

BINSON

ECHOREC

This booklet will introduce you to the BINSON ECHOREC. The constant research for better « sound » for the vocalist and the orchestra has lead to the production of the Echorec with its fabulous « memory disc ».

Within this booklet you will find a full description with photographs and explanations.

Our long experience over many years has enabled us to produce this unique piece of precision equipment and it is well worth your while to familiarise yourself with its capabilities.

It is made to the highest standards of engineering skill and will give many years of trouble free service.

Please treat it with the respect it deserves.

The « BINSON ECHOREC » Electronic Echo will add Echo, Swell or Reverberation to any signal from a microphone, guitar, disc, radio, etc.

The Echorec will reproduce single or multiple Echoes with Repetition or Reverberation of the original signal, to the operators choice. The effect is to create a new sensational sound, which adds depth and vividness previously obtainable only through special Echo Chambers.

The heart of the Echorec is the « Memory Disc »; a piece of precision engineering, simple in design but of solid construction, durable and stable and capable of trouble free working with the minimum of maintenance.

The recording — equalisation — mixing and super-imposition circuits follow the most modern trends. The motor, which drives the disc is solidly mounted and ventilated by a fan for cool working.

The front panel of plexiglass is illuminated by concealed lighting from the side, with the magic eye and selector switches clearly visible.

A foot pedal is provided and two pedal sockets permit the effects to be controlled either by an instant cut off or by a slow cut off.

The « BINSON ECHOREC » is housed in its own carry case covered with easily cleaned plastic material. It is small in size and weight and easily transportable.

The « BINSON ECHOREC » is available in various models and the following information is applicable to all types. Viewed from the front and with the carry case opened... on the left hand side will be found... The mains sockets... The voltage adjustment panels containing the fuse. For voltages 110-160volts the fuse is 0.7A. For other voltages the fuse is 0.4A. The voltage selector covers a range of 100... 130... 145... 160... 220... 240volts all 50 cycles. Special models are available for 60 cycle supplies. Mounted above the fuse holder on models I and II are the two foot pedal sockets and near the fuse holder will be found the earth socket. The foot pedal sockets on the Baby are mounted on the right hand side.

On all machines the input and output sockets are to be found on the right hand side.

The plexiglass front panel contains the magic eye indicator; the channel selector switches (mark I and II) and the various control knobs.

The metal head cover of the Echorec houses the « Memory Disc » with its plexiglass protective cover. Also to be found beneath the head cover are the spare fuses and the special bottle of cleaning oil.

Do not remove the plexiglass cover except for cleaning the magnetic band. The adjustments of the recording and play-back heads are set to fine limits and should not be disturbed. Cleaning instructions are given later in this booklet. While the equipment is in use the plexiglass cover and metal head cover should be in position on the machine. This is essential to prevent atmospheric dirt and dust interfering with the perfect functioning of the equipment.

While the equipment is in use it is necessary to have sufficient air circulation around the base to prevent overheating.

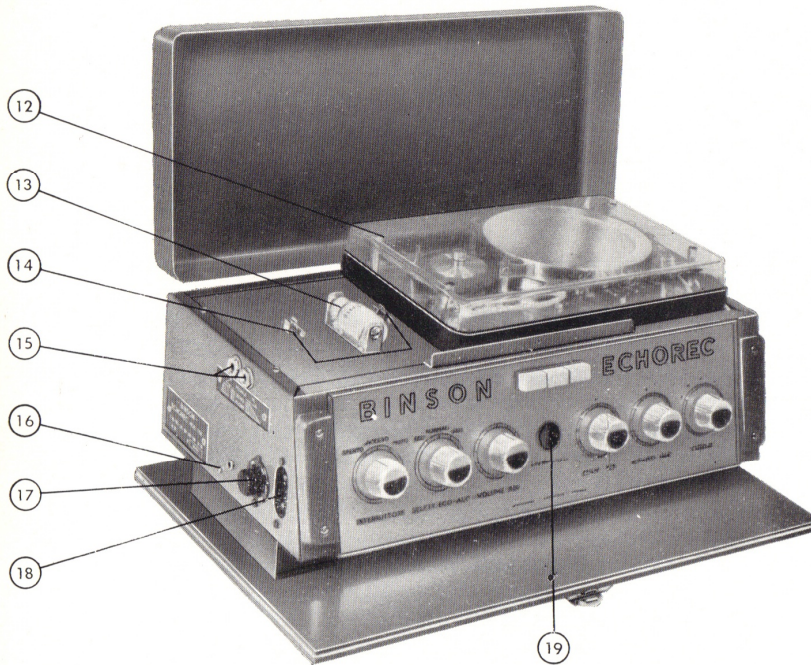
In view of our constant research we reserve the right to modify or alter designs or circuits without notification.

