



RSL BASTION

USER MANUAL / VERSION 1.0.0

Valve density into VCA control

Two compressors in one rack, built as opposites. A transformer-coupled vari-mu valve stage for weight and density, and a discrete VCA stage for snap and peak control, in either order, with a panel that tells you which of them is doing the work.

INPUT • HEADROOM • VCA • VARI-MU • OUTPUT • MIX • MONO • CEIL



RENEGADE SOUND LABS

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Start Here

SECTION	WHAT YOU WILL FIND
Interface overview	The faceplate at a glance, the header bar, and how the knobs and switches respond.
What RSL Bastion is	The two stages, why they are opposites, and what the plug-in deliberately is not.
Input, headroom and thresholds	How level reaches the two stages, and what the threshold numbers mean.
The VCA stage	VCA PEAK COMPRESSION: ratio, knee, attack, release, auto release and the sidechain.
The Vari-Mu stage	VARI-MU PROGRAM COMPRESSION: compression drive, harmonics, timing and the sidechain.
The chain panel	Chain order, stage balance, the scope, crest readouts, monitoring, auto makeup, mono and the ceiling.
Output and presets	Output gain, global mix, bypass, the seven factory presets, and your own.
Reference	Recipes, installing and activating, troubleshooting, specifications, parameter list and glossary.

Quick start

1. Insert RSL Bastion on the mix bus or the master bus. Load a factory preset close to the job, or Init to start from rest.
2. Play the loudest section of the song. Init compresses nothing: both thresholds sit at the top of their travel, so the needles stay at 0 until you bring a threshold down.
3. VCA stage: turn THRESHOLD down until the CONTROL VCA GR column flickers on the peaks. A lens or two, 1 to 3 dB, is plenty on a mix bus.
4. Vari-Mu stage: raise COMPRESSION and lower THRESHOLD until the VARI-MU needle sits around 1 to 3 dB on sustained passages. The valves glow brighter as it works.
5. Press both buttons under CHAIN, VCA > VARI-MU and VARI-MU > VCA, and keep the order that sounds right. They are two different machines.
6. Watch STAGE BALANCE to see which stage is doing the work. Press DELTA under MONITOR to hear only what the compressor is taking away, then press it again to return.
7. Restore level with the two MAKEUP GAIN knobs, or switch on AUTO MAKEUP, and compare against BYPASS at matched level.
8. Optional: blend with GLOBAL MIX for parallel compression, and arm CEIL as a safety net before the next plug-in.

LEVEL DECIDES EVERYTHING Both stages compare the programme against fixed thresholds. If nothing happens however far you turn a threshold, the signal is too quiet to reach it: select -12 dB under HEADROOM, which drives both stages twelve dB harder and gives the same twelve back at the output.

LESS THAN YOU THINK On a mix bus or a master, the right amount of gain reduction is usually a few dB in total. The needles are scaled so the first 3 dB, the part you set by ear, gets a generous share of the sweep.

Interface Overview



RSL Bastion at rest, in its default order: the VCA stage on the left, the Vari-Mu stage on the right. Swap the order under CHAIN and the two panels trade places.

AREA	WHAT IT IS
Header bar	Preset transport, import and export, settings, and the power switch. Shared with every Renegade Sound Labs plug-in.
INPUT	INPUT GAIN, a stereo peak meter, and STEREO MODE: Stereo, Dual Mono or Mid / Side.
VCA PEAK COMPRESSION	The VCA stage. Stepped ratio, attack and release; a gain reduction lens column; the knee selector on the circuit board.
Gain reduction meters	Two needles in the centre, VARI-MU above and VCA below, each reading its own stage from 0 to 20 dB of reduction.
Chain panel	Order of the stages, stage balance, a four second scope, crest readouts, monitoring, auto makeup, bass mono and the output ceiling.
VARI-MU PROGRAM COMPRESSION	The valve stage. Continuous controls, HARMONICS, THRESHOLD LINK, and the sidechain listen lamp.
OUTPUT	OUTPUT GAIN, a stereo peak meter, GLOBAL MIX, HEADROOM, and the BYPASS lever.

Working the controls

- Drag a knob up or down, or left and right. The value appears beside the knob while you drag, and the host shows the same value in its automation lane.
- Double-click a knob to return it to its default.
- Stepped knobs, RATIO, the VCA ATTACK and RELEASE, and both SIDECHAIN HPF knobs, click from mark to mark and always land on an engraved position.

- Rest the pointer on any control for a tooltip naming it. The two THRESHOLD tooltips also show where panel 0 sits in dBFS.
- The lit buttons in the chain panel and the selectors under STEREO MODE and HEADROOM take a single click. MONO and CEIL step through their settings one click at a time.

