RENEGADE SOUND LABS

RSL CHANNEL

USER MANUAL / VERSION 1.1.0

Gain staging as tone

A complete analog-style channel strip in one plug-in: a preamp with drive, filters, a four-band equalizer, a compressor with two characters, and a channel fader, in the order a console channel runs them. How hard you drive the front of the strip is part of the sound.

GAIN • PAD / POL • CHARACTER • HPF / LPF • 4-BAND EQ • COMPRESSOR • FADER • OUT

RENEGADE SOUND LABS

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01 / ORIENTATION

Start Here

SECTION	WHAT YOU WILL FIND
Interface overview	The faceplate at a glance, the header bar, and how the knobs, switches and fader respond.
What RSL Channel is	The signal path from left to right, why the order matters, and what the strip deliberately is not.
The preamp	MIC / LINE, GAIN, the pad, polarity, impedance and the fixed 80 Hz filter.
Filters and equalizer	The sweepable high-pass and low-pass filters and the four EQ bands.
Dynamics	VCA or FET, the gain reduction meter, threshold, ratio, attack, release and CHARACTER.
The channel section	The channel fader, the output meter, bypass and the circuit lights.
Presets	The four factory presets, your own presets, and A/B comparison.
Reference	Recipes, installing and activating, troubleshooting, specifications, parameter list and glossary.

Quick start

1. Insert RSL Channel on a track: a vocal, a bass, a drum, anything you would put through a console channel. Default, the first factory preset, sets every control to rest.
2. At Default the strip is transparent. Every EQ band is flat, both filters are off, CHARACTER is at CLEAN, the fader sits at 0 and the compressor only reacts to peaks above full scale, so what comes out matches what goes in.
3. Set the front end. Choose MIC or LINE, then turn CHARACTER up from CLEAN and use GAIN to decide how hard the signal hits it. Saturation grows with level, so GAIN is a tone control as much as a level control.
4. Clean up the ends. Bring in the HPF until the rumble under the part is gone, and the LPF if the top needs taming.
5. Shape with the four EQ bands. Each has its own gain and frequency knob.
6. Compress. Turn THRESHOLD down until the GAIN REDUCTION needle moves on the loud notes, then set RATIO, ATTACK and RELEASE. Try FET against VCA.
7. Set the level the channel sends on with the CHANNEL FADER, watching the output meter, and compare with BYPASS.

LEVEL DECIDES THE SOUND CHARACTER and the compressor both respond to how loud the signal is at that point in the strip. If CHARACTER seems to do nothing, the signal is too quiet to reach it: turn GAIN up and bring the fader down by the same amount.

NO SAFETY LIMITER RSL Channel can produce a great deal of gain: GAIN alone reaches +70 dB and the fader adds up to +12. Nothing after the fader stops the output going over full scale, so keep an eye on the output meter while you set the front end.

02 / VISUAL TOUR

Interface Overview

RSL Channel at its defaults. The signal runs left to right through four panels: PREAMP, FILTERS / EQUALIZER, DYNAMICS and CHANNEL.

AREA	WHAT IT IS
Header bar	A/B, Revert, Save, the preset pill, Import / Export, Settings and the power switch. Shared with every Renegade Sound Labs plug-in.
PREAMP	MIC / LINE, GAIN, and four lit buttons: PAD, POLARITY, IMPEDANCE and HPF.
FILTERS / EQUALIZER	A sweepable high-pass filter (HPF) and low-pass filter (LPF), then four EQ bands: HF, HMF, LMF and LF.
DYNAMICS	The compressor. VCA / FET, the GAIN REDUCTION meter, THRESHOLD, RATIO, ATTACK, RELEASE and CHARACTER.
CHANNEL	The CHANNEL FADER, a stereo output meter and BYPASS.
Circuit windows	DISCRETE AMP I, DYNAMICS CIRCUIT and DISCRETE AMP II each carry a light that glows with the signal passing through that part of the strip.
Signal flow rail	The engraved line along the foot of the faceplate: IN, GAIN, PAD / POLARITY, CHARACTER, HPF / LPF, 4-BAND EQ, COMPRESSOR, FADER, OUT. It names the order the signal is processed in.

