

BANG & OLUFSEN

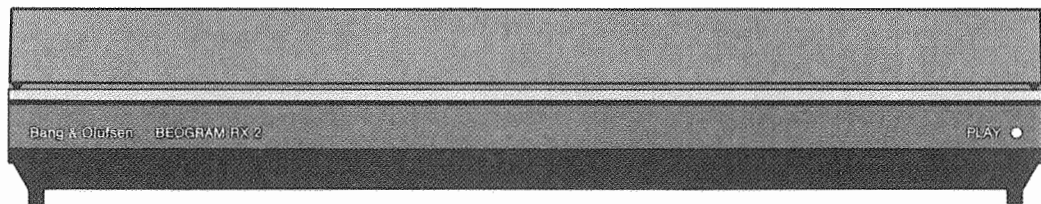
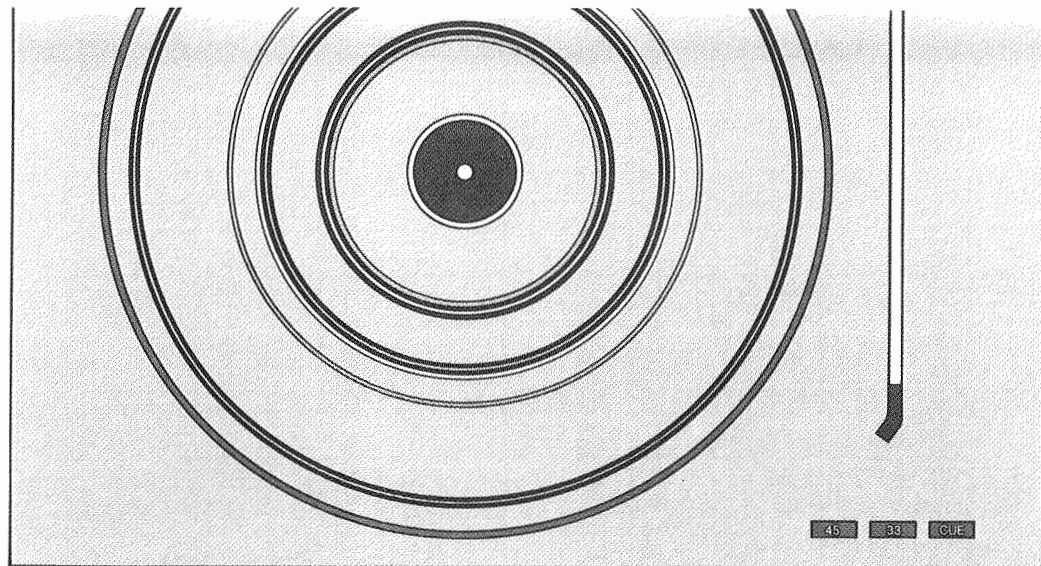
BEOGRAM RX2



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User's Guide for record player

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Presentation

Beogram RX2 is one of the record players in a new generation of radial-tracking record players developed by Bang & Olufsen. All radial-tracking Beograms are equipped with anti-skating, which prevents distortion by increasing tracking ability.

Your Beogram RX2 should be fitted with one of the pick-ups in Bang & Olufsen's new MMC pick-up series. The MMC pick-ups are based on the patented Moving Micro Cross principle which offers minimal record wear and perfect sound reproduction.

Bang & Olufsen has combined three very important features in the Beogram RX2: a lightweight tonearm, a pick-up of extremely low weight and a patented pendulum suspension of the chassis. Thanks to these features you may dance right beside the record player. The tonearm won't jump even if you do, and even if the tonearm is made to jump by some accident, the total weight of the arm and the pick-up is so low that the record won't be scratched.

How to use this guide

Hold the booklet in one hand. Use your index finger to keep the flap open, or let the booklet lie open on a flat surface. In this way, you will always be seeing the drawing of the Beogram's operation facilities and the Table of Contents. The Table of Contents lists activities you may want to carry out. We recommend you start from no. 1 and go through the instructions in numerical order. It won't take long and is a good way of getting to know all the functions. Afterwards, if in doubt about something, you only have to glance at the Table of Contents to know where to find an answer to your questions.



