

SIGNATURE 12.2

Dear Music Lover,

Congratulations and thank you for choosing a Pro-Ject Audio Systems record player.

Your Signature 12.2 turntable has been handcrafted and rigorously tested by skilled technicians to give you years of enjoyable and trouble-free service.

Please contact your dealer if you require additional assistance.

Important:

Your turntable was shipped partially disassembled in order to avoid damage to sensitive parts. Please check immediately to make sure that neither the packaging nor the device was damaged in transit. If you are missing parts or if the unit is damaged, please do not operate and contact your dealer.

Contents

Product illustrations	4-5
<u>Setup</u>	
1. Transport screws	6
2. Main platter installation	6-7
3. Idler pulley assembly	7
4. Drive belt installation	8
5. Tonearm assembly	8
a) Detachable tonearm	8
b) Tonearm output connector	9
c) Horizontal movement locking screw	10
d) Headshell	11
e) Cartridge installation	11-12
f) Counterweight assembly / Vertical Tracking Force setting (VTF)	12-13
g) Anti-skating assembly and adjustment	14-15
6. Vertical tracking angle setting (VTA)	15-16
7. Azimuth adjustments	16-17
8. Levelling the turntable	17
9. Speed control	18
10. Connecting the power supply	18
11. Connection to the amplifier	18
12. Maintenance and cleaning	18
Technical parameters	19
Troubleshooting, warranty, service	20
Declaration of Conformity	21
Exploded view of the packaging	22

Please do your part to help protect the environment:

Disposal of packaging material:

Pro-Ject packaging is carefully designed to protect your components from damage in transit and you are strongly urged to keep the original packaging in order to safely ship or otherwise transport your turntable in the future.

However, the packaging materials were chosen to be environmentally friendly, so if you must discard the packaging, please recycle.

