

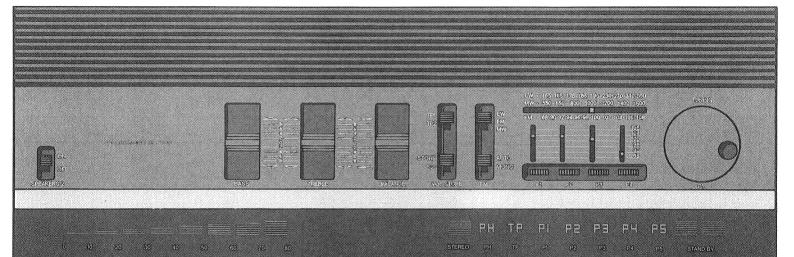


BEOMASTER 3000

User's Guide for FM and FM/AM receiver

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Congratulations!

We congratulate you on your purchase of the Beomaster 3000 receiver. It is the heart of the Bang & Olufsen one-touch, integrated hi-fi system: the Beosystem 3000.

Other components in the Beosystem 3000 are the Beogram 3000 record player and the Beocord 2000 cassette deck.

Like the other components in the Beosystem 3000, the Beomaster 3000 receiver is fitted with the Bang & Olufsen Datalink system. This means that within the Beosystem 3000 you can switch from one source to the other, e.g. from listening to the radio to playing a tape or a record, just with one single touch. If you connect other Bang & Olufsen products with Datalink to your Beomaster 3000, you will of course have the same benefits

Components not fitted with the Datalink system must be operated individually.

The individual types within the Beomaster 3000 range are either FM or AMFM receivers (see Technical Specifications, section 21).

The Beomaster 3000 can be operated with the Terminal 3000, a remote-control unit, which makes operating the whole Beosystem even simpler and more convenient. If you don't have a Terminal 3000, your Bang & Olufsen dealer can supply one (optional accessory).

Beosystem 3000 can be extended with a Master Control Link 30, which enables you to operate and listen to the Beosystem anywhere in your house. The Master Control Link 30 is a Bang & Olufsen product which is specially designed to fit the Beosystem 3000. You can install a Master Control Link 30 in any room with loud speakers and be able to listen to the music and operate the system in that room.

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 Beomaster'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 auestions.

At the end of each section we have explained how to carry out the activity just described using the Terminal 3000.



CAUTION



CAUTION: To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.

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 Stand-by position

The electric lead is permanently connected to the Beomaster. See section 21, Technical Specifications, for details about power requirements.

When connected to the mains power supply, the Beomaster is ready to be operated. A red dot (an LED, short for Light Emitting Diode) appears above the word STAND BY, indicating that the Beomaster is in its stand-by position and ready to carry out your orders.

2 Primary and secondary functions

The Beomaster's operation facilities are divided into primary and secondary facilities. Primary facilities are those basic functions you will use every day. They are the grey-toned, touch-sensitive areas on the lower part of the Beomaster's surface, e.g. for adjusting volume or playing a tape or a record.

All the primary functions can be controlled with the Terminal 3000. Secondary facilities are those functions that you do not want to

program every time you use the Beomaster, e.g. bass and treble levels or loudspeaker balance. They are placed in the programming section underneath the hinged aluminium panel. To open the panel, press the word PROGRAMMING on the narrow front strip of the Beomaster. Make sure that sufficient space is left free over the Beomaster to allow the panel to open all the way. To close the panel, gently press the hinged panel down until you hear a "click".

3 Terminal 3000

The Terminal 3000 (optional accessory) is a remote-control unit specially designed to fit the Beomaster 3000. The Terminal 3000 allows operation of all the Beomaster's primary functions.

When using the Terminal 3000 you will find that not only can you enjoy the convenience of operating the Beomaster at a distance the Beomaster will also confirm your commands on the display panel. Thus you will never be in doubt about what programme you are actually playing - just have a look at the Beomaster and see if the display is showing the programme you want.

