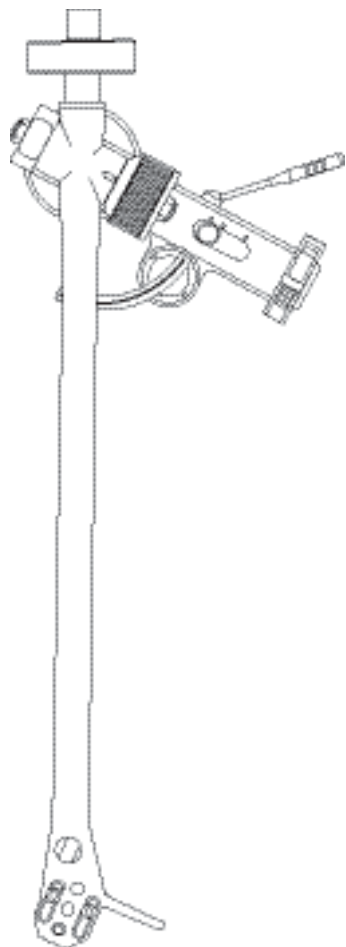


# RB 300

## Instruction Manual



The **RB 300** tonearm is a precision crafted product. To create the low friction levels and meet minimum mass requirements many parts of the arm are delicate and require careful handling. The arm should always be treated with respect and under no circumstances should any part be removed or tampered with.

In most cases it is advisable that the dealer fits this arm to your turntable. If the user fits the arm and causes any damage to the arm, cartridge or turntable then obviously it is his or her responsibility. He should also be able to advise if there are any subsequent problems with the rest of the system.

The following instructions are to the dealer.

### Preparing The Turntable

Before attempting to fit the RB 300 arm to the turntable it is important to ensure that there is sufficient clearance beneath the turntable and that the arm does not hit the lid - top or sides. The arm requires a minimum clearance of 70mm from the top of the record to the bottom of the arm assembly.

Having checked that there is sufficient clearance in all directions the next step is to find the position of the centre of the arm mounting hole. The easiest way to do this will probably be to use the arm mounting template supplied:

1. The template should be kept flat and not bent.
2. Fit the hole over the record centre spindle of the turntable.
3. Position the other end of the template so that the clearance arc is within the rear and side edges of the turntable base (and the lid when closed). Also check that there is at least 250mm clearance from the centre of the hole to the inside front of the turntable.
4. Use a long pointed probe such as a needle and push it through the 'arm hole centre' on the template. Keep the needle perpendicular to the template and mark the position of centre on the turntable.
5. Having marked the centre, check again that if the arm is placed in this position it will clear the underside of the turntable and the lid. Also, check that the arm is in a satisfactory position to ensure easy operation and that the position is pleasing aesthetically. When you are one hundred per cent certain that the arm hole centre is in its correct position (exactly 222mm from the record centre) you can drill the arm hole.
6. The arm mounting pillar is 23mm diameter and a hole of this size will provide a tight, snug fit.
7. With the hole drilled, it is ready to fit the arm to the turntable. Ensure that you also follow the turntable manufacturer's instructions regarding arm fitting. Each individual turntable manufacturer may have different requirements regarding positioning of the arm signal lead, etc.

### Arm height adjustment.

The arm is not adjustable for height except by the use of a stainless steel spacer. You should as a dealer, have some of these spacers in stock.

The arm is designed so that the rear of the should be as close to the arm mounting board as possible. On the Rega P3 and the Linn Sondek turntables no spacers should be necessary and none should be fitted. On some other models of turntable it may be necessary to use a spacer to achieve the correct height, if more than two spacers are necessary then it is a better solution that the turntable manufacturer or the dealer should make up one single spacer of the correct height. This should be made from stainless steel and the faces touching the arm and arm board should be accurately machined flat

The arm height is correct when the arm appears to be parallel to the record or appears to slope downward slightly away from the cartridge. The only limit to the arm sloping backwards is if the cartridge tends to touch warped records.

Under no circumstances adjust the arm to achieve a hypothetical correct V.T.A (vertical tracking angle) for the cartridge.

## Cartridge Alignment

At this stage roughly check the cartridge alignment using the cartridge alignment protractor printed on the arm template supplied. When everything appears to be correct the arm can be permanently fitted to the arm mounting board. The arm fixing nut should be reasonably tight. **Warning:** Do not use the bias housing as a spanner when tightening the arm fixing nut.

Cartridge alignment may now be more accurately checked and the cartridge permanently fitted. The cartridge fitting screws should be made as tight as possible using the special small allen key supplied taking care not to damage the cartridge.

## Cueing platform adjustment

The arm cueing platform will normally be set at the correct height but can be adjusted by the dealer if necessary.

## Cartridge tracking force adjustment

1. Ensure that the tracking force adjustment knob is set to the zero position.
2. With the cartridge permanently fitted in the correct position adjust the main balance weight so that the arm is "floating" with the stylus just 1mm clear of a record. (This adjustment should be made with the anti-skating knob to zero. **Note:** Even at zero there will be some small residual anti-skating force. Therefore it may also be necessary to gently touch the arm bearing carrier to stop the arm moving outwards).
3. Rotate the tracking force adjustment knob to the required tracking force. If in doubt it is usually advisable to use a tracking force that corresponds with the upper limits of the cartridge manufacturer's range.

## Anti - Skating (bias) adjustment

Set the bias adjustment knob to the same number as the tracking force. **Note:** This is not critical and a figure of 1-1.5g will normally be suitable for moving magnet cartridges and 1.5-2g for most moving coil cartridges.

## Further adjustments for the neurotic/paranoid enthusiast

There are many hypothesis and theories regarding the accurate setting of bias compensation, cartridge alignment and V.T.A.

All these theories exist because these adjustments are only approximations or compromises. There is no one hundred percent correct answer.

If the previous instructions are followed carefully then the arm and cartridge are likely to perform at or near to the optimum.

Nevertheless other methods do exist (i.e. the use of test records for setting bias compensation and complex multiple point alignment systems for cartridge setting). If properly understood and implemented these systems cause no harm and may be used.

However care must be taken when using test records as these are generally designed for professional use. They are only relevant as a comparison between different products and can lead to hi-fi paranoia if used in isolation.

Likewise more complex cartridge setting systems may be valid but are difficult to understand and if not used correctly may cause more harm than good.

So experiment if you wish but you are likely to gain more pleasure from listening to music.