

# Service manual Cantano W/T

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Dear Sound Connoisseur,

Thank you for choosing a Cantano product. This purchase is already a big step towards a perfect listening experience. Its full potential can only be tapped after it has been set up and all components tuned. This means: take your time, adjust everything calmly and cautiously, and read carefully through each individual step in the instructions.

Cantano products are CNC manufactured, in some cases right to the thousandth millimeter. Over-tightening the screws or even minor discrepancies in the adjustment angle can make a world of a difference in the enjoyment of your favorite record.

Should you become overwhelmed, contact your trusted Hi-fi shop or reach us under [support@cantano.berlin](mailto:support@cantano.berlin) if they cannot be of further help to you. We will do our absolute best to offer you support. In case of uncertainties in regards to the instructions, don't hesitate to contact us, as we are always trying to improve ourselves and the "Cantano" experience.

Please note: Each Cantano product is unique and a child of the manufacturer. We have built and assembled its individual parts by hand and have performed the final polishing with love and muscle power. We have also taken care to use natural materials, like solid wood and stone. This can cause discrepancies in the outer appearance, for example in regards to nuances in color or in the structure of the stone and wood.

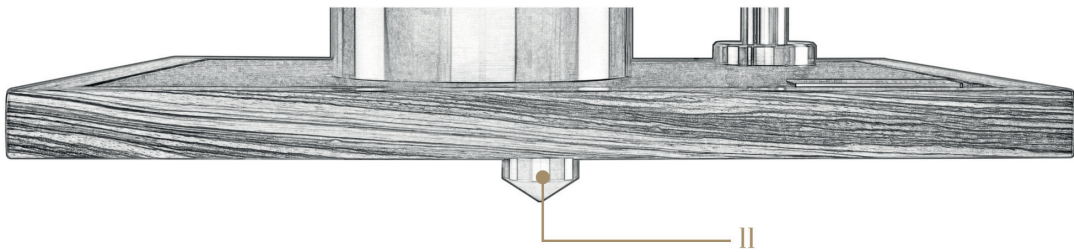
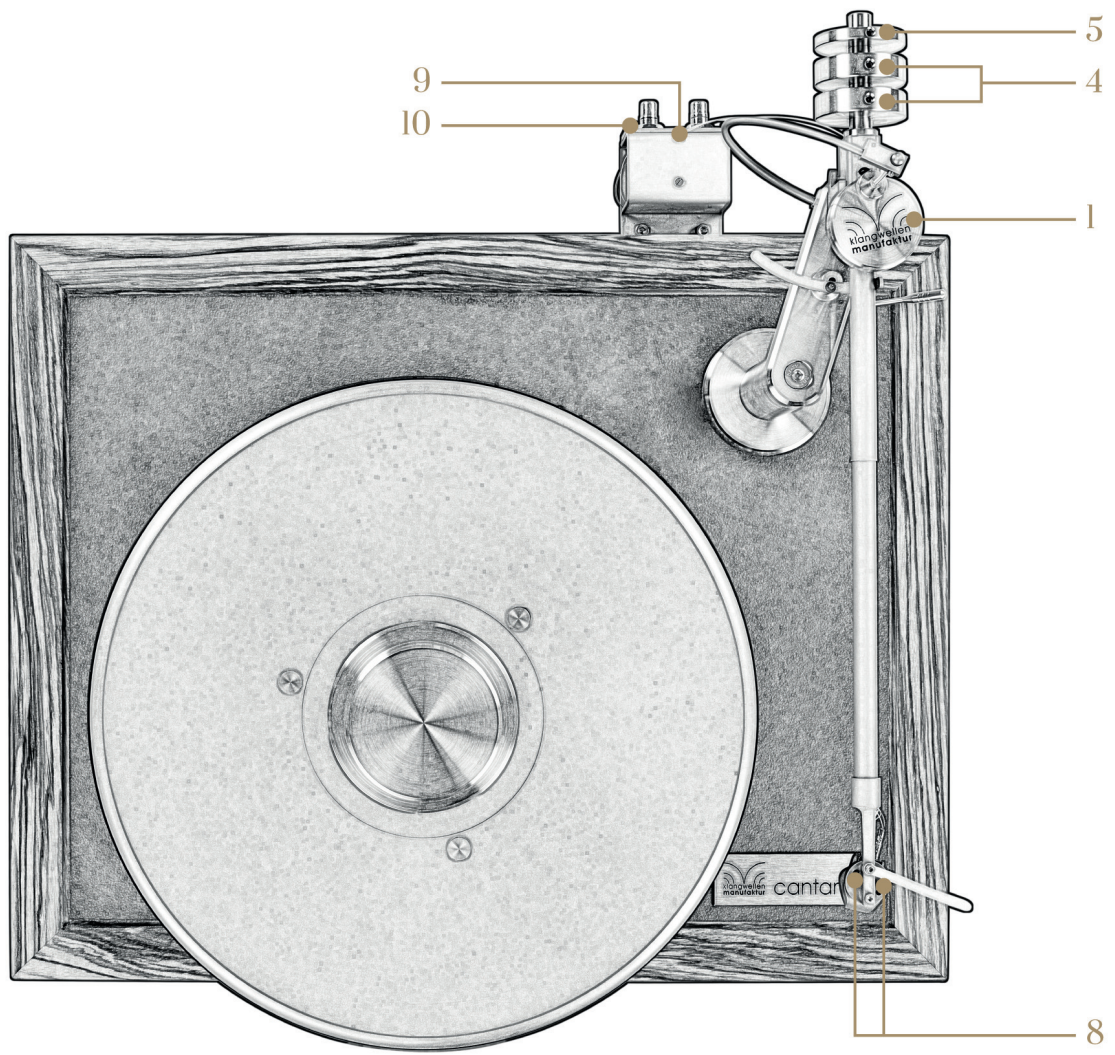
Furthermore, we are continually developing our products. Changes and developments are sometimes too minor to announce a new version. It is thus possible that your Cantano differs slightly from what you have seen on our website or other media.

