LEVIATHAN PREAMP

V1.0
April 2025

FIRST USAGE ……..pg 3
INTRODUCTION……..pg 5
LOGIC SCHEMATIC……pg 7
CONTROLS LAYOUT……...pg 8
CONNECTIONS ……pg 11
FOOTSWITCHES ……...pg 11
VOID X APP ……..pg 13
MIDI ……pg 21
LEVELS ……pg 22
F.A.Q. ……....pg 23

FIRST USAGE

Leviathan Preamp operates on 12V DC, negative center, requiring a minimum of 2A. It features an internal voltage boost to over 250V DC. For the best and safest experience, we highly recommend using the included power supply.

Important Note: The provided power supply includes a comprehensive power cord with an earth pin. To ensure safety and minimize noise, we strongly advise using only a properly grounded power supply.

Quick Starting Guide:

To check your **Leviathan Preamp**, you can connect it to:

• A **power amplifier** (or the **return stage** of a guitar amp).

• A **mixer** or **audio interface**.

Connection Overview:

• **INPUT Jack** → Connect your guitar here.

• **DIR OUT (Direct Out)** → Sends the **raw preamp signal**, completely **analog and unbalanced**, with **no DSP processing applied**. Ideal for connecting to a **power amp**.

• **LEFT OUT / RIGHT OUT** → DSP-processed **balanced outputs** via **TRS connectors**, perfect for **mixers or audio interfaces**.

DO NOT OPEN THE PREAMP FOR ANY REASON

Leviathan Preamplifier operates at potentially hazardous voltage. If the pedal is not functioning properly or if you have any concerns, please contact RedSeven Amplification directly.

⚠ **WARNING:** Do not attempt to open or inspect the unit. Tampering with the device could result in serious harm to people, animals, or property.

TECHINCAL PARAMETERS

Dimensions: 165 x 140 x 80mm / 6.5 x 5.5 x 3.1 inches
Weight: 1Kg / 2.2lb
Power supply: 12VDC – negative center @ 2A. Power supply is included.

INTRODUCTION

What Leviathan Preamp is?

The Leviathan Preamp is a revamped and modernized version of the original Leviathan Preamp pedal, which was first introduced in 2019 as a limited run of just 10 units worldwide. Originally, it was designed as a 1:1 port of the preamp section from our renowned Leviathan amplifier—a dual-channel, mid-to-high-gain tube amp powered by four KT88 tubes. With its integrated effects loop and dual-channel selection, the original Leviathan Preamp quickly gained a reputation for exceptional tone, leading to high demand from customers over the past five years. Now, in 2025, we've reintroduced it as a catalog product, featuring countless new upgrades and a much more compact design—delivering the same legendary tone in a smaller, more versatile package.

THE CONCEPT

At RedSeven Amplification, we are dedicated to crafting high-end, premium-quality gear for the modern guitarist. With this in mind, we set out to create a one-of-a-kind preamp pedal that combines exceptional tone with cutting-edge features. By honoring our legacy while embracing the future, we took on a major challenge—delivering what we believe is one of the best tube-based preamplifiers available today.

Key Features:

• Authentic Tube Tone – Both channels are based on our best-selling Leviathan amp, utilizing 2x 12AX7 tubes for rich, dynamic sound.

• High-Voltage Operation – The entire preamp runs at 250+ VDC, ensuring the correct power for the tubes. This results in a true amp-like playing experience with the best possible tone.

• Advanced Technology Integration – We've adapted the cutting-edge tech from our Amp Central Evo.

• Stereo IRs

• Stereo FX loop

• Per-channel storable noise gate

• Stereo Widening effect.