Working the controls

- Drag a knob up to turn it clockwise and down to turn it back, or use the mouse wheel. The knobs turn under fixed lights, like hardware, and each LED ring follows the value: white for GAIN and the filters, amber for the EQ gains and the compressor, red for CHARACTER. The EQ gain rings light outward from 0; the EQ frequency knobs have no ring. The value appears beside the knob while you drag, and the host shows the same control in its automation lane.

- Double-click a knob, or the fader, to return it to its default.
- PAD, POLARITY, IMPEDANCE and the preamp HPF are square buttons. Each click steps to the next printed option. PAD, POLARITY and HPF light yellow while engaged, and HPF has a lamp beside 80 and OFF. IMPEDANCE never lights itself: its three lamps show the setting, and each click steps 200, 600, 1.2k and back to 200.
- MIC / LINE and VCA / FET are lit buttons. Click the one you want; the selected one lights yellow. The BYPASS button lights red.
- The CHANNEL FADER: click the cap to grab it where it is and drag. Click anywhere on the bare track to jump the cap there.
- Rest the pointer on any control for a tooltip naming it.

Window size

RSL Channel opens compact, at 666 x 333 points, so it fits beside a mixer. Drag the lower right corner of the window to enlarge it, up to 1774 x 887; the proportions stay fixed so the panel never distorts. The window opens at the compact size each time. At the smallest sizes the captions on the signal flow rail are too small to read, but every control still works.

02B / PRESETS, COMPARISON AND POWER

The Header Bar

A/B, Revert, Save, the preset pill with its arrows, Import / Export, Settings, and Power.

The strip across the top is shared by every Renegade Sound Labs plug-in, so these controls sit in the same order and mean the same thing wherever you meet them.

CONTROL	WHAT IT DOES
A / B	Two complete sets of settings to compare. Click to switch between them; the letter shows which one you are hearing, and lights while you are on B. See section 08.
Revert	Returns every control to the state the current preset was loaded in. Greyed out until something has been edited.
Save	Overwrites the current user preset. On a factory preset, or with nothing loaded, it asks for a name instead. Factory presets are never overwritten.
Preset pill	Shows the current preset. Click the name to browse, or to reach Save As, Delete, Show Preset Folder and Refresh List. The arrows either side step through the whole list.
Import / Export	Reads a preset file from anywhere on disk, or writes the current settings out to a file you choose.
Settings	The gear. Opens the product panel: the version, the website, this manual and your preset folder.
Power	Bypasses the plug-in. Lit means it is processing. It is the same switch as BYPASS in the CHANNEL panel.

- A dim INIT means no preset is loaded.
- A bright name means that preset is loaded and unedited.
- A gold name with a dot in front means you have edited it since it loaded. Save to keep the change, or Revert to discard it.

BYPASS IS NEVER STORED IN A PRESET Recalling a preset cannot silently take the plug-in out of the path, or put it back in.

03 / ONE CHANNEL, LEFT TO RIGHT

What RSL Channel Is

RSL Channel is a single console-style channel: a preamp, filters, a four-band equalizer, a compressor and a fader, each feeding the next. On a real channel the gain you set at the front decides how every later stage behaves, and RSL Channel is built the same way. Where you put the gain, before the saturation or after it, before the compressor or on the fader, is part of the sound.

The signal path

ORDER	STAGE	WHAT HAPPENS THERE
1	GAIN	The preamp gain, −20 to +70 dB.
2	PAD / POLARITY	The 20 dB pad and the polarity switch.
3	CHARACTER	Saturation. Its knob sits in the DYNAMICS panel, but it works here, straight after the preamp and before any filtering. MIC / LINE and IMPEDANCE shape how hard it is driven.
4	HPF / LPF	The high-pass and low-pass filters. The preamp's 80 Hz switch joins in here.
5	4-BAND EQ	HF, HMF, LMF and LF.
6	COMPRESSOR	One compressor, VCA or FET, listening to the signal after the EQ.
7	FADER	The channel fader, −60 dB to +12 dB, and off at the bottom.

