

BANG & OLUFSEN

BEOCENTER 7002

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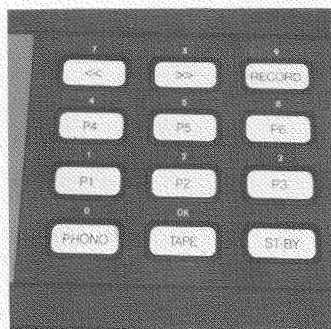
BEOCENTER 7002 is a portable stereo system with a built-in radio, record player, tape deck, and cassette deck. It is designed for use in the car or as a portable system for home use. The system is powered by a rechargeable battery pack and features a variety of controls for volume, tone, and tuning. The radio section includes a digital display and a range of preset stations. The record player has a clear dust cover and a built-in tonearm. The tape deck features a double cassette slot and a built-in tape transport. The cassette deck has a built-in tape transport and a variety of playback modes. The system is easy to use and provides excellent sound quality.

HOW TO OPERATE BEOCENTER 7002

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RADIO

Radio programmes are selected with buttons **P1** to **P6**.

Stand by

To switch off: **ST-BY**.

Volume

Average sound level is adjusted with the **VOLUME** control.

Remote Control

The remote control unit enables you to regulate the volume:

louder

weaker

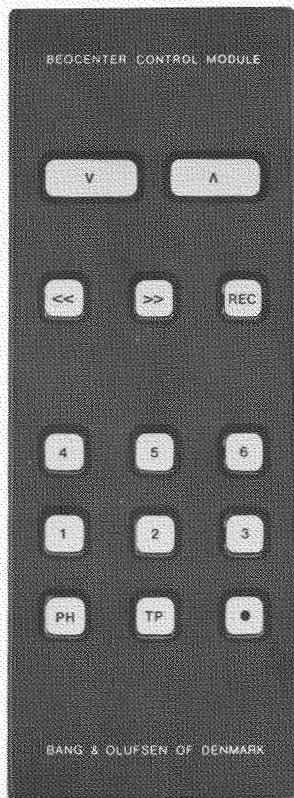
You can also select radio programmes, control the tape recorder and gramophone and switch off with the (stand by) button.

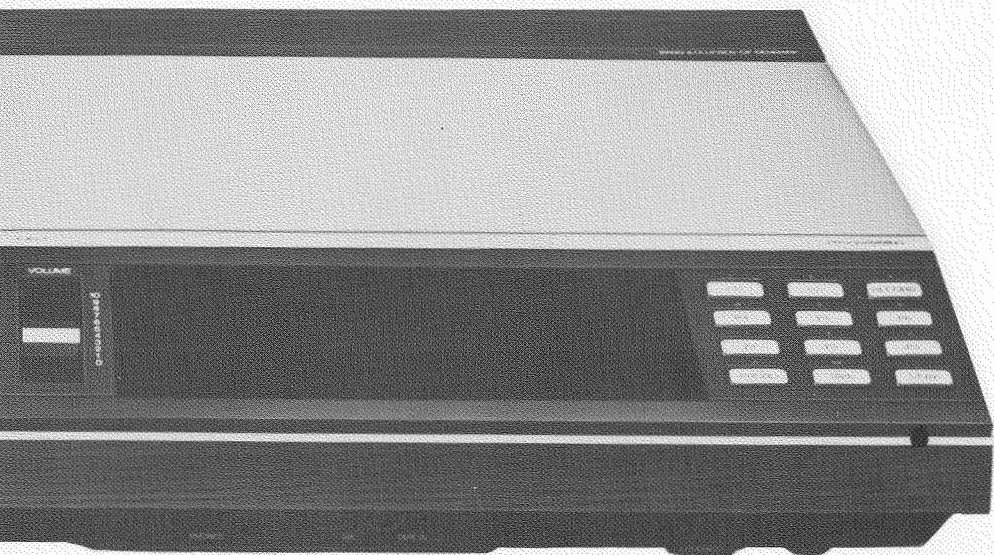
When you switch on your Beocenter 7002 its volume level will depend on the setting of the **VOLUME** cursor.

The **WAIT** indicator will light to indicate that your Beocenter 7002 is treating an instruction, received either from the remote control or from the control panel on the set proper.

