



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“.

Pic. similar

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



Loving music

User manual



Safety instructions

1. General information

Check the turntable for any damage before using it. Do not connect the turntable if damaged!

Never connect the turntable if it has been dropped or gotten wet, contact your dealer to have the turntable checked.

Never expose the turntable to rain or moisture.

Never touch the power cord of the device with wet hands.

Regular visual inspections for defective insulation on the connection cable are also recommended for your own safety. A damaged cable should be replaced immediately by a specialist!

Never pull on the power cord to unplug the device. Always pull directly on the plug!

The inside of the turntable is maintenance free. Never open the case or attempt to repair the unit yourself, since this can lead to loss of warranty!

We recommend disconnecting the power supply from the mains if you do not operate the device for a longer period of time.

The turntable does not feature an automatic shut-off mechanism.

Therefore, as soon as the stylus has reached the run-out groove, engage the tonearm lift and switch the turntable off.

Not suitable for children! Scope of delivery may contain small parts that can be swallowed.

2. Intended use

The *Master Innovation* is a turntable for playing records.

The intended use of the *Master Innovation* in accordance with the information provided in the user manual only.

The power supply may only be operated with maximum permissible connection values according to the technical data. Any other use or modification of this product is not intended.

3. Location of installation

Avoid locations with direct sunlight, temperature fluctuations and high humidity.

Likewise, avoid placing electronic devices near heaters, heat lamps, or other devices that produce heat.

The device is designed for operation at room temperature.

No objects with an open flame may be placed on or near the device (burning candles or similar).

4. Overload

The product is designed to comply with all necessary safety regulations. However, you should not leave the device unattended under extreme loads.

5. Maintenance

Never use aggressive cleaning detergent.

Do not use dry cloths for cleaning as this generates static electricity. Suitable cleaning and care products from **Clearaudio** are available from www.analogshop.de or from specialist retailers.

The bearing of the turntable platter can be lubricated every 2 years with the oil provided.

Put 1 or 2 drops of the oil into the bearing for lubrication.

6. Health information

Permanently high volume can lead to various types of hearing damage. Use high volume responsibly!

7. Service

The *Master Innovation* turntable should be repaired during the guarantee period by the manufacturer only, otherwise the warranty claim expires. All **Clearaudio** products should only be serviced by specialist retailers.

If, despite the high production standard, a service is necessary, the *Master Innovation* turntable must be send to **Clearaudio** through your dealer.

8. Transport

Use the original packing material for further transportation of the *Master Innovation* turntable, otherwise serious damage could occur.

Be sure to pack the device exactly as it was shipped.
Safe transport is only guaranteed in the original packaging.

Proceed in reverse as described for assembly when packing.

Always remove the turntable platter and replace the foam securing the sub-platter and cover the bearing with tape as well. Otherwise serious damage can occur.

Remove also the pulley from the motor axle to avoid any damage during transport.

Clearaudio assumes no liability for any damage that may occur due to incorrect packing.

