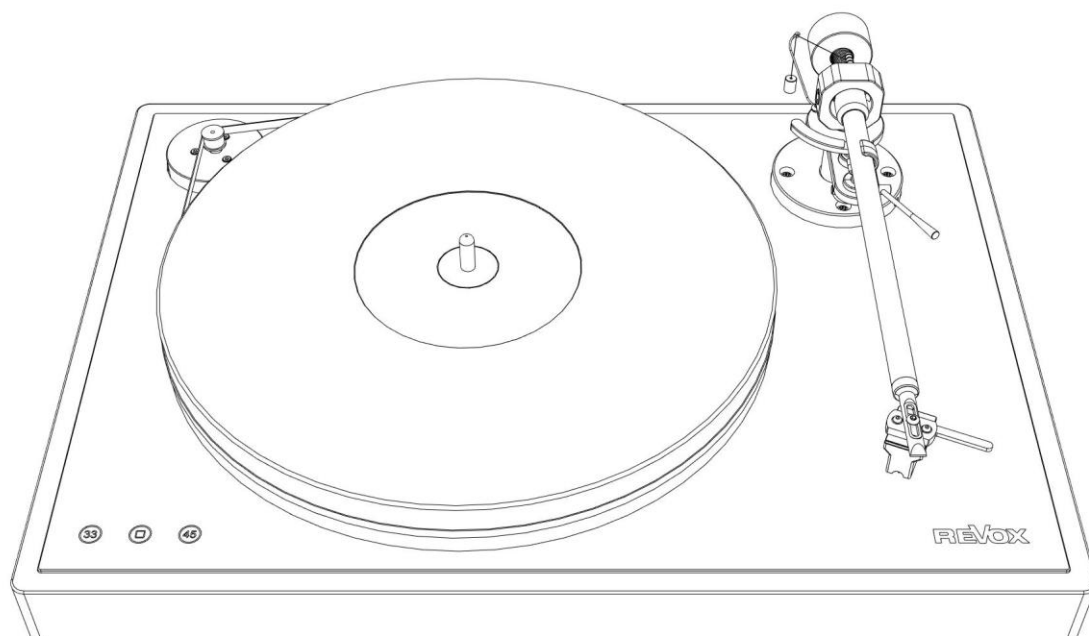


User Manual

STUDIOMASTER T700 Turntable



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Introduction

Congratulations on purchasing your new **STUDIOMASTER T700** turntable and thank you for the trust you have placed in us through the acquisition of this high-quality product.

Before putting your Revox turntable into operation, you should follow the details in these operating instructions so that the sound quality can reach its full potential.

General safety information, disposal of your old device and guarantee provisions can be found in the enclosed leaflet.

Note the signs on the device or its external power supply unit:



To prevent the risk of electric shock, no covers may be removed. Maintenance and repairs may only be carried out by qualified specialists!

Unpacking

We recommend that you keep the packaging material for possible future transport.

Please examine the **STUDIOMASTER T700** turntable and the accessories for completeness and transport damage after unpacking. Before using the device, please read the operating instructions carefully. Keep them as a reference.

A device which shows signs of mechanical damage or into which liquid has penetrated, may not be connected to the mains.

Scope of delivery

- Chassis **STUDIOMASTER T700** turntable with pre-assembled tonearm
- MC cartridge Ortofon Quintet Bronze (pre-assembled and aligned)
- Sub-platter incl. bearing
- Platter
- Acrylic dust cover
- External power supply 12 - 15 VDC / minimum 1A
- Cotton gloves
- Accessory box with anti-skating weight, tonearm counterweight, belt
- Digital tonearm scale *
- Carbon plate brush *
- Circular level *
- Adjusting tool Allen key SW1.5*, SW 2.0 *, SW 3.0 *
- Leaflet for *safety instructions and guarantee conditions*
- Printed operating instructions for the T700 Turntable
- Welcome letter
- Guarantee card

* Included in the accessory box

Please keep the packaging in case the device has to be packed for transport.

Foreword

Analogue music experience

The **STUDIOMASTER T700** turntable is a high-end turntable with innovative technologies. It is made exclusively from materials of the highest quality in Germany and distinguishes itself through its clear, elegant and timeless design. It is top of its class and provides music lovers with an impressive, audiophile music experience. Thanks to the built-in phono preamplifier, the T700 is compatible with all Revox products - such as Joy S119, Joy S120, and also the M series as well as with products from the past (Evolution, Emotion, Exception, B series) and can be easily integrated into a Revox Multiroom and Multiuser System. It is also compatible with other conventional audio products.

Integrated phono preamplifier

A special highlight of the **STUDIOMASTER T700** is the unique, integrated MC phono preamplifier. The integration of the preamplifier enables the best and shortest connection between the pick-up and preamplifier and thus leads to the highest signal quality while preventing interference. For this purpose, the tonearm strand, for instance, is tightly twisted and directly soldered to the input of the preamplifier. In addition, there is a galvanically separated power supply for the phono preamplifier and the motor control, which prevents mutual, negative interference.

Electronic speed control

To ensure the best sound quality, absolute speed accuracy is essential. For this purpose, the T700 has a high-precision, quartz-accurate PLL speed control via a contactless optical sensor. It corrects the deviations (e.g. caused by ambient / temperature fluctuations, aging of belts and bearings, friction during the scanning process) and ensures compliance with the absolute target speed with a tolerance of 0.1%. In addition, the belt drive in, conjunction with a high plate mass and an optimally designed plate bearing, already leads to almost perfect synchronization. The soft start for slow motor start-up guarantees reduced belt wear.

Note on wearing parts

The mechanical and electrical design of the T700 turntable is aimed at providing several years of use and enjoyment of music. Owing to the principle, however, there are two components, namely the pick-up system including the needle and the drive belt, which are subject to a certain amount of wear and tear or aging and should be replaced if necessary. Revox recommends replacing these two components either after 500-800 hours of operation or 4-5 years, whichever comes first.

