

# ROKSAN

AUDIO LIMITED

XERXES TOP PLINTH DESIGN AND ALIGNMENT

## XERXES MAIN BEARING PRECISION BALL FITTING INSTRUCTIONS

1. REMOVE DUST COVER
2. REMOVE OUTER PLATTER AND BELT
3. GENTLY REMOVE INNER PLATTER AND PLACE IT SOME WHERE SAFE\*
4. REMOVE THE FOUR M3 SURROUND FIXING SCREWS
5. REMOVE SURROUND
6. GENTLY LIFT THE TOP PLINTH OFF THE BLOBS
7. REMOVE THE THREE M3x30 SHC MAIN BEARING COLLAR FIXING SCREWS\*\*\*
8. REMOVE THE MAIN BEARING HOUSING
9. HOLD THE MAIN BEARING HOUSING UPSIDE DOWN AND TAP IT ON A WOODEN OR HARD PLASTIC SURFACE UNTIL THE 2mm PRECISION BALL FALLS OUT OF THE BEARING HOUSING\*\*\*
10. CLEAN MAIN BEARING HOUSING USING A FRESH COTTON BUD AND PLACE THE NEW BALL AND FIT THE BEARING CAP TO AVOID THE 2mm PRECISION BALL ACCIDENTALLY FALLING OUT OF THE BEARING HOUSING
11. REFIT THE MAIN BEARING HOUSING TO THE TOP PLINTH USING THE M3x30 SHC BOLTS\*\*\*
12. REMOVE BEARING CAP AND PUT 4 TO 5 DROPS OF ROKSAN MAIN BEARING OIL INTO THE HOUSING
13. GENTLY RE-FIT THE INNER PLATTER AND ALLOW TO SETTLE
14. RE-FIT THE OUTER PLATTER
15. ALIGN THE PLATTER, USING THE THREE M3x30 SHC BOLTS, SO THAT IT IS LEVEL WITH **THE CUT-OUT PORTION** OF THE TOP PLINTH TO ENSURE CORRECT AZIMUTH WITH THE TONE ARM\*\*\*\*
16. CHECK ELECTRICAL CONTINUITY BETWEEN MAIN BEARING SPINDLE AND THE TONE ARM
17. GENTLY PLACE THE TOP PLINTH ONTO THE BLOBS SUCH THAT THE TRANSIT BOLT INSERTS ON THE TOP AND BOTTOM PLINTHS LINE UP
18. ALIGN THE MOTOR PULLEY WITH THE PLATTER USING THE ADJUSTMENT ON THE BLOBS/MOTOR
19. RE-ADJUST THE MOTOR SPRING IF NECESSARY SO THAT THE MOTOR IS FREE

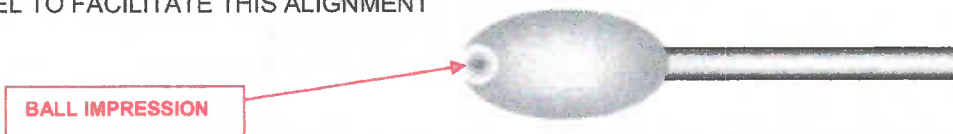
**IF YOU HAVE ANY DOUBTS OR QUERIES REFER TO THE XERXES SERVICE MANUAL OR CONTACT ROKSAN OR YOUR ROKSAN RETAILER OR DISTRIBUTOR.**

\* IT IS IMPORTANT THAT THE MAIN SPINDLE AND THE PERIPHERY OF THE INNER PLATTER ARE NOT ACCIDENTALLY DAMAGED

\*\* YOU MAY HAVE TO TAP THE BEARING QUITE HARD TO DISLODGE THE BALL. AS LONG AS IT IS DONE ON A WOODEN OR HARD PLASTIC BLOCK IT WILL NOT BE DAMAGED. YOU CAN CHECK IF THE BALL IS STILL IN THE BEARING BY PUSHING A COTTON BUD DOWN THE BEARING HOLE AND OBSERVING THE BALL IMPRESSION ON THE TIP OF THE COTTON BUD REMOVED FROM THE BEARING HOUSING.

