

Cassette C 60

Counter	Min	Scale
000	0	0
115	5	15
215	10	25
295	15	40
370	20	50
435	25	57
500	30	65

Cassette C 90

Counter	Min	Scale
000	0	0
120	5	12
225	10	22
320	15	30
400	20	38
480	25	45
550	30	50
615	35	57
680	40	62
750	45	70

BEOCORD 5000
Type 4715

OPERATION MANUAL

Contents

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Cassette

Open the cassette holder by pressing EJECT. Put the tape cassette in and press down the cassette proper.

Playback

Playback. Press ON. For non-Dolby cassettes, press OUT. To start playback, press 

Transport

To stop tape, press STOP.
Pause: Press 
End of pause: Again press 
Fast forward: 
Rewind: 

Record

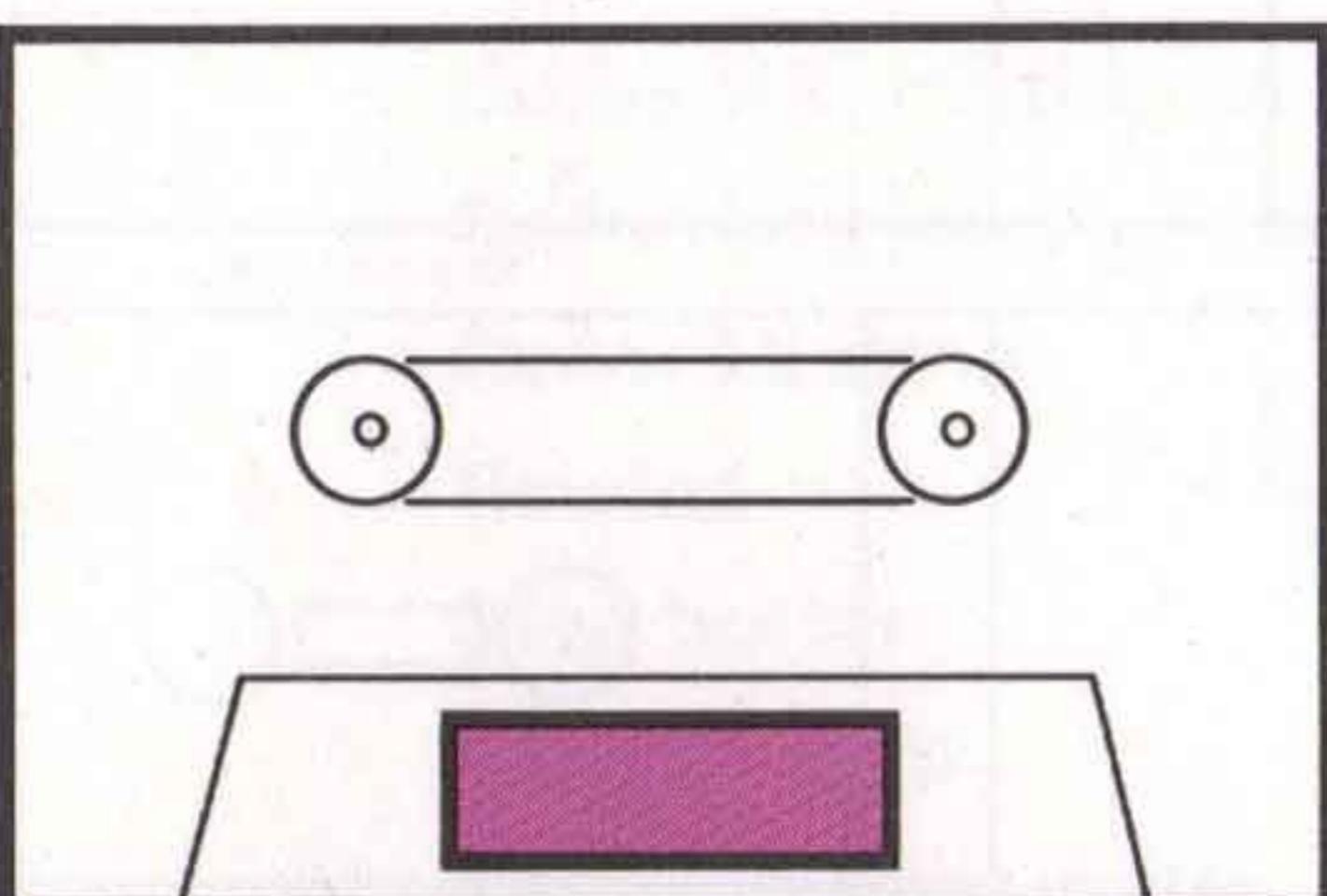
Record. Dolby NR cuts in automatically.
Keep Record depressed and press 

Slide RECORD LEVEL LEFT and RIGHT forward until PPM meter reads approx. 0 dB on number scales in left side.

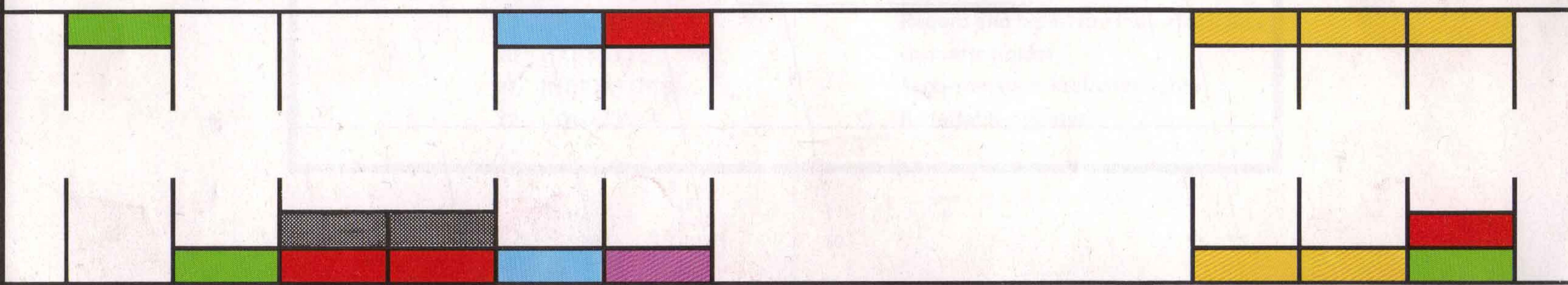
Fade

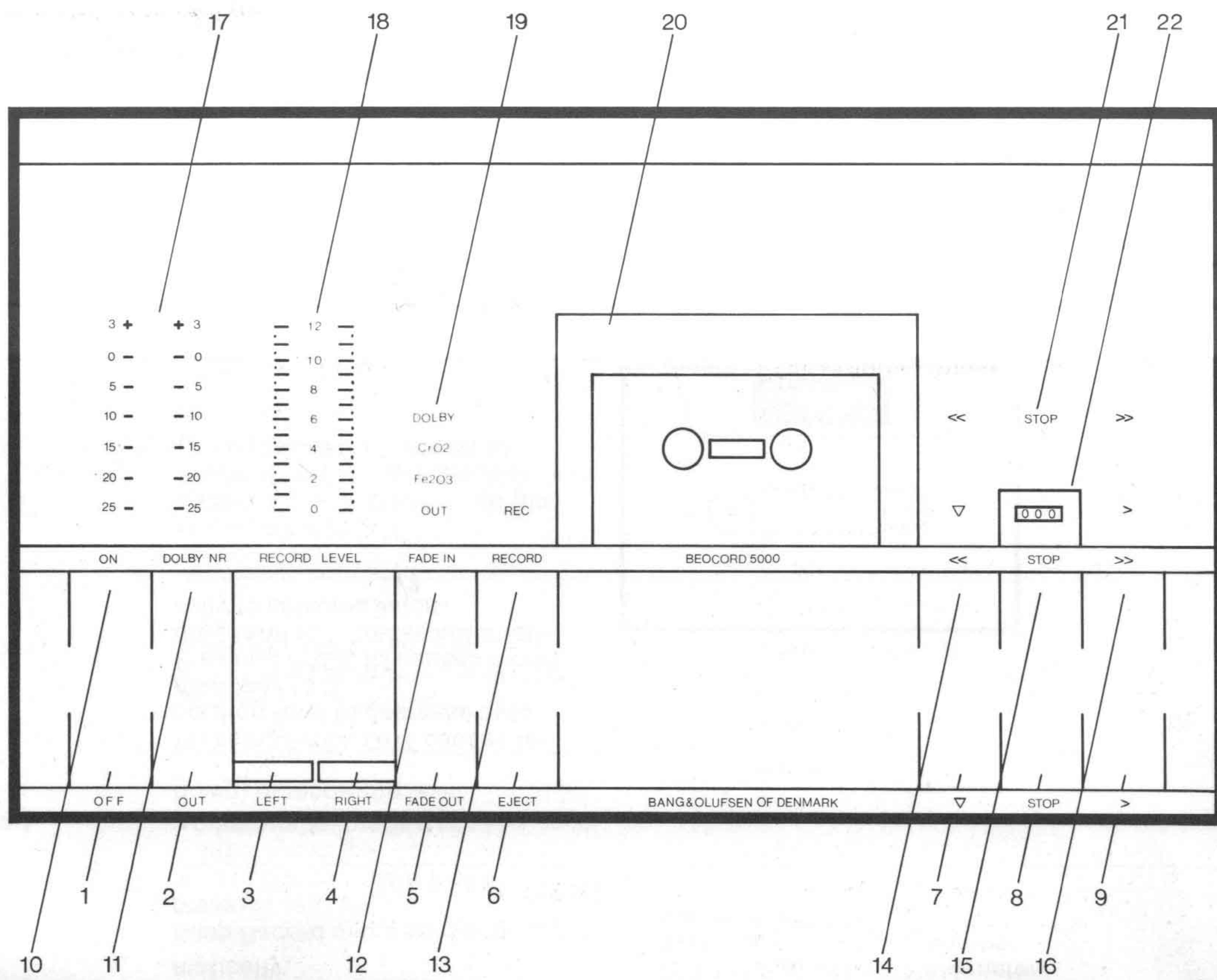
Automatic regulation (up and down) of recording level.

