



Loving music

# Master Innovation

User manual



## Master Innovation Black

Picture with:  
Clearaudio tonearm „Universal“  
and clearaudio cartridge  
„Goldfinger Statement“.



## Master Innovation Wood

Picture with:  
Clearaudio tonearm „TT1 MI“  
and Clearaudio cartridge  
„Goldfinger Statement“.

## User manual

Dear **Clearaudio** customer,

Congratulations on your purchase of the *Master Innovation* turntable, a world class turntable handmade in Germany by **Clearaudio electronic GmbH**.

The *Master Innovation's* state-of-the-art combination of a no-contact magnetic drive, frictionless Ceramic Magnetic Bearing and self-regulating, sensor-controlled Optical Speed Control guarantees incredible pitch stability and freedom from noise leading to unbelievably realistic musical reproduction.

Its resonance minimizing chassis construction comprises four layers of a complex 'sandwich' of aluminium – Panzerholz bullet-proof wood – aluminium, and includes provision for up to three tonearms, allowing for complete flexibility of tonearm and cartridge.

Please note that this instruction manual contains a brief overview to enable quick and easy setup. A fuller instruction manual will be sent out in due course.

We wish you a great deal of musical enjoyment with your new **Clearaudio** *Master Innovation* turntable.

### Clearaudio Electronic GmbH

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

#### WARNING

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

#### CE-MARKING



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

#### EQUIPMENT MAINS POWER 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

Recording and reproduction of any audio material may require the consent of the creator.

Please note relevant information given in the following:

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

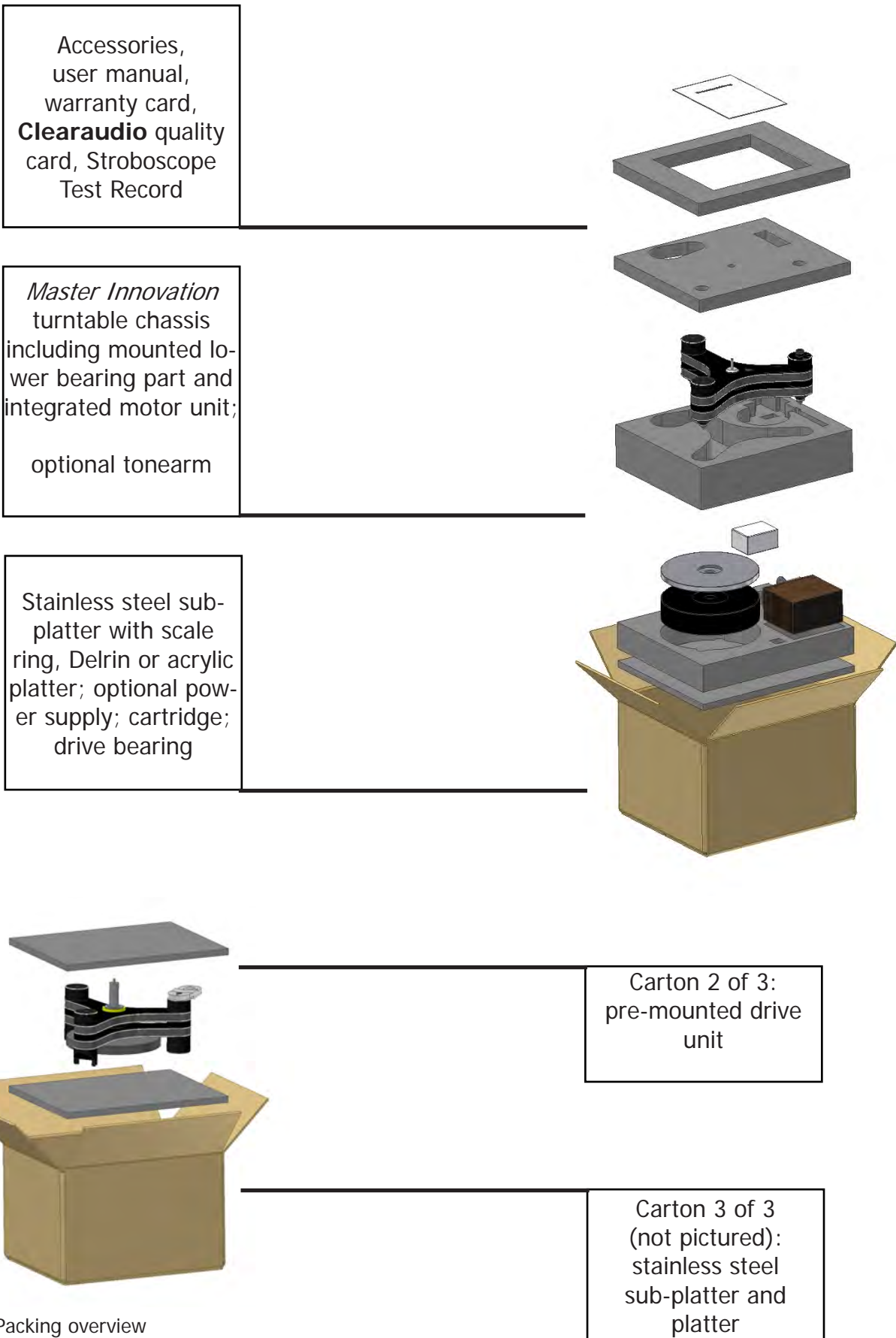


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### 1. Packing overview



**Pic. 1:** Packing overview

## 2. List of components

Clearaudio's special secure packaging for your *Master Innovation* turntable ensures safe transportation. Please keep this original packaging, in case you need to transport or ship the turntable at any point in the future.

Clearaudio *Master Innovation* components list:

