OPERATING INSTRUCTIONS FOR BEOCORD 1200

BEOCORD 1200

Type 4207

CONTENTS

The BEOCORD 1200 is a novel stereo tape recorder. It has no output amplifier, being intended for operation in conjunction with a BEOMASTER radio set and associated loudspeakers.

The BEOCORD 1200 is functionally styled for supreme ease of operation. Its dimensions are unusually small for a tape recorder in these performance brackets.

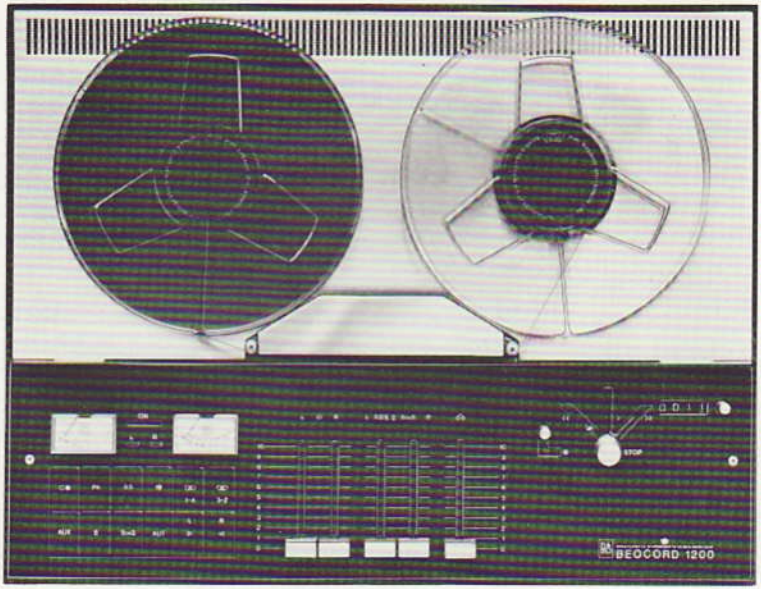
The BEOCORD 1200 may be operated in both horizontal and vertical positions, so you may place it on a bookshelf or tape recorder trolley, or hang it on a wall.

The BEOCORD 1200 is a 4-track recorder. New engineering advances and new low-noise tape types have now made it possible to build a 4-track recorder with specifications that previously were reserved for 2-track recorders.

The BEOCORD 1200 possesses a high order of speed accuracy, being equipped with a synchronous motor which is switchable between 4- and 8-pole operation. Another feature is electronic speed selection, which makes for easy reliable operation.

The BEOCORD 1200 has

Hyperbolic tape head
VU meters with dB scales
Control panel with slide knobs
Automatic recording level control
Photostop
Specifications which meet DIN 45.500 requirements.

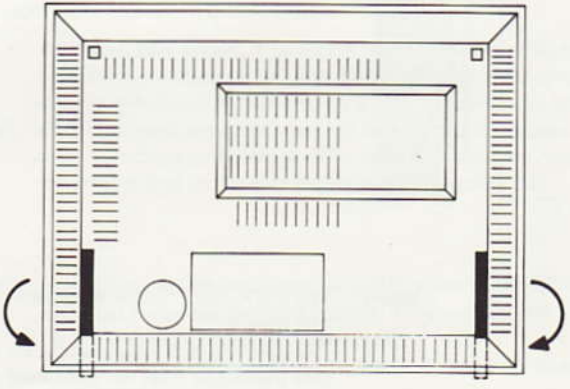

STOP
BEOCORD 1200

INSTALLATION

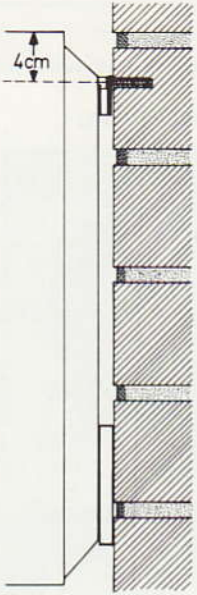
The BEOCORD 1200 may be operated in both horizontal and vertical positions.
You may therefore place your BEOCORD 1200

horizontally on a table or shelf,
vertically on a table or shelf,
vertically on a wall,
at an oblique angle, for instance
on a periodicals shelf.

For vertical placement on a table the two supporting legs should be turned downwards as shown in the sketch.



Dust Cover NOTE: In order to provide the necessary ventilation the dust cover should be in place only when the BEOCORD 1200 is turned off.

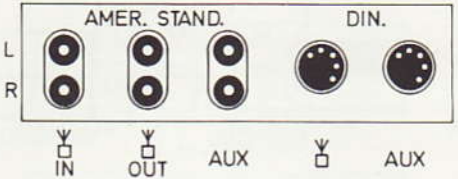


A mounting bracket is supplied for hanging the BEOCORD 1200 on a wall (be sure to attach the bracket securely to the wall).
The distance between the top edge of the Beocord to the holes is 4 cm (1 5/8 in.), and the Beocord is hung on the wall by the cut-outs provided in the two small legs.

Mains The BEOCORD 1200 is switchable between 110, 130, 220, and 240 volts AC.
The switch is directly accessible on the bottom plate. Make sure that the switch is set for your local mains voltage.

Connections on Bottom Plate

Sockets for large stationary units such as a radio receiver, TV receiver or record player are located on the bottom plate of your BEOCORD 1200. This feature permits discreet installation of cables to the other components of your stereo system.



