


Beogram 5000

 Bang & Olufsen

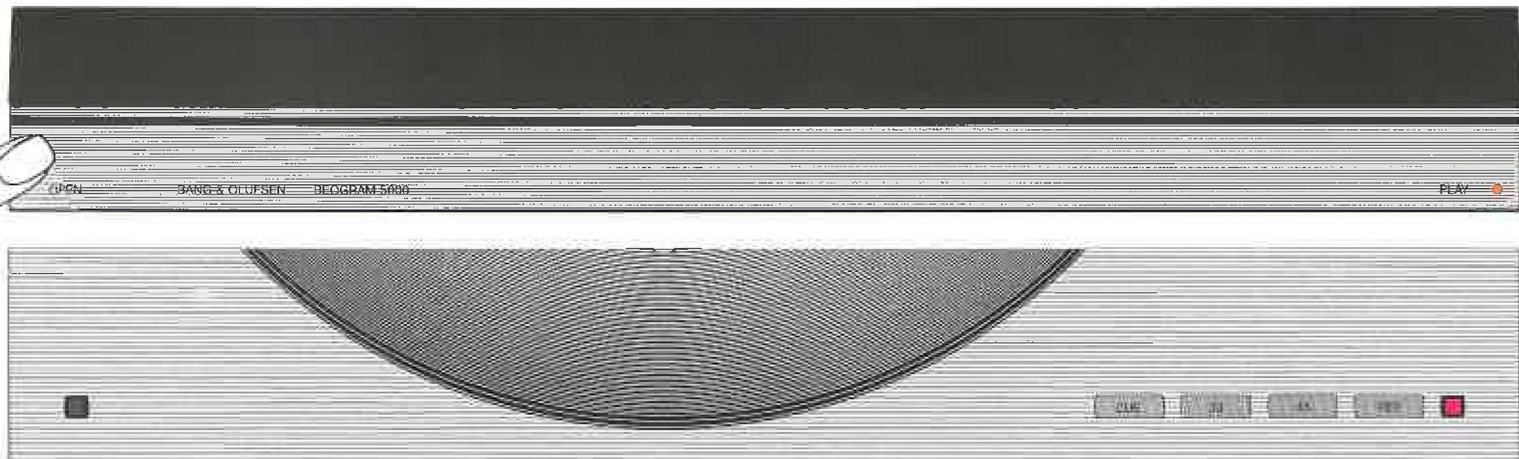
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Beogram 5000

User's Guide for record player

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1 Setting up after unpacking

We want you to enjoy your Beogram 5000 record player. This User's Guide is designed to help you get to know and learn to use your Beogram easily and quickly. Holding the booklet in one hand, using your index finger to keep the flap open, you will always have an overview of the Beogram's operation buttons and the Guide's table of contents. Your other hand is now free to try out the instructions.

The table of contents lists the activities you might want to carry out. Numbers next to each activity refer to operating instructions for that activity. You can move through the pages and still have an overview of the Beogram's operation buttons. Explanations of buttons and terms at the back of the booklet also provide you with an index to the activities described within. The trouble-shooting section might save you an expensive service call.

Operating the Beogram 5000 is easy and straight-forward. We hope you enjoy it.

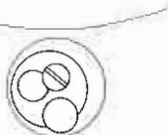
Great care has been taken to protect the record player against damage during transportation. In particular:

- The turntable platform is prevented from rotating by three rim-brakes.
- 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 geometers: 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 anti-clockwise until it loosens. (2 or 3 turns)

Push the protective plate to the right, 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. 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. □

2 Adjusting stylus pressure

The Beogram 5000 is fitted with Bang & Olufsen's integrated tonearm and pickup cartridge combination. The cartridge is the MMC 4.

The tonearm is factory-adjusted for the recommended stylus pressure of the MMC 4. This is 1.2 gram (12mN).

If you upgrade your pickup cartridge to a Bang & Olufsen MMC 2 or MMC 1, you will need to adjust stylus pressure to 1 gram (10 mN).

