Beomaster 5000
User's Guide for FM/AM receiver

1 Where can you place your Beomaster receiver?

We want you to enjoy your Beomaster 5000 FM/AM receiver. This User's Guide is designed to help you get to know and learn to use your Beomaster 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 Beomaster's operation buttons and the Guide's table of contents. Your other hand is 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 Beomaster's operation buttons. This helps you locate the buttons on the Beomaster itself easily and instantly. Explanations of buttons and displays are at the back of the booklet. You can also use them as an index to the activities described within. Operation is neither difficult nor complex - just logical and sequential. You'll get used to it! Have fun.

That depends on how much you want to see of your Beomaster. Do you want to "display" it or hide it away? Or maybe find a solution in between?
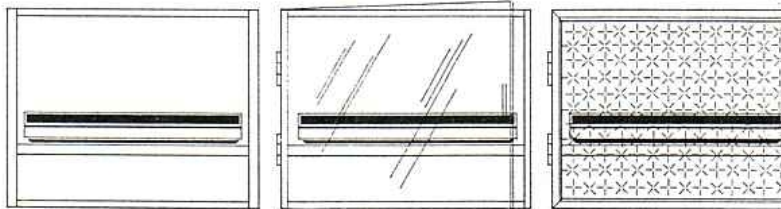
Position your Beomaster horizontally on a flat, stable surface, well away from sun-filled windows and direct heat from fires and radiators. Leave at least 5 cms free space at the rear of the receiver and keep its ventilation slots at the rear clear of surfaces that might prevent the free circulation of air.

You can operate your Beomaster directly on the set or from a distance using the optional Master Control Panel 5000 (remote control module).

In the remote mode, instructions to and confirmation from the Beomaster are sent via infra-red light. Position the Beomaster so that no opaque surfaces can prevent light signals from reaching or leaving the receiver.

If you connect components from the Beosystem 5000 series or other suitably automated Bang & Olufsen products, and operate th· music system from a distance using the Master Control Panel 5000 (see separate manuals), you can decide just how visible your music system should be. ▫

2 Connecting up

Power requirements:
See 24, Technical Specifications.
To verify that your Beomaster is in good working order, connect the receiver to the mains power supply. A tiny red light (an LED) on the set's front panel confirms that it is OK and ready for action. (Disconnect the receiver while you make the other connections.)

To gain access to the sockets, lift up the hinged black grille at the rear of the receiver.

Beomaster 5000 will accomodate any high quality hi-fi component connected via Phono plugs or Bang & Olufsen 7-pin plugs.

- Plug the cable from your cassette deck into the socket marked TAPE 1. (or TAPE 2).
- Plug the cable from your record player into the socket marked PHONO. (for phonograph).
- Plug the cable from a compact disc player into the socket marked AUX - CD.
- Plug the antenna cables into the sockets marked FM/AM. If you use an indoor FM antenna ("rabbit ears" type) attach the rabbit ears to the special bracket provided.
- Loudspeakers in the same room as the receiver should be plugged into the sockets marked SPEAKERS 1 (the lower set). The sockets marked SPEAKERS 2 are for an extra set of speakers in an adjoining room or for a Master Control Link.

You can use your Beomaster 5000 as a preamp for an external power amplifier. This allows you to operate both, from a distance, using the optional Master Control Panel 5000 (see separate manual).

- To do this: use the socket marked RELAY 2 (for an optional Remote Mains Switch, B&O type 4002) and the Phono plugs marked PREAMP (for line signals).
- You can connect an equalizer via the socket marked RELAY 1 and the looped Phono plugs marked LINE IN/OUT. □

3 Switching on

Look at the top drawing.
When the Beomaster is connected to the mains power supply a tiny red light on the front panel indicates that the receiver is in its "stand-by" position and ready for action. There is no "on" button. Selecting any programme source automatically activates the receiver.

When you press PLAY (see MUTE PLAY ●) the receiver will automatically select the programme source which was played previously.