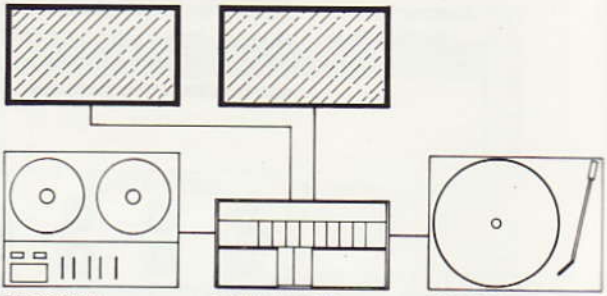
Tape Recorder

BEOMASTER socket. This socket should be connected to a radio receiver, for instance a BEOMASTER 1200, or a hi-fi amplifier equipped with a DIN standard tape recorder socket. A type 0961014 cable should be used for making the connection. If you wish to include a record player in your stereo system, you will find it practical to connect the player to the radio set.

American Standard

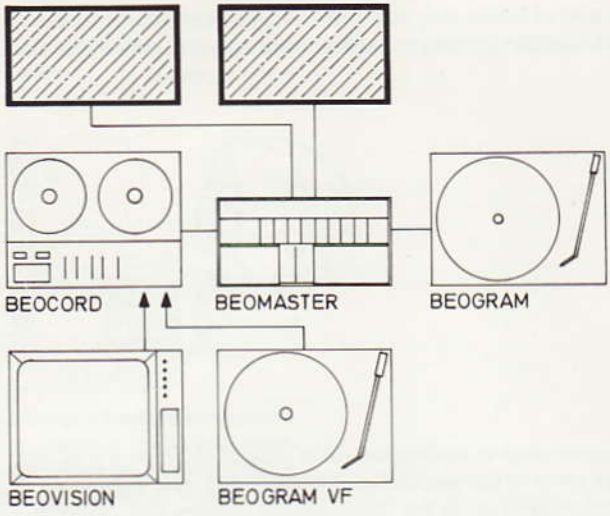
In addition to being equipped with DIN sockets, the BEOCORD 1200 has American standard sockets. They are marked L and R, for left and right channels, respectively.
Radio IN should be connected to the OUT terminals of a radio set or tuner.
OUT should be connected to the IN terminals of a radio set or tuner.

AUX, auxiliary input, high impedance.



Then you do not have to switch on your BEOCORD 1200 if you are just listening to your records through the speakers of the radio set.

If you wish to tape the records while you listen to them, switch on your Beocord. You do not have to shift the cable.



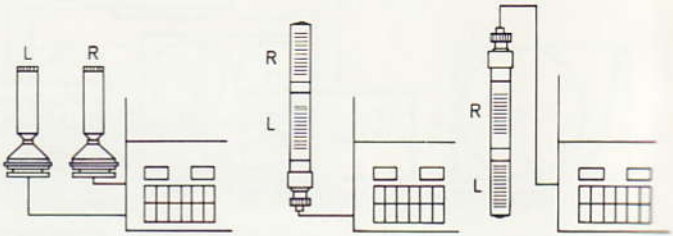
AUX
DIN Socket

Auxiliary input for record, high impedance. A TV receiver may be plugged into this socket for recording the sound. However, this assumes that a tape recorder kit has been installed in the TV receiver.

This socket also accepts an additional record player having a built-in pre-amplifier, such as a BEOGRAM 1200, or a record player equipped with a crystal pickup.

OTHER EXTERNAL CONNECTIONS

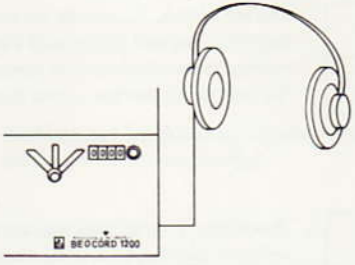
Sockets for microphones and headphones are located to the left and right, respectively, on the control panel and are therefore easily accessible.



Microphone socket for stereo or mono microphone, low impedance (200 ohms) balanced.
A B&O BM 5 stereo microphone, BM 6 mono microphone, BEOMIC 1000 or similar low-impedance microphones may be plugged into this socket.
A mono microphone plugged into this socket will operate on the left channel, tracks 1 and 4.

Extra microphone socket. A mono microphone plugged into this socket will operate on the right channel, tracks 3 and 2. This feature enables you to make stereo recordings with two mono microphones.
A stereo microphone suspended by its cable will normally produce an inverted sound picture: the left sound signal will be recorded on the right channel and the right sound signal on the left channel. You may compensate for this undesirable condition by plugging the stereo microphone into this socket.
The same socket should be used for mono recordings on tracks 3 and 2 with a mono microphone.

A pair of **STEREO headphones** with a jack plug should be plugged in here. Headphone impedance may be between 100 and 500 ohms.



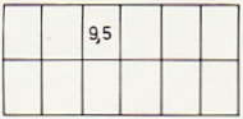
NOTE: It is perfectly all right to use headphones of lower or higher impedances than 100 - 500 ohms but volume will be lower in either case. Max. volume, approx. 5 mW, will be obtained at 200 ohms.

CONTROLS

Pushbuttons

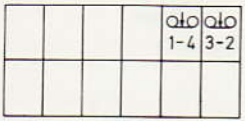
On/off switch. To switch on your BEOCORD 1200, depress this button. This will place both the amplifier section and the tape transport mechanism into operation.
To release the button, press it again.

Amplifier. This button enables you to operate the amplifier only without starting up the tape transport mechanism.
Both the on/off button and the PA button should be depressed.
Both buttons are released by pressing them again.

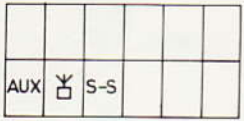


Speed selection. With these buttons you select the desired tape speed for both tape recording and playback.