9. Disposal



Do not dispose this product together with other waste.
WEEE Reg. No.: DE26004446

10. CE Marking



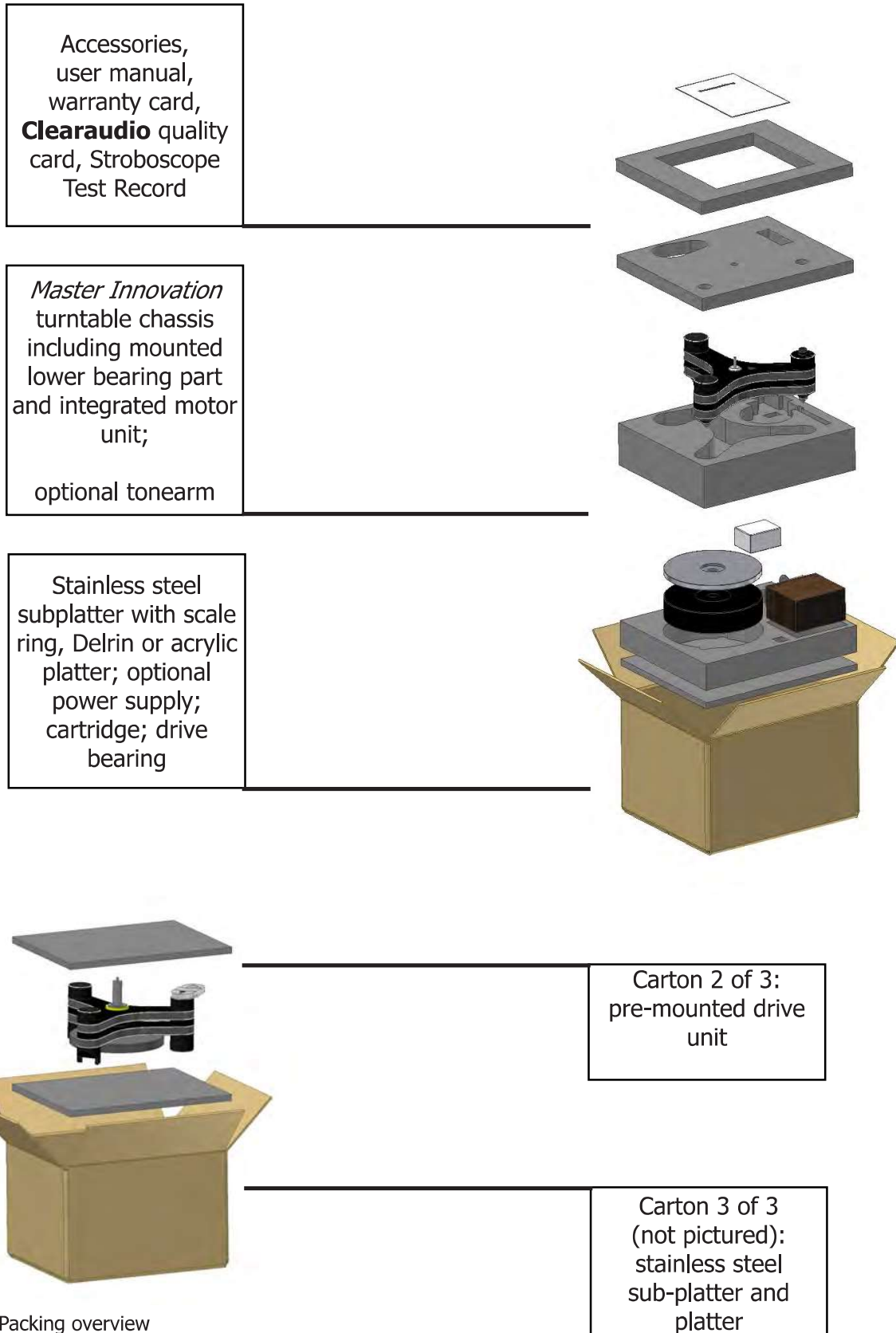
This electronic product corresponds to the applicable guidelines for obtaining the CE mark.