THE TRADE MARK BINSON IS REGISTERED BY s.r.l. C.R.E.B. - MILANO

BINSON ECHOREC I

OPERATING INSTRUCTIONS

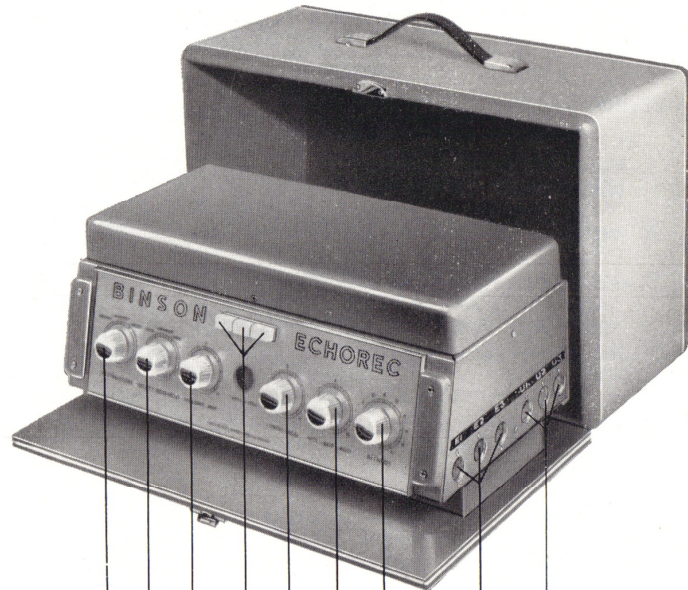
1. Set the Mains Voltage Selector to correspond with your Mains voltage.
2. Insert Mains Lead (32) into mains socket (18).
3. Insert into input socket (27) the microphone or other source of signal. The impedance of the input and output sockets is 47K ohms and the maximum signal to fully load is 10 millivolts.
4. Insert screened cable (33) into output socket (28) and connect to amplifier having suitable impedance 47K ohms.
5. Press selector button corresponding to input and output channel required. i. e. press button 1 for channels 1 and press button 2 for channels 2.
6. Switch on (20) and move switch to « Motor ». The panel will now light up and the disc rotate. After 1 minute the « Magic Eye » (19) will glow green.
7. Adjust volume control (22) until the segments of the Magic eye (19) move in sympathy with the signal. Do not let the moving segments of the eye overlap.



- 12 Plexiglass cover
- 13 BINSON oil
- 14 BINSON fuse
- 15 Foot pedal

- 16 Earth
- 17 Mains voltage selector
- 18 Mains socket
- 19 Magic Eye

8. Rotate the knobs (24) and (25) to position 6. Rotate selector switch (26) to position 4 and select knob 21 «Swell». Any signal now fed into 1-2-3 will appear at output 1-2-3 with Swell added and in descending volume. This signal can now be varied by adjustments (24) (25) (26).
9. Move knob (21) to position «Echo» and selector switch to positions 1-4 according to choice. This will give repeats of a single «Echo» varying in time delay. Positions 5...12 on the selector switch will give combinations of multiple Echoes.
10. Careful selection of knobs (24) (25) (26) will give a wide and varied selection of effects.
11. With knob (21) set at «Normal» the signal will pass through the Echorec and emerge without «Echo» or «Swell» being added.
12. Should the Echorec not be required during a performance; release channel selector buttons, switch (20) to «Off». The signal will now pass straight in and straight out.



- 20 Off-amp-motor Switch
- 21 Echo-Normal-Swell switch
- 22 Volume control
- 23 Channel Selector
- 24 Swell control

- 25 Echo vol. control
- 26 Delay selector
- 27 Input sockets
- 28 Output sockets

