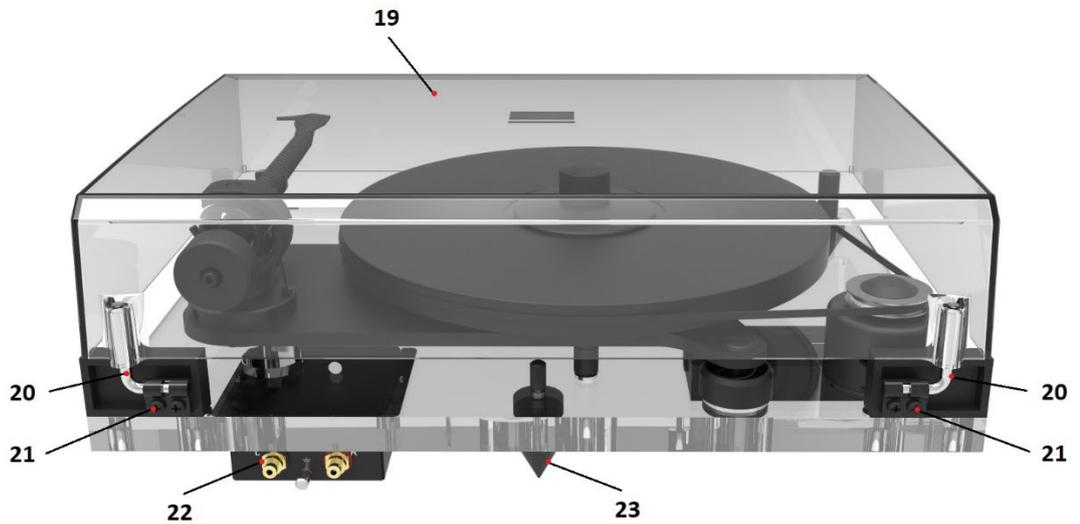
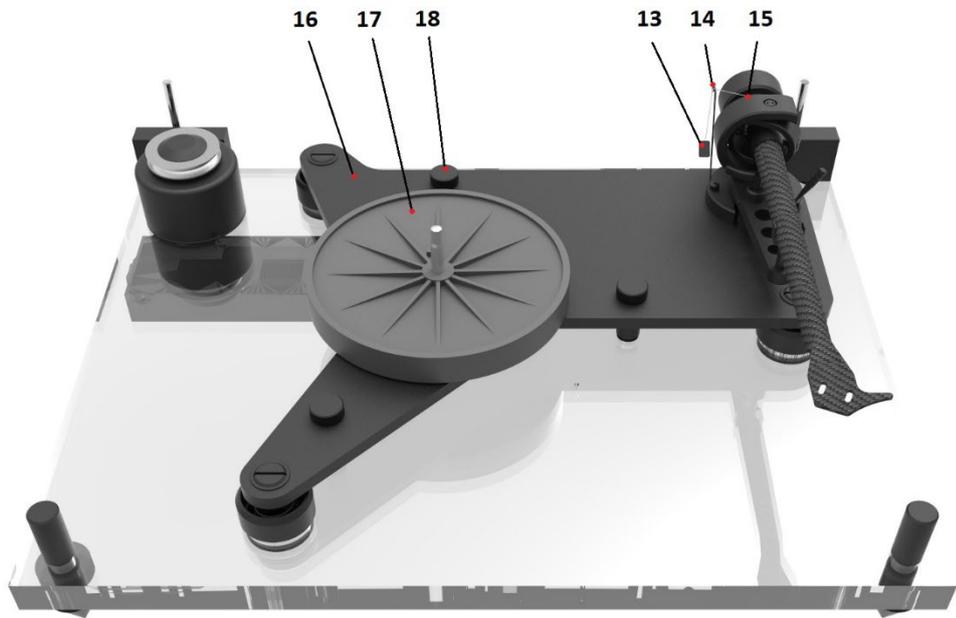
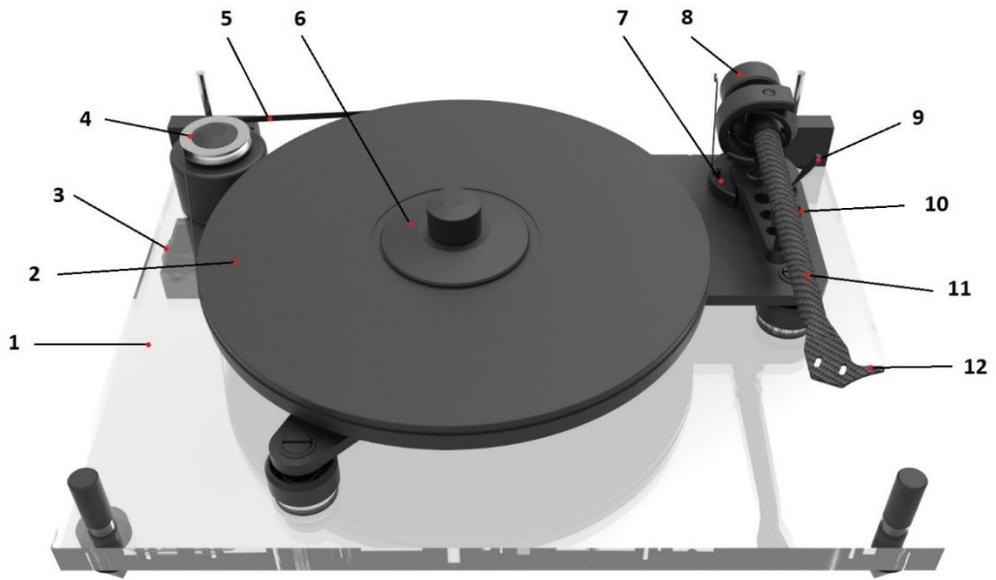
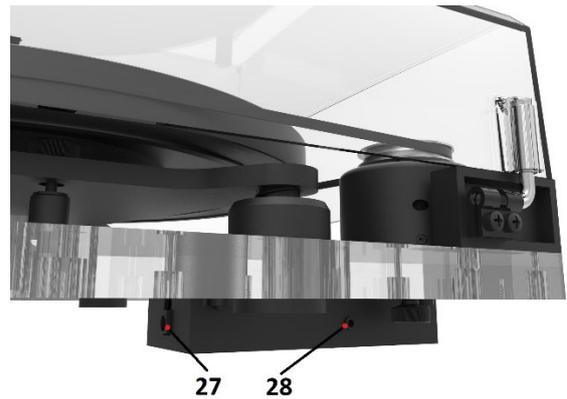
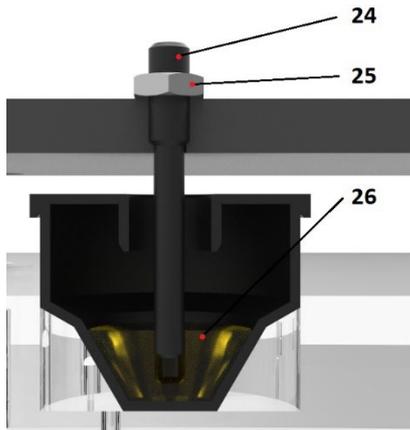