\*\*\* THESE SCREWS SHOULD NOT BE OVER TIGHT. TIGHTEN BY APPROXIMATELY ONE TURN AFTER THE BOLTS HAVE CONTACTED THE PLINTH. OVER TIGHTENING THE SCREWS MAY DAMAGE THE EARTHING STRIP AND/OR CAUSE TOO MUCH INDENTATION INTO THE TOP PLINTH

\*\*\*\* BY SLIGHTLY UNDOING ONE SCREW AND TIGHTENING ANOTHER THE AXIS OF THE MAIN BEARING COULD BE ALTERED TO ALIGN IT WITH THE CUT-OUT PORTION USE A SPIRIT LEVEL TO FACILITATE THIS ALIGNMENT



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- FIT TO THE PLINTH\*\*
9. **CLEAN MAIN BEARING HOUSING USING A COTTON BUD ENSURING THAT THE 2mm PRECISION BALL IS AT THE BOTTOM OF THE BEARING HOUSING**
  10. PUT 4 TO 5 DROPS OF ROKSAN MAIN BEARING OIL INTO THE HOUSING
  11. GENTLY RE-FIT THE INNER PLATTER AND ALLOW TO SETTLE
  12. RE-FIT THE OUTER PLATTER
  13. ALIGN THE PLATTER, USING THE THREE M3x30 SHC BOLTS, SO THAT IT IS LEVEL WITH **THE CUTOUT PORTION** OF THE TOP PLINTH TO ENSURE CORRECT AZIMUTH WITH THE TONE ARM\*\*\*
  14. CHECK ELECTRICAL CONTINUITY BETWEEN MAIN BEARING SPINDLE AND THE TONE ARM
  15. GENTLY PLACE THE TOP PLINTH ONTO THE BLOBS SUCH THAT THE TRANSIT BOLT INSERTS ON THE TOP AND BOTTOM PLINTHS LINE UP
  16. ALIGN THE MOTTOR PULLEY WITH THE PLATTER USING THE ADJUSTMENT ON THE BLOBS/MOTOR
  17. RE-ADJUST THE MOTOR SPRING IF NECESSARY SO THAT THE MOTOR IS FREE

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13. GENTLY LIFT AND PLACE THE TOP PLINTH ONTO THE BLOBS SUCH THAT THE TRANSIT BOLT INSERTS ON THE TOP AND BOTTOM PLINTHS LINE UP
14. ALIGN THE MOTOR PULLEY WITH THE PLATTER USING THE ADJUSTMENT ON THE MOTOR FIXING SCREWS (**NOTE:** FIRST TIGHTEN THE BACK SCREWS THAT HAVE THE FIXING PILLARS). NEXT VIEW THE PULLEY FROM THE BACK LEFT HAND CORNER OF THE TURNTABLE AND CHECK ITS ALIGNMENT WITH THE INNER PLATTER. 'OVER-TIGHTEN' THE FIXING SCREW ON THE SIDE THAT IS 'HIGHER' THIS WILL COMPRESS THE FIXING PILLAR ON THAT SIDE AND LEVELS THE PULLEY WITH THE INNER PLATTER. LAST ADJUST THE FRONT SCREW TO TILT THE MOTOR TOWARDS OR AWAY FROM THE MAIN BEARING AS APPROPRIATE TO ENSURE CORRECT ALIGNMENT WITH THE INNER PLATTER AS VIEWED FROM THE LEFT FRONT CORNER)
15. RE-ADJUST THE MOTOR SPRING IF NECESSARY SO THAT THE MOTOR IS AS FREE AS POSSIBLE

**IF YOU HAVE ANY DOUBTS OR QUERIES REFER TO THE XERXES SERVICE MANUAL OR CONTACT ROKSAN OR YOUR ROKSAN RETAILER OR DISTRIBUTOR.**

- \* IT IS IMPORTANT THAT THE 2mm PRECISION BALL IS NOT PULLED OUT OF THE MAIN BEARING HOUSING BY MISTAKE
- \*\* THESE SCREWS SHOULD NOT BE OVER TIGHT. TIGHTEN BY APPROXIMATELY ONE TURN AFTER THE BOLTS HAVE CONTACTED THE PLINTH. OVER TIGHTENING THE SCREWS MAY DAMAGE THE GROUNDING STRIP AND/OR CAUSE TOO MUCH INDENTATION INTO THE TOP PLINTH
- \*\*\* BY SLIGHTLY UNDOING ONE SCREW AND TIGHTENING ANOTHER THE AXIS OF THE MAIN BEARING COULD BE ALTERED TO ALIGN IT WITH THE CUT-OUT PORTION USE A SPIRIT LEVEL, ON THE INNER PLATTER AND THE TOP PLINTH NEAR THE TONE ARM, TO FACILITATE THIS ALIGNMENT