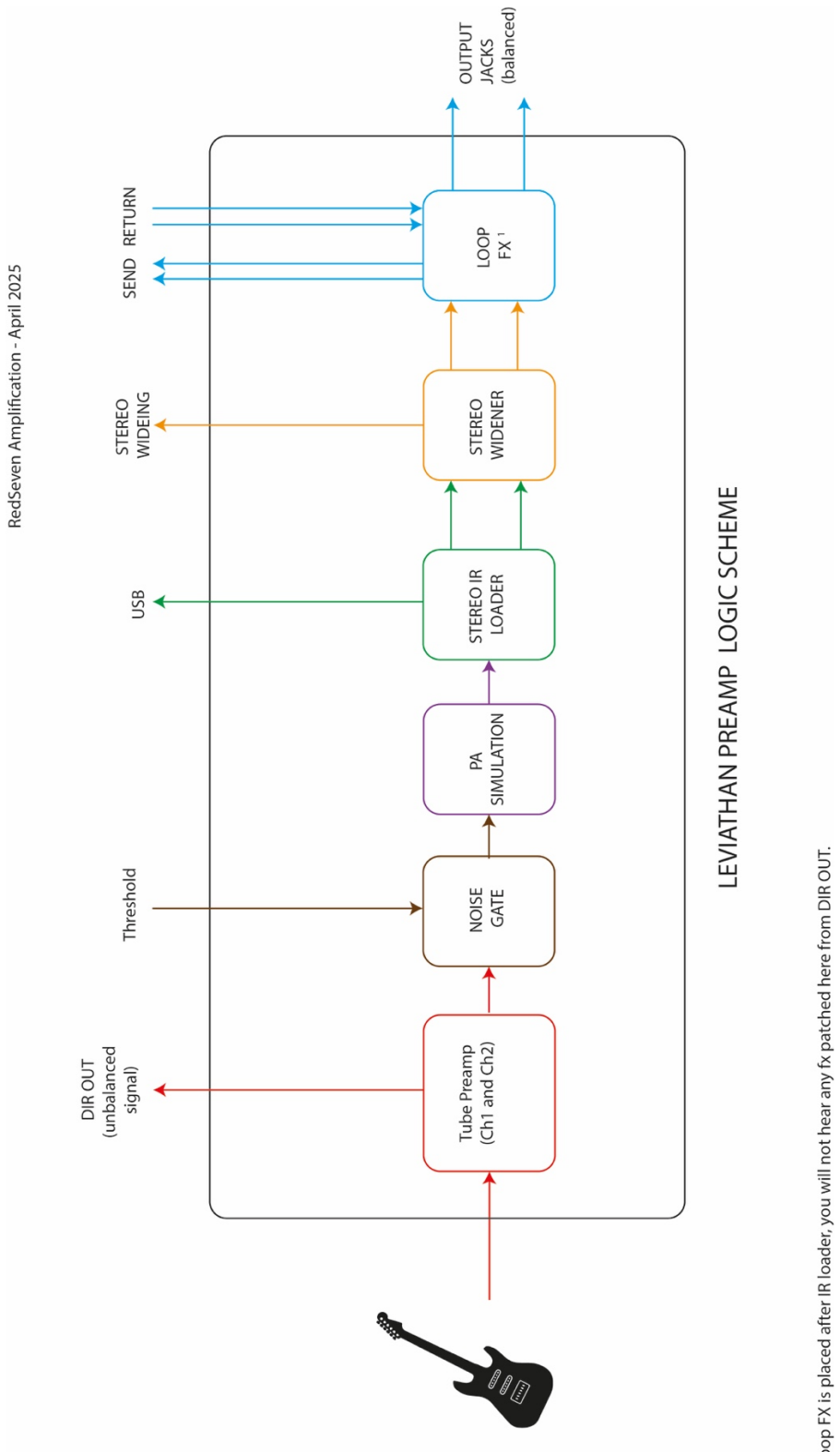
• Mono/Stereo operation.

• Direct output.

• Ultra-Low Noise Performance – Designed for clean, noiseless operation.

• Compact & Pedalboard-Friendly – A small footprint without sacrificing features or sound quality.