Pressing FADE OUT causes recording level to decrease automatically to 0.
Pressing FADE IN causes recording level to increase automatically to selected value.



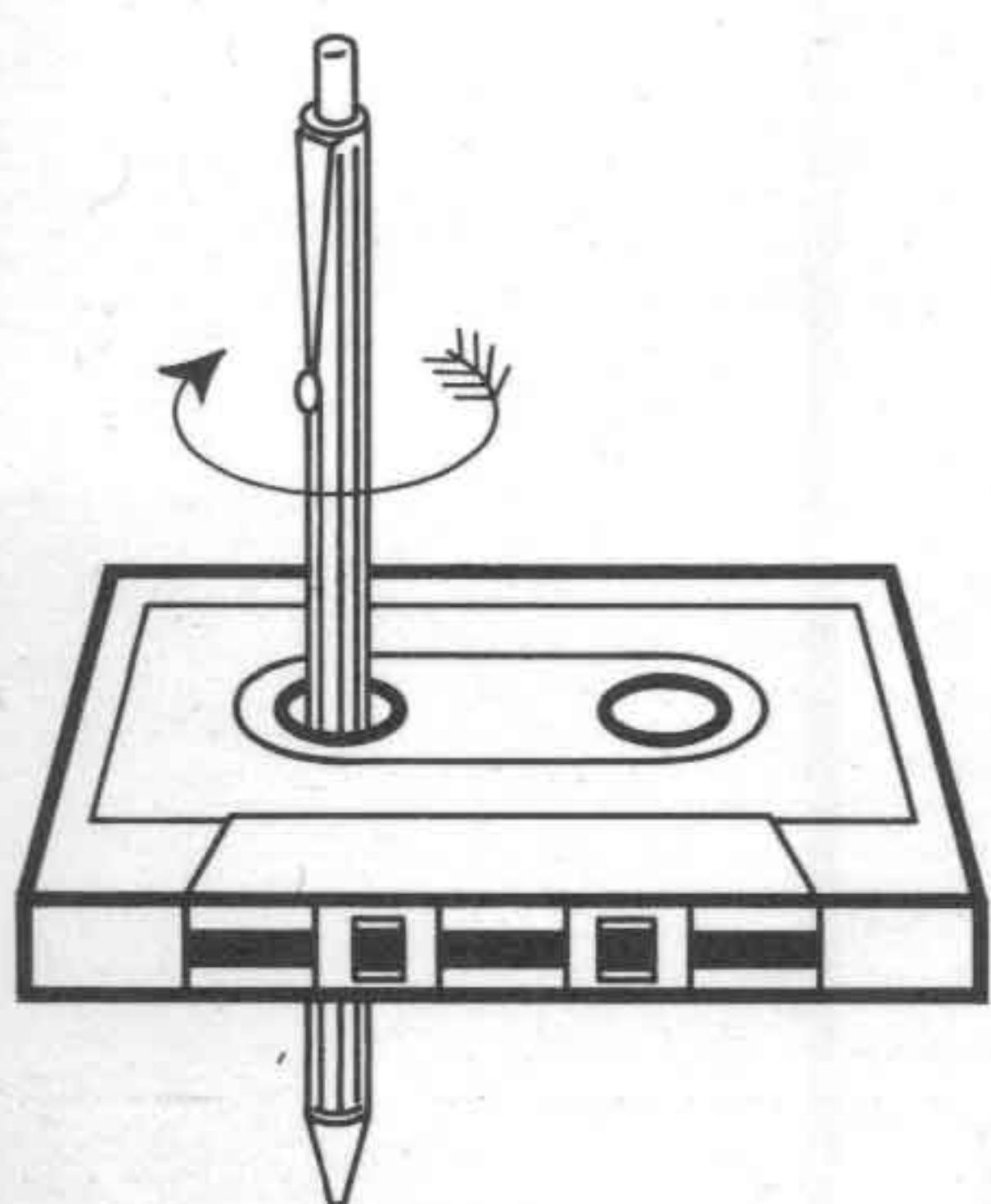
ON DOLBY NR RECORD LEVEL FADE IN RECORD BEOCORD 5000 << STOP >>





- 1 OFF
- 2 OUT
- 3 RECORD LEVEL LEFT
- 4 RECORD LEVEL RIGHT
- 5 FADE OUT
- 6 EJECT
- 7 ▽
- 8 STOP
- 9 ▷
- 10 ON
- 11 DOLBY NR
- 12 FADE IN
- 13 RECORD
- 14 ◁
- 15 STOP
- 16 ▷▷
- 17 PPM
- 18 RECORD LEVEL
- 19 INDICATORS
- 20 CASSETTE
- 21 INDICATORS
- 22 COUNTER

- Mains switch, OFF
 Dolby NR, cutting-out
 Recording level control, left
 Recording level control, right
 Recording level down (automatic)
 Opening of cassette holder
 Pause
 Stop button
 Forward
 Mains switch, ON
 Dolby NR, cutting-in
 Recording level up (automatic)
 Record button
 Rewind
 Stop button
 Fast forward
 Peak program meter
 Record level indicating scales
 Record and tape-type indicator lights
 Cassette holder
 Tape-transport indicator lights
 Resettable counter



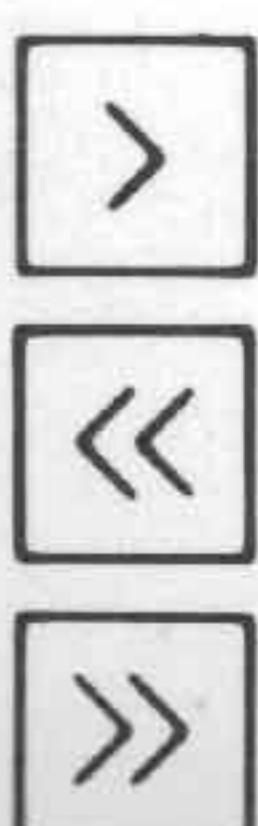
Tape Cassette

To ensure correct contact with both capstan shafts the tape must be tight before putting the cassette into the tape recorder. Use a lead or ball-point pencil to rotate one of the reel hubs.

To open the cassette holder, press the EJECT button, put the tape cassette in and press it down.

Putting in the cassette automatically selects between chromium dioxide tape (CrO_2) and iron oxide tape (Fe_2O_3).