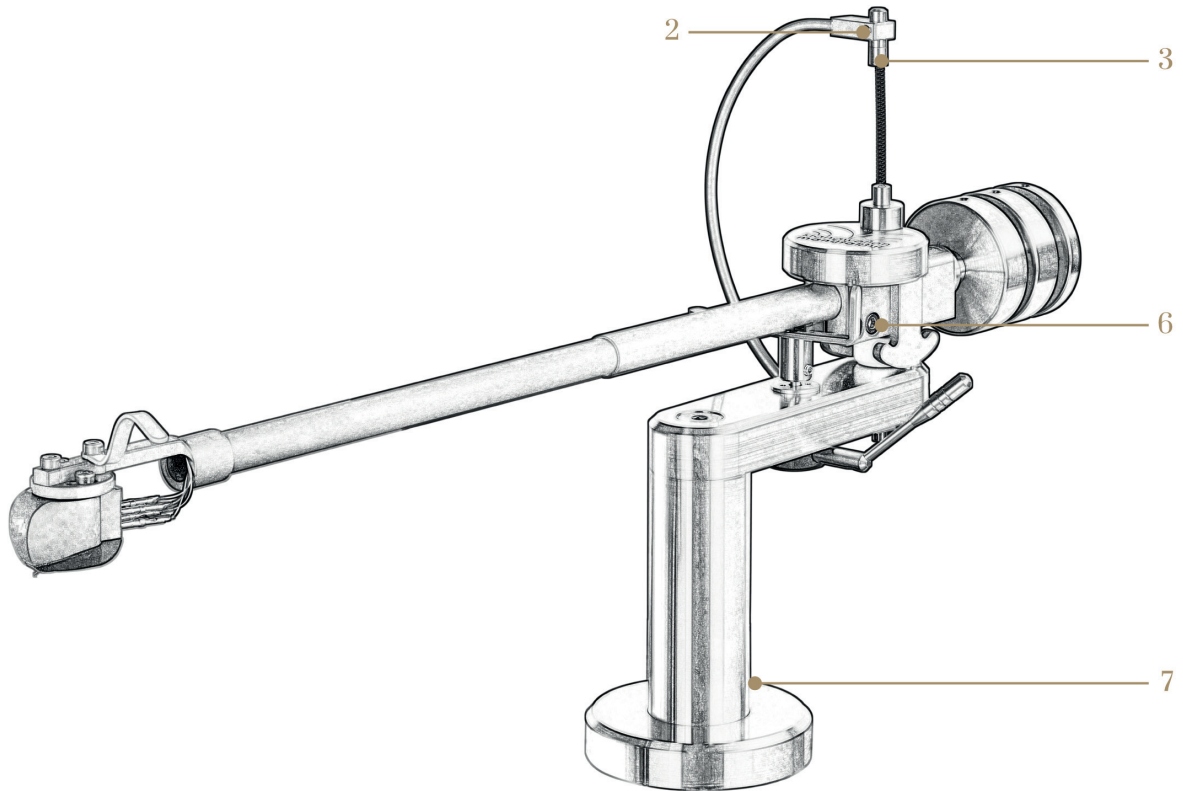
## Here you will see everything that should be included in your Cantano package