GENERAL INFORMATION

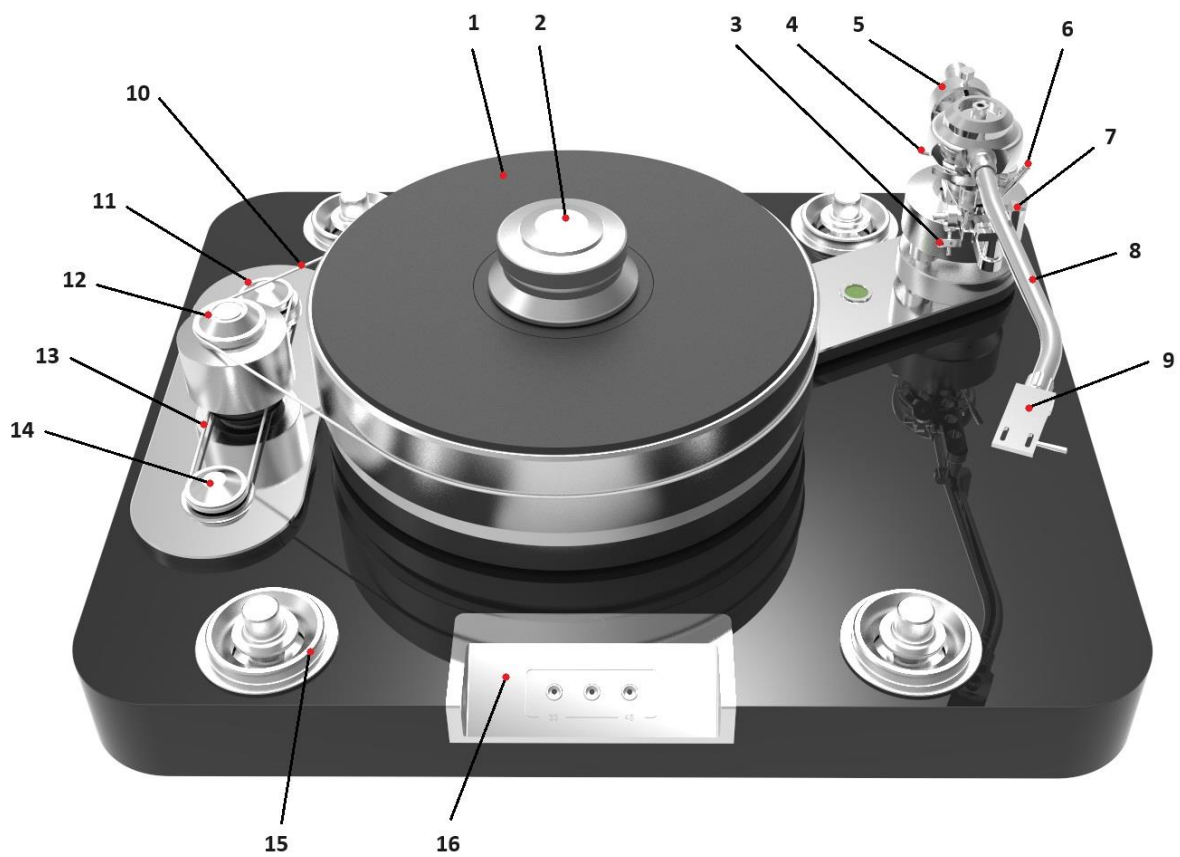
Controls, features, and connections

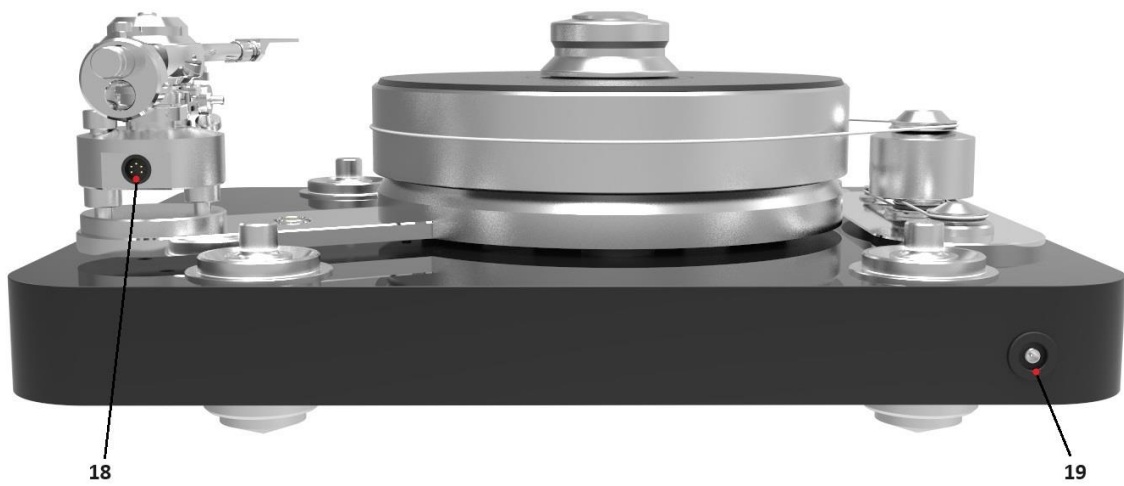
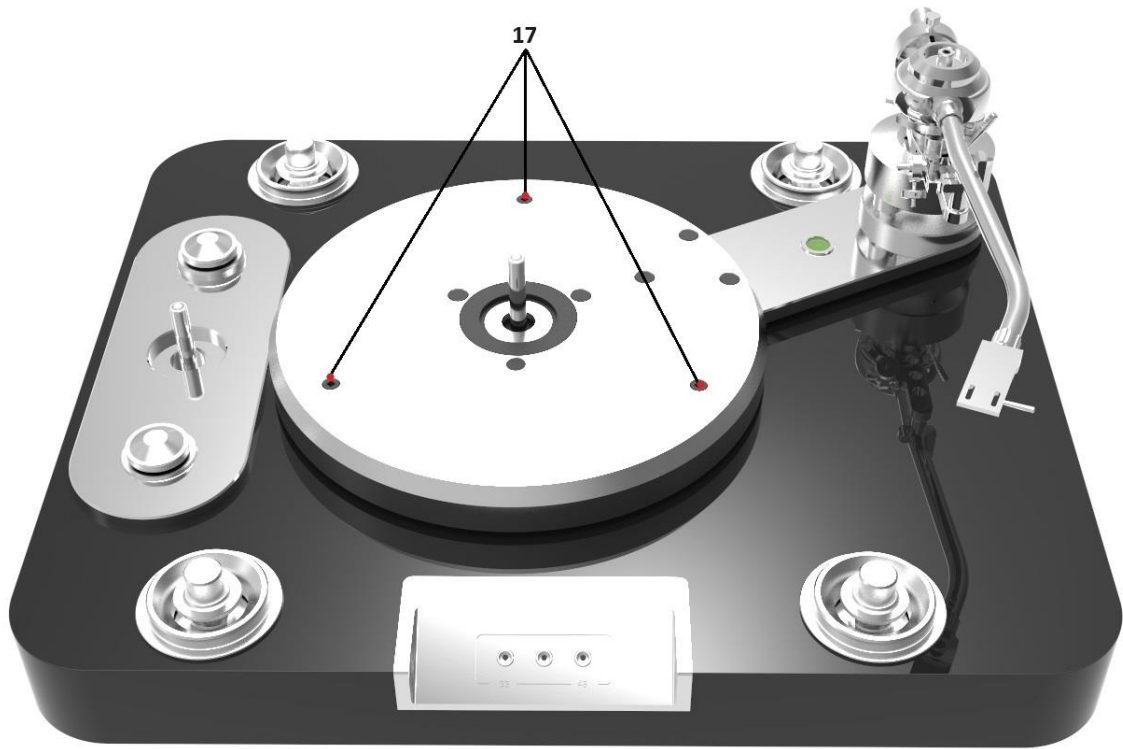
- 1 PLATTER WITH VINYL MAT
- 2 RECORD PUCK
- 3 ANTI-SKATING MECHANISM WITH THREAD
- 4 ANTI-SKATING HOOK SCREW
- 5 TONEARM COUNTERWEIGHT
- 6 TONEARM LIFT LEVER
- 7 TONEARM REST
- 8 TONEARM TUBE
- 9 HEADSHELL
- 10 MAIN PLATTER DRIVE BELT
- 11 REAR MOTOR
- 12 IDLER PULLEY
- 13 IDLER PULLEY DRIVE BELTS
- 14 FRONT MOTOR
- 15 HEIGHT ADJUSTABLE, SPRING-LOADED FEET
- 16 SPEED CONTROL PANEL
- 17 TRANSPORT SCREWS
- 18 5-POLE DIN OUTPUT SOCKET
- 19 POWER SUPPLY SOCKET

Accessories

- a SINGLE ADAPTOR
- b ALLEN KEY 1.5mm (AZIMUTH SETTING)
- c ALLEN KEY 2mm (CARTRIDGE SETTING, VTA LOCKING SCREW)
- d ALLEN KEY 3mm
- e COUNTERWEIGHT
- f COUNTERWEIGHT INSERT 30mm
- g COUNTERWEIGHT INSERT 45mm
- h CARTRIDGE ALIGNMENT TOOL PRO-JECT ALIGN IT
- i WHITE COTTON GLOVES
- j CLOTH
- k CONNECTION CABLE (5P DIN to RCA)
- l RECORD PUCK
- m UNIVERSAL POWER SUPPLY

- n WHITE COTTON GLOVES
- o 2pcs OF SPARE ANTI-SKATING THREAD
- p SPIRIT LEVEL PRO-JECT LEVEL IT
- q ELECTRONIC STYLUS BALANCE PRO-JECT MEASURE IT S2
- r UNIVERSAL POWER SUPPLY
- s INSTRUCTION FOR USE





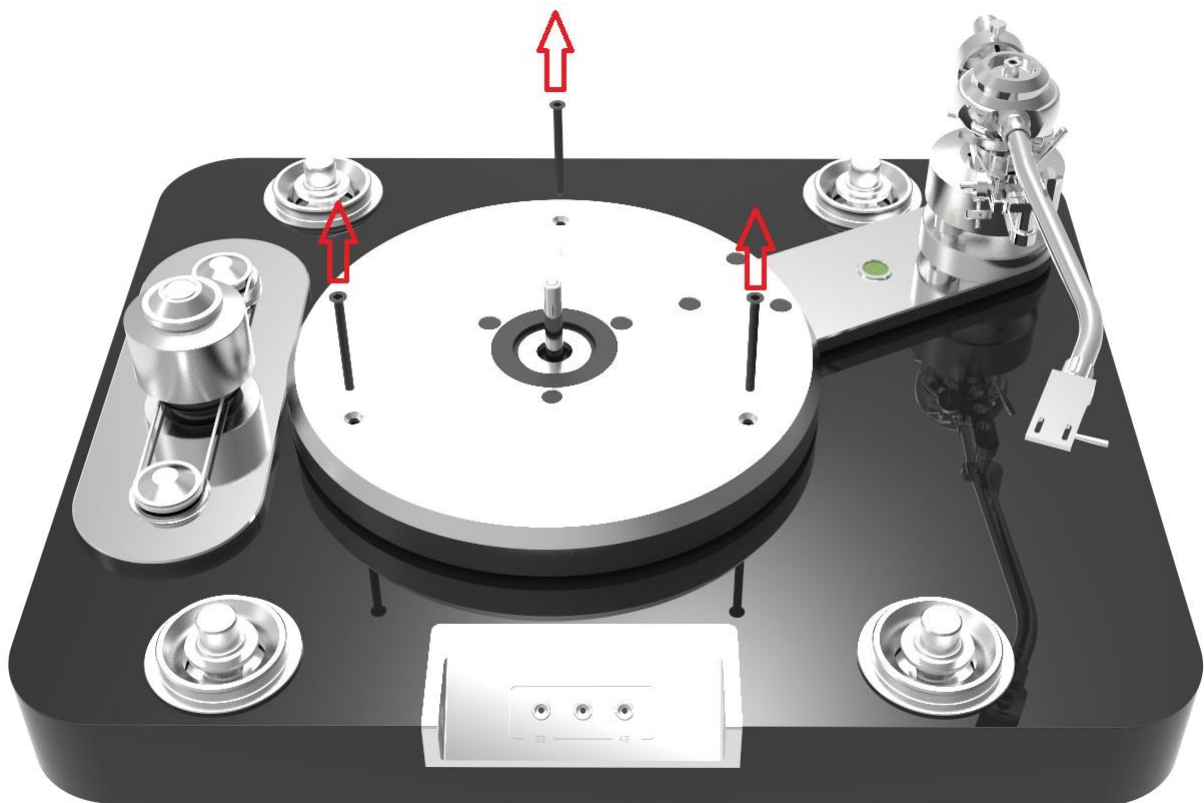
SETUP

1. TRANSPORT SCREWS

The deck is supplied partially disassembled and carefully packaged for safe transport. Carefully remove all parts from the transport packaging. The packaging illustration on the last page of this manual shows you how the turntable is packaged and where all the individual parts are located within the packaging.

