OPTOBLUE COMP

OPTICAL COMPRESSION.
TUBE COLOR.

A compressor inspired by the CL1B, with circuit modeling and neural captures of the amplification stage.



MACOS / VST3, AU, AAX

WINDOWS / VST3

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01

INSTALL THE FORMAT YOUR DAW USES.

OptoBlue Comp is an effect for mono or stereo tracks and buses. Download the version for your system from the product page or from the link you received by email.

FORMAT	MACOS 12+	WINDOWS 10/11	USE
VST3	Yes	Yes, x64	DAWs with VST3 support
AU	Yes	No	Logic Pro and other DAWs with Audio Units support
AAX	Yes	No	Pro Tools with AAX support

01 ## PREPARE THE INSTALLATION

Close the DAW and extract the ZIP. On Mac, the installer covers Intel and Apple Silicon Macs. On Windows, use a 64-bit DAW with VST3 support.

02 ## MACOS

Open the extracted **.pkg** file and follow the installer's steps. Select whichever of the offered formats your DAW uses.

03 ## WINDOWS

Copy the entire **OptoBlue Comp.vst3** folder to **C:\Program Files\Common Files\VST3**. The bundle must **keep its entire internal structure.**

04 ## OPEN THE DAW

Wait for the plugin scan and look for **OptoBlue Comp** among the SomBinário effects. Insert it on a track or bus to activate it.

> DOWNLOAD
>
> OptoBlue Comp product page. To try it out, request the trial and confirm your email to receive the download.

02

TRY IT FOR 14 DAYS.
ACTIVATE IN YOUR DAW.

The LICENSE button gathers the trial, the activation and the computer management. Connect to the internet to start the trial or register the license.



FIG 01 / LICENSE in the plugin's top bar.

14 DAYS	3	LIFETIME
TRIAL	COMPUTERS	PRODUCT LICENSE

01

START THE TRIAL

After installing, insert the plugin and click **LICENSE**. Select **Start 14-day trial**. The period starts when the trial is activated in the plugin.

02

REGISTER YOUR LICENSE

Paste the key sent after your purchase and click **Activate**. The product license can be used on up to three computers.

03

MANAGE YOUR ACTIVATIONS

To free up a slot, use **Deactivate this computer** with internet access. If the plugin asks for a new verification, use **Revalidate**. The labels follow your system language.

> IF THE TRIAL EXPIRES
>
> Activate a license to resume processing audio. The saved session keeps the instance's settings.

03

A FIRST SETUP IN YOUR SESSION.

Use the main panel to dial in the dynamics. The lower strip holds the amplifier color, the blend and the detector EQ.



FIG 02 / The OptoBlue Comp interface. The figures show example settings.

01 **START FROM INIT**

Open the preset menu in the top bar and choose **Init**. Use **Stereo Linked** on stereo material when you want both sides to receive the same reduction.

02 **FIND THE REDUCTION**

With **COMP IN** on and the VU set to **GR**, lower the Threshold until the needle reacts to the loudest passage. Set Ratio and the times by ear.

03 **MATCH THE LEVEL AND COMPARE**

Adjust Gain or Output Trim to compare at the same volume. Explore Drive with the level under control and use **BYPASS ALL** to switch back to the input.

Double-click a knob to return that control to its factory value.

04

THRESHOLD, RATIO AND GAIN.

Set the compression from the detector and make the level back up in the stage that follows the optical cell.



FIG 03 / Gain, Ratio and Threshold in the main panel.

THRESHOLD

Sets the region where compression starts to act, in dBu. Lowering the value brings more of the signal into that region. The transition is gradual. Use the needle on GR and your ears to choose the point.

RATIO

Sets the strength of the compression, from **2:1 to 10:1**. Above the transition region, 4:1 means roughly 1 dB more at the compressor's output for every 4 dB more at the input, in steady state.

GAIN

Applies gain after the reduction and before the NCM amplification. Besides making up volume, it can drive the amplifier. At its minimum, **OFF** mutes the processed path. Use **Output Trim** to correct the level after the amplification.

> COMP IN
>
> When you turn COMP IN off, the optical reduction stops and the amplification stage stays in the path. With Gain high, the sound can get louder. Use BYPASS ALL to compare against the input signal.

05

CHOOSE HOW THE CELL RESPONDS.

Attack sets how the reduction comes in. Release determines how long the cell takes to give the gain back as the signal falls away.



FIG 04 / Attack, Release, the timing selector and COMP IN.

MODE	HOW IT RESPONDS
Fixed	Attack of roughly 1 ms and release of 50 ms. Both knobs are disabled.
Manual	Attack and Release follow the knobs. Ranges of 0.5 to 300 ms and 50 ms to 10 s.
Fix / Manual	Fixed fast attack and program-dependent recovery. The manual attack governs how the memory comes in on long events. Release sets the manual tail.

LISTEN TO THE START OF THE NOTE

A slower attack preserves more of the start of the sound. A faster attack holds peaks back and can round off consonants, pick attacks and hits.

> SET THE RECOVERY
>
> Over a phrase or a groove, watch how far the needle returns before the next event. Lengthen the release when you want a more continuous reduction between events.

