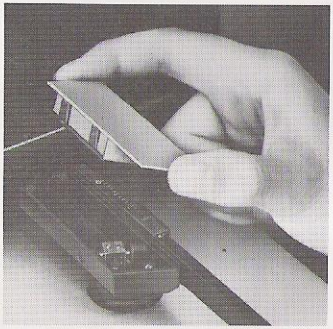
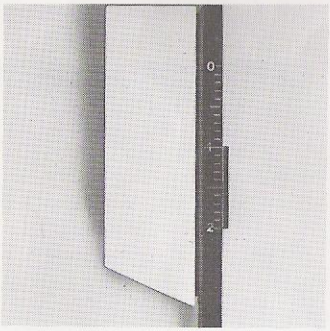
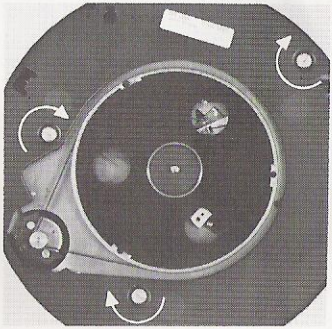
Assembly after Transport
To avoid damage during transport, several record player components have been taken off and enclosed separately, in foam inserts.



Insert the counterbalance weight in the rear section of the pickup arm.



Stylus force
Move the cursor to the desired value on the dial. Recommended stylus force for the MMC 20 S pickup cartridges is 15 mN, 1.5 grams.



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.

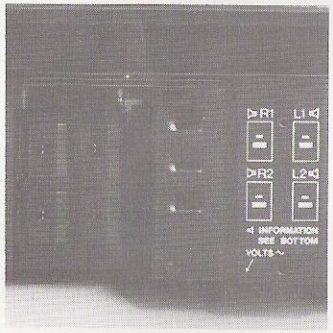
Keep the carton etc. for possible subsequent transport of your Beocenter 4600.
Move the dust cover in on the rear edge of the chassis deck.

Setting Up
With the dust cover fully open, the height space requirement is 35 cm.
The depth dimension inclusive of leads and plugs is 40 cm. The width dimension is 66 cm.
Avoid placing your Beocenter 4600 directly above a radiator, where the temperature is considerably higher than in the rest of the room.

Mains
Your Beocenter 4600 is switchable between 110, 130, 220 and 240 volts AC, 50 Hz, using the switch in the bottom.

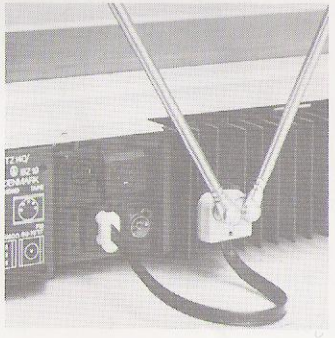
For the UK market only.
IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral
Brown: Live
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.
Ensure that your equipment is connected correctly. If you are in any doubt, consult a qualified electrician.
This set requires a **13 Amp.** fuse in the mains plug.

Speakers
A total of four speakers may be connected to your Beocenter 4600. Pair 1 for stereo reproduction in the same room with the set, and pair 2 for stereo in another room.
We recommend speakers designed for not less than 25 watts of continuous load, and impedance not less than 4 ohms.



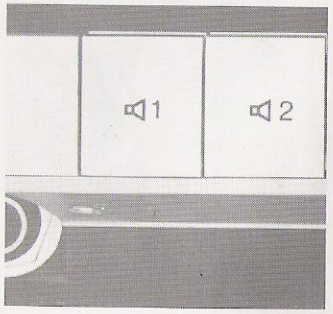
The speaker sockets are located

FM and AM Aerials
Let your dealer advise you as to what aerials are best suited in your locality.
For both FM and AM we recommend that you use aerials that are placed high and in the clear, or a community installation.
The AM socket is wired so that the upper pin is to be connected to the aerial and the lower one to earth.



