect in the bottom bearing part)	16 a	Optional in package: Clearaudio MC cartridge <i>da Vinci</i>
		16 b	Clearaudio MC cartridge <i>Talismann</i>
			Clearaudio <i>Smart Stylus Gauge</i>
11.	Level gauge for the turntable alignment	17.	Clearaudio <i>Stroboscope Testrecord</i> (Art. No. AC038) to adjust the exact speed
12.	1 pcs. flat belt	18.	Optional in package: Turntable + tonearm + cartridge No illustration: <i>Cartridge alignment gauge</i> for <i>Unify</i> or <i>Universal</i> tonearm (optional)
13.	4 pcs. hex wrench; sizes: #1,5; #2,5; #3; #7	19.	Not shown: warranty card, Clearaudio Quality Card, Sales return paper
14.	Screw driver	17.	Not shown: User Manual

IMPORTANT NOTICE:

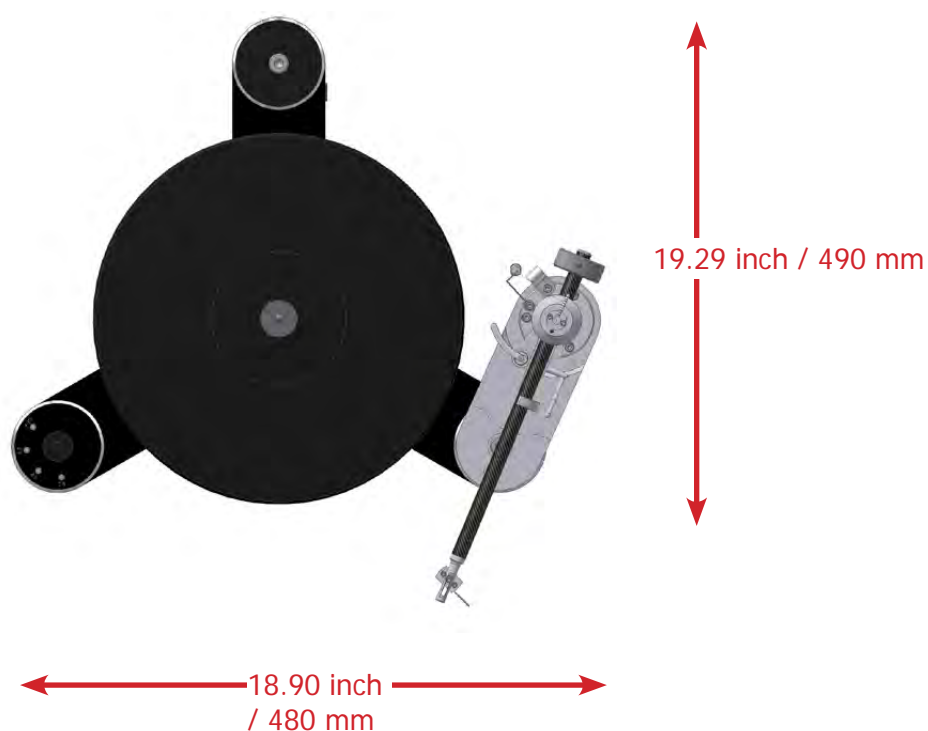
Please double check the tightness of all bolts, hardware, and mounting pods, as temperature fluctuations during transit may have caused the hardware to become loose.

3. Installation and set up

The setup of the *Innovation* turntable is easy as the turntable chassis is pre-assembled and has been tested at the factory.

Please use the white gloves enclosed in order to avoid scratches or unwanted fingerprints (platter).

The *Innovation* turntable requires a space for setup of at least 18.90 inch x 19.29 inch.



