

# USER MANUAL

Belt Drive

Turntable

**PE 1000**





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Dear music lover,

Congratulations on the purchase of your new Perpetuum Ebner (PE) turntable. This product has been designed and manufactured with the greatest care.

Please take note of the enclosed safety information and read the operating instructions carefully before you set up and operate the device.

## 1. SAFETY INFORMATION

PLEASE READ CAREFULLY BEFORE OPERATING YOUR UNIT!

CAUTION:

To reduce risk of electric shock, do not remove the cover. There are no user-serviceable parts inside.



This product was tested and complies with all the requirements for the CE Mark.

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**IMPORTANT: Disposal of waste equipment by users in private households in the European Union.**

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.



## **2. Unpacking**

We have developed a high-quality packaging, so that the product arrives you safe and protected. Carefully remove the unit and accessories from the packaging and check the contents for completeness.

### **Items delivered:**

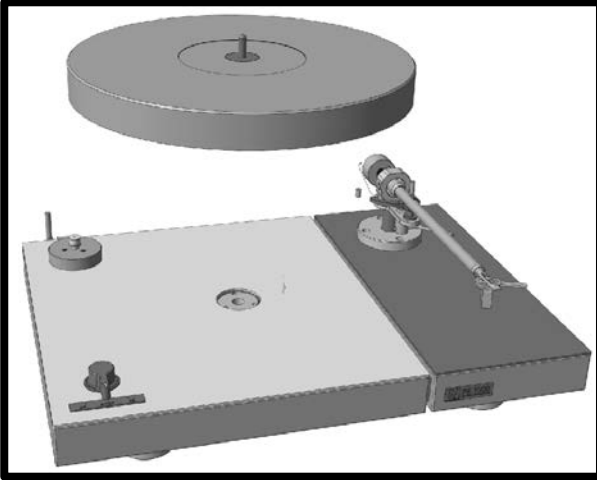
- ✓ Chassis with pre-assembled tonearm incl. pick-up cartridge
- ✓ Platter
- ✓ Dust cover
- ✓ Flat rubber drive belt
- ✓ RCA cable with ground wire
- ✓ Power supply
- ✓ One pair of cotton gloves (white)

Please keep the original packaging in order to protect the device in case you ever need to ship it or transport it.

### 3. Set-up and assembly

Your new Perpetuum Ebner turntable is a high-quality product made in Germany and is designed to provide you a great sound experience.

*F 1 – Assembly of the sub-platter*



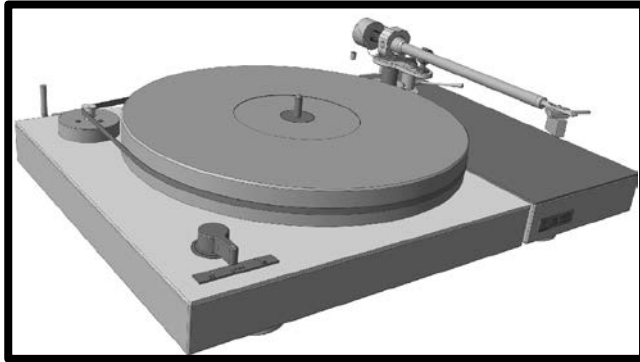
For optimum use of its musical sound qualities you should always place the device on a flat and stable surface. When mounting the device you start with plugging the sub-platter into the bearing bush (see fig. *F 1*).

The bearing bushes are self-lubricating and therefore do not require bearing oil.

Afterwards, lay the flat belts around the sub-platter and the motor pulley; please ensure that the belt is not twisted.

Please use the cotton gloves here in order to avoid any oil and grease marks. The belt embraces the sub-platter in the lower area of the sub-platter scope (see fig. F 2).

*F 2 – Assembly of the belt drive on the pulley and the sub-platter*



*Note: If you start the drive of the PE 1000 by turning it on without having placed the platter, it may happen that the drive belt falls off due to the low weight!*

Next, put the platter on the sub-platter.

We recommend to always use a mat to acoustically attenuate the platter, to gently playback your records, and to reduce popping and cracking noises that can occur because of antistatic charging.

## **4. Connections**

### **a.) Power supply**

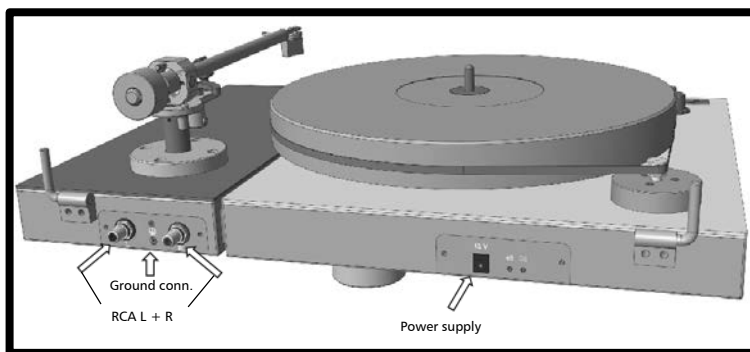
We equip the PE 1000 turntable with power supply connectors.