Loudness

The **LOUDNESS** button is located in the front edge at the right. Button depressed: acoustically correct reproduction, accentuates deep and high notes at low **VOLUME** settings. Button released: flat frequency response regardless of **VOLUME** setting.





RECORD PLAYER

Start

Put a record on the turntable and press **[PHONO]**, or **[PH]** on the remote control unit.

Your Beocenter 7002 will itself feel whether a 30-cm or a 17-cm record has been put on, and will itself select the 33 r.p.m. or 45 r.p.m. speed.

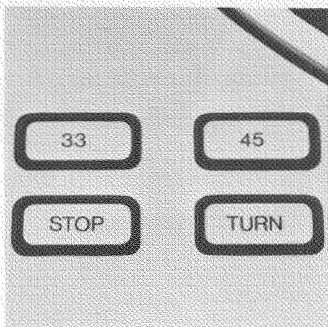
If you forgot to put on a record before pressing **[PHONO]**, the indicator light will flash 0000 three times.

Pause

Again press **[PHONO]**, or **[PH]** on the remote control unit. To continue playing from the same place again press **[PHONO]** or **[PH]**. You may also move the pickup to another section of the record before again pressing **[PHONO]** after the pause.

Stop

To stop before the record has finished: Press **[STOP]**. When switching to another programme, e.g. **[P1]**, the record player will stop automatically.



Special records

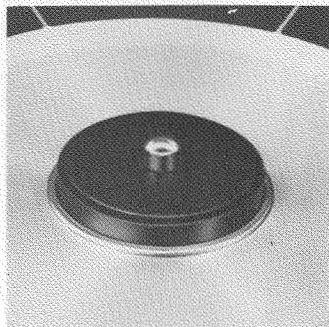
17 cm 33 r.p.m.: Press **[PHONO]** and thereafter **[33]** on the record player proper.

30 cm 45 r.p.m.: Press **[PHONO]** and thereafter **[45]** on the record player proper.

25 cm 33 r.p.m.: Move the pickup in to the first groove and press **[PHONO]**.

Wiping records

Pressing **[TURN]** will cause the turntable to rotate without pickup cueing. The record cleaning agent can be a type which leaves a moist film or pure water.

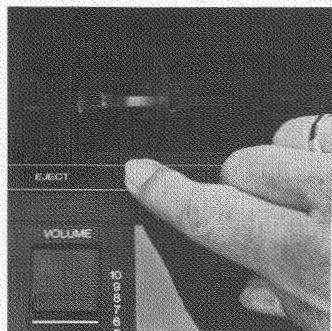
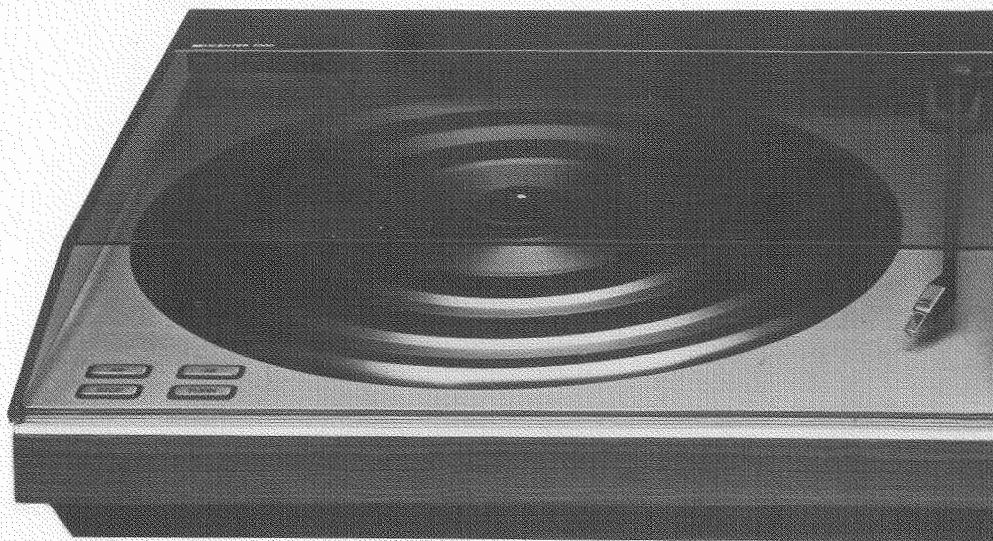


Centre Adaptor

Matches records with large centre holes and is pressed down automatically when normal records are being played.