Assembly and installation

The STUDIOMASTER T700 turntable is a mechanical precision instrument and is therefore dismantled before transport so that the turntable bearings and tonearm bearings are not damaged during transport. Before dismantling, each T700 turntable is completely assembled, the shaft and bearings are aligned with one another and a complete final test is carried out. Acoustic monitoring of the T700 in a hi-fi chain concludes the test.

Note on turntable storage:

Should you, as a dealer or customer, set up several T700 turntables at the same time, the turntable bearings of the individual package units may **not** be interchanged. After the turntable bearings have been leveled in the factory, the bushing and axis match and form a mechanical unit.

Note on gloves



When you open the inner box of the T700 Turntable, you will find a pair of cotton gloves. These are included so that the T700 can be assembled without leaving fingerprints or scuff marks. It is particularly important to use cotton gloves when fitting the drive belt. Under no circumstances should it come into contact with grease or oil, otherwise adhesion to the pulley is no longer sufficient and the rubber belt ages prematurely. Should the belt come into contact with grease / oil, it can be cleaned with alcohol / isopropanol. Only insert it again when the belt is completely dry.

Note on temperature



Before starting with the assembly, the turntable and all of its components should have reached room temperature. This is particularly important for assembling the turntable bearing, since low temperatures lead to different expansion or contraction of the bushing and axle and the correct fit may not be given.

Assembly step 1: Checking the DIP switches

Prior to installation, unless you want to install a different pick-up, you should check the DIP switch position of the integrated phono preamplifier on the underside of the chassis. This is set to factory-assembled *Ortofon Quintet Bronze* MC system with a terminating resistor of **100 Ω** and a gain for **300 μ V** (0.3mV) output voltage. A detailed description of the integrated phono preamplifier can be found in the chapter *Phono preamplifier*.

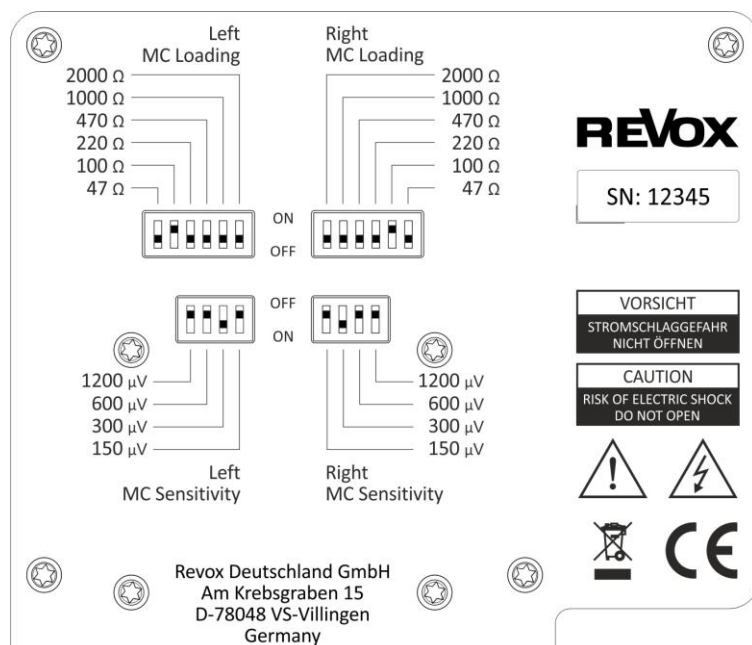


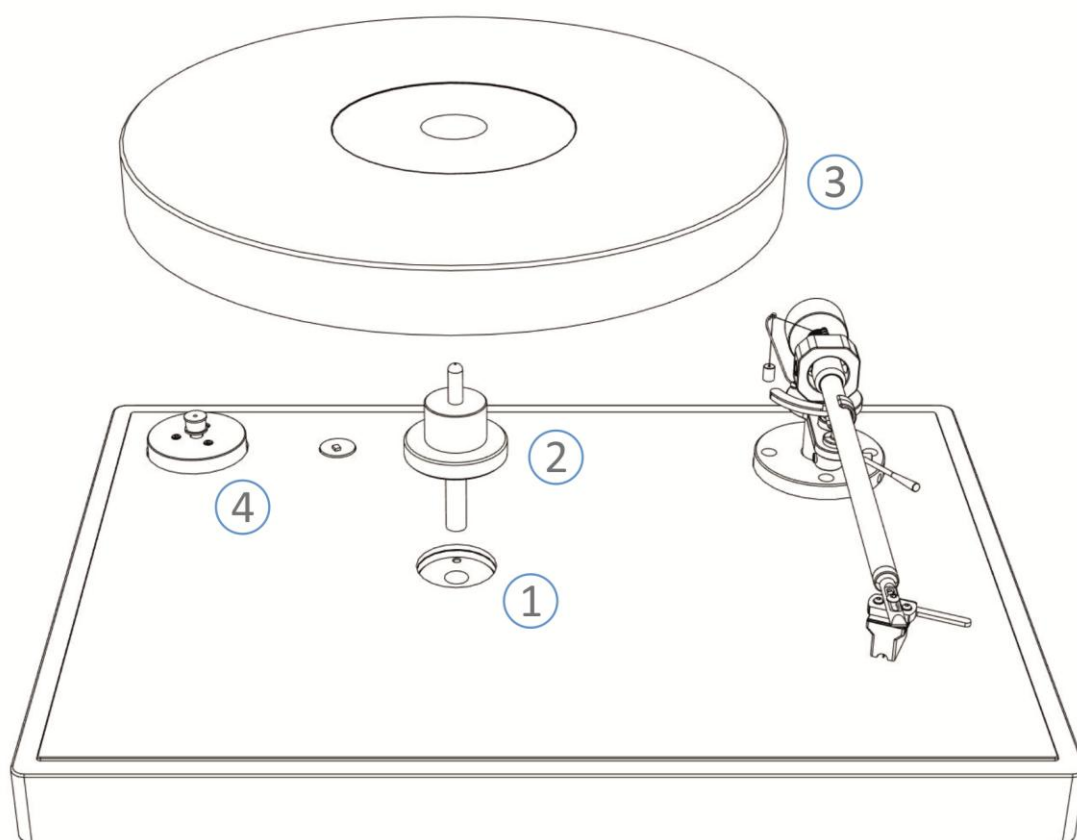
Fig: Factory setting phono preamplifier for *Ortofon Quintet Bronze*

Assembly step 2: Placing sub-platter and platter

In the next step, first remove the plastic cover plug from the platter bearing. Make sure that no sharp-edged objects are used that could damage the soft sintered bronze bearing bush. The plug should be kept in the accessories box for future transport.

