

HANDCRAFTED IN DENMARK BY T-REX EFFECTS



CONGRATULATIONS on your purchase of the Binson Echorec by T-Rex Effects Denmark.

This booklet will introduce you to the **BINSON ECHOREC**. Our constant search for better tone and overall sound for the guitarist, and other musicians, has led us to the reinvention of the Binson Echorec. With its revolving drum at the center of its core, it creates a unique and highly familiar signature sound.

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

Our extended research over many years has enabled us to once again produce this outstanding piece of precision equipment, and it is well worth your while to familiarize yourself with its capabilities.

This latest version of the Binson Echorec is made to the highest standards of engineering skills and audio quality. It will give you many years of trouble-free service.

Please treat it with the respect it deserves!

The Binson Echorec will add Echo or Swell to any instrument, vocal or audio signal in general passed through it.

The Echorec is capable of single or multiple repeats or reverberation of the original signal as you choose. This effect is to create a new sensational sound, while adding depth and vividness previously only obtainable through large Echo Chambers and of course the original Echorec.

The heart of the Echorec is the Revolving Drum, a piece of precision engineering, simple in design and of solid construction, durable and stable, and capable of years of trouble-free performance with minimum maintenance.



FORNT PANEL CONTROLS

Echo Volume

Controls the amount of echo signal from the revolving drum that is blended in with the direct clean or dry signal.

As a starting point, we recommend a setting of 12 O'clock, then adjusting the sound to achieve more or less Echo effect.

The more this control is dialed to the max (clockwise), the more noise will occur from the revolving drum, this is a part of the charm and sound.

Selector switch for

Record Head 1, short delay, which is the exact position on the drum of the original unit.

Record Head 2, long delay, located three times the distance of record head 1.

Drum Speed

This control determines the rotation speed of the revolving drum. In the middle position, the drum rotates at a speed of 32 meters per minute, as the original Binson Echorec.

The rotation speed can be reduced -20% or increased +20%. Low speed gives you a boost in the low-frequency area, while high speed gives you a brighter sound.

This also allows you to make crazy effects by dialing the speed back and forth.

Furthermore, this function can be controlled by an Expression pedal.

Please note that the weight of the drum will cause a ramp up/down in speed when dialing the control!

The Record Head 1 (short) and Playback heads have the same spacing as the original Binson Echorec, and you can obtain the same delay time, despite the smaller diameter of the drum.

Record Level

This controls the level into both recording heads 1 and 2. Depending on how strong the incoming signal is, the recording heads can be driven into saturation when this control is turned up. The Magic Eye allows you to visualise the input signal strength and the more the two parts meet, the more the signal saturation.

Higher settings will make the repeats more compressed, overdriven, and fuzzy, with added harmonic content.

Note! Although the Binson Echorec can handle very high input signals, the recording head will saturate sooner based on how high the input signal is. If the optimal blend of dry/effect-signal cannot be obtained, turn down the input signal to the unit.

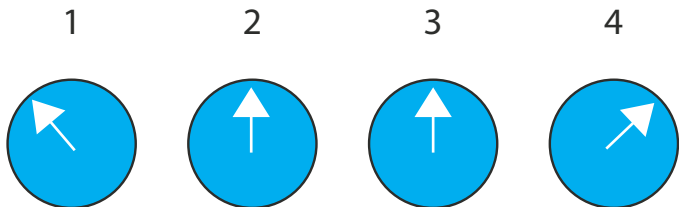
Tip! To obtain the best signal/noise ratio, turn up the record level and turn down the Echo volume.

Selectors for Playback 1 to 4

To switch on the four Playback Heads. The volume of each head can be adjusted from the rear panel (see Rear panel connection).

The volume of the heads are pre-adjusted from the factory.

Playback Level



Delay Time

Record head 1 - SHORT			
	Delay min.	Delay 12 o'clock	Delay max.
Playback head 1	46mS	61mS	87mS
Playback head 2	93mS	122mS	173mS
Playback head 3	139mS	182mS	260mS
Playback head 4	185mS	243mS	347mS

Record head 2 - LONG			
	Delay min.	Delay 12 o'clock	Delay max.
Playback head 1	144mS	190mS	270mS
Playback head 2	190mS	250mS	358mS
Playback head 3	236mS	310mS	443mS
Playback head 4	283mS	370mS	531mS

Repeat

Controls the number of repeats. The number of repeats depends on the revolving drum speed!

Selector switch for Repeat or Swell

In the Repeat position, the unit works like a regular echo unit with an adjustable number of repeats determined by the Repeat control. When selecting one or more of the Playback heads, the level will change, and therefore the Repeat control must be adjusted.

Swell is like a semi-reverb, where all four Playback heads are engaged.