17-cm records

Automatic lowering of the pickup is based on the weight of the record being felt by the centre adaptor. 17-cm records are lifted briefly. The hole in the record should therefore be cleaned of paper from the label so that the record can slide down by its own weight.



TAPE PLAYBACK

Pressing **[EJECT]** will open both the large metal cover and the cassetteholder. Put the tape cassette in the holder and press down. The set will automatically switch itself to the tape type in question – iron dioxide or chromium dioxide.

For metal tape, press **[METAL TP]**. This function will be cancelled when you change tape cassette: Press **[EJECT]**.

To start playing, press **[TAPE]**, or **[TP]** on the remote control unit.

The indicator light will now function as tape counter.



Pause or stop

Again press **[TAPE]** or **[TP]**. To continue playing the tape from the same place on the tape, again press **[TAPE]** or **[TP]**.

Fast forward

Press **[>>]**. To stop, again press **[>>]**.

Rewind

Press **[<<]**. To stop, again press **[<<]**. You may also go directly from fast forward or rewind by selecting a programme: **[TAPE]**, **[PHONO]**, **[P1]** to **[P6]**, or switch off with **[ST-BY]**.

Automatic Stop

When the tape in a cassette has finished it will stop automatically. The same applies after fast forward and rewind.

DOLBY* noise reduction system

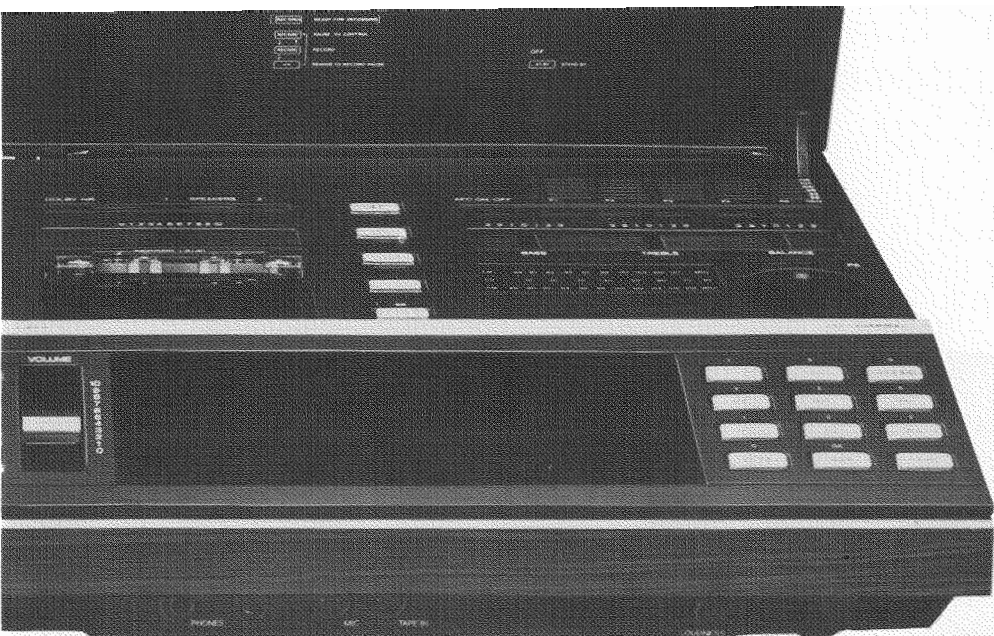
Depress this button when playing a Dolby NR recording and when you wish to make a Dolby NR recording.

Tape counter

The electronic counter will automatically start at 0000 when a tape cassette is inserted for playback or recording regardless of how far the tape has been wound.

If you rewind past 0000, the counter's zero will keep up with the tape; the counter will never go below 0000. The most practical thing to do is to rewind all the way to the beginning of the tape. The counter reading is informative only and is intended for use in making notes, e.g. on the tape cassette. The figure has no direct relation to playing time

*Trademark of Dolby Laboratories



in minutes but is dependent on tape thickness and type of cassette, C60 and C90. The time table below must therefore only be considered as a general guide.

