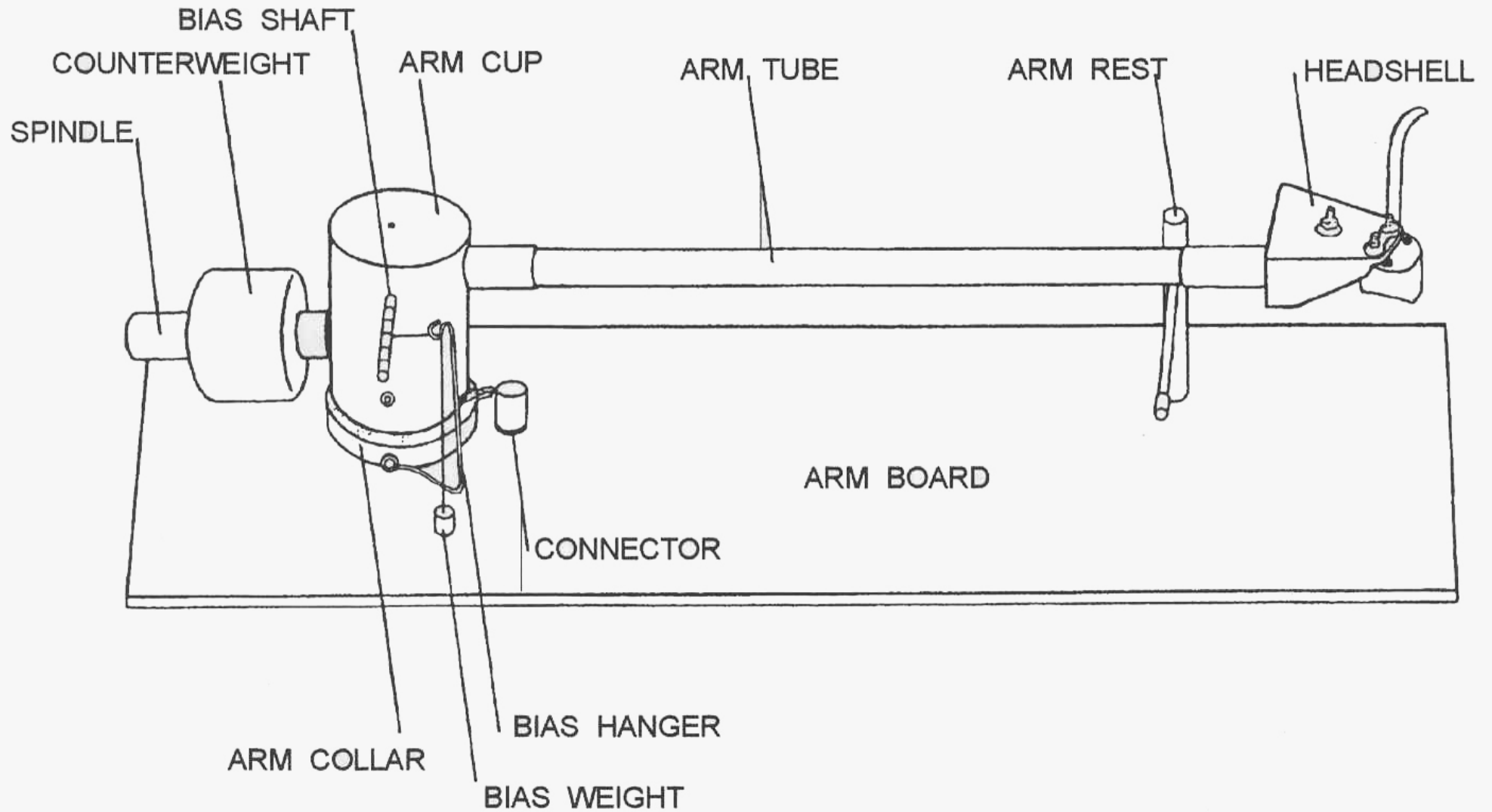


NAIM AUDIO ARO UNI-PIVOT TONE ARM

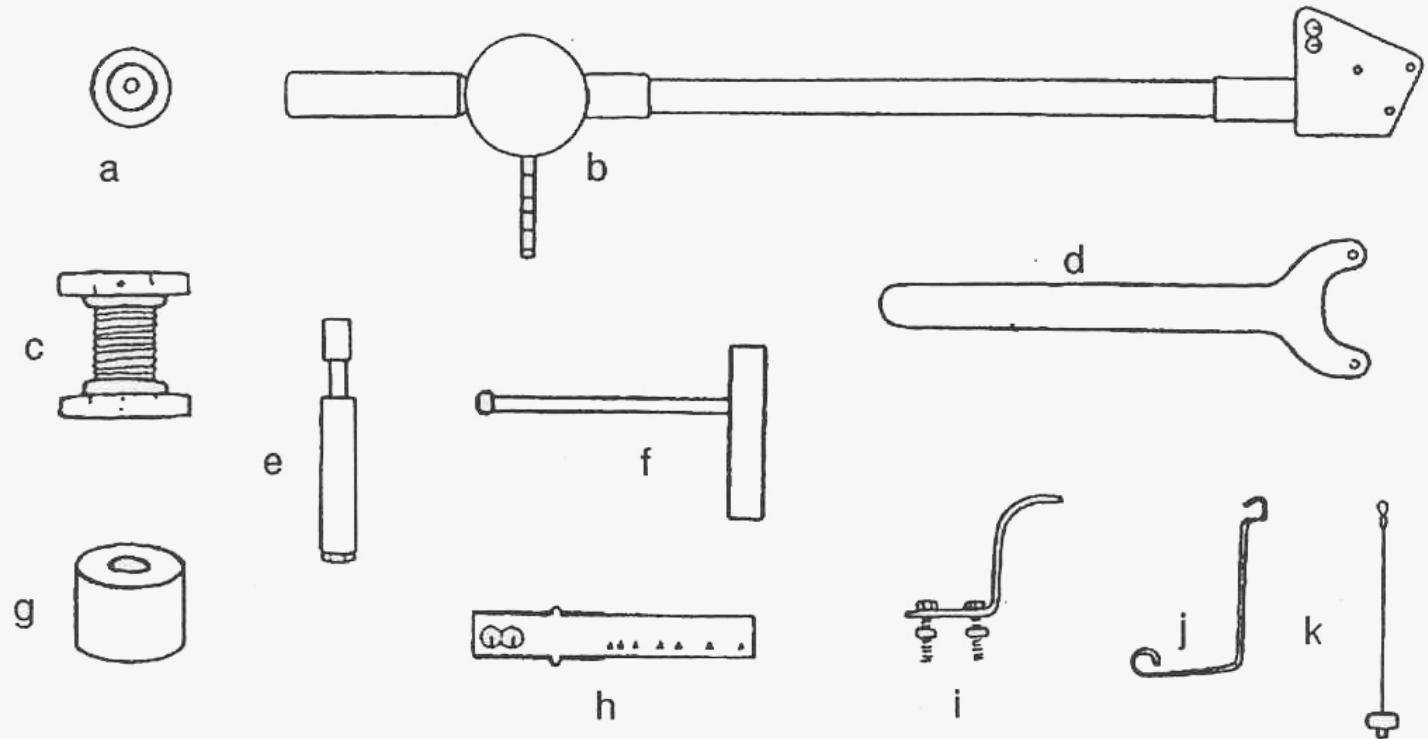


INSTRUCTIONS FOR FITTING TO LINN LP 12 TURNTABLE

Fitting and setting up your arm and cartridge is a specialised skill, and under all normal circumstances your retailer should do this for you.

CHECKLIST

- a: Spirit Level
- b: Arm Top
- c: Arm-collar with Nut
- d: Pin-spanners
- e: Pillar/Bearing Assembly
- f: Arm Rest
- g: Counterweight
- h: Stylus Balance
- i: Fingerlift
- j: Bias Hanger
- k: Bias Weight and Cord



Screws (5) nuts (3) and washer (1) for cartridge; Pins for Troika cartridge (5 - one is spare)
No.2 roundhead x 1/4" for arm-lead socket (5 - one is spare); M4 x 16 pan posi screw for arm rest
Allen keys (2); Arm Lead;

Identify all components on list and check that they are all present.