If you're using the receiver for the first time, I suggest that you connect a cassette deck in the TAPE 1 socket. Put a cassette in the deck. If the deck is a suitably automated Beocord, touch PLAY and listen to the music.
You will see this display on the receiver: TP1. □

4 Switching off

Look at the top drawing.
Press and keep your finger on ● (see MUTE PLAY ●) until the displays on the receiver's panel disappear.
A tiny red light (an LED) indicates that the receiver is now in its "stand-by" position. This is a temporary "off" position.

Beomaster 5000 will also automatically go in its "stand-by" position if, at the end of playing a record or tape, it does not receive new instructions after 30 minutes. (Go ahead, let that LP lull you to sleep. The system will switch itself off). □

5 Silencing the system - without switching off

Look at the top drawing.
If you want to stop listening to a programme being played, without switching off the entire system, press MUTE (see MUTE PLAY ●). This silences the loudspeakers while the rest of the system continues functioning. (It does not affect speakers in an adjoining room).

This feature is very useful, for example, if the phone rings while you're making a recording. It allows you to continue the recording and converse at the same time. To resume listening, press MUTE once again. □

6 Where are the operation buttons?

Press OPEN to gain access to the other operation buttons. The panel opens automatically. (Look at the bottom drawing).

To close it, push the panel home until it is flush with the rest of the front surface. Listen for the "click" which indicates that the panel is closed properly. □

7 Playing a tape

Press TAPE 1. If the connected deck is a Beocord 5000, or a suitably automated Beocord, it will start automatically. Listen to the music.

If the connected deck is not a Bang & Olufsen or an automated Beocord, press TAPE 1 to select tape as source, then operate the

deck in the usual way.
In all cases, you will see this display: TP1.

If a second tape deck is connected, press TAPE 2 and operate as for Tape 1. You will see this display: TP2. (See 20, Monitoring on Tape 2). □

8 Playing a record

Press PHONO. If the connected record player is a Beogram 5000, 5005 or a suitably automated Beogram, it will automatically start, determine the speed of the record, and play it. Listen to the music.

If the record player connected is not an automated Beogram, press PHONO to select this as source, then operate the record player in the usual way.
You will see this display: PH. □

9 Playing a compact disc

Press AUX. If the connected compact disc player is a Beogram CD 50, it will start automatically. Listen to the music.

If the connected player is not a Beogram CD 50, press AUX to select the product connected to AUX-CD, and operate in the usual way.
In all cases, you will see this display: AU. □

10 Listening via headphones

The headphone socket is the hole between the buttons marked NEUTRAL and SELECT on the receiver's operation panel.
Push home the headphone jack. Select a programme for example press TAPE 1. And listen to the music.

To regulate volume level in the headphones, press ∇ VOLUME (softer) or △ VOLUME (louder). Loudspeakers connected to SPEAKERS 1 sockets will be muted automatically when the headphones are properly connected. □

11 Regulating volume levels

Select a programe and listen to the music.
To reduce volume, press ∇ VOLUME.
To increase volume, press △ VOLUME.

Keep your finger on the appropriate button until you hear the volume level you want.

Volume level is indicated temporarily on the display panel. You will see digital displays: from 0.0 to 6.0.

Volume levels move up or down the scale in steps of 0.2 when you press intermittently and 0.4 when you press continuously. □

12 Storing your preferred volume level

You can store your preferred volume level to ensure that the Beomaster receiver starts playing at that volume level everytime. To do this: play a programme, for example, play a cassette tape on Tape 1: press TAPE 1.
Press ∇ VOLUME (softer) or △ VOLUME (louder).

Volume level is indicated by illuminated digits in steps of 0.2 or 0.4, moving down or up the scale. (See also 11, Regulating volume levels).

When you've found the desired level, for example 3.4, press STORE.
You will see this display: P for program. It appears and blinks. While it is still blinking press SOUND. You will see this display: 3.4. Volume level (3.4) is now stored.

Your receiver will start at this level everytime you start playing a programme. (Of course, you can still regulate volume levels as described in 11, Regulating volume levels; and you can store a new volume level anytime). □

13 Using the loudness control

The human ear is less sensitive to low and high tones when you play at low volume levels. The loudness function compensates for this by "boosting" the low and high tones at low volume so that the music sounds more realistic.