Pic. 3: Required set - up space

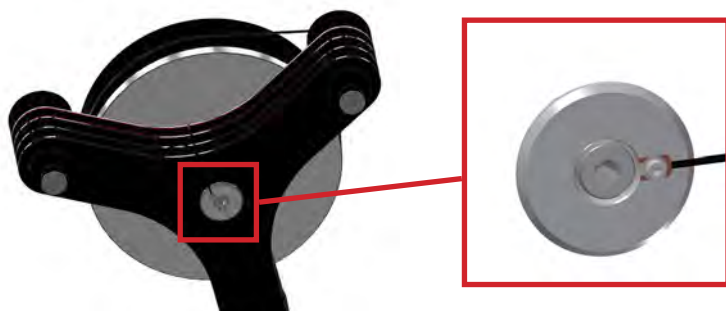
Please follow the description step by step:

- 1.)
First take out the three black flat pads out of the accessory bag.
Place these flat pads on your hifi-rack or another suitable base, where the final position of your *Innovation* turntable will be.
- 2.)
After that, take the *Innovation* turntable body of the next packing layer and place the spikes of the turntable on the flat pads.



Pic. 4: *Innovation* with tonearm base

- 3.)
To avoid hum noises we recommend to ground the bearing. For that attach the supplied grounding wire to the bearing cap with the existing screw.



Pic. 5: Grounding the bearing of the *Innovation*

- 4.)
Remove the protective security tape from the bearing housing.
Place two drops of the synthetic bearing oil on the ceramic bearing shaft.
(also available at www.analogshop.de, Art. No. AC068)



Pic. 6: Oiling the bearing shaft

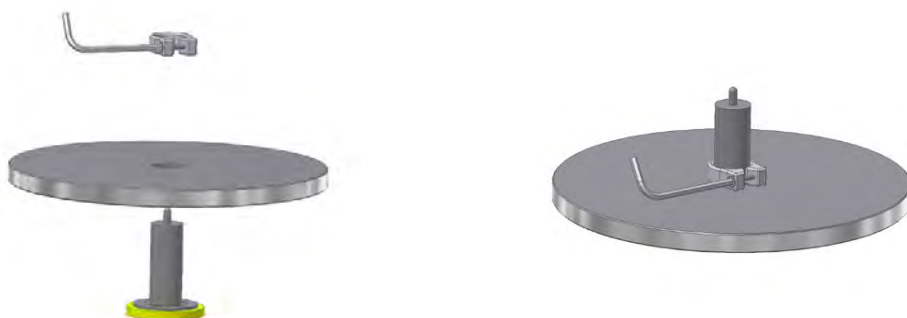
User manual

5.)

Take the stainless steel platter with both hands carefully out of the box.
Remove the lamination of the scale ring on the lower side of the turntable.

Please remove the lamination extreme carefully and avoid any soiling and scratches.

Push the delivered bearing part carefully through the hole in the stainless steel sub-platter and mount the bearing part with the sub-platter by using the mounting clip.

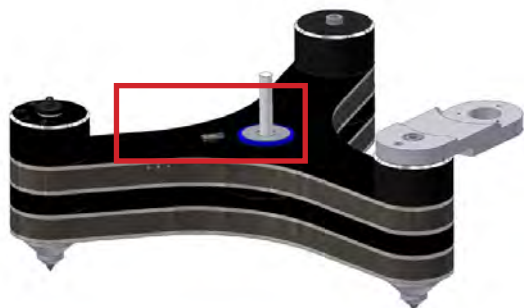


Pic. 7: Connection sub-platter and bearing upper part

6.)

In the next step remove the lamination of the sensor, mounted on the turntable chassis (picture 6: red frame).

Please remove the lamination extreme carefully and avoid any soiling and scratches.



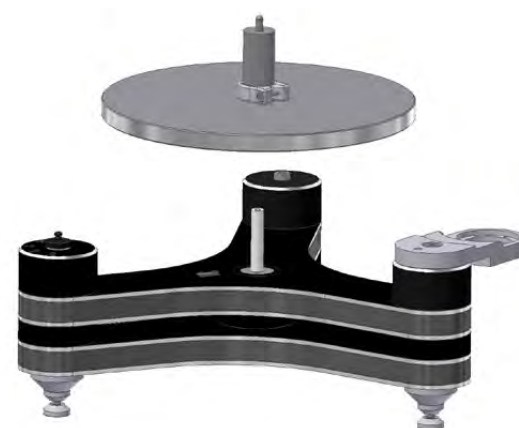
Pic. 8: Removing the lamination

7.)