### **b.) RCA connection**

Your new PE 1000 turntable is equipped with RCA sockets as well as a ground wire.

Use the provided connection cable to connect the turntable to the phono input of your amplifier, or phono-pre-amplifier. In doing so, make sure the polarity is correct (R, red, for right, L, black, for left) when connecting the device. The separate earth wire establishes the ground connection. Connect the ground wire of the turntable to the ground wire of your amplifier, or phono-pre-amplifier (see fig. F 4).

*F 3 – The connections – power supply, RCA connections and ground connection*



With these connection possibilities, the sound quality of your turntable can be further improved at any time with the high-quality cables available in specialist shops.

## **5. Tone arm and pick-up cartridge**

The PE 1000 is delivered with a preinstalled tone arm Perpetuum Ebner TO 2016, as well as with an installed ORTOFON pickup, model 2M.

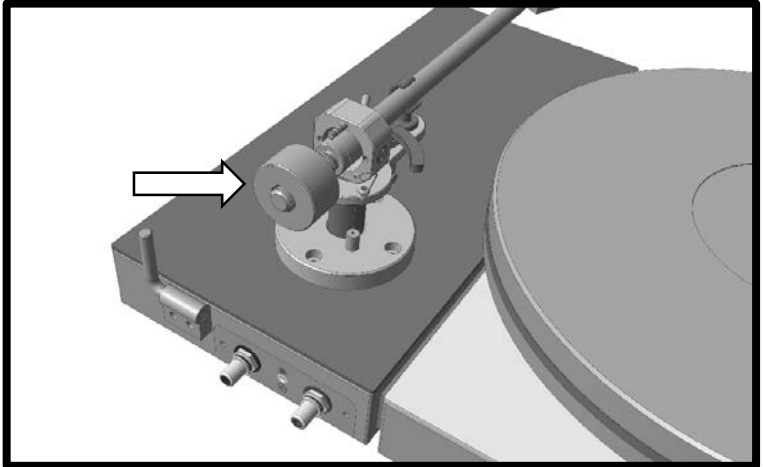
All settings have already been made at the factory. The weights to balance the tone arm have been removed for transport. Further details can be found in the following chapters.

### a.) Tracking force

You can adjust the tracking force by rotating the weights of the tone arm.

The tracking force increases, the more you turn the weights forward towards the tone arm (see fig. F 7).

*F 4 – Adjusting the tracking force*



You can optimally adjust the tracking force with the help of a tone arm scale (available in specialist shops). For this, move the tone arm, with lowered tone arm lift, over the platter and carefully lower it so that the stylus rests on the tone arm scale. In doing so, it is absolutely necessary to remove the protective cover of the cartridge. Please be extremely careful in order to not damage the stylus.

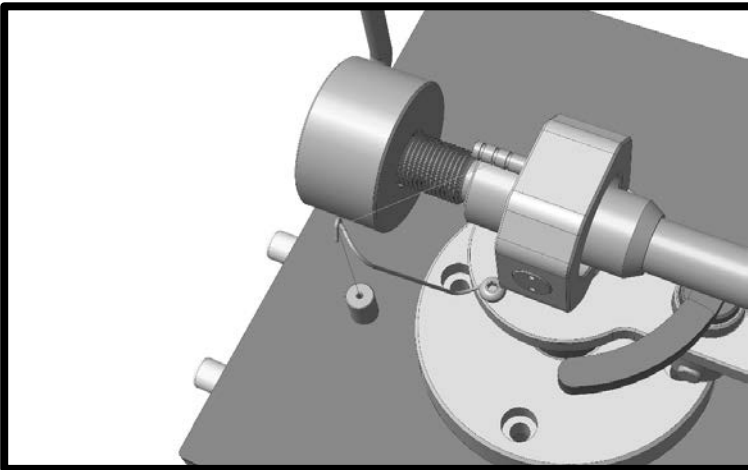
The recommended tracking force for the supplied device is 18mN (corresponds to a tracking force of 1.8g).