SPECIAL NOTES

1. **DO NOT** attempt to pull the pillar/bearing assembly apart. In case of a fault, see instructions for fitting pillar and bearing to the armboard.
2. **DO NOT** allow pressure to be applied to the bearing. Lift the arm top off the bearing when fitting or removing the counterweight. Support the arm cup with one hand when making minor adjustments to the counterweight. Lower the cup down over the bearing gently, making sure that the pivot inside the arm cup locates correctly in the pivot cup in the top of the pivot housing. Do not apply pressure to the top of the arm cup. Do not move the turntable without first removing the arm top.
3. **DO NOT** trap the signal wires between the two parts of the pivot when replacing the arm top.

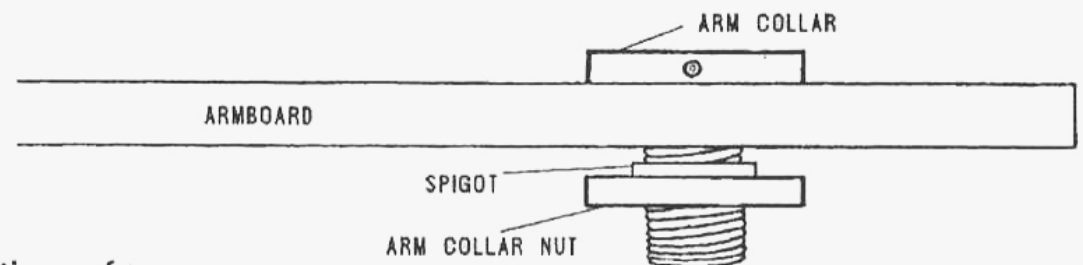
ARMBOARD

Unless otherwise stated, descriptions such as right and left establish direction with the turntable facing you, and the armboard positioned as if on the turntable.

Remove existing arm and armboard and release the P-clip holding arm lead. The screws will be required for refitting the armboard.

ARM-COLLAR

Unscrew the arm-collar nut from the arm collar, and put the threaded section of the collar pointing downwards through the large hole in the armboard. Fit the nut back onto the threaded section of the collar underneath the board with the spigot towards it. Do the nut up lightly by hand, making sure that the spigot fits right up inside the hole.



There are two small threaded holes on opposite sides of the perimeter of the arm-collar flange, one containing a black M4 x 12 knurled set screw, the other a stainless steel M3 x 8 socket cap screw. When the arm-board is fitted back on the turntable, the latter should face squarely to the left. (See fig. 5.) Position the socket cap screw and tighten up the arm-collar assembly firmly with the 2 pin-spanners provided. When positioned correctly, the top spanner will lie at 90 degrees to the arm-board length.

ARM LEAD

Turn the board over, and push the arm-lead clamp down over the protruding section of the arm-collar until it lies snugly against nut. Holding the INVERTED board with the collar assembly away from you, the cable must lead off to the right. (When the arm-board is refitted, the cable will of course lead off to the left.) See fig. 4. Tighten arm-lead clamp screw. Push the miniature 7-pin connector into the recessed hole beside the collar, ensuring that the locating slot faces away from the arm collar, and secure with the tiny screws (No.2 roundhead x 1/4") provided. The extra screw is in case one gets lost.