Interface size and animation

RSL Bastion opens at 120 percent. The gear in the header bar opens a menu with Interface size, from 100 to 160 percent in steps of 20, and Animate panel changes, which controls whether the two stage panels slide past each other when you change the chain order or turn over instantly. The size and the animation setting are saved with the session. About / settings, at the bottom of the same menu, opens the product panel with the version, the website and this manual.

02B / PRESETS AND POWER

The Header Bar



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
Revert	Returns every parameter 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. 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. Interface size, Animate panel changes, and About / settings.
Power	Bypasses the plug-in. Lit means it is processing. It is the same switch as the BYPASS lever in the OUTPUT section.

- A dim INIT means no preset is loaded: a fresh instance, or a session restored without one.
- 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.

What RSL Bastion Is

RSL Bastion is a dual-stage mastering compressor: two complete compressors in one rack, run in series, and built to be opposites. A single compressor with two sets of time constants is still one compressor. RSL Bastion pairs a valve stage and a VCA stage because they disagree about almost everything, and the sound lives in that disagreement.

	VARI-MU / PROGRAM COMPRESSION	VCA / PEAK COMPRESSION
Job	Weight, density and dimension on sustained programme	Snap, grip and peak control
Ratio	Rises with how hard you drive it: gentle at the threshold, firmer as the signal climbs past it	The ratio you choose: 1.5:1, 2:1, 4:1, 6:1, 10:1 or 20:1
Knee	Always soft. The stage never audibly grabs	Hard, 3 dB, 6 dB or 12 dB
Timing	Continuous. Recovers quickly at first and then with a long tail, and eases further under a long, loud passage	Stepped attack and release, or AUTO release for programme-dependent recovery
Colour	Valves and transformers are in the path even at zero reduction; HARMONICS sets how much of that colour you keep	Clean at rest; a little grit appears as the stage works, and more the harder it is pushed

Why the order matters

The CHAIN buttons decide which stage the programme meets first, and the two orders are genuinely different compressors.

- VCA > VARI-MU, the default. The VCA catches the peaks first, so the valve stage sees programme whose transients are already controlled. Its reduction follows the body of the music rather than the drum hits: denser, smoother, less grab.
- VARI-MU > VCA. The valve stage rounds and thickens the programme first, and the VCA works on material with a tamer peak-to-average ratio. The punch comes from the valve's own recovery, and the VCA polishes what gets through.

What RSL Bastion is not

- Not a limiter. CEIL is a safety net on the output, not a loudness maximiser, and nothing in RSL Bastion looks ahead.
- Not multiband. Both stages act on the whole signal; the sidechain filters only change what the detectors listen to.
- Not an automatic mastering tool. Every movement on the panel comes from a control you set.

Where it sits

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

Input, Headroom and Thresholds



INPUT GAIN -24 to +24 dB, before both stages. Raising it makes both stages work harder and makes the output louder.

INPUT METER Peak level per channel, from -36 to +12 dBFS. The top three segments are red.

STEREO MODE Stereo, Dual Mono or Mid / Side. Described below.

OUTPUT GAIN -24 to +24 dB after both stages. See section 07.

OUTPUT METER Peak level per channel after everything, including GLOBAL MIX, MONO and CEIL.

GLOBAL MIX Dry to wet across the whole plug-in. See section 07.

HEADROOM +6 dB, 0 dB or -12 dB. Calibrates how hard both stages are driven. Described below.

BYPASS The lever beside HEADROOM. The same switch as Power in the header bar.

Headroom

HEADROOM is a calibration, not a level control. It drives both stages harder or softer against their thresholds and then takes exactly the same amount back out afterwards, so the only thing it changes is how hard the machine works. The output level is unchanged whenever the stages are not compressing.

SETTING	EFFECT	USE
+6 dB	Six dB more headroom: both stages driven six dB softer	Hot mixes, and gentle mastering where you want the controls to have more travel
0 dB	The calibrated reference	Most material
-12 dB	Twelve dB less headroom: both stages driven twelve dB harder	Quiet material that cannot reach the thresholds, and deliberately hard work

What the threshold numbers mean

Both THRESHOLD knobs run from -20 to +20 and read against a reference: panel 0 means -10 dBFS of average (RMS) level at the stage, with HEADROOM at 0 dB. The host shows both numbers, so a THRESHOLD of -6 reads as "-6.0 (-16.0 dBFS)". Resting the pointer on either THRESHOLD knob shows the reference too.