06

DRIVE, 2X AND BLEND.

Drive sets how much signal pushes the amplifier. Use Output Trim to hear the change in texture with the volume under control.



FIG 05 / Drive, the 2x button, Output Trim and Parallel.

01 **DRIVE**

It runs from **0 to 18 dB**. At cleaner levels, the circuit modeling dominates. With more drive, the engine gives more room to the automatically selected neural capture.

02 **2X**

Widens the displayed range to **0 to 36 dB** and applies extra drive to the amplifier. The effect can show up even with Drive at its minimum. Use it for obvious saturation and watch the peaks in the DAW.

03 **OUTPUT TRIM**

Sets the level of the processed path after the amplifier, from **−24 to +12 dB**. Use it to set the final volume or to compare Drive levels.

04 **PARALLEL**

Blends the time-aligned input with the processed path. **0%** gives the input, **100%** gives the effect. Between those points, the reduction and the color come into the blend together.

> CHECK THE PEAK LEVEL
>
> Drive has internal gain compensation. The perceived level and the peaks still vary with the signal, especially at 2x. Adjust the Trim and check the DAW's meter.

07

READ THE VU.
CALIBRATE THE INPUT.

The three buttons under the meter choose the reading point. The VU follows the channel being edited in the independent modes.



FIG 06 / The VU in GR mode and the INPUT, GR and OUTPUT selectors.

SELECTOR	READING
INPUT	Input signal level relative to the 0 VU reference.
GR	The cell's gain reduction. The needle starts at 0 and travels left as the reduction grows.
OUTPUT	Output signal level relative to the 0 VU reference.

THE 0 VU REFERENCE

In the top bar, select or type the reference in dBFS. It sets the digital peak of a sine wave that corresponds to **+4 dBu** in the internal calibration. The default is **−18 dBFS** and the range runs from −24 to −10 dBFS. The lower the value, the more sensitive the same Threshold becomes.

Use the DAW's meter to check peaks in dBFS, even when the VU shows a comfortable reading.

08

STEREO, DUAL MONO AND MID/SIDE.

Choose how the compressor splits the signal and how the detectors react in each mode.



FIG 07 / Mid/Side with SIDE being edited. The VU follows the selection.

01 STEREO LINKED

Applies the same reduction to both sides, taken from whichever detector asks for more attenuation. It preserves the stereo position during compression. The per-side edit buttons are disabled.

02 DUAL MONO

L and R have independent detection. Use **EDIT L** and **EDIT R** to edit or meter each side. A difference in reduction can shift the perceived position of elements.

03 MID/SIDE

EDIT M selects what L and R have in common. **EDIT S** selects the difference between the sides. Both parts are processed and recombined at the stereo output.

On a mono track the plugin works with a single channel and uses the Stereo Linked behavior.

09

CONTROL EACH SIDE. COMPARE WITH INTENT.

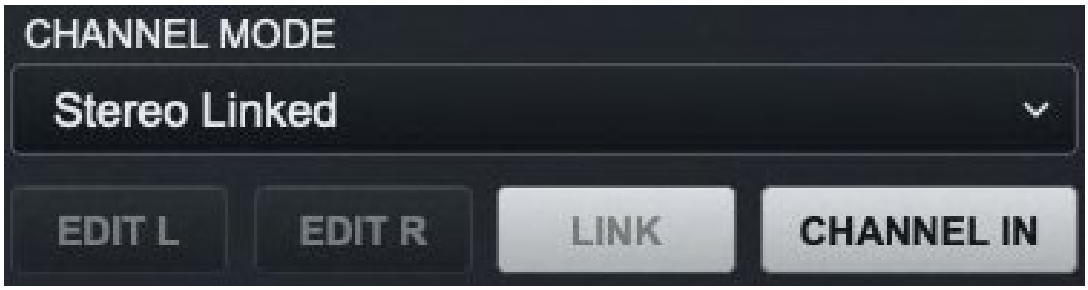


FIG 08 / In Stereo Linked, individual editing is disabled.

EDIT AND LINK

In Dual Mono or Mid/Side, select the channel with the EDIT buttons. With **LINK** on, the settings are shared and the detection stays independent. Turn it off to adjust the channels separately. The second bank starts out with the first one's values.

When you turn LINK back on, the channel being edited is copied to both banks. Choose which side you want to keep before switching it back on.

BUTTON	WHAT CHANGES
COMP IN	Turning it off removes the optical reduction. Gain, Drive and the amplifier stay active.
CHANNEL IN	Turning it off passes that channel's dry signal. With LINK on, it acts on both channels.
BYPASS ALL	Passes the whole instance's input, aligned to the reported latency. The settings are preserved.

> THE VU FOLLOWS EDIT
>
> In Dual Mono, the face reads VU / L or VU / R. In Mid/Side, it reads VU / MID or VU / SIDE. In Stereo Linked, the label is just VU.

10

FOUR BANDS.
ONE DETECTOR.

The blue spectrum shows the detector signal after filtering. The white line shows the filters' response. The EQ changes which frequencies drive the compression.