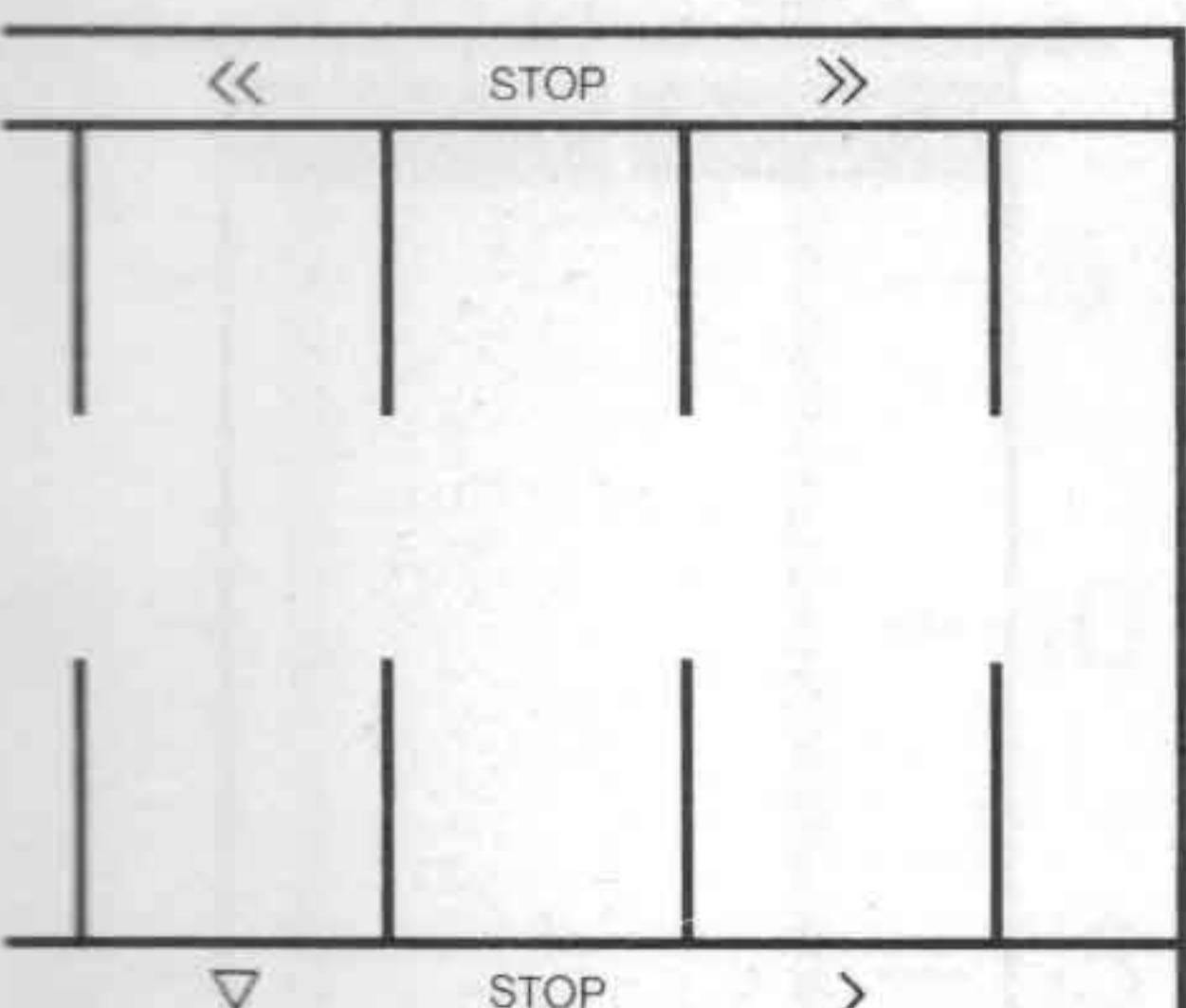
Tape transport is controlled with the buttons in the right side of your Beocord 5000:



Forward, playback and record

Rewind

Fast forward



STOP. It is immaterial which one of these two buttons you use. You will find it convenient to change between adjacent buttons.

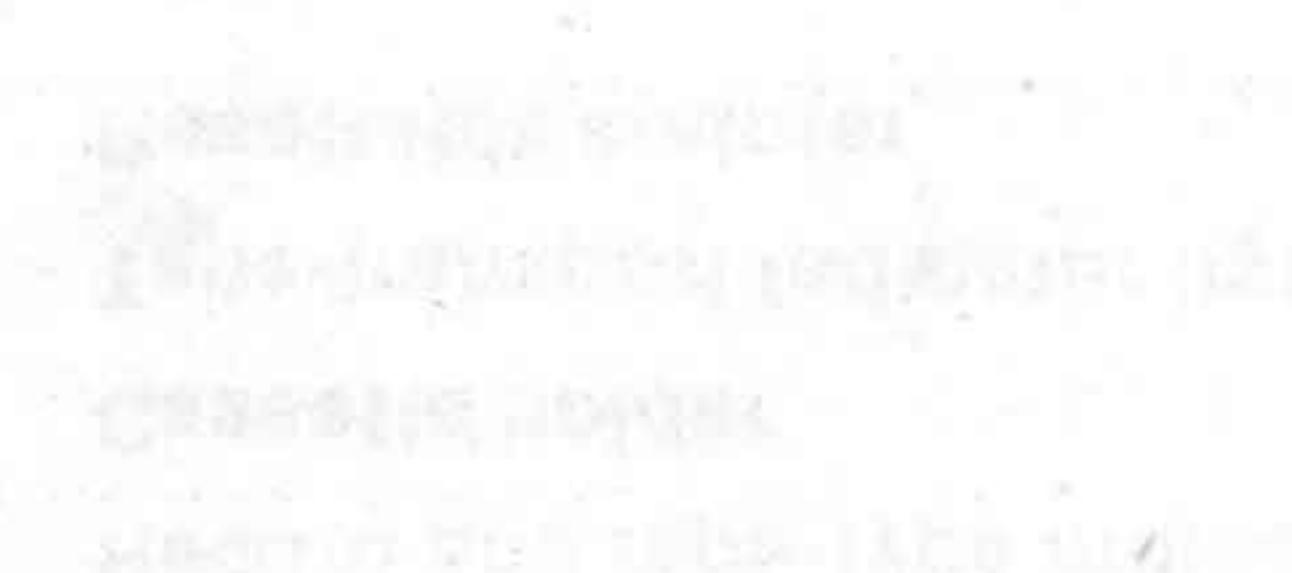
For the rest, you may press these buttons in any desired order without damaging the tape cassette. An electronic circuit automatically provides a brief pause when you switch from e.g. fast forward to normal forward transport.

Automatic Stop

Your Beocord 5000 has automatic stop, activated when the tape of a cassette has finished. The automatic stop operates on forward, rewind and fast forward, the function concerned being released a few seconds after the tape has stopped.

Tape Counter

The tape recorder has a three figure resettable counter. Counter readout is orientative and intended for notes, e.g. on the tape cassette proper. The figures have no direct relation to