- 1x square drive belt
- 1x spacer for the drive motor (if optional reference motor)
- 1x additional load for the turntable
- 1x string drive
- 1x spirit level
- 1x alignment protractor for speed of 33,3 and 45 rpm
- 2x large counterweight for the tonearm
- 2x small counterweight for the tonearm

### Caution - transport securing device (!)

- 1x transport securing device for the turntable (ruby bearing): synthetic plate between the turntable and VA Basis
- 1x rubber cap over the hard metal tip of the tonearm bearing





Key:

1. Tonearm mid-weight
2. Set screw for anti-skating adjustment
3. Spring bar for anti-skating adjustment
4. Large counterweight
5. Small counterweight
6. Double screw for tightening the tonearm
7. Screw for loosening and tightening the tonearm height
8. Screws for attaching the phono cartridge
9. Cable route for tonearm inner wiring
10. Two screws for attaching the jacks
11. Height-adjustable feet, tightened and loosed with setscrews

## Prerequisite: Placement and leveling of the drive

- a) As you might have already noticed when unpacking your Cantano:  
This guy is no lightweight. Therefore, make sure that the base you are putting it on is robust and stable. It must be designed to distribute the weight of the turntable at three contact points. If you are placing it on a piece of furniture, don't forget that it should also be able to accommodate a weight of around 30kg (approx. 66lbs).
- b) Leveling the drive:  
The term leveling is used to describe the even alignment of the turntable. You must adjust it so that it stands perfectly straight on its base. For this purpose you will find a spirit level in your Cantano package. Place it on a graphite plate and adjust the 3 feet (11) until the spirit level is exactly in its center position. Afterwards the feet must be fixed in place, which can be done by tightening the setscrews in the feet.
- c) Positioning the turntable on the stand:  
The stand's ability to decouple the turntable from impact sound or vibration stimulations impacts the influence that disturbances can have on the turntable. The stand must be at least stable and heavy enough, or on a stable enough base, that the tonearm needle will not jump in the groove, even when you are, for example, dancing in front of the turntable.
- d) Wall mount:  
A proper wall mount on stable walls is often the best recommendation for the placement of the turntable.

## Setting up the motor and connecting it to the drive

- a) All Cantano drives are powered by a free-standing motor with belts. This ensures that the clear separation of motor sounds from the drive will occur on its own. We have supplied 2 belts of varying thickness.
- b) The somewhat thicker belt ensures a more secure drive stability and a faster acceleration of the turntable as the motor starts. The connection between the plate and the motor is generally more stable, but also transfers more vibrations from the motor onto the plate.
- c) The thin belt is actually more like a string and is the best alternative for perfect sound. It does, however, take longer for the plate to reach its programmed speed, but will not dampen the sound of your favorite record.
- d) The lower the belt tension, the less lateral forces will affect the turntable. The belt tension must be set up to at least make sure that the rotational speed of the turntable remains constant and doesn't stagger when the position of the motor switches. For this purpose there is an alignment protractor for 33.3 and 45 revolutions per minute.

## First assembly of the tonearm and phono cartridge

### a) Mounting the phono cartridge:

Before you mount the tonearm onto the device, you should attach the phono cartridge of your choice onto the head of the tonearm. You do this by securing both screws onto the head (8). Afterwards we recommend that you quickly secure the safety cap on the phono cartridge before further assembly.

### b) Mounting the tonearm:

Warning: Please make sure to secure the safety cap on your phono cartridge! The tonearm is placed at the height of the armature (bearing bore) on the tonearm axis. The counterweights are adjusted so that the side of the tonearm with the phono cartridge is heavier. The tonearm mid-weight (1) is mounted by being rotated slightly outward. In order to do this, release the hexagon bolt at the mid-weight and turn it slightly outwards. After doing so, fasten the screw again. This positioning of the mid-weight makes it possible to adjust the contact pressure of the arm on the armature and therefore to calibrate the damping of the arm vector. This will equalize vibrations.