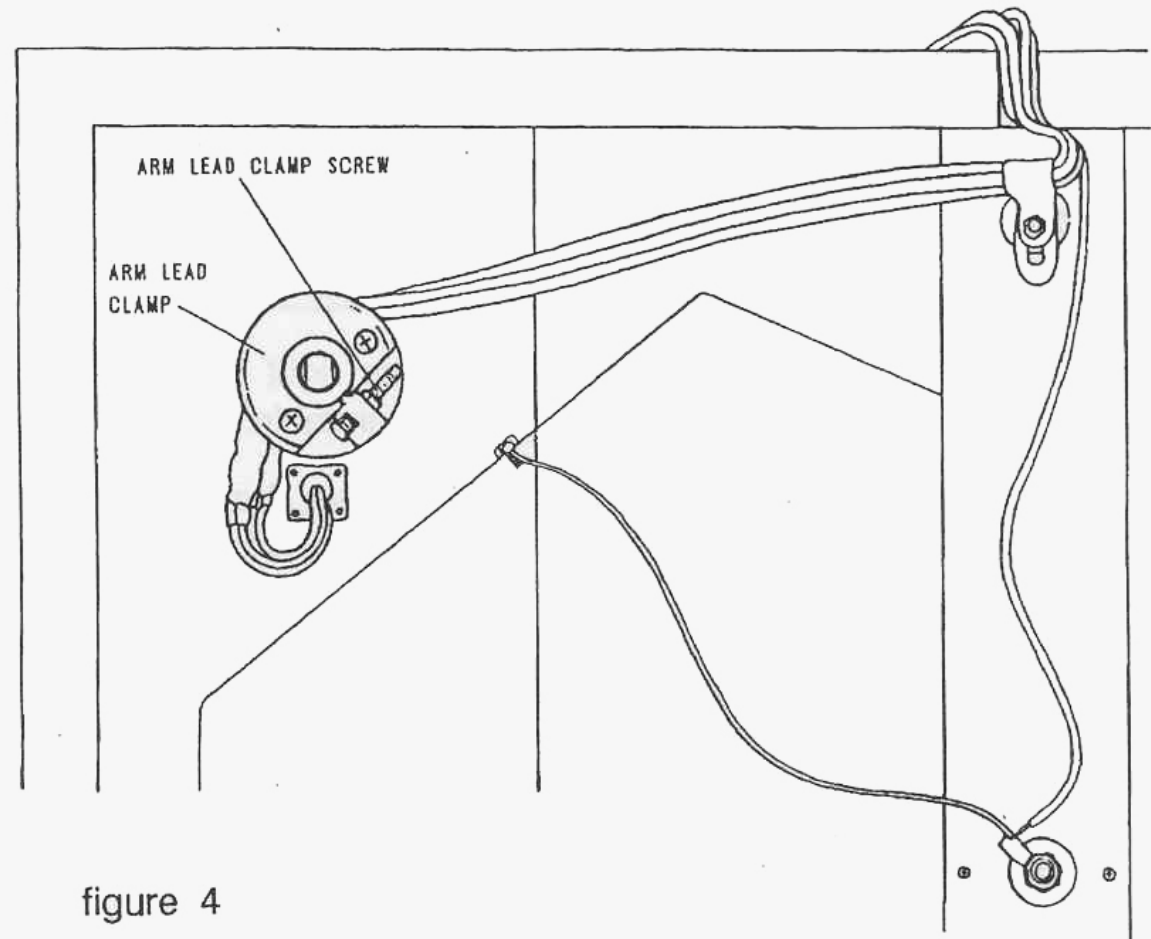


figure 4

ARM-REST

Secure the arm-rest onto the board with the long (M4 x 16) posi panhead screw provided. Insert the screw into the arm-rest pillar from underneath the board, holding the arm-rest arm at right angles across the board, pointing left. Tighten firmly.