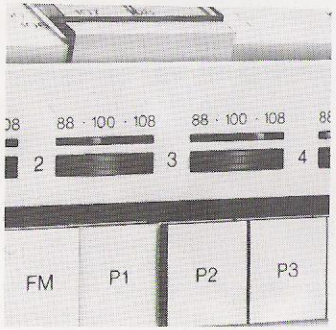
purchase a Bang & Olufsen type 8902010 FM aerial. It goes into a holder on the back of the set, and the cable plugs into the 240-300-ohm socket.

Operation
OFF. To switch the receiver off, depress OFF. To switch on, select a program: FM, P1 to P4, LW, MW, TAPE, or PHONO.



1. Cuts in speaker pair 1.
2. Cuts in speaker pair 2.

LW and MW. Long and medium wave bands.
You tune in with the dial cursor. Tune for maximum AM in indicator brightness.
FM band, 88 - 108 MHz. FM stations are tuned in correctly when the two TUNING FM indicators show equal brightness.
The FM STEREO indicator lights when FM STEREO is being received.



P1 to P4. Preselected FM

Pretuning of FM programs: Depress P1. ST-AFC button should be released. Set PROGRAM 1 knob to the FM station you want to be your Program 1, until the two TUNING FM indicators show equal brightness.
Similarly set P2 to P4 to other FM programs, and depress ST-AFC.

ST-AFC. Cuts in low-noise FM tuning: no noise between stations, also automatic frequency control on FM stations.

VOLUME. Volume control.

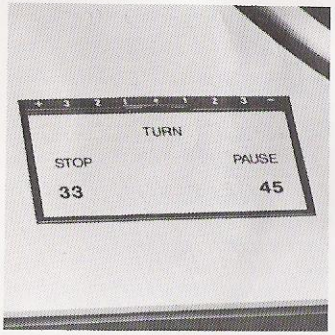
BASS. Accentuates towards right. Attenuates towards left.

TREBLE. Accentuates towards right. Attenuates towards left.

BALANCE between left and rig channels.

MONO. Mono reproduction through all speakers. Can reduce noise when incoming F stereo program is weak.

TAPE. Tape playback. To recor on tape, press instead FM, P1 t P4, LW, MW, or PHONO.



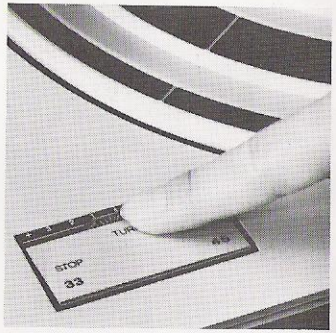
Record Player
30 cm records: Press 33.
17 cm records: Press 45.
25 cm records: Move pickup arm in to first groove and press 33.

STOP
To stop before record has finished:
Press STOP.

PAUSE
Pause: Press PAUSE.
To continue playing from the same point, again press 33 or 45.
You can also move the pickup to another place on the record and again press 33 or 45.

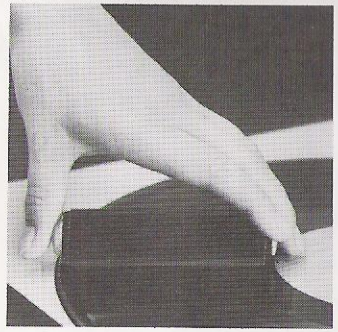
Special 17 cm records, 33 rpm:
Move pickup arm in to first groove and press 33.

Centre adaptor
Matches records with large centre holes and is pressed down automatically for normal records.



Pitch control, TURN
For fine adjustment of pitch. The normal setting is with the pointer at 0. If a record is not recorded at the correct speed, or if you wish to match the pitch of the record to a musical instrument, turn the knob and pointer towards + or —.

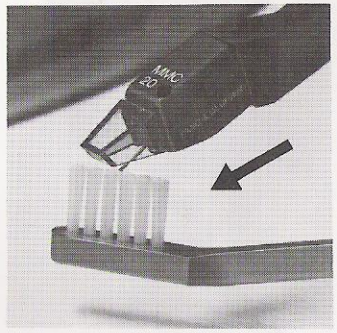
Wiping of records
Pressing TURN will cause the turntable to rotate without the pickup being moved in.
You may use a record cleaner of the type which leaves a damp film of pure water.