### c) Installation of jacks:

The jack plate with connection sockets is to be screwed onto the back of the drive on the right side. The tonearm's inner wiring is guided by the groove (9) onto the jack plate. Note that the cable is made of the most high-quality and finest materials. It must therefore not be bent or pinched in any way. So proceed with the utmost care and with a steady hand.

## Adjusting the stabilizer weight

Use the tonearm scale to make the first adjustment for the right stabilizer weight for the phono cartridge as specified by the manufacturer. You can purchase one at your trusted hi-fi retailer. For a rough alignment, use the wide counterweights (4). You can change the position and with it the active weight by pushing the weights to the back of the tonearm. Once you have found the correct position, secure the weights with the set screws. The narrow counterweight (5) is responsible for fine adjustments. Here, follow the same steps as you did with the rough adjustment. Please note: Always use the weights in the same order as pictured at the beginning of the instructions.

The fine weights are always adjusted on the outer side, while the rough weights are always mounted inside.

## Height adjustment of the tonearm suspension for adjusting the vertical tracking angle

The goal when setting the optimal tonearm suspension level is a perfect horizontal alignment of the tonearm when it is lying on the record. In combination with the adjustment of the phono cartridge, this guarantees optimal guiding onto the grooves of the record. In addition, the vertical tracking angle (VTA) can affect sound playback. To adjust the VTA, you must adjust the height of the tonearm by yourself.

For this purpose, put the spirit level onto the tonearm's middle weight and put the cartridge on a spinning vinyl. Now, check the spirit level to see the longitudinal axis tilt of the tonearm. After that, please secure your cartridge with the safety cap, since you are heading for the tonearm's height adjustment (Stop playing the vinyl, of course). Please hold the tonearm pillar while unscrewing the screw at the back of the tonearm base (7). Now, gently adjust the height of the pillar. Afterwards, tighten the screw again. To check and measure for readjustments, you can now place the spirit level on the tonearm mid-weight for example and play a record. If the optimal height has not yet been reached, start over from the beginning.

Warning: Please remember to fasten the safety cap on your phono cartridge!

## Alignment of the phono cartridge

The phono cartridge must be aligned as precisely as possible using the alignment protractor. The quality of this alignment will determine the sound. Important points of alignment are the offset angle and overhang of the phono cartridge. The goal is to find and approximate the right tracking angle of the diamonds on the grooves of the plate.

### a) Setting the offset angle and the overhang

You adjust the offset angle and the overhang manually. Gently loosen the screws (8) which will secure the phono cartridge. The design of the tonearm's head allows you to now adjust the phono cartridge within the guidance by rotating it in order to set the correct angle. To find the right setting please use a template, like the "Schön" template, e.g.

### b) Second adjustment of the stabilizer weight after aligning the phono cartridge (as indicated by the manufacturer) using the tonearm scale: Use the wide counterweights for rough adjustments, use the narrow balance weight for fine adjustments.

## Setting the azimuth angle (HTA)

### a) Rough preset with mirror

The rough preset of the HTA is performed optically by using a magnifying glass and a mirror. Place the head of the tonearm on a flat mirror, while the latter lies on the turntable. After that, loosen the screws holding the tonearm (6). Now you can turn the tonearm around its axis. After you have reached the correct setting, fasten the tonearm back in place. The needle has to line in one axis with its mirror picture.

### b) Recommended: Use the Dr. Feickert Adjust Software.

An exact adjustment is possible with measurement software (for example, Feickert AdjustPlus). Phase shifts and changes in pedestal levels can only be taken into account this way. The sharper the diamond cut, the more crucial the perfect alignment is for the sound.

## Anti-skating adjustment

The characteristic spring, which extends vertically beyond the tonearm, is used for anti-skating adjustment. To make an adjustment, loosen the set screw (2) that secures the spring pin (3). Now turn the spring slightly counter-clockwise to increase the effect of the anti-skating and afterwards secure the spring pin again. While lowering the cartridge afterwards, the cartridge should be placed inwards with a slight twist.

Note: Everyone has a different taste. We recommend a setting where a very slight twist inwards can be seen when placing the needle on the record.

## Warranty

3 year warranty (except for wearing parts)