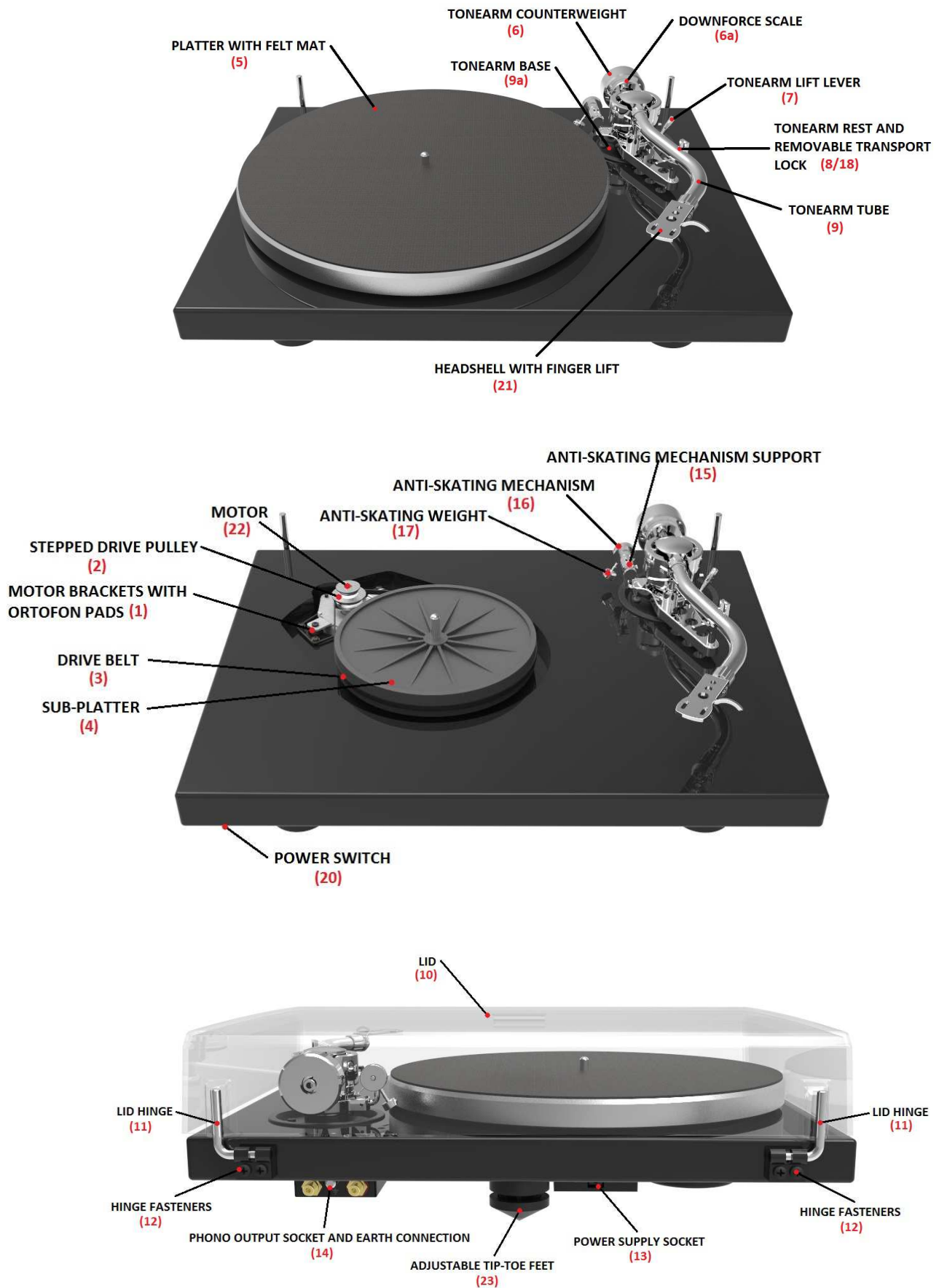




# INSTRUCTIONS FOR USE

## Pro-Ject 1 ~~X~~pression Classic S-Shape





# Pro-Ject

AUDIO SYSTEMS

# Pro-Ject 1 ~~X~~pression Classic S-Shape

## Controls, features and connections

- |        |  |    |                 |
|--------|--|----|-----------------|
| (1)    | Motor brackets with ORTOFON® pads                    |    |                 |
| (2)    | Stepped drive pulley                                 |    |                 |
| (3)    | Drive belt *   | 3a | Hook *          |
| (4)    | Sub-platter  |    |                 |
| (5)    | Platter *  |    |                 |
| (6)    | Tonearm counterweight *                              | 6a | Downforce scale |
| (7)    | Tonearm lift lever                                   |    |                 |
| (8/18) | Tonearm rest and removable transport lock            |    |                 |
| (9)    | Tonearm tube   | 9a | Tonearm base    |
| (10)   | Lid *  |    |                 |
| (11)   | Lid hinges   |    |                 |
| (12)   | Hinge fasteners                                      |    |                 |
| (13)   | Power supply socket                                  |    |                 |
| (14)   | Phono output sockets and earth connection            |    |                 |
| (15)   | Anti-skating mechanism support                       |    |                 |
| (16)   | Anti-skating mechanism *                             |    |                 |
| (17)   | Anti-skating weight                                  |    |                 |
| (20)   | Power switch   |    |                 |
| (21)   | Headshell with finger lift                           |    |                 |
| (22)   | Motor  |    |                 |
| (23)   | Adjustable tip-toe feet with anti-scratch cups *     |    |                 |
|        | Connection cable Pro-Ject Connect IT E (not shown) * |    |                 |
|        | Power supply (not shown) *                           |    |                 |
|        | Single adapter (not shown) *                         |    |                 |



Dear music lover,

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