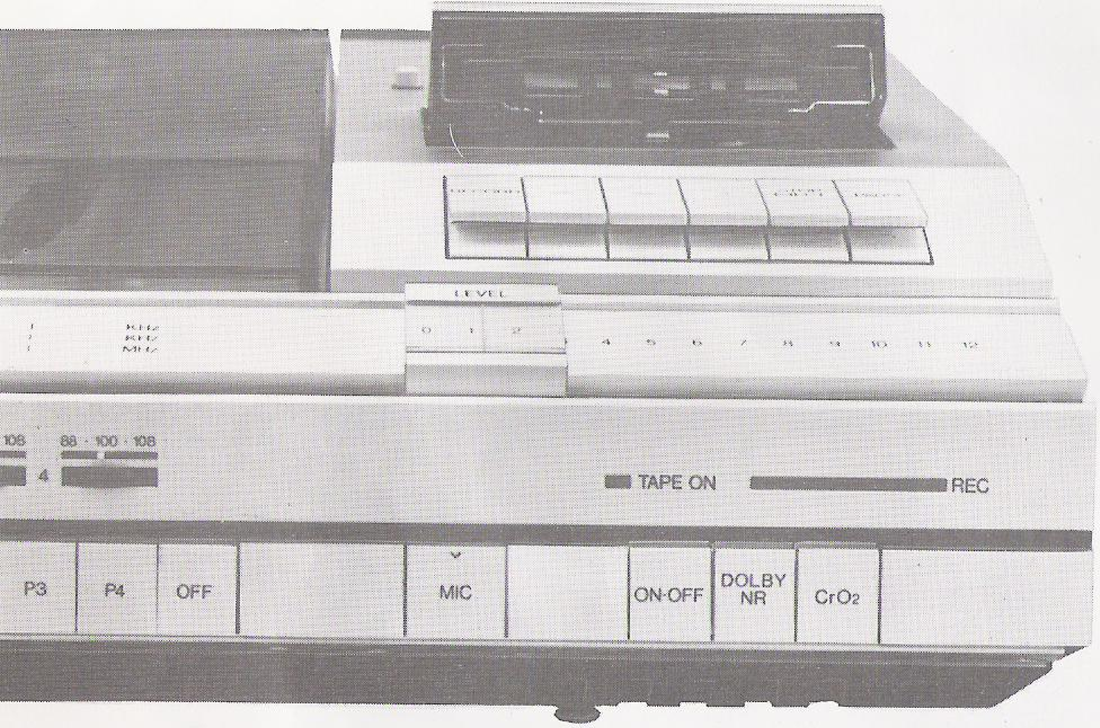
It is unnecessary to use an underlay auch as carbon discs for static discharge because the turntable in itself provides good metallic contact with all records.

Care of discs
We assume that you keep your discs in their jackets or albums. It is not immaterial how you take out a disc because the friction against the inner side of the jacket is enough to give the disc a static charge so it will attract dust.
Hold the disc jacket so that its sides bend away from the disc. Put your hand in below the disc so that the middle finger touches the centre hole and the thumb grips the rim of the disc, and without touching the grooves of the disc. Pull the disc out of its jacket in such a manner that the jacket only touches the rim of the disc, not the actual surfaces.
Only hold the rim of the disc when putting it on the turntable.
Keep the dust cover of your Beocenter closed while playing the disc.
Put the disc back in its jacket in the same careful manner, avoiding friction between the sides of the disc and the jacket.

Cleaning of the stylus
If the sound is distorted it may be due to dust on the stylus. Use the enclosed cleaning brush and



brush only in the direction of the arrow in order not to damage the thin cantilever.
Warning:
Be aware of chemical detergents for records and stylii. They may contain solvents which damage parts of the pickup unit.



Tape recorder
TAPE ON. Turns tape recorder on and off.
Press to turn on. To turn off, press again.
To open the cassette holder, press STOP-EJECT.