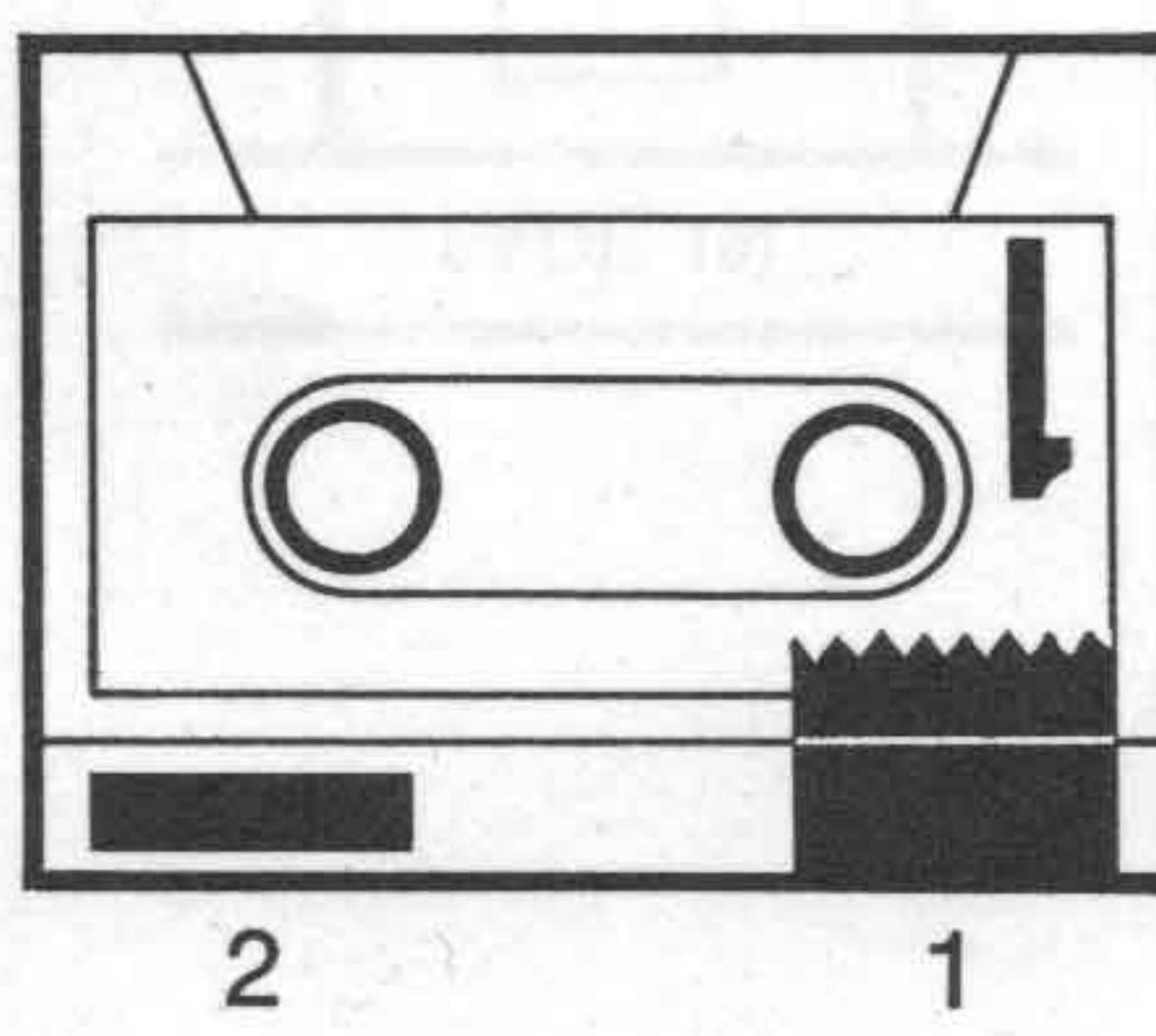
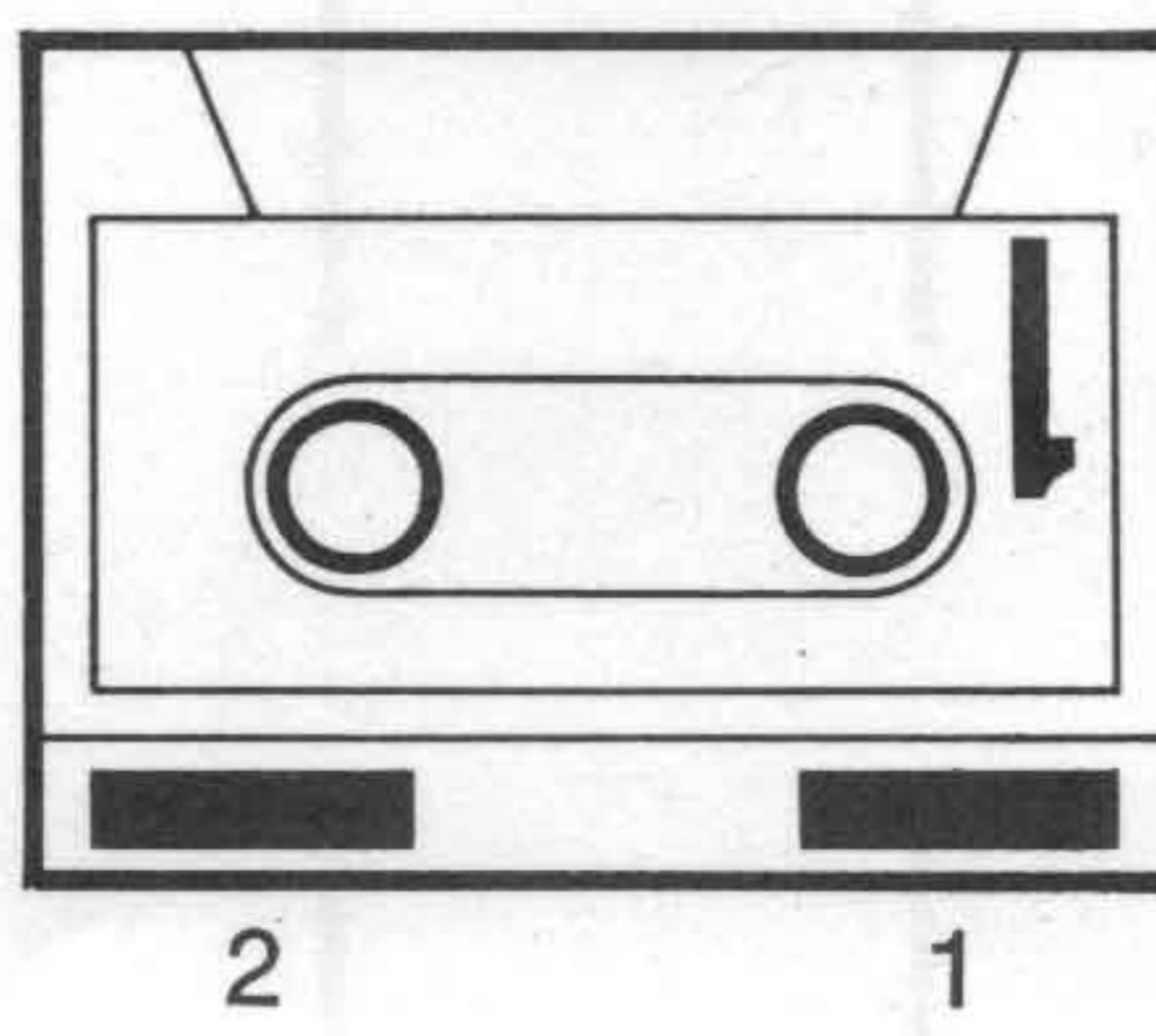
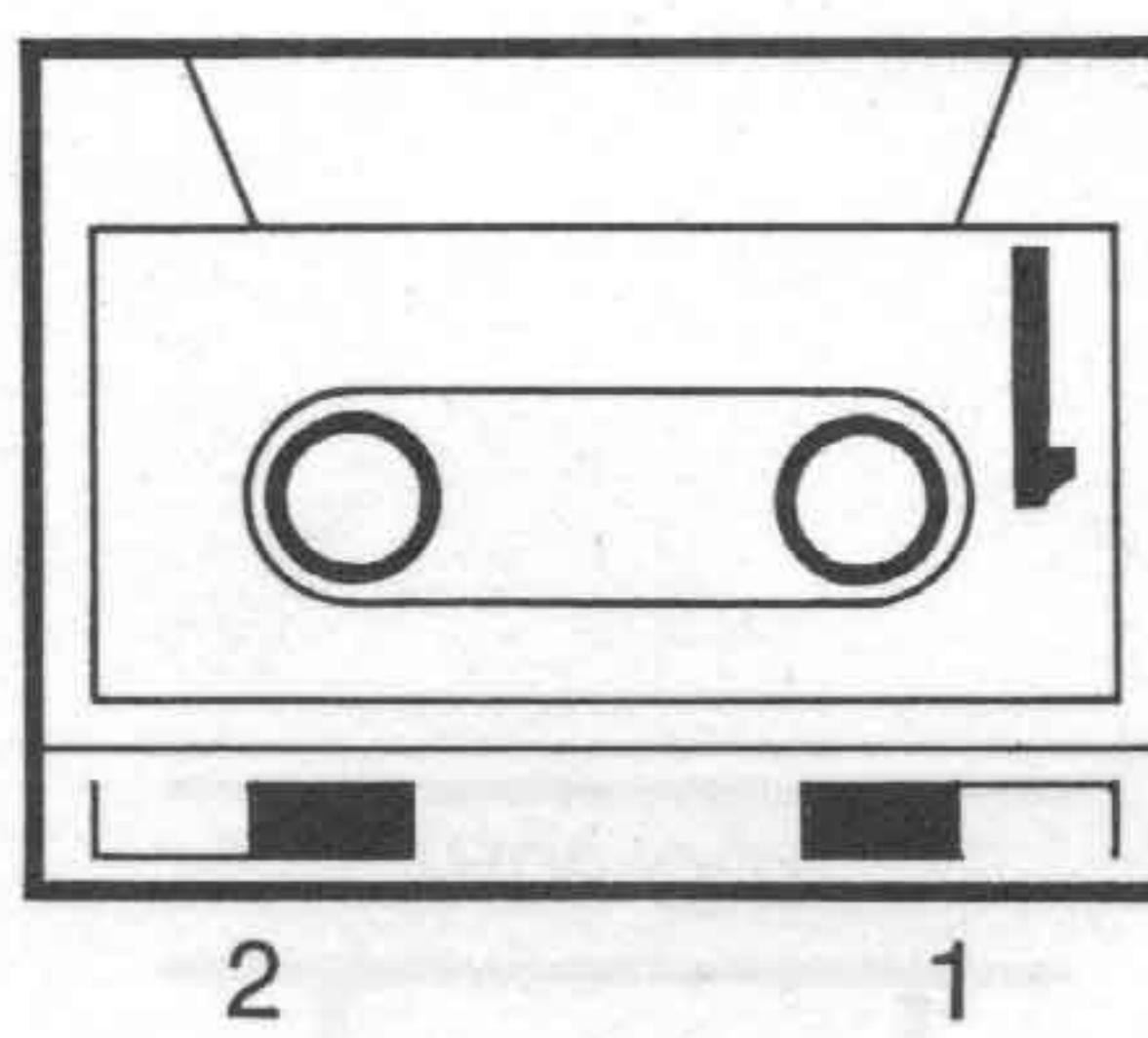
playing times in minutes, being dependent on cassette type (C60 and C90). To reset, press the top of the counter.