1



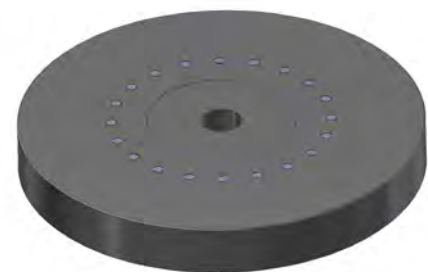
2



3



4



5



6

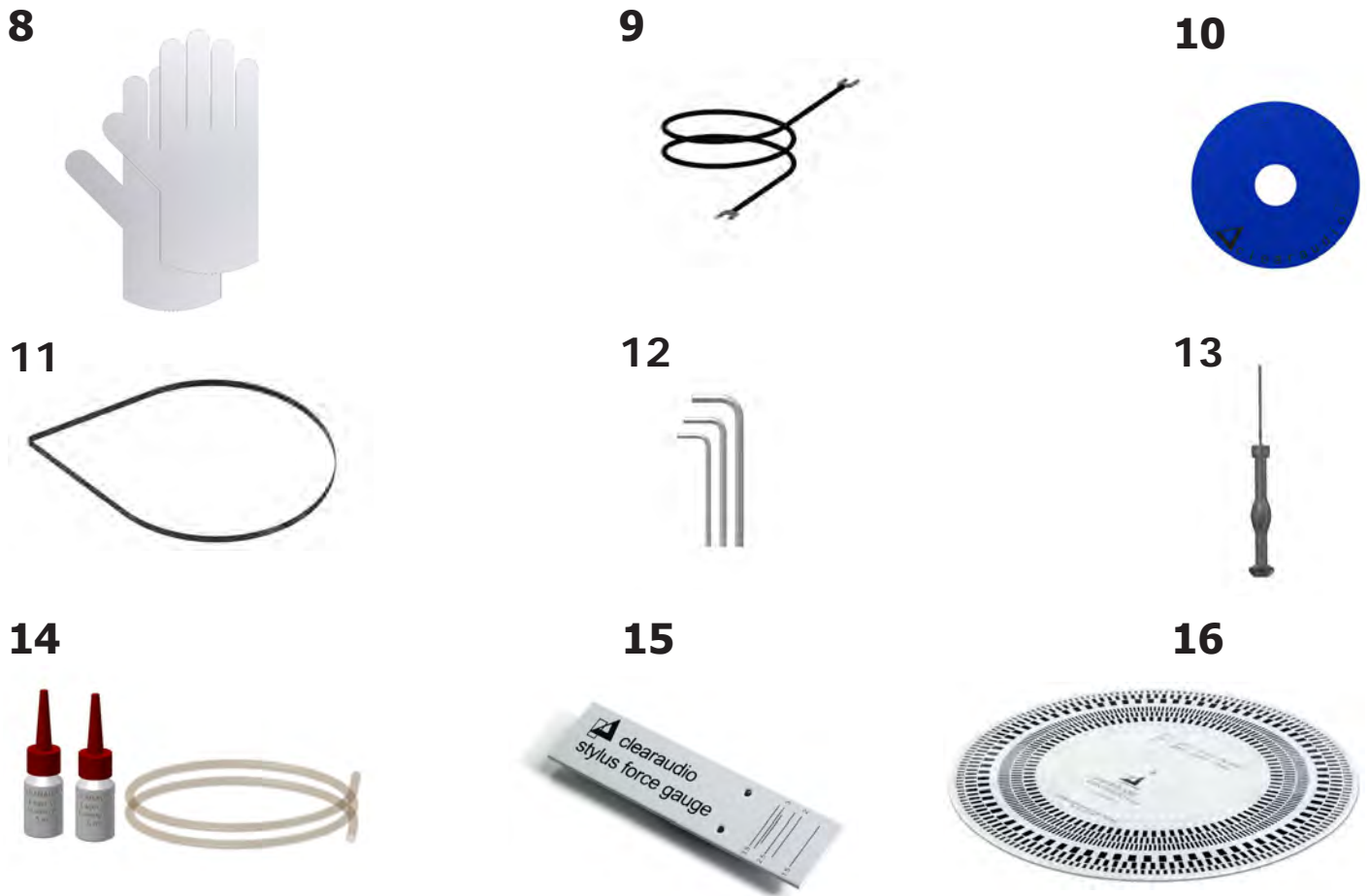


7



**Pic. 2:** List of Components

<b>1.</b>	Drive unit	<b>5.</b>	Drive bearing with ceramic ball
<b>2.</b>	Top unit with pre-mounted tone-arm base (carton 2 of 3)	<b>6.</b>	Power supply
<b>3.</b>	Stainless steel sub-platter	<b>7.</b>	3 x flat pads
<b>4.</b>	28 mm Delrin or acrylic turntable platter		



**Pic. 2.1:** List of components

<b>8.</b>	1 pair of white gloves	<b>14.</b>	2x Bearing oil for occasional use
<b>9.</b>	Grounding wire (to connect to the underside of the bearing part)	<b>15.</b>	<b>Clearaudio Smart Stylus Gauge</b>
<b>10.</b>	Level gauge for turntable alignment	<b>16.</b>	<b>Clearaudio Stroboscope Test Record</b> (Art. No. AC038) to adjust the exact speed
<b>11.</b>	2 pcs. Flat belts	<b>17.</b>	Not shown: User manual, warranty card, <b>Clearaudio</b> quality certificate card, sales return paper
<b>12.</b>	4 hex keys; sizes: #1,5 / 2,5 / 3 / 7	<b>18.</b>	Not shown: stainless steel sub-platter and platter (carton 3 of 3)
<b>13.</b>	Screwdriver	<b>19.</b>	

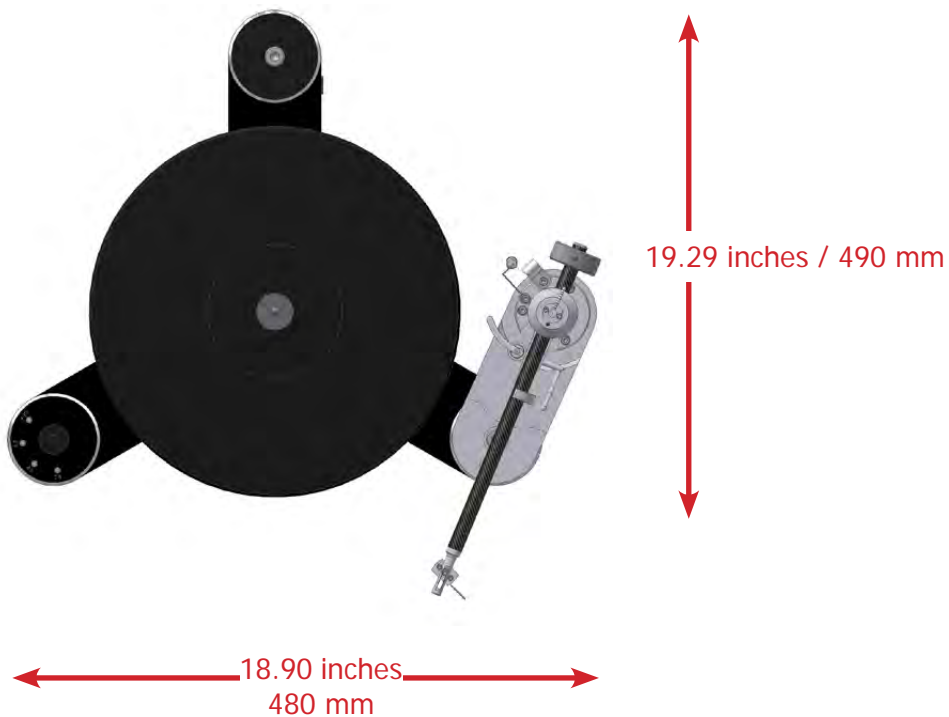
**IMPORTANT NOTICE:** Please double check the tightness of all bolts, hardware and mounting pods, as temperature fluctuations during transit may have caused the hardware to become loose.

### 3. Installation and setup

The setup of the *Master 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 *Master Innovation* turntable requires a setup space of at least 18.90 x 19.29 inches.