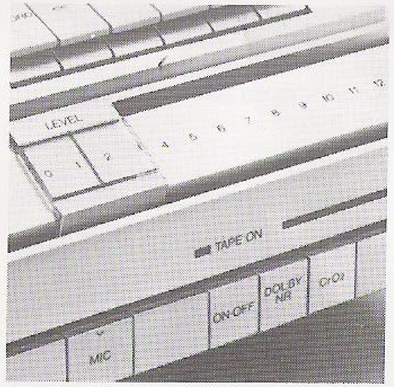
[>] Forward tape motion, play and record

[«] Rewind

[»] Fast forward

Stop: Tape stops the first time STOP is pressed. Pressing STOP a second time opens the cassette holder, EJECT.

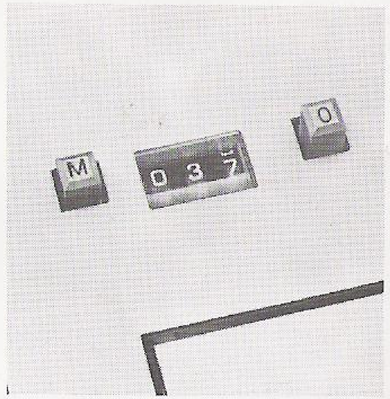
DOLBY NR.* noise reduction system.
Depress this button when you want to make Dolby recordings, also for playing Dolby-recorded tapes.



Tape type. CrO_2 button released: Standard tapes, ferric oxide.
Button depressed: Chrome dioxide tapes.

Automatic stop. When the tape of a cassette has finished, forward tape motion stops automatically. The same applies after rewind and fast forward.

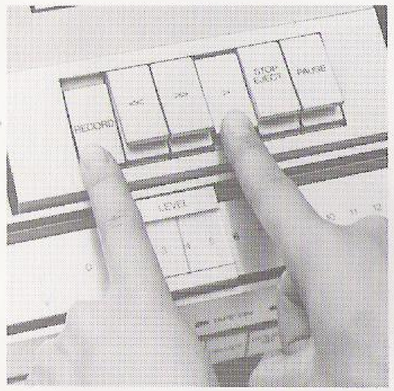
Pause during forward tape motion: Tape stops the first time PAUSE is pressed. Tape motion continues when button is pressed again. The pause feature may be used during both playback and record.



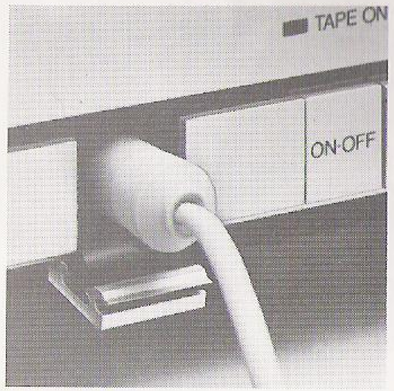
Counter. To reset, press button marked 0.

Memory. Automatic stop during rewind every time the counter passes 000. Is operative when the M button is depressed, and the counter is placed on zero.

* Trademark of Dolby Laboratories Inc.



RECORD. First select your program: P1 to P4, FM, LW, MW or PHONO.
Keep the RECORD button depressed and thereafter depress forward button.
Move the sliding knob towards the right while reading the indicator light: The transition between the green and red sections indicate the limit to the recording strength (VU 0 dB), and the red sections should light only during brief loud sound passages.



Microphone
Your Beocenter 4600 has provision for connection of a low-impedance microphone, mono or stereo, balanced or unbalanced.
All recordings will be mono, and recordning from radio or record player is cut off automatically.

Dubbing from external to built-in tape recorder
Put the "original tape" on the external tape recorder and set it to play back, also depress the TAPE button of your Beocenter 4600. Moreover, set the built-in cassette section to record.

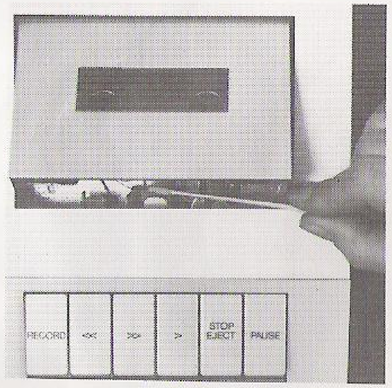
Recording on two tapes simultaneously
Set the radio section of your Beocenter 4600 to the desired FM program or PHONO, and set both the built-in cassette section and the external tape recorder to record.