## b.) Anti-skating

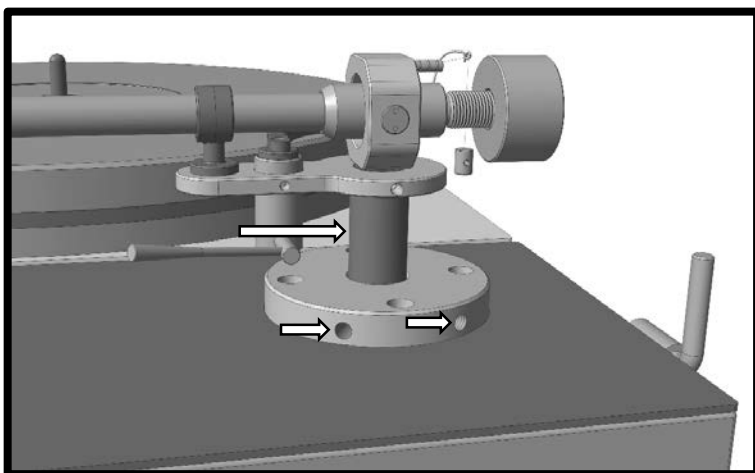
Skating arises in connection with radial tone arms. Due to the offset between the cartridge's axis and the tone arm's pivot, the force applied (through friction) by the rotating disc to the cartridge tends to draw the tone arm toward the center of the record. To prevent this, the so-called anti-skating force is applied at the tone arm. At the PE 1000, this was realized by a built-in magnet. The anti-skating force is preset at delivery, but it can be adjusted if necessary, using a set screw below the tone arm bearing block. With the preinstalled Ortofon 2M cartridge, the white point should be located above the set screw mid-way between the stops (see fig. F 8).

*F 5 – Anti-skating*



When using other pickup cartridges or other platter covers the height of the tone arm may be adjusted. To this, you can loosen the screw at the tone arm socket using the enclosed hex key SW3, and adjust the height by rotating the nut on the tone arm tube. Slightly tighten the bolt after having adjusted the height (see fig. F 9).

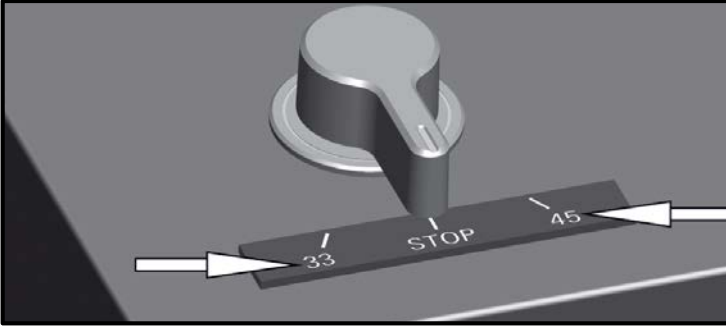
*F 6 – Adjusting the tone arm height*



## 7. Operation

The lever switch (33 / STOP / 45) on the left front side of the device starts the turntable with the corresponding speed (see fig. F 10).

*F 7 - Start/Stop – Speeds, drive 33 - 45*



Then, the tone arm is released from its rest, the tone arm lift is raised and the cartridge is positioned above the lead-in groove of the record or above the desired piece/track to be played and lowered on the record using the lift.

This turntable does not feature an automatic end-of-record shut-off facility. As soon as the stylus has reached the lead-out groove, the tone arm has to be lifted up manually and put back into the tone arm rest. You turn of the device with the switch setting "STOP".

We recommend to leave the dust cover open when enjoying music because of so-called microphonic effects, i.e. vibrational stimulation of sound in resonance bodies over the pick-up cartridge.

## 8. Technical specifications

### PE 1000

(Belt Drive made in Germany)

- Manual sub-chassis turntable with internal belt drive via sub-platter
- Massive, two-part 38mm MDF (medium-density fiberboard) chassis with platter board and arm board in piano black lacquer
- DC motor with electronic control and speed selection (33 / 45) electronically switchable
- Speed fine adjustable via back-mounted potentiometers
- 3 kg POM (Polyoxymethylene) platter
- High-precision platter bearing, 10mm steel axle, supporting magnet
- External power supply (low voltage)
- Tone arm Perpetuum Ebner TO 2016 with cardan bearing, carbon arm tube and anti-skating (thread)
- Effective length: 232.8mm (9.1")
- Overhang: 17.8 mm (variable)
- Offset angle: 23.6° (fixed)
- Dynamic mass: approx. 11 g
- Moving Magnet (MM) cartridge, ORTOFON 2M
- Physical dimensions (width / depth / height): approx. 470 mm x 340 mm x 175 mm (incl. Dust cover)
- Weight: approx. 12 kg



## 9. Service information

If you have any questions regarding your new turntable, or in the event of problems your PE dealer shall be pleased to assist you.

You will find the addresses on our website:

[www.perpetuum-ebner.de](http://www.perpetuum-ebner.de)

Subject to technical modifications



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By WE **AUDIO** SYSTEMS

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