



Loving music

TT1 MI

User manual



Pic. similar



Pic. similar

Dear Clearaudio customer,

Thank you for your decision to purchase the *TT1 MI* tangential tonearm from **Clearaudio**.

Please take a moment to read this owner's manual to ensure correct set-up, avoid any potential damage and discover how to care for your *Master Innovation TT1 MI* so that it gives you many years of musical enjoyment and pleasure.

We wish you much pleasure with your new **Clearaudio** *TT1 MI* tangential tonearm.

Clearaudio electronic GmbH



Safety instructions

1. General information

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

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

Never expose the tonearm to rain or moisture.

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

Before using the tonearm for the first time or after a long period of inactivity the lift must be operated approx. 4-5 times to loosen the grease in the tonearm lift to lower the lift bar evenly again.

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

2. Intended use

The *TT1 MI* is a tonearm for playing music and is intended exclusively for use on **Clearaudio** turntable.

Only use the *TT1 MI* tonearm in accordance with the information provided in the user manual.

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. Maintenance

Please make sure that the precision dry ball bearings are not touched, cleaned or lubricated in any way.

Never move or readjust the screws in the tonearm carriage. They should be adjusted only by qualified dealers or at the **Clearaudio** factory.

Use a cotton bud and a commercially available glass cleaner to clean the glass tube. Put some glass cleaner on the cotton bud and slide it through the glass tube with a movement from the inlet to the outlet groove.

Never use aggressive cleaning agents.

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

Only use a soft cloth with a smooth surface or a soft brush for cleaning.

If the *TT1 MI* tonearm is not in use for a long period, please cover the tonearm to protect it from dust.

WARNING:

Never insert the oil into the precision bearing as this will result in damage of bearing.

5. Health information

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

6. Service

The *TT1 MI* tonearm 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 retailer.

If, despite the high production standard, a service is necessary, the *TT1 MI* tonearm must be send to **Clearaudio** through your dealer.

7. Transport

Use the original packing material for further transportation of the *TT1 MI* tonearm, 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.

During any transportation of the tonearm, always protect the carriage with a piece of foam so that the carriage cannot move during transportation.
When repackaging the tonearm, please follow in reverse the steps indicated in this manual for installation and setup.

8. Disposal



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

9. CE Marking



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



Contents

1. List of components.....	6
2. Delivery condition.....	7
3. Front and rear view of the <i>TT1 MI</i> tonearm	8
4. Preparation of the Innovation / Master Innovation turntable.....	9
5. Mounting the <i>TT1 MI</i> on the <i>Innovation /Master Innovation</i> turntable	10
6. Mounting the armwand	11 - 12
7. Mounting the cartridge.....	12
8. Pre-setting the tracking force	13
9. Fine adjustment of the tonearm	
9.1 Adjustment of the tangential alignment	14
9.2 Adjustment of the VTA	15
9.3 Adjustment of the azimuth.....	16
10. Troubleshooting.....	17
11. Technical data.....	18
Warranty.....	19 - 20

1. List of components

The **Clearaudio TT1 MI** tonearm is delivered in a special packing to ensure its safe transport. Please keep this packaging in case of any further transport.

Important note:

Please check the contents as shown in the picture below.

Please take special care of the tonearm cable while unpacking your **Clearaudio TT1 MI** tonearm!

Note: All threads are metrical!



Pic. 1: List of components

1.	Tonearm body	7.	Set with cartridge mounting screws
2.	Carbon armwand incl. wiring	8.	Counterweights
3.	Hex wrench: #1.5 / #2 / 2,5# / #3 / #8	9.	2x spacer discs (Aluminium)
4.	2x large hex socket headed bolts M10 x 50	10.	Mini Level Gauge
5.	White gloves	11.	User manual, warranty card and return delivery note (not shown)
6.	Clearaudio linear gauge		

2. Delivery condition

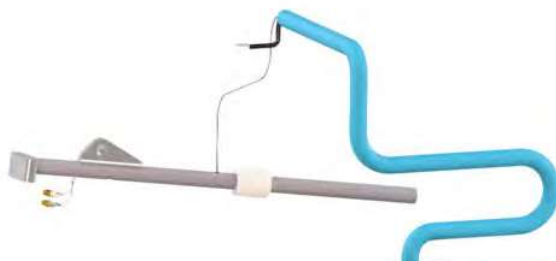
The TT1 MI is packed in a special foam packaging and comes almost completely assembled.