To make use of this function, press LOUDNESS.
You will see this display: LOUDNESS, whenever the function is in use.
To disconnect it, press LOUDNESS once again. The display also disappears. □

14 Regulating bass, treble and balance

Bass, treble and balance can be regulated individually from your preferred listening position, via the Master Control Panel 5000. (See separate User's Guide).

Here on the Beomaster receiver, you can put the functions in their neutral positions by pressing the button marked NEUTRAL. □

15 Playing a radio programme

When any of the nine pre-set buttons are pre-set to radio stations, all you have to do to play a radio programme is press SELECT followed by the programme number, e.g. P1, P2, etc.

When you press SELECT, you will see this display: P (for programme). Now press the programme number you require. The programme number is displayed.
For example: P2. □

16 Tuning FM/AM stations: automatic mode

You can tune radio stations in FM, LW and MW.

FM (Frequency Modulation) frequencies start at 87.5 MHz.
LW (Long Wave) frequencies start at 150 kHz.
MW (Medium Wave) frequencies start at 520 kHz.

Tuning FM stations
Press the button marked FM.LW.MW once, twice or three times, until the panel displays: FM 87.5 MHz.
Now press ADVANCE. This function scans the FM waveband, moving up the frequency scale. It automatically stops at a transmitted frequency whenever reception quality is good. Frequency numbers are displayed throughout the scanning process. When you see this display: LOCKED, the station is tuned.

You can listen to the station in this mode or store it on one of the nine pre-set buttons for later instant recall. (See 18, Storing or pre-setting radio stations).

If the programme is transmitted in stereo, you will see this display: STEREO.
If reception is poor or you prefer to listen in mono, press FM MONO. This switches off the stereo decoder and the STEREO display disappears. To revert to stereo, press FM MONO once again.

To tune other FM stations transmitting on higher frequencies, press ADVANCE.
To tune other FM stations transmitting on lower frequencies, press RETURN.

Tuning LW stations
Press the button marked FM.LW.MW once, twice or three times, until the panel displays: LW 150 kHz.

Press ADVANCE to scan frequencies up the LW scale. The receiver stops automatically at a frequency number whenever reception quality is good. Frequency numbers are displayed during the process. When you see this display: LOCKED, the station is tuned. You

can now listen to the station in this mode or store it for subsequent instant recall. (See 18, Storing radio stations).

To tune other stations transmitting on higher frequencies, press ADVANCE.
To tune other stations transmitting on lower frequencies, press RETURN.
If you continue pressing ADVANCE when the entire LW band has been scanned, the receiver will automatically switch to MW and seek stations in the medium waveband.
If you continue pressing RETURN when the entire LW band has been scanned, the displayed frequency number at the end of the scale will blink.

Tuning MW stations
Press the button marked FM.LW.MW, once, twice or three times, until the panel displays: MW 520 kHz.

Press ADVANCE to scan frequencies up the MW scale. The receiver automatically stops at a fre-

quency number whenever reception quality is good. Frequency numbers are displayed during the process.
When you see this display: LOCKED, the station is tuned. You can now listen to the station in this mode or store it for subsequent instant recall. (See 18, Storing radio stations).

To tune other stations transmitting on higher frequencies, press ADVANCE.
To tune other stations transmitting on lower frequencies, press RETURN.

If you continue to press ADVANCE when the entire MW band has been scanned, the displayed frequency number at the end of the scale will blink.
If you continue to press RETURN when the entire MW band has been scanned, the receiver will automatically switch to LW and seek stations in Long Wave. □

17 Tuning FM/AM stations: manual mode

It is easy to let the Beomaster receiver find, tune and lock stations automatically. In certain cases, e.g. where reception quality is marginal, where you know the transmitting frequency of the station you want to tune, etc., you might want to tune stations manually.

Here's what to do: Press FM.LW.MW once, twice or three times, until you see a display of the waveband you require. You will see one of the following displays:
FM 87.5 MHz
LW 150 kHz
MW 520 kHz.