## XERXES PLATTER LEVEL ADJUSTMENT INSTRUCTIONS

1. REMOVE DUST COVER
2. REMOVE OUTER PLATTER AND BELT
3. GENTLY REMOVE INNER PLATTER AND FIT THE MAIN BEARING HOUSING CAP\*
4. REMOVE THE FOUR M3 SURROUND FIXING SCREWS
5. REMOVE SURROUND (THIS ALLOWS CLEAR VIEW OF THE MAIN BEARING FIXING BOLTS FROM THE GAP IN BETWEEN THE PLINTHS)
6. CLEAN MAIN BEARING HOUSING USING A COTTON BUD ENSURING THAT THE 2mm PRECISION BALL IS AT THE BOTTOM OF THE BEARING HOUSING
7. PUT 4 TO 5 DROPS OF ROKSAN MAIN BEARING OIL INTO THE HOUSING
8. GENTLY RE-FIT THE INNER PLATTER AND ALLOW TO SETTLE
9. RE-FIT THE OUTER PLATTER
10. ALIGN THE PLATTER, USING THE THREE M3x30 SHC BOLTS\*\*, SO THAT IT IS LEVEL WITH THE **CUT-OUT PORTION** OF THE TOP PLINTH TO ENSURE CORRECT AZIMUTH WITH THE TONE ARM\*\*\*
11. CHECK ELECTRICAL CONTINUITY BETWEEN MAIN BEARING SPINDLE AND THE TONE ARM CHASSIS
12. REFIT THE SURROUND AND ADJUST THE BLOBS UNTIL THE TOP PLINTH IS AS HIGH AS IT CAN GO WITHOUT TOUCHING THE LIP OF THE SURROUND (A GAP OF 0.5 TO 1mm IS SUFFICIENT)
13. GENTLY LIFT AND PLACE THE TOP PLINTH ONTO THE BLOBS SUCH THAT THE TRANSIT BOLT INSERTS ON THE TOP AND BOTTOM PLINTHS LINE UP
14. ALIGN THE MOTOR PULLEY WITH THE PLATTER USING THE ADJUSTMENT ON THE MOTOR FIXING SCREWS (**NOTE:** FIRST TIGHTEN THE BACK SCREWS THAT HAVE THE FIXING PILLARS). NEXT VIEW THE PULLEY FROM THE BACK LEFT HAND CORNER OF THE TURNTABLE AND CHECK ITS ALIGNMENT WITH THE INNER PLATTER. 'OVER-TIGHTEN' THE FIXING SCREW ON THE SIDE THAT IS 'HIGHER' THIS WILL COMPRESS THE FIXING PILLAR ON THAT SIDE AND LEVELS THE PULLEY WITH THE INNER PLATTER. LAST ADJUST THE FRONT SCREW TO TILT THE MOTOR TOWARDS OR AWAY FROM THE MAIN BEARING AS APPROPRIATE TO ENSURE CORRECT ALIGNMENT WITH THE INNER PLATTER AS VIEWED FROM THE LEFT FRONT CORNER)
15. RE-ADJUST THE MOTOR SPRING IF NECESSARY SO THAT THE MOTOR IS AS FREE AS POSSIBLE

**IF YOU HAVE ANY DOUBTS OR QUERIES REFER TO THE XERXES SERVICE MANUAL OR CONTACT ROKSAN OR YOUR ROKSAN RETAILER OR DISTRIBUTOR.**

\* IT IS IMPORTANT THAT THE 2mm PRECISION BALL IS NOT PULLED OUT OF THE MAIN BEARING HOUSING BY MISTAKE

\*\* THESE SCREWS SHOULD NOT BE OVER TIGHT. TIGHTEN BY APPROXIMATELY ONE TURN AFTER THE BOLTS HAVE CONTACTED THE PLINTH. OVER TIGHTENING THE SCREWS MAY DAMAGE THE GROUNDING STRIP AND/OR CAUSE TOO MUCH INDENTATION INTO THE TOP PLINTH