BINSON ECHOREC II

OPERATING INSTRUCTIONS

1. Set the Mains Voltage Selector to correspond with your Mains voltage.
2. Insert Mains Lead (32) into socket (18)
3. Insert into input socket (27) the microphone or other source of signal. The impedance of the input and output sockets is 47kohms and the maximum signal to fully load is 10 millivolts.
4. Insert screened cable (33) into output socket (28) and connect to amplifier having suitable 47kohms impedance.
5. Press selector button (23) corresponding to input and output channel required, i. e. press button 1 for channels 1 and press button 2 for channels 2.
6. Switch on (20) and check that the panel is illuminated and the disc rotating by indications in the « Magic Eye » (19).
7. Rotate the input control (20) and adjust until the segments of the Magic eye move in sympathy with the incoming signal. Do not let the segments of the magic eye overlap.
8. Rotate knobs (21) and (22) to position 6. Rotate selector switch (26) to position 4. Move Echo-Repeat-Swell selector (25) to « REV ». Any signal now fed into input sockets (27) will appear at the output sockets (28) with reverberation added and in descending volume. Timing of the reverberation can be made by adjusting knob (21). Volume can be adjusted by knob (22). Other effects can be obtained by setting knob 26.
9. Set selector (25) to « Echo ». Set knob (26) for single « Echo » repeats to positions 1-4 and from 5-12 for multiple « Echo » repeats.
10. Set selector (25) to « Swell ». This gives an effect of « Cathedral tone » if (21) is set about point 6 and (26) between 1-4.
11. The tone control (24) should be adjusted for either voice or instrument reproduction.
12. By adjustments to (21), (22), (25) and (26) a wide variety of sounds and effects can be obtained.
13. If the selector buttons (23) are NOT depressed the signal will pass through without the addition of echo-reverberation or swell.



- 12 Plexiglass cover
- 13 Binson oil
- 14 Fuse
- 15 Foot pedal
- 16 Earth
- 17 Mains volt selector
- 18 Mains socket
- 19 Magic eye
- 20 On-off and input control

} as in Echorec I

- 21 Length of swell
- 22 Vol. control - Echo-Repeat-Swell
- 23 Channel selector
- 24 Tone control
- 25 Echo-Repeat-Swell selector
- 26 Delay selector
- 27 Input sockets
- 28 Output sockets

} as Echorec I

Cleaning the Drive Mechanism

The illustration — fig. 1 — shows the method of driving the Memory Disc. For perfect operation all parts must be perfectly clean and free from grease. A little grease remover on a soft rag used as illustrated is sufficient to ensure the driving wheels do not slip. Any tendency for slip between the motor pulley and the idler wheel or between the Idler wheel and the Memory disc will cause a rise and fall in the « Pitch » of the Echo.

INSTRUCTIONS

The following parts must be kept clean. Motor spindle (4). Idler wheel (3). Rim of the Disc (6). Slightly moisten a piece of soft material (7) with pure C.T.C. or grease remover and bring it into light contact with the lower rim of the disc which should be revolving. Clean motor spindle and idler wheel with a piece of dry rag. Use only light pressure during any of these operations.

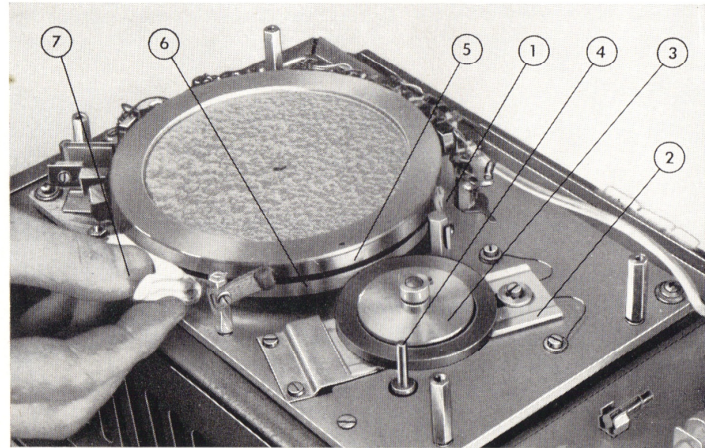


Fig. 1

- 1 Cleaning brush
- 2 Idler pulley mounting
- 3 Idler wheel
- 4 Motor spindle
- 5 Recording surface
- 6 Drive surface
- 7 Cleaning cloth

Cleaning the Magnetic Band

The illustration — Fig. 2 — shows the best method of cleaning the Magnetic band. This operation is necessary to keep the Magnetic band **perfectly** clean. For cleaning use a piece of soft material moistened with special Binson oil.

INSTRUCTIONS

1. Switch on the Echorec so that the memory disc is revolving. Bring the moistened rag into light contact with the Magnetic band 5.
2. Repeat the process for about 1 minute or until all the dirt is removed from the band.
3. During cleaning do not interfere with the settings of the heads placed around the periphery of the disc.