In order to achieve maximum performance and reliability with this record player you should study these instructions for use 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 assembly and adjustment of the deck small parts could be lost if not carefully placed in a suitable receptacle. Before starting assembly make yourself acquainted with the parts listed above and correspondingly numbered in the technical drawings above. Separately packed items are marked with an asterisk \*.

## Safety instructions

*The power supply is used to connect and disconnect the unit from the mains. Make sure that the plug is easily accessible at all times. 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.*

## Set-up

The deck is supplied partially disassembled and carefully packaged for safe transport. Carefully remove all parts from the transport packaging.

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

Fit the drive belt (3) around the sub-platter (4) and the smaller diameter part of the motor pulley (2). Avoid getting sweat or grease on the belt as these will deteriorate the performance and reduce the belt's lifespan. Use absorbent kitchen paper to remove any oil or grease from the outer edge of the hub and the belt.

Fit the platter over the spindle of the hub. Level the plinth using a spirit level and the adjustable feet (23).

Remove the transport lock (18) from the tonearm. Store it in the original packaging so it is available for any future transportation.



*We recommend to use the record player without a mat on the platter.*

## Cartridge downforce adjustment

The counterweight (6) supplied is suitable for cartridges weighing between 3 - 9g (counterweight no.**180**). Alternative counter-weights for cartridges weighing between 7 – 16g (counterweight no.**181**) and 28 – 33g (counterweight no.**89**), 9-12g (counterweight no.**30**) are available on request. Adjust the downforce prior to installing the anti-skating weight.

Pushing carefully, turn the counterweight (6) onto the rear end of the tonearm tube (9), so that the downforce scale (6a) shows towards the front of the player. Lower the armlift and position the cartridge in the space between arm rest and platter. Carefully rotate the counterweight (6) until the armtube 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 (6) without moving it, and gently revolve the downforce scale ring (6a) until the zero is in line with the anti-skating prong (15). 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 downforce.