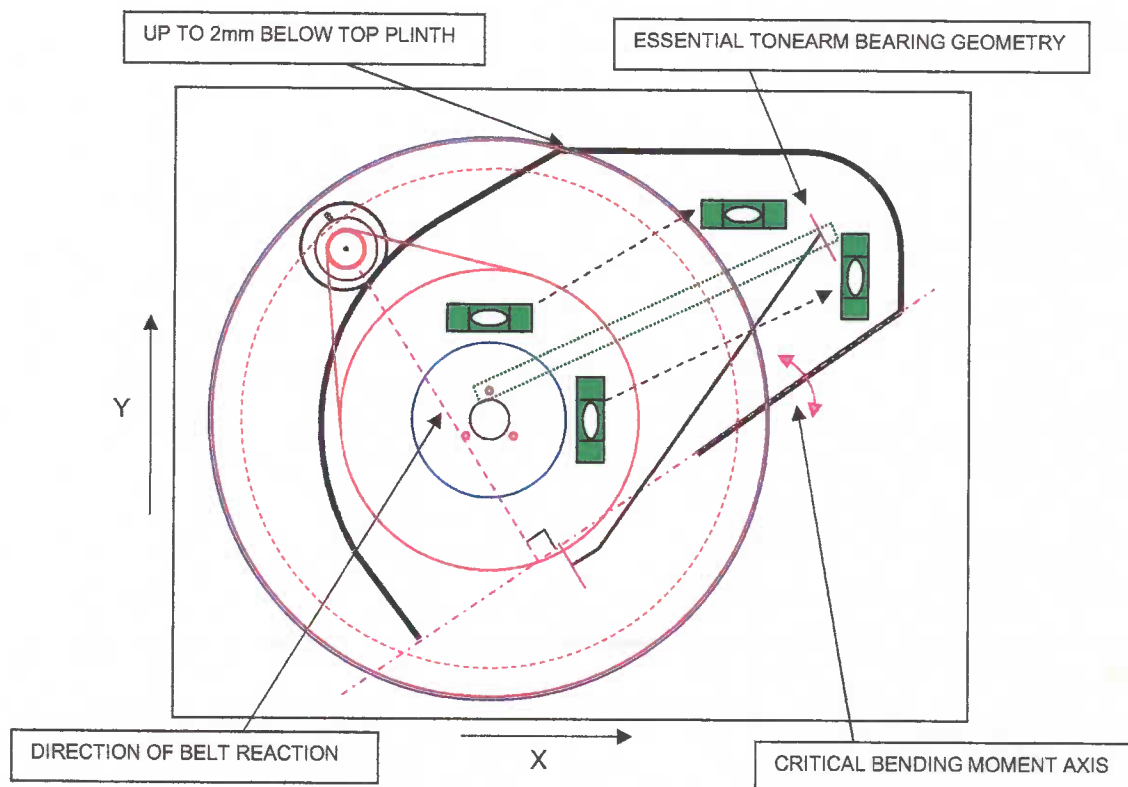
\*\*\* BY SLIGHTLY UNDOING ONE SCREW AND TIGHTENING ANOTHER THE AXIS OF THE MAIN BEARING COULD BE ALTERED TO ALIGN IT WITH THE CUT-OUT PORTION USE A SPIRIT LEVEL, ON THE INNER PLATTER AND THE TOP PLINTH NEAR THE TONE ARM, TO FACILITATE THIS ALIGNMENT

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### XERXES TOP PLINTH DESIGN AND ALIGNMENT

The XERXES top plinth cutout is an important element of the design of the recordplayer and should not be tampered with. It is part of the suspension that only works about an axis least affecting the cartridge/record interface. This portion, under the combined weight of the tonearm and the platters, will eventually settle down where there would be a 2mm (MAX.) gap visible at the point indicated.



The Main bearing should be adjusted such that the inner platter is level with the cutout portion (near the tone arm). This is done by tightening/slackening the Main bearing fixing bolts. These should normally be done up until they just touch the plinth and then tightened through half a turn. Then tightening one and slackening the others would change the alignment of the main bearing. First the front two on either side of the Main bearing should be adjusted to level the platter with the tonearm area along the X-axis. Then the one behind the Main bearing should be adjusted to align along the Y-axis. (It is important to ensure that the 'Grounding' copper strip is not damaged/cut by this fixing bolt's washer.) If however the outer platter's rim at the back is too close or touching the top plinth, a Main bearing shim is required to raise the Main bearing. These are available in 1mm and 2mm (with longer fixing bolts). The shims simply slide over the Main bearing housing and fit between the flange and the top plinth.