Make sure the surface you wish to use the turntable on is level (use a spirit level) before placing the turntable on it.

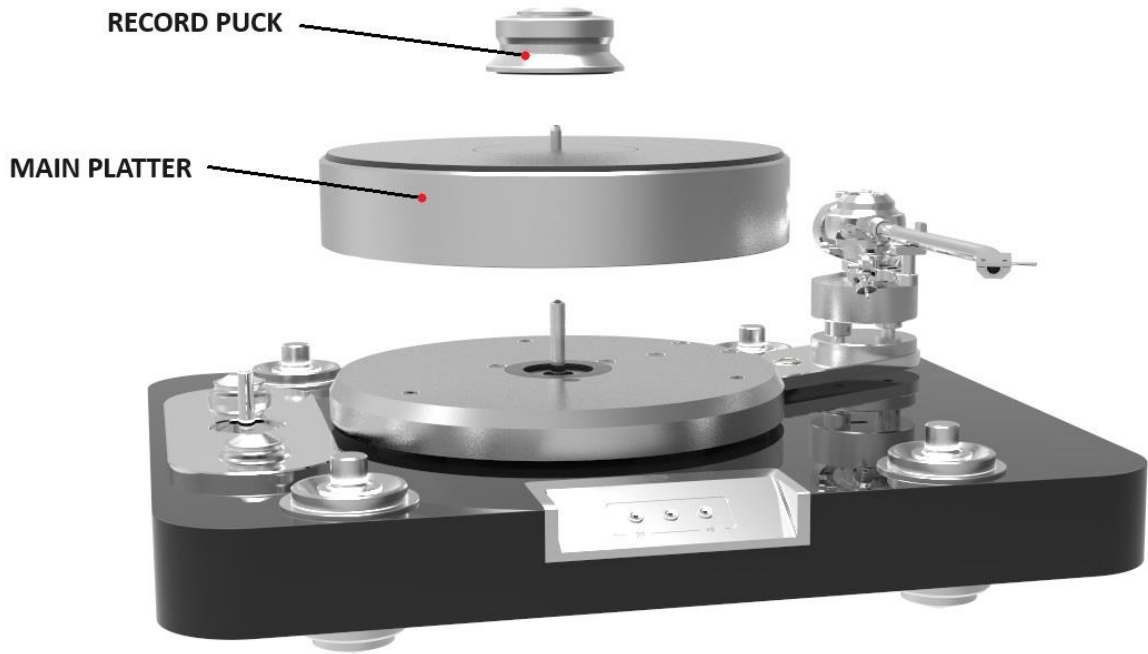
Before assembling the main platter of the turntable, it is necessary to remove the three transport screws from the sub-chassis. For this, you will need a Philips crosshead screwdriver.



2. MAIN PLATTER INSTALLATION

Before installing the platter, it is necessary to remove the spindle cover from the turntable chassis and the bearing cover from the platter. It is important to check the condition of the lubricant on the spindle. The spindle and bearing in the platter were lubricated during manufacturing. If you do not observe any signs of lubricant on any of the parts, add between 0.25 - 0.5ml from the supplied Pro-Ject Grease it accessory.

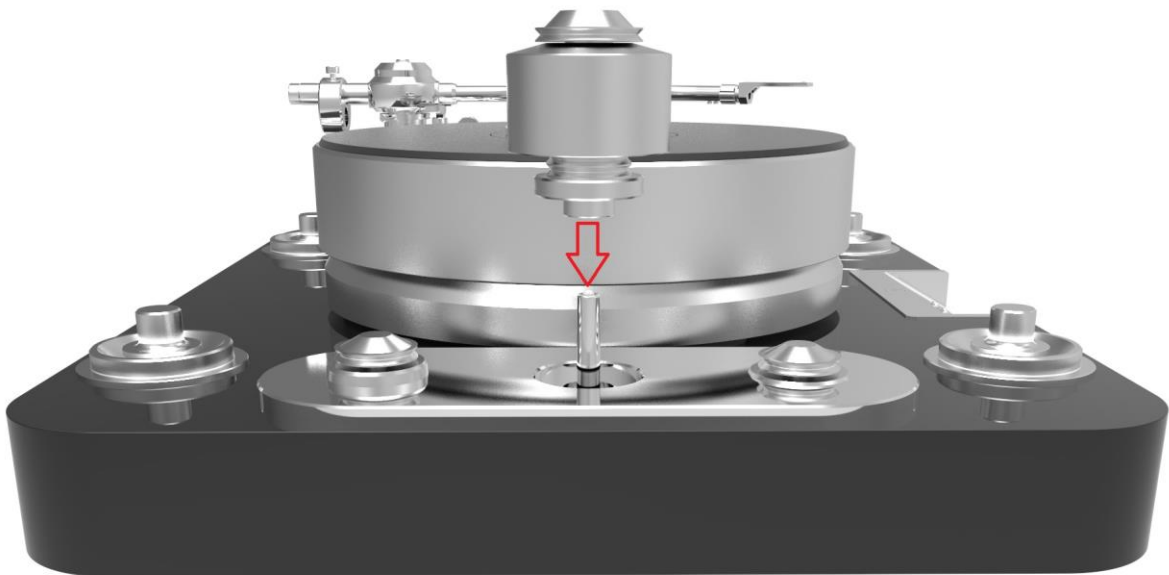
WARNING: The platter is floating on magnets. When placing it on the shaft, take care not to damage the magnet.



3. IDLER PULLEY ASSEMBLY

The idler pulley is placed as part of the accessories in the small box in the top foam insert of the packaging.

Idler pulley consists of two parts. One is powered by the motor units, and one is floated on the magnetic cushion. Both parts form a whole stored on a common shaft. Before installing this kit, remove the covers from the shaft and bearing. Check for adequate lubrication. If necessary, lubricate with the grease provided in the attached accessories.