Playing back from the external tape recorder
Depress the TAPE button and the external tape recorder to play back. Turn off the built-in cassette section.

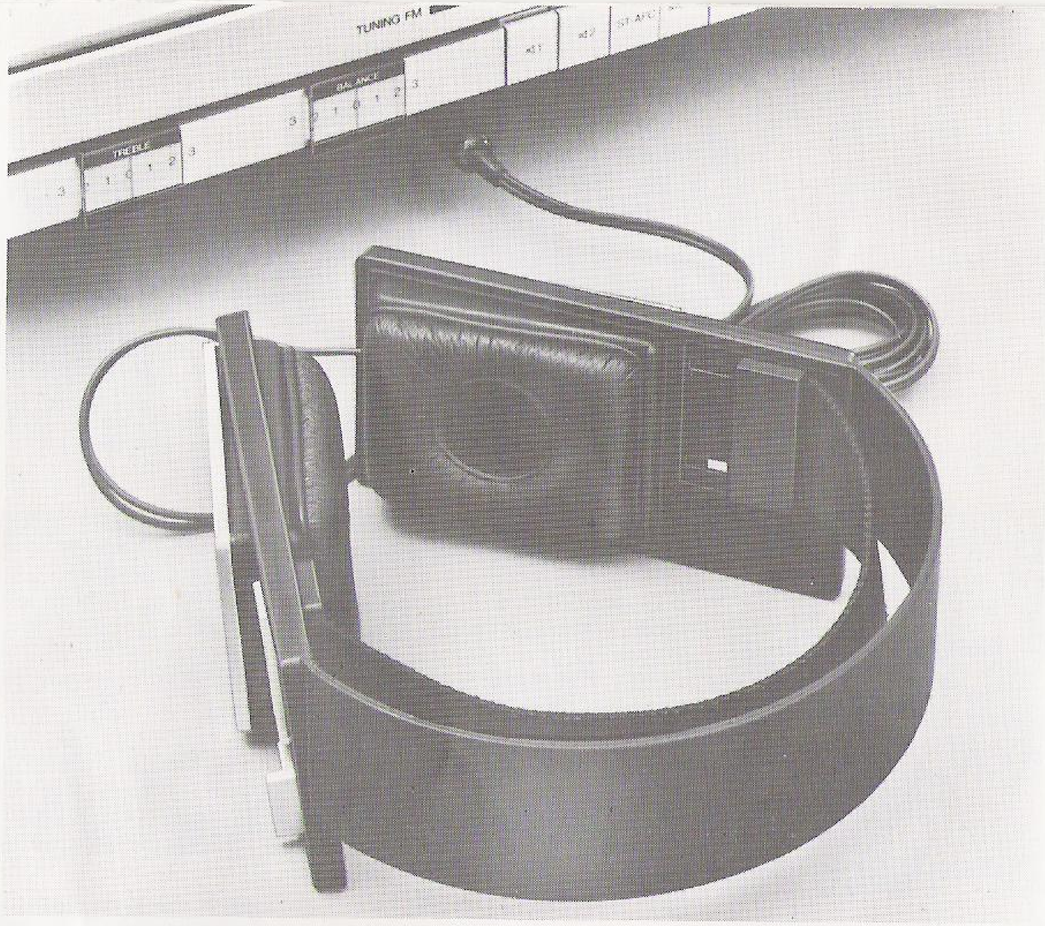
Off-the-tape Monitoring
You can off-the-tape monitoring if your tape recorder has this facility (separate record and playback heads).

You should then depress two buttons together, e.g. FM and TAPE, or PHONO and TAPE.
Recording level is adjusted on the tape recorder in the normal manner, and monitoring level is adjusted on your Beocenter 4600.