9.5 cm/sec. is suited for recordings from radio and gramophone and for conventional microphone recordings.
19 cm/sec. is intended for particularly exacting recordings through a microphone.



Record buttons for two stereo recordings, tracks 1 and 3 or 4 and 2, or for four mono recordings.



Pushbuttons for selecting signal source, AUX or radio, and **Sound on Sound** (trick recordings).

AUT. Pushbutton for automatic level control during recordings.

Pushbuttons for selecting playback mono, stereo, and both channels combined.

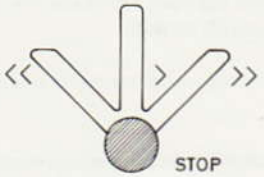
Control Panel
Slide Knobs

Microphone volume controls, marked L and R, for left and right channels, respectively.

AUX, Radio, and Sound on Sound volume controls – L for left channel and R for right channel.
The slide knobs are located two and two close together, enabling you to control both channels in only one operation.

Headphone volume control, common to left and right channels.

Mechanical Controls



Tape control lever. Controls tape transport:

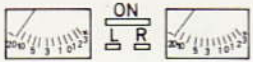
> Forward, playback and record.
>> Fast forward.
<< Fast rewind.
Stop.

Pause control. Pressing this button will stop the tape transport mechanism momentarily. For stops of some duration the button can be locked by sliding it to the right.

Zero set button for tape counter.

Tape counter. 4-digit tape counter permits noting down beginnings and ends of recordings.

Indicators



Light indicator ON shows when power has been applied to the BEOCORD 1200 by depressing the on/off button.

Light indicator L shows when a recording is in progress on track 1 or 4.

Light indicator R shows when a recording is in progress on track 3 or 2.

Both L and R show light during stereo recordings.

VU meters with dB scales. The pointer deflections of these meters indicate whether recordings are being made at the proper level.
Pointer deflections should stay inside the black scale sectors, with only brief excursions into the red sectors on loud passages.

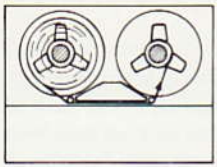
The pointers deflect rapidly to indicate immediate peak levels, but their return movement is slow.

The VU meters also operate during playback, when they will show if the recording was made at the correct level.

OPERATION

Inserting Tape

Place a reel of tape on the left turntable and an empty reel on the right one.
Press the two black reel holders down across the reel hub; they prevent the reels from falling off during vertical operation.
With the tape control lever at "stop", pull approx. 50 cm (20 in.) of tape forward and let it slide down into the gap in front of the control panel. Fasten the free end of the tape to the reel at the right and pull the tape taut.



The BEOCORD 1200 is designed for low-noise tape, and the specifications for record can be met only if low-noise tape is used. However, your BEOCORD 1200 will play back standard tapes which have been recorded on another tape recorder.

Automatic Stop

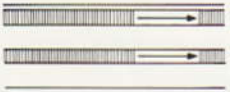
The BEOCORD 1200 is equipped with a photo-electric stop device which will release the tape control lever and return it to its stop position both from normal forward tape motion and from fast forward and rewind. A small filament lamp and a photo element are placed on opposite sides of the tape. The lamp turns on when the tape control lever is operated; and when the tape runs out or breaks, the automatic stop will operate to return the tape control lever to the stop position. If you want the tape to stop automatically during normal forward tape motion, before the end of the reel is reached, you make a clear window, approx. 25 mm (1 inch) long, in the tape coating. The brown coating can be removed with trichloroethylene.
(NOTE: Trichloroethylene gives off dangerous vapours; it attacks most plastics).

Tape Counter

The tape counter should as a general rule be reset by depressing the small button immediately after tape has been inserted. When making a number of brief recordings you may make notes like these:

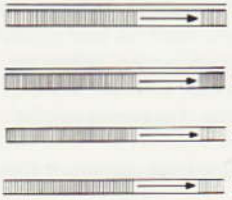
Rec. No. 1, 0 - 260; Rec. No. 2, 265 - 380 etc.

Location of Recordings on Tape

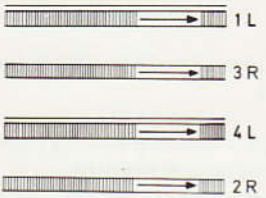


Stereo: You may make stereo recordings in either direction on the tape. Track 1 will be the left channel, L, and track 3 the right channel, R. When the end of the tape has been reached, you may interchange and turn over the reels. Track 4 will now be the left channel and track 2 the right channel.

Mono: You may make mono recordings on four tracks, two in each direction on the tape. You may make these recordings in any sequence you prefer; here are two suggestions:



First record on track 1.
Interchange and turn over the reels and record track 4.
Interchange and turn over the reels and record track 3.
Interchange and turn over the reels and record track 2.

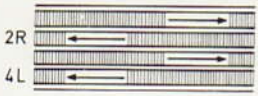


or

First record on track 1.
Rewind to the beginning of the tape and record track 3.
Interchange and turn over the reels and record track 4.
Rewind to the beginning of the tape and record track 2.

The former method saves time for rewinding whereas the reels have to be turned over several times.

Using the latter method, the reels do not have to be turned over as frequently whereas more time is required for rewinding.



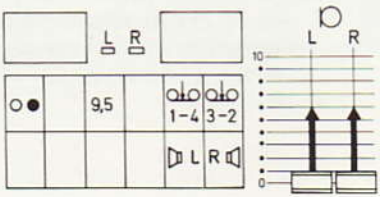
A tape "looks" like this when it has recordings on all four tracks – mono, stereo, or a mixture.

Tapes with recordings you no longer wish to listen to will automatically be erased on the two tracks or on the one track on which you are making a new recording; the other tracks will not be affected.