Pic. 2: Delivery condition tonearm body

Please note:

For the transport, the tonearm carriage is protected with an transport lock to avoid any damages. The armwand is packed separately and will be installed later.

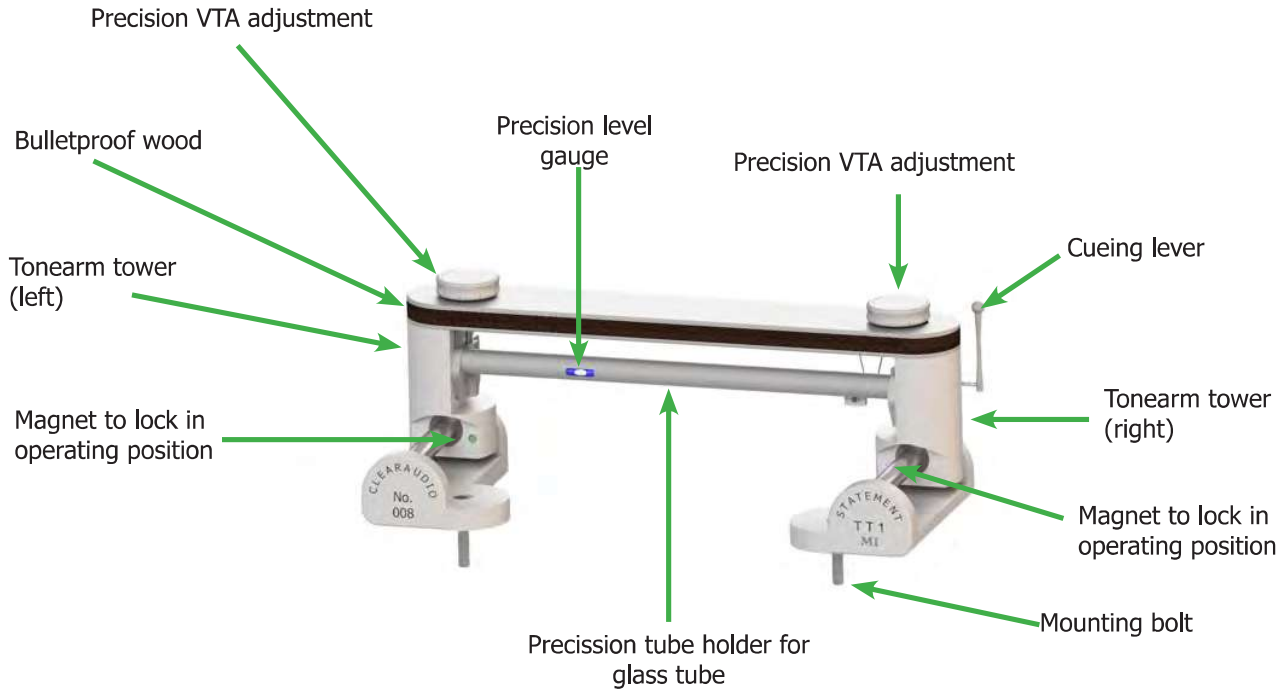


Pic. 3: Armwand

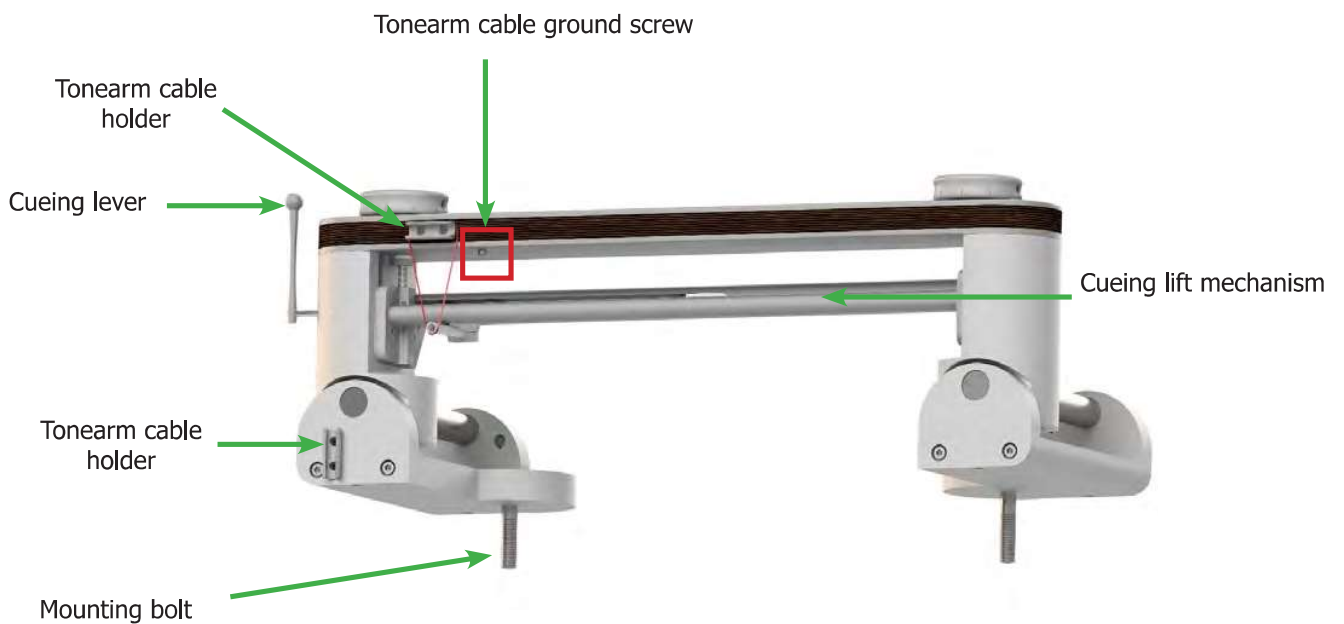
Additional parts, accessories and tools are also packed separately.

3. Front and rear view of the *TT1 MI* tonearm

Front view



Rear view



Pic. 4: Front and rear view

4. Preparation of the Innovation / Master Innovation turntable

After checking the package contents as described on page 4, place the parts on a clean and flat surface in preparation for set-up.

Assembly and set-up of the *TT1 MI* are quite straightforward, as most parts have been factory pre-assembled.

Please use the white gloves provided to avoid introducing scratches and/or fingerprints during assembly.

First, position the two spacer discs (see page 4, package content No. 9) onto the turntable. Please note, you may need to remove the previous discs/cylinders or tonearm bases first.

Please use only the spacer discs provided, as they are specifically height-matched for the *TT1 MI* tonearm.



Pic. 5: Placing the aluminium spacer discs onto the *Master Innovation* turntable

5. Mounting the *TT1 MI* tonearm

To avoid any damage on the tonearm or turntable, we recommend that two people do the assembly.



Pic. 6: Placing the tonearm chassis on the spacer discs

Place the tonearm chassis on top of the two spacer discs. Lift it carefully, making sure that the sliding tonearm bridge is positioned to the rear of both sliding bases as shown in picture 6.

While holding it in place insert the two large hex socket headed bolts provided (see page 4 package content No. 4) and tighten them (see picture 7).

Please note: Always hold the tonearm in place, while tightening the mounting bolts.

Move the tonearm several times back and forth to align the base plates. Then you can fix the tonearm finally with the screws.

Finally check the ease of movement of the tonearm again by moving it back and forth several times.

You may have to repeat the process.



Pic. 7: Tightening the mounting bolts

Please note:

You may need to readjust the levelling of the turntable once you have fully completed set-up of the *TT1 MI* tonearm.

6. Mounting the armwand

Please take great care in undertaking the following steps!

Remove the rubber band which is used as transportation lock.
Afterwards loosen the screws from the aluminum block and remove the second transportation lock.



Pic. 8: Removing the transportation lock

Move the tonearm to the playback position and press the cable into the holders provided on the back of the tonearm. Make sure that the cable has enough latitude when the tonearm is moved back and forth.