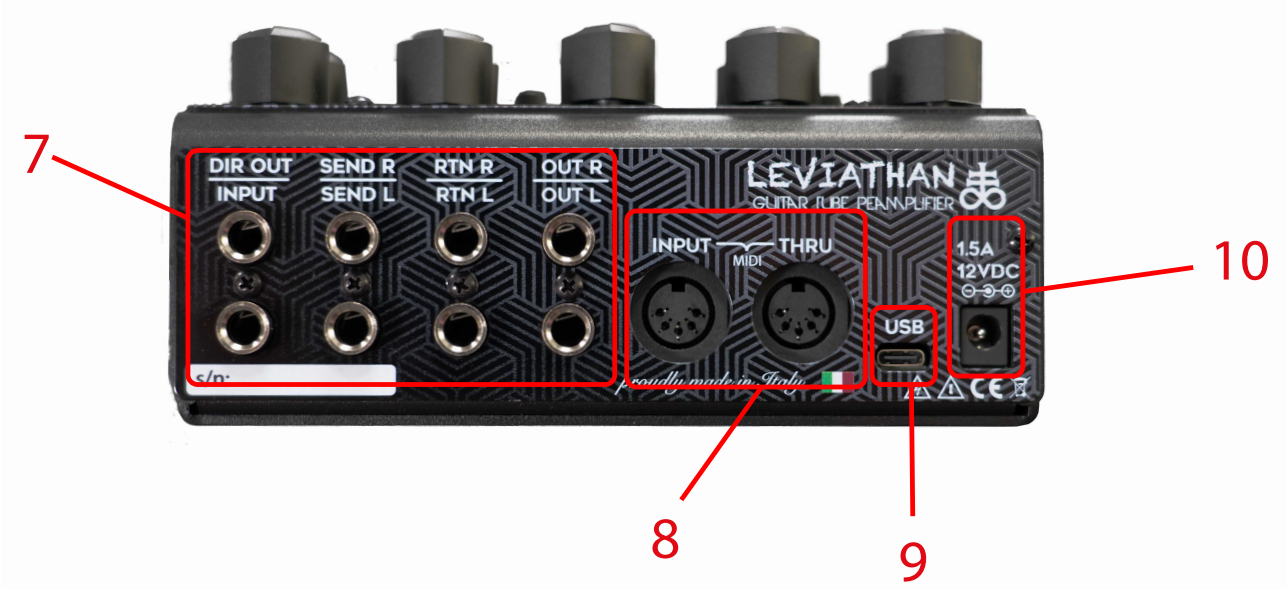
LOGIC SCHEMATIC



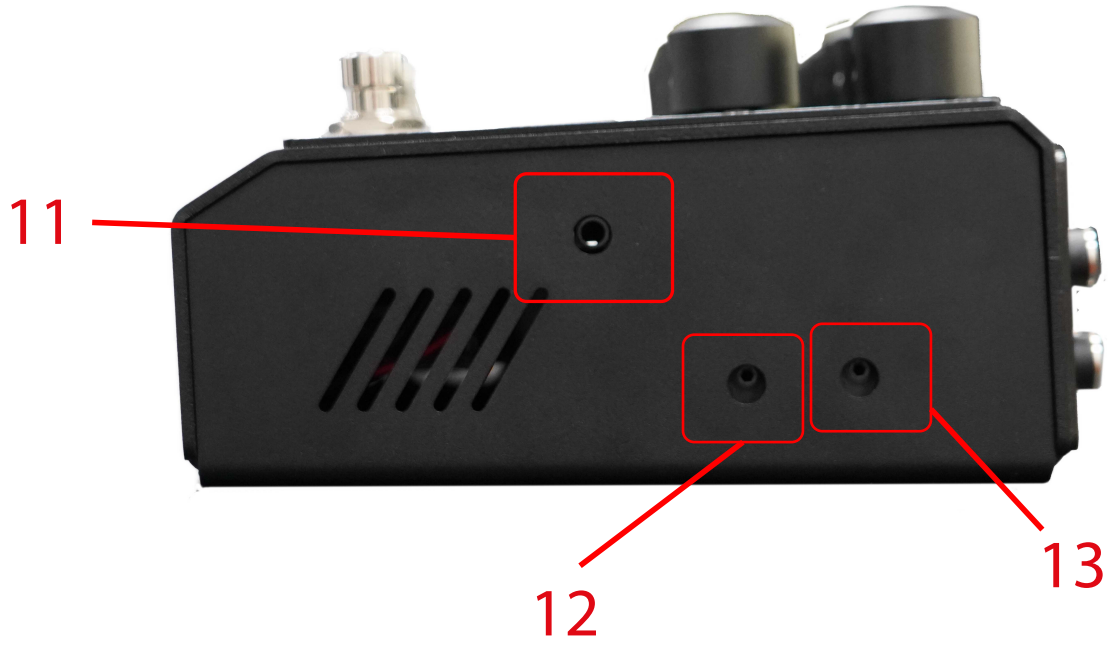
[1] Loop FX is placed after IR loader, you will not hear any fx patched here from DIR OUT.

CONTROLS

1. Control knobs for CH1 (left to right): volume, treble, middle, bass and gain;
2. Control knobs for CH2 (left to right): volume, treble, middle, bass and gain;
3. Footswitches to select channel I or II and boost section on/off;
4. SOLO levels for channel 1 and channel 2;
5. Preset button and corresponding leds;
6. Gate on/off button and threshold quick level;



7. Audio jacks with input, direct output, stereo sends and returns and balanced outputs connections;
8. MIDI input and thru connectors;
9. USB C port;
10. Power supply input;



11. 3,5mm heaphones input jack;
12. Gain trim for boost section (we highly suggest to use a flat screw driver for adjust it);
13. Tone trim for boost section (we highly suggest to use a flat screw driver for adjust it).

CONNECTIONS

INPUT and OUTPUTS SECTIONS

INPUT jack is where you want your guitar to be plugged in.
You have two set of outputs, which needs to be used for different applications:

- DIR OUT (DIRECT OUPUT): this output is the analog output of the preamplifier. No AD/DA process is applied here. If you have a power amplifier, an amp return stage, an effect or you want to go direct into a sound card, you definitely want to take your signal from here. It's a mono *unbalanced* signal.

- LEFT AND RIGHT OUTPUTS: these outputs have all the digital processing (power amplifier simulation, noise gate, stereo widening, stereo loop fx and stereo IR) applied. They are *balanced* (via a TRS jack) and ready to hit your mixer, audio interface or PA.

FOOTSWITCHES

CHANNEL I and II

Leviathan Preamp has two independant channels called "I" and "II". They are voiced after our flagship Leviathan amplifier with some small adjustments to fit the size of the box.
Each channel has a dedicated control row with same potentiometers: Volume, Treble, Middle, Bass and Gain
You can select which channel you want to engage with respective footswitch, labeled as "***Channel I***" and "***Channel II***".

Channel I varies from a very light crunch to mid-high gain content. Harmonically rich but not too over saturated.
Channel II start where channel I ends but with its own voicing. Here you can find modern and saturated tones.

MUTE FOOTSWITCH (hidden feature on CH I footswitch)

By keep pressing CH I footswitch for at least two seconds, you will activate a global mute (all three footswitch's leds will blink), to allow you to turn on a virtual "standby switch". It can be handy any time you need to disconnect jack cable from your guitar.

To turn off hidden mute function it's sufficient to press anyone of three footswitches.