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1. Packing overview

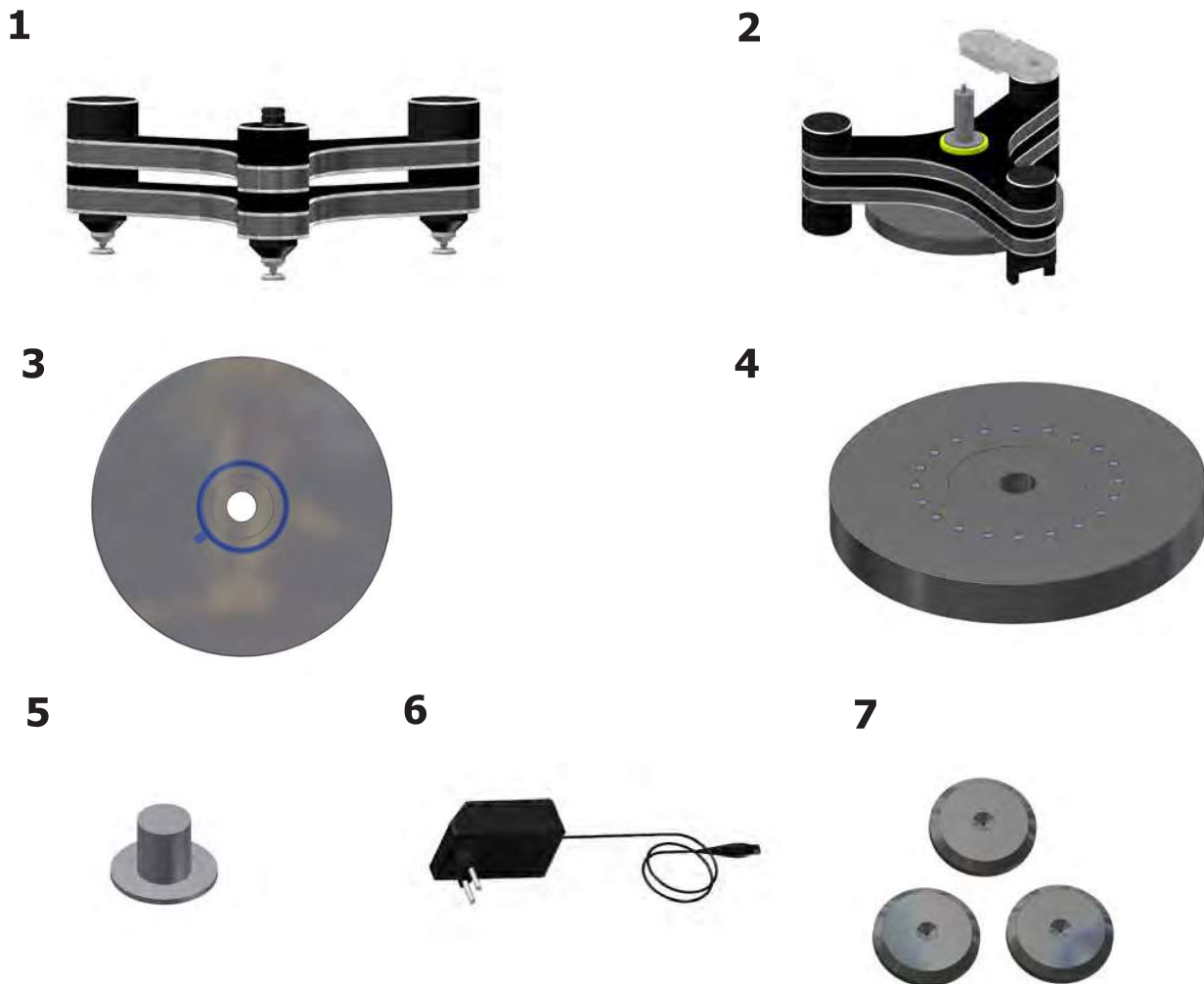


Pic. 1: Packing overview

2. List of components

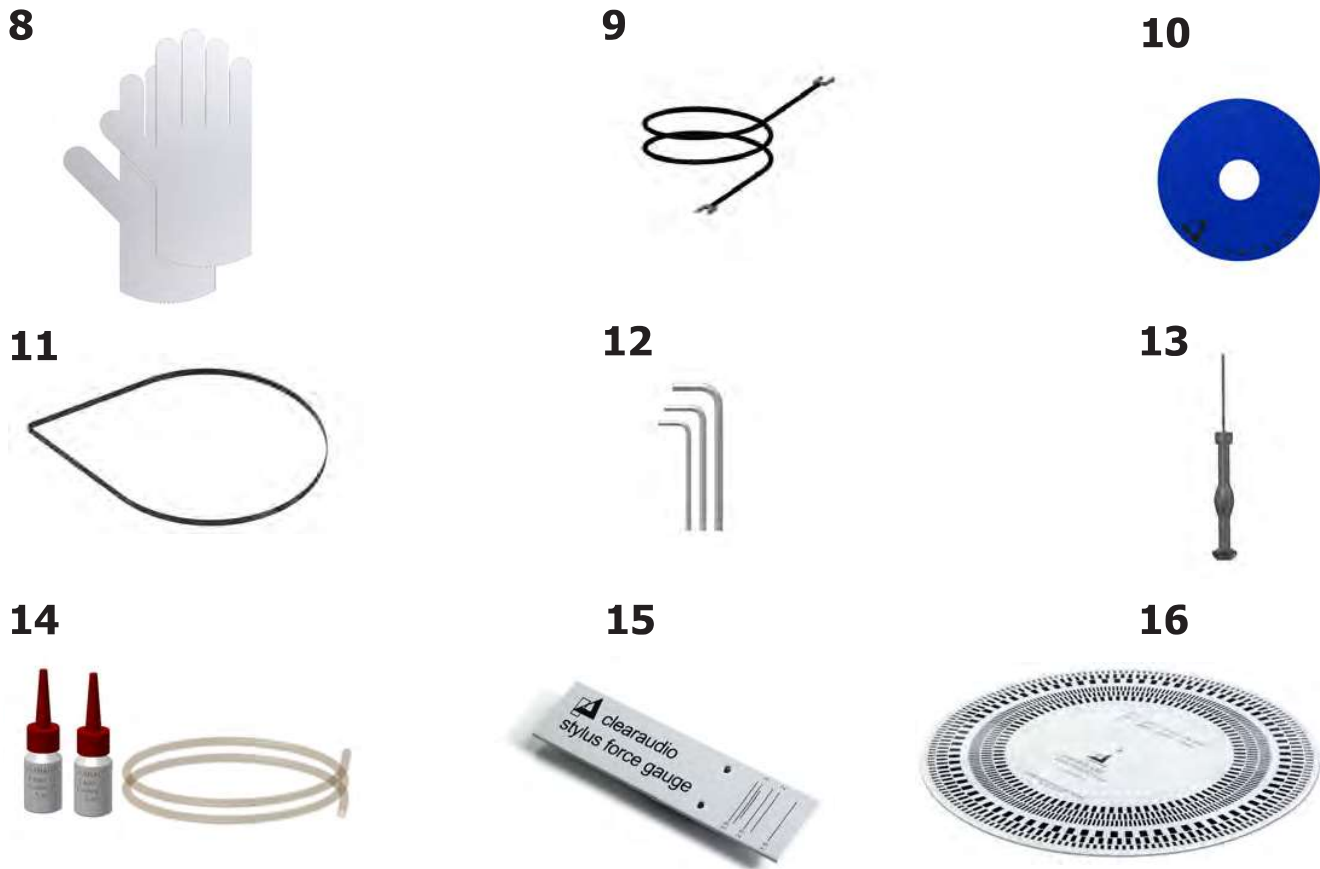
Clearaudio's special secure packaging for your *Master Innovation* turntable ensures safe transportation. Please keep this original packaging, in case you need to transport or ship the turntable at any point in the future.

Clearaudio *Master Innovation* components list:



Pic. 2: List of Components

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



Pic. 2.1: List of components

8.	1 pair of white gloves	14.	2x Bearing oil for occasional use
9.	Grounding wire (to connect to the underside of the bearing part)	15.	Clearaudio <i>Smart Stylus Gauge</i>
10.	Level gauge for turntable alignment	16.	Clearaudio <i>Stroboscope Test Record</i> (Art. No. AC038) to adjust the exact speed
11.	2 pcs. Flat belts	17.	Not shown: User manual, warranty card, Clearaudio quality certificate card, sales return paper
12.	4 hex keys; sizes: #2.5 / 3 / 7 / 8	18.	Not shown: stainless steel sub-platter and platter (carton 3 of 3)
13.	Screwdriver	19.	