**Pro-Ject**  
AUDIO SYSTEMS

INSTRUCTIONS FOR USE  
Perspective Final Edition





# Perspective Final Edition

## Controls, features, and connections

- (1) MAIN CHASSIS
- (2) MAIN PLATTER
- (3) MOTOR WITH PULLEY
- (4) SPEED CONTROL SWITCH
- (5) DRIVE BELT
- (6) RECORD CLAMP
- (7) TONEARM FLANGE
- (8) TONEARM COUNTERWEIGHT
- (9) TONEARM LIFT
- (10) TONEARM REST AND REMOVABLE TRANSPORT LOCK
- (11) TONEARM TUBE
- (12) HEADSHELL WITH FINGER LIFT
- (13) ANTI-SKATING WEIGHT WITH THREAD
- (14) ANTI-SKATING WEIGHT SUPPORT
- (15) ANTI-SKATING STUB WITH ANTI-SKATING ADJUSTMENT SCALE
- (16) SUB-CHASSIS
- (17) SUB-PLATTER
- (18) 3x TRANSPORT SCREWS
- (19) LID
- (20) LID HINGE
- (21) HINGE FASTENERS
- (22) RCA OUTPUT SOCKLET
- (23) HEIGHT ADJUSTABLE FEET
- (24) ADJUSTMENT SCREW FOR SUB-CHASSIS DAMPING
- (25) COUNTER NUT FOR SUB-CHASSIS DAMPING SCREW
- (26) DAMPER TANK
- (27) POWER SUPPLY SOCKET
- (28) MOTOR CONNECTION SOCKET

## Turntable accessories

- (1) Instruction for use
- (2) Cartridge alignment protractor
- (3) Anti-skating weight
- (4) Allen key 1.5mm
- (5) Allen key 3mm
- (6) Counterweight no. **16** and no. **03**
- (7) Single adaptor
- (8) Signal cable Connect IT E 1,23m
- (9) Universal power supply
- (10) Damping fluid
- (11) Spirit level
- (12) Feet spacers
- (13) White cotton gloves

Dear music lover,

Thank you for purchasing a Pro-Ject Audio Systems record player.