Attention: There is a loose, polished steel ball in the bearing bush that can fall out if you now turn the chassis through 180°!

The aluminum sub-platter and the POM platter are provided as a unit in the packaging. Release the sub-platter from the platter by applying slight pressure onto the steel axle. As a precaution, this should be done above a soft cushion so that the sub-platter cannot be damaged if it falls. After loosening, the sub-platter ② with the steel axle can be inserted into the socket ①. Due to the tight fit, the sub-platter or the axle slides very slowly into the bearing. The axle has already been treated with a special oil in the factory before the running-in phase and does not require any further action - not even after years of operation. Now place the black platter ③ onto the sub-platter ②.



Assembly step 3: Fitting the drive belt

You should wear the enclosed gloves to attach the drive belt, so that no grease / oil can get onto the belt. The easiest way to do this is to first place the belt around the large platter ③ with two hands and then encircle the pulley ④ (drive shaft motor) by means of a slight pull. For an even application of the belt, turn the platter a few revolutions by hand until the belt is in the middle of the pulley.



Assembly step 4: Mounting the tonearm weight on the tonearm

For assembly of the counterweight ① it is advisable not to loosen the transport lock, which is attached to the tonearm holder ②.

Take the tonearm weight from the accessories box and place it evenly onto the thread of the tonearm. You can now "screw" the tonearm weight by turning it clockwise by applying slight pressure. The tonearm weight does not have an internal thread, but two inserted silicone rings that contribute to decoupling from the tonearm. A little pressure is therefore necessary until the first silicone ring "grips" the external thread of the tonearm.

Turn the tonearm weight until there is approx. 26 mm distance between the tonearm weight and the tonearm bearing, see figure below. This distance approximately corresponds to a bearing weight of 23 mN (2.3g) when the *Ortofon Quintet Bronze* pick-up is mounted. This is also the recommended tracking force for this system. A precise adjustment is carried out in a second step using the digital tonearm scale included in the scope of delivery.

Now remove the transport lock on the tonearm mount ②.

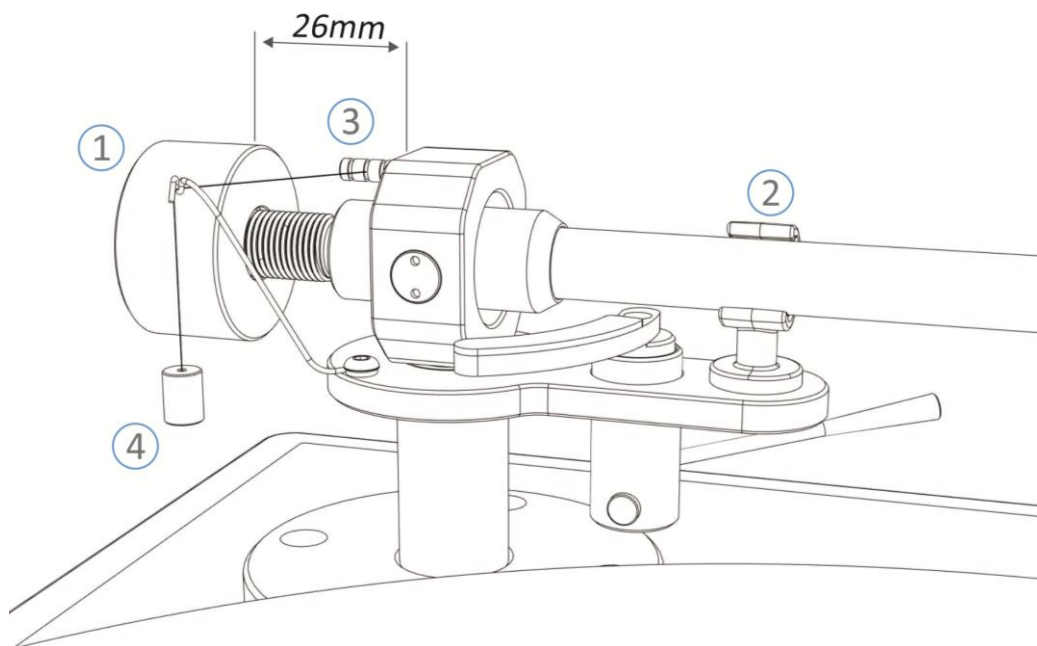


Fig.: Tonearm bearing with tonearm weight and anti-skating weight

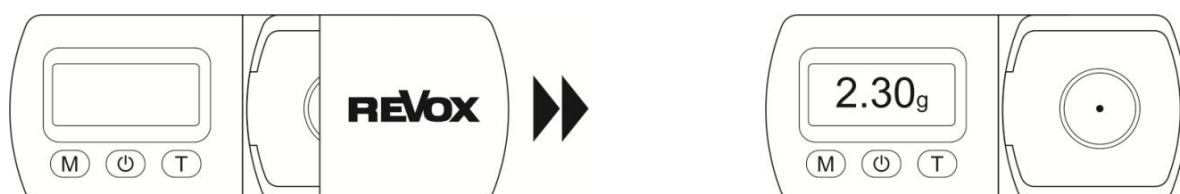
Assembly step 5: Setting the tracking force with the digital scale

In the penultimate step, the recommended tracking force is precisely set with the help of the digital tonearm scale. For the pre-assembled *Ortofon Quintet Bronze* pick-up system, the tracking force should be 23 mN, which corresponds to approximately 2.3g at an altitude of 0-2000 m. For the measurement, pull the protective cover horizontally off the tonearm scale and place the scale on the turntable (**without record** and **without anti-skating weight**).