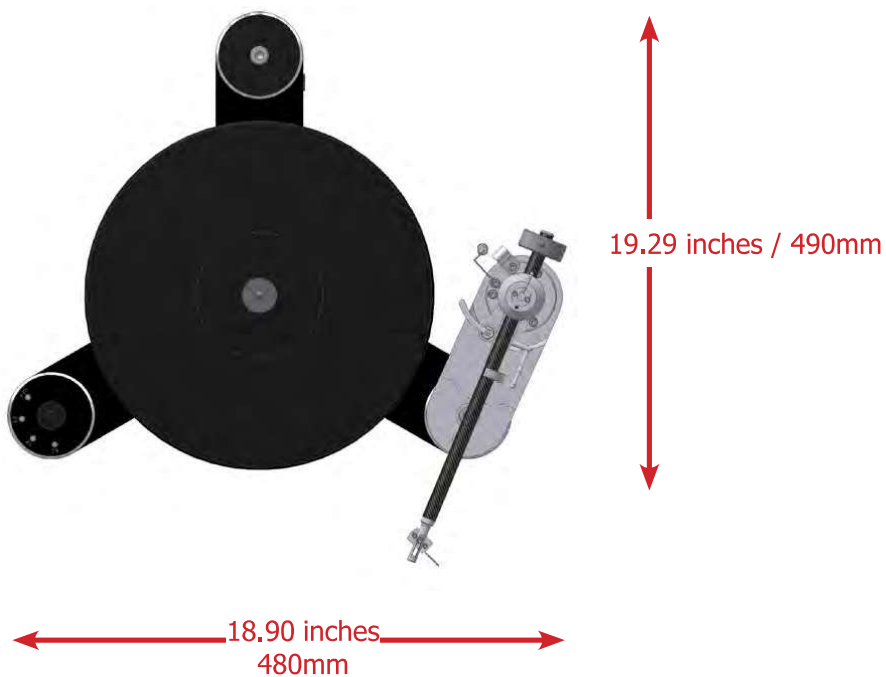
IMPORTANT NOTICE: Please double check the tightness of all bolts, hardware and mounting pods, as temperature fluctuations during transit may have caused the hardware to become loose.

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.)

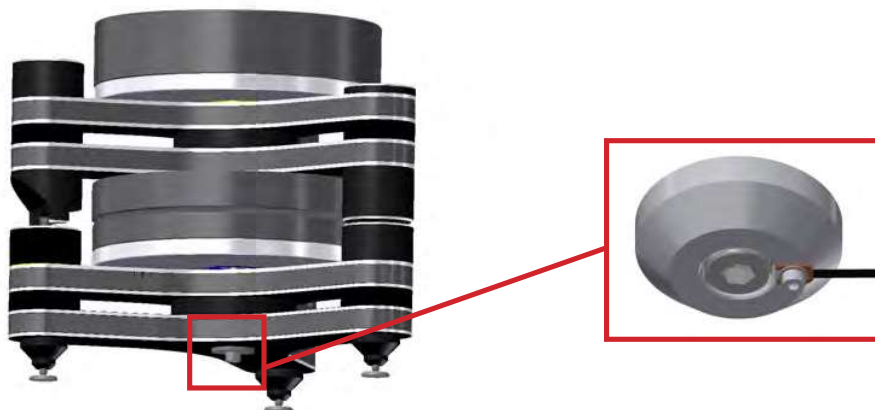
Then take the *Master Innovation* turntable body (drive unit) from the next packaging layer and place the turntable's spikes onto the flat pads.



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.



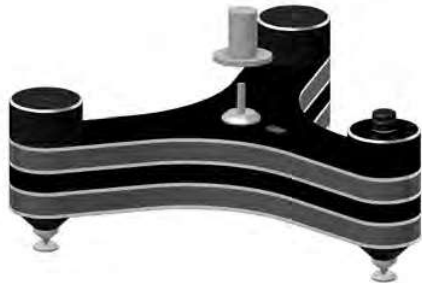
Pic. 5: Grounding the bearing

4.)

Remove the protective security tape from the bearing housing.

5.)

Take the drive bearing out of the box. Please remove the bearing protection film carefully and apply 2-3 drops of the bearing oil (provided, and also available at www.analogshop.de). 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.