In order to achieve maximum performance and reliability, please study these instructions carefully.



*Warning of a hazard for the user, the unit or possible misuse*



*Important notice*

The following instructions for adjusting the cartridge are provided in case the cartridge is replaced by a different model at a later date.

During assembling and adjustment small parts could be lost if they are not carefully placed in a suitable receptacle. Before starting assembly make yourself acquainted with the parts listed above which are correspondingly numbered in the technical drawings above.

## Safety instructions

*The power supply is used to connect and disconnect the unit from the mains. Make sure that the plug is always easily accessible. Hold the plug when unplugging the power cord. Never handle the power cord while your hands are wet or damp.*



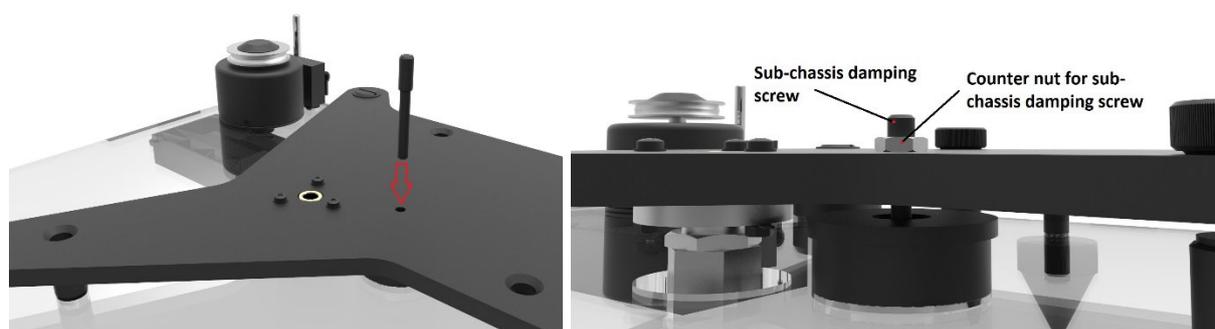
*Avoid letting liquids enter the device. Never place any item containing liquid, like a flower vase, on or near the device. Never spill any liquid on the device. Never place any naked flame sources, like lighted candles, on or near the device. The product shall not be used in damp or wet locations, next to a bathtub, sink, swimming pool or any other similar conditions.*

*Keep plastic bags away from children to prevent any risk of suffocation.*

## Adjustment of the sub-chassis

Remove the sub-platter (17) from the bearing. Screw the adjusting screw (24) into freely accessible thread in the sub-chassis (16) until the tip dips into the silicone oil of the damping tank (26), secure the adjusting screw (24) by (only finger-tight) tightening the counter nut (25). The thread of the adjusting screw (24) should protrude approx. 5mm over the surface of the sub-chassis.

The final setting of the adjustment screw (24) for the sub-chassis damping is left to experimentation and personal listening habits.

