

ALTER v/Henriksens ELE

BANG & OLUFSEN

BEOSYSTEM 10

WB 10



TABLE OF CONTENTS

SETTING UP

AC power supply	4
Batteries	4
Boat, car or caravan batteries	4
Antennas	4
Volume	4

RADIO

AM (LW/MW)	5
FM	5
Presetting FM stations	5
Switching off	5

TAPE RECORDER

Inserting or removing tapes ..	6
Playing a tape	6
Recording	6
- From radio	6
- From external tape recorder or record player	6
- Through microphone	7
Cueing/Reviewing	7
Switching off the tape recorder	7
Safeguarding recordings	7

SPECIAL FUNCTIONS

Acoustic Mode (bass/treble) ..	8
Balance	8
Mono/Stereo switch	8
AFC	8
Wide stereo	9
Tape switch	9

OPTIONAL CONNECTIONS

Extra tape recorder or record player	10
External loudspeakers	10
Headphones	10

CLEANING

Tape heads	11
Product surfaces	11

GUARANTEE

TECHNICAL

SPECIFICATIONS

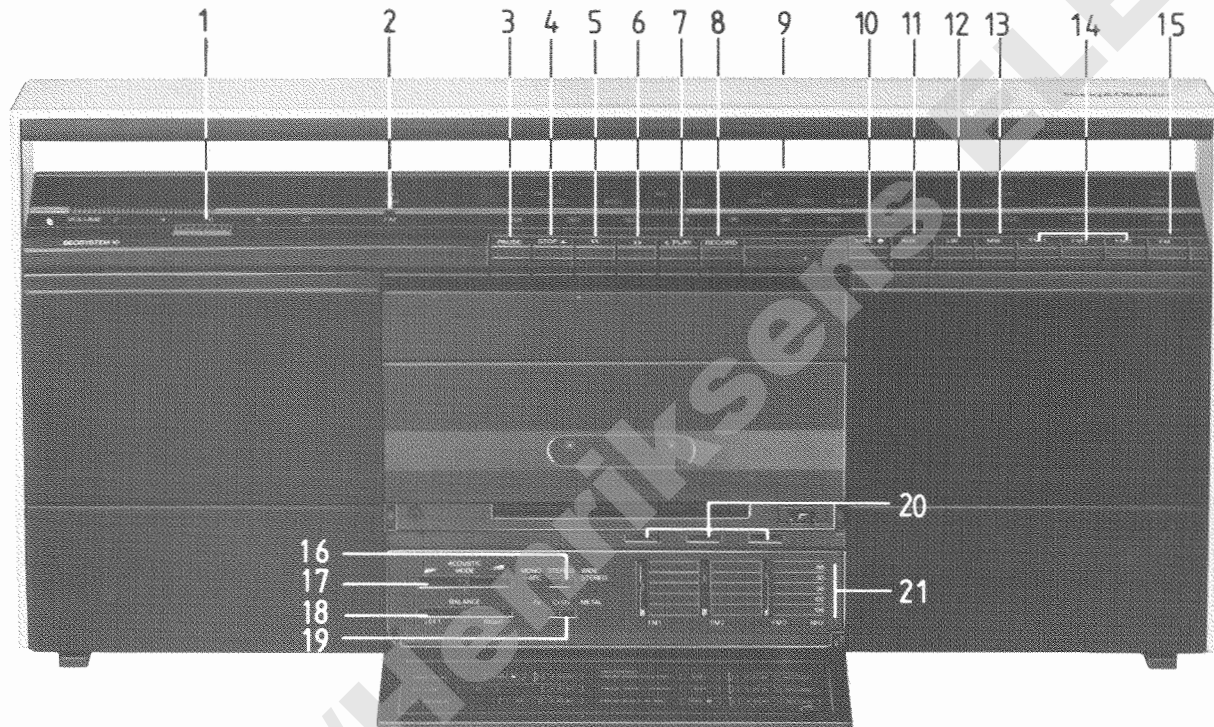
Beosystem 10 is designed to cater for your needs for music or sound reproduction in any place you like. It lays no restrictions on your mobility - you can take it with you wherever you go without worrying about power supply.

And you can still assign it its own place on the wall in any room or in your boat or caravan, for that matter. The wall bracket WB 10 (optional accessory) keeps it secure and stable and comfortably out of the way.

In short, Beosystem 10 unites flexibility, high-quality sound reproduction and simplicity of operation. Try out the Beosystem and see for yourself - the Beosystem 10 has only straight-forward push-buttons and no complex electronic functions.