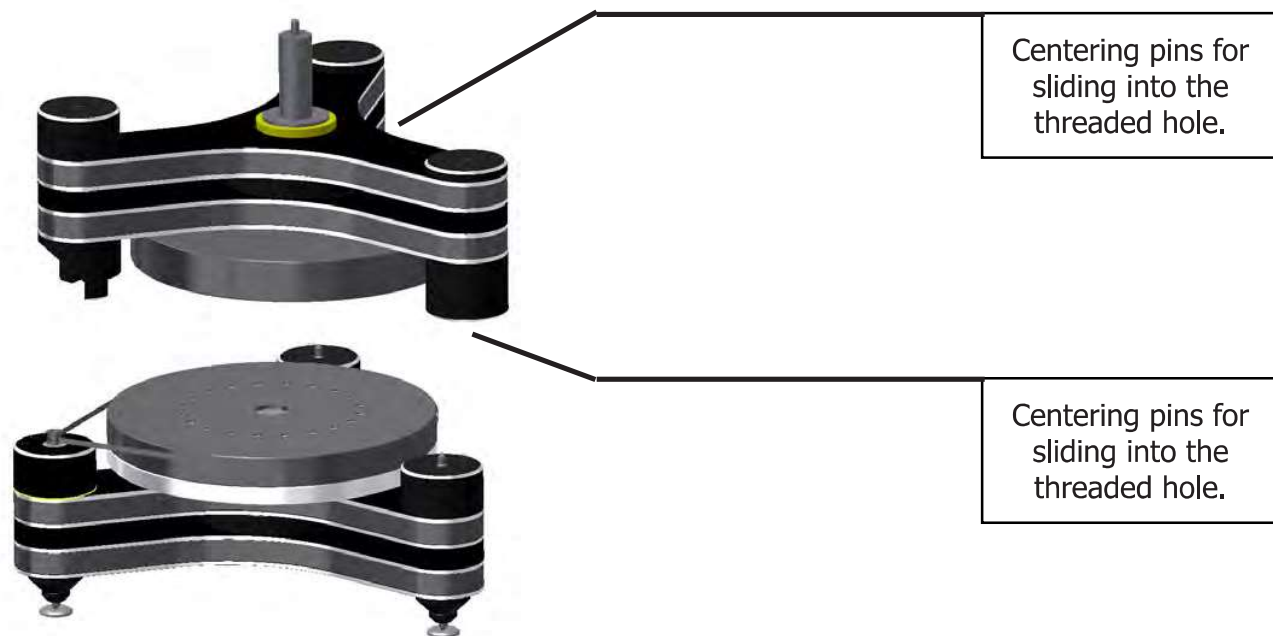


Pic. 10: Placement of the drive belt

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 centring 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 with the small deepening showing down 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 with the metal disc down onto the bearing. Now you can carefully remove the protective film.

For this purpose press the platter slightly downwards.

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 or www.analogshop.de.

User manual

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:

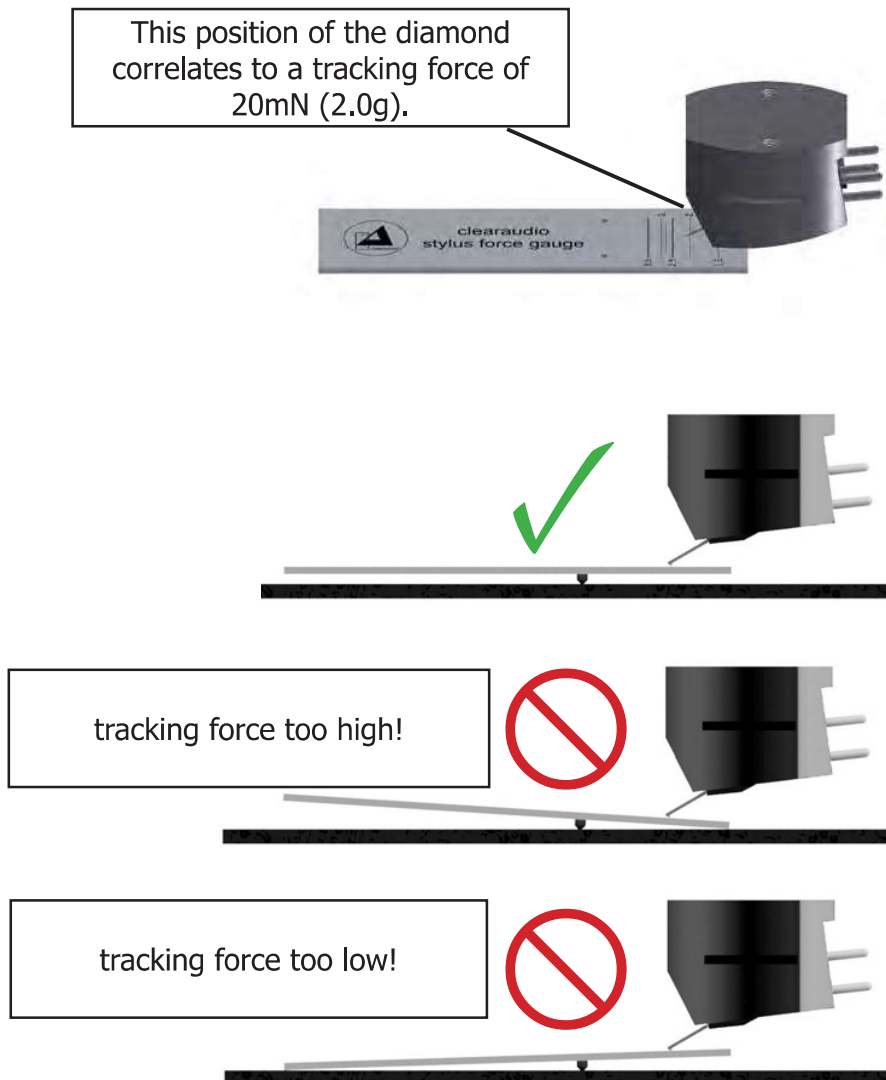


Fig. 13: Using the Smart Stylus Gauge

13.)

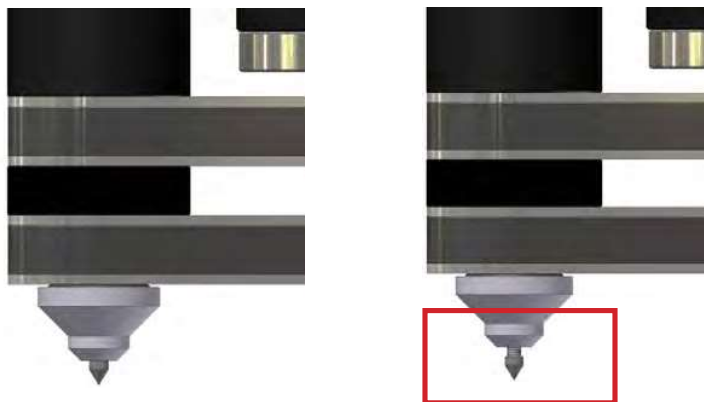
The following final adjustment is very important.

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

Please use the 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 1/3rpm 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 1/3rpm 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* (Art. No.: AC039, available at www.analogshop.de).

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



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

- Middle adjuster = setting 45rpm

- Right adjuster = setting 78rpm
(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 45rpm and 78rpm 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 you're 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. Troubleshooting

If you have a problem with your *Master Innovation* turntable, first check the possible causes to rule out incorrect operation.

If the error persists, please contact your dealer!

Never try to open the device and/or repair it yourself, this will void the warranty!

Error	Cause	Measure
Device does not work	Is the power cord plugged in?	Check the connection.
No sound	The tonearm and phono stage are not properly connected.	Check the cable connection between the tonearm and the phono stage.
	Is the amp turned on?	Check the power supply to the amplifier.
	The volume on the amplifier/ loudspeaker is set too low or on „mute“.	Check the volume settings.
	Is the cartridge protective cap still attached?	Remove the cartridge's protective cap.
	Is the tonearm in the raised position?	Lower the tonearm into the lead-in groove.
	Is the stylus damaged?	Check the stylus and have the cartridge checked by a specialist if necessary.
Bad sound / noise	Is the record or the stylus dirty or damaged?	Clean the record / or the cartridge. Clearaudio offers many helpful accessories for care and cleaning. In the event of damage, we recommend an assessment by a specialist and, if necessary, an exchange.
	Is the cartridge properly mounted into the tonearm?	Check the installation using the relevant user manual and correct them if necessary.
	Has the tracking force been set too high?	Adjust the tracking force.
	Is the correct operating mode (MM / MC) set on the amplifier?	Check the settings of your phono stage.
	The pre/amp does not have enough gain.	Check the settings of your phono stage.
	Pre/amp is mismatched.	Swap the plugs of the turntable that are connected to the left and right outputs.