With the Terminal 3000 you can operate all the units in the Beosystem 3000: Beomaster 3000, Beogram 3000 and Beocord 2000. If you connect other types of record player or tape recorder to your Beomaster, operating via the Terminal 3000 will of course be dependent on how these other types work together with the Beomaster 3000.

However, to enjoy the convenience of single-touch operation via the Terminal 3000, the record player or tape recorder connected to the Beomaster 3000 must be a Beogram or a Beocord with the Bang & Olufsen Datalink system.

4 Placing the Beomaster

Before finding a place for the Beomaster, make sure that it is well away from sun-filled windows and direct heat from radiators and fireplaces. The Beomaster's ventilation slots at the rear must not be covered.

The Wall Bracket 30 (optional accessory) offers an excellent possibility of hanging both the Beomaster and the Beocord 2000 on the wall. The WB 30, type no. 2072, can be supplied by your Bang & Olufsen dealer. If you put your Beomaster in a shelving system, at least 5 cm must be left free at the rear to ensure sufficient ventilation. At least 15 cm of free space is required over the Beomaster to open the aluminium panel freely.

If you want to be able to operate the Beomaster with the Terminal 3000, you must also be sure not to have any opaque surfaces blocking the communication by infra-red light between the Terminal and the infra-red receiver on the Beomaster. The infra-red receiver is placed below the narrow front strip to the left.

PROGRAMMING O INFRA-RED RECEIVER

5 Setting up

Make sure that the Beomaster is disconnected from the mains power supply while you make the following connections.

The Beomaster can serve as an amplifier for any hi-fi product, e.g. record player or tape recorder. However, if you have all the components in the Beosystem 3000 or other Bang & Olufsen products with Datalink, you will be able to enjoy the benefits of the Bang & Olufsen Datalink system.

Plug the cables from the FM and AM aerials (AM, types 2932, 2935 and 2937) into the appropriate sockets marked ANT. (short for antennas). If you use an indoor FM antenna ("rabbit ears" type), attach the cable of that antenna to the FM bracket (see drawing).

Plug the cable from your record player into the socket marked PH (short for phonograph).

Plug the cable from your cassette deck into the socket marked TP1 (short for tape 1). If your cassette deck is designed for DIN level signals, connect it via Bang & Olufsen adapter no. 7229018.

The TP2 socket is intended for an extra tape recorder with phono plugs. If the tape recorder has DIN level signals and a DIN plug, connect it via Bang & Olufsen adapter no. 6270212.

Both tape inputs (TP1 and TP2) are adjusted to LINE level signals.

Loudspeakers in the same room as the Beomaster should be plugged into the lower set of speaker sockets (right - left). Loudspeakers in an adjoining room should be plugged into the upper set of sockets (right - left). The SPEAKERS 2 switch in the programming section should be set to ON to switch on the second set of loudspeakers.



Switching on

When the Reomaster is connected to the mains, a tiny red dot to the right indicates that the set is in its stand-by position. There is no "ON" button like in receivers of somewhat older type. The Beomaster must be connected to the mains, before you can use the Terminal 3000 to operate it.

Now you just have to touch the grey-toned space of the function you want to play, e.g. P1 (a preset FM radio station, see section 13).

P1 will be displayed on the panel. making it possible for you to see. even at a distance, what function you are playing.

The red colour bars to the left will light up, indicating at what volume you are playing.

The two green colour bar spaces to the right will light up with equal strength if the station is set at its optimum frequency.

If the FM programme is being transmitted in stereo, a green colour bar space marked STEREO will light up.

* Terminal operation: Press P1

Switching off

The Beomaster is switched back to its stand-by position by touching the orange to the right. The tiny red dot above the word STAND BY will light up again.

If you have just played say the Beogram 3000 or the Beocord 2000, these will also go into their stand-by positions.

* Terminal operation: Press .

8 Playing a record

Touch PH. PH will be displayed on the Beomaster.

If the connected record player is a Beogram with Datalink (e.g. Beogram 3000), the record player will determine the speed of the record and start playing immediately. The tonearm of the Beogram does not move if there is no record on the platter.