WARNING: To prevent fire or electric shock, do not expose this appliance to rain or moisture.



This symbol indicates that a dangerous voltage constituting a risk of electric shock is present within this unit.



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

1 Setting up after unpacking

Great care has been taken to protect the record player against damage during transportation. In particular:

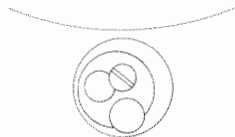
1. The turntable platform is prevented from rotating by three rim-brakes.

2. The inner chassis, which is mounted on a pendulum spring suspension, is locked rigidly and thus prevented from moving by three transport screws.

You can see that the rim-brakes and transport screws are intact. When locked, a rim-brake will look like this:



When locked, a transport screw will look like this:



You can also check, by trying to rotate the turntable platform and by pressing it. If the transport safety devices are intact, the turntable platform will not rotate and the system will be rigid and will not move freely up and down.

The three rim-brakes and the three transport screws must be unlocked before you put the turntable platter onto the turntable platform. Here's how:

The rim-brakes

Using a screwdriver, turn the brake clockwise, until the brake-slot for the screwdriver is parallel to the rim of the turntable platform, and there is complete free space between the turntable platform and the rest of the chassis. (For geomericians: you will have turned the screwdriver 90 degrees).

Repeat until all three rim-brakes have been unlocked. To check, rotate the turntable platform with your hand. It will move freely.

The transport screws

Using a screwdriver, turn the screw counter-clockwise until it loosens. (2 or 3 turns) Push the protective plate aside, so that the head of the screw can go down through the hole.

Using a screwdriver, turn the screw clockwise down through the hole until it tightens. (Several turns)

Repeat until all three transport screws have been unlocked, and then locked into their new positions.

To check, press the turntable platform. The entire turntable mechanism will move freely up and down, with a »springy« action. Place the turntable platter on the turntable platform.

If you ever need to transport your Beogram record player make sure the rim-brakes and transport screws are locked in their transport positions.

First, remove the turntable platter. To do this, lift the spindle in the middle of the turntable platter until you can insert the tips of your fingers under the rim of the platter. Then lift off the platter. The rim-brakes and transport screws are now visible. Secure them, using the reverse of the procedures described above.

For safe transportation, always transport your Beogram in its original packing and carton.

Beogram RX2 is provided with phono plugs: L for left channel and R for right channel. The separate lead should be connected to the earth screw on the amplifier.

2 Fitting cartridge and adjusting stylus pressure

The Beogram must be fitted with one of the following Bang & Olufsen cartridges:

Recommended stylus pressure

MMC 1	1.0 gram
MMC 2	1.0 grams
MMC 3	1.2 grams
MMC 4	1.2 grams
MMC 5	1.5 grams

Adjust the stylus pressure to correspond to your cartridge according to the table above.

To do this, hold the tonearm firmly with your left hand.

Using your right hand, gently turn the black section of the tonearm's counterweight clockwise until you see 0.5 (grams) on its calibrated scale.

Now turn the counterweight anti-clockwise until you see the appropriate mark on the scale (1.0, 1.1 etc.). Turning the counterweight down to 0.5 and then up again ensures precise adjustment.

To fine adjust, align the appropriate mark with the white mark on the tonearm bearing. See **14** to adjust antiskating.

3 Where can you place your Beogram record player?

Position your Beogram record player horizontally on a flat, stable surface in any convenient location, providing it is well away from direct heat from sun-filled windows, fires and radiators.

The Beogram should be close to, and not further than 1 metre away from the receiver to which it is to be connected.

Leave at least 40 cm free space above the record player if you want to be able to open the dust cover all the way.

4 Cleaning the record before play

A record should be cleaned before play in order to remove any dust.

Holding the rim of the record with both hands carefully place it on the platter. Press **[CUE]**. The turntable starts rotating and the tonearm moves towards the lead-in groove of the record. While the turntable is rotating the tonearm will be hovering just above the first track of the record.

You can now clean the record using a good record cleaner according to the instructions of the manufacturer. **MAKE SURE THAT THE STYLUS GUARD IS RAISED** and press **[CUE]** again. The record will be played and you can close the dust cover.

5 Start playing a record

Remember to raise the stylus guard on the cartridge before playing a record.