Now the needle guard of the pick-up is removed. Switch the balance on with the button and lower the needle directly onto the center (marked point) of the balance using the tonearm lift. By means of the displayed value, you can now decide whether the tonearm weight has to be screwed closer to the tonearm bearing (value is less than 2.3g) or whether the tonearm weight has to be turned outwards (value is greater than 2.3g).

The tracking force of 2.3g recommended by Ortofon should serve as a reference value and may be adjusted within a range of ± 0.2 g according to your own preferences. The possible range provided for the tracking force of the *Quintet Bronze* System by Ortofon itself is 2.1 - 2.5 g.

A detailed description of the Revox tonearm scale can be found in the *Tonearm scale chapter* on page 12



Assembly step 6: Attaching the anti-skating weight

As an anti-skating device, the T700 has a weight ④ that generates a counterforce via a small pin ③ on the tonearm bearing. This small weight is located in the accessories box and is attached to the pen with a small thread via a deflection unit. For the 5.0 g anti-skating weight (diameter 9 mm) is recommended to use the middle groove in the pin. If you have the smaller 1.8 g anti-skating weight (diameter 6 mm), the outer groove is recommended.

Note: The determination of the tracking force (assembly step 5) must always be carried out without the anti-skating weight, as otherwise measurement errors may occur. With the help of the tonearm scales you can easily determine the weight of your anti-skating weight.

Assembly Step 7: Connecting T700 turntable

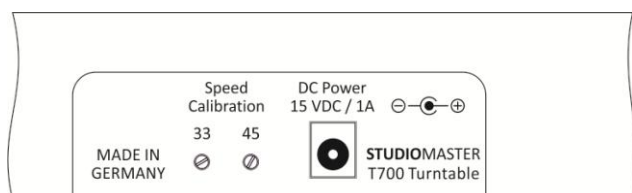
In the last step, connect the T700 turntable to the power supply and the hi-fi amplifier.

Power supply:

On the back of the T700 turntable is the input socket for the external power supply, which is included in the scope of delivery. Insert the barrel connector into the socket labeled **DC Power**. Only the power supply unit supplied by Revox may be used. Third-party power supplies can cause damage and malfunctions that are not covered by the warranty.

Technical data power supply unit:

input	100-240 VAC / 50-60 Hz
output	12 - 15 VDC / minimum 1A

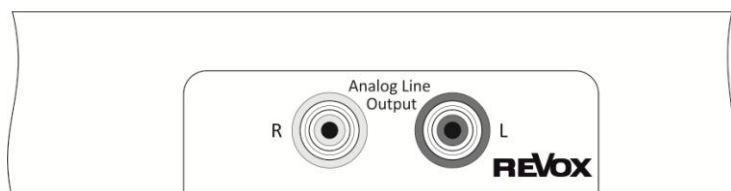


Audio connection:

The T700 has a very high quality MC phono amplifier, which is preconfigured for the *Ortofon Quintet Bronze* pick-up system in the factory. At the output of the cinch sockets **Analog Line Output**, the T700 outputs a stereo audio signal at line level. This means that the T700 can be connected directly to any analog input of an amplifier, receiver or an Audiobar from Revox without the need for a separate phono preamplifier. These inputs are usually identified with the names *Line-IN*, *Analog Input*, *Aux*, *CD*, *Tuner*, *Tape*.

Note: The T700 **must not** be connected to an MC or MM input of an amplifier!

A separate ground line, as is usual with turntables without an integrated phono preamplifier, is not necessary with the **STUDIOMASTER T700**. Thanks to the amplified signal at line level, the risk of interference is no longer as critical as with turntables without a preamplifier. However, for audiophile reasons, Revox recommends using a high quality, well-shielded cinch cable. Specialist stores or retailers can provide good advice on this matter.



Operation

Testing after assembly

Before you put on the first record, you should carry out a test after assembling the T700. Connect the T700 to the mains; the STOP button ③ on the glass surface lights up in red. The tonearm is in its holder and the needle guard underneath the cartridge has been removed.

Now start the turntable at the low speed by touching the button ③③ on the surface. Immediately the turntable begins to turn. As long as the target speed of 33 ½ revolutions per minute has not yet been reached, the lighting under the button ③③ pulsates. Once the target speed is reached, the button lights up continuously.

For the sake of clarity, the button is only labeled with the number 33, but the speed is of course regulated to precisely 33 ½.

In the next step, the higher speed of 45 revolutions per minute can be tested by touching the button ④⑤. Here too, the lighting under the button pulsates until the target speed is reached.

In both cases, the target speed should be reached after 3-6 seconds. If the time is longer, the speed control should be calibrated. This is done on the back of the T700 using the two adjusting screws of the spindle trimmer next to the power supply. You will find a detailed explanation of this in the chapter on *target speed setting* on page 10.

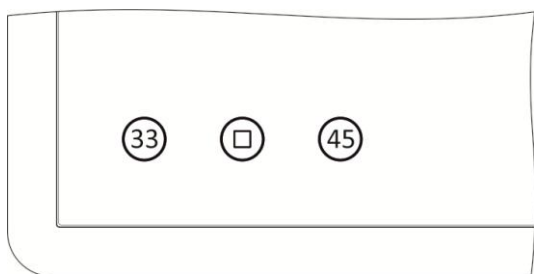


Fig. 1: Touch field with start / stop buttons

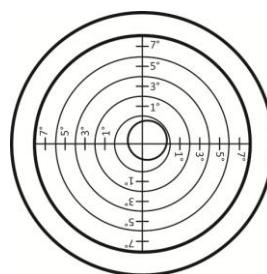


Fig. 2: Circular level

Finally, the horizontal level of the installation location for the T700 can be checked with the aid of the circular level included in the scope of delivery. The circular level (Fig. 2) is located in the accessories box and is simply placed on the surface that is to be tested. The air bubble should remain within range of the 1 ° mark.