To switch to say P1, you just have to touch P1 on the Beomaster. Your one touch will make the tonearm of the Beogram lift (after 7 minutes the Beogram will go into stand-by) and P1 will be played.

If the record player is not a Beogram with Datalink, touch PH on the Beomaster and operate the record player in the usual way. * Terminal operation: Press PH.
Switching to a radio station: just press the appropriate button, P1,
P2 etc.

To enjoy the full benefits of Terminal operation, the connected record player must be a Beogram with Datalink. If the record player is not a Beogram with Datalink, press PH and operate the record player in the usual way. To switch to a radio station, you have to stop the record player first and then press the appropriate button, P1, P2 etc.

See the separate User's Guide for your record player for full operating details.

9 Playing a tape

immediately.

Touch TP. TP will be displayed on the Beomaster. If the tape recorder is a Beocord 2000 or another Beocord with Datalink and the tape selector in the programming section is set to TP1, the tape recorder will start playing the tape

If you want to switch to a radio station when playing a tape, you just touch the appropriate space on the Beomaster. Your one touch will make the tape recorder stop and the radio station start playing.

If the connected tape recorder is not a Beocord with Datalink, touch TP and operate the tape recorder in the usual way.

Remember to set the tape selector in the programming section in the right position: TP1 or TP2, depending on the socket your tape recorder is connected to (see 5).

* Terminal operation: Press TP. Switching to radio: press the appropriate button, P1, P2 etc.

To enjoy the full benefits of Terminal operation, the connected tape recorder must be a Beocord with Datalink. If the tape recorder is not a Beocord with Datalink, press TP and operate the tape recorder in the usual way. To switch to a radio station, you have to stop the tape recorder first and then press the appropriate button, P1, P2 etc.

10 Operating the Beocord 2000 via Terminal 3000

The Terminal 3000 gives access to the following functions on the Beocord 2000:

- playing a tape, press TP (described in section 9).
- rewinding, press 44
- returning to start of track during play, press RETURN.
- forwarding to next track during play, press NEXT.
- repeating tape, press TP the number of times desired (max. 4).
- stop playing, press STOP.

- recording, first touch RECORD and STOP on the Beocord 2000 and then RECORD on the Terminal.
- inserting a pause of 4 seconds, press STOP.
- stop recording, press STOP twice.
- return to start of latest recording, press RETURN.
- resume recording without changing tape, after stop or stand-by, press RECORD twice.

See the separate User's Guide for the Beocord 2000 for full operating details.

11 Playing the radio

FM programmes can be played on the Beomaster, regardless of its individual type number. If your Beomaster is one of the types 2932, 2935 and 2937 also AM programmes can be played. AM programmes are played via P5 (on types 2932, 2935 and 2937). Open the panel and set the waveband selector indicated by LW/FM/MW in either the LW or the MW position. Touch P5 and tune in on the station desired by turning the dial marked TUNING P5.

Note the red station marker, which will be moving up and down the frequencies while you turn the dial. The LW/MW frequencies can be read above the red station marker.

* Terminal operation: Press [P5] and proceed to tune in on the AM station desired as described above.

FM programmes can also be played via P5. Open the panel and set the waveband selector indicated by LW/FM/MW (types 2932,

2935 and 2937 only, not present on types 2931, 2933 and 2939) in the FM position. Touch P5 and proceed to tune in on the station desired using the dial marked TUNING P5. The FM frequencies linked to P5 can be read on the horizontal FM scale.

* **Terminal operation:** Press [P5] and proceed to tune in on the FM station as described above.

Preset FM programmes are played via P1, P2, P3 and P4. See section 13 for presetting FM programmes.

* Terminal operation: Press one of the buttons [P1], [P2], [P3] or [P4].

When FM programmes are being played the green colour bar space marked STEREO will light up to indicate if the programme is being transmitted in stereo. The two green colour bar spaces to the right will light up with equal strength if the FM station is set at its optimum frequency. (See section 14 to fine-adjust FM frequencies).