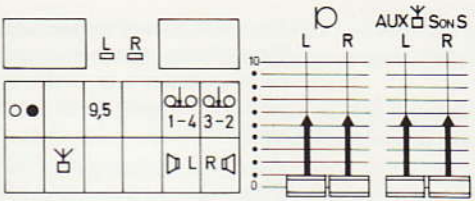
Record Stereo Tracks 1 and 3

First select the speed you want to use, 9.5 cm/sec. or 19 cm/sec., and depress both playback buttons.

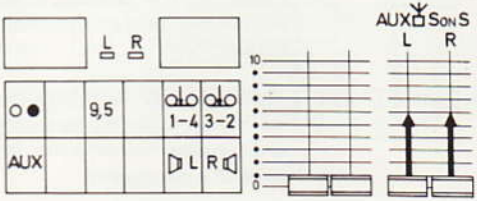
To make recordings from a radio set – including a record player connected to the radio – depress the radio pushbutton.
To make recordings from other programme sources, for instance from TV sound or from an additional record player, depress the AUX button.
To start recording, depress the two record buttons while moving the tape control lever straight forward; this will cause the record buttons to lock in their operated positions, and tape transport will begin. Both light indicators will show yellow light while a recording is in progress, and the two VU meters will indicate recording level for their separate channels. The left channel will be recorded on track 1, the right one on track 3.



Microphone. Recording level is adjusted with the two slide knobs, L for the left channel and R for the right channel,
or



Radio. The radio pushbutton should be depressed, and recording level is adjusted with the next pair of slide knobs, L for the left channel and R for the right channel.
Also recordings from a record player connected to the radio set are made with these controls; only the radio should be switched for gramophone,
or



AUX. The AUX pushbutton should be depressed, and the programme source connected to the AUX socket, for instance an additional record player, is adjusted with the slide knobs shown, L for the left channel and R for the right channel.

The microphone slide knobs should be at 0 when you are not using a microphone but ar recording from a radio set or from a signal source connected to the AUX socket.

The **pause control button** may be used to advantage here because it permits you to introduce a pause for preparations – for instance, for selecting your programme and adjusting the recording level. Tape transport will not begin until you release the pause control button.

The record buttons will not release until the tape control lever is returned to the stop position.

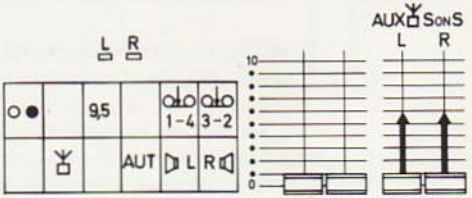
NOTE: Both playback pushbuttons, L and R, should be depressed for stereo recordings; if one or both buttons are released, the result will be a mono recording on both tracks.

Balance during Record

As a general rule you will operate both slide knobs simultaneously; they are placed so close together that you can set them both in one operation.
You can also balance the relative levels of the two channels while a recording is in progress, in which case you should set the knobs individually, thus accentuating either the left channel or the right channel.

Automatic Control Circuit

The BEOCORD 1200 features an automatic recording level control circuit which protects you from overdriving your recordings and equalizes the difference in level between weak and loud passages of a programme.

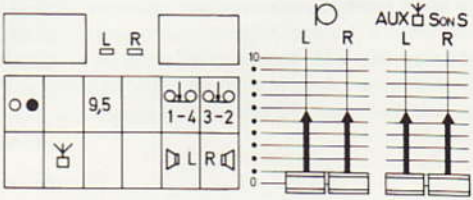


First adjust recording level with the slide knobs so that the VU-meter pointers stay inside the black scale sectors.

Then depress the AUT button. Now you will have automatic attenuation of loud sound passages that might otherwise cause distortion.
This means that you will not have to keep a constant watch on the recording level and that too-high settings of the slide knobs will be compensated for.
The AUT button may be used for microphone, radio, and AUX recordings.

Mixing

The four record controls may be used at the same time, enabling you to mix programme material – microphone/radio or microphone/AUX – while a recording is in progress.



You can also fade one programme out and fade another one in while making a recording. This way you can mix sounds and obtain the "soft" changes you know so well from radio broadcasts.

Mixing and Automatic Control

Here, too, you can make use of the automatic recording level control circuit: For instance, if you wish to have automatic mixing of microphone and gramophone signals you should first set the

volume knobs in the usual manner; we assume that the gramophone is connected via the radio set. Then depress the AUT button. The gramophone signal will now be recorded at normal strength until you begin speaking into the microphone. The gramophone signal will then be reduced in volume and will not increase in strength until you stop speaking into the microphone. The more you turn up the microphone control, the more will the gramophone signal be attenuated.

Record Stereo Tracks 4 and 2

When tracks 1 and 3 have been filled with stereo recordings, you may interchange and turn over the two tape reels.
The left channel will now be recorded on track 4 and the right one on track 2.

Record Mono

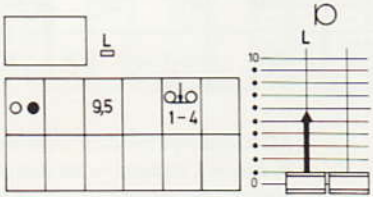
You only use one track at a time for mono recordings. This will give you twice as long playing time on a tape as on stereo seeing that four separate tracks are available to you.

NOTE: In mono recordings you only have to read one of the VU meters. However, the meters will respond during playback too, and the unused VU meter will therefore deflect if recordings have already been made on the other tracks of the tape.