We suggest you let this operation manual guide you along. Look up the function you want to play in the Table of Contents, or play

your way through the Beosystem 10 right from the start. The operation manual is composed to suit both temperaments.



TAPE RECORDER

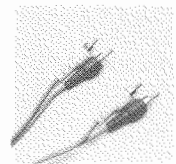
- 3. Temporary tape transport stop
- 4. Tape recorder stop, opens cassette holder
- 5. Fast forward
- 6. Rewind
- 7. Tape playback
- 8. Recording mode
- 10. Tape recorder on/radio off

RADIO

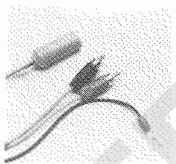
- 9. FM/LW/MW dial knob
- 10. Radio off/tape recorder on
- 11. Selects extra tape recorder or record player as input
- 12. Access to LW stations
- 13. Access to MW stations
- 14. Access to FM presets
- 15. Access to FM stations (horizontal dial)

SPECIAL FUNCTIONS

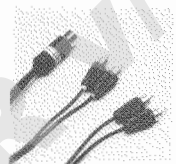
- 16. MONO/STEREO/AFC switch
- 17. Bass/treble adjustment
- 18. Loudspeaker balance
- 19. Tape switch
- 20. Thumbwheels for FM presets
- 21. Dials for FM presets



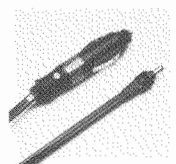
A



B



C



D

- 1. FM antenna
 - 2. External loudspeaker sockets
 - 3. Headphones socket
 - 4. Extra tape recorder or record player sockets
 - 5. Battery compartment (6 x 1.5 V)
 - 6. 9 V socket
 - 7. AC mains socket
- A. 2 x male phono plugs (Bang & Olufsen order no. 6270236)
 - B. Male phono plugs with ground wire/female DIN plug (Bang & Olufsen order no. 6270208)
 - C. Male DIN plug/2 x male phono plugs (Bang & Olufsen order no. 6270215)
 - D. Adapter for 12 V battery (Bang & Olufsen order no. 6270039)

SETTING UP

AC POWER SUPPLY

Plug the electric lead supplied with your Beosystem into the socket marked AC ~ (applicable for 220-240 V). Plug the other end of the lead into the mains power supply socket.

The Beosystem is now in a stand-by position ready for any function to be played.

If you want to remove the voltage from the Beosystem, you have to disconnect it from the mains. This is not called for except in extraordinary situations owing to irregularities in the power supply.

This Beosystem fulfills the conditions stated in the EEC directive 76/889 concerning radio frequency interference.

BATTERIES

Remove the bottom panel at the rear of the Beosystem by pressing down the two latches with your fingernails. Insert six 1.5 volt batteries (IEC R20) as indicated inside the battery compartment. Replace the panel by fitting it into position at the bottom and pressing it gently at the top.

The Beosystem does not drain the batteries when neither the radio nor the tape recorder functions are activated (only **TAPE** ● is pressed down = stand-by position).

If you power your Beosystem through the AC power supply, you do not have to remove the batteries. An automatic switch ensures that the batteries are not being drained.

BOAT, CAR OR CARAVAN BATTERIES

Your Beosystem can be powered by the batteries in your boat, your car or your caravan. Use a Bang & Olufsen adapter numbered 6270039 (optional accessory) to connect the Beosystem to one of these power supplies. The adapter cord 6270039 can be plugged into the cigar lighter in your car and similar sockets in your boat or your caravan. Connect the adapter to the Beosystem by plugging it into the socket marked 9V=.

See p. 3 for further particulars about adapters and cables.

ANTENNAS

The FM antenna is permanently fastened to the Beosystem. Pull out the antenna in its full length and point it in the direction where it best picks up the radio signals. The AM radio signals (LW/MW) are picked up by a built-in ferrite-rod antenna. Turn your Beosystem slightly to find the best position for picking up the AM signals.

VOLUME

Adjust the volume by sliding the knob on the volume scale on top of the Beosystem to the right (louder) or to the left (lower). Owing to the special electronic circuit of the Beosystem, which is designed to suit both built-in and external loudspeakers, the recommended upper volume limit for built-in speakers is 6 on the volume scale. Exceeding that limit may cause the sound to be slightly distorted. External loudspeakers or headphones call for no such upper volume limit.

RADIO

The radio is played from the top of the Beosystem by means of the five push-buttons marked LW, MW, FM1, FM2, FM3 and FM.