4. DRIVE BELT INSTALLATION

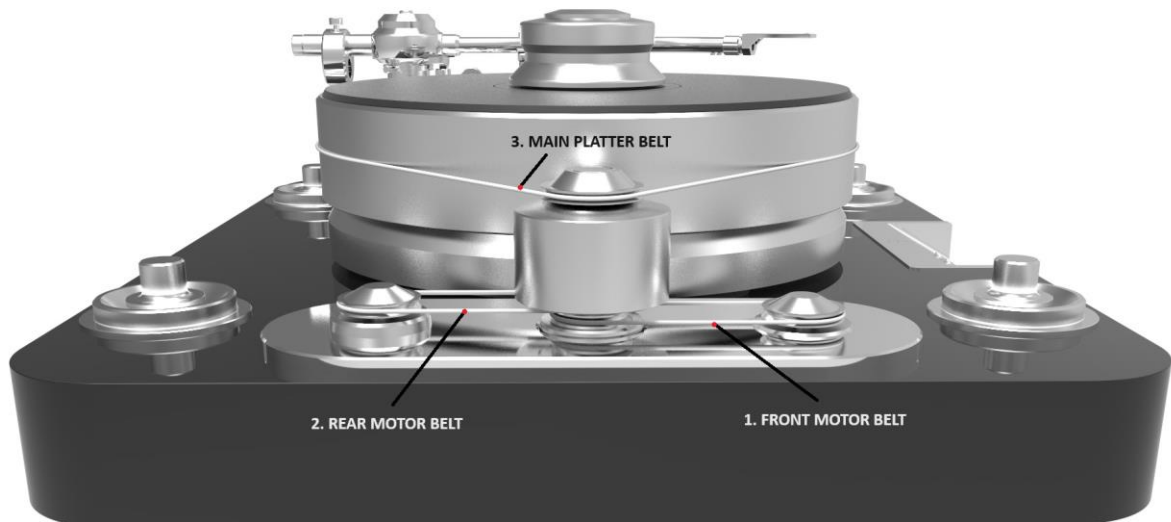
After installing the idler pulley, we can install the turntable belts.

First, install the short belt over the front motor pulley and the lower part of the double idler pulley.

Next, install the short belt over the rear motor pulley and the upper part of the idler pulley.

As the final step, install the main turntable belt over the main upper idler pulley and the main platter of the turntable.

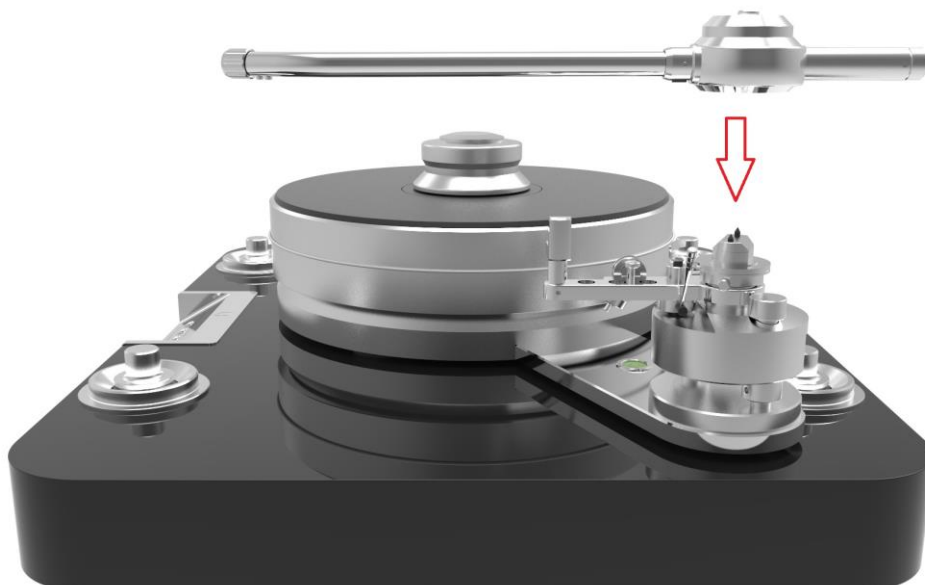
WARNING: Don't stretch the belts too much to avoid damage.



5. TONARM ASSEMBLY

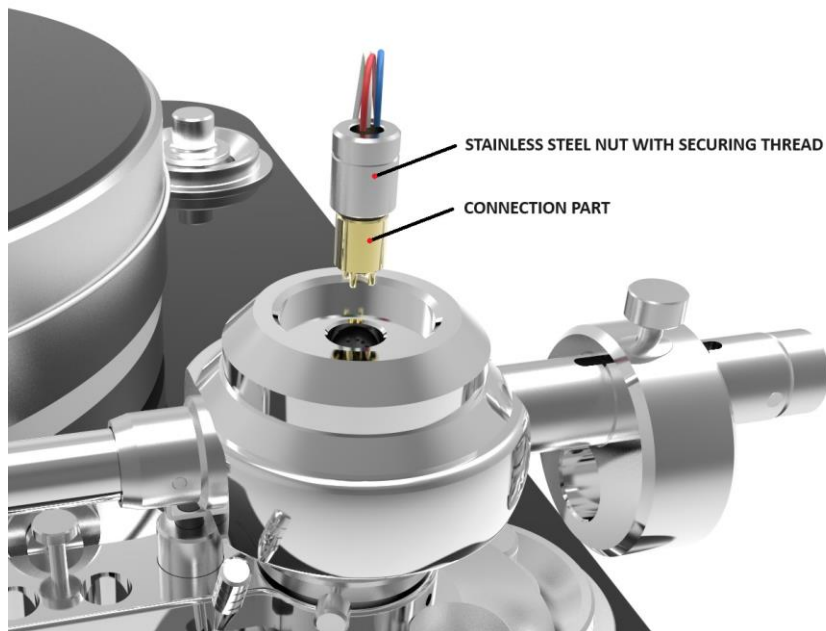
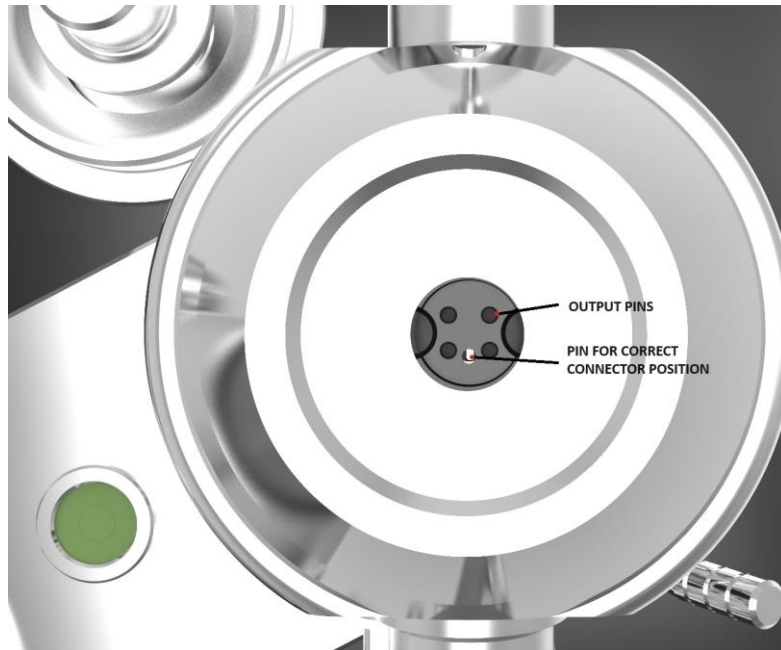
a) Detachable tonearm:

The tonearm is designed so that the top part sits loosely on the two pivots. Remove the top part of the tonearm from the upper foam insert of the packaging and carefully place it onto the two pivots of the dual-pivot tonearm construction as shown on the illustration below.