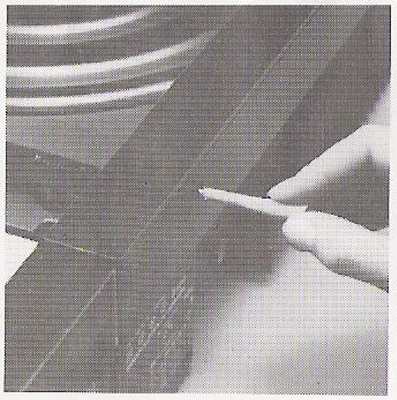
Tape heads. To secure pure clea sound quality, the two magnet heads must be kept free from tape dust. Use one of the



commercially available cleaning liquids for this purpose. Avoid using methylated spirits, which may contain substances that attack rubber and plastics.



Headphones
Stereo headphones plug into the socket on the front of the set.



Checking Stylus Force
With the stylus force set a 0, the pickup arm should be in balance and able to "float", without moving either up or down (with the stylus quard removed). Readjustmnet, if required, is performed with the adjustment screw of the counterbalance weight. Put a thin screwdriver through a hole in the black rear panel and into the pickup arm. Turning it clockwise will reduce the stylus force; turning it anti-clockwise will increase it.

Replacing the Pickup Cartridge
Hold the pickup, firmly with one hand while carefully moving the cartridge from side to side and pulling outwards with the other.

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

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 in place before wiping the metal surfaces clean of dust, and before moving or transporting your record player.
Any grease stains on the metal surfaces can be removed with a soft moistened in a cold or lukewarm solution of detergent in water.
Thereafter wipe thoroughly with a dry cloth.

Dust Cover
Ajax Window Cleaner is recommended for cleaning the transparent dust cover.
Do not use alcohol as it may dissolve the material.

TECHNICAL DATA	BEOCENTER 4600
Type No.	**2631**
Power output RMS DIN	2 x 25 watts/4 ohms
	2 x 20 watts/8 ohms
Power output 20 - 20,000 Hz	2 x 20 watts/4 ohms
	2 x 17 watts/8 ohms
Harmonic distortion	< 0.1%
Intermodulation	< 0.15%
Frequency range ± 1.5 dB	20 - 30,000 Hz
Damping factor	> 35
Sensitivity/signal-to-noise ratio	
Pickup input	2.2 mV/60 dB/47 kohms
Tape input	400 mV/60 dB/100 kohms
Tape output	30 mV/100 kohms
Headphones output	Max. 10 V/200 ohms
FM sensitivity stereo 46 dB	< 30 µV/75 ohms
AM sensitivity 20 dB LW	< 90 µV
AM sensitivity 20 dB MW	< 90 µV
Record-player: Pickup	MMC 20 S
Recommended tracking force	15 mN/1.5 gram
Speeds/control range	33 - 45 rpm/ > ± 3%
Wow and flutter	< ± 0.09%
Rumble weighted	> 62 dB
Rumble unweighted	> 42 dB
Taperecorder: Wow and flutter	< ± 0.2%
Speed deviation	< ± 1%
Fast forward and rewind (C60)	85 sec.
Frequency range, chrom	30 - 14,000 Hz
Signal-to-noise ratio, chrom Dolby	> 64 dB
Signal-to-noise ratio, chrom	> 56 dB
Microphone input	0.1 mV/10 kohms
Power supply	110-130-220-240 V
Frequency/consumption	50 Hz/160 W
Dimensions W x H x D/weight	66 x 12 x 37 cm/18 kg
Accessories (additional price)	Table 2033
Subject to change without notice	

International Guarantee
This Bang & Olufsen product carries a guarantee against defects in workmanship and materials.
It is a national guarantee issued by the Bang & Olufsen. Distributors for the country in which the product it purchased initially.
The terms of this guarantee apply principally to the country of origin but will also be met by any authorised Bang & Olufsen dealer in the other countries in which Bang & Olufsen products are officially marketed.
In order to obtain "in guarantee" service whilst in a country other than in which the product was originally purchased, it is essential to ensure that the original Bang & Olufsen guarantee form, which you may claim issued at the purchase of the product, is completed in full and that your copy is presented to the dealer on request for service.