Playing a record

After this test, you can now put on a record. Please note the specified speed for which the record was pressed. As a rule, long-playing records with a diameter of 30 cm require a speed of 33 ½ revolutions per minute, the smaller single records, with a diameter of 7 inches (17.5 cm), require a speed of 45 revolutions per minute. The speed is often also referred to as the playback speed. For some small 7 inch records you need a single adapter / puck (not included) that reduces the large inner diameter of a single from 38.1 mm to 7 mm on the regular mandrel in the middle of the turntable. Alternatively, you also get plastic clips that are clipped in and remain permanently attached to the single.

- ① A single adapter can be safely stored in the accessory box in the compartment of the circular level.
- ① An incorrectly selected speed does not cause any damage, neither to the needle nor to the recorder, it is only manifested in a wrong pitch; keyword "Mickey Mouse effect"

Note on the turntable platter

The turntable of the T700 is made of POM, a type of plastic which has a very low resonance and can be specifically used without the turntable support. If you are still a fan of turntable support, you can of course use one. For this you should note that the height setting of the tonearm may then have to be adjusted to the higher position of the record.

How this is done is described in the chapter *Adjusting the tone arm height* on page 11.

Cleaning the record

Before starting playback, the record should first be cleaned with the turntable brush. Dust on the record leads to crackling noises during playback and can settle on the sensitive needle.

A turntable brush with carbon fibers is included with the T700 and is located in the accessories box. Place the brush vertically on the rotating record, the brush pointing towards the center of the record, similar to the second hand on a clock. The brush remains on the record for a few seconds and is then slowly pulled outwards. If necessary, repeat this process until no more dust particles are visible on the record.

To clean the brush, the carbon fiber comb is simply swiveled over the bar in the brush frame. Compressed air from the can (photo accessories) helps with thorough cleaning of the brush.

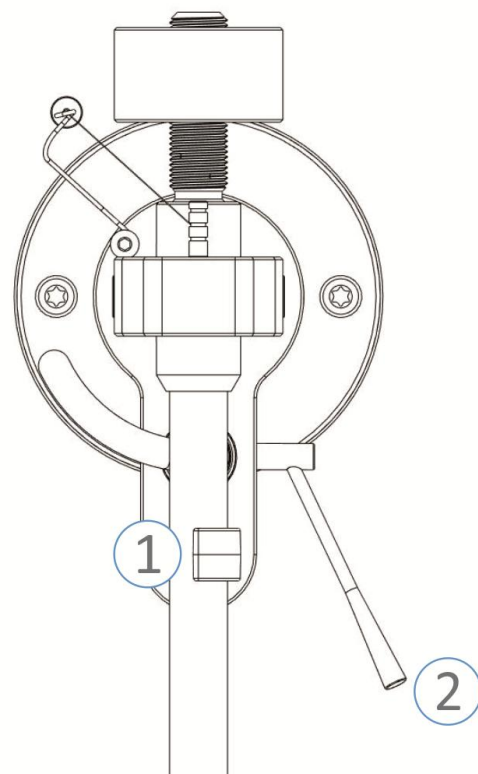
Attention: Please do not use compressor air, it contains fine oil components. The carbon fibers should not be touched, in order to prevent a greasy film that causes them to stick to each other.

Starting playback.

If the record is rotating at the correct speed, check whether the tonearm lift is in the upper position. To do this, swivel the lift lever ② from the lower position (Fig. left) to the upper position. The lift slides up to just below the tonearm. Now you grasp the system carrier (also known as the headshell) and pull the tonearm out of the tonearm holder ① to the left, over the lead-in groove of the record. The lead-in groove is on the outside diameter. With the lift lever ② you lower the tonearm and the music begins to play.

Stopping playback

The T700 does not have an automatic limit switch. When the record is finished, the needle remains in the groove and the record player continues to turn until the stop button ⏏ is pressed. When the turntable is at rest, you raise the tonearm again with the lift lever and then manually guide it back into the tonearm holder ①. The tonearm lift may remain in the upper position, because if it is correctly adjusted, it does not exert any pressure on the tonearm when it is in the holder.



Caution

If there is no record playback, the tonearm should always be "parked" in its holder. A needle that remains in the groove for days or weeks can damage the needle bearing and thus reduce the tracking ability.

① The lead-out groove is near the center of the record

Basic settings and maintenance

Liability

The correct setting of the mechanical components of a T700 turntable requires experience and know-how. Revox cannot accept any liability for damage caused by personal handling. If in doubt, please always contact your specialist store or retailer!

Phono preamplifier

The integrated phono preamplifier is designed for MC (Moving Coil) cartridges. For these systems it can be adapted very precisely to the sensitivity (gain) as well as to the recommended terminating resistor. Revox only uses gas-tight DIP switches for configuration, which can be set with the help of a small miniature screwdriver. Other switch systems, such as toggle switches or relays, unlike DIP switches, cannot guarantee the required contact reliability for years. The braid of the tonearm is directly soldered to the input of the phono preamplifier by hand. This ensures that the audio signal, which is sensitive to interference, reaches the phono preamplifier via the shortest possible route.

The phono preamplifier is located on the underside of the T700 in the area of the two cinch sockets. To set the DIP switches, the turntable including the sub-platter should be removed for safety reasons when the T700 is placed on its side. The tonearm should be in the tonearm mount.

Important All DIP switches must always be laterally reversed with the same values. Only in so doing can the left and right audio channels behave identically.