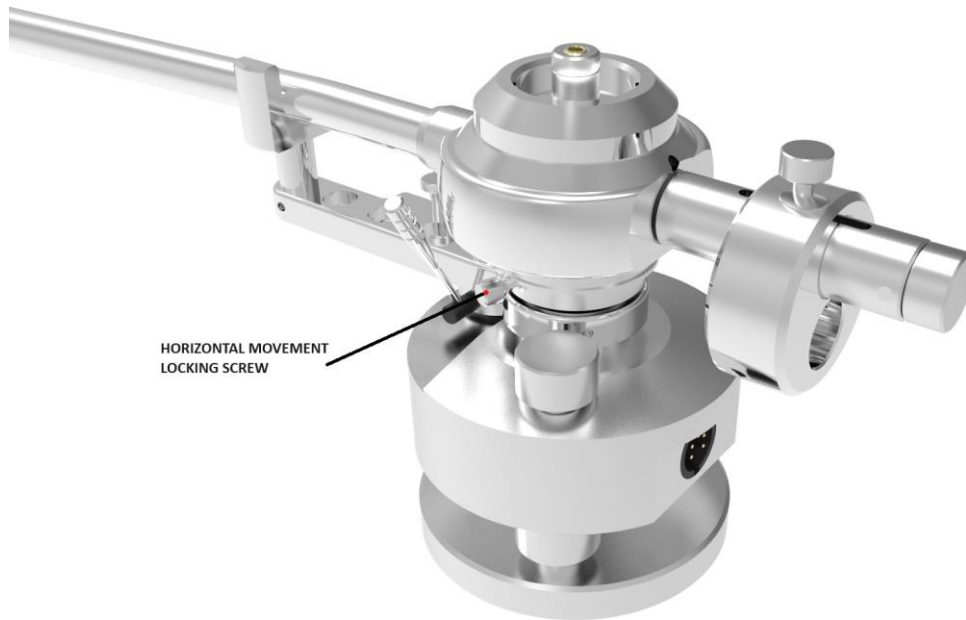
b) Tonearm output connector:

After positioning the top part of the turntable tonearm, it is necessary to connect the output connector of the tonearm. Insert the connector into the top part of the tonearm, ensuring the alignment of the centering pin, which guarantees the correct position of the connector in the tonearm body. After inserting the connector, screw on the securing stainless-steel nut to ensure sufficient contact between the tonearm pins and the connector.



c) Horizontal movement locking screw

The arm is equipped with a locking screw for horizontal movement to facilitate the assembly of the removable part. Once the arm is securely seated on the support pins, this screw, which prevents horizontal movement of the arm, can be released, allowing the arm to move into its functional position.



d) Headshell:

Insert the headshell into the front of the tonearm tube. The connector pin must be oriented into the groove in the tonearm tube. Secure the headshell by screwing the locknut of the SME connector clockwise.



e) Cartridge installation:

* If you purchased this turntable in a package that included the cartridge, this has already been done for you.

Install the cartridge on the headshell, using the appropriate hardware included with your cartridge. All cartridges with half inch mounting holes can be fitted.

For correct cartridge alignment, use cartridge alignment protractor Pro-Ject Align it provided with your Signature 12.2 accessories. If unfamiliar with cartridge setup, please contact your dealer.

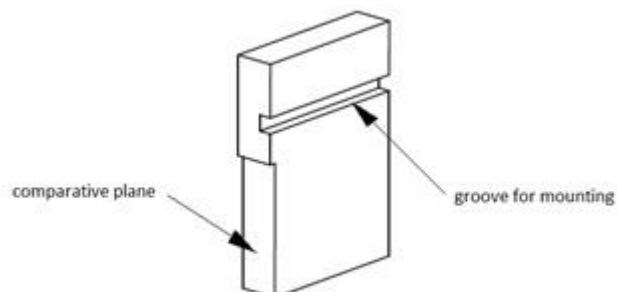
Please note: Adjusting a cartridge and tonearm requires the greatest care in order to avoid damaging the cartridge or tonearm bearings. Leave this work to professionals if unsure.



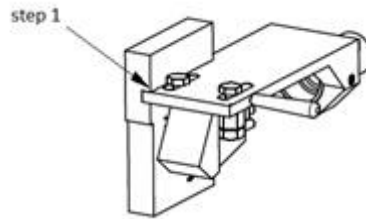
Connect the cartridge as indicated below:

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

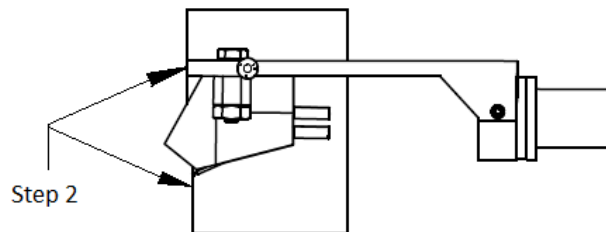
For setting the correct position of the cartridge in the headshell grooves, we also designed and supplied a small tool made from transparent plexiglass. Please note that this tool is only for the headshell of the Pro-Ject SIGNATURE 12.2 tonearm.



Step 1: Place the tool with groove to the headshell as shown on the picture below.



Step 2: Move the cartridge to the correct position. The correct position is achieved when the tip of the needle is in the same plane as the reference plane of the tool. This is illustrated in the following picture.

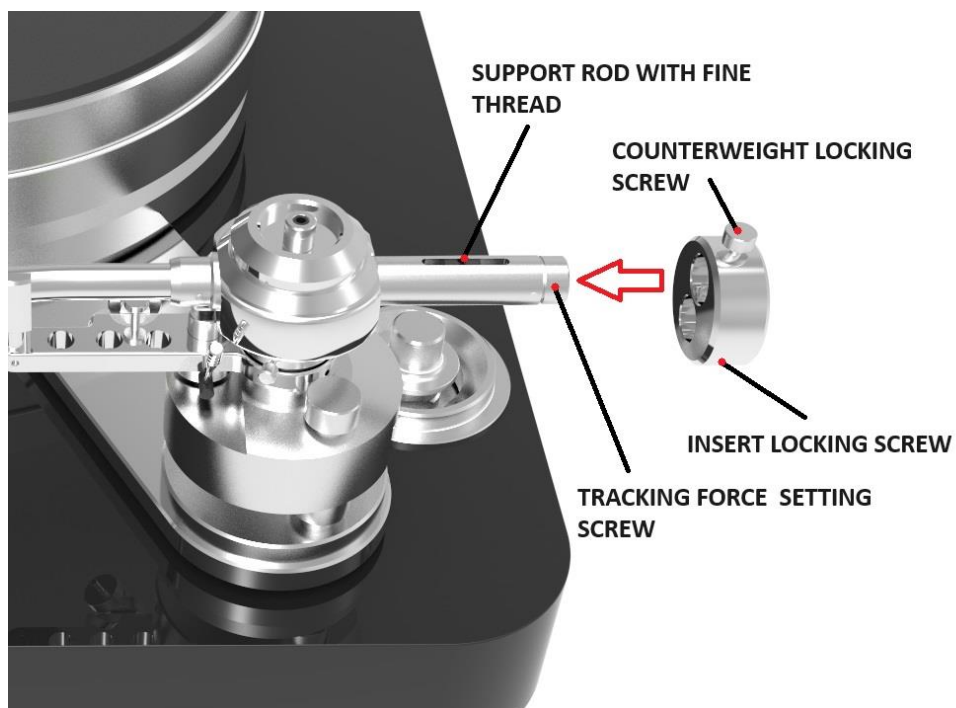


f) Counterweight assembly / Vertical tracking force setting (VTF)

Remove the counterweight from the accessories and place it on the support rod. The support rod is equipped with a fine internal thread for the final adjustment of the tracking force. After positioning the counterweight, secure it with the top locking screw. The turntable accessories include two extra counterweight inserts, which are used to increase the weight of the counterweight, thereby balancing heavier cartridge systems.