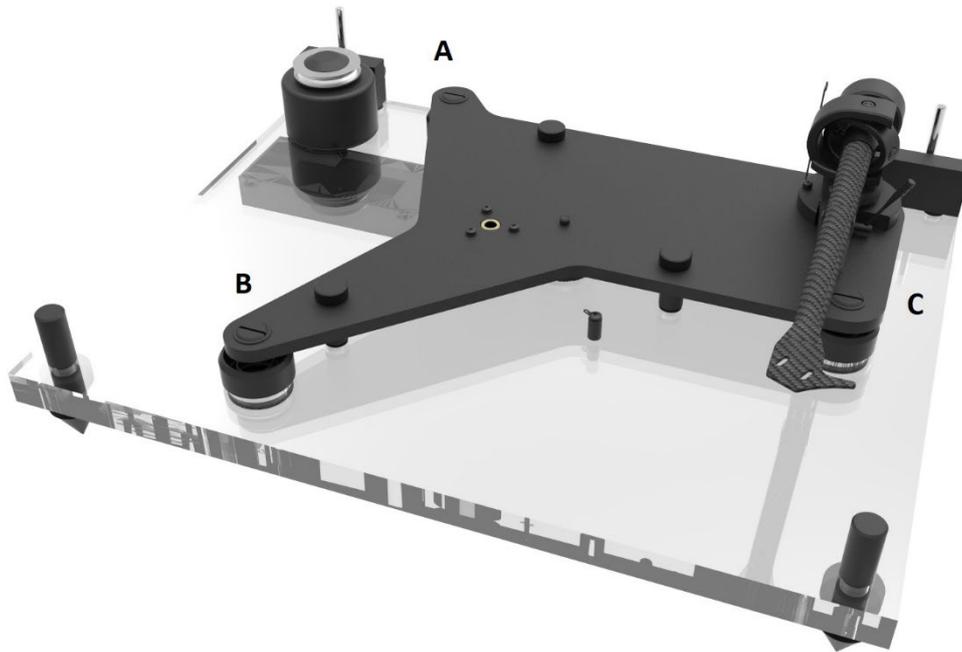


Then carefully insert the sub-platter back into the bearing. Place the main platter (2) on the spindle of the sub-platter (16). Place the drive belt (3) around the main platter (2) and the pulley (3). Remember that hand sweat or grease can impair the function of the belt. Please use a clean cloth or a sheet of kitchen paper. Put a record on and turn the record clamp onto the thread of the spindle.

Remove the transport lock from the tonearm tube. Pack the transport lock and the three transport lock screws (18) of the sub-chassis in a labelled, sealed envelope and keep it in the original box for later transport or shipping.

Turn the tonearm counterweight (8) with slight pressure on the counterweight support rod.

Now use the adjusting screws (A, B, C) on the spring struts to adjust the horizontal position of the sub-chassis. Check and correct the setting using the included spirit level.



In order to prevent the silicone oil from leaking out of the dampening tank, the device must not be tilted or placed upside down.

### Fitting and connecting the cartridge

All cartridges with half inch mounting holes can be fitted. Leaving the needle's protection cover on, fit the cartridge to the headshell using the screws supplied with the cartridge by passing one screw through each slot in the headshell (12). Do not tighten the nuts yet.

Connect the tonearm wires to the cartridge pins as follows:

white	left channel positive	(L+)
red	right channel pos.	(R+)
green	right channel return	(R-)
blue	left channel return	(L-)

The full sound quality of the record player can only be achieved if the cartridge is correctly adjusted. Particular tools like the Pro-Ject alignment tool are required to accomplish this job properly.

If you are not well acquainted with the adjustment of cartridges, you are advised to call upon the willing help of your Pro-Ject dealer to accomplish this task for you.



*Please note: Adjusting a cartridge and tonearm calls for the greatest care in order to avoid damaging the cartridge or tonearm bearings. Leave this work to your dealer if you are in any way unsure of the necessary steps and precautions to be taken.*

### Cartridge downforce adjustment

The counterweights (8) supplied are suitable for cartridges weighing between 6 – 10g (counterweight no. **16**) and 10 - 15g (counterweight no. **03**).

Pushing carefully, turn the counterweight (8) onto the rear end of the tonearm tube (11), so that the downforce scale shows towards the front of the player. Lower the arm lift and position the cartridge in the space between arm rest and platter. Carefully rotate the counterweight (8) until the arm tube balances out. The arm should return to the balanced position if it is moved up or down. This adjustment must be done carefully. Do not forget to remove the cartridge protection cap if fitted.

Once the arm is correctly balanced return it to the rest. Hold the counterweight (8) without moving it, and gently revolve the downforce scale ring until the zero is in line with the anti-skating stub. Check whether the arm still balances out.

Rotate the counterweight counter clockwise (seen from the front) to adjust the downforce according to the cartridge manufacturer's recommendations. One mark on the scale represents 1 mN (= 0,1g / 0,1 Pond) of the down-force.

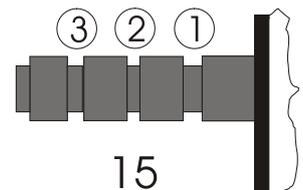


Please note: Adjust the downforce prior to installing the anti-skating weight.

### Anti-skating force adjustment

The anti-skating force must be adjusted corresponding to the downforce as follows:

Downforce	Groove in the stub (15)
10 - 14mN	1 <sup>st</sup> from bearing rings
15 - 19mN	2 <sup>nd</sup> " " "
20mN and bigger	3 <sup>rd</sup> " " "



Hang the loop of the thread of the anti-skating weight in the groove of the anti-skating stub (15) corresponding to the downforce applied to your cartridge and hang the thread in the groove of the wire support (14).

### Adjusting the azimuth

The cartridge needle must be vertical in the record groove in order to trace the groove wall modulations correctly.

A small screw at the bearing end of the arm allows incorrect azimuth to be corrected if your needle is not mounted exactly perpendicular to the cartridge body (which is often the case).

Slacken off the screw just enough to be able to revolve the arm tube without applying force.

Note! Do not remove the screw completely!



With the aid of a good magnifying glass adjust the needle until it is vertical in the groove (i.e. perpendicular to the record's surface). Ideally this should correspond to the top surface of the cartridge body being parallel to the record surface, but in practice this is often not the case.