Guide the tonearm tube between the track and the eccentric shaft (green arrow, Fig. 9).

Now you can mount the armwand on the carriage using the aluminum clamping block and the two screws. Ground the tonearm using the screw as seen in picture 9.

We recommend tightening the screws of the aluminum block only slightly, as the armwand needs to be movable for the subsequent adjustments.



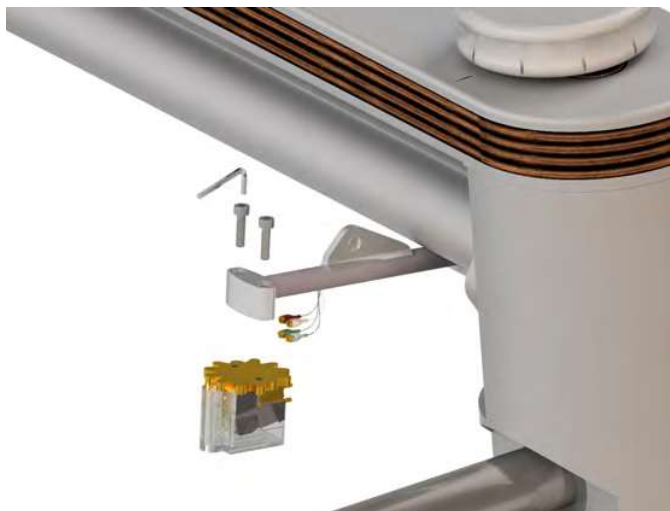
Pic. 9: Mounting of the armwand



Pic. 10: Mounted armwand

7. Mounting the cartridge

The following settings require mounting the cartridge on the headshell. Always follow the cartridge manufacturer's instructions. Use the screws provided to mount the cartridge onto the headshell.



Pic. 11: Mounting the cartridge

Leave the stylus protector on your cartridge to avoid any damages!

Please note:

This tonearm is suitable for all cartridges with a weight of 5.5g and above. If your cartridge is lighter, please use an additional weight (headshell plate).

Available through your dealer/distributor or at **Clearaudio**: info@clearaudio.de

Now you can connect the respective signal cable with the matching color pins of the cartridge. Please note the following colour coding:

Red:	right channel / R+
Green:	right channel / R-
White:	left channel / L+
Blue:	left channel / L-

8. Pre-setting the tracking force

**To make the adjustment, first remove the stylus protector.
Please handle all equipment with care to avoid any damage.**

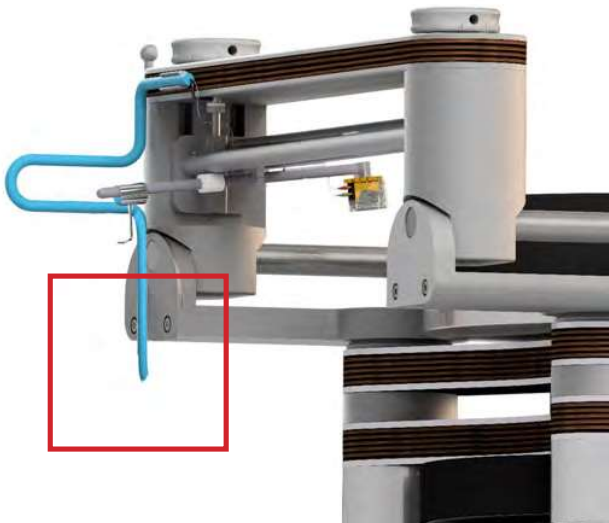
Use one of the supplied weights to roughly adjust the tracking force by placing the counterweight onto the back of the headshell tube (Pic. 12).

The choice of counterweight depends on the weight of the cartridge.

**Please only pre-adjust the tracking force of the cartridge.
The correct setting will be made at the end of the tonearm settings.**

Use the #1.5 hex wrench to tighten the counterweight fixing screws.

To check the tracking force, we recommend the **Clearaudio** "Weight Watcher touch" digital cartridge weight (Art. No. AC163, also available at www.analogshop.de).