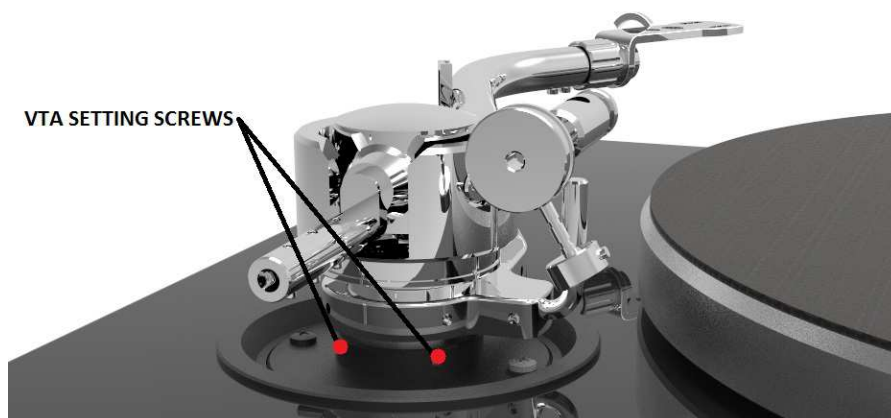
*The recommended downforce for the factory fitted cartridge is 18mN.*

## 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 hexagon 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.

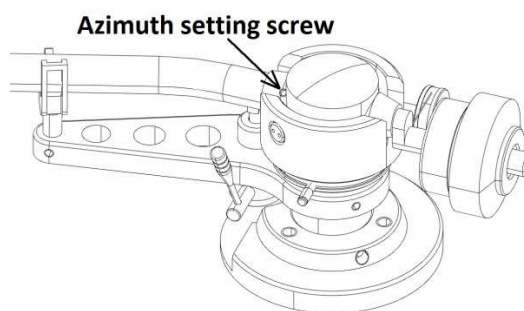
Carefully retighten the hexagon screw without applying excessive force (which would deform the arm pillar) – finger tight is quite sufficient.



## 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. Please 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.

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

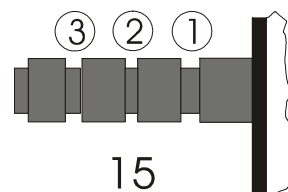


*Under no circumstances should the arm tube be adjusted with the needle still in the record groove! Irreparable damage may be caused to the cantilever suspension! The arm must be lifted to make each adjustment and lowered afterwards to check it.*

## Anti-skating force adjustment

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

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



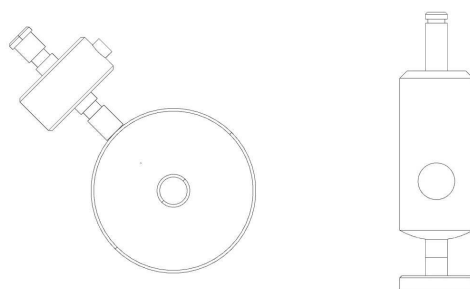
Hang the loop of the thread of the anti-skating weight in the groove of the anti-skating stub (15) corresponding to the downforce applied to your cartridge and feed the thread through the loop of the wire support (17).

## Anti-skating force adjustment

The anti-skating mechanism is shipped partially disassembled to avoid damage during transport. For correct installation, please follow the steps below.

### **Step 1:**

Prepare anti-skating sliding mechanism and anri-skating mechanism support from the accessories bag. The anti-skating sliding mechanism is supplied with a pre-mounted anti-skating weight and thread for mounting on the tonearm.