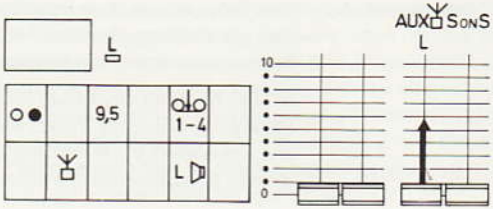
Record Mono
Track 1 or 4

First select speed, 9.5 cm/sec. or 19 cm/sec.
For microphone recordings, you do not have to depress additional pushbuttons.

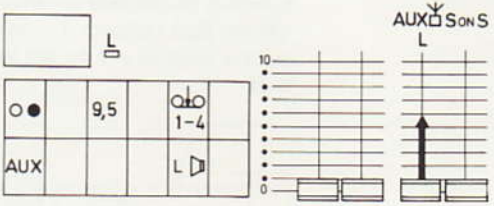
To record from other programme sources, for instance TV sound or an additional record player, depress the AUX button.
To start recording, depress record buttons 1 and 4 while moving the tape control lever straight forward; this will lock the record button in its operated condition, and tape transport will begin.
The left light indicator, L, will show yellow light while a recording is in progress and the left VU meter will indicate recording level.



Microphone. Recording level is adjusted with the L microphone slide knob.
The microphone should be plugged into the normal microphone socket carrying this symbol,
or



Radio. Depress the radio pushbutton and adjust recording level with slide knob L (see sketch).
The same buttons should be used for making recordings from a record player connected to the radio set; only the radio set should be switched for gramophone,
or



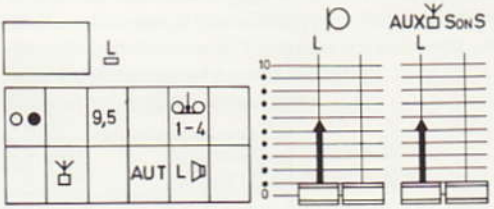
AUX. Depress the AUX pushbutton and adjust your programme source – TV sound or an additional record player – with slide knob L (see sketch).
The microphone slide knob should be at 0 when you are not using a microphone (when you are recording through a radio or the AUX socket).

You may find the **pause control** button useful here because it permits you to introduce a pause for making preparations such as selecting your programme and adjusting the recording level. Tape transport will not begin until you release the pause control button.

The record button will not release until the tape control lever is returned to the stop position.

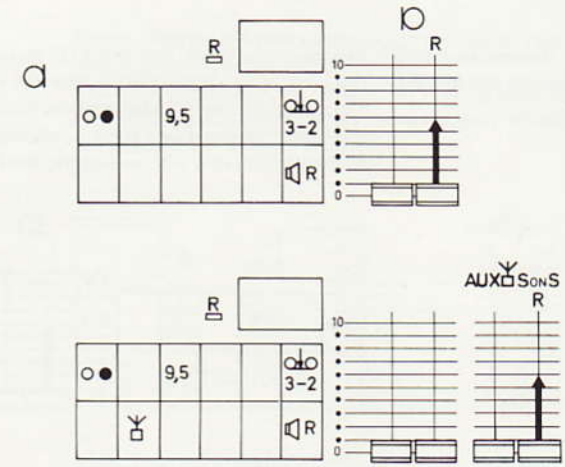
Automatic Level Control and Mixing

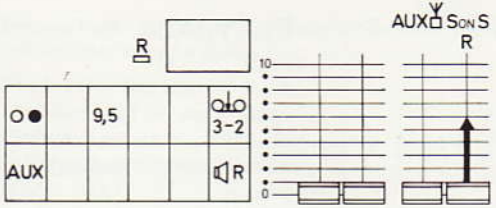
In mono recordings, too, the AUT button may be used for automatic recording level control, and you may mix two programmes by operating both volume controls L simultaneously.
Example: Record mono track 1, microphone and radio (or gramophone), mixing with automatic level control.



Record Mono Track 3 or 2

Depress record buttons 3 and 2 together while moving the tape control lever straight forward.
You will now be using the right channel:
Plug the microphone into the right-channel socket.
Light indicator R will show light.
The right VU meter will indicate recording level.
Adjust recording level with right slide knobs R.





You can record microphone, radio, and AUX; and you can depress the AUT button for automatic recording level control; moreover, you can mix two programmes by operating both volume controls R simultaneously.

Record Mono Stereo Programme

While listening to a stereo programme – an FM stereo broadcast or a stereo record – through your BEOMASTER and BEOVOX speakers you can, if you wish, record the programme as a mono recording on only one of the tracks if you merely wish to play it back from the tape as a mono recording.
Proceed as described above under

Record Mono Track 1 or 4.
Record Mono Track 3 or 2.

PLAYBACK

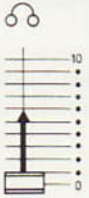
Wind the tape fast forward or fast back to the beginning of a recording; use the tape counter.
You may use the tape control lever and playback pushbuttons independently of each other – the buttons do not lock when depressed.
Select, with the pushbuttons, the track you wish to play back.

Playback Radio

Because the BEOCORD 1200 has no output amplifier, playback through a pair of BEOVOX speakers always has to be made through your BEOMASTER radio or a hi-fi amplifier.
Depress the TAPE button of the radio set. Adjust volume, bass, and treble on the radio set.

Playback Headphones

When you wish to play tapes independently of your BEOMASTER radio, you may use a pair of stereo headphones.
Adjust volume with this slide knob; it is common to the left and right channels.

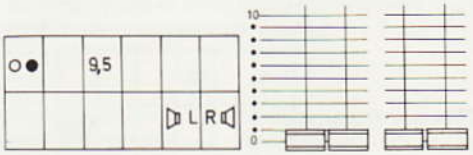


You can play back through a radio set and headphones at the same time.