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 anti-clockwise until you see 0.5 (g.) on its calibrated scale.

Now turn the counterweight clockwise until you see 1 (g.). (Turning the counterweight down to 0.5 then up to 1, ensures precise adjustment).

To fine adjust, align "1" with the white mark on the tonearm bearing. □

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 100 cms away from the receiver to which it is to be connected. (See 4).

Leave at least 40 cms free space above the record player if you want to be able to open the dust cover all the way. (See 7). □

4 Connecting up

Before connecting up, make sure that the three rim-brakes and the three transport screws have been unlocked. (See 1).

The cable for connecting your Beogram record player to a receiver is permanently attached to the record player. It is fitted with a special Bang & Olufsen 7-pin plug.

If your receiver is a suitably automated Beomaster, place this plug in the DIN socket marked PHONO. The cable is about 1 metre long.

If your receiver has an ordinary 5-pin DIN socket, you can convert the Beogram's 7-pin plug to a 5-pin plug.

Here's how:

Use a tiny screwdriver to unscrew the two "extra" pins. There is a slot for the screwdriver at the end of each "extra" pin. Turn the screwdriver anti-clockwise. Remove both pins. Plug the "converted" 5-pin DIN plug into the low impedance pickup input on your amplifier or receiver.

If your receiver has phono plugs:

Unscrew the two "extra" pins on the Beogram's 7-pin plug. (See above). Connect optional adaptor type 6270208. Plug the adaptor's phono plugs into the low impedance pickup input on your receiver or amplifier.

Power requirements: 190-265 volts, 50-60 Hz.

If necessary, your authorized Bang & Olufsen dealer can adjust the Beogram 5000 so that it uses 110 volts power supply.

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

The Beogram's electric cable is permanently attached to the record player. □

5 Switching on

When the Beogram 5000 is connected to the mains power supply it is in its "stand-by" position. This means that it is ready for action. There is no "on" button.

When you press PLAY (see top drawing), the light in the dust cover switches on and the record player starts to play the record on the platter. (See 9). **If the record player is connected to a suitably automated Beomaster receiver, you will also hear the music.**

6 Switching off

Look at the top drawing. If a record is in play (see 9), press and keep your finger on the ● in PLAY ● for a few seconds. The record player automatically stops

If there is no record on the platter, when you press PLAY, the light in the record player's dust cover will switch on and the platter will start rotating. After a few seconds both will stop. The tonearm will stay in its resting position. □

playing, returns the tonearm to its resting position and goes into its "stand-by" position. This is a temporary "off" position. □

9 Playing a record

Open the dust cover. (See 7). Put a record on the platter. (See 8).

Check that the stylus guard is up. Close the dust cover. Press PLAY. (See top drawing). The light in the dust cover switches on.

The record player automatically registers the size of the record, determines the speed at which it is to be played, starts rotating, moves the tonearm to the lead-in groove and lowers the stylus in that groove.

Within seconds you will hear the music (if your Beogram is connected to an automated Beomaster or if record player input is

selected on the amplifier or receiver to which the Beogram is connected).

At the end of the record, the tonearm returns to its resting position and the record player goes into "stand-by". (See 13, Repeating a record).

To play a maxi-single, that is a record which is LP-sized but which requires 45 rpm: put the record on the platter. Press [45], then PLAY.

To play a single which requires 33 rpm: put the record on the platter. Press [33], then PLAY. □

10 Stop play

Play a record. (See 9). To stop play before the end of the record, press ● in PLAY ●. (Top drawing).

The tonearm returns to its resting position and the record player goes into "stand-by".

If you let the record play to the end, the tonearm will also return to its resting position and the record player into "stand-by". □

7 Opening the dust cover

Look at the top drawing. Press OPEN. The dust cover automatically opens to an angle of about 45 degrees.

The light in the dust cover switches on.

If you want to open the dust cover all the way (to about 80 degrees), lift it up with your hand. You can feel when it is open all the way.

The light in the dust cover will remain switched on as long as the cover is open.