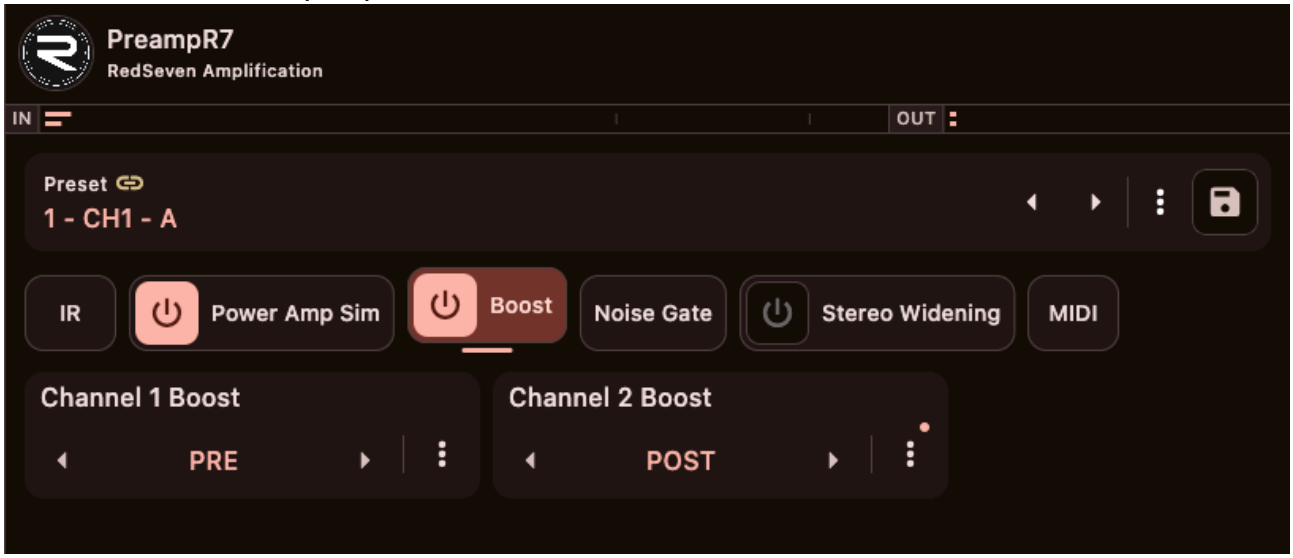
BOOST

Boost footswitch allow you to activate two boosts at same time:

- ***PRE BOOST*****:** gain boost, will work for both channels;
- ***POST BOOST:*** you have a SOLO level for each channel.

PRE BOOST controls are on the right side of the pedal, and they allow you to adjust the overall GAIN and TONE of ***PRE BOOST***. Remember, this controls will apply to both channels.
POST BOOST can be fine tuned per channel. When activated, SOLO BOOST already bump the signal by 2dB by default even with SOLO LEVEL at zero.

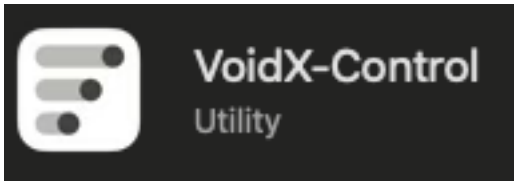
You can preset if *Boost footswitch* is acting like ***PRE or SOLO*** boost or even ***PRE and SOLO*** at the same time by Void X-control app (following). This option will apply GLOBALLY, and not per preset.



BOOST TO FOLLOW CHANNEL

There's one more special hidden feature regarding boost footswitch and it's the ability to store it status within selected channel.
To store a status (both on or off) within selected channel, you need to first press let's say CH I and for example turn on the boost. From now, you keep pressing boost footswitch until it blink couple times. From now on, each time you return on CH I, boost will always on. You can do the opposite (always off) and of course the same con CH II.

VOIDX APP



To edit Leviathan Preamp presets is mandatory to download “VoidX-Control” app, it’s available for both Win and MacOS from respective app store and it’s totally free.

To connect Leviathan Preamp to your computer, you need an USB cable. Leviathan Preamp has an USB C port close to power input.

Once you connected Leviathan Preamp to your computer, power it on with included power supply. Only now, opened the app, on left column *after few seconds* a new device will be found under the name “Leviathan Preamp”, and all you can need is to click on it. The main menu will open automatically.

If no Leviathan Preamp will shown on left column of the app, please make sure to:

- Using a data USB cable (there’re many who can only charge devices and not to transmit data);
- Avoid all USB converters (C to A, C to B, etc). 99% they simply don’t work.
- Inside VoidX app, on lower right side, there’s a “refresh” button to start a new search, press it and wait 10 seconds.
- Check if USB cable is correctly pressed in on both preamp and computer sides;
- Close and reopen the app and wait up to 5 seconds;

If the issue still there, especially on MacOs platform, we highly suggest to download these USB drivers, sometimes could be missing, depending on your OSX version. While installing, make sure to give them all the permit they ask for, otherwise Leviathan Preamp still not recognizable. Once installed, restart the app.

USB DRIVER FOR MAC OSX AND WINDOWS (click on this link)

PRESET SECTION

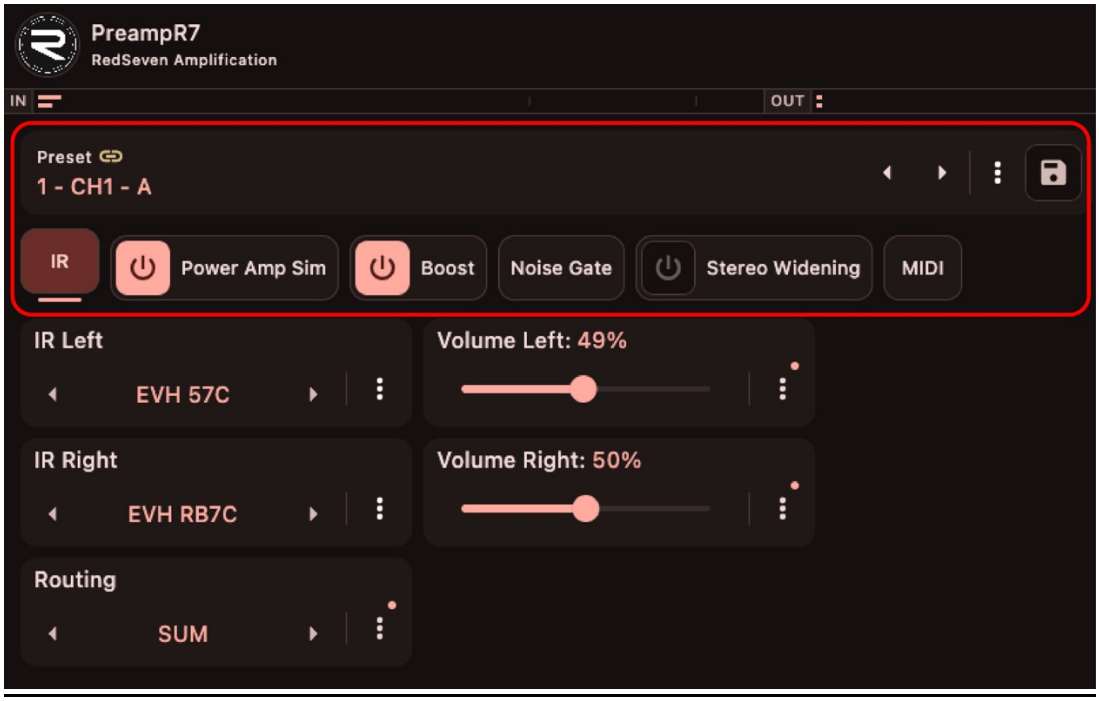
Leviathan Preamp can store up to 3 preset per channel (total of 6), and they can be recalled via MIDI PC (see MIDI chapter).
Preset list are available on Void X-control app, they can be managed only thru the app.