C60 Cassette

Min.	Counter
0	0000
5	0545
10	0995
15	1380
20	1725
25	2045
30	2340

C90 Cassette

Min.	Counter
0	0000
5	0562
10	1045
15	1470
20	1860
25	2215
30	2550
35	2860
40	3160
45	3440

Automatic counter address finding

You can let the counter find its own way to a particular recording on the tape.

We will assume that you have already prepared the tape cassette for counter address finding.

Before making the recording rewind the tape completely so that the counter's 0000 corresponds to the beginning of the tape.

For each programme recorded on the tape cassette the counter reading at the beginning of the recording should be noted on the cassette.

For example, you wish to find the counter address of 1730. Put the tape in the holder and press **COUNTER** and red text 1 7 3 0 OK.

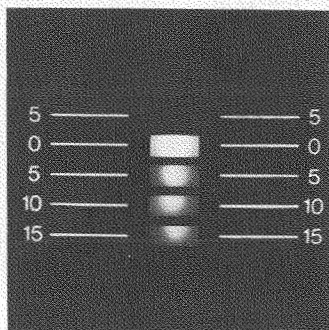
□□□□□

When you wish to play back from the place on the tape which has been found, press **TAPE**.

Mistakes and cancellations

If you have depressed the wrong figure(s) or wish to cancel address finding, press **COUNTER** and OK.

□



MAKING TAPE RECORDINGS

Beocenter 7002 gives you guarantee that you will not inadvertently do something wrong. The counter will flash 0000 as a warning three times in the following cases:

- If the tape cassette is secured against recording – the block on the back is removed.
- If the button **[REC. OPEN]** is not depressed.
- If you try to change programme during recording.

[REC. OPEN] should be depressed only when you have decided to record on the inserted cassette, and the function is cancelled with **[EJECT]**. Adjustment for tape type, iron oxide or chromium dioxide, is automatic.

For metal tape, press **[METAL TP]**. This function will be cancelled when you change tape cassette: Press **[EJECT]**.

Select the programme you wish to record, **[P1]** to **[P6]** or **[PHONO]**. Depress **[DOLBY NR]** if required. Press **[RECORD]**.

Your Beocenter 7002 is now in the record-pause mode as indicated by flashing light in the two number scales adjacent to the VU indicator light. You may now adjust **RECORD LEVEL** while simultaneously reading the VU indicator light: the cursor should be moved so far towards the right that the first red field just lights during brief loud sound passages.

When you are ready to record, again press **[RECORD]**, and the number scale will now show constant light.

Record pause

If you wish to make a pause while recording, press **[RECORD]**. Before the tape stops, a pause (erasure) is automatically introduced on the tape for approx. 4 seconds. During the pause you may switch to another programme or you may continue recording the same programme again pressing **[RECORD]**.

Automatic RETURN Feature

If you do not after all wish to record the programme you have begun, press **[<<]**. Recording will then stop, and the tape will rewind to the preceding pause where recording was begun.

Lengthened record pause

The four second pause between two record sections can be lengthened by merely keeping **[RECORD]** depressed for some time when going from record to pause.

Transferring a gramophone record to tape

Recording from a gramophone record is done as described above. However, the record player will start directly you press **[PHONO]**, and in order to avoid leaving anything out it will be an advantage to proceed in the following manner: Put on the record and press **[PHONO]**, **[RECORD]**. Adjust **RECORD LEVEL**. Press **[PHONO]**.

and move the pickup to the first groove.

Then press **PHONO**, **RECORD**, **RECORD**.

PROGRAMMING

The clock can perform one of the following functions for you, within the next 24 hours:

- Switch on a programme – radio, record, or tape playback – or
- Start recording on tape of a desired radio programme, or
- Switch off your Beocenter 7002.

Example:

You wish to switch on the set to receive a newscast on Programme 1 at 12.30 a.m.:

Press **P1**, **AT** and red text

1 2 0 0 OK.

☐☐☐☐☐

During the intervening period you can listen to any programme if you like, or switch off with **ST-BY**. The indicator light will show 1230 and P1 momentarily after you have switched off with **ST-BY**.

You may also check what your Beocenter 7002 is programmed for, by merely pressing **ST-BY** again. The indicator will light as long as **ST-BY** is kept depressed.