To protect your records, keep the dust cover closed both during and after play. This prevents dust from collecting on the record or the turntable platter. □

8 Putting a record on the platter

Open the dust cover. (See 7). Take the record out of its sleeve. (See 19). Hold the rim of the record with both hands and carefully place it on the platter.

If your record has an **ordinary centre hole**, the Beogram's centre adaptor will be pressed down automatically when you let go of the record.

If your record has a **large centre hole**, the Beogram's centre adaptor will remain up to accommodate it. □

11 Pause during play

Play a record. (See 9). To make a pause during play, press [CUE]. The tonearm lifts off the record. The record continues rotating.

To resume play from the same place, press [CUE] again. □

12 Moving to another track

Play a record. (See 9). 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. □

13 Repeating a record

Play a record. (See 9). When you can hear the music, press [REP] (for repeat). A tiny red light next to the button starts blinking to indicate that the record will be repeated. At the end of the last track on the record, the tonearm will automatically return to the first track and start playing again. The red light switches off.

If you interrupt play, for example by pressing [CUE], the repeat instruction will be cancelled.

You can instruct the record player to repeat the record which is in play, up to seven times, consecutively. Press [REP] the number of times you require. The repeat light will now glow constantly. □

14 Cleaning a record

You should remove dust from the record before play. Here's how:

Put the record on the platter. Press **[CUE]**. The turntable starts rotating, the tonearm moves towards the lead-in groove and hovers just above the first track. You can now clean the record.

Use a record cleaner of reputable brand, in the manner prescribed by the record cleaner manufacturer.

When you have finished using the record cleaner, to resume play, press **[CUE]** again.

It is not necessary to put an anti-static mat on the Beogram's turntable platter since the platter itself provides ample anti-static protection. □

15 Cleaning the stylus

Fluff and dust can build up on the tip of the stylus and cause distortion during play. Here's how you should clean the stylus:

Hold the tonearm firmly with one hand.

Using the little brush supplied, make three or four gentle sweeping strokes **from the back** of the cartridge towards the front.

Always start from the back, with every stroke. If you brush in any other direction you might cause damage to the cartridge's cantilever and stylus.

Beware of chemical fluids for cleaning records and styli. They can contain solvents which will damage parts of the cartridge. □

16 Removing the cartridge

The cartridge is plugged into the tonearm via four tiny pins. The cartridge and tonearm meet just where the black section of the tonearm ends.

You will get a good safe grip if you hold the tonearm on this black section, just where the tonearm bends. Hold the tonearm firmly with one hand.

To protect the stylus move the stylus guard down.

Now hold the cartridge body with the other hand. Carefully move the cartridge from side to side while you pull outwards.

The cartridge will unplug after a few seconds.

To reconnect the cartridge or plug in a new MMC cartridge, reverse the procedures described above. Make sure the stylus is pointing down. To protect the stylus make sure the stylus guard is down.

When the cartridge is connected, you will hear a little "click". To adjust stylus pressure, see 2. See also 17, Balancing the tonearm. □

17 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, just adjust stylus pressure. (See 2).

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 centre adaptor until the notches at the bottom are no longer visible.

Keep your index finger on the centre adaptor and press **PLAY**. Now release the centre adaptor. The tonearm will move onto 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 mains power supply. 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 or anti-clockwise until the tonearm "floats". That's when it is in balance or in "equilibrium". Very gentle, tiny movements are required, especially when the tonearm is nearly in balance.

Make fine adjustments until you are satisfied that the arm is in balance.

Now 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 tonearm is now in balance and 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 anti-clockwise until you see the required stylus pressure. *For example*, 1 (g.). Align it with the white mark on the tonearm bearing.

Connect the record player to the mains power supply. Press ● in **PLAY** ●. Flip the cartridge's stylus guard up. The record player is ready for action. □

18 Cleaning the record player

We recommend Ajax Window Cleaner or its equivalent for cleaning the plastic part of the dust cover. Do not use spirits.