Why the order matters

- CHARACTER comes before the filters, so it saturates the full-range signal. Low end you filter away afterwards still drives the saturation, so a part with a heavy low end saturates more than its top end suggests.
- The compressor comes after the EQ, so it hears your EQ moves. A big low boost makes it work harder on the low notes; a high-pass filter stops it reacting to rumble.
- The fader comes last, after the compressor, so moving it changes the level the channel sends on without changing how hard the compressor works.

What RSL Channel is not

- Not a limiter. The compressor has no lookahead and nothing after the fader catches overs.
- Not a mastering processor. It is one channel, built for individual tracks and small groups.
- Not a replica. It is an original Renegade Sound Labs strip, not a measured model of any particular piece of hardware.

Where it sits

PRODUCT	JOB	WHERE
RSL Channel	Preamp drive, filtering, EQ, compression and level on one track	First insert on individual tracks and small groups

PRODUCT	JOB	WHERE
RSL Dual Core Saturator	Colour and harmonic density	Anywhere, usually tracks and buses
RSL Bastion	Two-stage bus and mastering compression	Mix bus, or the master bus ahead of the final limiter
RSL Master	Finishing to a reference profile	Last insert on the master bus

04 / THE FRONT OF THE STRIP

The Preamp

The preamp sets how much level enters the strip and how hard it hits the saturation stage behind it.

MIC / LINE Default MIC. Sets how hard CHARACTER drives the signal. It does not change the level. Described below.

GAIN −20 to +70 dB. Default 0 dB, at the nine o'clock mark. The first stage of the strip.

PAD OFF or −20. Takes 20 dB off the input. Default OFF.

POLARITY NORMAL or INVERTED. Flips the polarity of the signal. Default NORMAL.

IMPEDANCE 200, 600 or 1.2k ohms. Default 600. Shapes how hard CHARACTER drives the signal. Described below.

HPF 80 or OFF. A fixed 80 Hz high-pass filter. Default OFF. Described below.

Gain

GAIN is the first thing the signal meets, and 0 dB, at the nine o'clock mark, leaves the level unchanged. The scale runs to +70 dB so that a very quiet source can be brought up to working level; on a track that is already at a healthy level, the useful range is a few dB either side of 0. GAIN works together with PAD: with PAD on, every GAIN setting is 20 dB lower.

Because CHARACTER and the compressor both respond to level, GAIN is how you decide how hard the rest of the strip works. To drive the strip harder without the track getting louder, raise GAIN and lower the CHANNEL FADER by the same amount.

MIC / LINE and IMPEDANCE

Both of these change how strongly CHARACTER saturates the signal, and nothing else. Neither changes the level, and with CHARACTER at CLEAN neither has any effect.

SETTING	EFFECT ON CHARACTER
MIC	Twice the drive of LINE at the same CHARACTER setting. The default.
LINE	The gentler of the two.
IMPEDANCE 1.2k	No extra drive.
IMPEDANCE 600	A little more drive. The default.
IMPEDANCE 200	The most drive of the three.

So the most saturated front end is MIC with IMPEDANCE at 200, and the cleanest is LINE at 1.2k.

The 80 Hz filter

The HPF switch in the preamp is a fixed 80 Hz high-pass filter. It works together with the sweepable HPF in the FILTERS / EQUALIZER panel, and the higher of the two frequencies wins: with the switch at 80 and the HPF knob at 40 Hz or OFF, the filter sits at 80 Hz; with the knob at 160 Hz, it sits at 160 Hz. It is a quick way to clear rumble without touching the filter section.

> **POLARITY** POLARITY is for tracks that work against another recording of the same source, such as two microphones on one drum or a direct and a miked bass. Flip it on one of them and keep whichever setting gives the fuller low end when both play together.

05 / SHAPING THE TONE

Filters and Equalizer

HPF OFF, then 20 to 300 Hz. Removes low end below the setting. Default OFF.

LPF OFF, then 1 kHz to 20 kHz. Removes high end above the setting. Default OFF.

HF −12 to +12 dB. A high shelf: lifts or cuts everything above its frequency. Default 0.

HF Hz 5 kHz to 20 kHz. Default 10 kHz.

HMF −12 to +12 dB. A bell: lifts or cuts a band around its frequency. Default 0.