After the alignment of the platters with the tonearm (ensuring correct azimuth) the top plinth should be adjusted up or down (via the 'BLOBS') until it is just below the lip of the surround plinth. The motor pulley should also be level with the platters. To do this align the motor bearing housing that is attached to the motor plate. This bearing is also fixed with 3 bolts, 2 with fixing spacers that should be tightened tight and one without a spacer to change the angle of the pulley towards or away from the inner platter.

In fact once the cutout is settled and the record player re-setup, it would perform at its optimum. If you wish your Xerxes to work and sound at its best, treasure your old plinths and do not listen to any body that suggests this is a problem.



## HOW TO CARE FOR YOUR XERXES RECORD PLAYER

It is important to realise that Xerxes is a high precision piece of equipment. It is engineered more exactly than a camera, and demands a certain respect when being handled or packed.

The carton should contain:

- 1 Lid
- 1 Xerxes (fastened with transit bolts)
- 1 Xerxes power supply (mains voltage is marked on the unit)
- 1 Outer platter and felt mat
- 1 Inner platter
- 1 Spindle
- 1 Belt, phial of oil, centre piece and releasable tie wrap
- 1 Pair of cotton gloves
- 1 Cleaning sponge
- Packing material
- Roksan information card

When originally installed by your retailer, Xerxes will have been inspected and cleaned thoroughly, to effect final quality control.

To preserve its original appearance, and ensure its continued high level of performance the following points should be observed.

When handling any of the precision parts it is advisable to wear the cotton gloves provided, to preserve the finish of the diamond turned parts. The acid on your fingers can mark the finishes.

The outer platter should always be lifted and lowered gently - the wide rim of the platter should never be allowed to contact the motor pulley. For this reason NEVER move Xerxes without first removing the outer platter.

The acrylic lid is best cleaned with a soft, lint free cloth, the wood with a suitable furniture polish, and the precision parts with pure alcohol or methylated spirit.

The main bearing should ALWAYS be charged with oil. Your retailer can advise how regularly this should be checked - it is dependent on local humidity and temperature. A phial of oil is provided, and you should not substitute this for an inferior grade.

The surface on which Xerxes is used should be level. Ideally Xerxes should stand on a light and rigid structure.

(Roksan Engineering Ltd manufacture a range of tables, that are exceptionally light and rigid, specially for use with Xerxes - your retailer can provide further information.)

The Xerxes power supply will become warm in use, as it contains two class A amplifiers. It is inadvisable to sit it on a thick pile carpet for this reason. It should be sited so that air can be drawn through the ventilation holes. Rather than turning your Xerxes on and off when playing a few records, it's better to leave it on. There will be less belt wear and the electronics perform better at a constant temperature. For this reason the mains switch is at the back of the Xerxes power supply.

The centre piece can be removed when playing records. Decoupling the record from sources of mechanical noise is one of the many reasons for the record player's high level of performance. Removal of this piece also facilitates centering of eccentrically pressed records.

When replacing the unit, the outer platter MUST be removed, and the transit bolts secured. Please note that it is generally advisable to remove the counterweight from the tonearm when transporting the record player.

The outer platter is packed at the base of the box, Xerxes sits above this, supported by the end polystyrenes, and the lid sits on a set of polystyrenes above Xerxes.

If the unit is to be shipped, you MUST contact your retailer, who can ensure that the unit is satisfactorily packed to help avoid possible damage by your shipping company.

At any time if you are less than happy with the performance of your Xerxes, please contact your retailer. If you are still dissatisfied please contact your distributor, or us, directly.

Roksan Engineering Ltd guarantee your Xerxes for a period of one year from date of purchase against faulty materials or workmanship provided that:

your Xerxes has only been used for its intended purpose, and not subjected to misuse or accidental or wilful damage  
your Xerxes has not been tampered with or repaired by anyone other than Roksan Engineering Ltd or a Roksan appointed retailer or distributor

Roksan Engineering Ltd will replace any such faulty component free of all charges for labour, parts and return carriage

please note:

If you would like to receive newsletters and information on new products available from Roksan Engineering Ltd, please complete the enclosed card, and post it back to us in the envelope provided.