- The thresholds compare against average level, not peaks. A mix peaking at 0 dBFS typically averages somewhere well below it, so expect to turn a threshold below 0 before a dense mix starts to compress.
- At +20, the default, a threshold is above anything a normal mix can reach, which is why Init compresses nothing.
- INPUT GAIN and HEADROOM both move the signal relative to the thresholds. HEADROOM does it without changing the output level; INPUT GAIN does not.

Threshold link

THRESHOLD LINK, the lit button on the Vari-Mu panel, pairs the two THRESHOLD knobs. With it on, turning either threshold moves both by the same number of dB, preserving the offset between them, so you can raise or lower how hard the whole machine works with one hand once the balance between the stages is right. If one threshold reaches the end of its travel, the pair stops together. Link only affects moves you make on the panel: host automation and preset recall set each threshold on its own.

Stereo mode

MODE	WHAT IT DOES
Stereo	One compressor per channel in each stage, tied together by that stage's LINK knob. At 100 percent, the default, left and right move together and the image stays put.
Dual Mono	Left and right are compressed completely independently. The LINK knobs are out of circuit.
Mid / Side	The signal is encoded to mid and side before the first stage and decoded after the second. Each stage then compresses the centre and the width separately; LINK sets how much they follow each other.

HOW LINK BEHAVES Link pulls each channel toward whichever channel is louder, not toward their sum, so a hard-panned transient ducks the whole image as much as a centred one does. At lower settings the quieter channel is left increasingly alone.

05 / VCA PEAK COMPRESSION

The VCA Stage

The VCA stage is fast, precise and does what its controls say: the ratio is the ratio you chose, the knee is the knee you chose, and the attack and release step through fixed times. Use it for grip, punch and peak control.



THRESHOLD -20 to +20 against the -10 dBFS reference. Default +20.

RATIO 1.5:1, 2:1, 4:1, 6:1, 10:1, 20:1. Default 4:1.

MAKEUP GAIN -20 to +20 dB after the stage. Default 0.

ATTACK SLOW to FAST: 30, 10, 3, 1, 0.3, 0.1 ms. Default 3 ms.

RELEASE SLOW to FAST: 1.2, 0.8, 0.4, 0.2, 0.1 s. Default 0.4 s.

AUTO Automatic release. When ON, the RELEASE knob is ignored.

KNEE Click the RSL 2181 VCA chip on the circuit board: Hard, 3 dB, 6 dB or 12 dB. Default 6 dB. The current knee is ticked in the menu.

SIDECHAIN HPF OFF, 60, 120, 250 Hz. Removes low end from what the detector hears.

LINK 0 to 100 percent stereo link. Default 100.

MIX DRY to WET for this stage alone. Default WET.

IN Lit: the stage is in circuit. Unlit: bypassed.

VCA ACTIVE The red lamp. Glows as the stage starts to work and is fully lit by 6 dB of reduction.

CONTROL VCA GR Nine lenses marked 0, -3, -6, -12 and -24 dB.

Auto release

With AUTO on, the stage recovers along two slopes at once: a fast one that lets a transient go almost immediately, and a slow one that holds sustained programme steady. A snare hit is gone before you hear the release, while a chorus sits on a stable amount of reduction. That two-slope recovery is the glue people mean when they talk about bus compression, and it cannot be dialled in on a single release control. The RELEASE knob is ignored while AUTO is on.

Knee

The knee sets how gradually the stage reaches its ratio around the threshold. Hard switches straight to the ratio, which is the most assertive and the easiest to hear. 12 dB spreads the transition over twelve dB centred on the threshold, so light reduction is very gentle and the full ratio only arrives on the loudest material. For mastering, start at 6 or 12 dB.

Colour

The VCA stage is clean when it is not compressing. As it starts to work it adds a small amount of its own character, mostly odd harmonics, and the harder it is pushed the more audible that grit becomes. There is no control for it: it is how the stage tells you it is working hard.

ATTACK SETS THE PUNCH Slower attack times let the front of each transient through before the stage clamps, which is why a 10 or 30 ms attack often sounds punchier than no compression at all. Fast attack times at high ratios catch peaks outright, and on a full mix they can dull the drums.

06 / VARI-MU PROGRAM COMPRESSION

The Vari-Mu Stage

The Vari-Mu stage is the valve side of RSL Bastion: a transformer-coupled, variable-mu compressor. It does not pump or grab. Its character is density, weight and a sense of depth, and it is at its best doing a few dB of work for a long time.



COMPRESSION 0 to 10. How hard the signal is driven into the valve cell. Default 3.