HMF Hz 700 Hz to 3 kHz. Default 1.5 kHz.

LMF −12 to +12 dB. A bell. Default 0.

LMF Hz 100 Hz to 470 Hz. Default 220 Hz.

LF −12 to +12 dB. A low shelf: lifts or cuts everything below its frequency. Default 0.

LF Hz 30 Hz to 220 Hz. Default 60 Hz.

Filters

Both filters start at OFF, fully anticlockwise, and come in as soon as the knob leaves OFF. On the HPF the first part of the travel runs from OFF up to 20 Hz, and the rest of the sweep from 20 to 300 Hz; on the LPF, from OFF up to 1 kHz, then from 1 kHz to 20 kHz. Turn the HPF up until the part starts to thin, then back it off a little. The LPF is for taking the edge off a bright source, or for pushing a part back in the mix.

The filters come before the EQ, so a band you boost cannot bring back low end the HPF has removed.

The four bands

Each band has a gain knob, in dB, and a frequency knob beside it, in Hz. A band at 0 dB is flat whatever its frequency. The two mid bands are broad bells, musical rather than surgical; the HF and LF bands are shelves. Their frequency ranges overlap the way a console channel's do, so the LMF and LF can both reach the low end and the HMF and HF can share the top.

BAND	TYPE	RANGE	TYPICAL USE
HF	Shelf	5 to 20 kHz	Air and openness; cut to soften harsh sources
HMF	Bell	700 Hz to 3 kHz	Presence and attack; cut for honk or harshness
LMF	Bell	100 to 470 Hz	Body and warmth; cut for boxiness and mud
LF	Shelf	30 to 220 Hz	Weight and bottom

EQ BEFORE COMPRESSION The compressor listens after the EQ. Boosting a band makes it react more to that band; cutting it makes it react less. If a low boost makes the needle jump on every bass note, use the HPF or a little less LF.

06 / ONE COMPRESSOR, TWO CHARACTERS

Dynamics

The DYNAMICS panel holds one compressor, which works on the signal after the EQ, and the CHARACTER knob, which works earlier in the strip.

VCA / FET Chooses the compressor's character. Default VCA. Described below.

GAIN REDUCTION The needle rests on 0 and swings to the mark for the dB of gain reduction: 6 dB of reduction reads on the 6. It swings in quickly and settles back slowly, and drops to 0 when bypassed.

THRESHOLD –20 to +20 dB. Default 0 dB. The peak level, in dBFS, above which the compressor works.

RATIO 2:1 to 20:1. Default 4:1.

ATTACK 0.1 ms to 100 ms. Default 1 ms. How quickly the compressor turns the signal down.

RELEASE 0.1 ms to 1 s. Default 100 ms. How quickly it lets go.

CHARACTER CLEAN to AGGRESSIVE, 0 to 100 percent. Default CLEAN. The saturation stage. Described below.

Threshold and ratio

THRESHOLD is a peak level in dBFS: the compressor works whenever the signal after the EQ peaks above it. At the default of 0 dB only peaks above full scale are touched, so the compressor stays out of the way until you turn THRESHOLD down. RATIO sets how hard it pushes back once a peak is over: at 4:1, a peak 8 dB over the threshold comes out 2 dB over. The knee is hard, so the compressor engages fully as soon as the threshold is crossed.

The compressor is always in the strip. To keep it out of the way, leave THRESHOLD at 0 dB or above with the signal peaking below it, or turn THRESHOLD to +20 dB.

Attack and release

ATTACK and RELEASE are marked in milliseconds. Slower attack settings, 10 ms and up, let the front of each note through before the compressor clamps, which keeps the punch of drums and picked strings. Fast settings, around 0.1 to 1 ms, catch peaks outright. RELEASE sets how quickly the level comes back afterwards: short settings bring up the room and sustain and can be heard to pump; long ones hold the level steady.

VCA and FET

VCA is the default. FET works the same compressor a little harder: at identical settings it takes off slightly more level, so the same threshold and ratio give a firmer result. Every control behaves the same way in both modes. Switch between them at the same settings and keep the one that sounds right on the part.

Make-up gain

There is no make-up gain control in the DYNAMICS panel. Use the CHANNEL FADER, which comes straight after the compressor, to bring the level back up.