**Pic. 3:** Required setup space

### Carton 1 of 3:

#### 1.)

First, take out the three black flat pads from the accessory bag. Place these flat pads on your hi-fi rack or another suitable base, where the final position of your Master Innovation turntable will be.

#### 2.)

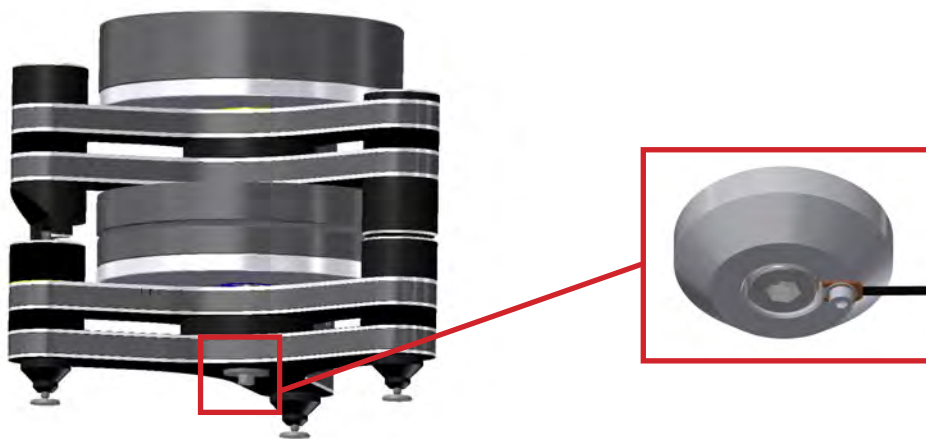
Then take the Master Innovation turntable body (drive unit) from the next packaging layer and place the turntable's spikes onto the flat pads.



**Pic. 4:** *Master Innovation* drive unit

#### 3.)

To avoid humming noises it may be necessary to ground the bearing. To do so, plug the ground cable provided into the hole in the bearing fixing bolt on the underside of the turntable.



**Pic. 5:** Grounding the bearing

#### 4.)

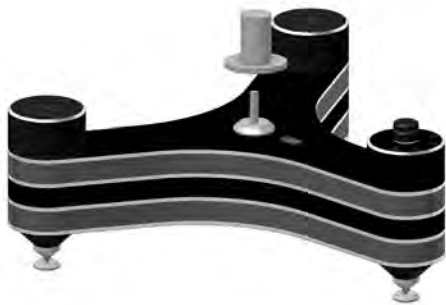
Remove the protective security tape from the bearing housing. Place two drops of synthetic bearing oil onto the ceramic bearing shaft (provided, and also available at [www.analogshop.de](http://www.analogshop.de)).



## User manual

### 5.)

Take the drive bearing out of the box. Please remove the bearing protection film carefully. Carefully place the bearing onto the bearing axis.



**Pic. 6:** Setup of the bearing



**Pic. 7:** Setup of the bearing

### 6.)

Remove the protection film from the sensor mounted on the turntable chassis.

**Please do so extremely carefully to avoid introducing any dirt or scratches.**

Carefully take the stainless steel platter out of the box, using both hands. Remove the protection film from the scale ring on the lower side of the turntable. The lower platter side with the scale ring must be face down when placing it on the bearing.

**Again, please remove the lamination extremely carefully to avoid introducing any dirt or scratches.**



**Pic. 8:** Montage of the sub-platter with the scale ring

**7.)**

Take the drive platter out of the box and remove the protective film. Using both hands, place the drive unit platter onto the bearing, so that the magnets are showing on the top. Please be very careful.



**Pic. 9:** Placing the drive unit platter onto the bearing

**8.)**

Place one of the two drive belts provided (the second is a spare) around the platter and around the motor pulley.