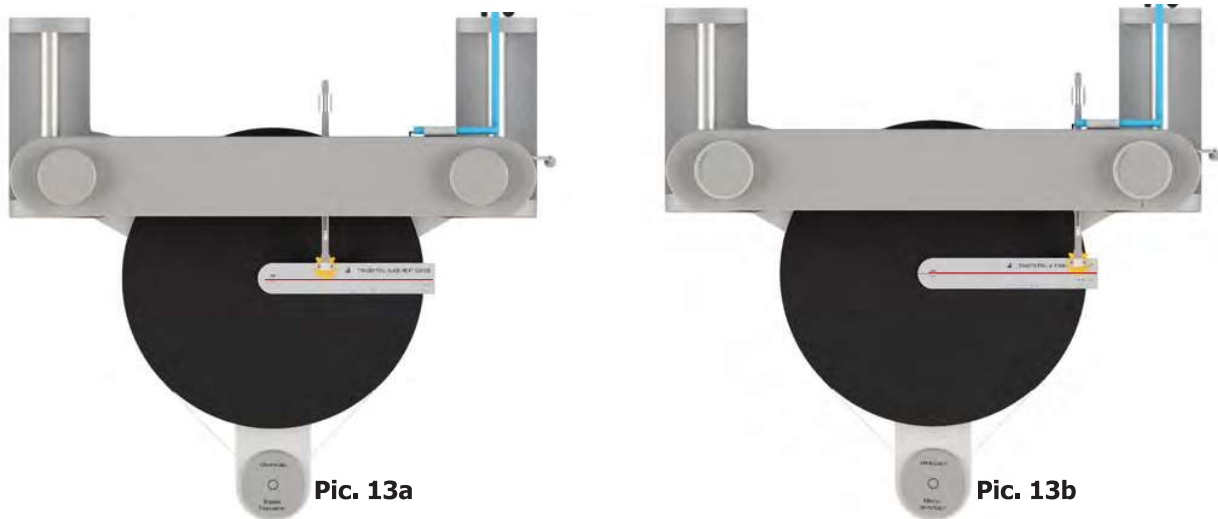
Pic. 12: Counterweight adjustment

9. Fine adjustment of the tonearm

9.1 Adjustment of the tangential alignment

Use the lift to lower the stylus at the left hand end of the **Clearaudio** linear gauge, moving the gauge so that the diamond sits exactly on the reference line (see Pic. 13a).

Lift the cartridge up again and then position it at the right hand end of the gauge (Pic. 13b).



Pic. 13: Adjustment of the tangential alignment

Never move the cartidge in the alignment gauge while it is lowered.

If the needle is not parallel to the reference line, correct the position of the armwand, fix it slightly and check your result again.

Repeat this process until the needle tip is perfectly in all positions in the reference line the setting template is seated.

Finally, hand-tighten the screws on the terminal block to fix your result.

9.2 Adjustment of the VTA (tonearm height)

The included **Clearaudio** linear gauge is suitable for adjusting the tonearm height, as it corresponds to the thickness of a record.

Place the **Clearaudio** linear gauge through the existing hole on the spindle of the turntable and align it parallel to the tonearm.

Move the tonearm forward to the playback position and check the tonearm height by placing the Mini Level Gauge on the headshell of the pickup.

Place it carefully(!) in the center on the top of the headshell of the raised cartridge and lower the cartridge onto the linear gauge using the lift.



Pic. 14: Adjustment of the VTA

To correct this, turn the two wheels of the precision VTA adjustment on the top of the tonearm until the bubble of the Mini Level Gauge on the headshell is level.

Leave the mini level gauge on the headshell and the linear gauge on the platter, as it is also required for the further settings.