With both hands you can place the stainless steel platter carefully onto the bearing.
Through a lightly (!!) up and down movement the platter will slip onto the bearing upper part (picture 8).

Make sure with gentle pressure that the platter is applying on the complete surface of the bearing.

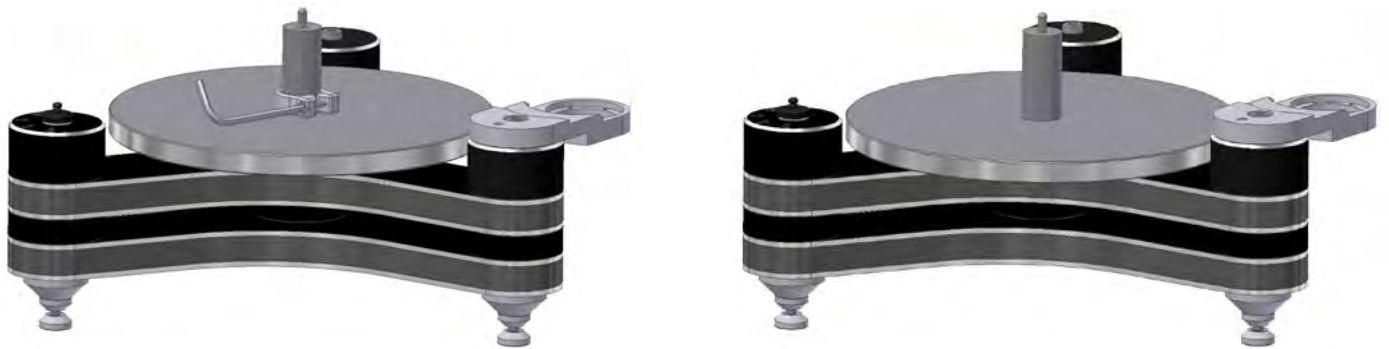
Avoid major side forces to avoid any damages to the ceramic bearing!



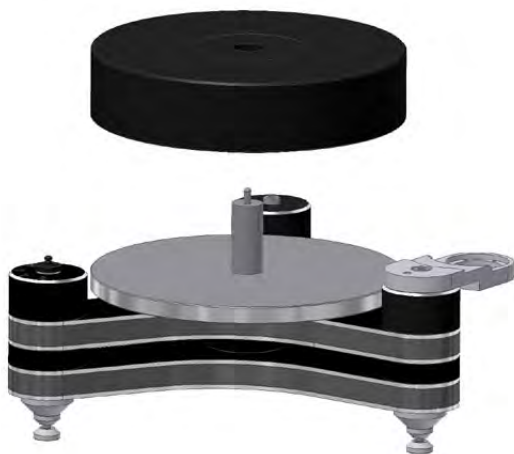
Pic. 9: Setup stainless steel platter with upper bearing part

8.)

Now you can remove the mounting clip with the delivered hex wrench.



Pic. 10: Removing of the mounting clip



9.)

Take the Delrin platter with both hands out of the box and set the platter carefully onto the bearing.

The flat side of the platter should face to the stainless steel platter and the side with the cut-out (for the record) should face up.

To avoid any damages on your bearing, the Delrin platter should have room temperature before the setup begins (approx. 20 ° Celsius).

Avoid major side forces to avoid any damages to the ceramic bearing!

Pic. 11: Setup Delrin platter and bearing cap

You will find suitable adjustment equipment under www.clearaudio.de or www.analogshop.de.

10.)

To install the tonearm, please follow the user manual of the manufacturer.