THRESHOLD -20 to +20 against the -10 dBFS reference. Default +20.

MAKEUP GAIN -20 to +20 dB after the stage. Default 0.

HARMONICS % 0 to 100. How much of the valve and transformer colour stays in the path. Default 100.

ATTACK SLOW to FAST, 0 to 100 percent. Default 40.

RELEASE SLOW to FAST, 0 to 100 percent. Default 50.

SIDECHAIN LISTEN The amber lamp above COMPRESSION. Click to hear what the detector hears.

THRESHOLD LINK Pairs the two THRESHOLD knobs. See section 04.

SIDECHAIN HPF OFF, 60, 120, 250 Hz.

LINK 0 to 100 percent stereo link. Default 100.

MIX DRY to WET for this stage alone. Default WET.

IN Lit: the stage is in circuit. Unlit: bypassed.

VALVES The two valves glow faintly while the stage is in circuit and brighter as it compresses.

Compression is drive, not threshold

There is no ratio knob on a vari-mu. COMPRESSION drives the signal harder into the valve cell and takes the same amount back out after it, so turning it up does not make the stage louder; it makes it work harder. Because the stage's ratio rises as the signal climbs past the threshold, more drive means both more reduction and a firmer ratio. THRESHOLD then sets where that begins.

- For gentle glue, keep COMPRESSION between 2 and 4 and bring THRESHOLD down until the needle moves.
- For weight, raise COMPRESSION to 5 or 6. The stage gets denser without getting louder.
- Past 7 or 8 the stage is working very hard. That is the territory for parallel use with the stage MIX or GLOBAL MIX.

Harmonics

The valves and the transformers are in the signal path even when the stage is not compressing, as they would be in a hardware unit, so the Vari-Mu stage colours the sound the moment it is in circuit. The colour is mostly second harmonic, warm rather than bright, and it grows as the stage works harder. HARMONICS blends between a clean gain path at 0 and the full valve and iron at 100. Turn it down when you want the vari-mu's movement without its colour.

Timing

The release recovers quickly at first and then settles slowly, which is what makes the stage breathe instead of simply letting go. It also has a memory: after a long, loud passage the stage eases its grip a little, and takes a while to return, so a big chorus is still gently felt in the verse after it. Neither behaviour needs setting; ATTACK and RELEASE move the whole shape faster or slower.

Sidechain listen

Click the amber lamp above COMPRESSION to hear the Vari-Mu stage's detector signal, filtered by its SIDECHAIN HPF. Both stages are out of circuit while you listen, and SIDECHAIN LISTEN appears at the foot of the faceplate. Use it to hear exactly how much low end the filter removes, then click the lamp again to return.

WHY A SIDECHAIN FILTER Kick drums and bass carry most of a mix's energy, so an unfiltered detector compresses the whole mix every time the kick lands. 60 or 120 Hz on the sidechain lets the compressor respond to the music rather than the bottom end. The audio itself is never filtered.

07 / WHICH STAGE IS DOING THE WORK

The Chain Panel

On a box that is two compressors in series, the most useful thing a panel can tell you is which of them is working. The centre section is built around that question.



VARI-MU / VCA meters Two gain reduction needles, 0 to 20 dB. Each reads only its own stage and rests at 0 when that stage is out.

CHAIN VARI-MU > VCA or VCA > VARI-MU. The lit button is the current order, and the stage that runs first is always the panel on the left.

STAGE BALANCE Total reduction in dB, and a bar split into the Vari-Mu share in amber and the VCA share in green, in chain order. Full width is 24 dB.

Scope The last four seconds of reduction from both stages, 0 at the top to 8 dB at the bottom, newest at the right.

CREST IN / OUT / DELTA The peak-to-average ratio of the programme going in and coming out, and the difference. A negative DELTA is transient the compressor has taken off.

MONITOR VARI-MU, VCA or DELTA. Listening aids you come back from.

CURVE Switches the scope to the VCA stage's transfer curve.

AUTO MAKEUP Holds the output at the level that went in.

MONO OFF, 80, 120 or 200 Hz. Makes the low end mono below that frequency.

CEIL OFF, -0.1, -0.3 or -1.0 dB. A safety ceiling on the output.

Chain

Click either CHAIN button to change the order. The two stage panels slide past each other so the stage that runs first always sits on the left, and every knob keeps its setting. Turn off Animate panel changes in the gear menu if you prefer the change to be instant. Section 03 describes how the two orders sound.