What can be saved within a preset?

- Stereo IR (one mono IR for left and one mono IR for right) and their volume;
- Stereo or Sum mode;
- Noise gate parameters;
- Power amp simulation type;
- Stereo widening;

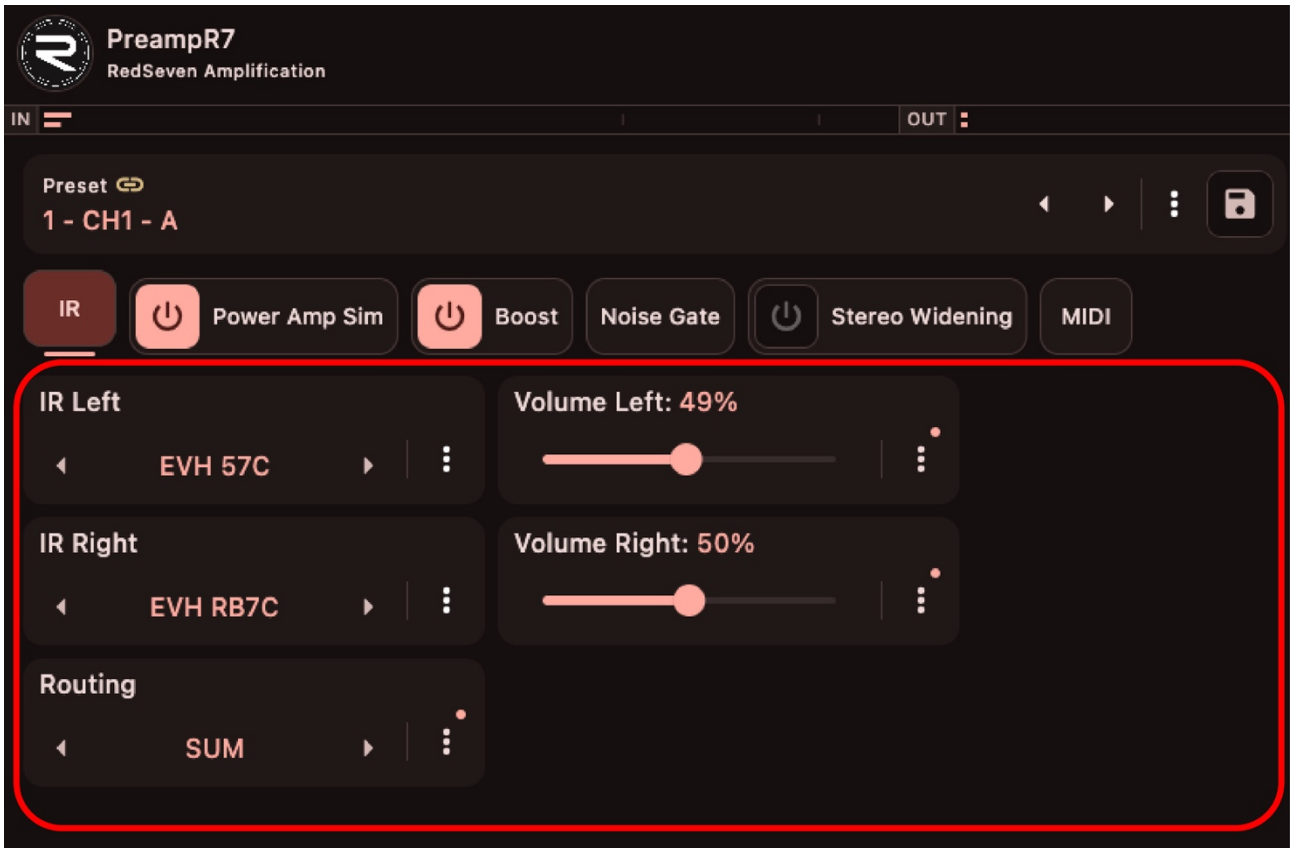
What can’t be saved within a preset?

- Potentiometers levels (all of them).
- Boost type (pre, post, pre and post). This is a global feature.



