

REDSEVEN
AMPLIFICATION

LEVIATHAN



model: L120
User Manual

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INTRODUCTION

Leviathan is a two channel modern hi-gain style guitar amplifier. Thought of as the ultimate tone weapon, featuring a rich crunchy crisp sound and a tridimensional multi stage hi-gain overdriven channel. Full MIDI implementation (CC and PC), double master volume and with a serial high voltage buffered effects loop it makes Leviathan your life as guitarist easier than ever before.

Additional information and audio/video demos can be found at www.redseven-amplification.com or you can contact us any time at info@redseven-amplification.com

POWER SUPPLY

Leviathan is shipped with hardwired primary voltage. 240V, 230V or 115V must be chosen at order time.

NOTE: IMPORTANT...NOT TO DO!

- Do not try to change output jacks (impedance) while the amplifier is turned on. You must turn STANDBY and POWER switches to OFF position before changing the output impedance.
- Do not try to change input/output levels of you devices plugged into the fx loop while the amplifier is on. You must turn STANDBY and POWER switches to OFF position before changing input/output levels of your gear plugged into the fx loop or at least disconnect the cables from SEND and RETURN jacks.

THIS OPERATION CAN LEAD TO A FINAL BREAK DOWN OF THIS AMPLIFIER. IN THESE PARTICULAR CASES, REDSEVEN AMPLIFICATION WILL NO BE

RESPONSIBLE FOR ANY DAMAGES TO THE AMPLIFIER ITSELF OR PEOPLE. PLEASE KEEP IN MIND THAT YOU ARE HANDLING A DEVICE WITH POTENTIALLY LETHAL VOLTAGE. PLEASE CAREFULLY READ THIS MANUAL BEFORE TURNING THE AMPLIFIER ON.

REDSEVEN AMPLIFICATION ARE NOT RESPONABLE FOR ANY PARTS SUBJECT TO WEAR (LIKE TUBES, POTS, CAPACITORS, ETC).

WARNING!!

This amplifier uses potential lethal voltage, it must be used only by expert people!

WARNING!!

Before insert power cord inside Leviathan, check the voltage plate under IEC socket and be sure to match wall voltage of your country.

By developing this amplifier we had few main visions in our minds:

1 – THE AMPLIFIER MUST SOUND GOOD IN A MUSICAL CONTEXT AND NOT IN YOUR BEDROOM EXCLUSIVELY.

This can be hard to understand for some people, but in every step of our developing process we have recorded it through a professional studio recording system, ensuring that useless frequencies which can fight with bass guitar, synths or maybe cymbals in a live/recording environment are gone. A huge quantity of useless gain can be a bad thing too and we have taken care of this too!

2 – ALL THE DISTORTION CIRCUITS ARE 100% TUBE BASED, NO DIODE CLIPPING HERE.

For this project we have focused on dynamics. We found out by having too much gain and compression (like for example achieving this with diodes or LEDs) is totally useless for this purpose. We're not judging anyone here, we only want to explain the idea we had regarding this particular amplifier. This time we try to reach the maximum gain possible on CH2, by keeping perfect separation between strings, even in some crazy drop tuning. You will find an amp that talk best with your pick control and your volume control, capable of obtaining a multitude of sounds, even on one channel only. Dynamics and control are everything for us.

3 – MIDS IS EVERYTHING.

The mid frequencies is where your guitar amplifier lives. This mean you need good mids and the right frequencies to pop out of the mix without having any volume problem. We have changed quite a bit how the usual mid control works in almost every guitar amplifier. By doing this we have developed a very sensitive mid control on the distorted channel, making sure that you have a very special and musical way to express those delicate frequencies. We believe in mids, do not underestimate this frequency range, we're serious about this!

SOUND DESCRIPTION

L120 was born from the demand of our clients to achieve the most brutal hi-gain sound we can obtain from an amplifier, with our twists on top of that. This became a two channel amplifier without any clean channel, the perfect hard rock/heavy metal machine.