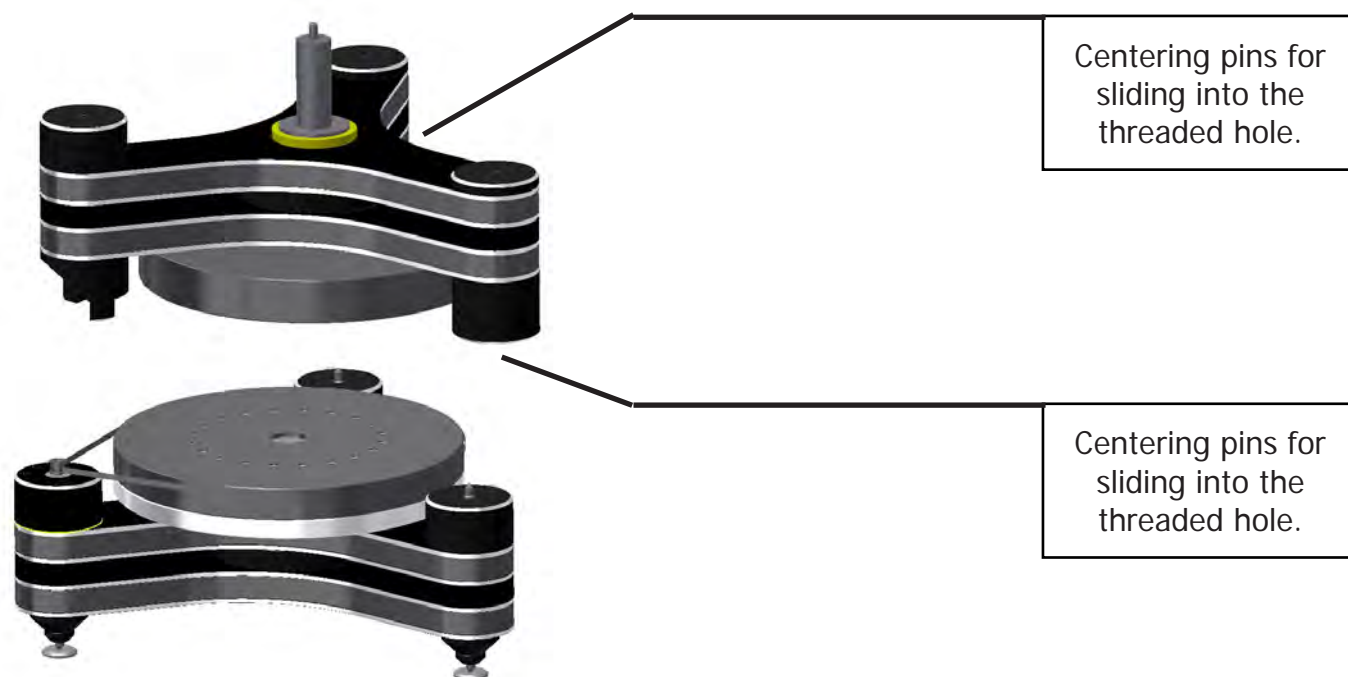
**Pic. 10:** Placement of the drive belt

## User manual

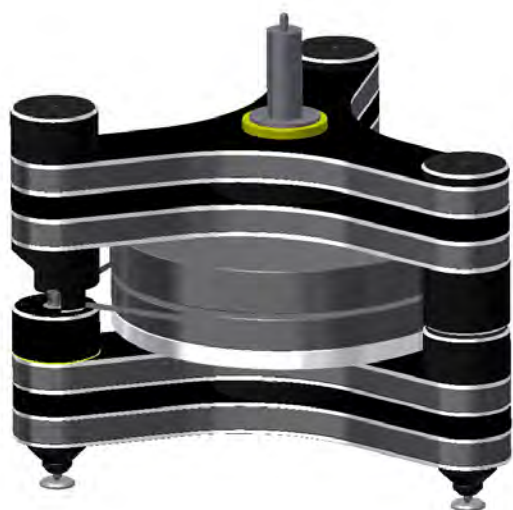
### 9.)

Carefully take the top unit from carton 2 of 3 and place it onto the drive unit. Make sure that the protective film of the top unit is still fixed between the platter and the chassis to avoid damage.

Please note that the centering pins will easily slide into the threaded hole without jamming.



**Pic. 11:** Placement of the top unit



**Pic. 12:** Top unit in place

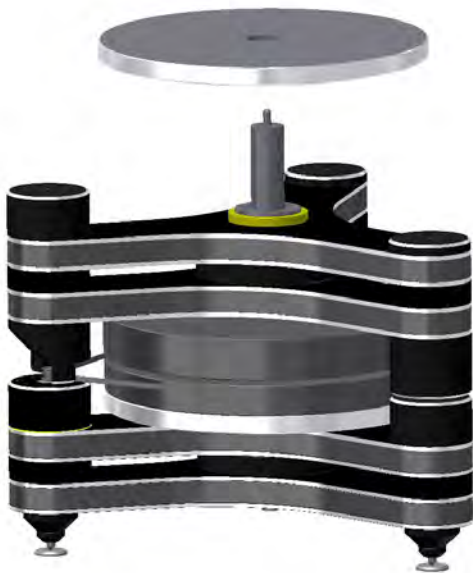
### 10.)

Take the stainless steel sub-platter from carton 3 and remove the protective packaging. Place the platter carefully onto the upper part of the bearing. Make sure that the protective film is still fixed in place at this point.