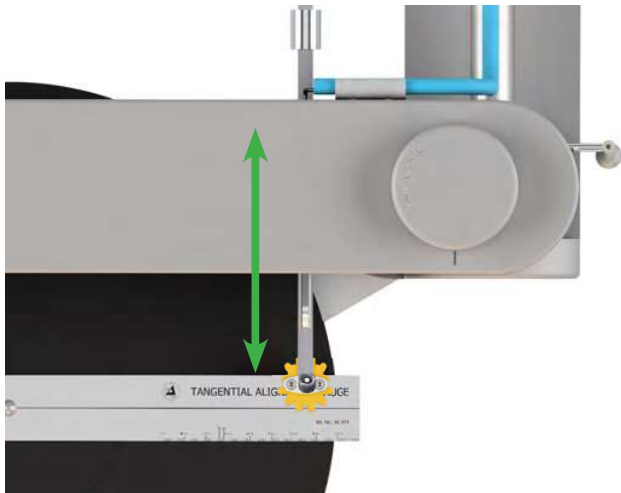


Pic. 15: VTA adjustment

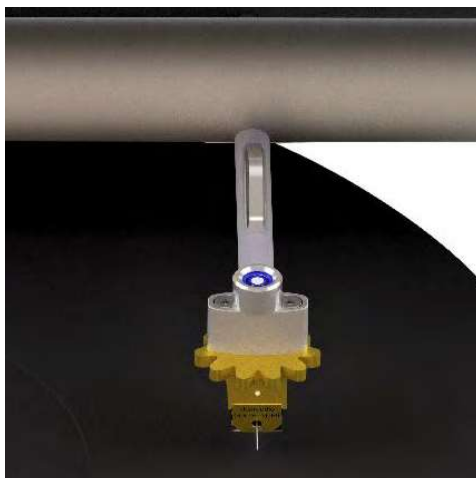
9.3 Adjustment of the azimuth (Vertical position of the cartridge)

Please be extremely careful during the following step!

Please lift the cartridge up!



Pic. 16: Adjustment of the azimuth



Pic. 17: Placing the Mini Level Gauge

Use the Mini Level Gauge provided for the following azimuth setting.

Lower the cartridge onto the linear gauge and check the azimuth with the air bubble on the Mini Level Gauge.

With the cartridge raised, adjust the headshell in the appropriate direction to achieve the desired orientation.

It may be necessary to loosen the locking screw for the headshell tube on the cart.

Fix the screw after completing the setting and remove the Mini Level Gauge from the headshell.

Set the correct tracking force of your cartridge according to the manufacturer's instructions.

For the correct setting we recommend the digital cartridge weight „Weight Watcher touch“ from **Clearaudio** (item: AC163; also available from: www.analogshop.de).

For perfect sound, we recommend checking the tracking force, azimuth and VTA settings again and correcting them if necessary.

The **Clearaudio TT1 MI** tonearm is now completely adjusted and ready to play.



10. Troubleshooting

First check the possible causes to rule out incorrect operation if you have a problem with your *TT1 MI* tonearm.

Please contact your dealer if the error persists!

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

Error	Cause	Measure
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/low?	Adjust the tracking force. Use only a suitable gauge! For example Clearaudio „Weight Watcher touch“ or „Smart Stylus Gauge“.
	Is the record deformed or scratched?	Use a record clamp or replace the record.
	Is the turntable leveled?	Check the alignment of the turntable and adjust if necessary.
The tonearm carriage gets stuck	Were all settings made correctly during assembly?	Check all settings and adjust them again if necessary.
	Is the glass tube dirty?	Use a cotton bud and a commercially available glass cleaner to clean the glass tube. Put some glass cleaner on the cotton bud and slide it through the glass tube with a movement from the inlet to the outlet groove.
	Is the tonearm leveled?	Check the alignment of the tonearm and adjust if necessary.
	Is the turntable leveled?	Check the alignment of the turntable and adjust if necessary.

11. Technical data

Construction details:	Tangential tonearm Mechanical and passive drive through dry-running ball bearing in an calibrated polished glass tube
Material:	Aluminium (black/silver), stainless steel, bullet proof wood (natural/black), glass
Cartridge balance range:	5.5g - 15g
Mounting style:	On request
Wiring:	2m Super Sixstream terminated with RCA
Weight:	Approx. 8.2kg
Dimensions (W/D/H):	Approx. 21.26 x 8.27 x 7.68 inches
Dimensions (W/D/H):	Approx. 540 (incl. lift unit) x 210 x 195mm
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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User manual

The full, extended warranty period for the *TT1 MI* tonearm 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 verbod 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 GARRANTIA

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.







Loving music

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