Now press MANUAL. The panel displays MANUAL. Press ADVANCE to go up the frequency scale. Press RETURN to go down the frequency scale. As long as you keep your finger on the ADVANCE or the RETURN button, the receiver will scan the frequency scale in the appropriate direction. You will see the frequency numbers on the display and hear the stations as you flip through the scale.
The receiver is tuned to the frequency number displayed when you remove your finger. In this way you can find and tune stations manually.

To move faster up the frequency scale during this manual tuning, keep your finger on FAST and ADVANCE simultaneously. To move faster down the scale keep your finger on FAST and RETURN simultaneously.

To re-instate automatic tuning, press MANUAL once again. The display MANUAL disappears and the receiver automatically tunes and locks the next station on the frequency scale which has an acceptable reception quality. ◻

18 Storing or pre-setting radio stations

You can tune and store radio stations in FM, LW and MW on nine pre-set buttons. These allow instant recall of the stored station at the touch of a button. You decide which stations are stored on which buttons. Your authorised Bang & Olufsen dealer will assist in the initial storing.
Below, space is provided so you can make a note of which stations are stored on which buttons.

Press FM.LW.MW (once, twice or three times) until you see a display of the waveband you require. You will see one of the following displays:
FM 87.5 MHz
LW 150 kHz
MW 520 kHz

Now press ADVANCE. The receiver scans the frequency band and automatically stops at the next station whose reception quality is good.
You will see a display of the station's frequency and the word LOCKED.

To store this station, press STORE. You will see this display: P (for programme).
It appears and blinks. While it is still blinking, press the number of the button on which you want to store the station.
For example: STORE then P5.
You will see these displays: P2 and LOCKED. If the station is transmitting in stereo, you will also see this display: STEREO.

Stations which are tuned manually can be stored in the same way. (See 17). ◻

19 Which station is on this pre-set button?

If you are listening to a pre-set radio station, e.g. P3, and want to identify the station, press MANUAL. You will see a display of the station's frequency number. For example: FM 88.75 MHz. To revert to the simpler display: P3, press SELECT then P3. ◻

20 Monitoring on Tape 2

The TAPE 2 output has a monitoring function. This means that when you connect a tape recorder which has monitoring capability, you can listen to your recording a fraction of a second after the signal has been recorded.

Here's what to do:
Choose a programme source. For example, press SELECT, then P1, and start recording in the usual way.
To monitor your recording, press SELECT then MONITOR. You will see this display: TP.
To revert to the programme source (P1), press SELECT, then MONITOR. ◻

Button	Station frequency (name/number)		
	FM	LW	MW
P1			
P2			
P3			
P4			
P5			
P6			
P7			
P8			
P9			

21 Trouble-shooting: "What if ...?"

There's no denying it, the Beomaster 5000 receiver incorporates an awful lot of complex technology. It offers numerous functions and features many of which you'll only get to know after you've lived with the receiver for some time.

This is not to say that you have to be an expert to get the best from your receiver. Far from it. But there is a chance that the day will come when you press a button and nothing, or the wrong thing, will happen. Or you might enter the room, and there it is: displaying red digits or an unknown symbol.

Before you call your dealer or pull out your screwdriver, remember that 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.

Quite often, it's the simplest problems that are most annoying and frustrating. The "if only I knew how" sort of problems. This simple trouble-shooting section is designed to help you solve some of them. It might also save you an unnecessary service call.

What if my Beomaster receiver shows no sign of life?
Is it connected to the mains power supply?
Is the plug properly connected?
Is the wall socket switched on?
The sign of life to look for: a tiny red light (an LED) glowing on the front panel. (2)

What if I can't hear a sound from my receiver?
Check the volume control adjustment. Press △ VOLUME. (11)
Is the MUTE function engaged? Press MUTE or △ VOLUME. (5)
Are the loudspeakers connected properly? (2)

What if I want to listen to a radio station other than those stored on the pre-set buttons P1-P9?
Select FM.LW.MW and press ADVANCE to scan the radio frequencies up the scale or RETURN to scan radio frequencies down the scale. The receiver automatically tunes and locks the next station on the scale in either direction. (16, 17, 18)