Tape types

You may use both chromium dioxide and conventional low-noise tapes for your Beocord 5000. Switching between the two types is automatic, being performed by means of a sensor in the cassette holder. An Indicator light marks CrO_2 for chromium dioxide tapes and Fe_2O_3 for conventional (iron oxide) tapes.

Tape cassettes with the following playing times may be used with your Beocord 5000:

C60, 2 x 30 minutes
C90, 2 x 45 minutes



Securing Recordings

Recorded tapes can be safeguarded against accidental erasure. This safeguard consists in two apertures at the rear of the cassette, one for each side (1 and 2). A blocking device sees to it that the RECORD button is inoperative with a recorded and safeguarded tape inserted.

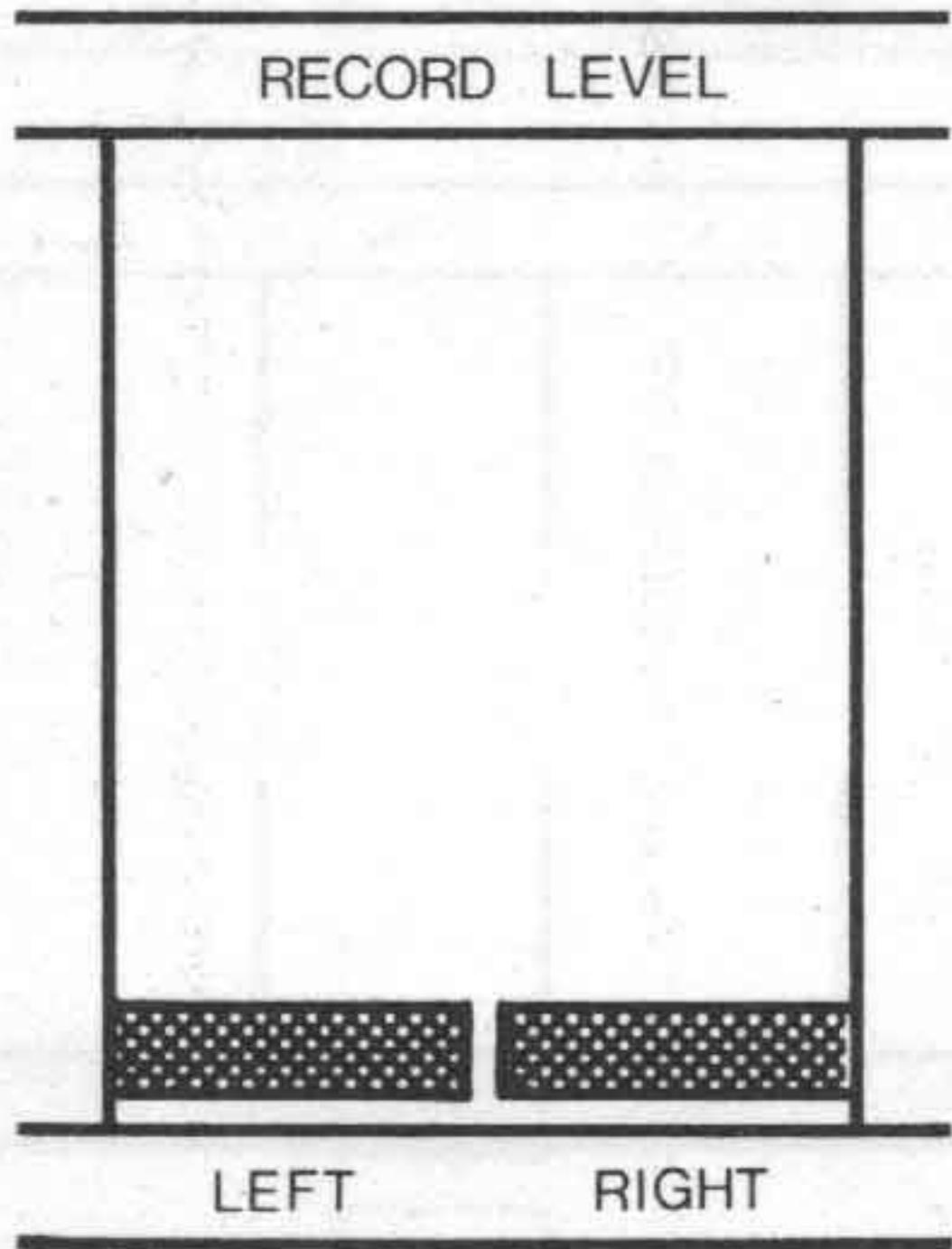
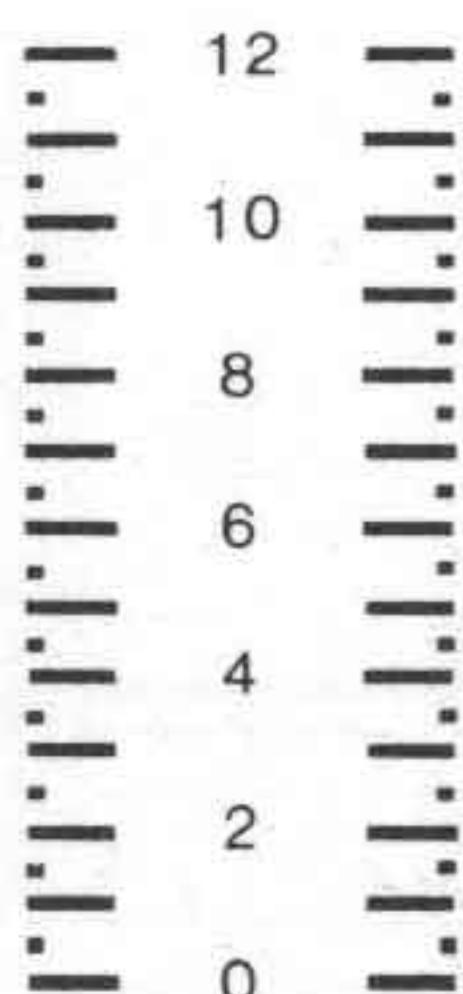
On an unrecorded tape cassette, these apertures are closed by a tongue which allows operation of the RECORD button.

If you have made a recording you want to preserve you can secure it by breaking off the small tongue, or both tongues if you want to preserve both sides, 1 and 2.

Conversely, you can cancel the blockade should you want to make a new recording on a recorded tape. Just cover the apertures with a piece of masking tape.

With aperture: Secured against erasure and re-recording.

Closed: Re-recording may be made.