The metal parts of the dust cover, the turntable platter and the chassis can be kept clean with a dry cloth.

Lower the stylus guard before wiping metal surfaces close to the stylus.

Grease stains can be removed with a lukewarm detergent solution on a soft cloth. Wipe dry with a clean cloth. □

19 Tips about record care

During the design and construction of the Beogram 5000 great care has been taken to include features which ensure minimum record wear and ensure that the record player treats your records gently.

Dust, dirt and static electricity are a record's worst enemies. If you can keep these to a minimum you can also help minimise record wear and thereby prolong the useful lifetime of your records.

Here's how:

Whenever possible, keep the dust cover of the Beogram 5000 closed. Of course it should be kept closed whenever the record player is not in use. But since your Beogram can play a record with the dust cover closed, and the two main operating devices are on the outside, why not get in the habit of keeping the cover closed during play as well?

Always keep your records in their proper covers. When removing a record from its inner sleeve make sure you do not get fingerprints on the playing surface. And make sure the playing surface is not rubbed excessively against the sleeve. This friction will create a static charge on the record and this will attract dust.

Here's how you should remove the record from the sleeve:

Hold the record sleeve so that its sides bend outwards, away from the record.

Put your hand in under the record, and put your four fingers on the record label. Support the edge of the record with your thumb. Without touching the playing surface, slowly pull the record out of the sleeve.

When putting the record on the platter, hold the rim of the record with both hands. Avoid touching the playing surface. (See 8). □

20 Trouble-shooting: "What if ..."

The Beogram 5000 is easy and straight-forward to use. However, according to Murphy's Law: "If anything can go wrong, it will". A recent survey shows that over ninety percent of all reported "electronic faults" were not faults at all; but errors in the way users had operated the device or set the controls. If anything goes wrong, before you call your dealer, see if this simple trouble-shooting section can help. Quite often, it's the simplest problems that are most annoying and frustrating. The "if only I knew how" sort of problems.

What if the sound from my record sounds just terrible?

- Have you unlocked the three transport screws? (1)
- Is there fluff or dirt on the stylus? (15)
- Is the stylus pressure correctly adjusted? (2)
- Is the stylus guard down? It should be up.

What if the light in the dust cover doesn't come on when I press PLAY?

The bulb is probably blown. Of course the record player will play records without it, but to enjoy the added convenience of clearly seeing what you're up to, for example when moving to another track, you should put in a new bulb. Spare parts no. 8230077.

To do this: open the dust cover. (See 7). Using your index finger, pull the tiny black socket down. Replace the bulb. Push the black socket back into position. You will hear a "click" when it is secure.

If the light does not come on and the turntable does not rotate, check that the Beogram is connected to the mains power supply. (4)

What if the light in the dust cover comes on for a few seconds but the turntable platter does not rotate?

Have you unlocked the three transport screws and the three rim-brakes? (1, 4)

What if I want to play a maxi-single?

(A maxi-single is an LP-sized record which requires 45 rpms.) To play this record, press [45], then press PLAY. (8)

What if I want to play a single (17 cm record) which requires 33 rpms?

Press [33], then press PLAY.

What if I want to play a record which has a large hole in the middle?

Go right ahead. Put it on the platter. The Beogram has a centre adaptor which allows it to accommodate such records without problems.

Of course when you put a record with an ordinary-sized hole on the platter, this centre adaptor is pressed down automatically. Naturally, you've already noticed that! (8)

What if when I press PLAY the tonearm moves onto the rotating record as it should but it doesn't seem to go beyond the lead-in groove and I can't hear any music?

Check the position of the stylus guard. It is probably down and thus prevents the stylus from tracking the grooves. Press ● in PLAY ●. When the Beogram goes into stand-by, flip the stylus guard up. Press PLAY again and listen to the music.

What if when I press PLAY the tonearm moves onto the rotating record as it should but I can't hear any music?