If all four Playback heads are switched off, the swells come without Repeats.

The Swell works independently of the selectors, Playback 1 to 4!

Tip! You can switch on Head 1 to 4 to experiment with different repeats on the Swells.

Echo Tone

The Tone control is an adjustable roll-off of the hi-frequencies.

Tip! With a faster revolving drum speed, the higher frequencies will be much more pronounced. You can dial the Tone Control CCW (counter clockwise) to roll them off.

Bypass Control light and switch

You will see a green light when switching on the unit.

If you hold down the Bypass switch for over 2 seconds, the drum will stop turning in Bypass mode.

REAR PANEL

Input - Jack input from an instrument, Effects pedals or Line signal.

Balanced input - XLR input.

Output - Jack output to amplifier etc.

Balanced Output - XLR Output.

Power In

24 Volt DC - 300 mA. Use the original Binson Echorec Power supply!

The power supply comes with four different switch blades, USA, Europe, Australia, and the UK.

EXP. Pedal, speed control

For players who want to use an Expression pedal to control the speed of the revolving drum. +/- 20%.

Bypass

External Bypass control on/off. Use a momentary switch to control the bypass.

Playback Level

Access to Playback Level adjustments, 1 to 4. Use a flat tipped mini screwdriver.

MAINTENANCE

This is a mechanical unit, as such you can expect minor knocks and the occasional sound of the revolving drum. This is normal. If the mechanical noise increases or becomes consistent it is an indication that the unit needs to be cleaned.

The Binson Echorec's moving parts and the Magnetic heads WILL need a bit of cleaning occasionally. If the unit is used regularly, the various parts will need cleaning more often.

We have added a small toolbox with the original Binson Oil, a small flat-tipped screwdriver and cloth.

Cleaning the drum and magnetic heads

Turn off the unit and remove the cover.

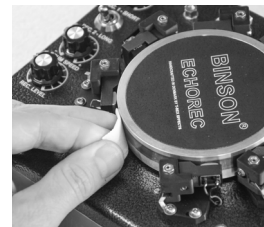
Pic 1 - Use a lint-free cloth dipped in Isopropanol alcohol (wipe off any excess liquid on a piece of tissue paper) and carefully clean the drum; the access point is between Record heads 1 and 2. Turn the drum CCW by putting your finger on top of the drum; if necessary, repeat the procedure until the cloth no longer has residue on them.

Pic 2 - Now clean the magnetic heads by placing a piece of paper between the heads and the drum. Gently pull out the brackets holding the heads and place the paper while repeatedly turning the drum.

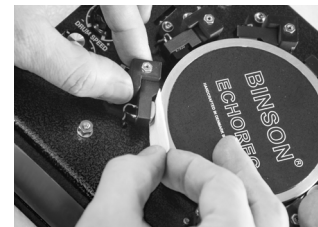
Lubricate the drum

Switch on the unit and adjust it to the lowest speed.

Pic 3 - Now use a lint-free cloth dipped in original Binson Oil (wipe off any excess liquid on a piece of tissue paper) and carefully lubricate the drum; the access point is between Record heads 1 and 2.



Pic. 1 Cleaning the drum



Pic. 2 Cleaning magnetic heads



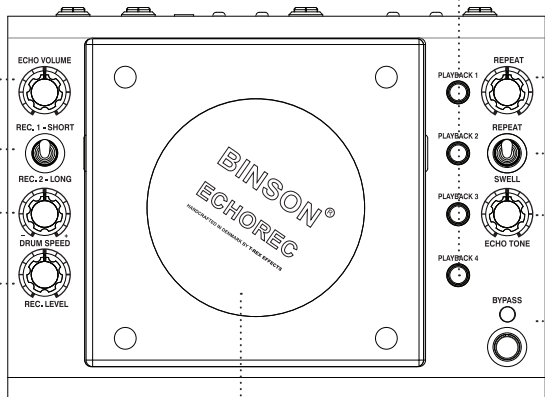
Pic. 3 Lubricate the drum

ECHO VOLUME
Controls the amount of echo signal from the drum that is blended in with the direct clean or dry signal.

REC. 1 - SHORT
REC. 2 - LONG
Selector for short or long delay.

DRUM SPEED
Controls the rotation speed of the drum.

REC. LEVEL
Controls the level into both recording heads 1 and 2.



DRUM
Revolving drum storing the audio signal.