Another example:

You wish to record a programme from FM Programme 2 at 8.45 p.m. but you will not be at home at the time in question:

Place a tape cassette in the holder and press **REC. OPEN**. Leave the RECORD LEVEL cursor at the setting which you know from experience will give the correct record level (read page 6 under Making tape recordings).

Press **P2**, **RECORD**, **AT** and red text 2 0 4 5 OK

☐☐☐☐☐

and **ST-BY**.

Recording will then start automatically, and your Beocenter 7002 will switch off again when the tape in the cassette has finished.

If you do not wish sound in the speakers during recording, turn VOLUME down to 0 before leaving.

A third example:

You wish to have your Beocenter 7002 switched off at 11.00 p.m. in case you should forget to do so yourself.

Press **ST-BY**, **AT**

2 3 3 0 OK.

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Thereafter press the programme you wish to listen to until 11.00 p.m.

Mistakes and cancellations

Should you make a mistake while programming the clock, again press **AT** and repeat. To cancel programming, press **AT** and OK.

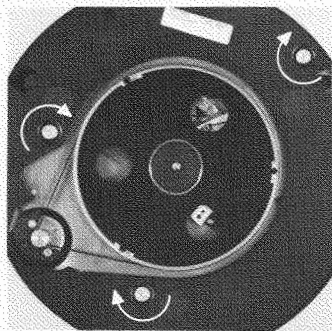
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SETTING UP

Special care has been taken to protect the record player against damage under transport.

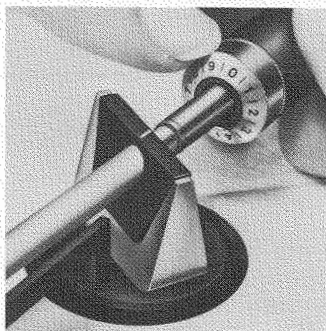
Transport protective provisions and the turntable

Turn the three transit screws clockwise as far as they will go. Put the turntable down on the under-turntable. If you subsequently have to take off the turntable, the easiest way to do this is to first lift the record spindle and thereafter put your fingers in under the turntable rim. Keep the carton etc. for possible subsequent transport of your Beocenter 7002.



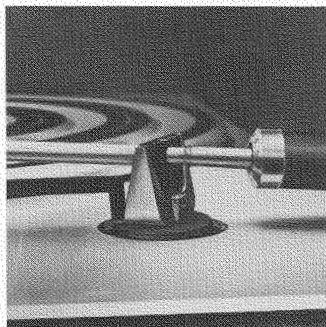
Stylus force

The pickup arm is factory adjusted to the recommended stylus pressure, namely: MMC 20 EN – 12 mN or 1.2 grams.

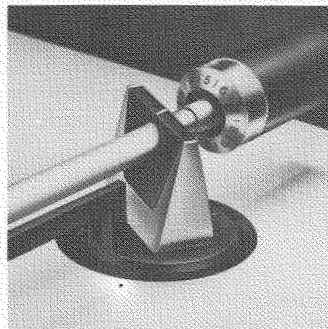


Checking adjustment of the counterweight

Read the stylus pressure on the dial. Graduations of 1/10 gram are shown on the counterweight (read top digit).



First set static balance. Remove the stylus guard and rotate the counterweights so "0" appears on the dial. The tonearm should now "float" horizontally.

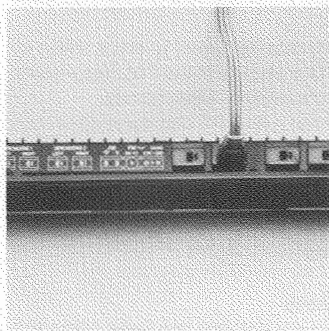


If the rotatable dial does not show "0", hold the black portion of the counterweight with your right hand and at the same time turn the dial with your left hand until "0" points upward. Now rotate the counterweight to the recommended stylus pressure by grasping the black portion (MMC 10, 1.5 turn).

Placement

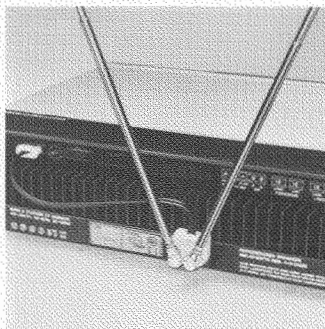
With the dust cover fully open the space requirement in height is 36 cm.