Adjustment of the headphone volume does not affect playback volume through the radio set.

Playback Stereo Tracks 1 and 3

Depress both the L and R playback buttons and move the tape control lever straight forward.



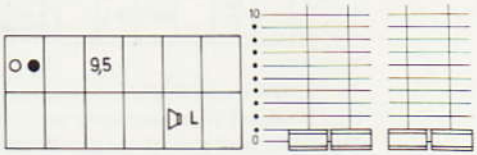
The two VU meters will indicate if the recording was made at the correct level but are not to be used when making playback volume adjustments.

Playback Both Tracks Combined

With both the L and R buttons released, both tracks will be heard combined through both speakers and through both sections of the headphones. A stereo programme will sound as mono.

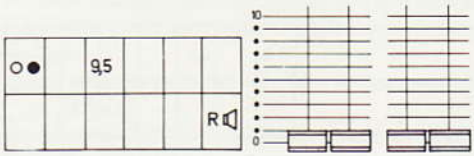
Playback Mono Track 1 or 4

Depress playback pushbutton L and move the tape control lever straight forward. Track 1 or 4 will now be heard through both speakers and through both sections of the headphones.



Playback Mono Track 3 or 2

Depress playback pushbutton R and move the tape control lever straight forward. Track 3 or 2 will now be heard through both speakers and through both sections of the headphones.

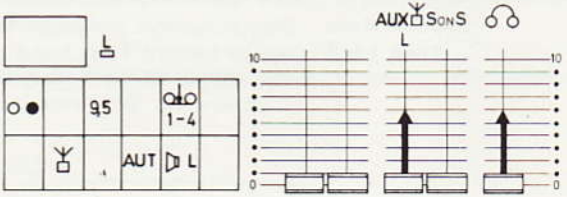


Playback Both Tracks Combined

With both the L and R buttons released, two mono programmes will be combined and heard through both speakers and through both sections of the headphones.

Monitoring

While you are recording on tape you can listen in on the headphones to monitor your recording.



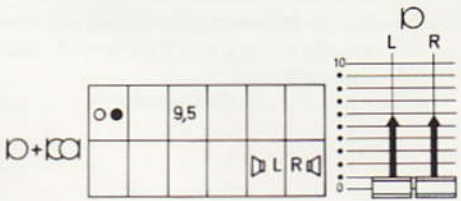
This example shows how you can make a mono recording on track 1 from your radio set – tape speed 9.5 cm/sec.; recording level control on; simultaneous headphone monitoring.

You can similarly monitor recordings on the other tracks, both stereo and mono.

NOTE: Both pushbuttons should be depressed during stereo recordings; if one or more buttons are released, the result will be a mono recording on both tracks.

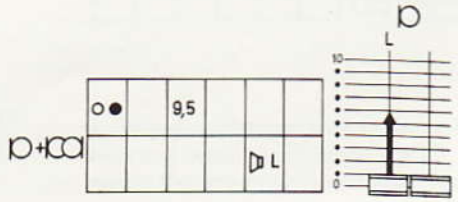
Microphone during Playback

The microphone may not only be used for recordings; you may also use it to introduce comments while playing back tapes. The comments you make in this way will not be recorded on the tape.

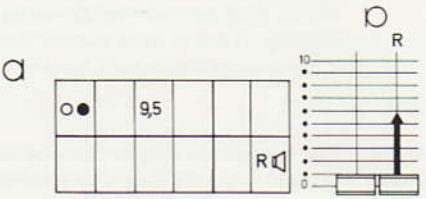


When using a stereo microphone you just have to advance both microphone slide knobs, L and R.

A mono microphone should "follow" the channel:
Playback track 1 or 4, playback pushbutton L, microphone plugged into left socket, microphone slide knob L.



Playback track 3 or 2, playback pushbutton R, microphone plugged into right socket, microphone slide knob R.



NOTE: Because of this feature it is necessary, to turn microphone slide knobs L and R down to 0, when you do not want to use a microphone.

SPECIAL APPLICATIONS

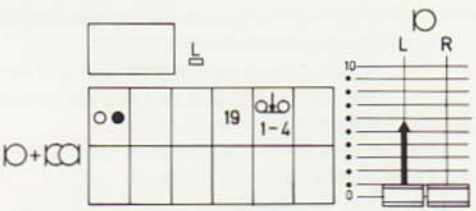
Sound on Sound Tracks 1 and 3

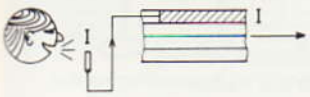
Sound on Sound – or trick recordings – means that you can "place several recordings on top of each other". For instance, you can sing (or play on several instruments) in 2-, 3-, or 4-part harmony with yourself.

You transfer a recording from one track to another while simultaneously adding one more recording.

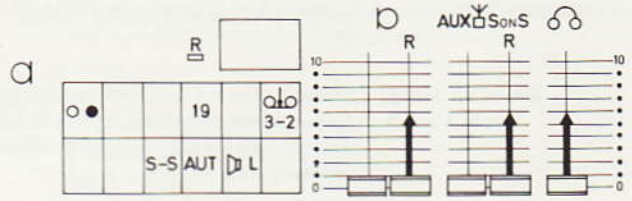
Sound on Sound recordings can only be made on mono because both the left and right channels are utilized.