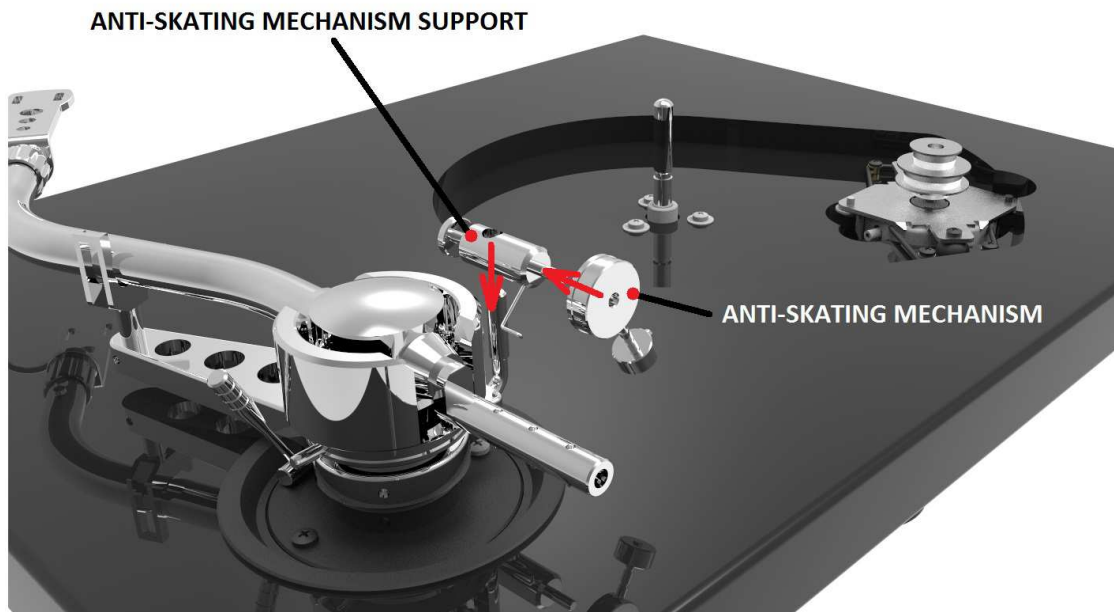


**Step 2:**

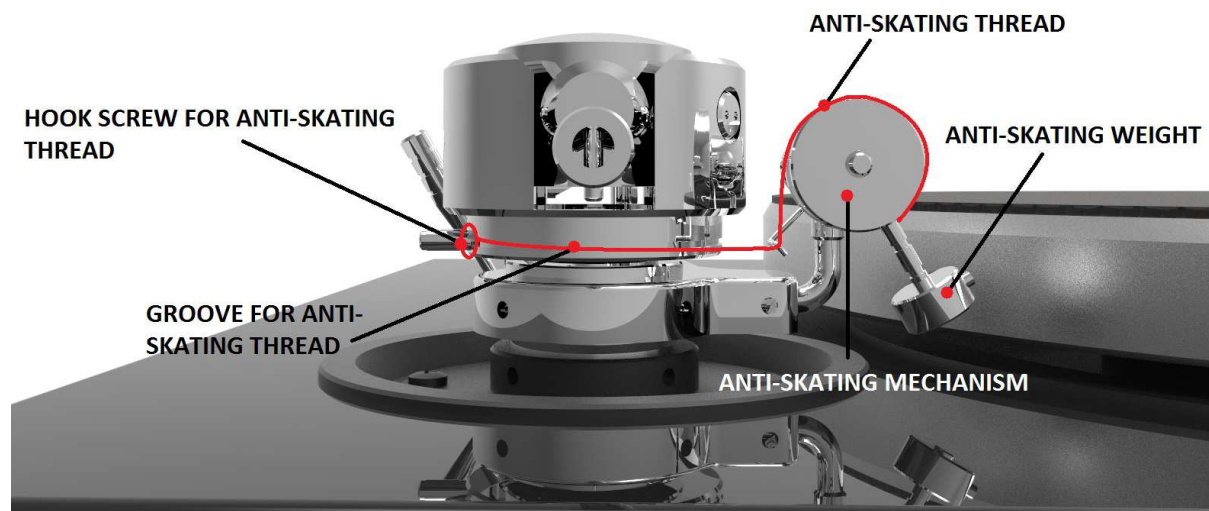
Mount the anti-skating mechanism support as shown on the picture below and tighten the securing screw. Put the anti-skating mechanism on the end of the anti-skating support rod.