Carefully place the record on the platter holding the rim of the record with both hands. Press **PLAY**.

The record player automatically registers the size of the record and determines the speed at which the record is to be played.

6 Setting speed manually

If you want to play a maxi-single record, i.e. a record of LP-size but requiring 45 rpm, you have to order the Beogram to play the record at the right speed. Put the record on the platter, press **PLAY** and then **45**. The record will now be played at the right speed.

The turntable starts rotating and the tonearm automatically lowers the stylus into the lead-in groove of the record.

At the end of the record the tonearm automatically returns to its resting position and the Beogram goes into stand-by.

If you want to play a single requiring 33 rpm, you also have to order the Beogram to play the record at the right speed. Put the record on the platter, press **PLAY** and then **33**. The record will now be played at the right speed.

7 Pause during play

You can make a pause while playing a record without having to stop the Beogram. Just press **CUE** and the tonearm will lift off the record and be hovering above the groove where it was lifted. The turntable will still be rotating and to resume playing the record you just have to press **CUE** again.


The Beogram automatically goes into stand-by after a pause of 27 minutes. This is your guarantee that the Beogram cannot be left rotating for many hours on end with you forgetting everything about it.

8 Moving to another track

Play a record. (See 5). Press **CUE**. The tonearm lifts off the record. The record continues rotating. Gently move the tonearm to the track you want. The arm is now

hovering above the correct track. Press **CUE** again. The arm lowers the stylus into the track. Within seconds you will hear the music.

9 Stop play

If you want to stop playing a record before the end of the record, press . The tonearm will

lift automatically and return to its resting position and the Beogram will go into stand-by.

10 Cleaning the stylus

Fluff and dust can build up on the tip of the stylus and cause distortion during play. The stylus should therefore be cleaned every now and then to remove such fluff and dust.

Using the little brush supplied, make three or four gentle sweeping strokes FROM THE BACK of the cartridge towards the front.

We recommend you avoid using any chemical fluids to clean the stylus.

11 Cleaning the record player

The turntable platter and the chassis can be wiped with a dry cloth. Grease stains, if any, can be removed with a firmly wrung cloth dipped in a detergent solution. Mind the stylus and be careful not to wet the cartridge.

We recommend window cleaner for cleaning the dust cover.

Note: Never use denatured alcohol to clean any parts of the record player.

12 How to handle records

Records should be treated with great care to ensure optimum sound reproduction and a long life.

What can you do to treat the records properly!

- Always keep the records in their proper covers.
- Always keep the records in an upright position away from heat.
- Never place a record on top of an apparatus that gets warm, e.g. the Beomaster.
- Never touch the playing surface of a record with your fingers.
- Always avoid rubbing the record too much against the record sleeve (to avoid static electricity).
- Always hold only the rim of the record and touch only the record label with your fingers.

13 Balancing the tonearm

The tonearm balance is factory-adjusted for the MMC 4 cartridge. Since all the cartridges in the new lowmass MMC range have identical weight and mass, it is not necessary to adjust tonearm balance even if you upgrade to an MMC 2 or an MMC 1. In this case, adjust stylus pressure (see 2), and anti-skating (see 14).

If you think someone might have interfered with the counterweight and that the tonearm is not in balance, you can check and adjust balance in the following way:

(Read all the instructions before you start).

Press the cartridge's transparent stylus guard down. This protects your diamond stylus.

Using your left hand index finger, press down the center adaptor until the notches at the bottom are no longer visible.

Keep your index finger on the center adaptor and press **PLAY**. Now release the center adaptor. The tonearm will move to the edge

of the turntable platter. The diamond will not be damaged if the stylus guard is down.

Now disconnect the record player from the AC power.

The turntable platter stops rotating and the tonearm remains at the edge of the platter.

Hold the tonearm with your left hand.

Using your right hand, gently turn the black section of the counterweight clockwise until the front end of the tonearm flicks up and the tonearm is out of balance.

Now turn the black section of the counterweight counter-clockwise until the tonearm »floats«. That's when it is in balance or in »equilibrium«.


Look at the calibrated scale on the counterweight. Where is the 0 gram position? It should be aligned with the white mark on the tonearm bearing.