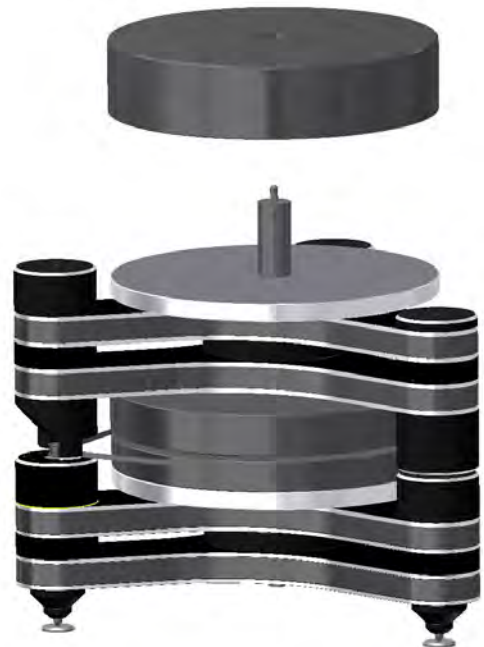
Next, take the platter out of its box and set it carefully onto the bearing. The side with the cut-out (for the record) should face up. Now you can carefully remove the protective film.

To avoid any damage to your bearing, the platter should be at room temperature before beginning setup (approx. 20° Celsius).

**Please avoid any sideways force to avoid any damage to the ceramic bearing.**



**Pic. 11a:** Setting up the stainless steel platter



**Pic. 11b:** Setting up the platter



**Pic. 12:** Setup finished

You can find various turntable adjustment accessories at [www.clearaudio.de](http://www.clearaudio.de) or [www.analogshop.de](http://www.analogshop.de).

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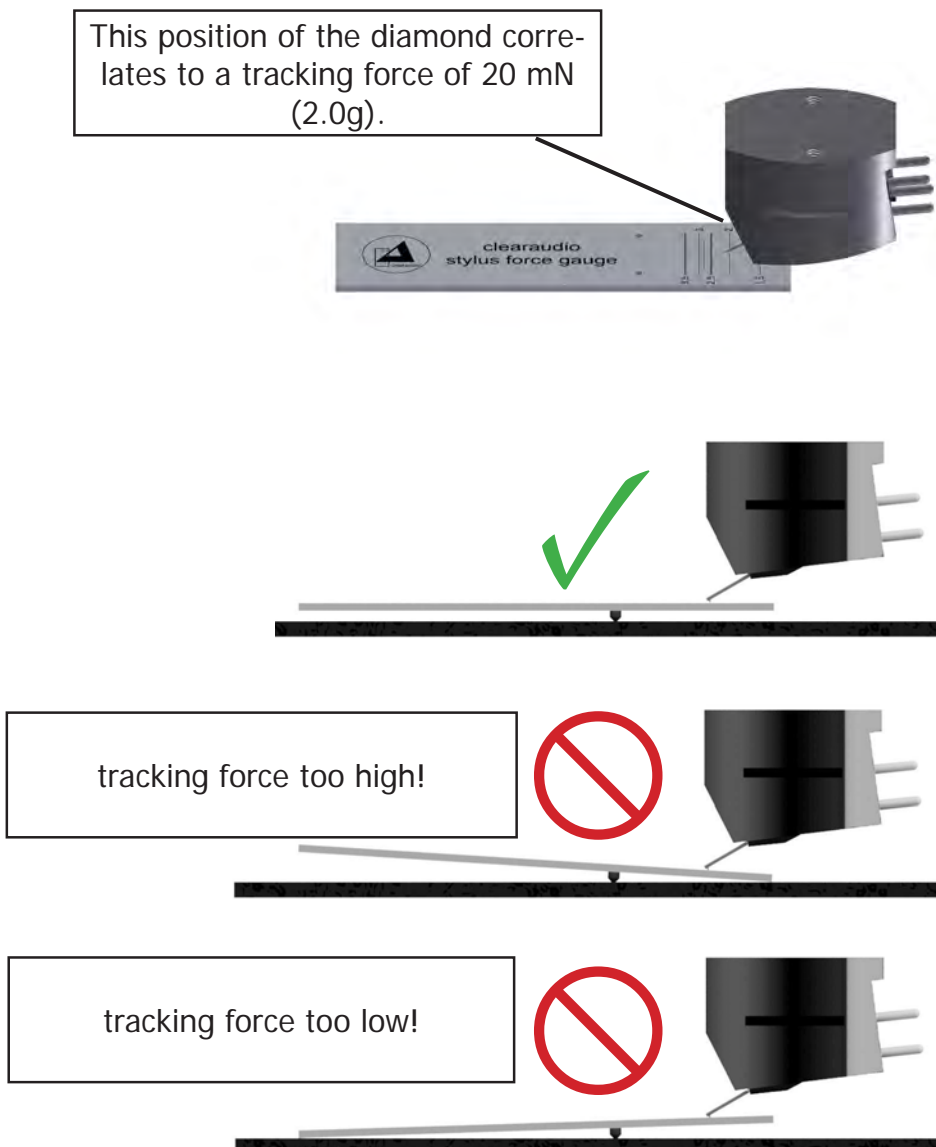
### 11.)