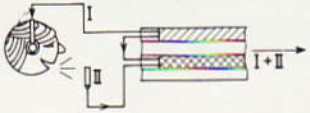
Proceed as follows:



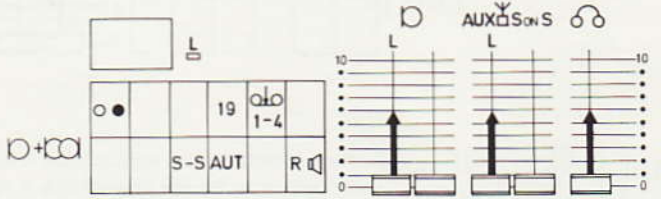


1. Record the first part with a mono microphone on track 1 as described under Record Mono Track 1, speed 19 cm/sec., and rewind the tape to where you began recording.

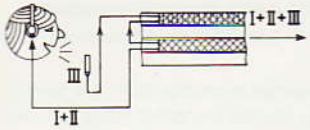




2. Now record the second part with a mono microphone on track 3 while simultaneously transferring the first part from track 1 to track 3. Transfer the microphone to the right socket. Depress push-buttons S on S and playback L. Depress record buttons 3 and 2 together while moving the tape control lever straight forward. Listen in on headphones so that you can follow the first part, adjusting listening volume with the proper slide knob.
Adjust the level at which the first part is being recorded with S on S slide knob R.
Adjust the level at which the second part is being recorded with microphone slide knob R.
You may use the automatic recording level control feature if you wish – the AUT button.
Now you have recorded the first and second parts on track 3, and you may rewind and proceed to record the third part if you wish.



3. The third part is recorded on track 1 while transferring the



first and second parts from track 3 to track 1. Shift the microphone back to the left socket; leave the S on S pushbutton depressed; depress record buttons 1 and 4 while moving the tape control lever forward. Depress playback pushbutton R and listen to the first and second parts through the headphones.
Adjust the level at which the first and second parts are being recorded, using the S on S slide knob.
Adjust the third part with microphone slide knob R.
The final result will be available as a mono recording on track 1, with playback button L depressed.

All programme sources – microphone, gramophone, and radio – and intermixings between them – may form part of Sound on Sound programmes provided they are mono programmes.

By proceeding as described above you can record any desired number of parts, but the quality of the final result depends on the quality of each individual recording. Since not only the desired programme but also a certain amount of basic noise will be recorded, repeated re-recording will cause the noise to become audible and, ultimately, objectionable. You can limit this inconvenience by:

a. using the highest tape speed, 19 cm/sec.;
b. using programme sources that have as little noise as possible;
c. recording at the highest possible level though without overdriving the tape (use of the AUT button is suggested);
d. recording the main part (solo part) at last so that it will be clearest.

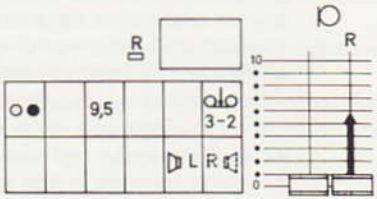
Sound on Sound Tracks 4 and 2

Sound on Sound recordings may similarly be made on tracks 4 and 2 by interchanging the tape reels.

Synchro Play

This function may be used to synchronize mono recordings on two tracks without mixing them on one track as in Sound on Sound recordings.
Synchro play may be used for language exercises, with the teacher's speech recorded on one track, leaving the other track for the student's exercises or for translations.
Another example is music recorded on one track and speech or singing on the other one.
Proceed as follows:

First make a conventional mono recording on track 1: speech, music, or intermixing of a number of sound sources as described above under Record Mono Track 1.
Rewind the tape to where you began recording and plug a mono microphone into the right socket.
Then depress playback button L so as to permit headphone monitoring of track 1.



Depress record buttons 3 and 2 while moving the tape control lever forward. Adjust recording level for the other track with microphone slide knob R.
If you wish to monitor the part you are recording now you may depress playback button R as well, but you do not have to do this in order to record that part on the tape.

You can play back the two recordings in two ways:
Separately, as stereo, both playback buttons L and R depressed.
Combined, as mono, both playback buttons L and R released.
You may similarly carry out synchro play on tracks 4 and 2.

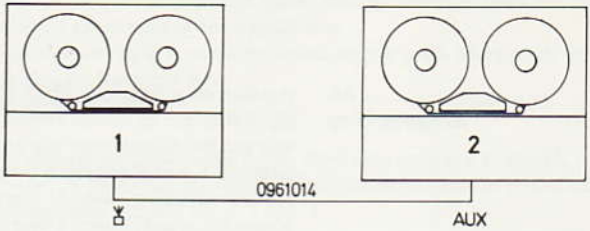
PA Amplifier Only

If you wish to use your BEOCORD 1200 and the associated BEOMASTER as a microphone amplifier without using the tape you should depress both the on/off switch and the PA button. With the L and R playback buttons you decide if you want stereo reproduction, mono L, mono R, or both channels combined. Microphone slide knobs L and R control the loudspeaker volume whereas the other controls do not normally have to be touched.

PA Pre-adjustment

You may also use the PA button immediately before beginning a recording. Before depressing a record button and moving the tape control lever forward you can, by depressing the PA button, place the VU meters into operation; this will enable you to preset the slide knobs for recordings.

Copying If you have a tape recording you wish to copy on another tape, you can copy from any other tape recorder to your BEOCORD 1200, both stereo and mono.



Set tape recorder, No. 1 with the original tape on it, for playback and plug a type 0961014 cable into the radio socket on the bottom plate of the tape recorder.
Plug the opposite plug of the cable into the AUX socket of your BEOCORD 1200, No. 2, on which you have placed the new tape.
Otherwise proceed as described under Record Stereo AUX and Record Mono AUX.

This concludes the description of how to operate the BEOCORD 1200; after having used your tape recorder for some time you will no doubt discover additional interesting applications.