Be careful when handling the anti-skating thread in order to avoid damaging it.

**Step 3:**

Put the eye of the anti-skating thread around the hole for the HOOK SCREW and screw the HOOK SCREW into the tonearm through the eye of the anti-skating thread as shown in the illustration below. The anti-skating thread should fit into the groove in the tonearm.





## Connection to the amplifier

The record player has gold plated female RCA phono sockets (14) so you can substitute the supplied interconnect cable **Pro-Ject Connect it E** with higher quality cables such as the **Pro-Ject Connect it C/CC/Si** interconnect cables for connection to the amplifier if you wish.

Use 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. The earthing wire of the tonearm lead should be connected to the earth terminal on your amplifier (if provided). 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).



*The recommended load impedance for the factory fitted cartridge is: 47kohms/MM-input*

## 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 (13) on the rear of the record player before connecting the power supply to the mains.

## Fitting the lid

Fit the lid (dust cover 10) carefully over the hinge prongs (11) and adjust the screws (12) until the lid stays open where you want it to without being too stiff to open or close.

## Switching on and off

Pressing the power switch (20) alternately starts or stops the motor.

## Changing replay speed

To play records at 45 r.p.m. first remove the platter (5). Using the accessory tool provided (3a), hook the belt (3) over the larger diameter part of the motor pulley (2). Refit the platter. To revert to 33 r.p.m. repeat the proceedings using the smaller step on the pulley.



*\*\*\* In addition, 78 r.p.m. is available after fitting a special pulley, which may be purchased as an optional extra.*

*For detailed product information please refer to the Pro-Ject web site [www.project-audio.com](http://www.project-audio.com).*

## 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 this will create static electricity which attract more dust! Antistatic cleaning fluids are available at specialist stores but must 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 over a long period of time the drive belt can be removed to prevent unequal stretching.





*Always disconnect the record player from the mains power supply as a precaution before maintenance!*

## Mounting 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 (21). 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.*

## Useful tips

The lid is not only a dust cover but also a resonant structure likely to be excited by, and to pass into the plinth, the acoustic energy emanating from your loudspeakers during replay. It is therefore recommended that the lid be removed for optimum sound quality.

The record player should be positioned on a low-resonance surface such as wood or multiple layer ply board to avoid structural vibrations disturbing replay.

## Technical specifications

### PRO-JECT 1 Xpression Classic S-Shape/Pro-Ject 8.6'' S-Shape

Nominal speeds	33/45 r.p.m.. *** 78 r.p.m. optional
Speed variance	33: 0,35%    45: 0,30%
Wow and flutter	33: 0,17%    45: 0,15%
Signal to noise	-68dB
Effective tonearm mass	13g
Effective tonearm length	8,6 " (218,5mm)
Overhang	18,5mm
Power consumption	4,5W
Outboard power supply	15V / 0 - 0.8mA DC (set at 0.5mA), universal power supply
Dimensions (W x H x D)	415 x 130 x 335mm, dust cover open 415 x 400 x 400mm
Weight	6kg

## Potential incorrect use and fault conditions

Pro-Ject Audio Systems 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 does not 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 not switched on.
- Amplifier or speakers 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 if the problem cannot be solved there the unit should be sent to the responsible distributor in your country.

Guarantee repairs will be accepted only if the unit is returned correctly packed in the original package. Therefore we strongly recommend keeping the original packaging.

Never return a record player without making sure that it is safely disassembled and correctly packed in the original packaging according to the diagrams on the last page of this user guide. Please remove the following parts from the turntable and pack them separately: power supply socket (20), counterweight (6), anti-skating mechanism (15) platter (5) and belt (3). Mount the cartridge protection cap. Insert the transport lock for the tonearm (18).

## 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 releases the manufacturer from any liability over and above the lawful rights of the customer.*

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