When you are satisfied that the needle is vertical, retighten the screw carefully.



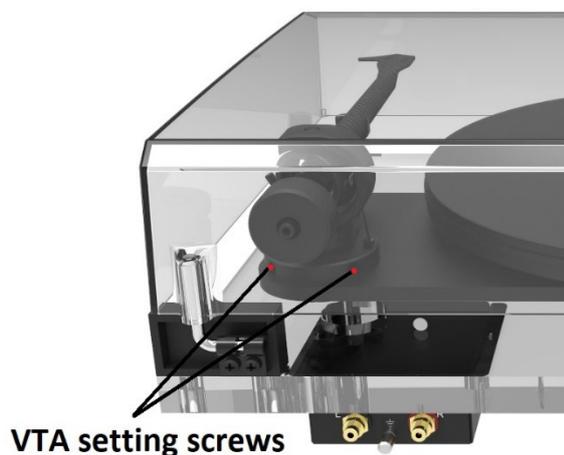
Please note: Under no circumstances should the arm tube be adjusted with the needle still in the record groove! Irreparable damage may be caused to the cantilever suspension! The arm must be lifted to make each adjustment and lowered afterwards to check it.

### Adjusting the vertical tracking angle (VTA)

Put a record and the record weight on the platter. When the needle is lowered into the record groove and the tonearm is not resting on the lift arm, the tube of the tonearm should be parallel to the surface of the record.

If it is not, loosen both allen screws in the tonearm base just enough to allow vertical movement of the arm pillar without force and slide the arm up or down until it is parallel.

Carefully retighten the allen screws without applying excessive force (which would deform the arm pillar) – finger tight is quite sufficient.



### 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 web site [www.project-audio.com](http://www.project-audio.com).

### Mains power connection

The turntable is supplied with the universal power supply with 3 exchangeable sockets adapters suitable for all countries. Select the correct adapter for your country and insert the adapter to the exchangeable part of the power supply.

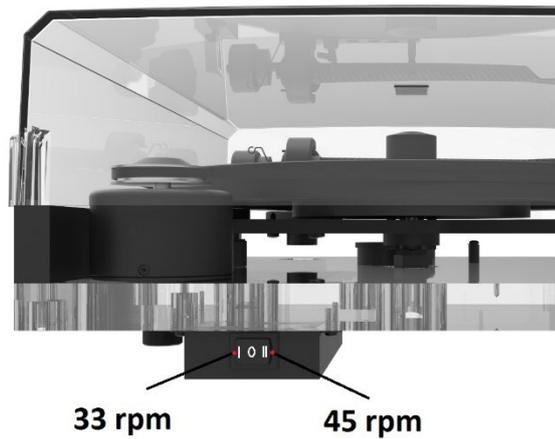
Connect the low voltage plug from the power supply to the socket (27) on the rear of the record player before connecting the power supply to the mains.

### Fitting the lid

Fit the lid (dust cover 19) carefully over the hinge prongs and adjust the screws (21) until the lid stays open where you want it to without being too stiff to open or close.

### Switching ON and OFF, changing replay speed

The turntable is equipped with a three-position switch for ON/OFF and electronic speed change. To play records at 33 rpm. press this switch (4) to the rear side. To play records at 45 rpm. press this switch (4) to the front side as shown on illustration below.



## TECHNICAL SPECIFICATION

### Pro-Ject Perspective Final Edition / Pro-Ject 9cc

Nominal speeds	33/45 r.p.m.
Speed variance	33: $\pm 0.25\%$ 45: $\pm 0.23\%$
Wow and flutter	33: $\pm 0.12\%$ 45: $\pm 0.11\%$
Signal to noise	-70dB
Effective tonearm mass	8.5g
Effective tonearm length	9" (230mm)
Overhang	18mm
Power consumption	5W/ 0.3W standby mode
Outboard power supply	15V/ 0.8 A DC, universal power supply
Dimensions (W x H x D)	462 x 175 x 360 mm, dust cover open 462 x 415 x 455 mm
Weight	8 kg

## 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.
- Phono input not selected at amplifier.
- Amplifier is not switched on.
- Amplifier or speakers are defective or muted.
- No connection to the loudspeakers.

### Strong hum on phono input:

- No earth connection from cartridge or arm or arm cable to amplifier, or earth loop.

### Distorted or inconsistent sound from one or both channels:

- Record player is connected to wrong input of amplifier, or MM/MC switch incorrectly set.
- 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, platter and belt. Fit the cartridge protection cap. Insert the transport screws for the sub-chassis, the transport lock for the tonearm 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.*

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