After inserting the extra insert into the counterweight, always secure the insert with the screw located at the bottom of the counterweight. The counterweight insert should not protrude towards the tonearm body; rather, it should protrude away from the tonearm body, as shown in the attached pictures.

After choosing the correct combination of counterweight and insert, and securing the counterweight on the support shaft, the tracking force is adjusted by rotating the rear screw, which moves the counterweight along the fine internal thread in the support rod.



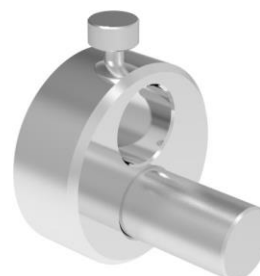
Setting range of counterweight:



FOR CARTRIDGES FROM 5 - 9g
(without insert)



FOR CARTRIDGES FROM 6 - 20g
(with 30mm insert)

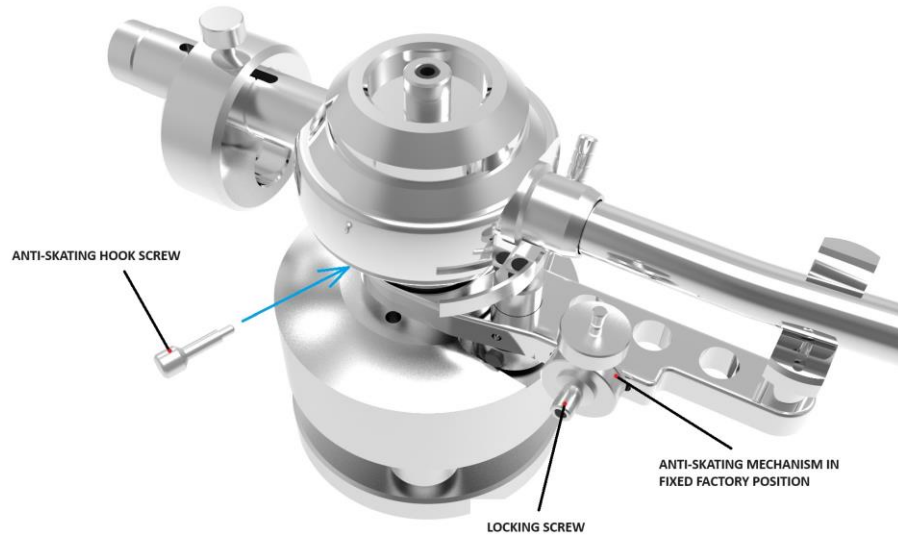


FOR CARTRIDGES FROM 10 - 26g
(with 45mm insert)

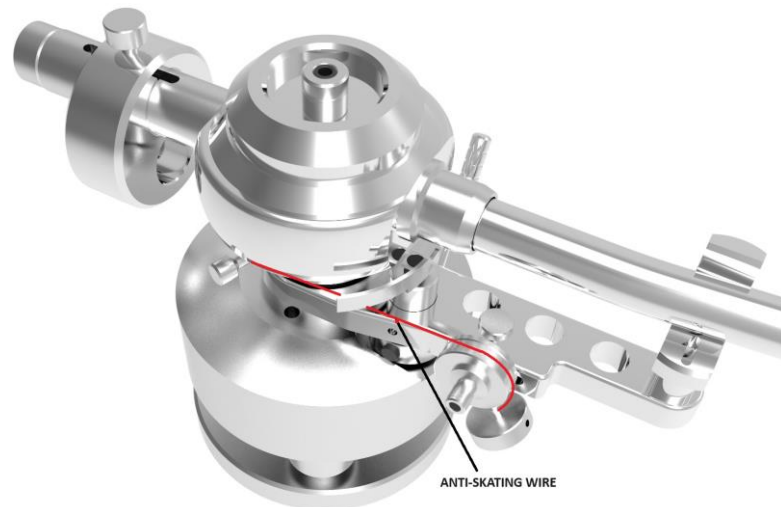
g) Anti-skating assembly and adjustment

The anti-skating sliding mechanism is already mounted on the tonearm and secured with a locking screw. To activate the anti-skating mechanism, follow these steps:

- 1) Loosen the screw holding the anti-skating wire.



- 2) Hook the wire onto this screw and reattach it.



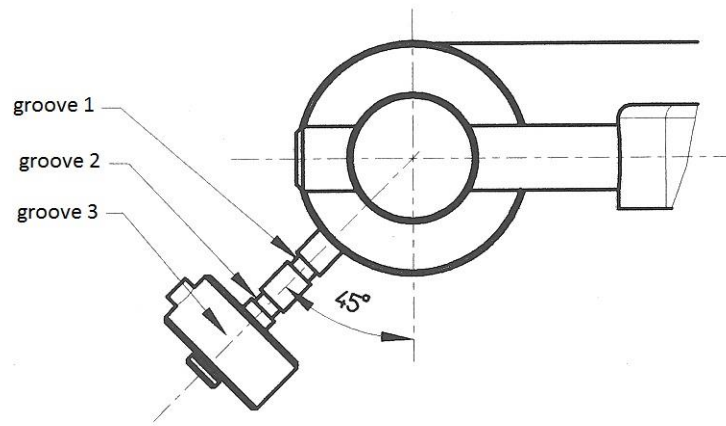
- 3) Loosen the locking screw of the slider to tension the anti-skating wire.
- 4) Adjust the anti-skating force by changing the position of the additional weight on the slider shaft.
Anti-skating force should be adjusted in correspondence with the vertical tracking force as follows:

Vertical tracking force:

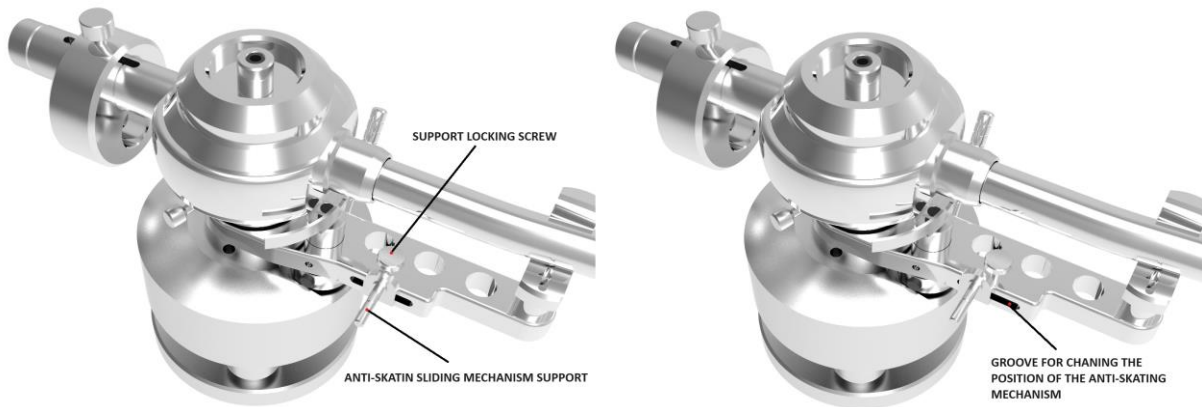
Lower than 13 mN or 1.3 grams
14–18 mN or 1.4–1.8 grams
19–25 mN or 1.9–2.5 grams