We are proud to say that this is 100% not a clone of anything. You will not find any ingredients from any other builders inside. Like it or not. Here is a resume of the sonic features of this particular amplifier:

- *CH1*: this channel was made from scratch. We have two faces here, a “normal mode” which is the nearest sound to a clean amplifier, but you will not have that crystal clear tone. This is not a bad thing at all, because here you will find some excellent blues tones using both single coil and humbucker pickups. Something probably not expected from an amp like this. “Hot mode” is where the fun begins. Hot rodded tones, with an amazing extraordinary variety of sounds. Equalization is way more effective than your in your typical standard guitar amplifier, with mid controls you can achieve everything from a scooped metal sound to a vintage style hard rock sound. Quite a lot gain is available here, perfect for solo parts indeed.

- *CH2*: the most brutal hi-gain sound available from our catalog. This is something almost insane for our standard but at the end of the day, lots of music genres use this quantity of saturation. The eq section is something you’ll probably never heard before: forget about those harsh highs, scooped mids and farty basses that a lot of extreme amps have. Here we have something like aggressive highs, a sweepable mid, capable of some really unique heavy metal tones along with some incredibly mid boosted hard rock tones, always with really tight bass frequencies. To be honest this is probably not the most high gain amp ever, there’s a few amplifiers in the market who run higher gain, but with all probability this is the one that will make you cut thru the mix every single time and with any eq position. The extraordinary achievement here is in fact the separation between strings even with the gain at 10 on CH2. For this particular model we have also added a global depth control on the back, along with the classic presence control. The Depth control helps you to define the right amount of the bass frequencies in the power amp, so it makes it easier to dial in your drop tuned guitar without having any farty or fuzzy sound at all.

TECHNICAL FEATURES

FRONT PANEL:



(from left to right)

- **STANDBY / ON SWITCH:** turn the amplifier in standby mode or in operative mode.
- **RED LED:** (under STANDBY / ON SWITCH): this led will indicate the state of incoming power supply. It will turn on if everything is ok.
- **BLUE LEDs:** when on, CH1 is activated.
- **RED LEDs:** when on, CH2 is activated.
- **BLUE LED (on the white line, up to CH1 EQ):** when on, Hot mode is activated.
- **RED LED (on top of master volumes):** indicate which Master Volume is active.

POTS:

- **CHANNEL 1:** Volume, Treble, Bass, Middle, Gain.
- **CHANNEL 2:** Volume, Treble, Bass, Middle, Gain.

SWITCHES:

- **CHANNEL 1:** Bright switch (bright / normal), Hot mode (on/off).
- **CHANNEL 2:** Bright switch (bright / normal).

COMMON:

- **MASTER VOLUME:** master 1 and master 2, they acts on both channels.

REAR PANEL



(from left to right)

- **SEND & RETURN:** Connection between pre amp and power amp. L120 is shipped with pedal friendly signal level.
- **MIDI IN & MIDI THRU:** sockets for midi communications. Midi IN receive midi signal, Midi THRU left midi signal pass thru without modify original messages.
- **STORE SWITCH:** tactile switch for saving combinations of sounds into amplifier digital memory.
- **FOOTSWITCH:** input jack for Leviathan L120 footswitch. Pay attention: others footswitches can damage the amp. (Not in use starting March 2023)
- **PRESENCE:** global setting for presence control. It acts on both channels.
- **DEPTH:** global setting for depth control. It acts on both channels.
- **OUTPUT:** output jacks for connect the amp to a cabinet. Please read carefully the impedance before connect your cabinet.
- **LINE OUT:** jack and level pot for line out signal, taken from the output jacks. Please remember you **MUST** use a cabinet anytime in conjunction with this output. Using Line Out by itself without any load will damage this amplifier.
- **HT FUSE:** (1A slo blow) high current fuse. Replace **ONLY** with same type.
- **MAIN FUSE:** (2.5A slo blow) input voltage fuse. Replace **ONLY** with same type.
- **IEC SOCKET:** connect power cable here.
- **POWER ON / POWER OFF SWITCH:** turn the amplifier on or off.

FIRST USAGE

Before plugging in the power cord, make sure to check the input voltage of the amplifier and be sure to match it with your wall voltage, and then insert the power chord. Before plugging in the speaker cable, check the impedance of your cab and match it with the output impedance of the amplifier, then connect the speaker cable from cabinet to amplifier. Now you're ready to put the Power Switch in "POWER ON" position. Leave the amplifier in this state for at least thirty seconds. Plug your signal cable into input jack and you're ready to put the Standby Switch in "ON" position. Now you can rock'n'roll!