To install the tonearm, please see the relevant manufacturer's user manual for that tonearm.

### 12.)

To mount and adjust a cartridge, please follow the relevant manufacturer's user manual for that cartridge.

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



**Pic. 13:** Using the Smart Stylus Gauge

**13.)**

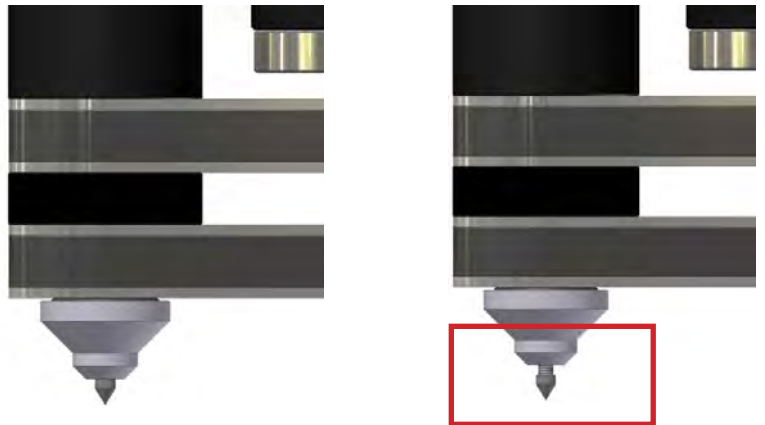
The following final adjustment is very important.

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

Please use the spirit level gauge provided to ensure that your *Master Innovation* turntable is in a level position. You can adjust each of the turntable's feet to level the turntable. You will only get the best results with your *Master Innovation* turntable if it is level.



**Pic. 14a:** Alignment of the turntable



**Pic. 14b:** Adjustment of the turntable feet

**14.)**

Please connect the mains plug to your power supply.



**Pic. 15:** Connection of power supply and motor

**15).**

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 a running in period to ensure the perfect performance.

To do this let the turntable spin at 33 1/3 rpm for 15 to 30 minutes.

## 4. Fine adjustment of the motor

### 1.)

The *Master Innovation's* motor adjustment is already pre-set at the factory. However, some small speed deviations can occur during transportation or due to dirt or dust on the sensor or the sensor ring. Please check the speed before using the turntable for the first time.

To correctly adjust the speed, put the recommended **Clearaudio Stroboscope Test Record** onto the platter and refer to the instructions provided in the *Stroboscope Test Record* user manual.

To check the speed with highest accuracy, you may wish to use the **Clearaudio Speed Light** (ref. AC039, available at [www.analogshop.de](http://www.analogshop.de)).

On the front side of your turntable there are three fine speed adjusters (see Picture 16 below).



- Left adjuster = setting 33 1/3 rpm  
(near turntable motor)

- Middle adjuster = setting 45 rpm

- Right adjuster = setting 78 rpm  
(near turntable bearing)

**Pic. 16:** Fine adjustment of the motor

To adjust the turntable speed at 33 1/3 rpm, take the screwdriver provided and turn the left adjuster until you have reached the right speed according to the *Stroboscope Test Record* (see the relevant user manual).

- Turning the adjuster counter clockwise reduces the turntable speed.
- Turning the adjuster clockwise increases the turntable speed.

You can also adjust the turntable speed 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, take off the two platters very carefully. Clean the sensor and the scale ring with a little isopropyl alcohol and a cotton bud. Be very careful to avoid scratching the sensor or the scale ring.

Should the motor still have speed variations, please contact **Clearaudio** directly or your nearest authorized **Clearaudio** dealer.

Now you are ready to play your vinyl records.

We wish you a great deal of pleasure with your new *Master Innovation* turntable.

## 5. Special instructions

### 5.1 Maintenance

- If the Master Innovation turntable is to be unused for some time, please disconnect the motor from the main power supply.
- Every two years you can lubricate the bearing of the turntable platter with the bearing oil provided; 1 or 2 drops will be enough.
- If any damage to the power cord should occur, please ensure that this is repaired only by authorized personnel. Please note: A damaged power cord must be exchanged immediately.