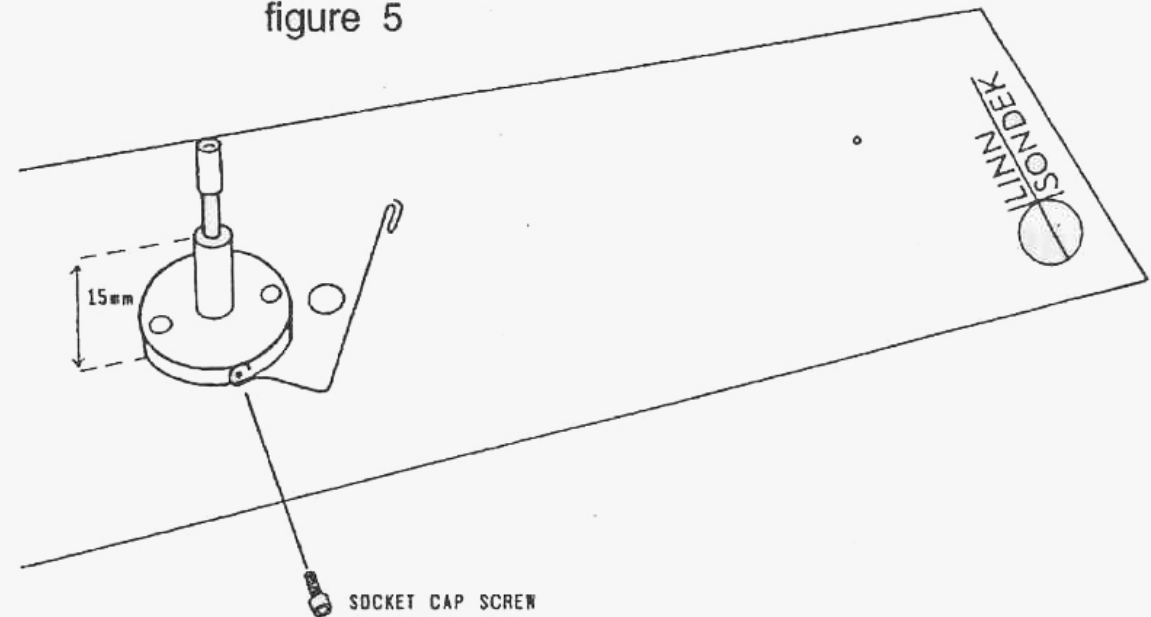
BIAS HANGER

Handle the bias hanger carefully. It is located by the stainless steel socket cap screw threaded into the arm-collar flange. Remove the screw. Holding the board the right way up, with the arm-collar away from you, position the bias hanger on the left side of the collar as follows: the short arm of the hanger, with the round loop, rests against the board beside the flange, pointing towards you with the loop to the rear. The long arm projects up and to the left. See fig. 5. Insert the screw through the round loop, into the screw-hole in the arm-collar flange, and tighten.

RE-FIT ARMBOARD TO TURNTABLE

Secure the armboard in position with its original 3 screws, pass the arm lead through the P-clip and re-fasten it. The loose, bare-ended wire is the earth wire, and should not be fed through the P-clip, but taken straight forwards to the earth bonding tag on the front underside of the turntable. Solder earth wire to earth tag. See fig. 4.

figure 5



PILLAR AND ARM-BEARING ASSEMBLY

Do not try to pull the pivot support out of the pillar. The bearing must be free from air and dust. Air trapped beneath the pivot support can be detected by attempting to compress assembly length-wise between the fingers - there should be no movement or sign of sponginess. In case of doubt, please contact your dealer, or Naim Audio. If this is not possible, please see section headed "Trouble-shooting."

Insert the pillar end of the assembly into the armbase. Use the set screw on the right-hand side of the arm-collar to grip the pillar very lightly, so that the shoulder of the pillar protrudes about 15mm above the top surface of the armboard. The allen key provided should be used with caution so as to apply minimum force. The height of the pillar will need final adjustment after the cartridge is fitted.

ARM TOP AND CARTRIDGE

Fitting the Cartridge

An allen key and two sizes of M2.5 screws are supplied. There are two M2.5 x 10mm, and three M2.5 x 8mm, together with three nuts and a matching washer. Choose the length that fits your cartridge. The third 8mm long screw, the washer, and the extra nut, are only required for Linn Troika cartridge. Attach the cartridge, fitting the fingerlift between the headshell and the nuts so that the curved part of the lift points upwards towards the right. For Linn Troika, the extra 8mm screw will need to have the washer fitted between the the headshell and the nut, to make up the thickness of the fingerlift.

Do not overtighten the screws holding the cartridge.

Attach the arm lead tags to the cartridge pins following the colour code. Do not attempt to pull the signal wires out beyond the point of slight resistance created by their internal sleeving. For Linn Troika, you will need to use the double-ended pins provided to connect the arm lead tags to the Troika cartridge tags. The extra pin is in case one gets lost.

The signal wires may be pushed back through the foam plug into the arm tube, making a neater installation. Do not push them back so far that they are visible near the bearing pivot (see fig).