12 Adjusting and storing volume levels

Whenever you start playing the red lights to the left will light up indicating the volume level. The Beomaster is designed to start playing at 30. You can lower or raise the volume level by touching (softer) or (louder).

If you want to have your Beomaster start playing at a higher or lower level, you can preset or store the volume at the level desired (60 is the maximum level you can preset). Increase or decrease the volume level and then just press down the slider marked VOL.STORE in the programming section. Next time you start playing, the level you have now preset will be the starting level.

Any volume level stored will be reset to 30 if the Beomaster is disconnected from the mains.

* Terminal operation: Press △ to increase the volume level. Press ♥ to decrease the volume level. Note: Volume levels cannot be stored by means of the Terminal.

Note: Some FM stations, especially in the US, are transmitted at very high levels, which may cause the volume levels of these stations to appear higher than the corresponding levels when playing e.g. a tape. We recommend you consult your Bang & Olufsen dealer if you want to have the FM level damped to correspond to the volume levels of your tape recorder or record player.

13 Presetting FM stations

Locate the four thumbwheels in the PROGRAMMING SECTION marked P1, P2, P3 and P4 and their corresponding FM scales.

Touch P1. P1 will be displayed and the two green colour bar spaces to the right will light up. Move the thumbwheel marked P1 until you find the station you want to preset. When the two green colour bar spaces light with equal strength, the station is tuned to its optimum position.

The green colour bar space marked STEREO will light up if the station is being transmitted in stereo.

Proceed to preset the remaining three FM stations in the same way.

See section 14 if you want to fine-adjust the frequencies.

14 Fine-tuning FM stations

It may be required to fine-tune FM stations, especially in areas where stations are transmitted on frequencies lying close to each other. The fine-tuning function applies to all of the FM tuning facilities, i.e. P1, P2, P3, P4 and P5 FM.

Touch the space for the FM tuning facility concerned, say P4. P4 will be displayed, and the green colour bar space marked STEREO will light up to indicate if the station is transmitted in stereo. The two green colour bar spaces to the right will also light up, possibly with unequal strength, which serves to remind you that the FM station should be fine-tuned.

Now switch the FM AUTO/MONO switch in the programming section to the MONO POSITION. The AFC function (Automatic Frequency Control) integrated in the AUTO position will be cut out and the green colour bar space marked STEREO disappears.

Tune in again on the FM station on the appropriate dial (P4) until the two green colour bar spaces to the right light up with equal strength.

Now set the FM AUTO/MONO switch back to the AUTO position. The green colour bar space marked STEREO will light up, provided, of course, the FM station is transmitted in stereo. The AFC function will be activated again and will lock the FM station to the correct frequency.

Follow the same instructions to fine-adjust the other FM stations. Tuning in on FM stations with the AFC function cut out (MONO position) is necessary if you want to fine-adjust the frequency. However, once you have carried out the fine adjustment and cut in the AFC function again, you can be sure that the FM station will not drift.

15 Muting

The muting facility is for silencing the Beomaster without switching off. If you are playing a programme, and you have to answer the telephone, you do not have to switch off the Beomaster to damp the sound.

Just touch the orange v to the far left and the sound will disappear completely. However, the programme you were listening to will not be disrupted. To return to listening to the programme you just have to touch the orange V again. The Beomaster will revert to the previous volume level. If you mute the Beomaster while playing a record on the Beogram 3000 or another Beogram with Datalink, the tonearm will lift and be hovering over the record. When you touch the orange V again, the record will resume playing from the passage where it was muted. If playing is not resumed within 7 minutes, the Beogram will go into its stand-by position.

If you mute the Beomaster while playing a tape on the Beocord 2000 or another Beocord with Datalink, the tape will stop. To resume playing touch the orange vi. If playing is not resumed within 30 minutes, the whole Beosystem will go into its stand-by position.

All programmes can be resumed after muting also by touching the appropriate space for the programme being played, e.g. PH, TP or P3.

You can safely mute the Beomaster while in the process of recording a radio programme or a record on the Beocord 2000. The recording process will go on undisturbed. Just press again to restore the sound.