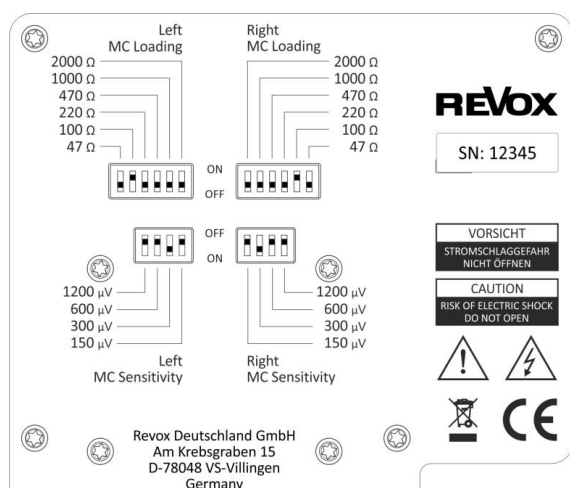


Fig. 1: Integrated phono preamplifier on the T700 underside

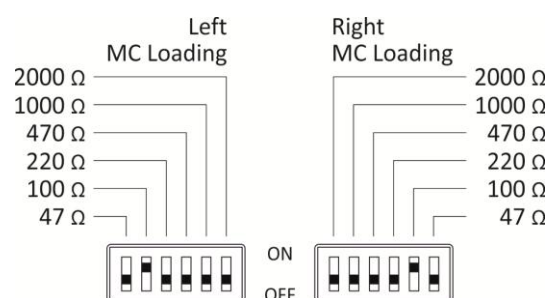


Fig. 2: Factory setting of terminating resistor

Terminating resistor (MC Loading)

The two 6-pin DIP switches can be used to adapt the terminating resistor to the pick-up in the range of 47 - 2000 Ω. A selection of 6 completely low-noise Susumu resistors are available, which can be used individually or simultaneously. If only a single resistor is selected with the DIP switch, i.e. the DIP switch is in the **ON** position, the printed value is the terminating resistor. In the case of the *Ortofon Quintet Bronze* pick-up system, Revox decided on a value of 100 Ω - see Figure 2. Intermediate values can also be implemented by connecting 2 or more DIP switches at the same time.

The general formula for this is:

$$\frac{1}{R_{\text{total}}} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} + \dots$$

For two DIP switches the formula is:

$$R_{\text{total}} = \frac{R_1 \cdot R_2}{R_1 + R_2}$$

Example: DIP switches 100 Ω and 470 Ω are in the **ON** position, resulting in a terminating resistance of approx. 82 Ω

$$R_{\text{total}} = \frac{470 \cdot 100}{470 + 100}$$

$$R_{\text{total}} = 82,5 \, \Omega$$

The smallest terminating resistance is achieved when all 6 DIP switches are in the ON position. This results in a value of approx. 25 Ω. The highest terminating resistance of 2000 Ω is available if only DIP switch 2000 Ω is in the ON position.

Sensitivity (MC Sensitivity)

The phono amplifier can be adapted to different sensitivities of MC systems. There are 4 levels for output voltages of 150 μV , 300 μV , 600 μV and 1200 μV to choose from. The gain of the phono preamplifier and thus the output voltage of the audio signal are set via the sensitivity. The equalization takes place according to the RIAA characteristic (**R**ecording **I**ndustry **A**ssociation of **A**merica).

Attention: DIP switch

Contrary to the selection of terminating resistors, **only 1** DIP switch may be in the **ON** position when setting the sensitivity. A mixture of different sensitivities is not permitted.

The phono preamplifier is set to the *Ortofon system Quintet Bronze* in the factory,
which provides an output voltage of 300 μV (0.3 mV at 1000 Hz, 5 cm / sec.)
- see figure on the right.

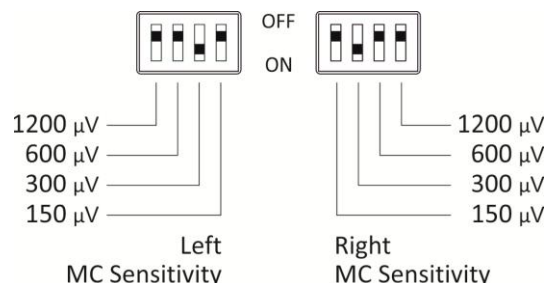


Fig.: Factory setting for sensitivity

Target speed setting

The tonearm of the **STUDIOMASTER T700** turntable is set in the factory to the pre-assembled *Ortofon Quintet Bronze* pick-up system. This includes the parallel alignment of the tonearm to the turntable, the setting to the two angle-neutral fixed points and the azimuth alignment of the pick-up. Furthermore, the PLL circuit, which is implemented via optical scanning below the turntable, is set to the target speeds of 33 $\frac{1}{2}$ and 45.

Over the years, it may be necessary to readjust the target speed due to wear and tear and aging. This can be seen if it takes more than approx. 3 -6 seconds to reach the target speed after starting. The calibration is carried out separately for each of the two target speeds. All you need for calibration is a miniature / watchmaker's screwdriver that is 2.5mm wide. The setting is carried out on the back of the T700 in the **Speed Calibration** area.

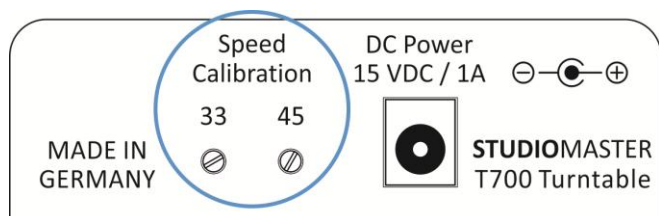


Fig. 1: Rear of T700 with speed controller 33 or 45

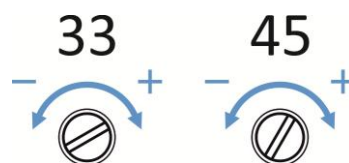
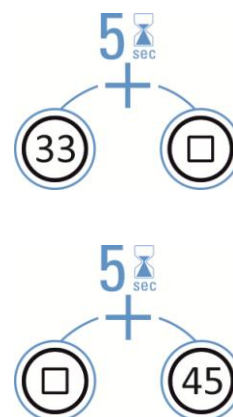


Fig. 2: Change of speed

Calibration of target speed

Start the calibration procedure for 33 $\frac{1}{2}$ revolutions per minute by pressing down on the two touch buttons (33) and (⊕) at the same time for about 5 seconds. The two buttons will now start pulsating. Now take the miniature screwdriver and turn the spindle trimmer on the back of the T700 in one direction and watch the pulsating button for a moment. The result is only achieved after 2-4 seconds! If the button pulsates faster, you have moved further away from the target speed and have to turn in the other direction. The minimum deviation from the target speed is reached when the button lights up continuously. You can now conclude the calibration by pressing the stop button (⊖).

