

LINN ITTOK LV-II

Set-Up Manual

IMPORTANT CAUTION NOTES

The bearings used in the LV-II are of very high quality and are precisely adjusted. Care should be taken to insure that no unnecessary forces are applied to the bearings that might adversely affect their adjustment. Because this arm is so different from any other arm you may have used, we have detailed, in the notes below, some precautions that should be followed.

CAUTION NOTE 1

To derive the best possible performance from this arm, it is necessary that the cartridge be mounted as firmly as possible to the headshell. This requires that a considerable amount of force be applied to the cartridge mounting screws. If this force is applied while the arm is mounted on the turntable, some of this force will be transmitted through the arm to the bearings and adversely affect their adjustment.

To avoid this problem, after you have loosely mounted the cartridge and completed the alignment, you must loosen the arm's height locking screw, remove the arm from the turntable, place it on the work bench, and then fully tighten the cartridge mounting screws. This leaves the rear portion of the arm free to move and eliminates the possibility of undue force being applied to the arm bearings.

CAUTION NOTE 2

Never ship a turntable with the arm mounted on it. Always remove the arm and place it in its original packing. For short distances, i.e., transporting it across town in your car, you may leave the arm on the turntable. But, be sure to remove the counter weight!

ARM MOUNTING INSTRUCTIONS

Note: These instructions are based on the assumption that the arm is being mounted on a Linn Sondek LP12 turntable.

1. Mount the arm base and arm rest on an arm board.

Precut boards are available from Audiophile Systems. If you need to cut a blank arm board, refer to the template on the last page of this manual. The arm base should be positioned on the arm board with the "Linn Ittok" logo facing the rear of the board and the height locking screw towards the right. The base is attached to the arm board by three socket head cap screws and their associated lock washers. All three bolts should be tightened firmly with the allen wrench supplied. Gripping the allen wrench by the long end and inserting the short end into the bolt will provide maximum leverage and allow you to achieve the proper degree of tightness.

The arm rest should be fitted with the knurled height locking screw towards the right. The washer provided fits on the bottom side of the arm board.

2. Attach the arm board to the turntable.

Use only two screws for now. The screw closest to the arm will be installed when the arm cable grounding is accomplished.

3. Mount the cartridge LOOSELY in the headshell.

Note that the cartridge mounting screws should be inserted from below the cartridge with the nuts being placed on the top of the headshell. You must use hex shaped nuts that can be gripped with pliers. Do not use the round nuts that are supplied with some cartridges. Under no circumstances should nylon mounting hardware be used. **DO NOT FULLY TIGHTEN THE SCREWS AT THIS TIME.**

4. Place the arm mounting template over the turntable spindle.

Insert the arm through the hole provided in the template and into the arm base. Engage the arm height locking screw in the receiver slot and tighten the locking screw sufficiently to hold the arm in position.

5. Using the template, set the cartridge overhang.

Tighten the cartridge mounting screws finger tight. **DO NOT TIGHTEN THEM FULLY WHILE THE ARM IS MOUNTED ON THE TURNTABLE.**

6. Loosen the height locking screw and remove the arm from the turntable.

With the arm resting on the work bench, fully tighten the cartridge mounting screws. This job is best done with a large screwdriver and a pair of pliers. The cartridge must be mounted as tightly as possible to the headshell. Using a jeweler's screwdriver while holding the nuts with your finger is simply not sufficient.

7. Replace the arm on the turntable and tighten the height locking screw sufficiently to hold the arm in position.

Check the tracking force adjustment to make sure it is still correct, the counterweight may have shifted. Also check the position of the cartridge against the template to make sure that the cartridge did not shift while you were tightening it. Remove the arm and template. Replace the arm, again tightening the height locking screw sufficiently to hold the arm in position.

8. Fit the counterweight to the rear of the arm.

See "Counterweight" note below for more details. With the tracking force set at '0', place the counterweight in the position that balances the arm. Apply the appropriate tracking force by adjusting the tracking force dial.

9. Adjust the height of the arm so that the arm tube is parallel to the record.

Tighten the height locking screw. We do mean TIGHT! Gripping the allen wrench by the long end and inserting the short end into the locking screw.

10. Place the arm in the arm rest.

Set the tracking force dial to the zero detent position. If the zero mark on the dial does not line up with the red jewel, adjust the height of the arm rest so that the mark and jewel do line up. Reset the tracking force.

11. Complete the set-up of the turntable.

Refer to the instructions in the LP12 Technical Bulletins; i.e., clamp the arm cable in the P-clip, fit the ground wires to the arm board screw closest to the arm, adjust the suspension, etc. In short, go over the entire LP12 set-up check list again. (See notes on "Arm Cable" below.)

12. Check and adjust cueing operation.

See cue height locking screw in diagram. Make final adjustments in tracking force and anti-skating.

SPECIAL NOTES

COUNTERWEIGHT

The counterweight consists of two pieces, the main weight and a smaller ring that is attached with two hex key set screws. The ring should be used if a heavy cartridge (approx. six grams or more) is to be mounted in the arm. Lighter cartridges require only the main part of the weight. You should use the configuration that allows you to position the weight closest to the arm pivots without permitting any part of the counterweight to hit the back of the arm (this would defeat the decoupling of the counterweight). Note that the Linn Asak cartridge does require the use of the ring.

It should be noted that the counterweight is used only to balance the arm, never to apply tracking force. Tracking force is applied by a spring that is controlled by the tracking force arm adjustment dial. Because of this, the arm is always dynamically balanced and any disturbances that reach the arm will tend to affect both the rear portion of the arm and the front portion of the arm equally, thus minimizing their effect.

HEADSHELL

In order to obtain the most rigid connection possible between the headshell and the arm tube, the headshell is permanently fixed to the arm tube. As you can appreciate, any method of attaching the headshell that would still allow it to be rotated would necessitate a weakening of this connection.

Since the Linn Ittok uses offset bearings, the cartridge body will remain parallel to the record as the height of the arm is changed, provided the cartridge is mounted exactly in line with the headshell. This allows the vertical tracking angle to be adjusted. However, the Ittok has no provision for changing the VTA while the arm is playing, as this would greatly compromise the rigidity of the arm mounting. Also, changing the VTA is bound to effect the set-up of the arm, and the resulting sonic differences will be mistakenly ascribed to VTA changes. Since the optimum VTA varies from record to record, so that any VTA setting will have to be, at best, a compromise, it is best to settle on a VTA that produces the best overall result, and leave it. The relatively small gains that can be obtained by adjusting the vertical tracking angle are insignificant when compared to the degradation of the signal that occurs when the torsional rigidity of the arm, or the

mounting integrity of the arm base is compromised. To those critics that argue that VTA makes a “big difference,” we can only suggest that they really don’t know what a “big difference” is.

ARM CABLE

The proper method of adjusting the suspension of the LP12 when used with the LV-II is as follows: Centralize and level the suspension. Attach the arm cable and run it through the P-clip. Be sure that the arm cable does not foul the suspension springs and/or rest against the bottom panel or the inside of the base. This may require cutting a larger hole in the bottom panel than that provided. Re-check the suspension, making sure that the deck is free to move in all directions. Now clamp the cable in the P-clip properly.

You will note that there is a short ground wire at the arm end of the cable. This wire and the turntable ground wire that runs to the large bolt in the front of the table should both be attached to the arm board mounting screw closest to the arm.