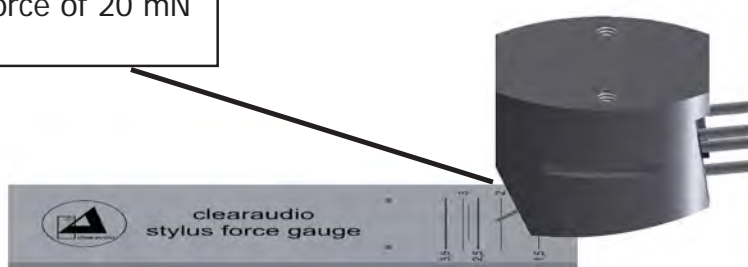
User manual

11.)

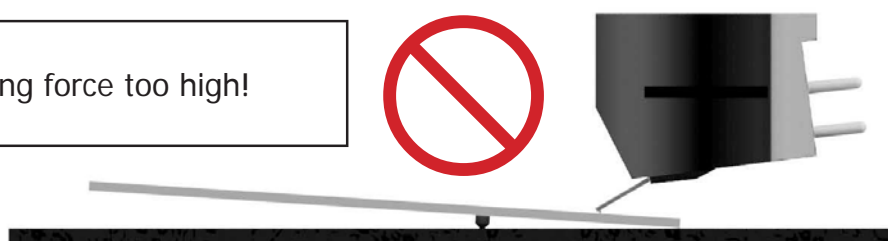
To mount and adjust a cartridge, please follow the user manual of the manufacturer.

If you purchased your **Clearaudio Innovation** turntable as a package with tonearm and cartridge, you will find a *Smart Level Gauge* in your accessory, which will help you to adjust the tracking force of the cartridge:

This position of the diamond correlates to a tracking force of 20 mN (2.0g).



tracking force too high!



tracking force too low!



Pic. 12: Use of Smart Stylus Gauge

12.)

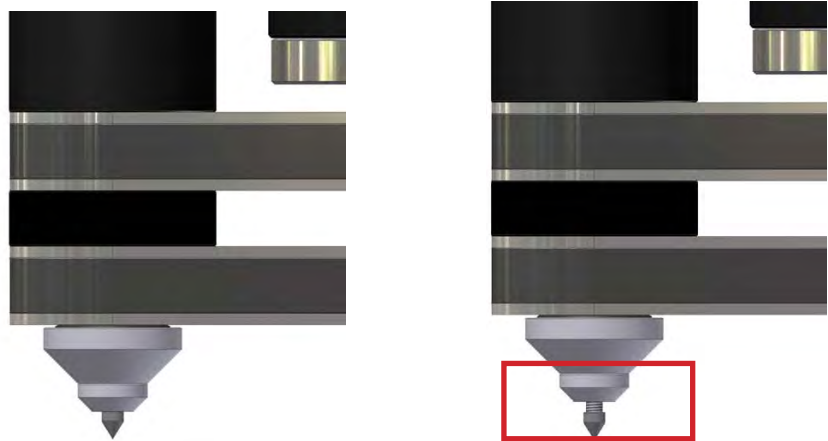
The following final adjustment is very important:

Please ensure that your turntable rack is in a levelled position.

Please check with the bubble level gauge, if your *Innovation* turntable is in a levelled position. You can adjust each of the turntables feet to get the turntable levelled. Only if the turntable is in a levelled position you will get the best results with your *Innovation* turntable.



Pic. 13 a: Alignment of the turntable



Pic. 13 b: Adjustment of the turntables` feet

13.)

Please connect the mains plug to your power supply.



Pic. 14: Connection power supply and motor

14.)

Place the flat belt around the platter and around the motor pulley.

By pushing the sensor-switch, marked with "33 1/3" on the motor, the turntable starts to spin until 33 1/3 rpm is reached.

After the initial setup we recommend to let the turntable spin for at least 15 to 30 minutes. This ensures a smoother break in.

4. Fine adjustment of the *Innovation* motor

1.)

The motor adjustment is already pre set at the factory. Through the transport or through soiling on the sensor or the sensor ring some small speed deviations can occur.

Please check the speed before using the turntable for the first time.