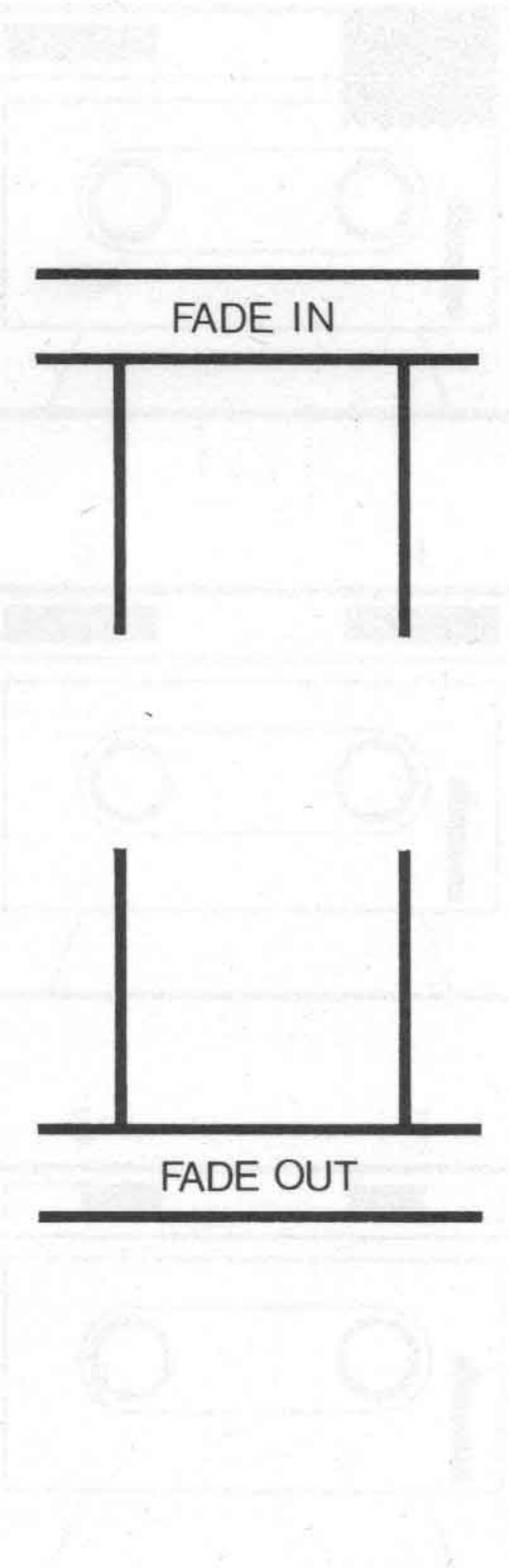


RECORD LEVEL

The two slide knobs control recording level for left and right channels. They should normally accompany each other and be set while you watch the PPM indicator. If the difference between channels is so large that you want it equalised, the two knobs should be set individually. Note that FADE should be IN; the OUT indicator must not light.

PPM Indicator

Your Beocord 5000 is equipped with a PPM indicator light (Peak Program Meter) which unlike pointer instruments operates entirely without inertia. This enables you to read even the briefest sound pulses and make your recordings at optimum tape drive without exceeding the rated distortion percentage.



FADE IN - FADE OUT

FADE is a supplement to the RECORD LEVEL knobs. It is an electronic recording function which can bring the level all the way down and back again to the preset level without any need for you to operate the RECORD LEVEL knobs every time.

Every time you switch on your tape recorder, FADE will automatically be IN. The RECORD LEVEL knobs should be set in the normal manner as described in the preceding section. When you thereafter depress the FADE OUT button, the recording level and the PPM reading will be reduced in few seconds.

3 +	+ 3
0 -	- 0
5 -	- 5
10 -	- 10
15 -	- 15
20 -	- 20
25 -	- 25

A pointer instrument will normally indicate mean values of recording level, and its deflections should be kept below 0 dB. A peak-indicating pointer instrument will indicate peak values but owing to the instrument's inertia the very brief sound pulses will be left out. The PPM indicator is all-electronic and, using the RECORD LEVEL knobs, you should adjust the recording level so that the average level for music and speech lies between -10 and -5, and the loudest sound passages may be recorded at between 0 and +3 on the PPM indicator. The PPM indicator is operative during playback too and hence makes it possible to check the volume level of recordings.

When you press FADE IN, the recording level will be back at the selected level in few seconds.

You will find it convenient to press FADE OUT immediately before you cease recording a program and to depress FADE IN immediately after you have started a recording.

Also when using PAUSE during recording will the FADE function provide enhanced operating convenience. For example, if you are recording a musical program from a radio set and want to leave out the announcer's comments:

When the music stops, press FADE OUT and PAUSE. When the announcer has finished, press PAUSE and FADE IN.

Pause

When you want a brief pause during either playback or record, briefly press the button carrying this symbol.



When you thereafter want to play back or record, press the same button again. An indicator light will be on as long as there is a pause.

You may also use the pause function while preparing for a recording: Press pause, RECORD,

and play. Recording level may now be set with the RECORD LEVEL knobs and the PPM indicator may be read, without the tape having been started. Only when you thereafter press the pause button, the tape and hence the record function will start.

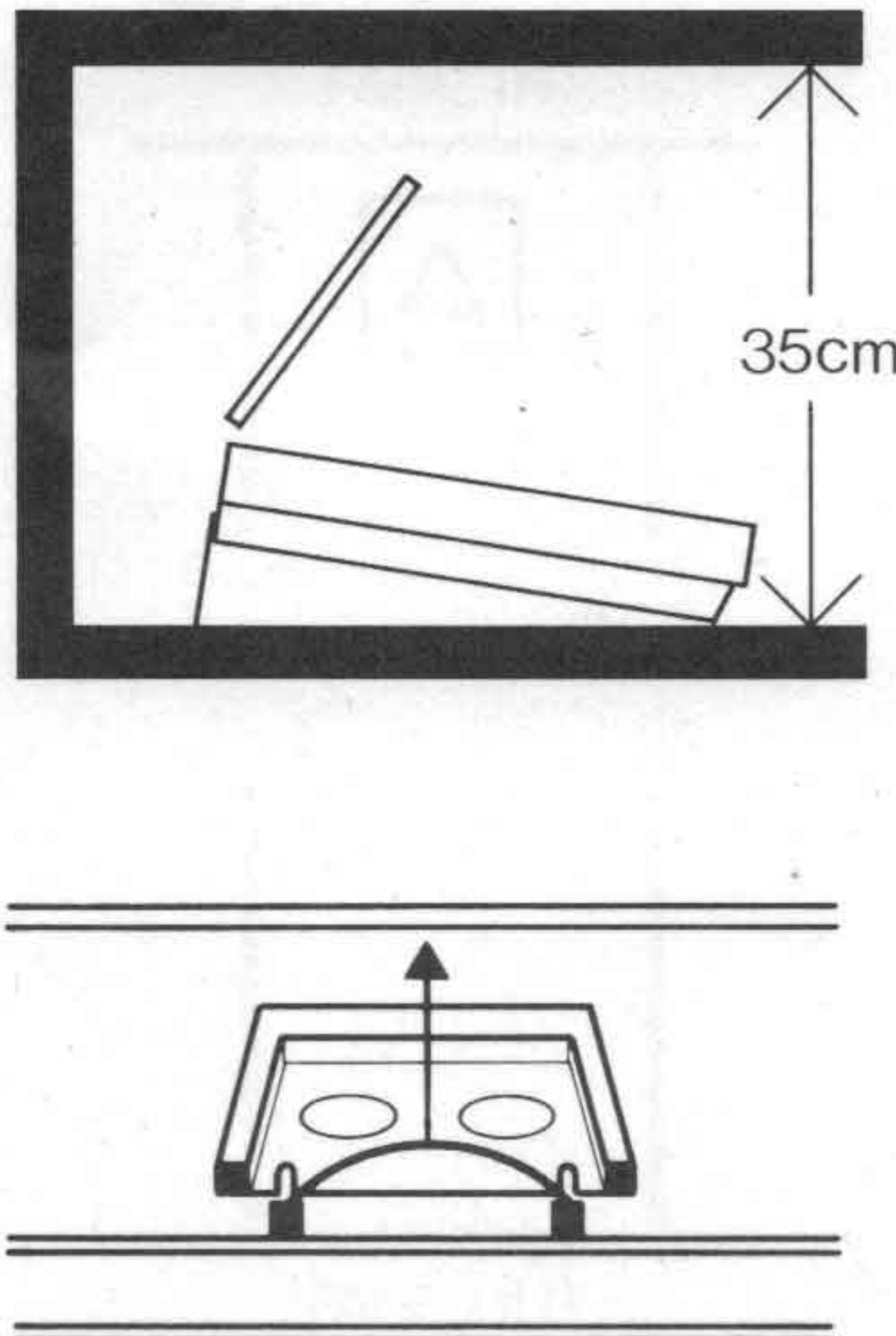
You may extend this preparation to comprise the FADE function as well:
Press pause, RECORD, forward, FADE IN, and DOLBY NR or OUT as required. Set RECORD LEVEL according to the PPM indicator and press FADE OUT. To start recordings, press the pause button and thereafter FADE IN.
Playback or recording is finally stopped with STOP.

DOLBY NR

Dolby Noise Reduction*

Dolby noise reduction is a function to reduce tape self-noise, which can be troublesome during reproduction of weak sounds and during pauses in the music. The system operates during both record and playback, and many of the commercially available recorded tapes have been recorded with Dolby noise reduction. The principle is that weak tones in the treble range are accentuated during the recording process, and during playback a commensurate reduction is made of the same tone range, and hence also of the noise level in that range. The Dolby function cuts in automatically every time you switch on by pressing the ON button. Only if you know in advance that a tape cassette is to be played back on another tape recorder which does not have built-in Dolby noise reduction, you should make your recording without the Dolby function cut in.
Press OUT before starting to record.