Needle bounces or slides across record	Is the record or the stylus dirty or damaged?	Clean the record / or the cartridge. Clearaudio offers many helpful accessories for care and cleaning. In the event of damage, we recommend an assessment by a specialist and, if necessary, an exchange.
	Has the tracking force been set too high?	Adjust the tracking force.
	Is the record deformed or scratched?	Use a record clamp or replace the record.
	Is the turntable level?	Check the alignment of the turntable and adjust if necessary.
Platter does not turn	Is the drive belt properly attached?	Check the position of the drive belt.
	Is the power cord connected properly?	Check the connection.
	No speed was selected / speed selection in position „0“/“OFF“.	Select a speed and start the turntable.
Noisy sound	Is the drive belt properly attached?	Check the position of the drive belt. Is it too loose and needs to be changed?
Humming noises	Contact problems with the signal connections (e.g. cinch plugs, adapters for extensions)	Check all connections; reduce the level on the (pre-)amplifier to a low volume for acoustic checking of gross errors.
	Metal housing acts as an antenna and catches hum.	It can be helpful for conductivity to connect the metal parts of the turntable to the ground of the (phono) preamplifier. The turntable provides a grounding terminal for this purpose. Use a sufficiently thick wire to establish the ground connection.
	The pickup pins are mixed up, not connected correctly or defective.	Check the pin assignment of the pickup.
The music doesn't sound like usual	Wrong speed selected.	Check the record for recommended speed. There are also records in LP format (30 cm) that have to be played at 45 rpm ("maxi singles") and small records in single format (17 cm) that have to be played at 33 rpm (so-called "EP's").
	The turntable is spinning too fast/too slow.	Adjust the speed according to the operating instructions.

6. Technical data

Construction details:	<ul style="list-style-type: none"> • Resonance-optimised chassis shape • Made of bullet proof wood and aluminium with precision CNC machined surface • All turntable feet are finely adjustable • Playback with three tonearms possible
Speed options:	33 1/3, 45, 78rpm
Drive unit:	<ul style="list-style-type: none"> • High torque 24V DC motor exclusively made for Clearaudio; Optical Speed Control (OSC) in real time through infrared sensor • Decoupled DC motor in chassis; resonance damping device; belt-driven • Magnetic decoupling of turntable and additional drive platter
Bearing:	<ul style="list-style-type: none"> • Clearaudio patented ceramic magnetic bearing (CMB) in main platter / upper drive platter assembly • Inverted bearing in lower drive platter"
Platter:	70mm / 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
Speed accuracy (measured):	< ± 0.05%
Power consumption:	Max. consumption: 9.5 watts Consumption in operation: 4.1 watts Standby mode: 2.4 watts Off mode: 0.0 watts
Total weight:	Approx. 60kg (without tonearm and power supply)
Dimensions (W/D/H):	Approx. 18.11 x 19.09 x 15.59 inches (with tonearm base, without tonearm)
Dimensions (W/D/H):	Approx. 460 x 485 x 396mm (with tonearm base, without tonearm)
Manufacturer's warranty:	5 years*

* Provided that the warranty card is correctly completed and returned to **Clearaudio**, or your product is registered online at <https://clearaudio.de/en/service/registration.php>, within 14 days of purchase.



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The full, extended warranty period for the *Master Innovation* turntable is 5 years.

To receive this full **Clearaudio** warranty, you must either complete and return the relevant section of the warranty registration card to **Clearaudio**, or register your product online at <https://clearaudio.de/en/service/registration.php>, within 14 days of purchase.

Otherwise only the legal warranty can be considered.

The full 5 year warranty can only be honoured, if the product is returned in its original packing.



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 beigelegten 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 test record* 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 / 60Hz, 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 50Hz (outer scales) or 60Hz.

The scales are graduated in three different reading options: 33.3, 45 and 78rpm (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.



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 300Hz 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 three different speeds.

With the outside scale you can detect the speed of 33.3rpm, with the middle scale 45rpm and with the inside scale you can detect the speed of 78rpm. 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

Loving music

Technical Data:

Speed Light

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

Battery: V 23GA – 12V – Alkaline

(Technical changes are subject without notification)

Date: 2022-11

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Handmade in Germany

Clearaudio Electronic accepts no liability for any misprints.

Technical specifications are subject to change or improvement without prior notice.

Product availability is as long as astock lasts.

Copies and reprints of this document, including extracts, require written consent from

Clearaudio Electronic GmbH, Germany.

2024