Character

CHARACTER is a saturation stage. It sits in the DYNAMICS panel, but in the signal path it comes straight after the preamp, before the filters: the signal flow rail along the foot of the faceplate shows where. At CLEAN it is out of circuit. Turning it towards AGGRESSIVE rounds off the signal more and more, and the amount depends on level: quiet passages pass through almost unchanged, while loud peaks are softened and thickened.

- GAIN decides how hard the signal hits CHARACTER. More GAIN means more saturation at the same CHARACTER setting.
- MIC drives CHARACTER twice as hard as LINE. IMPEDANCE at 200 drives it hardest, 1.2k least. See section 04.
- Turning CHARACTER up does not make quiet material louder. At heavy settings, loud peaks come out lower than they went in, so you may want a little more from the fader.

WATCH THE NEEDLE Set THRESHOLD by eye first: lower it until the GAIN REDUCTION needle moves only on the notes you want to control. A few dB of reduction is plenty for most parts. Then set the attack and release by ear.

07 / FADER, METER AND BYPASS

The Channel Section

CHANNEL FADER +12 dB at the top down to off at the bottom. Default 0 dB. The last stage of the strip.

Output meter Peak level of the output, left and right, from −48 to 0 dBFS, with a peak readout that turns red at 0 dBFS.

DISCRETE AMP II The light in this circuit window glows with the level leaving the strip.

BYPASS The lamp button and the switch knob under it. Either one bypasses the plug-in; the lamp is lit while it is bypassed.

Channel fader

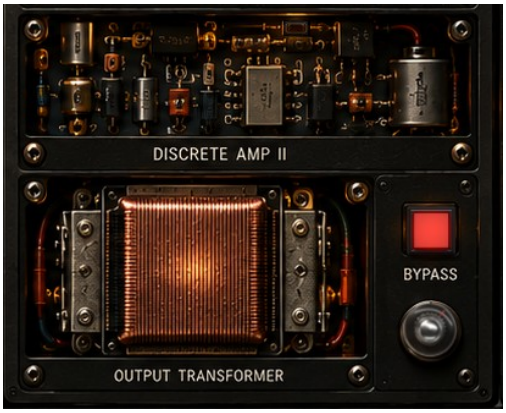
The CHANNEL FADER sets the level the strip sends on. It comes after the compressor, so moving it never changes how hard the compressor works. The scale is printed the way a console fader is, with the most room around 0 dB where you work most: +12, +6, 0, −6, −12, −18, −24, −30, and off at the bottom, marked with the infinity sign. Between −30 and the bottom the fader runs down to −60 dB, and at the very bottom the channel is silent.

Click the fader cap to grab it where it stands and drag. Click the bare track above or below it to jump the cap to that point. Double-click to return to 0 dB.

Output meter

The two LED columns show the peak level of the left and right outputs, from −48 to 0 dBFS in 2 dB steps. The readout above them holds the highest recent peak for 1.2 seconds and turns red at 0 dBFS. They follow the output whatever the setting, including when RSL Channel is bypassed. On a mono track both columns show the same signal.

Bypass



Bypassed: the BYPASS lamp is lit and the circuit lights go dark.

BYPASS hands back the unprocessed input, with a short crossfade so there is no click. The lamp button, the switch knob beneath it and the Power switch in the header bar are all the same control. While RSL Channel is bypassed, the circuit lights go dark and the GAIN REDUCTION needle falls to 0; the output meter keeps working. Bypass compares against the input level, so for a fair comparison match the level with the CHANNEL FADER first.

Circuit lights

Three of the circuit windows carry a light that responds to the signal: DISCRETE AMP I, in the PREAMP panel, follows the level after the preamp; DYNAMICS CIRCUIT follows the level after the compressor; DISCRETE AMP II follows the level leaving the strip. They are a quick way to see that signal is getting through each part of the channel. The transformers and the EQ inductors are artwork and do not light.

08 / STARTING POINTS

Presets and A/B

RSL Channel ships four factory presets. A preset stores every control on the faceplate except BYPASS. Each factory preset starts from the defaults and changes only the controls listed.

