

SURFY•INDUSTRIES

SURFY BEAR REVERB STUDIO EDITION



USER'S MANUAL

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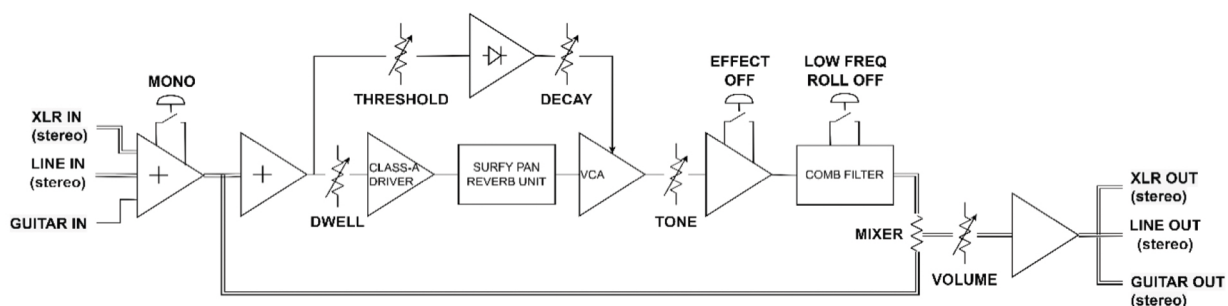
USER'S MANUAL

INTRODUCTION

Spring reverb technology has been well known for more than 50 years. One of the first reverb units available for electric guitars was the Fender® 6G15® standalone reverb, which has set the standard for generations of musicians. Still today, the unique sound of real spring reverbs is very popular among musicians all over the world.

Spring reverb has an extremely unique sound, making it perfect for all kinds of effects. There are tons of software versions out there, but the original spring reverbs are hardware! By feeding a sound through metal springs, it creates the illusion of reverb. The result is a metallic, otherworldly unique sound, making it perfect for all kinds of effects.

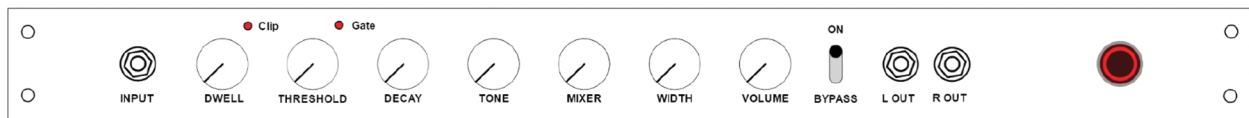
We are proud to present the *SURFYBEAR STUDIO*, the latest in our line of analog reverb units. We have used all our knowledge and the valuable feedback from our customers to build a state of the art *100% analog* reverb unit, versatile enough to be used in a wide range of applications, directly connected to audio sources and in effect loops. Using a full size Accutronics® reverb pan and our groundbreaking Class-A JFET/MOSFET technology, we stay true to the vintage tone of the 60s.



INSTALLATION

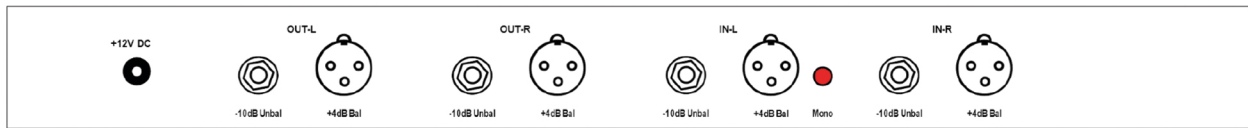
- The *SURFYBEAR STUDIO* requires one 19" rack unit.
- It can either be directly connected to an audio source or in effect loops.
- Since the reverb transducers are sensitive to electromagnetic interference, we recommend keeping a distance from known interference sources like power supplies and high voltage equipment. *SURFYBEAR STUDIO* is using an external 12V power supply in order to minimize the risk for interference.
- Avoid locations where the unit is exposed to externally generated vibrations.

FRONT PANEL



INPUT	Guitar input -20 dBv (mono).
DWELL	Used for adjusting the level of the signal sent to the transducer of the reverb pan. When the reverb driver is overloaded, the Clip-LED will be lit. For optimal signal-to-noise ratio, the Clip-LED may flash occasionally.
THRESHOLD	<p>Sets the trig level of the soft-knee gate-circuit, adjustable from $-\infty$ to $+\infty$.</p> <p>The Gate-LED indicates when the gate is open. The gate circuit is used for controlling the decay of the reverb tail. If you set the THRESHOLD too low, the gate will stay open continuously. If you set the THRESHOLD too high it will not open the gate accurately.</p> <p>The gate can be disabled by setting the THRESHOLD control to 0.</p>
DECAY	<p>Sets the decay time of the reverb tail, from 100ms to 2s.</p> <p>The decay time is also indicated with Gate-LED.</p>
TONE	Controls the tone of the wet signal coming from the reverb pan.
MIXER	<p>Mixes the dry signal with the wet signal.</p> <p>The Mixer goes from 100% dry to 100% wet.</p>
WIDTH	<p>Adds an analog pseudo-Stereo Effect to the wet signal only.</p> <p>Stereo reverb effects can be created from both stereo and mono input signals. Read more below about the Pseudo Stereo Effects.</p> <p>For mono output operation, make sure to set WIDTH to 0.</p>
VOLUME	<p>Sets the output volume. Unity gain is at 6.</p> <p>Increase volume with caution to avoid distortion on the XLR outputs.</p>
EFFECT ON/OFF	Disables the wet signal coming from the reverb springs.
L IN / R OUT	Guitar output -20 dBv (stereo/mono).
POWER	<p>The power switch turns the unit on and off.</p> <p>The built-in pilot lamp indicates the supply voltage.</p> <p>The unit has a built-in power on delay to minimize pops and clicks.</p>