Depth measurement inclusive of leads and connectors is 38 cm; the width dimension is 72 cm. Avoid placing your Beocenter 7002 directly above a radiator where the temperature is considerably higher than in the rest of the room.



Speakers

You may connect a total of four speakers to your Beocenter 7002. The speaker sockets are located on an easily accessible panel at the rear edge which can be tilted up when inserting the plugs. SPEAKERS 1 is intended for two speakers in the room in which the sets is, and SPEAKERS 2 for a speaker pair in another room. Speakers having a continuous load rating of not less than 40 watts and an impedance of not less than 4 ohms are recommended.



FM and AM aerials

Consult your dealer as to what areals are best suited at your place of residence.

For both FM and AM we recommend aerials placed high and well in the clear, alternatively a community aerial system. If you can use the limited possibilities of a FM indoor aerial you may purchase a Bang & Olufsen type 8902010 FM aerial. It fits into a holder on the back of the receiver, and the cable plugs into the 240-300 ohm socket.

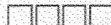
Mains

Your Beocenter 7002 is switchable between 110, 130, 220 and 240 volts, 50-60 Hz. The switch is located in the bottom. In the interest of remote control, clock and programming you should not switch off your Beocenter 7002 at the wall socket; to switch off, press the **ST-BY** button or the  button of the remote control unit.

Presetting the Clock

The built-in electronic clock is primarily intended for switching on your Beocenter 7002 at a particular time.

When you apply power to the set, the clock will read 0001. To set the clock to the actual time, proceed as follows: Assume that the time is 1.30 p.m. by your own clock or watch. Press **SET** and thereafter the red figures above the buttons on the control panel proper:

1 3 3 1


When your clock or watch changes to 1.31 p.m. press OK.

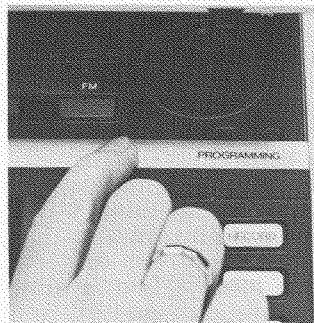


If you pressed the wrong button(s), start all over again with **SET**.

The clock will now show the actual time while you are listening to a radioprogramme or are playing a record, and it will switch off when you press **ST-BY**.

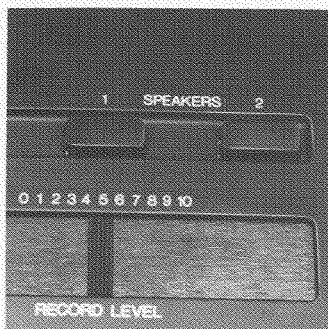
After any power failures, or if you have switched the set off at the wall socket, the clock must be set again.

When you use the tape recorder, the indicator light will function as a tape counter instead of as a clock.



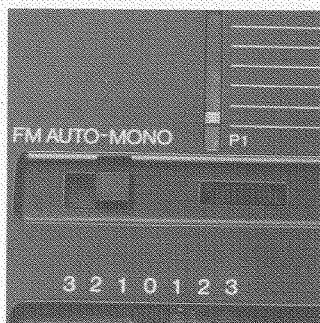
PRESETTING

Before you can operate your Beocenter 7002 it is necessary to preset some controls. When you press PROGRAMMING, the metal cover will open



Selecting speaker pairs

You select speaker pairs with the two switches designated SPEAKERS 1 and SPEAKERS 2. Speakers are switched in by depressing the button and switched off by pressing the button again.



FM automatic

With the FM AUTO-MONO switch you can choose between two alternative functions: FM AUTO, automatic. This is the switch position for the FM receiver in everyday use. Automatic fine-tuning to the FM station, plus smooth transition between stereo and mono FM. FM MONO. For receiving weak FM stations. Mono reproduction, without automatic fine-tuning.

Pretuning radio programmes

Dials P1 to P5 enable you to tune in separate FM stations throughout the 87.5-108 MHz band. Switch on by pressing the P1 button; set the FM switch on MONO, and with the P1 knob select the FM station you want to be your programme 1, tuning for equal brightness of the two red indicator lights. P2 to P5 may similarly be tuned to other FM programmes, and the FM switch is set to AUTO.