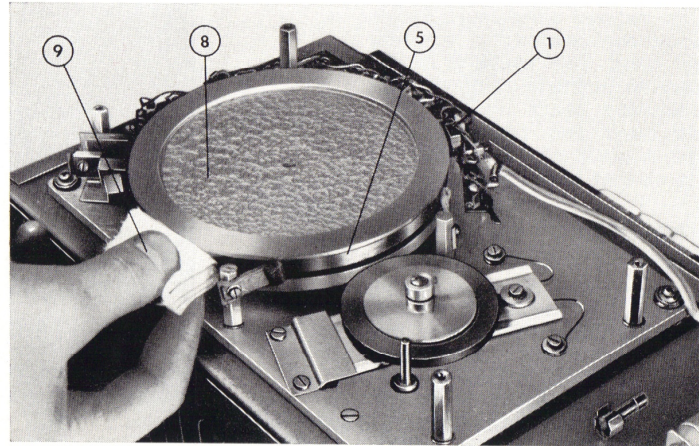


Fig. 2

- 1 Cleaning brush
- 5 Recording surface
- 8 Disc
- 9 Soft cloth

Cleaning the Record, Playback and Erase Heads

The illustration fig. 3. shows the best way to remove any dirt or foreign material which may gather between the heads and the magnetic band. This cleaning is necessary to maintain close contact between the heads and the Magnetic band and prevent signal losses. A piece of strong thin paper is all that is required.

INSTRUCTIONS

1. Whilst the disc is rotating pass a thin piece of clean paper between the heads (10) and the magnetic band (5). Move the paper horizontally and vertically so as to release any foreign matter and brush or blow away any such dirt released.
2. Repeat the operation until all the heads have received attention.
3. Be sure **not** to displace the heads during the cleaning process.
4. After the cleaning operation has been completed the following

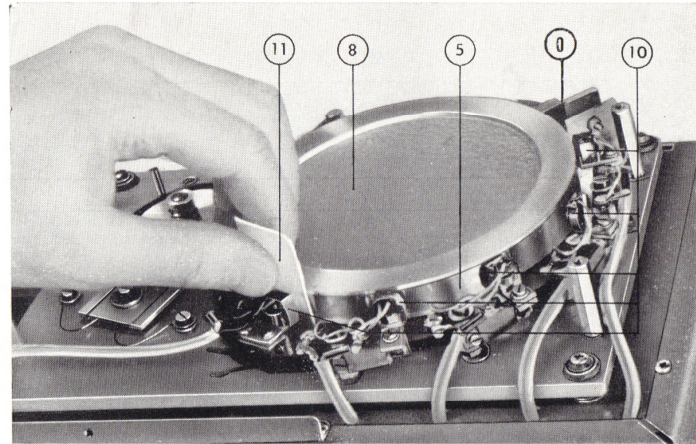


Fig. 3

0 Erase Head (magnets)
5 Recording surface
8 Disc

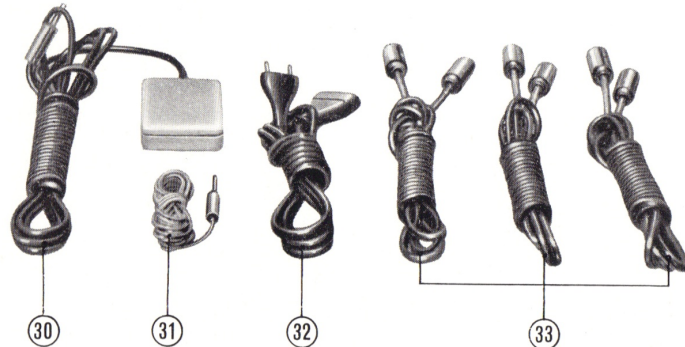
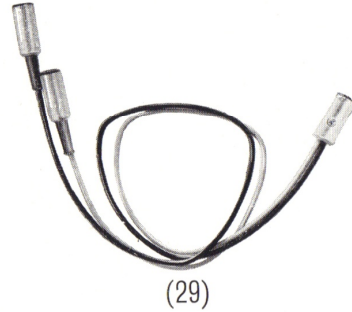
10 Record and play-back heads
11 Strong thin paper

check should be carried out. Set up the Echorec and connect to Amplifier and Speaker. Disconnect microphone or other input signal. Set control to Swell or Repetition. Set Length of Swell control to 8 or

9. If the cleaning process has been carried out effectively, the Echorec will generate self oscillations in increasing volume. If this self oscillation does not occur repeat the cleaning process to the disc and heads.