AM

Press **LW** or **MW** and tune in on the station you desire on the appropriate waveband on the horizontal dial on top of the Beosystem. Use your index finger to slide the dial knob along the dial. Move the tiny wheel on the knob to fine-adjust the frequency of the radio station you desire.

FM

Press **FM** and tune in on the station you desire on the FM waveband on the horizontal dial. The tiny red light (stereo indicator) to the left of the dial serves to indicate whether you are playing an FM station at its optimum position on the waveband. Adjust the frequency of the FM station until the stereo indicator lights up. Some FM stations may be so distant that the Beosystem cannot pick up their stereo signals. Then, of course, the stereo indicator will not light up. To fine-adjust FM stations, also when pre-setting FM stations, apply the AFC function described on p. 8.

PRESETTING FM STATIONS

FM1, **FM2** and **FM3** control the three vertical FM dials in the PROGRAMMING section behind the lower front panel.

They give you the opportunity to preset your favourite FM stations and are meant to save you all the trouble to tune in on the stations if you want to switch from one to the other.

You can also use the FM pre-sets to store one particular station at different frequencies. If you take your Beosystem along with you for instance when going to your week-end cottage, which may very well be in a different frequency range, you do not have to tune in again to find your favourite station.

Press the panel where it is marked PROGRAMMING to flip the panel open.

Press one of the buttons **FM1**, **FM2** or **FM3** on top of the Beosystem and use your thumb to move the tiny wheel above the appropriate vertical FM dial. Stop moving the thumbwheel when you have found the station you desire. Next time you want to listen to that station you just have to press the appropriate button on top of your Beosystem.

The stereo indicator on top of the Beosystem of course also works along with presetting FM stations.

SWITCHING OFF

Switch off the radio by pressing **TAPE**. When **TAPE** is down, the Beosystem is in its stand-by position.

TAPE RECORDER

Before playing the tape recorder make sure that **[TAPE ●]** is pressed down.

INSERTING OR REMOVING TAPES

Press **[STOP ▲]**. The upper front panel will smoothly open and you can now insert your tape cassette. Place the tape with the tape slots upwards and the side you want to listen to towards yourself. Press the cassette holder gently back into position.

Press **[STOP ▲]** to stop any recorder function. Press **[STOP ▲]** once more to open the cassette holder. You can now take out the tape cassette.

PLAYING A TAPE

Set the three-position tape switch (Fe/CrO₂/Metal) in the PROGRAMMING section in the position required for your type of tape (ferro, chrome or metal). Press the lower front panel where it is marked PROGRAMMING to gain access to the tape switch.

Press **[↶]** to rewind your tape if you want to start listening from the beginning.

Press **[↷]** to wind your tape forward if you want to listen to something further ahead on your tape. After fast forwarding or rewinding tapes the Beosystem does not switch off.

Press **[<PLAY]** and your tape will be played.

When your tape is played through the Beosystem automatically switches off and returns to its stand-by position.

The **[PAUSE]** button can be used to make short pauses while playing. However, the **[PAUSE]** button does not switch off the tape recorder (see Switching Off, p. 7).

RECORDING

FROM RADIO:

Find the radio station you want to record (**[TAPE ●]** is released). Insert a tape, set the tape switch in the appropriate position (see previous paragraph) and press **[RECORD]** and **[<PLAY]** simultaneously. The radio programme will now be recorded.

You do not have to worry about adjusting the volume while recording. You can record at any volume you like - the recording level automatically adjusts itself to normal. If you want to leave out something, say speech announcing the various pieces of music you are recording, you press **[PAUSE]**. Just press **[PAUSE]** once more to proceed with recording.

When recording from an AM radio station, you may hear a high tone emitted by the Beosystem. You can remove that tone just by switching the MONO/STEREO switch to another position (see p. 8).

Press **[STOP ▲]** to stop the recording function entirely.

FROM EXTERNAL TAPE RECORDER (TAPE 2)

OR RECORD PLAYER (PHONO):

Connect the external tape recorder or record player to your Beosystem according to the instructions under OPTIONAL CONNECTIONS (p. 10).

Remember to set the tiny switch below the AUX IN sockets in the appropriate position.

Press **[AUX]** on top of the Beosystem (**[TAPE ●]** is released).

Insert the tape you want to copy* in the external tape recorder and start playing according to the instructions of that recorder.

Or play the record you want to copy* on the record player.

Insert the empty tape in your Beosystem and proceed to record.

Press **[RECORD]** and **[<PLAY]** simultaneously.