* Trademark of Dolby Laboratories Inc.



Setting Up

Your Beocord 5000 should be placed horizontally on a table or in a system of shelves. Alternatively, you may place it at an angle, using the leg support on the back, which can be tilted out.

To enable operation of your Beocord 5000 and allow the dust cover to be opened, free height should be provided as shown in this sketch. Avoid placing the unit directly above a radiator, where the temperature is considerably higher than in the rest of the room.

Remove the transit protection device.

Placement at TV Receiver

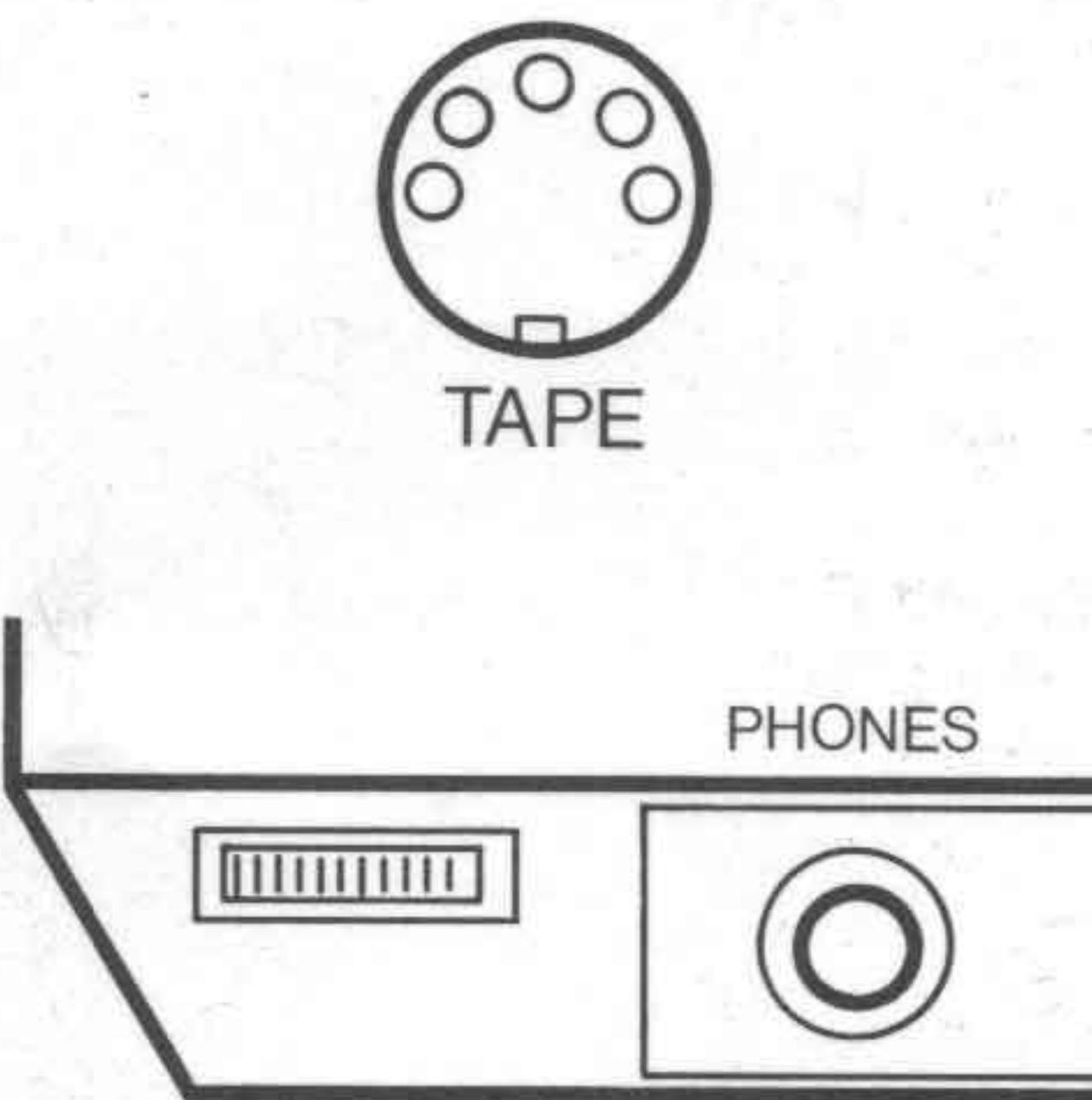
A TV receiver gives out a certain amount of magnetic radiation when power is applied to it. This may cause interference while recording on tape, if the TV receiver and tape recorder are placed too close to each other.

This applies regardless of whether recordings are made from a radio receiver or from the TV receiver. The interference manifests itself as distortion or as noise added to the recording.

On the Beocord 5000, this radiation can be seen on the PPM indicators when the record level control is set at 0. It is therefore recommended to place the tape recorder at least 75 cm from the TV receiver.

Radio or Amplifier

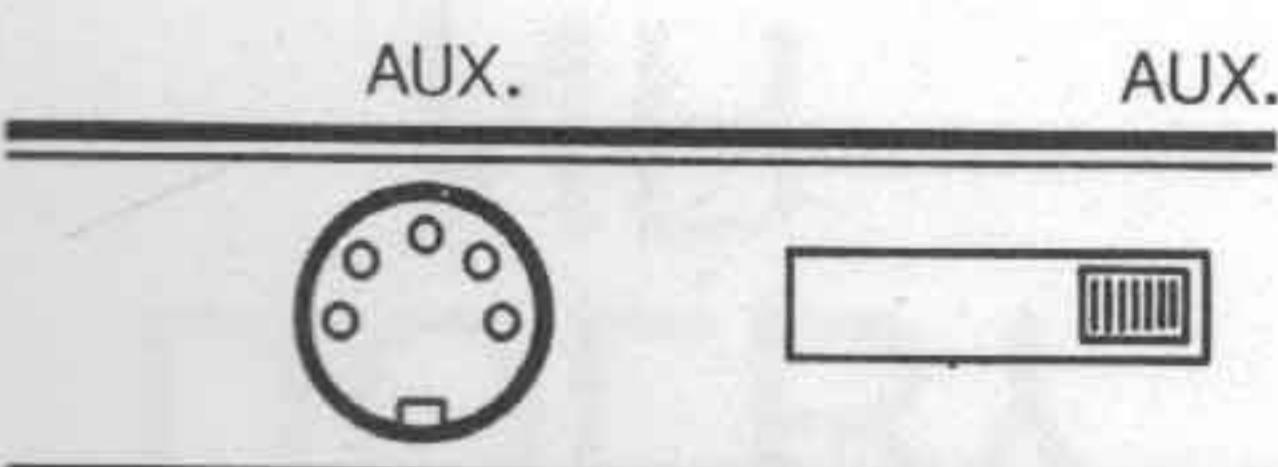
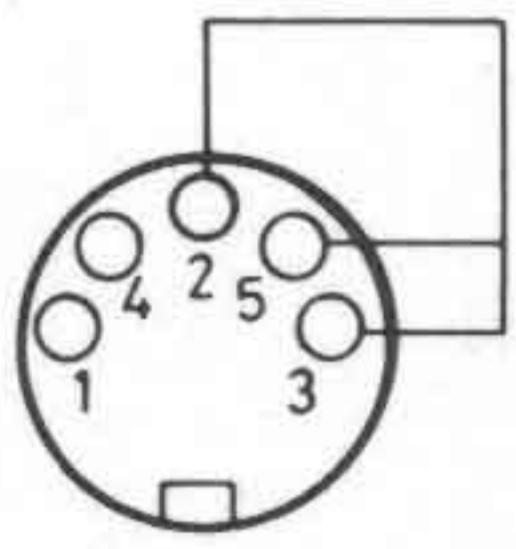
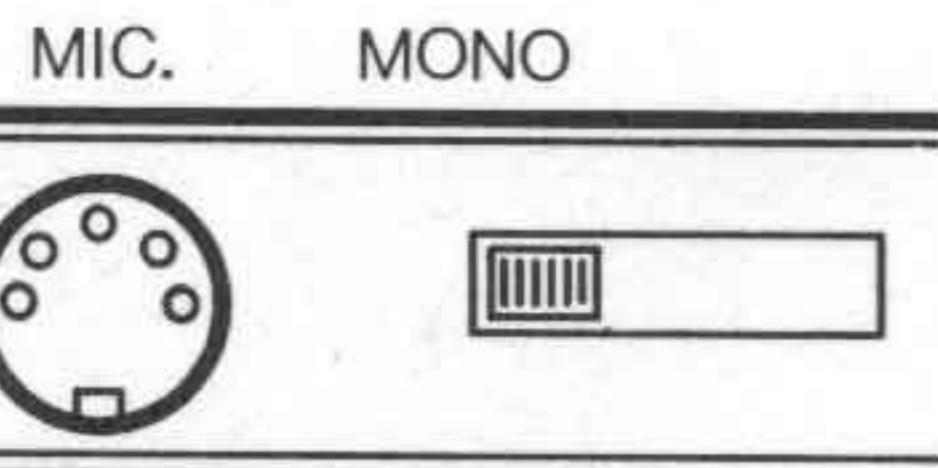
The cable fitted with a DIN connector should be plugged into the socket on a radio set or amplifier which is marked TAPE or carries a tape recorder symbol.