* Terminal operation: Press the MUTING button to mute any programme. Press MUTING again to resume playing or press the appropriate button, e.g. PH, TP or P3.

16 Adjusting bass and treble

The sliders for adjusting bass and treble are in the programming section (press PROGRAMMING on the narrow front strip to open the panel).

To adjust the bass tones, move the BASS slider up (more bass) or down (less bass).

To adjust the treble tones, move the TREBLE slider up (more treble) or down (less treble).

17 Adjusting loudspeaker balance

The balance between the right and left loudspeakers can be shifted to either side, which causes the listening centre to be moved accordingly. The slider for adjusting balance is in the programming section (press PRO-GRAMMING on the narrow front strip to open the panel).

To shift the balance to the right, move the BALANCE slider up (more sound in the right speaker).

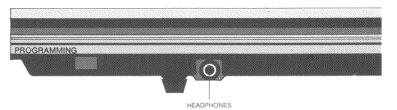
To shift the balance to the left, move the BALANCE slider down (more sound in the left speaker).

18 Listening via headphones

The socket for headphones is on the front of the Beomaster, underneath the narrow aluminium strip.

When you connect headphones, the speakers connected to the SPEAKER 1 sockets will be muted automatically. Adjust the volume level in the usual way (see 12).

When the headphones are disconnected, the speakers connected to the SPEAKER 1 sockets will automatically be cut in again.



19 Cleaning the Beomaster

Use a firmly wrung cloth dipped in a dish-washing liquid to wipe off grease stains and dust from the surface of the Beomaster. The dish-washing liquid serves to prevent static electricity, which attracts dust, from building up on the panel.

20 Glossary of buttons and terms

The Beomaster's primary operation facilities (see 2) are touch-sensitive spaces on the primary panel. The secondary operation facilities are sliders, switches or wheels placed in the programming section (or secondary panel).

Open the panel by pressing the word PROGRAMMING on the narrow front strip of the Beomaster. All the operation facilities are now visible and you can check how to use them one by one as we go through them below.

The following list of operation facilities ends up with a summary of some of the terms used in this user's guide.

Numbers in parentheses refer to the sections in which the terms appear or are dealt with.

Primary panel:

- * (orange), silences the entire system without switching off (see 15).
- * and , reduce or increase the volume level. The red colour bar spaces show the volume level at which a programme is being played, indicated by intervals of 10 (see 12).
- * STEREO (green colour bar display), indicates that the FM programme you are listening to is being played in stereo (see 11, 13 and 14).
- * PH (touch-sensitive space and display), selects record player as sound source. If the connected record player is a Beogram 3000 (or another Beogram with Datalink), touching PH suffices to play the record on the platter (see 8).

- * TP (touch-sensitive space and display), selects tape recorder as sound source. If the connected tape recorder is a Beocord 2000 (or another Beocord with Datalink), touching TP suffices to play the tape in the tape recorder (see 9).
- * P1, P2, P3 and P4 touch-sensitive spaces and displays), give access to preset FM stations (see 11 and 13).
- * P5 (touch-sensitive space and display), gives access to tuning in on FM and AM radio stations on the P5 tuning dial (see 11).
- * Two green colour bar spaces to the right, light up to serve as tuning aids (see 11, 13 and 14) whenever you play FM radio programmes.
- * (orange), switches the Beomaster on or off. A red dot above the word STAND BY lights up to indicate that the Beomaster is on stand-by (see 1, 6 and 7).

Secondary panel:

(programming section):

- * SPEAKERS 2, ON/OFF (switch), switches a second pair of speakers on if set to ON (see 5).
- * BASS (slider), increases (up) or decreases (down) the bass tones (see 16).
- * TREBLE (slider), increases (up) or decreases (down) the treble tones (see 16).
- * BALANCE (slider), adjusts the balance between the right and left speakers (see 17).
- * TP1 TP2 (switch), selects primary or secondary tape recorder as input (see 5 and 9).
- * VOL. STORE (slider), stores your preferred volume level (see 12).
- * LW FM MW (switch), on types 2932, 2935 and 2937, selects waveband in connection with P5 (see 11).