What if I want to identify which station I'm listening to?
Let's say you're listening to a radio station stored on P3. The display says P3 but you want to identify the station. Press MANUAL. The station's waveband and frequency number will be displayed. To revert to the P3 display, press SELECT then P3. (19)

What if I press P1 and get Tape 1; or P2 and get Tape 2, etc.?
Notice that these buttons have dual functions: a primary and a secondary. To get radio programmes P1, P2, etc., you must first press the SELECT button then a pre-set station button. (The SELECT button alerts the secondary modes). (15)
If you don't press SELECT these dual-mode buttons will function in their primary modes and will execute the functions written on the buttons themselves.

What if I want to monitor a tape which I'm recording?
Connect a deck which has monitoring capability to the TAPE 2 socket. Prepare the deck for recording (see deck's instruction manual). Select programme source (e.g. press PHONO), start recording function on deck. To monitor recording: press SELECT, then MONITOR. The letters TP (for tape) are displayed and you will hear the music which is being recorded a fraction of a second after it has been recorded. To revert to listening to sound from the source, press MONITOR once again. (20)

What if there's a power cut, do I lose all my pre-set stations and other stored or user-programmed features like my preferred volume level, bass, treble, balance, etc.?
No. The Beomaster receiver will not lose its memory - irrespective of how long it's been disconnected from electricity. If you have the Master Control Panel 5000 (remote control Module), you'll have to reset the day and time >

using the SET CLOCK function. (See User's Guide for Master Control Panel 5000).

What if the Beomaster switches off when all I wanted to do was to mute it (that is, silence it for a while)?
Don't press MUTE so long. Switch on again, by pressing PLAY.
To silence the system, without switching it off, press MUTE briefly and lightly. Since MUTE and ● (stand-by) are close to each other, the receiver registers the duration of the pressing to determine whether it should go in its stand-by position or just cut the sound from the speakers. (5)

How far away from the other hi-fi components can I place my Beomaster receiver?
Up to 1 metre from the record player to be connected.
Up to 10 metres from the cassette deck. Up to 10 metres from the compact disc player. □

22 Glossary of Buttons and Terms

OPEN Opens the panel to reveal the other operation buttons. (6)

MUTE Silences the speakers, so that you cannot hear the reproduced sound, although the rest of the system continues functioning. (5)

PLAY Switches on and plays a programme source. Thus to play a record, press PLAY, and listen to the music. (3)

● Stand-by, also called a temporary "off" switch. In this position, the Beomaster can communicate with the other components in the Beosystem 5000 or other suitably automated products. (4)

▽ VOLUME Reduces volume level. (11, 12)

△ VOLUME Increases volume level. (11, 12)

LOUDNESS Activates the Loudness function (a physiological volume control used with low volume levels). (13)

NEUTRAL Restores bass, treble and balance control settings to their "neutral" positions. (14)

MONITOR Activates monitoring function when a tape deck with monitoring capability is connected. (20)

SELECT Selects specific functions, manually. Alerts the secondary functions on dual-mode buttons. (15, 19, 20)

P1 to P9 Buttons from 1 to 9 for selecting pre-set radio programmes. (15)

TAPE 1 Selects Tape 1 input as programme source. (7)

TAPE 2 Selects Tape 2 input as programme source. (7, 20)

PHONO Abbreviation for phonograph (meaning record player). Selects this input as programme source. (2, 8)

AUX Abbreviation of AUXiliary. Button for selecting this input as programme source. For example, a compact disc player could be connected. (2, 9)

FM MONO Selects mono sound reproduction when you require this from an FM station which is being transmitted in stereo. To revert to stereo sound, press FM MONO once again. (16, 17)

FM.LW.MW Selects FM, LW, MW in order to tune radio stations on these wavelengths. (16, 17)

MANUAL Button for activating manual tuning of radio stations and identifying pre-set stations. (16, 17, 18)

RETURN Scans down the radio frequency scale, when you seek stations which transmit on lower frequencies. (16, 17, 18)

FAST Button for fast manual scanning of radio frequencies. (17)

ADVANCE Scans up the radio frequency scale, when you seek stations which transmit on higher frequencies. (16, 17, 18)

STORE Stores or pre-sets radio stations once they have been tuned. (18)

SOUND Stores or pre-sets your preferred volume level so that the receiver will begin at this level everytime you start playing. (11, 12)

>

Programme source Product or component from which sound information (signal) is obtained. For example, Tape 1, Phono (meaning record player), radio, etc.