PRESET	CHANGES FROM DEFAULT	WHAT IT DOES
Default	None	Every control at rest. The strip passes the signal through unchanged until you change something.
Vocal presence	HPF 80 Hz, HMF +2 dB, HF +1.5 dB, THRESHOLD −12 dB, RATIO 3:1	Clears the low end, adds presence and a little air, and compresses gently.
Warm bass	LF +3 dB, CHARACTER 30 %, THRESHOLD −10 dB	More weight, some saturation from the MIC front end, and light compression.
Drum snap	FET, ATTACK 10 ms, RELEASE 80 ms, THRESHOLD −12 dB, RATIO 4:1	The FET compressor with a slow attack that lets the front of each hit through.

PRESETS ARE STARTING POINTS Compression and CHARACTER depend on level. If the needle barely moves, or moves far too much, adjust THRESHOLD, or GAIN against the fader, before anything else.

Your own presets

Click the preset name in the header bar to browse. Factory presets are listed first and your own below them, and the arrows either side of the name step through the combined list.

ACTION	HOW
Save over your preset	Press Save. On a factory preset it asks for a name instead, because factory presets are never overwritten.
Save under a new name	Save As, from the preset menu.
Delete	Delete, from the preset menu. Available for your own presets only.
Undo your edits	Revert, in the header bar. Restores the preset as it was loaded.
Find the files	Show Preset Folder, from the preset menu or the Import / Export menu, or the Preset Folder row in the Settings panel.
Move presets between computers	Import / Export in the header bar, or copy the files from the preset folder.

Presets are .rgpreset files, shared across the Renegade Sound Labs line. On macOS they are normally kept in ~/Library/Audio/Presets/Renegade Sound Labs/RSL Channel/; if that folder cannot be written, RSL Channel uses ~/Library/Application Support/Renegade Sound Labs/RSL Channel/Presets/ instead. On Windows they are kept in your user AppData folder, under Renegade Sound Labs\RSL Channel\Presets. Show Preset Folder always opens the right one. Every control is also saved with the host session.

A/B comparison

The A / B button at the left of the header bar holds two complete sets of settings. You start on A. Click it to switch to B, which begins as a copy of A; change whatever you like, then click again to hear A, and again to return to B. The letter shows which one you are hearing. The two slots last while the plug-in window is open: when you close it, the settings you were hearing are the ones that stay.

09 / WAYS OF WORKING

Recipes

Lead vocal

1. Load Vocal presence.
2. Lower THRESHOLD until the needle moves 3 to 6 dB on the loudest phrases. Raise RATIO for a more even level.
3. Sweep the HMF frequency with its gain up to find where the voice speaks clearly, then set the boost by ear. If a band sounds harsh, cut it there instead.
4. Bring the level back up with the CHANNEL FADER and compare with BYPASS at a matched level.

Driven front end

Start from Default. Turn CHARACTER to around half way, then raise GAIN until the part thickens, and pull the CHANNEL FADER down by about as much as you added. Switch between MIC and LINE, and step through IMPEDANCE, to choose how much of the effect you keep. Because CHARACTER sits before the filters, an HPF afterwards trims the low end without changing how the saturation feels.

Bass

Load Warm bass. Set the LF frequency to where the note fundamentals sit, between 60 and 100 Hz for most bass parts, and use the LMF to cut boxiness around 200 to 300 Hz. A slower ATTACK keeps the pluck; a faster one evens out the notes.

Drums

Load Drum snap. On a snare or a kick, lower THRESHOLD until the needle swings 4 to 8 dB on each hit. Lengthen ATTACK for more snap, shorten RELEASE to bring up the room between hits. Compare FET with VCA on the same settings.

Cleaning up a track

Turn the HPF up until the part starts to thin, then back it off. Use the preamp's 80 Hz switch when a quick fixed filter is enough. Use the LPF on sources that do not need their top end, such as a guitar amplifier or a room microphone, so they sit behind the brighter parts of the mix.

A/B discipline

- Compare at matched level: set the CHANNEL FADER so bypassed and active sound equally loud, then use BYPASS.
- Use A / B to try a different approach without losing the first one.
- Make the final decision with the whole mix playing, not with the track soloed.