Monitor

BUTTON	WHAT YOU HEAR
VARI-MU	The Vari-Mu stage on its own. The VCA stage is taken out of circuit.
VCA	The VCA stage on its own. The Vari-Mu stage is taken out of circuit.
DELTA	Only the difference between the output and the input: what the compressor is removing. Pumping and distortion are easiest to hear here, because they are nearly all that is left.

Click a lit MONITOR button again to return to the normal output. A stage taken out by a solo keeps its detector running, so it returns without a jump. MONITOR is never stored in a preset. DELTA includes any makeup gain, so it is clearest with makeup at 0 or AUTO MAKEUP on.

Curve

CURVE replaces the four second scope with the VCA stage's static transfer curve: input level across, output level up, over the bottom 48 dB. The line bends at the threshold and follows the ratio and knee you have set; a red dot rides the curve at the current input peak. Click CURVE again to return to the scope. It changes only the display.

Auto makeup

AUTO MAKEUP measures the level going into the stages and the level coming out, and quietly adjusts the gain so the two match. Switching a stage in or out, or changing how hard it works, then no longer changes the loudness, which is what makes a fair comparison possible. It adjusts smoothly over about half a second and by at most 12 dB either way. The MAKEUP GAIN knobs still apply and OUTPUT GAIN still sets the final level.

Mono

MONO makes everything below its frequency mono, leaving the stereo image above it untouched. It is the standard fix for a low end that wanders between the speakers, and it is applied after GLOBAL MIX, so a parallel blend cannot put the wide low end back. Click to step through OFF, 80 Hz, 120 Hz and 200 Hz; the lamp is lit whenever it is on.

Ceil

CEIL is a fast safety ceiling on the very last stage of the output, after GLOBAL MIX and MONO, so nothing RSL Bastion sends out exceeds it. Click to step through OFF, -0.1, -0.3 and -1.0 dB. The lamp glows dimly while it is armed and brightly while it is actually reducing level.

A SAFETY NET, NOT A LIMITER CEIL has no lookahead and works on sample peaks. It is there to stop an occasional stray peak, and on well set compression it should rarely light brightly. For loudness, and for true peak delivery, use a dedicated limiter after RSL Bastion.

Output, Mix and Bypass

Output gain

−24 to +24 dB after both stages. Use the two MAKEUP GAIN knobs to balance the stages against each other and OUTPUT GAIN to set the level RSL Bastion hands to the next plug-in.

Global mix

GLOBAL MIX blends the processed signal with the untouched input, from DRY to WET. The dry side is the true input, taken before INPUT GAIN, so a parallel blend mixes compressed programme with the original rather than with a louder or quieter copy of itself. At DRY you hear your input exactly, delay-compensated. MONO and CEIL are applied after the blend.

CONTROL	BLENDS	USE
Stage MIX	One stage's output against its own input	Parallel vari-mu weight under an untouched VCA, or the reverse
GLOBAL MIX	The whole rack against the original input	Classic parallel compression of the complete chain

Stage IN and bypass

- Each stage has an IN button at the bottom right of its panel. Unlit takes that stage out of circuit; its detector keeps running, so switching it back in has no jump.
- The BYPASS lever in the OUTPUT section and the Power switch in the header bar are the same control. Bypass hands back your input untouched and delay-compensated, and BYPASSED appears at the foot of the faceplate.
- Bypass compares against the unprocessed level. For a level-matched comparison, turn on AUTO MAKEUP first, or match the makeup gain by ear.

09 / STARTING POINTS

Presets

RSL Bastion ships seven factory presets. A preset stores every control on the faceplate except BYPASS and MONITOR, including the chain order, so loading one may slide the panels round.

PRESET	ORDER	HEADROOM	WHAT IT DOES
Init	VCA first	0 dB	Every control at its default. Both thresholds at the top, so nothing is compressed until you bring one down.
Bus Glue	Vari-Mu first	0 dB	Both stages barely working: a gentle vari-mu into a 2:1 VCA with a 10 ms attack and 6 dB knee. Density and a light catch rather than deep reduction.
Mix Buss Weight	Vari-Mu first	0 dB	The vari-mu does most of the work, driven hard enough to colour. A 4:1 VCA with auto

PRESET	ORDER	HEADROOM	WHAT IT DOES
			release catches the few peaks that get past.
Master Gentle	Vari-Mu first	+6 dB	Slow, shallow and wide: 1.5:1 with a 12 dB knee, auto release, reduced harmonics and a 120 Hz sidechain filter on both stages. Under 2 dB from each stage on most programme.
Peak Control	Vari-Mu first	0 dB	The Vari-Mu stage out. A fast, hard 10:1 VCA on its own, for material that only needs its peaks taken off.
Parallel Weight	Vari-Mu first	0 dB	The vari-mu driven far past where it would be usable in series, then blended back underneath with its stage MIX at 40 percent. Density without losing the transients.
Loud and Controlled	Vari-Mu first	-12 dB	Both stages driven twelve dB harder, with a 6:1 VCA on auto release and a 1.5 dB output trim. The hardest the machine is meant to be asked to work.