Digital display A display of numbers, usually illuminated, and shown on display panel.

LED Abbreviation of Light Emitting Diode, used in illuminated displays.

Waveband A range of wavelengths or frequencies used for a particular type of radio transmission.

Beosystem 5000

The following are individual automated Bang & Olufsen products, designed for use with the Beomaster 5000. Naturally, they will also work with other receivers - but to enjoy the convenience of one-touch distance operation, they must be connected to a Beomaster 5000 receiver:

● **Beogram 5005** A Bang & Olufsen tangential tracking record player.

● **Beogram CD 50** A Bang & Olufsen compact disc player.

● **Beocord 5000** A 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. □

23 What the displayed symbols mean

PH for PHono. The record player is selected as programme source. (8)

AU for AUxiliary. The auxiliary input is selected as programme source. This could, e.g. be a compact disc player. (9)

TP 1 for Tape 1, selected as source. (7)

TP 2 for Tape 2, selected as source. (7, 20)

P for Program. Briefly awaits your instruction either to select or store a programme. (15, 16, 17, 18, 19)

P1, P2, etc. (to P9) Pre-set or stored radio programmes. Can be in FM, LW or MW. (15, 18, 19)

FM 87.5 MHz FM (Frequency Modulated) waveband selected as source. FM radio frequencies start at 87.5 MHz and end at 108 MHz.

LW 150 kHz Long Wave selected as source. LW radio frequencies start at 150 kHz and end at 350 kHz. (16, 17)

MW 520 kHz Medium Wave selected as source. Medium Wave radio frequencies start at 520 kHz and end at 1610 kHz. (16, 17)

LOUDNESS The loudness function is activated. It means that the bass and treble tones will be "lifted" when you play at low volume levels in order to compensate for the ear's lack of sensitivity at low volume. The music will sound more realistic. (13)

STEREO The FM radio station you are listening to is being received and reproduced in stereo. (16, 17, 18)

LOCKED The radio station you are listening to has been tuned and "locked" to the transmitting frequency, securing good reception quality. (16, 17, 18)

MANUAL Appears when you press MANUAL, after selecting FM, LW or MW. Indicates that you can tune radio stations manually, that is, without interference from the receiver's automatic tuning device. (16, 17, 18)

If you press MANUAL while listening to a pre-set radio station, you will see a display of the station's frequency number. (19)

3.8 (Or any digital combination between 0.0 and 6.0). Indicates volume level. (11, 12) □

24 Beomaster 5000 Technical Specifications

Type No.	2321-2322-2324-2325
Power output 20-20,000 Hz IHF	2 x 50 watts/8 ohms
Total harmonix distortion IHF	<0.09%
Dynamic headroom	1.5 dB/8 ohms
IHF intermodulation	<0.1%
Response vs frequency:	20-20,000 Hz ±1.5 dB
Wideband damping factor	60
Signal-to-noise ratio:	
Phono A-weighted	>75 dB
Tape A-weighted	>76 dB
FM range	87.5-108 MHz
Usable sensitivity mono	15 dBf-1.5 µV/75 ohms
Usable sensitivity stereo	15 dBf-2 µV/75 ohms
Signal-to-noise ratio at	
65 dBf mono	70 dB
Signal-to-noise ratio at	
65 dBf stereo	67 dB
Spurious response	110 dB
Subcarrier product rejection	64 dB
LW range	150-350 kHz
MW range	520-1616 kHz
Power supply	2321: 220 volts
	2322-2325: 240 volts
	2324: 100 volts
Power frequency	50-60 Hz
Power consumption	15-260 watts
Dimensions W x H x D	42 x 7.5 x 32.5 cm

Subject to change without notice