In the second step, proceed in the same way with the target speed of 45 revolutions per minute by pressing down on the two touch buttons (45) and (⊕) at the same time for approx. 5 seconds.



Replacing the pick-up

The pick-up system should be exchanged after 500-800 hours of operation. If an *Ortofon Quintet Bronze* is used once again as a replacement, the alteration is very easy. The needle guard should be put on for removal. First, the 4 connecting wires are removed from the cartridge using tweezers. Then the two screws ① in the system carrier are loosened with the included Allen key SW 2.0 until the pick-up can be removed. To assemble the new system, proceed in reverse order.

For a system change with different mechanical dimensions, readjustment of zero crossing, tonearm height, anti-skating and tracking force is necessary. With the screw ② (Torx TX10 or Allen key SW 2.0) the pick-up can be set to the correct zero crossing. A tonearm adjustment template is required for this, e.g. from Schön, Ortofon or similar.

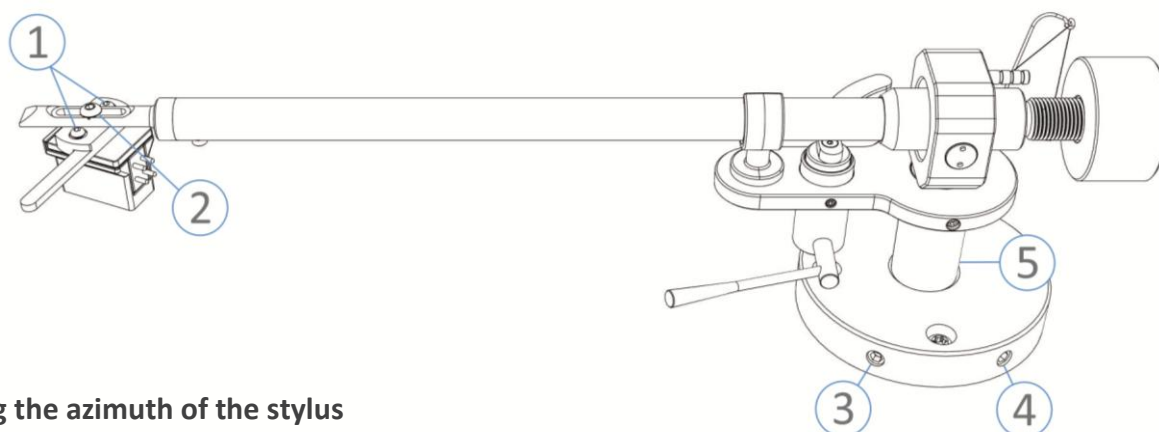
Adjusting the height of the tonearm

The height of the tonearm of the T700 can be adjusted. This can be necessary if e.g. a different cartridge is installed or when a turntable support is used.

In the delivery condition, the tonearm is already correctly set to the *Ortofon Quintet Bronze* and does not require any adjustment. Provided that the record is placed directly on the black turntable **without** the turntable support.

The height of the tonearm is changed by loosening the two hexagon socket screws ③ and ④ on the tonearm base and by changing the height of the tonearm tube ⑤ vertically. A 3.0 wrench is required for the two Allen screws. You can find this as an accessory in the accessories box; it is the largest of the Allen keys.

A correct height is reached when the tonearm is parallel to the record when it is lowered. With two small blocks, e.g. with Lego or Fischertechnik building blocks which are placed on an old record below the tonearm, you can quickly and easily determine the parallelism. The further the blocks are placed from one another, the more precisely one is able to recognize a non-parallel alignment. After the correct tonearm height has been determined, the two Allen screws SW3.0 are tightened again with light force.



Setting the azimuth of the stylus

The azimuth describes the angle that is formed by the stylus of the pick-up system and the record when viewed from the front. It should be exactly 90 degrees to the groove / record. When the T700 is shipped, the azimuth is already correctly set to 90 °. The azimuth is set by turning the system support (headshell) in the tonearm tube. To do this, the small cylinder screw ⑥ must be loosened using an Allen key SW 1.5 - see figure below



The azimuth is set correctly when the pick-up system / stylus is exactly perpendicular to the turntable surface. With the *Ortofon Quintet Bronze* pick-up system, the azimuth can be very accurately determined with the help of a small make-up mirror that is placed under the pick-up. Viewed from the front, every small difference / misalignment in the horizontal plane can then be clearly identified. Carefully tighten the small screw ⑥ again by hand after the adjustment process.

Tonearm scale

Revox delivers the T700 with a digital tonearm scale in the accessory box for precise determination of the tracking force. This allows you to set the tracking force recommended by the manufacturer of the cartridge to an accuracy of 0.01 g. A test weight of 5.0 g is included in the accessories box for checking the measurement accuracy.

The scale plate is very sensitive and therefore has a protective cover that can be pulled off to the right. The protective cover should be used when the balance is not in use.

The tonearm scale has 3 buttons with the following functions:

(M) Measurement

Switching between different units of measurement.

(P) Power

Switches the tonearm scale on and off. There is an automatic switch-off function after approx. 120 seconds.