Headphones

Your Beocord 5000 has a socket for stereo headphones. Volume is adjustable with a separate knob.

Headphones may be used on both record and playback. The PHONES socket and volume control are partly concealed under the front edge of the tape recorder. Headphone impedance is fairly uncritical, 4 - 2000 ohms.



Microphone

A mono or stereo microphone may be plugged into the MIC socket under the tape recorder's front edge. Set the slide switch to MONO or STEREO. A microphone of approx. 200 Ohms impedance, unbalanced, is recommended.

A balanced microphone requires rewiring of the connector plug: Connect pins 3 and 5 to pin 2.

When the microphone connector is plugged into the Beocord 5000, recording from other program sources (radio set and record player) is cut off automatically.

AUX, Auxiliary Input

The MIC & AUX socket may also be used as an auxiliary input, for example when dubbing from another tape recorder. Use a type 0961014 cable plugged into the other tape recorder's radio socket and set the slide switch to AUX.

When the connector is plugged into the Beocord 5000, recording from other program sources (radioset / and record player) is cut off.

Mains

Your Beocord 5000 is switchable between mains voltages of 110, 130, 220 and 240 volts, 50 - 60 Hz. The switch is on the back and can be turned with a coin etc.

As received by you, your Beocord 5000 is set to 220 volts.

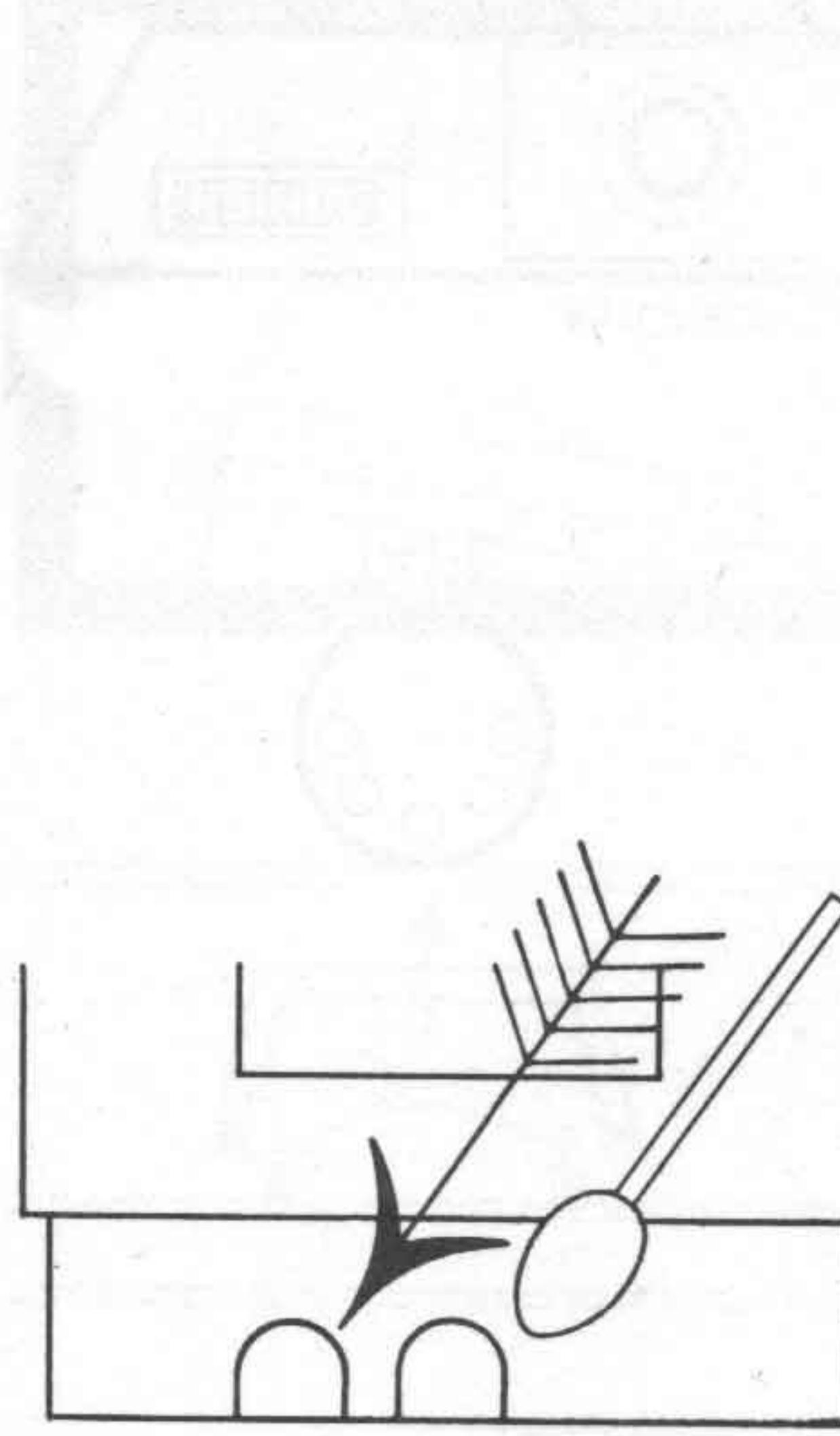
For the UK market only.

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.

The set requires a **3 Amp.** fuse in the mains plug.

MAINTENANCE

Tape Heads. In the interests of pure and clear sound quality the two tape heads must be kept free from tape dust. Use one of the cleaning fluids commercially available for this purpose. Avoid methylated spirits, which may contain substances that attack rubber and plastics. With a wad of cotton wrapped around a match clean the two heads, the two capstan shafts and the two rubber rollers.

Surfaces. The dust cover and the plate above the indicator lights

can normally be kept clean with a dry cloth. Repeated wiping may cause the surface to accumulate a static charge, for which reason it is advisable to use detergent once in a while. **Do not use alcohol as it may dissolve the material.**

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

White-lacquered Cabinet. A lukewarm solution of detergent in water on a firmly wrung cloth, followed by wiping with a dry cloth.

Alcohol may be used for particularly dirty surfaces.

SERVICE

A high-fidelity tape recorder is an advanced instrument which should be kept in correctly adjusted condition to be capable of optimum performance.

Preventive maintenance carried out at regular intervals by an authorised Bang & Olufsen specialist dealer will ensure you of best reproduction and correct handling of your tape cassettes.

TECHNICAL DATA		BEOCORD 5000
Type No.	4715	
Compact Cassette	C60 - C90	
Features	Dual capstans Electronic control Fade function	
Tape head	Sendust	
Number of heads	2	
Dolby Noise Reduction	Yes	
Iron oxide tape	Yes, automatic	
Chromium dioxide tape	Yes, automatic	
Motors	2	
Indicator system	2 Peak Programme Metres	
Counter	Yes	
Stop at end of tape	Yes	
Microphone	Mono/stereo	
Wow and flutter, DIN	< ± 0.1%	
Speed deviation	< ± 0.5%	
Fast forward and rewind	60 sec.	
Frequency range, DIN	30 - 15,000 Hz	
Signal-to-noise ratio, DIN	Chrom. > 56 dB	
With Dolby	Chrom. > 64 dB	
Erasure	> 70 dB	
Input radio	2.2 mV/22 k ohms	
Microphone	0.1 mV/2.2 k ohms	
AUX	300 mV/57 k ohms	

Output radio	940 mV/23 k ohms
Headphones	Max. 2.7 V/220 ohms
Power supply	110 - 130 - 220 - 240 volts
Frequency	50 - 60 Hz
Power consumption	25 - 50 watts
Dimensions W x H x D	47 x 8 x 28 cm
Weight	8.5 kg

Subject to change without notice

Form. 6226
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