IMPULSE RESPONSE SECTION

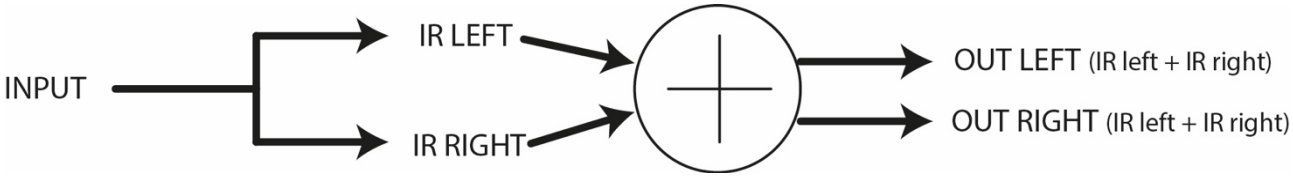
Leviathan Preamp is able to only read ".**WAV", MONO, 24bit, 48kHz** type I.R.'s.
Please, before writing us or ask about the matter, be sure to check your IR 100% respect specified requests.
Any other attempt to load I.R.'s with different features than this, will simply not be recognized and sound will not be processed.
New DSP's generation is able to read up to 500ms IR and cut them at proper length, automatically.



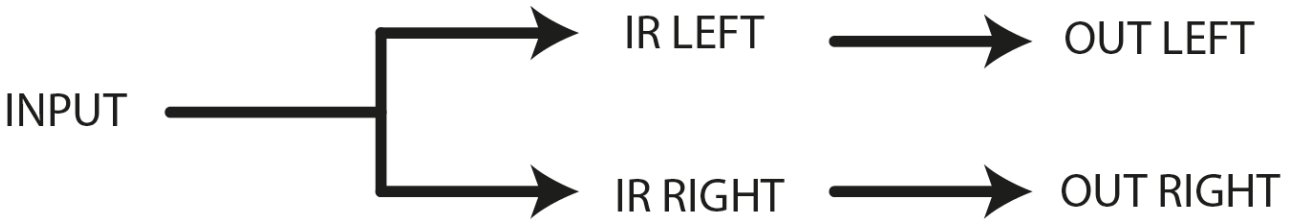
ROUTING MODES

Leviathan Preamp can operate in two different modes, called *SUM* and *STEREO*.

Summed mode (SUM)
This mode is thought for mono operation. Each output will process both LEFT and RIGHT IR at same time.



Stereo mode (STEREO)
This mode will process LEFT IR only into LEFT output, same as for RIGHT IR into RIGHT output.
If you're planning to use stereo effects and to keep your stereo image intact, this is the mode you're looking for.



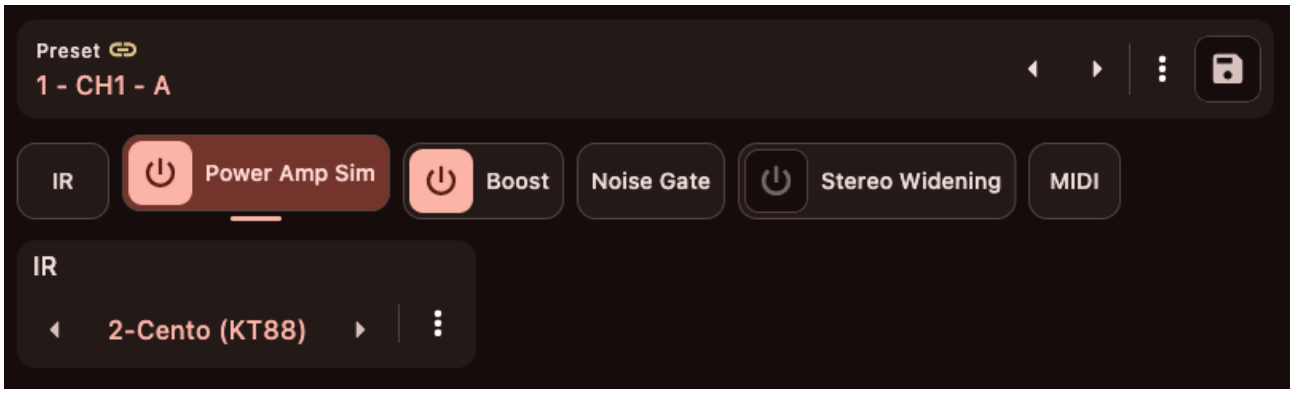
POWER AMP SIMULATION

Leviathan Preamp is able to offer eight superb power amp simulations. Power amp section is, along the preamp, makes what we usually call a “guitar amplifier”.
The preamp section itself could technically be processed thru an IR and resulting in a good overall sounding thing, but in the real world you can’t connect a preamplifier alone into a guitar cabinet.
As amplifier builders we 100% know this, and to achieve an optimal result we sample our own amp’s power amplifiers.
Final result is almost unbelievable. The mix of a real tube preamp section with digital power amp and cabs gives you the ultimate tone, in portable format!

Eight P.A. simulations are present in Leviathan Preamp and they sampled after real RedSeven Amplification amplifier models, including some rarities.

Following list will help you to understand each model:

MODEL NAME	BASED ON	TUBES
D100	RedSeven Duality100	EL34
D100RS	RedSeven Duality100RS	6L6
LEVIATHAN	RedSeven Leviathan	KT88
2-CENTO	RedSeven 4U rack power amp	KT88
KALI’	RedSeven Kalì	EL84
HYBRID100	RedSeven Leviathan	KT88
PLEXI 50	Marshall 1968 Super Lead 50W	EL34
PLEXI 100	Marshall 1968 Super Lead 100W	EL34