10 / RSL HUB

Installing and Activating

RSL Channel is installed and activated through RSL Hub, the free Renegade Sound Labs app for macOS and Windows. There are no licence keys to type in.

1. Download RSL Hub from renegadesoundlabs.com and sign in with your Renegade Sound Labs account.
2. Install RSL Channel from your library in RSL Hub.
3. That is all. Once you are signed in to RSL Hub on the computer, RSL Channel activates automatically.
4. Restart your DAW, or run its plug-in rescan, and insert RSL Channel on a track. It is listed under Renegade Sound Labs.

ITEM	DETAIL
Computers	Up to 4 computers per account. Manage them from RSL Hub or from your account page on the website.
Renewal	RSL Hub keeps the activation renewed in the background while it is running. There is nothing to renew by hand.
Buying	Buy RSL Channel outright, or get it with RSL All Access: every RSL plug-in for $18 a month or $180 a year.
Free trial	RSL All Access starts with a 14-day free trial, and no card is needed to start it.

When it is not activated

Until the computer is activated, RSL Channel is silent and shows a screen over the faceplate explaining why. Open RSL Hub opens the Hub, or its download page if it is not installed yet. Check again looks for the activation again, for example once you have signed in. When the Hub has activated the computer, RSL Channel unlocks by itself.

During a trial

While you are on the free trial, the days left are shown in red in the header bar, beside the RSL logo, for example 7 DAYS LEFT. On the final day it reads LAST DAY OF YOUR TRIAL. When the trial ends, RSL Channel locks and its screen offers Start your subscription; once you have subscribed, open RSL Hub and RSL Channel unlocks by itself.

Formats

FORMAT	PLATFORM
VST3	macOS and Windows
Audio Unit	macOS
AAX (Pro Tools)	macOS
Standalone	macOS and Windows. Runs RSL Channel on its own, on a live input, without a DAW.

REQUIREMENTS macOS 11 or later, or Windows. Mono or stereo tracks. RSL Channel adds no latency, so it needs no delay compensation from the host.

Moving to another computer

Each account activates up to 4 computers. To use RSL Channel on a different one, free a place by removing a computer in RSL Hub or on your account page, then sign in to RSL Hub on the new computer. Your own presets stay in the preset folder; copy them across, or use Export and Import.

11 / FAST DIAGNOSIS

Troubleshooting

SYMPTOM	CHECK
Plug-in does not appear	Check RSL Channel is installed in RSL Hub, restart the host, and force a full plug-in rescan.
Silent, with a screen over the faceplate	The computer is not activated. Sign in to RSL Hub on this computer, then press Check again.
Silent, faceplate normal	The CHANNEL FADER is at the bottom, which is off. Raise it, or double-click it for 0 dB.
Output distorts or goes over 0	Too much GAIN or fader. Lower GAIN, switch on PAD, or pull the CHANNEL FADER down, watching the output meter.
Nothing compresses	THRESHOLD is above the peaks of the signal. The default, 0 dB, only catches peaks above full scale. Turn THRESHOLD down until the needle moves.
CHARACTER does nothing	The signal is too quiet to reach it. Raise GAIN and lower the fader by the same amount. MIC and a lower IMPEDANCE drive it harder.
MIC / LINE or IMPEDANCE make no difference	They only change how hard CHARACTER drives the signal. With CHARACTER at CLEAN they have no effect.
Low end is missing	The preamp HPF switch is at 80, or the HPF knob is up. The higher of the two wins.
Compressor pumps	Lengthen RELEASE, raise THRESHOLD, or lower RATIO. A low boost on the LF band also makes it react to the bass.
Drums lose punch	Lengthen ATTACK, or lower RATIO.
Level jumps when comparing	Bypass compares against the input level. Match the level with the CHANNEL FADER first.
A/B settings gone	The A and B slots last only while the plug-in window is open.
Window too small	Drag the lower right corner of the window to enlarge it.