For the correct adjustment of the speed please put the recommended **Clearaudio Stroboscope Testrecord** on the platter. Follow hereby the instruction of the *Stroboscope Testrecord* user manual. To check the speed with highest accuracy please use the **Clearaudio Speed Light** (Art. No. AC039, www.analogshop.de).

On the front side of your turntable there are three setting trimmers (see Pic. 15).



- Left trimmer = setting 33 1/3 rpm
(near turntable motor)
- Middle trimmer = setting 45 rpm
- Right trimmer = setting 78 rpm
(near turntable bearing)

Pic. 15: Fine adjustment of the motor (on the backside)

If you like to adjust the speed 33 1/3 rpm, take the Aluminum screw driver (see accessories) and turn the left trimmer until you have reached the right speed according to the Stroboscope Testrecord (see user manual "Stroboscope Testrecord").

- Turning the trimmer counter clockwise = reduces the turntable speed
- Turning the trimmer clockwise = raises the turntable speed

Please proceed with the speed adjustment for 45 rpm and 78 rpm in the same way!

Please note:

If the turntable does not reach the correct speed, the sensor or the scale ring could be dirty or dusty. To clean the sensor, please take off the platter very carefully!

Clean the sensor and the scale ring with a little isopropyl alcohol and a cotton bud.

Be careful and avoid any scratches on the sensor or the scale ring!

If the motor has further more speed variations please contact your nearest authorized **Clearaudio** dealer or directly the **Clearaudio** factory (address on page 14).

If the turntable is not in use, disconnect the unit completely from the power supply by removing the main plug from the socket.

Now you are finally ready to play your vinyl records.

We wish you a lot of pleasure with your new *Innovation* turntable.

5. Special instruction

5.1 Maintenance

- If the *Innovation* turntable is a longer time not in use, please disconnect the motor from the main supply.
- Every two years you can lubricate the bearing of the turntable platter with the delivered oil. In this case it is enough to put 1 or 2 drops of the oil into bearing.
- Please take special caution to any damages of the power cord. Any damages should be repaired only by authorized personal.
A damaged power cord must be exchanged immediately!

Caution:

Please use only non alcoholic fluids and only fluids specially used for acrylic, to clean the Innovation turntable.

Otherwise damage on the material or the surface can occur!

Don't use try cloths for cleaning because of the electrostatic charging. Suitable cleaning fluids will be available at Clearaudio (www.analogshop.de) or your Hifi dealer.

5.2 Transport

Send / ship the *Innovation* turntable always and only in the original packing!!!

Only in the original packing **Clearaudio** can provide the warranty. If you repackage the turntable, please make all steps inverted like at installation and setup (chapter 3).

- If any transportation of the *Innovation* turntable should be necessary, please always remove the turntable platter and the shaft holder. Otherwise serious damage can occur!
- To avoid any dust coming into the bearing, the bearing hole needs to be covered as well.
Only if the product is returned in its original packing **Clearaudio** can provide the warranty.

5.3 Service

In case of any necessary, service for all **Clearaudio** products should be done by authorized personal only.

In case of any repair, the **Clearaudio** *Innovation* turntable needs to be send to your nearest authorized **Clearaudio** distributor, dealer or directly to the **Clearaudio** factory.

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info@clearaudio.de



6. Technical data

Construction principle:	Resonance-optimised chassis shape, made of laminated wood and aluminium with precision CNC machined surface. – All turntable feet are fine adjustable – Optical Speed Control (OSC) – Playback with two tonearms possible
Speed possibilities:	Comfortable speed change, 33 1/3 rpm, 45 rpm, 78 rpm
Drive unit:	– High torque DC motor with belt drive – Electronic Optical Speed Control (OSC)
Bearing:	Clearaudio CMB ceramic magnetic bearing in main platter / upper drive platter assembly. Inverted bearing in lower drive platter
Platter:	70 mm / 2.75 inch main platter, made out of synthetic material with high density and excellent dimension stability, precision CNC machined surface, solid stainless steel sub-platter, dynamically balance
Speed variation less than:	+/- 0.05 %
Power consumption:	
Max. consumption:	9.3 Watt
Consumption in operation:	2.5 Watt
Stand by mode:	2.5 Watt
Off mode:	0.0 Watt
Weight:	approx. 24 kg (without tonearm and power supply)
Dimensions (w x d x h):	approx. 460 mm x 468 mm x 220 mm (18.11 inch x 19.09 inch x 8.66 inch)
Warranty:	5 years* (see page 16)