BACK PANEL



IN-L / IN-R	Line level input jacks for unbalanced TR plug. XLR inputs jacks carry balanced audio signals.
Mono	When enabled (pressed in) the IN-L jacks are used as a mono input for both left and right channels. This makes it possible to create stereo reverb effects from a mono signal source.
OUT-L / OUT-R	Line level output jacks for unbalanced TR plug. XLR outputs jacks carry balanced audio signals. Electronically balanced output stage (no transformer).
+12V DC	Supply voltage: 12V DC 1A - Polarity: Center Positive.

GATE / DECAY FEATURE

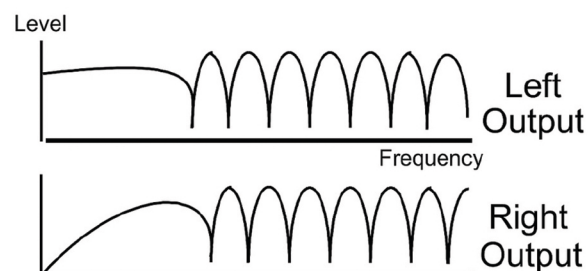
Spring Reverbs have fixed decay time determined by physical constraints. However, the SURFYBEAR STUDIO is using a studio grade, soft-knee Gate circuit to shape the decay tail by adjusting the Threshold and Decay controls.

Since the Gate needs to sense the Threshold level this type of Decay control works best for single instrument material.

The Gate/Decay feature can easily be disabled by setting Threshold in 0 position.

PSEUDO STEREO EFFECT

A simulated stereo effect is generated using analog complementary comb filters. This unique implementation makes it possible to simulate the mixture of direct and reflected sound waves in a room in a very realistic way.



This effect ONLY affects the wet sound and is set using the WIDTH control.
The stereo effect is 100% analog and safe to mix back into mono, no side effects.

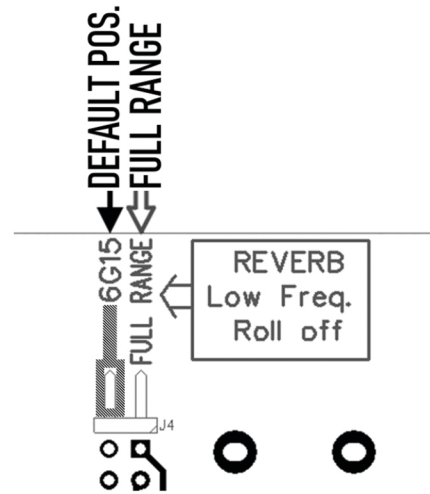
6G15 vs FULL RANGE - LOW FREQ ROLLOFF

The Fender 6G15 is famous for its characteristic bright, drippy sound. The frequency response of the wet signal path is the key for recreating this traditional sound.

The SURFYBEAR STUDIO is based on the same circuits, including the Class A driver and the frequency response of the recovery stage. The result is a sound very similar to the originals.

For making the SURFYBEAR STUDIO even more versatile it is possible to reconfigure the frequency response of the wet signal path. This might be of interest for some users desiring to create special effects.

With a jumper inside the enclosure, it is possible to select 6G15 mode (default) or FULL RANGE mode:



LIFETIME WARRANTY POLICY

This Surf Industries product comes with 3 months full warranty on the whole unit for proprietary and non-proprietary parts (including reverb pans), covering any defects the unit may have.

Surf Industries offers a lifetime warranty on Surf Industries proprietary parts only, beginning upon registration from the web site (this specifically does not include the reverb pan and power supply). The registration for the lifetime warranty must occur within the first 90 days from the purchase date.

The lifetime warranty will cover any defects the unit may have, but Surf Industries reserves the right to inspect any unit before approving a free repair or replacement. The customer will be responsible for all shipping costs to and from Surf Industries for inspection/repair.

The Surf Industries lifetime warranty is not incompatible with any custom warranty offered by any third-party dealer/store. If a different warranty is offered by a dealer/store, this warranty will override or apply in conjunction with the warranty policy of Surf Industries.

Regarding any technical assistance post-sale, the customer can feel free to contact Surf Industries, but they will also be forwarded to the dealer/origin of purchase for possible replacement, refund and/or compatibility with the subscribed warranty policy.

Register here: www.surfindustries.com

REVERB PAN	
Accutronics (custom)	Type: <i>SURFYPAN</i> Surfy Industries custom specifications for decay and materials.
LEVEL	
Max. input level XLR back	+ 14 dBu
Max. output level XLR back	+ 14 dBu
IMPEDANCE	
Input impedance TS front	1 M Ω
Input impedance TS back	10 k Ω
Input impedance XLR back	40 k Ω
Output impedance	< 600 Ω
SIGNAL-TO-NOISE	
Direct	~80dB
Effect	~70dB
Effect with Gate	~80dB
VOLTAGE AND CURRENT DRAW	
Supply Voltage	12V DC (center positive)
Current draw	700mA
DIMENSIONS AND WEIGHT	
Dimensions	19", 1 HE, depth about 25cm (from rear front panel)
Weight	3 kg

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