MIDI

Leviathan, despite the full tube audio signal path, is equipped with a digital memory which can save combinations (preset) inside the amp. Duality is shipped with a presetted midi channel #1. You can't change midi channel on the fly after you have bought it, but you can ask us for a different midi channel at order time.

All the functions are recallable on the fly via midi CC. This is the full CC list:

- Channel 1 Hot mode on/off: CC #100
- Channel 1 / 2: CC #101
- Master 1 / Master 2: CC#102

All the CC are also be changed for a custom numbers, but only at order time.

SAVING A PRESET

Saving a preset is quite easy with Leviathan, it takes only few steps:

- Choose the desired combination of functions (channel, master, etc);
- Keep pressed for three seconds "STORE" button on rear panel, until corresponding led turn on, than release it;
- By using a MIDI devices able to send Program Change, send the desired PC you want to memorize this particular combination;
- Store led will blink couple time for confirmation;
- Your preset is now created.

You can save and re-save a preset infinite times . With this procedure you can use different midi pedalboards or interface for recall presets without losing any data, because all presets are stored inside the amp. You only need to send the exact PC and it will recall the same combination of functions every time.

You can exit the saving routine anytime by pressing the "STORE" switch three seconds until the corresponding led turns off.

LOOP FX

Loop effects on Leviathan is between the preamp output and the power amp input, right before the master volume. It's a buffered 100% serial loop fx with instrument level signal. When loop effect is engaged 100% of your sound will pass thru the effect wired to send/return jacks. When it's bypassed, the signal goes straight from the preamp to the power amp.

There is no specific send/return control on back panel but the channel volume acts as a "send control" (the amount of signal to be sent to the input of your effect) and the master volume acts as "return control" (the amount of signal returning from your signal back into the power amp).

Loop effects can always be activated/bypassed via midi PC/CC or by not inserting any cable into send/return jacks. If the amps doesn't see any cable, loop fx is auto-bypassed.

SUGGESTION: if you are hearing some bad clipping in the sound when the loop effect is on, you're probably overloading the input of your effect. Try to lower the preamp signal (by lowering the channel volume on the L120 or the input control of your effect) then increase the incoming signal to return jack (by increasing the master volume on L120 or the output volume of your effect)

FS7 MIDI FOOTSWITCH

Starting from March 2023, as per high demand, all our amplifiers are shipped WITHOUT a proprietary footswitch and instead FS7 Midi Footswitch can be purchased separately.

FS7 unlock full potential of all our amplifiers:

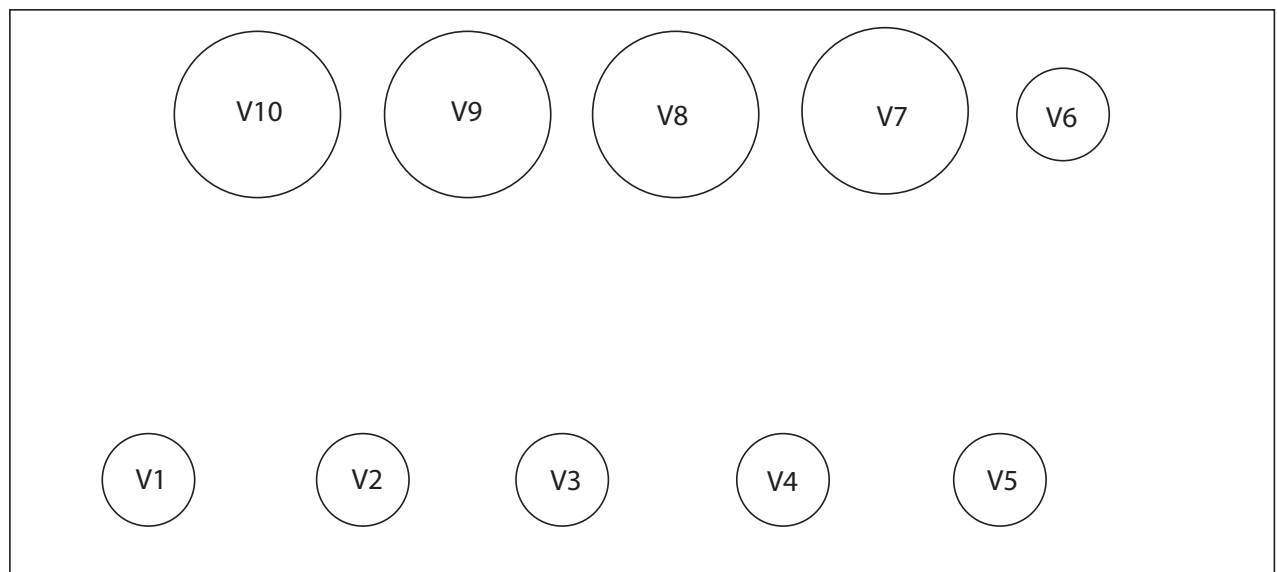
- 1 – It works with ALL models. You don't need to have more than one footswitch laying around;
- 2 – You're now able to save presets within footswitch, no external midi footswitch are required. Both PC and CC at your disposal.