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

Clearaudio electronic is not responsible for typographical errors in descriptions. Technical specifications subject to change or improvement without prior notice. Product availability is as long as stock lasts. Copies and reprints of this documents, including extracts, require written consent from **Clearaudio electronic GmbH; Germany**

To achieve the full **Clearaudio** warranty (Innovation turntable 5 years), it is necessary that you fill out and send the corresponding part of the warranty registration certificate /card back to **Clearaudio**, within two weeks after purchase. Only if the product is returned in its original packing **Clearaudio** can provide the warranty of 5 years.

ENGLISH WARRANTY

For warranty information, contact your local **Clearaudio** distributor.

RETAIN YOUR PURCHASE RECEIPT

Your purchase receipt is your permanent record of a valuable purchase. It should be kept in a safe place to be referred to as necessary for insurance purposes or when corresponding with **Clearaudio**.

IMPORTANT

When seeking warranty service, it is the responsibility of the consumer to establish proof and date of purchase. Your purchase receipt or invoice is adequate for such proof.

FOR U.K. ONLY

This undertaking is in addition to a consumer's statutory rights and does not affect those rights in any way.

FRANÇAIS GARANTIE

Pour des informations sur la garantie, contacter le distributeur local **Clearaudio**.

CONSERVER L'ATTESTATION D'ACHAT

L'attestation d'achat est la preuve permanente d'un achat de valeur. La conserver en lieu sûr pour s'y reporter aux fins d'obtention d'une couverture d'assurance ou dans le cadre de correspondances avec **Clearaudio**.

IMPORTANT

Pour l'obtention d'un service couvert par la garantie, il incombe au client d'établir la preuve de l'achat et d'en corroborer la date. Le reçu ou la facture constituent des preuves suffisantes.

DEUTSCH GARANTIE

Bei Garantiefragen wenden Sie sich bitte zunächst an Ihren **Clearaudio** Händler. Heben Sie Ihren Kaufbeleg gut auf.
WICHTIG!

Die Angaben auf Ihrer Quittung erlauben uns die Identifizierung Ihres Gerätes und belegen mit dem Kaufdatum die Dauer Ihrer Garantie-Ansprüche. Für Serviceleistungen benötigen wir stets die Gerätenummer. Diese finden Sie auf dem Typenschild auf der Rückseite des Gerätes oder auch in der beigefügten Garantie-Registrierkarte.

NEDERLANDS GARANTIE

Voor inlichtingen omtrent garantie dient u zich tot uw plaatselijke **Clearaudio**.

UW KWITANTIE, KASSABON E.D. BEWAREN

Uw kwitantie, kassabon e.d. vormen uw bewijs van aankoop van een waardevol artikel en dienen op een veilige plaats bewaard te worden voor evt. verwijzing bijv. in verbend met verzekering of bij correspondentie met **Clearaudio**.

BELANGRIJK

Bij een evt. beroep op de garantie is het de verantwoordelijkheid van de consument een gedateerd bewijs van aankoop te tonen. Uw kassabon of factuur zijn voldoende bewijs.

 **ITALIANO****GARANZIA**

L'apparecchio è coperto da una garanzia di buon funzionamento della durata di un anno, o del periodo previsto dalla legge, a partire dalla data di acquisto comprovata da un documento attestante il nominativo del Rivenditore e la data di vendita. La garanzia sarà prestata con la sostituzione o la riparazione gratuita delle parti difettose. Non sono coperti da garanzia difetti derivanti da uso improprio, errata installazione, manutenzione effettuata da personale non autorizzato o, comunque, da circostanze che non possano riferirsi a difetti di funzionamento dell'apparecchio. Sono inoltre esclusi dalla garanzia gli interventi inerenti l'installazione e l'allacciamento agli impianti di alimentazione.