Support information to include

- Operating system and version, and computer model
- DAW and version
- Plug-in format
- Sample rate and buffer size
- Preset in use
- Exact steps required to reproduce the issue

Support: hello@renegadesoundlabs.com

12 / SPECIFICATION

Technical Reference

ITEM	SPECIFICATION
Product	RSL Channel
Developer	Renegade Sound Labs
Manual version	1.1.0
Category	Analog-style channel strip
Sections	Preamp with saturation, high-pass and low-pass filters, four-band EQ, compressor with VCA and FET modes, channel fader
Formats	macOS: Audio Unit, VST3, AAX (Pro Tools), Standalone. Windows: VST3, Standalone
Minimum macOS	macOS 11
Channels	Mono or stereo
Latency	None
Compressor	Peak-sensing, hard knee, stereo linked. No lookahead
Interface	Opens at 666 x 333 points; resizable up to 1774 x 887, proportions fixed
Presets	4 factory presets; user presets as .rgpreset files
Activation	RSL Hub. Up to 4 computers per account
Website	https://renegadesoundlabs.com

Parameters as the host sees them

The host lists every control below for automation. Switches read On or Off there. A few controls are shown in different units in the host than on the panel: ATTACK in microseconds, CHARACTER from 0 to 1, and the two filters as 0 when they are OFF.

PARAMETER	RANGE	DEFAULT	PANEL
Input gain	−20 to +70 dB	0 dB	GAIN
Mic input	On / Off	On	MIC (On) / LINE (Off)
20 dB pad	On / Off	Off	PAD
Polarity	On / Off	Off	POLARITY. On is inverted
Input impedance	200 / 600 / 1200	600	IMPEDANCE, in ohms
Preamp 80 Hz HPF	On / Off	Off	Preamp HPF
High pass	0 (OFF), 20 to 300 Hz	OFF	HPF
Low pass	0 (OFF), 1000 to 20 000 Hz	OFF	LPF

PARAMETER	RANGE	DEFAULT	PANEL
HF gain	−12 to +12 dB	0 dB	HF
HF frequency	5000 to 20 000 Hz	10 000 Hz	HF Hz
HMF gain	−12 to +12 dB	0 dB	HMF
HMF frequency	700 to 3000 Hz	1500 Hz	HMF Hz
LMF gain	−12 to +12 dB	0 dB	LMF
LMF frequency	100 to 470 Hz	220 Hz	LMF Hz
LF gain	−12 to +12 dB	0 dB	LF
LF frequency	30 to 220 Hz	60 Hz	LF Hz
FET compressor	On / Off	Off	FET (On) / VCA (Off)
Threshold	−20 to +20 dB	0 dB	THRESHOLD
Ratio	2 to 20	4	RATIO
Attack (microseconds)	100 to 100 000	1000	ATTACK, 0.1 to 100 ms
Release (milliseconds)	0.1 to 1000	100	RELEASE
Character	0 to 1	0	CHARACTER, CLEAN to AGGRESSIVE
Channel level	−60 to +12 dB	0 dB	CHANNEL FADER. −60 is off
Bypass	On / Off	Off	BYPASS and Power. Not stored in presets

Glossary

TERM	MEANING
Gain staging	Setting the level at each point of the signal path. On RSL Channel it decides how hard CHARACTER and the compressor work.
Saturation	The gentle rounding-off of loud peaks that analog circuits produce when driven, heard as thickness and warmth.
Pad	A fixed cut in level at the input, for sources that are too hot.
Polarity	Whether the waveform is upright or flipped. Flipping one of two recordings of the same source can fix a thin low end.
High-pass / low-pass filter	A filter that lets through only what is above (high-pass) or below (low-pass) its frequency.
Shelf	An EQ band that lifts or cuts everything above or below its frequency.
Bell	An EQ band that lifts or cuts a range of frequencies around its centre.
Gain reduction	How far the compressor has turned the signal down at that moment, in dB. What the needle shows.
Threshold	The level above which the compressor works.

TERM	MEANING
Ratio	How much a signal above the threshold is reduced. At 4:1, a peak 8 dB over the threshold comes out 2 dB over.
dBFS	Decibels relative to full scale, the loudest level a digital signal can hold.

DESIGN INTENT RSL Channel is one channel, run in order. Set the front end for the tone you want, shape it, control it, and set its level last, then judge the result at matched level.

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RSL CHANNEL

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