Anti-skating groove:

1st groove
2nd groove
3rd groove



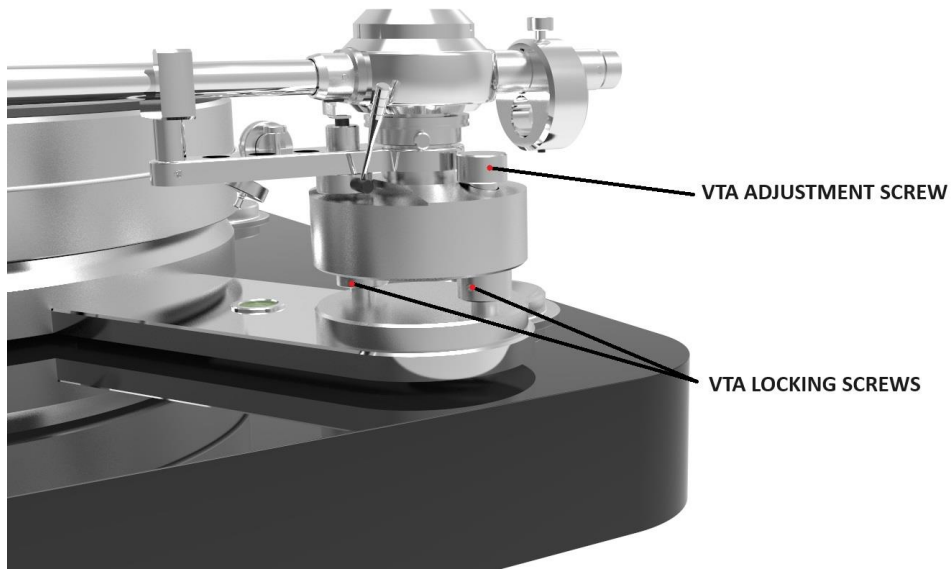
It is also possible to fine-tune the position of the anti-skating sliding mechanism support. By loosening the locking screw of the anti-skating sliding mechanism support, the support can be moved left or right by 2 - 3mm if necessary.



6. VERTICAL TRACKING ANGLE SETTING (VTA)

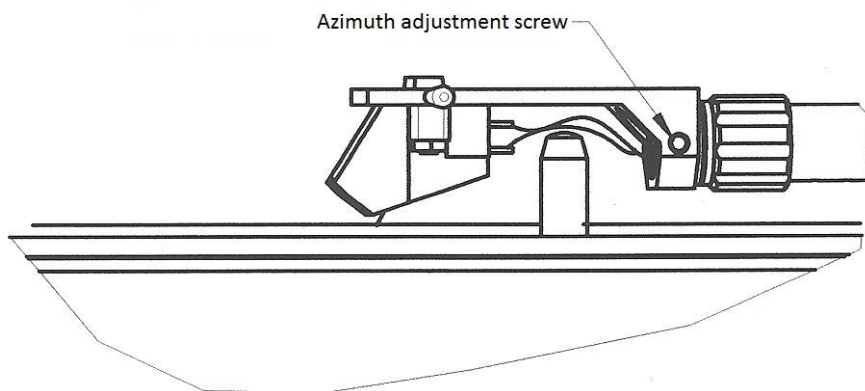
The turntable tonearm sits on two columns, which are equipped with internal springs for easy height adjustment of the tonearm. The following procedure allows for very fine and simple adjustments when using cartridge systems with different functional heights.

Put a record on the platter. When the needle is lowered into the record groove and the tonearm is not resting on the tonearm rest, the tube of the tonearm should be parallel to the surface of the record. If it is not, loosen both VTA locking screws in the tonearm base just enough to allow vertical movement of the arm pillar without force. By turning the VTA adjustment screw, set the correct vertical tracking angle. Carefully retighten the VTA locking screws without applying excessive force, which would deform the arm pillar.



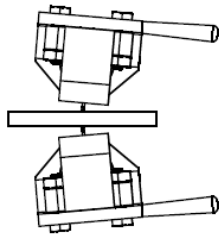
7. AZIMUTH ADJUSTMENT

The cartridge needle must be vertical in the record groove to trace the groove wall modulations correctly. A small azimuth adjusting screw on the headshell allows you to set the azimuth. The correct position can be checked from the front view, preferably with the needle placed on a mirror that is placed on the platter.

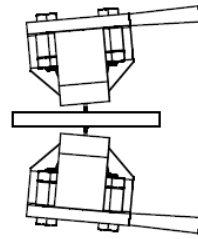


EXAMPLES OF INCORRECT AZIMUTH SETTING

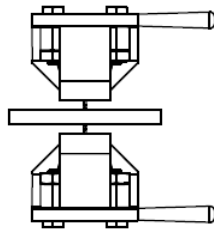
Too much left angle:



Too much right angle:



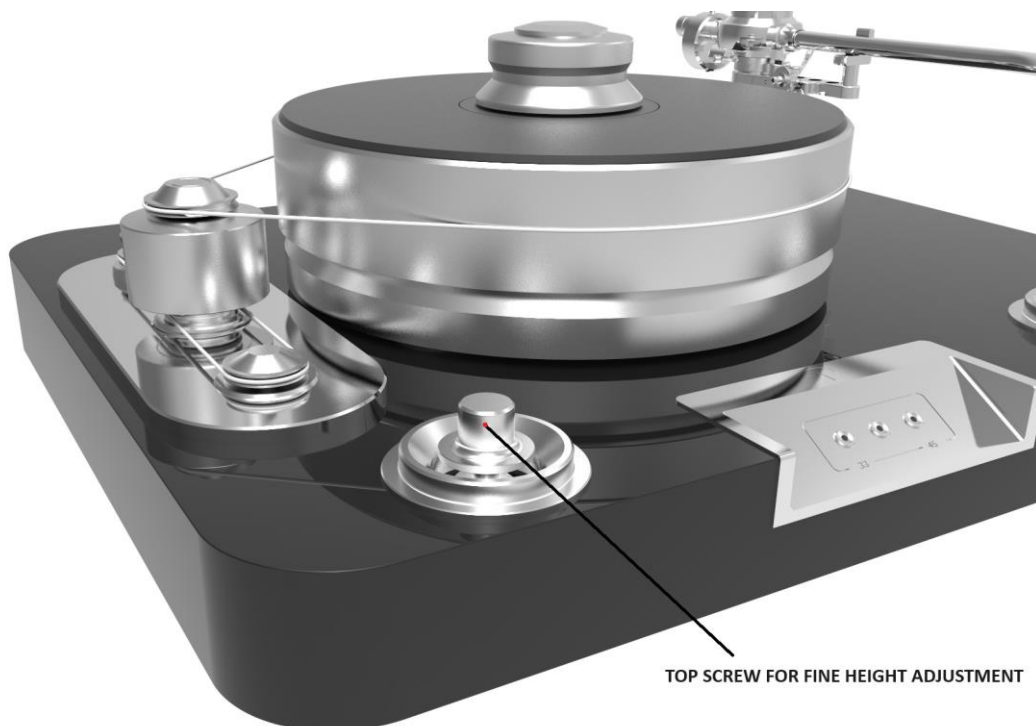
The correct position is 100% perpendicular to the record.