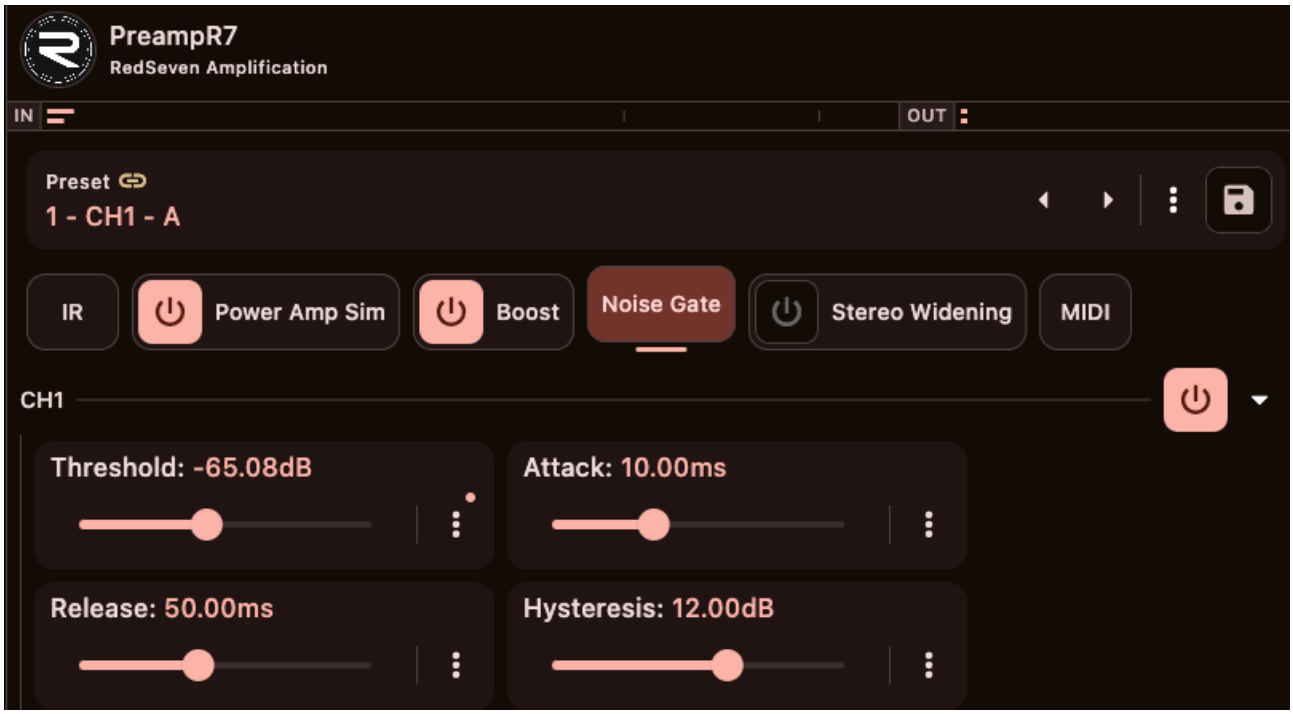
ADVANCED NOISE GATE (side-chained to input jack)

Please note noise gate is side-chained to input jack (like using the four cable methods in a traditional pedalboard/amp setup). What does this means?
Conventional noise gating based the detection point on actual noise floor, making the closing/opening operation not very chained to the actual dynamics of your playing.
In Leviathan Preamp, the trigger point is at the input jack, meaning the gate "reads" in real time your playing dynamics, resulting in a far superior tracking and way more natural effect without the issue of odd gating artifacts.

Threshold control with quick on/off switch is present on top panel for quick adjustments.
We added this feature to keep you covered from different environments you could find along your way. A noisy sound stage along with some unwanted flickering of an old lamp entering the house power system, for example.
It's a very simple but functional add on.
You can store 4 noise gating presets, which correspond to 4 gain stages available: CH1, CH1+BOOST, CH2 and CH2+BOOST

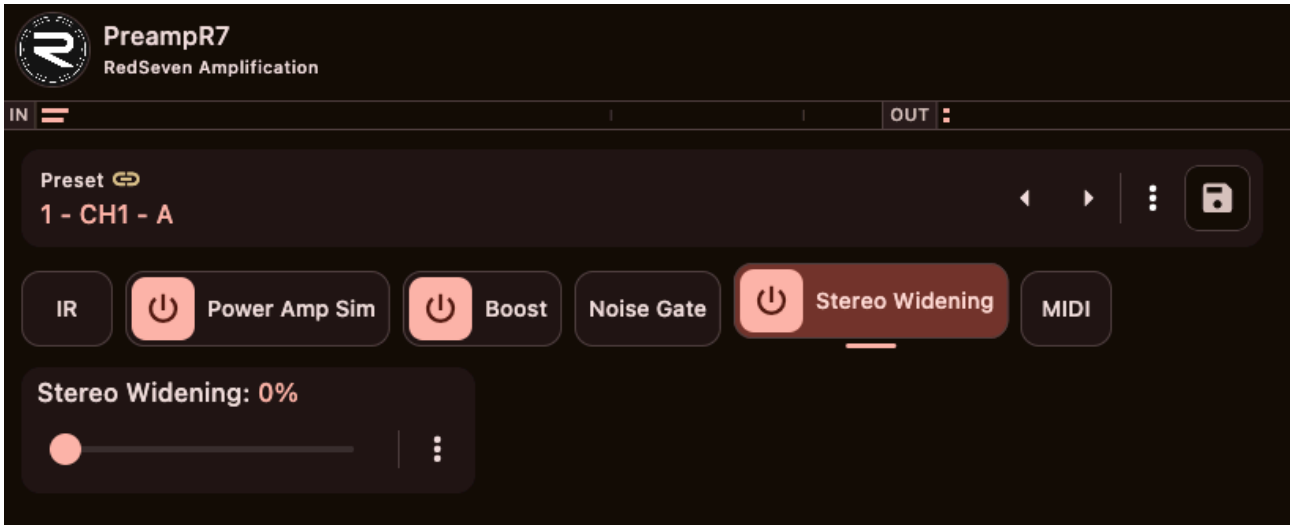
Integrated noise gate parameters are:

- ON / BYPASS status: turn on or off the gate circuit;
- Threshold: level (dB) above that audio is allow to pass thru, below is muted.
- Attack: time (ms) between the first portion of the audio signal and gate effect.
- Release: decay time (ms) of gate effect.
- Hysteris: (dB) or better know as knee, in more specific terms how hard the gate circuit is closing.


