

USER MANUAL

Belt Drive

Turntable

PE 1010 MKII





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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.

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

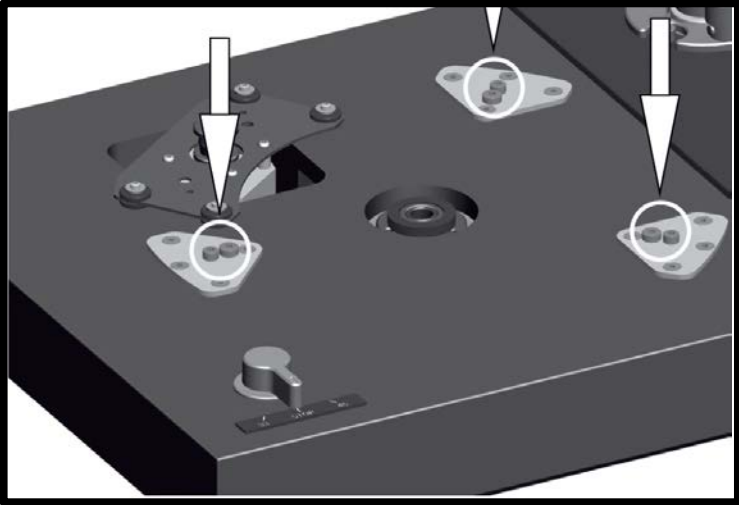
We have developed a high-quality packaging, so that the product arrives you safe and protected. Carefully remove the unit and accessories from the packaging and check the contents for completeness.

Items delivered:

- ✓ Chassis with pre-assembled tonearm incl. pick-up cartridge
- ✓ Sub-platter
- ✓ Platter
- ✓ Dust cover
- ✓ Flat rubber drive belt
- ✓ RCA cable with ground wire
- ✓ Hex key SW3 (transport lock, tonearm height adjustment)
- ✓ 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. Make sure to tighten the locking screws when you transport the turntable. The 3 x 2 silver-colored locking screws must be removed completely before first use (see fig. *F 1*). For this purpose, please use the enclosed hex key SW3.

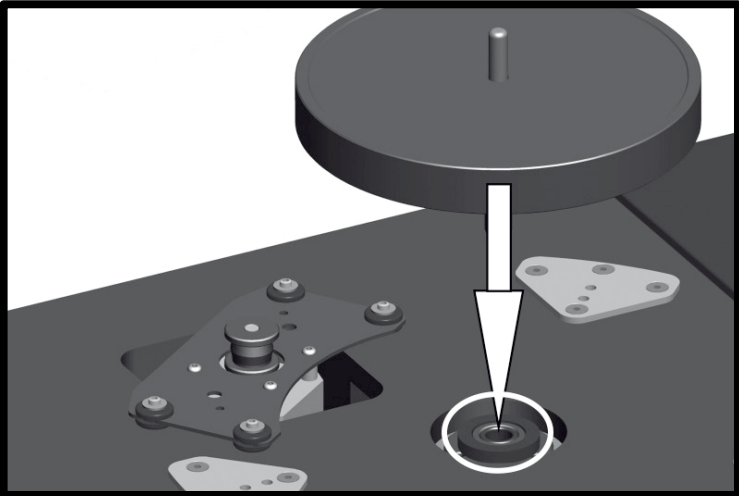
F 1 – Undo and remove the locking screws



3. Set-up and assembly

Your new Perpetuum Ebner turntable is a sub-chassis turntable and is therefore mostly insensitive to external shocks.

F 2 – Assembly of the sub-platter



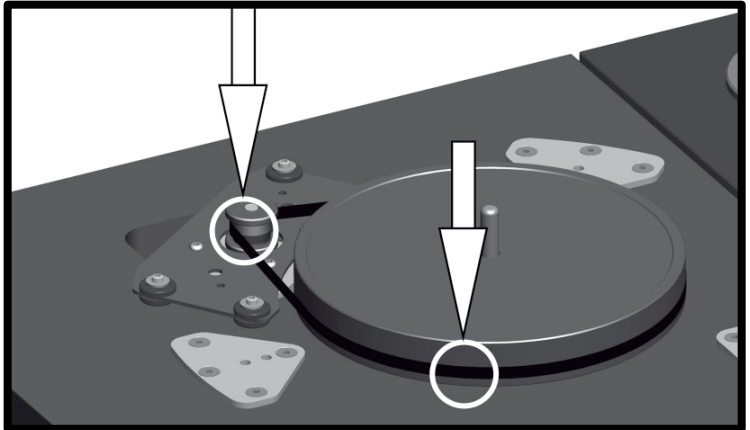
For optimum use of its musical sound qualities you should always place the device on a flat and stable surface. When mounting the device you start with plugging the sub-platter into the bearing bush (see fig. F 2).

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 3).