* Subject to copyright law

TAPE RECORDER

RECORDING THROUGH MICROPHONE:

Your Beosystem has two built-in microphones at its upper left and right corners.

Recording anything of your own design, such as baby's first words, a message to a friend, a conversation, etc., is quite simple.

Just press **TAPE** and then **RECORD** and **<PLAY** simultaneously.

Your Beosystem will now record any sound around it, provided, of course, that the sound is emitted within a certain distance of the Beosystem and at a not too low level.

If you want to pause the recording, just press **PAUSE**. Press **PAUSE** once more to proceed with recording.

CUEING/REVIEWING

The cueing function is a means to help you find the intervals between the pieces of music (tracks) or other pauses in your recordings without having to press the buttons several times before striking the right place on the tape.

While playing a tape, press down **<<** (**<PLAY** + **<<**). The tape will be wound forward and the music will be played very fast. Keep pressing down **<<** until you hear a pause, lift your finger, and the next track will be played.

If you start playing a tape in the middle of a track, you can use the reviewing function to return to the start. Press down **>>** while playing (**<PLAY** + **>>**) and lift your finger when reaching the pause indicating the start of the track.

SWITCHING OFF THE TAPE RECORDER

Press **STOP** to switch off the tape recorder. The Beosystem reverts to its stand-by position provided only **TAPE** is now pressed down.

All the tape recorder functions are summarized graphically on the inside of the lower front panel to free you from looking up the functions in this User's Guide if you are in doubt about how to play or record a tape. Once you have familiarized yourself with your Beosystem, you will probably find these instructions quite sufficient to guide you along if you are in a hurry or if you just need to be given a clue.

SAFEGUARDING RECORDINGS

Once you have recorded a tape you may wish to secure the tape against being erased by some accident or other unintentional action.

The tape cassette is provided with two tabs on the cassette edge opposite the tape slots which can be removed to protect the tape against being erased. Just press the tabs gently with a screwdriver or other similar object until they come off. Now you don't have to worry about your recording being erased.

However, if you want to restore your tape in order to use it for recording again, you can do so just by sticking a piece of adhesive tape over the two holes.

SPECIAL FUNCTIONS

Apart from the quite basic functions of a cassette receiver, i.e. playing radio or tape recorder, you have access to a number of secondary functions enabling you to adjust your Beosystem to sound and behave the way you prefer.

Press the lower front panel where it is marked PROGRAMMING and the panel will flip open. You can now see a number of switches and dials, some of which we have already touched upon, viz. the tape switch and the three FM dials.

They are so-called secondary functions which you don't have to use every day. That's why we have hidden them behind the panel.

ACOUSTIC MODE

ACOUSTIC MODE is used to balance bass and treble. If you slide the button to the right, you increase the treble tones and at the same time remove some of the bass tones. If you slide the button to the left, you increase the bass tones and remove some of the treble tones. The centre position of course marks the point of exact balance between bass and treble.

BALANCE

BALANCE is used to balance the sound coming out of the two loudspeakers, both the built-in ones and the external ones, if any. When the button is in the centre position, the speakers produce equal sound and the listening centre is exactly in front of the Beosystem. You can move the listening centre to either side by sliding the button accordingly.

MONO/STEREO SWITCH

The MONO -AFC/STEREO/STEREO WIDE switch is a three-position switch which has a variety of functions depending on your primary commands to the Beosystem, i.e. tuning or playing the radio, playing or recording a tape. It gives you the choice between three different sound pictures: MONO, STEREO and STEREO WIDE. The MONO position also switches off the AFC (automatic frequency control) function, which is an integral function of both STEREO positions. The STEREO positions also comprise the Silent Tuning facility. Here are some hints to help you making the most of this switch:

AFC

Tuning in on FM stations in areas where FM stations are dense is often a noisy matter. Set the switch in the STEREO position and enjoy the Silent Tuning facility, which means that weak stations and noise between stations are suppressed when you slide along one of the FM dials.

SPECIAL FUNCTIONS

Once you have found the frequency of the stations you want to listen to, you may still want to make a fine adjustment of the frequency. You can do so by switching off the AFC function (MONO-AFC position), adjusting the frequency once more, and switching back to the STEREO position. The AFC will now keep your FM station stable and prevent it from drifting.

If you want to listen to distant FM stereo stations, it may prove an advantage to set the switch in the MONO -AFC position as this will reduce the background noise of weak stations considerably.

WIDE STEREO

Setting the switch in the STEREO WIDE position enhances the stereo picture making it appear to be wider than the physical distance between the two built-in loudspeakers. This gives you the sense of a stereo picture almost as wide and deep as that of a fully-fledged stationary stereo system.