### Caution!

**Please use only non-alcoholic fluids specifically intended for acrylic to clean the *Master Innovation* turntable.**

Otherwise damage to the material or the surface can occur. Avoid using dry cloths for cleaning due to electrostatic charging. Suitable cleaning materials are available from **Clearaudio** ([www.analogshop.de](http://www.analogshop.de)) or from your local hi-fi dealer.

### 5.2 Transportation

- For any required transportation of the *Master Innovation* turntable, please always remove the turntable platter and the shaft holder. Otherwise serious damage may occur. To avoid any dust getting into the bearing, the bearing hole should be covered.
- Please ensure that you send the *Master Innovation* turntable always and only in its original packaging. Without the original packaging, **Clearaudio's** warranty will not be valid. When repackaging the turntable, please follow in reverse the steps indicated in this manual for installation and setup (from section 1).

### 5.3 Service

Any required servicing of **Clearaudio** products should be carried out by authorized personnel only. In the case of repairs, the *Master Innovation* turntable must be sent to your nearest authorized **Clearaudio** distributor or dealer, or directly to the **Clearaudio** factory:

#### Clearaudio electronic GmbH

Spardorfer Str. 150  
91054 Erlangen  
Germany

Tel.: +49 9131 40300 100

Fax: +49 9131 40300 119

[www.clearaudio.de](http://www.clearaudio.de)

[www.analogshop.de](http://www.analogshop.de)

[info@clearaudio.de](mailto:info@clearaudio.de)

To benefit from the full **Clearaudio** warranty (5 years for the for the *Master Innovation* turntable), you must fill out and return to **Clearaudio** the corresponding part of the warranty registration within two weeks of purchase.





## 6. Technical data

<b>Construction principle:</b>	<ul style="list-style-type: none"><li>- Resonance-optimised chassis shape</li><li>- Made of bullet proof wood and aluminium with precision CNC machined surface.</li><li>- All turntable feet are fine adjustable</li><li>- Optical Speed Control (OSC)</li><li>- Playback with three tonearms possible</li></ul>
<b>Available speeds:</b>	Electronic speed change, 33 1/3 rpm, 45 rpm, 78 rpm
<b>Drive unit:</b>	<ul style="list-style-type: none"><li>- High torque DC motor exclusively made for Clearaudio; Optical Speed Control (OSC) in real time through infrared sensor</li><li>- Decoupled DC motor in chassis; resonance damping device; belt-driven</li><li>- Magnetic decoupling of turntable and additional drive platter</li></ul>
<b>Bearing:</b>	<ul style="list-style-type: none"><li>- <b>Clearaudio</b> patented ceramic magnetic bearing (CMB) in main platter / upper drive platter assembly</li><li>- Inverted bearing in lower drive platter</li></ul>
<b>Platter:</b>	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 balanced 15 mm (4/5 inch) precision CNC machined dynamically balanced stainless steel sub-platter
<b>Speed variation less than:</b>	< ± 0.05%
<b>Power consumption:</b>	
<b>Max. consumption:</b>	9,5 watts
<b>Consumption in operation:</b>	4,1 watts
<b>Standby mode:</b>	2,4 watts
<b>Off mode:</b>	0,0 watts
<b>Weight:</b>	approx. 60kg (without tonearm and packing)
<b>Dimension (w x d x h):</b>	approx. 460 x 485 x 396mm approx. 18.11 x 19.09 x 15.59 inches
<b>Warranty:</b>	5 years*

\* 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 benefit from the full **Clearaudio** warranty (5 years for the for the *Master Innovation* turntable), you must fill out and return to **Clearaudio** the corresponding part of the warranty registration within two weeks of purchase.

The *Master Innovation* turntable must be returned in its original packaging. Without the original packaging, **Clearaudio's** warranty will not be valid.



### 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.



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### 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

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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 disc on your turntable platter and start the engine of your turntable. The big advantage of the **Clearaudio** strobe disc is, that you can place your cartridge onto the strobe record, 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, you can enjoy the full potential of your vinyl collection again.



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If you use the Speed Light (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** strobe disc is, that you can place your cartridge onto the strobe record, 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.

Please enjoy your vinyl records now even more !

Yours **Clearaudio** team

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### **Technical Data:**

#### ***Speed Light***

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

**Battery:** V 23GA – 12 V – Alkaline

(Technical changes are subject without notification)

Date: 2018/05

#### **Clearaudio electronic GmbH**

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[www.analogshop.de](http://www.analogshop.de)

[info@clearaudio.de](mailto:info@clearaudio.de)

Handmade in Germany

(Technische Änderungen vorbehalten -

Technical specification are subject to change without prior notification)

2018