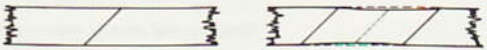
ADDITIONAL INFORMATION

Tape

The BEOCORD 1200 is designed for use with DIN standard low-noise tape.
The tape should not be exposed to magnetic fields; therefore never put tape reels near magnets or on top of loudspeakers or color TV receivers.

Tape Splicing

Tape ends to be spliced should be laid together in line with each other and cut diagonally, preferably with non-magnetic scissors or cutters so as to avoid clicks when the tape is played back.



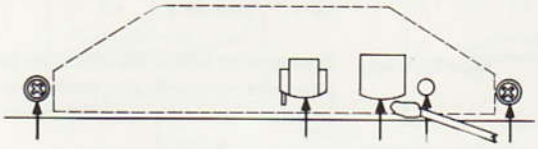
Then position the tape ends so that they only just touch each other. Place the adhesive tape (use only special-purpose splicing tape) on the back (bright side) of the recording tape parallel with the cut and press it carefully into place. Care should be taken in removing any excess of adhesive tape so that the joint will in no place be wider than the recording tape – if anything, it should be a trifle narrower (so that it will clear the tape guides).

Magnetization

You are advised against touching tape heads, tape guides, or components on the tape-head bridge with objects of steel as this may cause the said components to become magnetic, thereby introducing hiss on your recordings. Should this happen after all, you should contact your dealer, who can perform the necessary demagnetization for you.

Cleaning of Tape Heads

The tape heads must be kept free of dust and dirt if maximum recording and playback quality is to be realized. Even small particles of dust can impair the quality of a recording, and if this has happened there is nothing you can do about it. It is therefore necessary to clean the tape heads at regular intervals and in any case always before making recordings of importance.



Cleaning should be carried out with one of the agents which are commercially available for this purpose.

Methylated spirits may contain substances which will attack plastics and rubber and consequently should not be used.

Remove (lift up) the tape-head cover, dip a match with some cotton wool wrapped around it in cleaning liquid and rub it against the fronts of both tape heads.

Do not scratch the fronts of the heads; therefore avoid using hard, sharp objects for cleaning.

The fixed tape guides and the capstan shaft proper should be kept similarly clean.

NOTE: Certain makes of tape are fastened with adhesive tape at one end. Unless this is removed before use, the adhesive will stick to the tape heads and completely ruin recording and playback.

Service

Your BEOCORD 1200 will, apart from cleaning of tape heads, tape guides, and capstan shaft, require no regular overhauls as it has self-lubricating bearings. You are therefore advised against attempting lubrication of any kind; this may cause damage to your BEOCORD 1200.

TECHNICAL DATA

BEOCORD 1200

Type 4207

DIMENSIONS AND WEIGHT

Dimensions: 440 mm wide, 147 mm high, 330 mm deep (17 5/16 X 5 13/16 X 13 in.).

Weight: 11 kg (24.2 lb.) inclusive of dust cover.

POWER SUPPLY

Voltage: 110 - 130 - 220 - 240 volts AC.

Frequency: 50 Hz.

Power Consumption: 20 - 50 watts.

EXTERNAL CONNECTIONS

Inputs:	Microphone:	50 - 200 ohms – 80 μV/1000 Hz. Inputs for two mono microphones or a stereo microphone.
	Radio:	47 k ohms - 4 mV/1000 Hz.
	AUX:	470 k ohms - 80 mV/1000 Hz.
Outputs:	Headphones:	> 100 ohms.
	Radio:	1 volt at 25 k ohms.

TAPE TRANSPORT

Tape Speeds: 9.5 - 19 cm/sec. (3 3/4 - 7 1/2 in./sec.).

Number of Tracks: 4 tracks record and playback.

Reel Size: Max. 18 cm (7 in.).

Playing Times:

Tape speeds	9.5 cm/sec.	19 cm/sec.
360 m (1200 ft)	2 X 60 min.	2 X 30 min.
540 m (1800 ft)	2 X 90 min.	2 X 45 min.
720 m (2400 ft)	2 X 120 min.	2 X 60 min.
1080 m (2600 ft)	2 X 180 min.	2 X 90 min.

For mono, multiply above minute values by four.

Fast Forward and Rewind:	Approx. 200 sec. for LP tape.
Tape Counter:	Pushbutton reset, 4-digit readout.
Wow and Flutter:	19 cm/sec.: ± 0.15 % (DIN 45.500).
	9,5 cm/sec.: ± 2.0 % (DIN 45.500).
Tape Stop:	Photo-electric stop; functions at end of tape and if tape breaks.

AMPLIFIER

Frequency Response:	19 cm/sec.: 20 - 20,000 Hz (DIN 45.500).
	9.5 cm/sec.: 40 - 16,000 Hz (DIN 45.500).
Distortion:	< 5 % over tape with VU meter at 0.
Signal-to-noise Ratio:	65 dB (DIN 45.500, 4 - 2.5)
	50 dB (DIN 45.500, 4 - 2.6).
Crosstalk:	Mono > 65 dB at 1000 Hz.
	Stereo > 45 dB at 1000 Hz.
Erasure:	> 70 dB.
SEMICONDUCTORS	31 transistors and 8 diodes.

ACCESSORIES

Microphone, mono:	Type BM 6 or BEOMIC 1000.
Microphone, stereo:	Type BM 5.
Radio Cable:	Type 0961014.
Floor Stand:	Type 6002.
Boom:	Type 6003.
Tape Recorder Trolley:	Type 4011.

Meets DIN 45.500 requirements with type BASF LP 35 LH tape.

SUBJECT TO CHANGE WITHOUT NOTICE

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