Gli apparecchi verranno riparati presso i nostri Centri di Assistenza Autorizzati. Le spese ed i rischi di trasporto sono a carico del cliente. La casa costruttrice declina ogni responsabilità per danni diretti o indiretti provocati dalla inosservanza delle prescrizioni di installazione, uso e manutenzione dettagliate nel presente manuale o per guasti dovuti ad uso continuato a fini professionali.

 **ESPAÑOL****GARANTIA**

Para obtener información acerca de la garantía póngase en contacto con su distribuidor **Clearaudio**.

GUARDE SU RECIBO DE COMPRA

Su recibo de compra es su prueba permanente de haber adquirido un aparato de valor, Este recibo deberá guardarlo en un lugar seguro y utilizarlo como referencia cuando tenga que hacer uso del seguro o se ponga en contacto con **Clearaudio**.

IMPORTANTE

Cuando solicite el servicio otorgado por la garantía el usuario tiene la responsabilidad de demostrar cuándo efectuó la compra. En este caso, su recibo de compra será la prueba apropiada.

Stroboscope Testrecord



The **Clearaudio Stroboscope Testrecord** satisfies the highest demands for an exact speed adjustment for turntables. Dramatic sound improvements can be reached only with exact calibrated speeds.

- Optimal adjustment for turntables -



To adjust the exact speed, please choose the side for 50 / 60 Hz, or the other side for the use with the speed light first. If you choose the side without the speed light source, you can use the regular light source for the installation, either 50 Hz (outer scales) or 60 Hz. The scales are graduated in three different reading options: 33.3 Hz, 45 Hz and 78 Hz (starting from the outer diameter).

Please place the *Stroboscope Testrecord* on your turntable platter and start the engine of your turntable. The big advantage of the **Clearaudio Stroboscope Testrecord** is, that you can place your cartridge onto the *Stroboscope Testrecord*, while measuring the speed, as there are grooves provided on the disc. This means, for the first time a real time speed analysis is possible under realistic circumstances.

If you have the impression that the horizontal lines move on the scale, you should set or readjust the speed of the motor again.

- If the lines move clockwise, the speed is too fast.
- If the lines move counter clockwise, the motor speed is too slow.

Please correct the speed on your motor or turntable until you have the impression that the lines stopped moving. After that you have reached the exact speed and you can enjoy the full potential of your vinyl collection again.



If you use the *Speed Light* (Art. No. AC039) you can reach an even higher or more accurate adjustment, completely independent of the power line or frequency of your country. As well, the 300 Hz calibrated light, used as an external light source is completely independent from possible power line fluctuations, which could influence the result by regular light. The 300 Hz of the *Speed Light* are generated by a stabilized quartz oscillator and permit a very exact adjustment. Please put the *Stroboscope Testrecord* with the fine lines upward on your turntable. Here you also have the possibility to choose between two different speeds.

With the outside scale you can detect the speed of 33 Hz and with the inside scale you can detect the speed of 45 Hz. Again, the big advantage of the **Clearaudio** *Stroboscope Testrecord* is, that you can place your cartridge onto the *Stroboscope Testrecord*, while measuring the speed, as there are grooves provided on the disc. This means, for the first time a real time speed analysis is possible under realistic circumstances.

Press the button of the speed light source and place it parallel over to the scale and adjust the motor or turntable speed until the horizontal lines do not move anymore.

- Tip -

As more accurate your turntable speed is adjusted, as better the overall sonic appearance of the record playback will be!

It is mandatory to check the speed several times through out the year, to ensure that other influences are not minimizing the sound quality.

Technical Data:

Speed Light

Light source: blue LED / 300 Hz precision light source (calibrated)

Battery: V23GA – 12 V – Alkaline (Art. No.: AC039/B)

(Technical changes are subject without notification)

Date: 2018/05

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Handmade in Germany

(Technische Änderungen vorbehalten -
Technical specification are subject to change without prior notification)
2018