Is your Beogram properly connected to an amplifier or a receiver? If this is not a suitably automated Beomaster receiver, have you selected record player as input on your amplifier? Are the loudspeakers properly connected to your amplifier or receiver? □

21 Glossary of Buttons and Terms

OPEN Opens the dust cover. (7)

PLAY Plays the record on the platter. (5, 9)

● (Stand-by) Puts the record player in its "stand-by" position. A temporary "off" switch. If the Beogram 5000 is connected to a suitably automated Beomaster receiver, when you press ●, the entire music system will go into its stand-by position. (6)

[CUE] Causes the platter to rotate so that you can clean the record before play. The tonearm will hover over (or be "cued" over) the lead-in groove of the first track. To play the record after you've cleaned it press [CUE] again. (14)

Lifts the tonearm off the record during play so you make a pause (see 11) or so that you can move (or "cue") the arm over another track. When you have found the desired track, to play it press [CUE] again. (12)

[33] Selects 33 rpms as speed if you want to play a non-standard record. For example a single (17 cm diameter) which requires 33 rpms. (9)

[45] Selects 45 rpms as speed if you want to play a non-standard record. For example an LP-sized record (30 cm diameter) which requires 45 rpms. (9)

[REP] Abbreviation for REPEAT. Allows you to repeat an entire record up to seven times consecutively. (13)

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. Beogram 5000 is fitted with an MMC 4 pickup. (2, 16)

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. (15)

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 (milli-Newtons) or grams. The MMC 4's recommended stylus pressure is 1.2 gr. or 12 mN. (2)

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. (12-17)

Turntable platter The round metal disc which supports the record and rotates at constant speed. (1)

Counterweight Device on the tonearm for counterbalancing or offsetting the weight of the pickup cartridge. (17)

> 21

Beosystem 5000

The following are separate automated Bang & Olufsen hi-fi products designed to work together as a complete system. Naturally each product will also work with products from other manufacturers, but to enjoy the convenience of one-touch distance operation, they must be connected to a Beomaster 5000 receiver:

- **Beomaster 5000** An automated Bang & Olufsen FM/AM receiver.
- **Beogram 5000** An automated Bang & Olufsen record player.
- **Beogram CD 50** An automated Bang & Olufsen compact disc player.
- **Beocord 5000** An automated Bang & Olufsen cassette deck.

Master Control Panel 5000 Name of a Bang & Olufsen remote control module which allows you to operate the Beomaster 5000 from a distance. If other automated B&O products are connected to the Beomaster 5000, you can also operate these from a distance.

Master Control Link Name of a Bang & Olufsen product which, when connected to a Beomaster 5000 and installed correctly, allows you to connect speakers in adjoining rooms and operate and listen to the central sound system from these rooms. The system is then operated via a Master Control Link (a receiving and transmitting device) which is installed in the adjoining room. Or via a Master Control Panel 5000, which communicates with the Beomaster 5000 via the Master Control Link. □

22 What the displayed symbols mean

There is only one illuminated symbol.

■ Constant red light indicates that you have pressed [REP] (repeat) several times and the record you are listening to will be repeated (up to seven times).

Flashing red light indicates that you have pressed [REP] (repeat) just once and the record will be repeated once. Or that, of a series of [REP] (repeat) instructions, there is only one repeat function left to be executed. (13) □

23 Beogram 5000 Technical Specifications

Type No.	5803-5805-5806
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	190-265 (90-130) volts
Power frequency	50-60 Hz
Power consumption	< 10 watts
Dimensions W x H x D	42 x 7.5 x 32.4 cm
MMC 4 cartridge	
Recommended tracking force	12 mN/1.2 gram
Frequency range	20-20,000 Hz ± 2.5 dB
Channel separation 1000 Hz	> 22 dB
Channel separation 50-15,000 Hz	> 17 dB
Channel difference	< 2 dB
Stylus	Elliptical diamond 6 x 17 μ m
Cantilever	Tapered aluminium tube
Effective tip mass	0.4 mg
Compliance	25 μ m/mN
Cartridge weight	1.6 gram

Subject to change without notice

Guarantee

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 this mains lead 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.