TAPE SWITCH

The three-position tape switch (Fe/CrO₂/Metal) is used to adjust the recorder to the type of tape used (ferro, chrome or metal). Set the switch in the appropriate position both when recording and playing a tape.

OPTIONAL CONNECTIONS

EXTRA TAPE RECORDER OR RECORD PLAYER

Your Beosystem can serve as an amplifier for an extra cassette deck or a record player.

Plug the cables from the extra cassette deck or the record player with phono plugs into the sockets marked AUX IN L (left) and R (right). Insert the ground wire attached to the phono plugs in the slit next to the two sockets. Set the tiny switch below the sockets in the position required for the function you desire (TAPE 2 or PHONO).

Press **AUX** on top of the Beosystem and play the tape recorder or the record player as you would usually do.

If your extra cassette deck or the record player is not provided with phono plugs but has say a 5-pin DIN socket, see p. 3 to find the correct adaptor or cable to connect the extra cassette deck or record player to the Beosystem.

EXTERNAL LOUDSPEAKERS

Plug the extra loudspeakers into the sockets marked SPEAKERS L (left) and R (right).

When connecting extra speakers, the built-in speakers automatically switch off.

The sound produced by external loudspeakers may appear to be deeper than the sound you are used to hearing through the built-in loudspeakers. This is due to the electronic circuit in the Beosystem which has been designed specially to suit the size of the built-in loudspeakers and the cabinet.

Adjust the bass/treble level to fit the external loudspeakers by sliding the ACOUSTIC MODE switch in the PROGRAMMING section to the right. Doing so reduces the bass tones and increases the treble tones.

HEADPHONES

You can connect headphones to your Beosystem and listen to your favourite music at any time and at any volume you like without disturbing anyone around you.

Plug the headphones into the socket marked HEADPHONES. The built-in speakers automatically switch off.

If you feel the sound produced by the headphones is too deep, slide the ACOUSTIC MODE switch in the PROGRAMMING section to the right to increase the treble tones. This deeper sound picture is due to the special design of the Beosystem described under EXTERNAL LOUDSPEAKERS.

If you connect both external loudspeakers and headphones, sound will be emitted only through the headphones.

CLEANING

TAPE HEADS

Keeping the tape recorder in your Beosystem in optimum condition is a guarantee of optimum performance. The one prime precondition for that is clean tape heads. They (there are two of them) are situated at the upper inside edge of the cassette compartment. Buy a tape head cleaning kit and clean the tape heads according to the instructions of the kit. Or just use a cotton wool stick dipped in a rinsing fluid especially made for this purpose. Gently wipe the tape heads a couple of times. **DO NOT USE DENATURED ALCOHOL**, which may contain ingredients that are hostile to rubber or plastic.

Cleaning the tape heads once every one or two months is adequate.

PRODUCT SURFACES

Use a firmly wrung wet cloth, possibly dipped in a detergent solution, to clean the surfaces of the Beosystem. You don't have to pay special attention to the speaker fronts - they can stand being washed in lukewarm water if need be.

We recommend that you use window cleaner to polish all the shining surfaces of the Beosystem.

NOTE: Never use denatured alcohol to clean any parts of your Beosystem.

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.

TECHNICAL SPECIFICATIONS **Beosystem 10**

Type No.	1521
Power output RMS	2 x 2.5 watts/4 ohms
Power output music	2 x 4 watts/4 ohms
Input phono	3.5 mV
Input tape copy	650 mV
Output headphones	Max. 1.7 V/200 ohms
Channel separation 1000 Hz	>44 dB
Bass control at 50 Hz	± 10 dB
Treble control at 10,000 Hz	± 10 dB
FM range	87.5 – 108 MHz
Harmonic distortion stereo	<0.5%
AM range LW	147-350 kHz
AM range MW	520-1610 kHz
Tape recorder:	
Wow and flutter DIN	<0.25%
Tape switch	Ferro, chrome, metal
Frequency range	60-14,000 Hz
Signal-to-noise ratio	>54 dB
Microphones	Built-in, L and R
Power supply	220-240 volts
Batteries	6 pcs 1.5 volts IEC R 20
Power consumption	220 V: max. 9.5 watts
	Battery: FM 170-790 mA, rec. 420-1000 mA
Dimensions WxHxD	50.5x24x7 cm
Weight incl. batteries	5.2 kg

Subject to change without notice

TER v/Henriksens ELE

ALTER v/Henriksens ELE