Colour Code:

Left channel +(pos): white, -(gnd): blue. Right channel +(pos): red, -(gnd): green

Counterweight

Push or rotate the counterweight gently onto the counterweight spindle at the rear of the arm top, until you feel the spring on the spindle locate inside the counterweight. Then rotate the counterweight until it is about half-way along the spindle.

Setting up

1. Remove the foam plug from the arm cup to release the connector, Take the arm top, holding the signal wires out of the way, gently lower the arm cup onto the arm bearing. Do not apply pressure. Ensure gently that the pivot (inside the arm cup) is correctly seated into the pivot cup in the top of the pivot housing.
2. For final adjustment of the height of the arm-bearing pillar, put a record on the platter, and lower the cartridge onto the surface of the record. Examine the arm from the side - the arm tube should be parallel to the record. If it is not, REMOVE THE ARM TOP, slacken the set screw that grips the pillar in place, and raise or lower the pillar to correct the angle of the arm. Resecure lightly with the set screw, replace the arm top and check again. If further adjustment is required always remove the arm top while re-siting the pillar. Remember not to overtighten the set screw.
3. Remove the mat from the platter. Place the stylus balance provided on the platter and lower the stylus onto the groove of the balance. Rotate the counterweight until scale balances horizontally at the tracking weight recommended by the cartridge manufacturer. The scale is calibrated in millinewtons.



Due to the geometry of the arm, the following table shows the equivalent force in grams AT THE RECORD SURFACE. (15mN: 1.3gm), (17mN: 1.5gm), (19mN: 1.7gm), (20mN: 1.8gm), (22mN: 2.0gm), (24mN: 2.2gm), (25mN: 2.3gm). It is important to use only the scale provided. Replace the felt mat.

4. Bias weight. The horizontal bias weight arm is calibrated in increments of .25 grams per groove, starting with 1.5 grams for the first groove nearest the arm cup. Hook the loop of the bias weight cord over the bias weight arm, locating it in the groove that corresponds with the tracking weight recommended by the cartridge manufacturer. Lead the bias weight cord through the upper, open loop of the bias hanger.
5. Place the mirror provided directly on the platter (not on the mat, which may not provide a completely level surface) under the stylus. Position the small balance weight on the shaft fitted to the side of the arm cup so that the mirror image of the cartridge is in line with the cartridge body. For Linn Karma, the balance weight should lie at the inmost point of its travel on the shaft.
6. Plug the arm-lead signal connector into the miniature socket on the armboard.
7. A spirit level is provided to check that the turntable is set up correctly. The table on which it rests must be level, the platter must be level, and the suspension free. Please see your turntable instructions.

TROUBLE-SHOOTING

If your arm does not perform as well as you expect, please check the following:

1. Is the stylus clean?
2. Re-check calibration of tracking force and bias weight.
3. Remove the arm top and make sure that the pivot housing can be rotated smoothly on the support. If it feels at all gritty, rotate gently until it moves freely.

- Occasionally a tiny cushion of air beneath the pivot support may escape notice, but will prevent the arm performing properly. Four hours or so playing time is sufficient to expel it and so remove any problem. We do not recommend that you disassemble and reassemble the bearing. The instructions that follow are for use only if you cannot contact a dealer and need to trouble-shoot quickly.

Take care not to drop any part of the bearing, which must be kept very clean. Unscrew the plug at the bottom of the pillar far enough to free it, but neither the plug nor the pivot support should be completely detached from the pillar, in case the ball bearing falls out. Push the pivot support gently downwards into the pillar, then screw the plug back up, maintaining a gentle pressure on both pivot cup and plug so that the assembly stays slightly compressed as the plug re-enters the pillar. Maintain pressure until the plug is as tight as it can be turned by hand, before resealing with a spanner.

To check the bearing: stand the pillar on a hard stable surface, and tap the top of the pivot cup firmly with a finger. If there is any air in the bearing this action will produce a distinctive sharp metallic knock.

In case of doubt, please contact your dealer or Naim Audio.

CARTRIDGE SPECIFICATIONS

For use with standard Arm Top:

Centre line of mounting screws to stylus tip: 7mm to 10mm.

Weight: 5.5 to 12gms

If the cartridge specs fall outside the above, ask your dealer for details of alternative models.