P6 may be tuned to any station of your choice in the FM, long-wave or medium-wave bands.

First press P6 and thereafter either LW, MW or FM. With the large tuning knob select the station of your choice, tuning for equal brightness of the two red indicator lights.

Bass

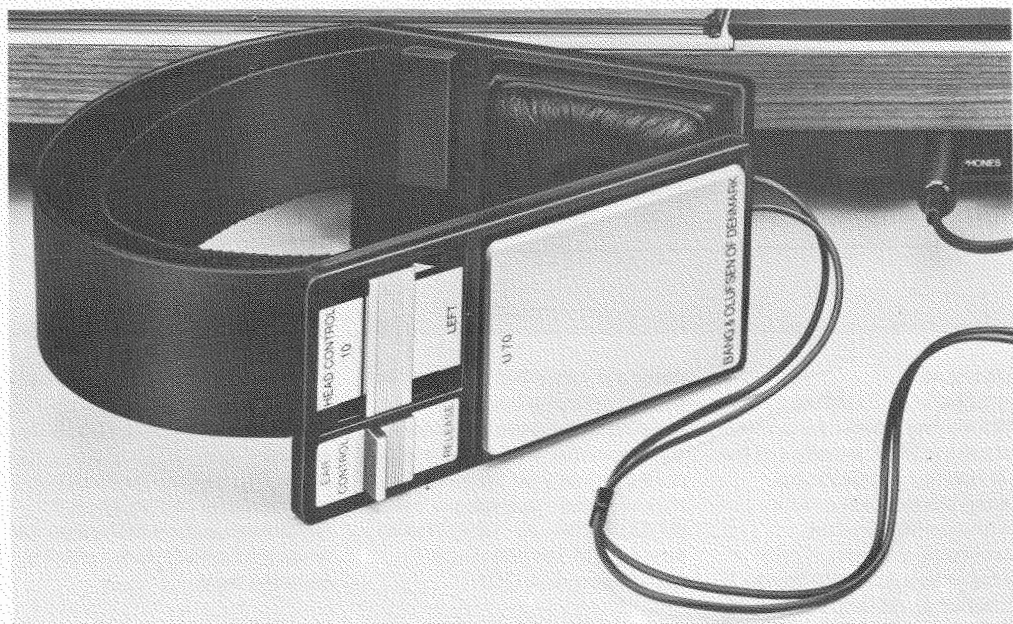
To accentuate the bass, slide the BASS cursor towards the right. To attenuate, slide it towards the left.

Treble

To accentuate the treble, slide the TREBLE cursor towards the right. To attenuate, slide it towards the left.

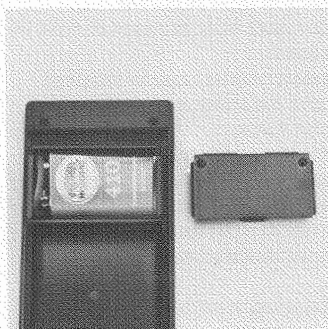
Balance

Balance between left and right channels is adjusted with the BALANCE control.



Headphones

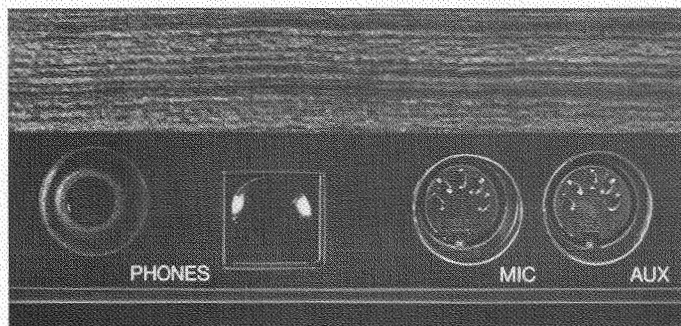
A pair of stereo headphones plugs into the PHONES sockets in the front edge of your Beocenter 7002.



Remote control unit and battery

The portable unit is an infrared transmitter which transmits signals to a companion receiver in the front edge of your Beocenter 7002.

The remote control unit is supplied with a type IEC 6F22 battery. The cover in the bottom is taken off and the battery inserted in the plug-and-socket arrangement.