One more comprehensive switcher to rule them all!

TUBE LAYOUT

This amplifier comes with KT88 type tubes in the power amp section and 12AX7B in preamp, selected by our trusty partners at Tube Amp Doctor. Power tube can't be changed with other type of tubes (i.e 6L6s, EL34s, etc), they can be substitute only with other KT88 type tubes. You need to check the bias every time poweramp tubes are changed. For doing this is necessary to open the amplifier, so please contact us at info@redseven-amplification.com

Do not try swap P.A. tubes without adjusting bias current. In the most case this can lead to a simply tube failure, in some other you can make some serious damages!



FRONT PANEL

V1 - suggested tube: TAD ECC83WA (first stage for ch1 and first stage for ch2)

V2 - suggested tube: TAD ECC82WA (second stage of ch1 and hot boost)

V3 - suggested tube: TAD ECC83WA (tonestack)

V4 - suggested tube: TAD ECC83WA (second stage and third stage for ch2)

V5 - suggested tube: TAD ECC83WA (tonestack)

V6 - suggested tube: TAD ECC83WA (phase inverter)

V7, V8, V9, V10 - suggested tube: TAD KT88 (poweramp tubes)

CABINET AND SPEAKERS

For the best sonic experience ever we highly suggest to play this amplifier with RedSeven Pro Cab series, especially with 4x12 model.

We develop this amplifier thru this cabinet so this is the natural extension for it.

We suggest you to try L120 with Celestion V30. This is our first choice. Other type and brand of speakers can be good, Alnico speakers for example would be our last choice here, but tastes are tastes!

TROUBLESHOOTING

- **L120 IS NOT TURNING ON**
Check the power chord, sometimes it will be loose and cannot make good contact with IEC socket. Replace it. If this doesn't work check MAIN fuse, if it's blown replace with SAME type and try again to turn on again. If fuse continue to blown, turn off the amp and contact RedSeven Amplificaton.
- **L120 IS TURNING ON (RED LED IS ON) BUT WITH NO SOUND**
First of all be sure to connect speaker cable properly, both amplifier as the cabinet. Check the input signal from guitar too. If this doesn't work check HT fuse, if it's blown replace with SAME type and try again to turn on again. If fuse continue to blown, turn off the amp and contact RedSeven Amplificaton.
- **L120 IS MAKE NO SOUND**
If everything works properly be sure to have both relative channel volume and master volume turned up.
- **I'M NOT ABLE TO SAVE A PRESET**
Read "SAVING A PRESET" chapter and do meticulously what it's wrote. You have to follow any step and not swap them. Check midi cable and try to replace it. Be sure to connect your sending devices via MIDI OUT socket and Duality MIDI in socket and not vice-versa.
If for some reason this doesn't work contact RedSeven Amplificaton.
- **I'M NOT ABLE TO RECALL A PRESET**
Be sure to set up your midi board or midi interface on midi channel 1. Any other channel will not work and you will not able to recall a preset. Check midi cable and try to replace it. Be sure to connect your sending devices via MIDI OUT socket and Duality MIDI in socket and not vice-versa.

For any problem and in any moment you can contact a qualified tech at:
info@redseven-amplification.com

We will replay to you as soon as possible.

WARRANTY DESCLAMER

Please, do not try to open the amplifier in any case. For any problem contact your seller or write to us. This amplifier runs at very high voltage that can lead to death. Any inexpert person should not even think of do anything inside this amplifier. RedSeven Amplification offer a standard two year fully warranty for any component (except to wear subjects).

By removing the amplifier form his wood cabinet or by making any modification to the original state will violate standard warranty and RedSeven Amplification will not responsible for any damage to people, things or animals.

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