F 3 – Assembly of the belt drive on the pulley and the sub-platter



Note: If you start the drive of the PE 1010 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

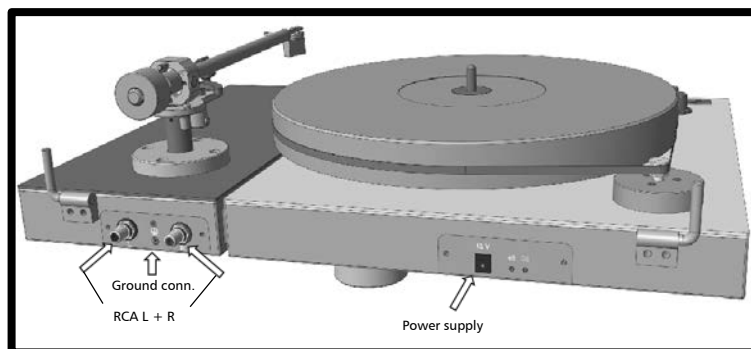
We equip the PE 1010 turntable with power supply connectors.

b.) RCA connection

Your new PE 1010 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 to the ground wire of your amplifier, or phono-pre-amplifier (see fig. F 4).

*F 4 – 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.

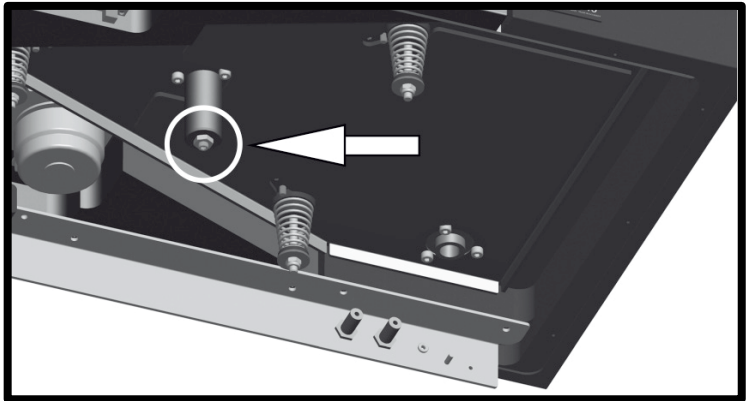
5. Drive settings

The sub-chassis drive and the bearing setting are already set properly at the factory. However, for individual adjustments it is possible to customize the following:

a.) Adjusting the platter bearing

It is possible to adjust the ratio of the platter bearing between the bearing on the steel ball or the magnetic pillow by adjusting the screw M5 on the bottom side of the device by loosening the counter nut. You can individually adjust the distance between the bottom side of the platter and the platter by tightening or loosening the screw. This may be necessary after several years because of the decreasing magnetic effect (see fig. *F 5* – platter bearing).

F 5 – Drive setting – platter bearing

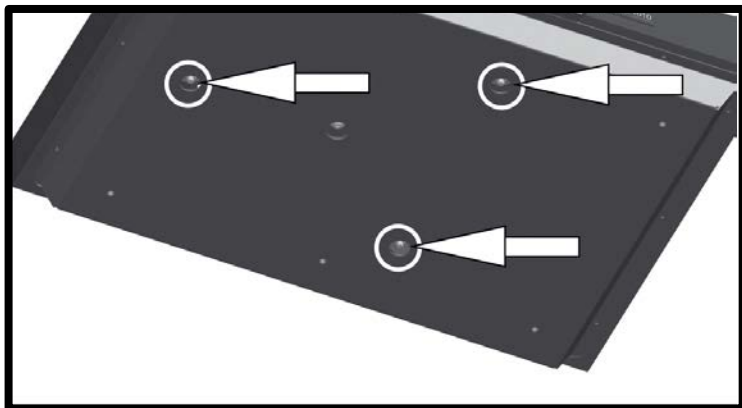


b.) Adjusting the sub-chassis drive

The sub-chassis is already preset in the way that there is a constant distance of approx. 5 mm between the underside of the platter and the underside of the tone arm socket.

This distance has the purpose to allow the sub-chassis to freely oscillate in all directions. The installation of our suspension bolts permits the subchassis to only oscillate vertically in a limited and controlled way (see fig. F 6 with bottom tray).

F 6 – Drive setting – sub-chassis



6. Tone arm and pick-up cartridge

The PE 1010 is delivered with a preinstalled tone arm Perpetuum Ebner TO 2016, as well as with an installed ORTOFON pickup, model 2M.

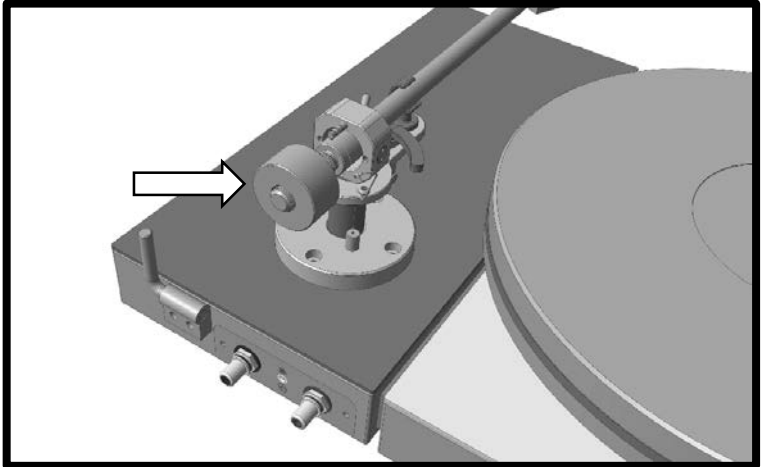
All settings have already been made at the factory. The weights to balance the tone arm have been removed for transport. Further details can be found in the following chapters.