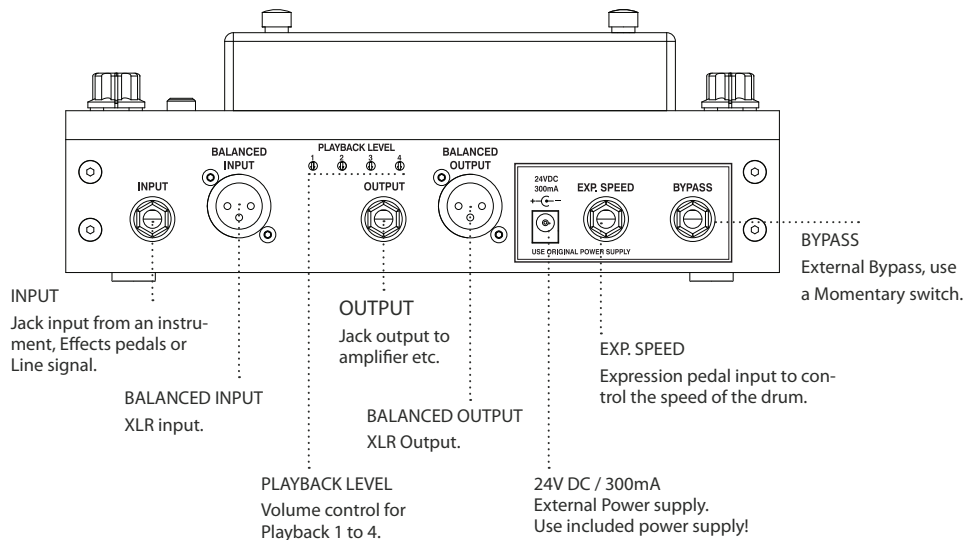
PLAYBACK 1, 2, 3, 4
Selectors for Playback 1 to 4

REPEAT
Controls the adjustable number of repeats.

REPEAT/SWELL
Selector for Repeat or Swell (semi reverb)

ECHO TONE
Roll-off of the hi-frequencies

BYPASS, ON/OFF
Bypasses the effect signal.



INPUT
Jack input from an instrument, Effects pedals or Line signal.

BALANCED INPUT
XLR input.

OUTPUT
Jack output to amplifier etc.

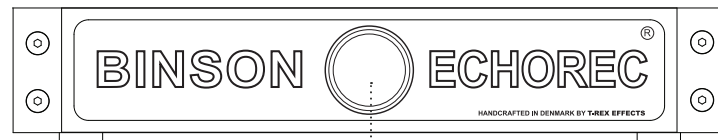
BALANCED OUTPUT
XLR Output.

PLAYBACK LEVEL
Volume control for Playback 1 to 4.

EXP. SPEED
Expression pedal input to control the speed of the drum.

24V DC / 300mA
External Power supply.
Use included power supply!

BYPASS
External Bypass, use a Momentary switch.



MAGIC EYE
The Magic Eye visualize the input signal strength.

TECHNICAL SPECS

Input impedance @ 1KHz	500K Ohm
Output impedance @ 1KHz	1K Ohm
Power supply	24V DC, centre negative, 2.0mm centre pin
Current draw @ 24V DC	300mA
Maximum input signal	Adjustable
External connectors	Input, Output, DC inlet
Controls	Echo Volume, Switch for Record Head 1-Record Head 2, Drum Speed, Record Level, Playback Heads 1 to 4, Repeat, Switch for Repeats and Swell, Echo Tone, Bypass Switch and Indicator
Pedal size incl. knobs (WxHxD)	100 x 250 x 190 mm / 3,94 x 9,84 x 7,48 in
Weight excl. packaging	2,6 kg / 57,32 lb

T-REX WARRANTY CONDITIONS

T-Rex offers a 2-year warranty on all our products. In the unlikely event of a malfunction, please get in touch with our technical support at service@t-rex-effects.com before sending us the product for repair. Read more about warranty conditions at www.t-rex-effects.com/service

Any modification of the construction will void the warranty!

Any unauthorized repair, change or modification will void the warranty!

It is essential never to modify the heads. They are positioned at the workshop/factory and then sealed.

Lesson learned from the days of the original Binson Echorec

99 out of 100 non-correctly working Echorecs could have operated better if the owner had not messed around with heads.

ABOUT T-REX

Founded in 1995, and based in Vejle, Denmark, T-Rex Effects makes classic and signature effects pedals for the world's best musicians. Our approach blends hi-tech innovation with old fashion craftsmanship – always in the service of killer tone.

EU REGULATIONS • ENVIRONMENT PROTECTION

T-Rex accepts and follows the regulations and directives issued by the EU. We find these environment protecting regulations very good, and we are happy to follow them.



Made by T-REX Denmark, 2023



Lars Dahl-Jørgensen
Founder



Sebastian Jensen
Founder



Lars Dahl-Jørgensen
& Sebastian Jensen
Founder & Owner of
T-Rex Effects - Denmark



www.t-rex-effects.com