PRESETS ARE STARTING POINTS Compression depends on level. Every factory preset assumes typical mix bus level; if the needles barely move, or move far too much, adjust the two THRESHOLD knobs, or HEADROOM, 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.
Move presets between machines	Import / Export in the header bar, or copy the files from the preset folder.

Presets are .rgpreset files: plain XML, shared across the Renegade Sound Labs line, storing each control as its real value in dB, percent or Hz. On macOS they are normally kept in ~/Library/Audio/Presets/Renegade Sound Labs/RSL Bastion/, the folder Mac hosts already use for presets; if that folder cannot be written, RSL Bastion uses ~/Library/Application Support/Renegade Sound Labs/RSL Bastion/Presets/ instead. Show Preset Folder always opens the right one. Everything on the faceplate, the interface size and the animation setting are also saved with the host session.

10 / WAYS OF WORKING

Recipes

Mix bus glue

1. Load Bus Glue and play the busiest section of the song.
2. Lower the VCA THRESHOLD until the lens column reads 1 to 2 dB on the snare.
3. Lower the Vari-Mu THRESHOLD until its needle sits around 1 dB on sustained passages.
4. Turn on THRESHOLD LINK, then ride either threshold to set the overall amount with the balance between the stages intact.
5. Switch AUTO MAKEUP on and compare with BYPASS. The mix should feel more finished, not smaller.

Gentle mastering

Start from Master Gentle. Aim for no more than 1 to 2 dB on each needle and a CREST DELTA of around a decibel. Try both CHAIN orders on the loudest section: vari-mu first is usually the warmer and more forgiving, VCA first the more controlled. Place your limiter after RSL Bastion, and leave CEIL off or at -0.1 dB so it never does the limiter's job.

Parallel density

Load Parallel Weight, or drive the Vari-Mu stage hard with COMPRESSION at 7 or more and a low THRESHOLD, then bring its MIX down until the density sits underneath the dry transients. Use GLOBAL MIX instead when you want the whole rack, VCA included, in parallel.

Only the peaks

Load Peak Control. The Vari-Mu stage is out and the VCA runs 10:1 with a very fast attack and release. Lower THRESHOLD until only the loudest hits light the lenses. If the drums soften, step ATTACK one position towards SLOW.

Setting the sidechain filter by ear

On the Vari-Mu stage, click the amber lamp to hear the detector, and step SIDECHAIN HPF until the kick stops dominating what you hear. Click the lamp again. Set the VCA stage's filter to match, or leave it lower if you want the VCA to keep reacting to the kick.

Finding the pump

If the mix breathes in a way you did not ask for, press DELTA. Rhythmic swelling in the difference signal is the pump. Watch the scope to see which stage it follows, then slow that stage's release, raise its SIDECHAIN HPF, or switch the VCA to AUTO release.

A/B discipline

- Compare at matched level. Switch on AUTO MAKEUP, then use BYPASS or the stage IN buttons.
- Use STAGE BALANCE and the scope to find which stage is working before you adjust anything.
- Make the final decision on the full signal, not on DELTA or a solo.

Installing and Activating

RSL Bastion is installed and activated through RSL Hub, the free Renegade Sound Labs app for macOS and Windows. There are no licence keys to copy or paste.

1. Download RSL Hub from renegadesoundlabs.com and install it.
2. Sign in to RSL Hub with your Renegade Sound Labs account.
3. Install RSL Bastion from RSL Hub. Quit your DAW first if it is open: hosts look for new plug-ins when they start.
4. Reopen the DAW and, if it does not find new plug-ins on its own, run its plug-in rescan. RSL Bastion is listed under Renegade Sound Labs.

Signing in to RSL Hub activates the computer automatically. One account can activate up to four computers, managed from RSL Hub or from your account page on the website. RSL Hub keeps the activation renewed in the background, so there is nothing to do once it is set up.

If RSL Bastion is not activated

Without an activation the plug-in is silent and shows a screen saying why, with two buttons. Open RSL Hub opens the Hub, or its download page if it is not installed, so you can sign in. Check again looks for the activation once more. As soon as the Hub has activated the computer, RSL Bastion unlocks by itself.