ACCESSORIES FOR YOUR ECHOREC

- 29 Screened cable for use with modified assembly
- 30 Foot pedal
- 31 Earth Lead
- 32 Mains Lead
- 33 Screened cable for normal use



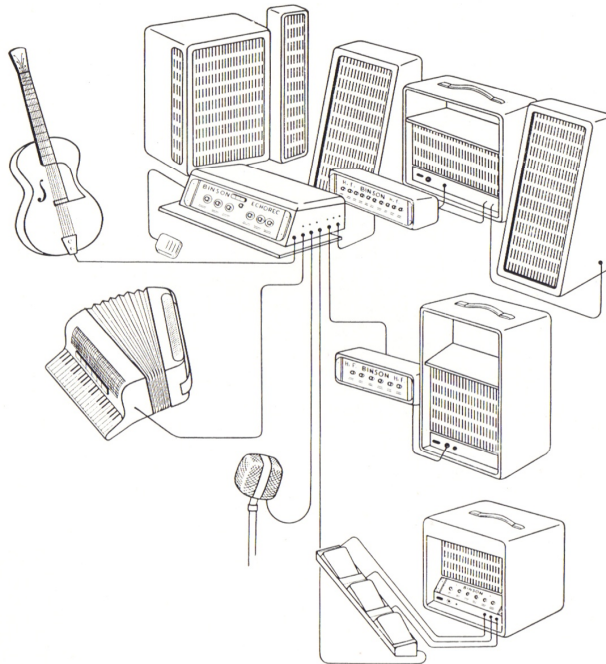


Illustration showing the BINSON ECHOREC used in a full orchestral assembly.

The name of BINSON is accepted throughout the world as a standard by which other are judged.

We also make Amplifiers — Mixer units — Sound columns. The telemicro is unique in its class.

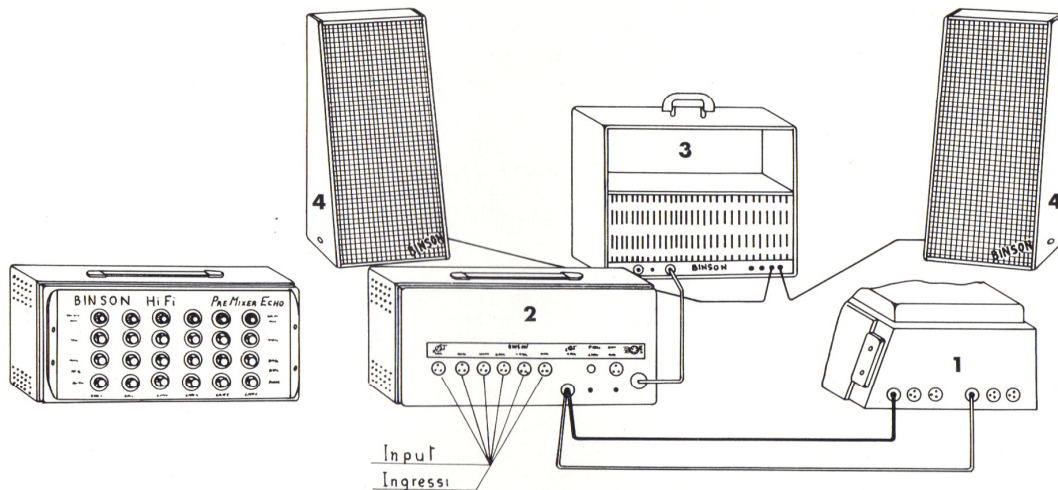


Illustration showing the Echorec used with special Binson equipment.

- 1 Binson Echorec
- 2 Binson Hi-Fi Preamplifier — Mixer for use with the Echorec so that « ECHO » and other « EFFECTS » are available to all 6 channels. Echo control to each channel.
- 3 Hi-Fi Utra-Linear main Amplifier.
- 4 Sound columns incorporating cross-over networks for reproduction of Hi-Fi with perfect tonal balance.

For the past 20 years S.r.l. **C.R.E.B. Costruzioni Radio Elettroniche Bini** Milano, have been manufacturing BINSON equipment for the vocalist, soloist and instrumentalist.

This specialised experience and technical knowledge is a guarantee of perfection in all our products.

You are now the proud owner of a BINSON ECHOREC. The name BINSON is famous throughout the world as a hallmark of technical perfection.

Your BINSON ECHOREC ranks among the most versatile equipment of its kind. Easy and pleasant to handle, it is equipped with all the latest technical perfections.

But before getting to work with your BINSON ECHOREC and whenever you have any doubts consult this instruction manual carefully. This will serve you as an aid to better reproduction.

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throughout Great
Britain and
the British Commonwealth



MODERN ELECTRICS

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The name of BINSON is accepted throughout the world as a standard by which others are judged.

We also make Amplifiers — Mixer units — Sound columns. The Telemicro is unique in its class.

Our demonstration rooms are always available if you can visit our premises. If you cannot visit us you can shop by post knowing full well that the equipment is of the highest repute.

« Better than the best is BINSON »