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 7 – Adjusting the tracking force



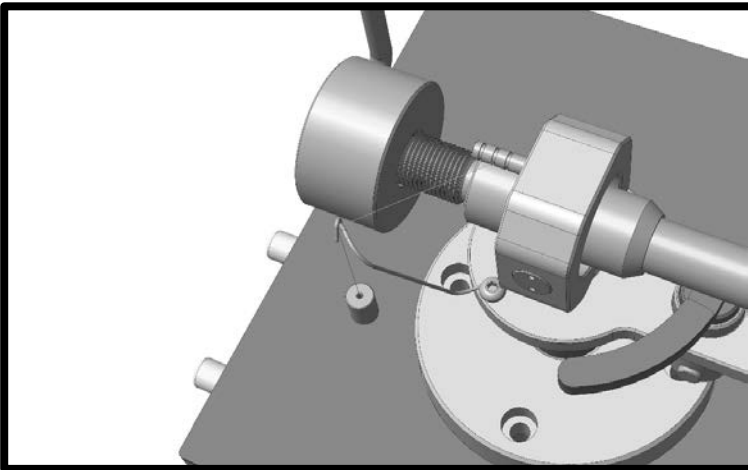
You can optimally adjust the tracking force with the help of a tone arm scale (available in specialist shops). For this, move the tone arm, with lowered tone arm lift, over the platter and carefully lower it so that the stylus rests on the tone arm scale. In doing so, it is absolutely necessary to remove 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 1010, this was realized by a weight hanging on a thread. The thread of the anti-skating force is guided through an eyelet and hung on a pilot pin on the tone-arm. The pin has six grooves for hanging the weight. The farther the weight is hung on the outside, the greater the anti-skating force. The required anti-skating force is

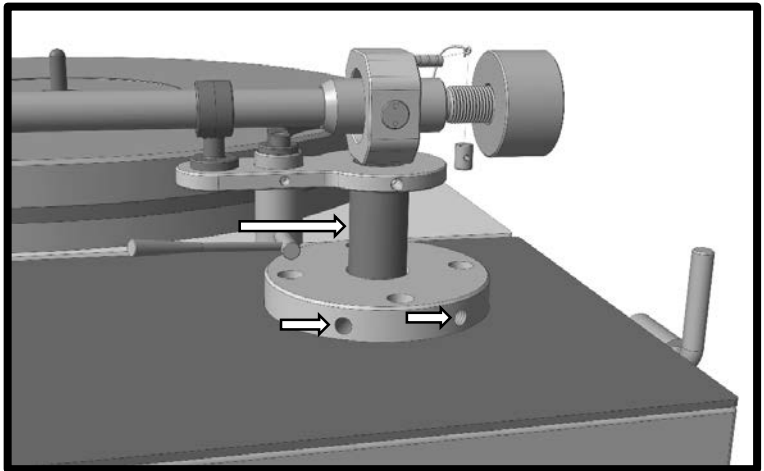
F 8 – Anti-skating



dependent on the pickup used and the tracking force. With the pre-installed Ortofon 2M the thread should be positioned relatively close to the tonearm bearing (see fig. *F 8*).

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).

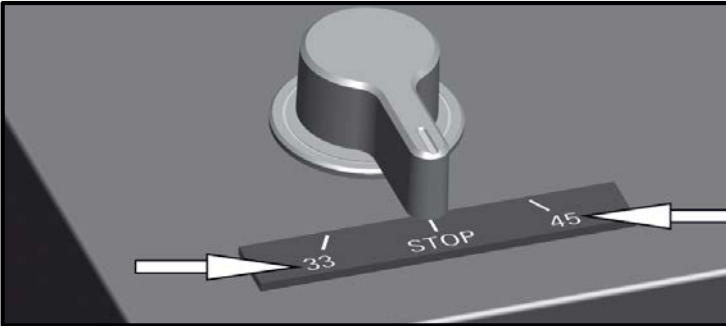
F 9 – Adjusting the tone arm height



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 10 - 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 1010 MKII

(Belt Drive made in Germany)

- Manual sub-chassis turntable with internal belt drive via sub-platter
- Massive, two-part 50mm 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 aluminum platter with damping mat
- 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

Subject to technical modifications



PERPETUUM EBNER

By WE **AUDIO** SYSTEMS

Schrambergerstraße 22
D-78112 St. Georgen im Schwarzwald

www.perpetuum-ebner.de

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