Buying and RSL All Access

RSL Bastion can be bought outright for \$69, or used as part of RSL All Access, which includes every RSL plug-in for \$18 a month or \$180 a year.

- All Access starts with a 14-day free trial. No card is needed.
- During the 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, the plug-in locks and offers Start your subscription. Once you have subscribed, open RSL Hub and RSL Bastion unlocks by itself.

Formats and locations

FORMAT	LOCATION
Audio Unit (macOS)	/Library/Audio/Plug-Ins/Components/RSL Bastion.component
VST3 (macOS)	/Library/Audio/Plug-Ins/VST3/RSL Bastion.vst3
AAX (macOS)	/Library/Application Support/Avid/Audio/Plug-Ins/RSL Bastion.aaxplugin
Standalone (macOS)	/Applications/RSL Bastion.app
VST3 (Windows)	C:\Program Files\Common Files\VST3\RSL Bastion.vst3
Standalone (Windows)	C:\Program Files\Renegade Sound Labs\RSL Bastion\RSL Bastion.exe

On macOS, installing replaces any earlier copy of RSL Bastion, including one in your own ~/Library folder, so a host never finds two versions. Insert RSL Bastion on a mix bus or the master bus.

REQUIREMENTS macOS 11 or later, universal binary for Apple Silicon and Intel; or 64-bit Windows 10 or later. Mono or stereo; the stereo modes and link controls apply to stereo tracks. The AAX version is signed for Pro Tools.

Latency

RSL Bastion reports 46 samples of latency, about a millisecond at 44.1 kHz. It comes from the oversampling that keeps the valve stage clean, it is the same at every setting, and every host with delay compensation corrects for it automatically. Nothing in RSL Bastion looks ahead.

Removing

Delete the bundles listed above. Host sessions that reference the plug-in will report it missing until it is reinstalled. Your own presets stay in the preset folder until you delete them.

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Troubleshooting

SYMPTOM	CHECK
Plug-in does not appear	Confirm it is installed in RSL Hub and the bundle is in the folder above, restart the host, and force a full plug-in rescan.
Silent, with a message on the faceplate	The computer is not activated, or a trial has ended. Read the message, then use Open RSL Hub. See section 11.
Nothing compresses	Both thresholds default to +20, above normal mix level. Bring THRESHOLD down. If it still does not move, select -12 dB under HEADROOM. Check that the stage IN buttons are lit.
Sound changed with no reduction	The Vari-Mu stage's valves and transformers are in the path whenever the stage is in. Lower HARMONICS for a cleaner path, or switch the stage out.
Output is silent or thin	A MONITOR button is lit, or SIDECHAIN LISTEN is on: the foot of the faceplate says so. Click the lit control again.
Compression pumps	Raise the SIDECHAIN HPF, slow the release, or switch the VCA to AUTO. Use DELTA to hear it clearly.
Drums lose punch	Slow the VCA ATTACK one or two steps, soften the knee, or lower the VCA ratio.
Low end lost width	MONO is on. Lower its frequency, or switch it off.
CEIL lamp is bright all the time	The ceiling is doing a limiter's work. Lower OUTPUT GAIN or the makeup, and use a dedicated limiter for loudness.
Level jumps when comparing	Switch on AUTO MAKEUP before comparing, or balance the MAKEUP GAIN knobs.
Threshold knobs move together	THRESHOLD LINK is on. Click it to unlink.
Output is delayed	RSL Bastion reports 46 samples of latency. Make sure host delay compensation is enabled.
Window too small or too large	Gear menu, Interface size.

Support information to include

- Operating system and computer model
- DAW and version
- Plug-in format

- Sample rate and buffer size
- Preset, chain order and HEADROOM setting
- Exact steps required to reproduce the issue

Support: hello@renegadesoundlabs.com

13 / SPECIFICATION

Technical Reference

ITEM	SPECIFICATION
Product	RSL Bastion
Developer	Renegade Sound Labs
Manual version	1.0.0
Category	Dual-stage mastering compressor
Stages	Transformer-coupled vari-mu valve stage and discrete VCA stage, in either order
Formats	macOS: Audio Unit, VST3, AAX, Standalone. Windows: VST3, Standalone
Architecture	macOS: Universal 2, Apple Silicon arm64 and Intel x86_64. Windows: 64-bit
Minimum system	macOS 11; Windows 10
Channels	Mono or stereo
Oversampling	2x on the vari-mu valve stage
Latency	46 samples at every sample rate (1.04 ms at 44.1 kHz). Reported to the host
Lookahead	None
Threshold reference	Panel 0 = -10 dBFS RMS, with HEADROOM at 0 dB
Interface	800 x 380 points at 100 percent; 100 to 160 percent from the gear menu; opens at 120 percent
Activation	RSL Hub, up to 4 computers per account
Presets	7 factory presets; user presets as .rgpreset files
Website	https://renegadesoundlabs.com

Parameters as the host sees them

In the host's parameter list and automation lanes the Vari-Mu stage's controls carry the prefix Level and the VCA stage's the prefix Control, where a name would otherwise be ambiguous.