If it is not, hold the black section of the counterweight with your right hand and turn the calibrated

scale with your left hand until »0« faces upward and is aligned correctly.

The calibrated scale for setting stylus pressure is at the zero position.

To set stylus pressure, hold the tonearm in your left hand. Using your right hand, gently turn the black section of the counterweight counterclockwise until you see the required stylus pressure. For example, 1 (gr). Align it with the white mark on the tonearm bearing.

Connect the record player to the AC power. Press . Flip the cartridge's stylus guard up. The record player is ready for action.

14 Adjusting antiskating

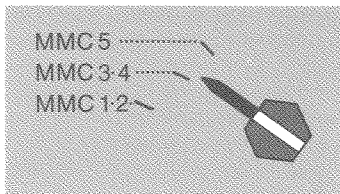
Any Bang & Olufsen MMC pickup cartridge calls for a specific stylus pressure. The antiskating device must suit the pickup/stylus pressure combination you have opted for.

Your Beogram is set to fit an MMC 4 or 3. If your cartridge is an MMC 1, 2 or 5, you should adjust the antiskating device accordingly.


To do this, disconnect the record player from the AC power supply. The screw for adjusting the antiskating device is placed on the underside of the Beogram. Holding the platter in place and keeping the dust cover down with your left hand, lift the record player up and let it rest on its back panel.

Locate the antiskating screw and the cartridge indicator at the lower right corner. Using a screwdriver, turn the antiskating screw until the arrow points to the appropriate cartridge. That's all it takes. Gently lower the record player again.

Connect it to the AC power supply.



15 Glossary of buttons and terms

* **PLAY** , combined button on front panel for playing and stopping a record (see 4, 5 and 9).

* **[33]** and **[45]**, buttons for setting speed manually (see 6).

* **[CUE]**, causes the platter to rotate so that you can clean the record before play (see 4). Lifts the tonearm off the record during play so that you can pause (see 7) or move (»cue«) the arm over another track (see 8).

* **Antiskating**, a device designed to counteract the tendency of the tonearm to drift toward the center of the record. The amount of skating force or tendency to drift will vary according to the stylus pressure applied. Thus if you change stylus pressure you should also readjust the antiskating.

* **Pickup cartridge**, the device at the end of the tonearm which converts the sound vibrations impressed on a record into an electrical vibration or signal.

* **Stylus**, also called needle. The part of a pickup cartridge which picks up the information in the record groove. It is the only element that should touch the record's surface.

* **Stylus pressure**, also called tracking force. The amount of pressure necessary to ensure that the stylus keeps contact with the record groove. Expressed in mN (milliNewtons) or grams.

* **Tonearm**, also called pickup arm. Its job is to hold the pickup cartridge and guide it across the record so that it can execute its functions.

* **Turntable platter**, the round metal disc which supports the record and rotates at constant speed.

* **Counterweight**, device on the tonearm for counterbalancing or offsetting the weight of the pickup cartridge.

16 Beogram RX2 Technical Specifications

Type No.	5831-5833
Wow and flutter, DIN	$< \pm 0.07\%$
Wow and flutter, WRMS	$< \pm 0.035\%$
Rumble DIN weighted	> 75 dB
Rumble DIN unweighted	> 55 dB
Speeds	33-45 rpm.
Speed deviation	$< \pm 0.2\%$
Power supply	Type No. 5831: 220-240 V
Power frequency	Type No. 5833: 110-120 V
	50-60 Hz
Power consumption	< 10 watts
Dimensions W x H x D	42 x 8 x 32.5 cm
Weight	6 kg

Subject to change without notice

This Beogram fulfils the conditions stated in the EEC directive 76/889 concerning radio frequency interference.

International guarantee

This Bang & Olufsen product carries a guarantee against defects in workmanship and materials. It is a national guarantee, extended by Bang & Olufsen in the country in which the product was bought. The terms of the guarantee apply principally to the country of purchase but will be met by authorized Bang & Olufsen dealers in other countries.

For the UK market only.

IMPORTANT

The wires in the mains lead supplied with the Beogram 3000 are coloured in accordance with the following code:

Blue: Neutral

Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows: The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Ensure that your equipment is connected correctly. If you are in any doubt, consult a qualified electrician.