- * FM AUTO/MONO (switch), switches any FM programme to mono if set to MONO. If the switch is set to AUTO, FM programmes transmitted in stereo will be
- played in stereo. The AUTO position comprises the AFC facility (see 14). The switch does not affect the stereo signals of stereo records or tapes.
- * P1, P2, P3 and P4 (thumbwheels and FM frequency scales), for presetting FM stations (see 13).
- * P5 (tuning dial), for tuning FM and AM stations on the three horizontal LW, MW and FM frequency scales (see 11). The AM waveband is only present on types 2932, 2935 and 2937.

Terms:

- * Beosystem 3000, corporate name for the following Bang & Olufsen products designed to work together as a complete system:
- tem:

 Beomaster 3000, Terminal 3000,
 Beogram 3000 and Beocord 2000.
 The Terminal 3000 is specially
 designed to work with the Beomaster 3000, whereas the Beomaster, the Beocord and the Beogram can be used with products from other manufacturers, too.
 However, to enjoy the convenience of one-touch operation, they must be Bang & Olufsen products
 with Datalink.
- * WB 30, a wall bracket (optional accessory) specially designed to suit the Beosystem 3000. The cover illustration of this user's guide shows how to hang the Beomaster 3000 and the Beocord 2000 on the wall by means of the WB 30.

- * Datalink, an electronic system built into many Bang & Olufsen products which allows the individual components to interact by one-touch operation. The Beosystem 3000 incorporates the Datalink system. So do the Beosystems 2000, 5000, 6000 and 8000. Products from these hi-fi systems in any combination therefore offer the convenience of one-touch
- * AFC, short for automatic frequency control, electronic means for compensating frequency drifts in a receiver.

21 Technical Specifications

| Type No. | 2932-2935-2937 (AM/FM) | 2931-2933-2939 (FM) |
|--|------------------------|------------------------|
| Power output RMS DIN/IEC | 2 x 30 watts/8 ohms | 2 x 30 watts/8 ohms |
| Harmonic distortion DIN/IEC | <0.08% | <0.08% |
| Power output 20-20,000 Hz IHF | 2 x 25 watts/8 ohms | 2 x 25 watts/8 ohms |
| Total harmonic distortion IHF | <0.1% | <0.1% |
| Dynamic headroom | 1,6 dB/8 ohms | 1,6 dB/8 ohms |
| Intermodulation IHF | <0.1% | <0.1% |
| Response vs frequency: | 20-20,000 Hz ±1.5 dB | 20-20,000 Hz ±1.5 dB |
| Wideband damping factor | 35 | 35 |
| Signal-to-noise ratio: | | |
| Phono A-weighted | >75 dB | >75 dB |
| Tape A-weighted | >77 dB | >77 dB |
| FM range | 87.5-108 MHz | 87.5-108 MHz |
| Signal-to-noise ratio at 65 dBf mono | 72 dB | 72 dB |
| Signal-to-noise ratio at 65 dBf stereo | 67 dB | 67 dB |
| Distortion at 65 dBf stereo | 0.35% | 0.35% |
| Stereo channel separation | 36 dB | 36 dB |
| Subcarrier product rejection | 55 dB | 55 dB |
| AM tuner section: | | |
| LW range | 150-350 kHz | |
| MW range | 520-1610 kHz | |
| LW sensitivity 20 dB S/N ratio | 120 μV | |
| MW sensitivity 20 dB S/N ratio | 100 μV | |
| Power supply | Types 2932-2935: 240 V | Types 2931-2939: 220 V |
| | Type 2937: 220 V | Type 2933: 120 V |
| Power frequency | 50-60 Hz | 50-60 Hz |
| Power consumption | 20-170 watts | 20-170 watts |



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 the mains lead supplied with the Beomaster 3000 are coloured in accordance with the following code:

Blue: Neutral Brown: Live

electrician.

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

www.bang-olufsen.com