PreampR7
RedSeven Amplification
IN
OUT
Preset
1 - CH1 - A
IR
Power Amp Sim
Boost
Noise Gate
Stereo Widening
MIDI
CH1
Threshold: -65.08dB
Attack: 10.00ms
Release: 50.00ms
Hysteresis: 12.00dB

STEREO WIDENING

Stereo widening is a cool and handy feature to have at your disposal. By introducing a micro delay on one side of stereo output it results in a wider stereo field, almost like having two guitars played at the same time.
It's a very simple and straight forward effect with one single parameter you can push from 0 (off) up to 100% (max).
Try to use it when the mix is super crowded, it will push the guitar a bit more off on the sides, granted more presence without increasing the volume.



HEADPHONES

Headphone jack is placed on the right side of Leviathan Preamp. Output level for headphones are channels' "LEVEL" knobs as along the overall preset volume, and it can be modified from the app.

If you have something plugged into FX LOOP, you will appreciate those effects thru headphones too.

LOOP FX

An effects loop is usually placed between your amp's preamp and power amp and it's the place where you want to insert your time-based effects.

We decided to place a stereo FX LOOP inside Leviathan Preamp to allow you to insert your favorite stereo effects.
Fx loop is placed between IR LOADER section and Leviathan preamp main outputs.

To the most experts out there and according to us also, this is the best place to insert your effects, especially time based one. Why?
If you think to any given guitar amplifier with a standard fx loop between pre and power amp and a standard guitar cabinet, your time based effects are heavily band passed and equalized by guitar speakers themselves, who are notorious to be way far from flat, in terms of frequencies spectrum.
By placing those time based effects AFTER speakers (in this case after I.R.), they will processed a full 48Khz audio signal, which is qualitatively way superior from a normal guitar speaker frequencies response.
Results are a more natural sound to your ear, an overall more 3D sounding environment, especially if listened in stereo. It's something comparable to adding a post fader delay while mixing a track in a professional studio.
This is the next step in listening your effects. Stereo is the way to go.

***NOTE**: FX LOOP is full stereo. Please be sure to take advantage of full stereo operation if you're using a stereo fx and "STEREO" routing option.*
***NOTE:** if you're using a mono fx (example: a mono delay), you can arbitrarily use just left send and return and consequently left output. Make also sure to select "SUM" routing option if you want to hear both IR on a single output.*

MIDI

Leviathan Preamp has a MIDI IN and MIDI THRU port, to remotely select any of 6 available presets.
By opening the app you can find "MIDI" tab. By entering MIDI menu, you can choose any midi channel from 1 thru 16.

Presets can be recalled by Program Changes (PC). PC numbers are arbitrary and they can be assigned from preset list.

LEVELS

- **DIR OUT (Direct Out):** direct output levels are simply each channel's VOLUME or SOLO level (if boost is active)
- **Main outs:** they can be modified by each channel's VOLUME or SOLO levels (if boost is active) AND from IR level, available from the app.
- **FX sends** they can be modified by each channel's VOLUME or SOLO level (if boost is active) AND from IR level, available from the app. You need to be very careful using regular guitar pedals with fx loop.
  Some of them could have enough headroom to process this signal, other could not.
  If some unpleasant distortion is perceived when using fx loop, we suggest to lower presets volume and/or channel VOLUME and SOLO (if active) level down to the point where you cannot experience that distortion anymore.
  You need to compensate it with your mic preamp gain after Leviathan Preamp outputs.

F.A.Q.

WILL INTEGRATED NOISE GATE WORKS ON DIRECT OUT TOO?

No, direct output is right after tubes preamp section and it's not processed by internal AD/DA, so all the digital processing is not happening on direct output.

HOW DO I CONNECT MY LEVIATHAN TO MY PC/MAC TO UPLOAD IR?

You need to download "VoidX-Control" app from your app store of choice (either MAC OS or WIN). There's a dedicated chapter on this manual for it.

WHY AMP LEVIATHAN PREAMP IS NOT TURNING ON?

Be sure to power it with supplied power supply (12VDC / 2A minumum – negative center only) or a fully compatible substitute.

WHY AMP LEVIATHAN PREAMP IS NOT MAKING ANY SOUND?

According to selected channel, you have both gain and volume controls, be sure they are not set to zero.
If you're using stereo output please connect it to Void-X app and make sure preset level you're in (from IR tab) are not set to zero.
Last but not least, please check if the noise gate is active and check threshold level.

For any problem you can contact our support at:info@redseven-amplification.com
We will reply to you as soon as possible.

WARRANTY DESCLAMER

Please, do not try to open this device, in any case. For any problem contact your seller or write to us. Any inexpert person should not even think of doing anything inside of this unit. RedSeven Amplification offer a standard two year not transferable warranty for any component (except to wear subjects).
By removing top piece or by making any modification to original state, you will violate the standard warranty and RedSeven Amplification will not be responsible for any damage to people, things or animals.

Revision 1.0
April 2025

RELEASE NOTE
1.0 manual release