PARAMETER	RANGE	DEFAULT	PANEL
Input	-24 to +24 dB	0 dB	INPUT GAIN
Output	-24 to +24 dB	0 dB	OUTPUT GAIN
Global Mix	0 to 100 %	100 %	GLOBAL MIX
Headroom	+6 dB / 0 dB / -12 dB	0 dB	HEADROOM
Stereo Mode	Stereo / Dual Mono / Mid / Side	Stereo	STEREO MODE

PARAMETER	RANGE	DEFAULT	PANEL
Chain	Vari-Mu > VCA / VCA > Vari-Mu	VCA > Vari-Mu	CHAIN
Monitor	Output / Vari-Mu / VCA / Delta	Output	MONITOR. Not stored in presets
Auto Makeup	On / Off	Off	AUTO MAKEUP
Bass Mono	Off / 80 / 120 / 200 Hz	Off	MONO
Ceiling	Off / -0.1 / -0.3 / -1.0 dB	Off	CEIL
Bypass	On / Off	Off	BYPASS and Power. Not stored in presets
Threshold Link	On / Off	Off	THRESHOLD LINK
Level In	On / Off	On	Vari-Mu IN
Level Threshold	-20 to +20	+20	Vari-Mu THRESHOLD
Compression	0 to 10	3.0	COMPRESSION
Level Attack	0 to 100 %	40 %	Vari-Mu ATTACK
Level Release	0 to 100 %	50 %	Vari-Mu RELEASE
Level Makeup	-20 to +20 dB	0 dB	Vari-Mu MAKEUP GAIN
Harmonics	0 to 100 %	100 %	HARMONICS %
Level Mix	0 to 100 %	100 %	Vari-Mu MIX
Level SC HPF	Off / 60 / 120 / 250 Hz	Off	Vari-Mu SIDECHAIN HPF
Level Link	0 to 100 %	100 %	Vari-Mu LINK
SC Listen	On / Off	Off	Amber lamp above COMPRESSION
Control In	On / Off	On	VCA IN
Control Threshold	-20 to +20	+20	VCA THRESHOLD
Ratio	1.5:1 / 2:1 / 4:1 / 6:1 / 10:1 / 20:1	4:1	RATIO
Control Attack	30 / 10 / 3 / 1 / 0.3 / 0.1 ms	3 ms	VCA ATTACK
Control Release	1.2 / 0.8 / 0.4 / 0.2 / 0.1 s	0.4 s	VCA RELEASE
Auto Release	On / Off	Off	AUTO
Knee	Hard / 3 / 6 / 12 dB	6 dB	The VCA chip
Control Makeup	-20 to +20 dB	0 dB	VCA MAKEUP GAIN
Control Mix	0 to 100 %	100 %	VCA MIX
Control SC HPF	Off / 60 / 120 / 250 Hz	Off	VCA SIDECHAIN HPF
Control Link	0 to 100 %	100 %	VCA LINK

Glossary

TERM	MEANING
Gain reduction	How far a compressor has turned the signal down at that moment, in dB. What the needles, the lens column and STAGE BALANCE show.
Threshold	The level at which a stage begins to compress.
Ratio	How much a signal above the threshold is reduced. At 4:1, a signal 8 dB over the threshold comes out 2 dB over.
Knee	How gradually the ratio arrives around the threshold. A soft knee eases in; a hard knee switches.
Vari-mu	Variable-mu. A valve compressor whose gain changes with the valve's operating point, giving a ratio that rises with level.
VCA	Voltage controlled amplifier. A fast, precise gain cell.
Sidechain	The signal a compressor's detector listens to when deciding how much to reduce. Filtering it changes what the compressor responds to, not what you hear.
Crest factor	Peak level over average level. Compression lowers it: a dense master has a low crest factor.
Mid / side	The sum and the difference of left and right: the centre of the image and its width.
dBFS	Decibels relative to full scale, the loudest level a digital signal can hold.

DESIGN INTENT RSL Bastion is two compressors that are opposites on purpose, and a panel built to show which of them is working. Set each by its meter, choose the order by ear, and judge the result at matched level.



RSL BASTION

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