8. LEVELLING THE TURNTABLE

Four precision adjustable spring-loaded feet are mounted through the turntable chassis to facilitate leveling. Once the turntable is in its final position, place the supplied spirit level on the chassis and level the turntable by adjusting the top screws of the feet as necessary. It is recommended to check the level from several positions on the chassis.

To achieve perfect balance, Pro-Ject Audio Systems supplies the Level It.



9. SPEED CONTROL

To start the rotation of the platter, press either the button labeled 33 or 45, depending on the speed of the record to be played (33 rpm or 45 rpm). When you want to stop the turntable or when it is not in use, switch it to STANDBY mode by pressing the middle button.



10. CONNECTING THE POWER SUPPLY

The turntable is supplied with a universal power supply (90-246V AC) and includes 3 interchangeable socket adapters suitable for all countries. Select the correct adapter for your country and insert it into the interchangeable part of the power supply. Connect the low voltage plug from the power supply to the socket on the rear of the record player (marked with sticker 15V DC) before connecting the power supply to the mains.

11. CONNECTION TO THE AMPLIFIER

Connect the tonearm cables to the Phono input (sometimes labelled gram, disc or RIAA) on your amplifier. Make sure that the phono input offers correct matching and amplification for the type of cartridge used. Line inputs (such as CD, Tuner, Tape or Video) are not suitable.

Take care to connect the left and right channels correctly. The right channel is usually marked red, the left channel black or white. Check the manual supplied with your amplifier for relevant information. An earthing wire may be connected to the screw terminal on your amplifier you encounter hum problems when using the record player.

If your amplifier does not have an input suitable for phono cartridges you will require a separate phono amplifier stage for MM or MC cartridges which is then connected between the record player and a free line level input of the amplifier.

For detailed product information regarding Pro-Ject Audio interconnect cables and phono amplifiers please refer to the Pro-Ject website www.project-audio.com.

12. MAINTENANCE AND CLEANING

Your record player requires little or no regular maintenance. Remove dust with a slightly moistened antistatic cloth. Never use a dry cloth because it will create static electricity, which attracts more dust! Antistatic cleaning fluids are available at specialty stores but should be applied sparingly to avoid damage to rubber parts. It is recommended to fit the needle cover before cleaning or maintenance is carried out to avoid damage. If the player is not used for a long period of time, the drive belt can be removed to prevent uneven stretching.

Technical specifications Pro-Ject Signature 12.2

Nominal speeds	33/45 r.p.m., electronic speed control
Speed variance	33: $\pm 0.09\%$ 45: $\pm 0.08\%$
Wow and flutter	33: $\pm 0.01\%$ 45: $\pm 0.01\%$
Signal to noise	-75dB
Effective tonearm mass	21.7g
Effective tonearm length	12" (304.8mm)
Overhang	13.2mm
Power consumption	15W/0.5W standby
Power input	15V/ 1.6 A DC, universal power supply
Dimensions (W x H x D)	580 x 220 x 480mm
Weight	37kg
Weight incl. packaging	60kg

Potential incorrect use and fault conditions

Pro-Ject turntables are manufactured to the highest standards and undergo strict quality controls before leaving the factory. Faults that may possibly occur are not necessarily due to material or production faults but can sometimes be caused by incorrect use or unfortunate circumstances. Therefore, the following list of common fault symptoms is included.

The platter doesn't turn although the unit is switched on:

- The unit is not connected to the mains power supply.
- No mains at the socket.
- Drive belt is not fitted or has slipped off.

No signal through one or other channel or both channels:

- No signal contact from the cartridge to the internal tonearm wiring or from that to the arm lead or from that to the phono box or between that and the amplifier. This could be due to a faulty plug, broken wire or solder joint or simply loose plug/socket connection.
- Correct input not selected at amplifier.
- Amplifier is not switched on.
- Amplifier or speakers are defective or muted.
- No connection to the loudspeakers.

Distorted or inconsistent sound from one or both channels:

- Record player is connected to wrong input of amplifier.
- Needle or cantilever damaged.
- Wrong r.p.m., drive belt overstretched or dirty, platter bearing without oil, dirty or damaged.

Service

Should you encounter a problem which you are not able to alleviate or identify despite the above information, please contact your dealer for further advice. Only when the problem cannot be resolved there should the unit be sent to the responsible distributor in your country.

Guarantee repairs will only be affected if the unit is returned correctly packaged. For this reason, we recommend keeping the original packaging.

Never return a record player without making sure that it is safely disassembled and correctly packaged in the original packaging according to the diagrams on the last page of this user guide. Please remove these parts and pack them separately: lid, counterweight, anti-skating weight and belt.

Fit the cartridge protection cap and the transport lock for the tonearm tube, prior to carefully packaging the record player.

Warranty



The manufacturer accepts no responsibility for damage caused by not adhering to these instructions for use and/or by transportation without the original packaging. Modification or change to any part of the product by unauthorized persons, release the manufacturer from any liability over and above the lawful rights of the customer.

Pro-Ject Audio Systems is a Registered Trademark of H. Lichtenegger.

This guide was produced by: Pro-Ject Audio Systems
Copyright © 2024. All rights reserved.

The information was correct at the time of going to press. The manufacturer reserves the right to make changes to the technical specification without prior notice as deemed necessary to uphold the ongoing process of technical development.

Declaration of Conformity

We, **SEV Litovel, s r.o.**

Palackého 1160/34

78401 Litovel

Czech Republic

(manufacturer)

and

Pro-Ject Audio Systems a division of Audio Tuning GmbH

Margaretenstrasse 98

1050 Vienna,

Austria

(distributor)

declare under our responsibility that the product is in conformity with the provisions of Directives:

2014/35/EU including amendments

2014/30/EU including amendments

2014/53/EU including amendments

The following harmonised standards were applied:

Health: EN62479:2010

Safety: EN60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013, EN62368-1:2014/A11:2017,
EN61558-1:2005/A1:2009, EN61558-2-16:2009/A1:2013

EMC: EN301489-1 V2.2.0: 2017-03, EN301489-17 V3.2.0:2017-03, EN55032:2015, EN55035:2017,
EN61000-3-2:2014, EN61000-3-3:2013

Radio Spectrum: EN300328 V2.1.1 (2016-11)

Pro-Ject Audio Systems a division of Audio Tuning GmbH

1050 Vienna, Austria, Margaretenstrasse 98

info@project-audio.com