(T) Tare

This key can be used to perform a zero adjustment. To do this, the scales must be placed on a flat, horizontal surface. If the tare key is pressed and held, the currently measured weight is classified as a value of **0**. After resetting the supplied test weight, the tonearm scale should show a value of 4.98 - 5.02 g.



Fig.: Remove protective cover from tonearm scale

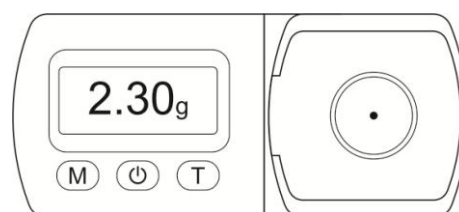


Fig.: Tonearm scale open

Calibration

A calibration should only be carried out if there are problems with determining the tracking force or the enclosed test weight of 5.00 g is not displayed correctly.

Procedure: Switch on the scale with the power button **(P)** and wait until the scale shows 0.00 g. Now press and hold the power button **(P)** until the display shows **- 0 -**. Wait until the displays **flash** the required test weight of **5.00 g**. Now place the enclosed 5 g test weight on the scale. The display now shows 5.00 g **continuously** and ends the calibration process with the display **PASS**. If you now remove the test weight, 0.00g appears. The calibration is complete.

Technical data

Measuring range: 0 - 5.00 g

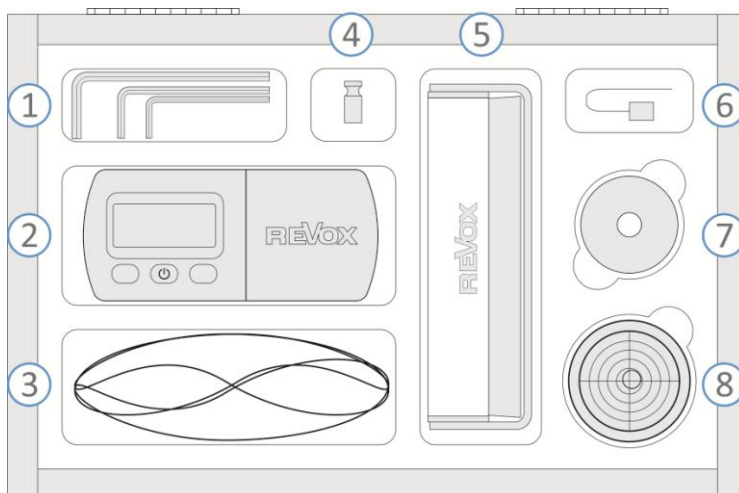
Units: grams [g], Ozen [OZ], Gran [GN], carat [Ct], Tael [TL], Ounce [ozt]

Batteries: 2 lithium batteries with 1.5 V, e.g. LR43, AG12, 186

Accessories

The scope of delivery of the **STUDIOMASTER T700** includes a high-quality accessories box in which both the sensitive turntable components such as the tonearm weight as well as the adjustment and care products for playing records are kept.

- 1) hexagon socket wrench 1.5 mm (e.g. azimuth)
hexagon socket wrench 2.0 mm (system change)
hexagon socket wrench 3.0 mm (tonearm height)
- 2) tonearm scale
- 3) drive belt
- 4) control weight for tonearm scale [5g]
- 5) record brush
- 6) anti-skating weight T700
- 7) tonearm weight T700
- 8) circular level



Technical Data T700

MC Phono Preamp

Frequency response:	7 Hz ... 80 kHz (-3dB)
Signal-to-noise ratio:	- 69 dB (20 Hz ... 20 kHz)
Distortion:	0.005 %
Channel deviation:	0.2 dB
Channel separation:	greater 80 dB
Subsonic filter:	10 Hz with high-pass 1. order (6 dB filter)
RIAA accuracy:	± 0.2 %
Impedance matching:	6 steps: 47 Ω, 100 Ω* , 220 Ω, 470 Ω, 1 kΩ, 2 kΩ (Intermediate values possible through parallel connection)
Input sensitivity:	4 steps: 150 µV, 300 µV* , 600 µV, 1200 µV

* Preset factory values for the MC system *Ortofon Quintet Bronze*

Tonearm

Tonearm with cardan bearing	
Material tonearm tube:	carbon
Effective length:	237.6 mm (9,35 inch)
Overhang:	15 mm (variable)
Crank angle:	23.96° (fixed)
Dynamic mass:	11 g

Pick-up

Model:	Ortofon Quintet Bronze MC Q 20
Output voltage:	0.3 mV (1000 Hz, 5 m/s)
Frequency range:	20 – 25000 Hz (- 3 dB)
Channel deviation:	< 1.0 dB
Channel separation:	> 23 dB (1 kHz)
Channel separation:	> 15 dB (15 kHz)
Tracking ability	80 µm (at racking force 2.3 g/ 315 Hz)
Compliance:	15 µm/ mN
Stylus type	Nude Fine Line
Stylus tip radius:	r/R 8/40 µm
Tracking force range:	21 – 25 mN (2.1 – 2.5 g)
Tracking force, recom. :	23 mN (2.3g)
Tracking angle:	20 degrees
Internal impedance:	5 Ohms (DC)
Cartridge weight:	9 g

Drive

Speed:	33⅓ / 45 revolutions per minute
Synchronization:	< 0.1%
Connections:	Line-Out analogue (cinch stereo) DC socket
Dimensions:	470 x 337 x 156 mm (WxDxH) without sockets
Overhang (backside):	16 mm (hinge, RCA sockets)
Power:	0.2 W (standby after 30 sec.) 2.7 W (33⅓ or 45 U/min)
Mains voltage:	100 - 240 VAC / 50-60 Hz
Supply voltage T700:	12 - 15 VDC = / min. 1 A
Weight:	10.3 kg in total 2.85 kg turntable POM (polyoxymethylene) 0.21 kg sub-platter aluminum 5,0 g (anti-skating weight Ø 9 mm) 1,8 g (anti-skating weight Ø 6 mm) - alternative

Subject to errors and technical changes.

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