Microphone

Your Beocenter 7002 has a connector socket marked MIC which is located in the front edge of the set. It has two applications:

- Using the Beocenter as a microphone amplifier.
- Recording on tape.

You may use a mono or stereo microphone, low-impedance, balanced or unbalanced DIN plug connection.

Switch on with **[P1]**.

While recording on tape, VOLUME should be turned down so as to avoid feedback from the speakers. Otherwise, operation is as described under Making tape recordings above. All microphone recordings will be mono.

Pull out the plug when not using the microphone.

Additional tape recorder

You can connect an external tape recorder to the AUX IN socket on the front of the Beocenter.

Standard cable 0961014 may be used for playing back and copying tapes **from** the external tape recorder. If you also wish to record or copy **on** the external tape recorder, use special cable (6270239 DIN – 6270240 Phono plugs), with the two plugs AUX IN and AUX OUT.

Copying from external to built-in tape recorder

Connect AUX IN plugs to AUX IN socket.

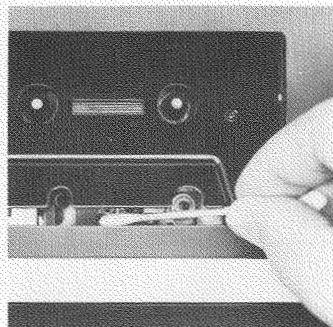
Insert master tape in external tape recorder, which you set to play back.

Switch on Beocenter with **[P1]** and operate as described under recording on tape. Remove plug from AUX IN socket when you have finished copying.

Copying from built-in to external tape recorder

Connect AUX OUT plug to AUX IN socket.

Insert master tape in the built-in tape recorder, which you start by pressing **[TAPE]**. Set the external tape recorder to record.



Playing back from the external tape recorder

Connect AUX IN plug to AUX IN socket.

Press **[P1]**, and set the external tape recorder to play back. Remove plug from AUX IN socket when you have finished playing back the tape.

Recording on external tape recorder or on both tape recorders simultaneously

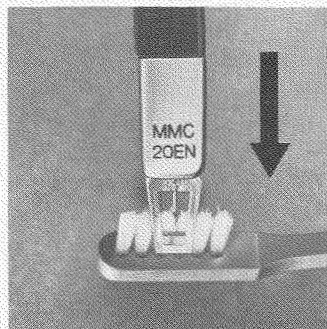
Connect AUX OUT plug to AUX IN socket.

Select the radio programme you wish to record, or PHONO in the case of a record. Set the external tape recorder, or both tape recorders, to record.

MAINTENANCE Tape heads

To secure pure, clear sound quality the two tape heads and the capstan spindle must be kept free from tape dust. Use one of the cleaning fluids which are commercially available for this purpose.

Avoid using methylated spirits, which may contain substances that attack rubber and plastics.



Cleaning the stylus

Distorted sound may be due to dust accumulations on the stylus tip. Use the cleaning brush which is supplied, brushing only in the direction of the arrow so as not to damage the thin cantilever. Be careful in your choice of chemical cleaning agents for records and styli. They may contain solvents which will destroy parts of the pickup cartridge.

Replacing the pickup cartridge

Hold the pickup arm firmly with one hand while carefully moving the cartridge from one side to the other with the other hand and pulling outwards at the same time.

Dust cover

The transparent dust cover should be cleaned with AJAX for windows. Do not use alcohol as it may dissolve the material.

Metal surfaces

The chassis deck and turntable can usually be kept clean with a dry cloth.

Be careful not to damage the stylus. Put the stylus guard on before wiping the metal surfaces clean of dust, and before moving or transporting your Beocenter 7002.

Any grease stains on the metal surfaces can be removed with a soft cloth moistened in a cold or lukewarm solution of detergent in water. Thereafter wipe thoroughly with a dry cloth.

Teak and rosewood

If the wood surfaces seem grey and dry, you may apply a thin film of teak oil or rosewood oil but not more than once or twice a year.

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 this guarantee apply principally to the country of purchase but will also be met by any authorized Bang & Olufsen dealer in other countries in which Bang & Olufsen products are represented.

In order to obtain service under this guarantee in a country other than in which the product was purchased, the back of this instruction manual must be correctly filled in and presented to the dealer from whom you desire service.

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 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.

This set requires a **13 Amp** fuse in the mains plug.