FIG 09 / Numbered points, the EQ curve, the spectrum and the readout strip.

01 **SELECT A BAND**

Click the numbered point or the readout strip under the graph to open the editor. Choose the filter type and set the available values.

02 **DRAG TO ADJUST**

Move the point horizontally to change the frequency. Vertically, set the Bell's gain or the Q of the 12 dB/octave high-pass and low-pass.

03 **CONTROL THE WIDTH**

Use the mouse wheel over a point to change the Q when the filter type offers it. On a Bell, a higher Q concentrates the effect into a narrower band.

With a point focused, use the arrow keys to adjust the band and Enter or Space to open the editor.

> SHORTCUT FOR A BAND THAT IS OFF
>
> Drag its point to enable the filter. Band 1 starts as a high-pass, band 4 as a low-pass and the middle bands as Bells.

11

CHOOSE THE SIGNAL THAT DRIVES THE REDUCTION.

The detector uses the main input by default. With EXT SC, an auxiliary track can drive the reduction, through the same four-band EQ.

FILTER	EFFECT ON THE DETECTOR
Off	Disables the band.
Bell	Boosts or cuts around the selected frequency.
High-pass 12 dB/oct	Reduces lows below the cutoff. Q adjusts the transition.
Low-pass 12 dB/oct	Reduces highs above the cutoff. Q adjusts the transition.
High-pass 6 dB/oct	Reduces lows with a gentler, fixed slope.

01

ROUTE IT IN THE DAW

In the DAW, send the track that will drive the compression to this instance's sidechain input. Turn **EXT SC** on and watch the spectrum and the GR while the auxiliary signal plays.

02

CHECK THE SIGNAL

If the auxiliary input is unavailable, the plugin uses the main input. With the auxiliary input active but silent, check the send in the DAW. In Mid/Side, a mono auxiliary input feeds Mid and leaves Side with no stereo difference.

> CONTROL THE WEIGHT OF THE LOWS
>
> On a bus, try a high-pass between 80 and 150 Hz to reduce triggering from the kick. The filter acts on the detector. The low range stays in the main audio.

12

THE CELL COMPRESSES. THE AMPLIFIER COLORS.

Neural Component Modeling, or NCM, brings together circuit modeling and neural captures in the amplification stage. The compressor responds to dynamics through a model of the optical cell.

CIRCUIT AND CAPTURES

The circuit behavior was developed from a reference schematic, with attention to the signal path, the transformers and the tube stage. The NAM A2 captures record the physical amplifier's response with the compression out of the path.

DRIVING THE AMPLIFIER

At low levels, the circuit modeling dominates. With more signal into the amplifier, NCM increases the neural contribution. The Drive position determines the automatic selection among the captures, with a short transition between them. Gain and input level also shape the color.

SIGNAL FLOW

AUDIO PATH

Input → Optical cell → Gain / Drive → NCM / Trim → Parallel → Output

DETECTOR BRANCH

Int. or ext. → Channel mode → 4-band EQ → Detector → Optical cell

FIG 10 / Simplified functional flow. The detector controls the optical cell's attenuation.



FIG 11 / Tube.

THE TUBE WINDOW

The glow follows how hard the amplifier is driven and pulses with transients, responding most to low-frequency energy. To measure level and reduction, use the VU.

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OVERSAMPLING UP TO 8X.

Raise the amplifier's internal rate when you want to reduce aliasing artifacts in the saturation. Higher modes use more processing.



FIG 12 / OS and the 0 VU reference in the top bar.

MODE	STARTING POINT
OS 1x	Factory default. Use it to set the dynamics and to work with many instances.
OS 2x	A first step for comparing the amplifier at moderate Drive.
OS 4x	Try it with stronger saturation or with Drive's 2x engaged.
OS 8x	The highest factor available. Judge it on the most demanding passage before using it on several tracks.

01 **STOP THE TRANSPORT**

The DAW must be stopped for the change to apply. Select the factor in the OS menu and resume playback once the value has taken effect.

02 **COMPARE AND RENDER**

The DAW receives the plugin's latency so it can compensate the alignment. The dry path is aligned internally as well. Set the OS before exporting or freezing the track.

> TWO DIFFERENT FUNCTIONS
>
> The 2x next to Drive increases how hard the amplifier is driven. The OS menu sets that stage's processing rate.

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START FROM A PRESET. SAVE IT IN THE SESSION.

The menu at the top holds six starting points. After loading a preset, set the Threshold and the levels for the material reaching the instance.

PRESET	WHERE TO START
Init	Initial state for dialing in each control by ear.
Vocal Level	Vocal leveling with the focus on dynamics.
Vocal Warm A2	Vocals with more amplifier color.
Bass Hold	Bass with more even sustain.
Mix Glue	Moderate compression for a bus or a mix.
Amplifier Only	Amplifier color with COMP IN off.

STATE AND PER-CHANNEL SETTINGS

Presets load a full set of settings, including the channel mode and the EQ. The 0 VU reference and the OS factor are kept. Save the session or a DAW preset to recall your settings per instance.

AUTOMATION IN THE DAW

Use the instance's parameter list to automate controls such as Threshold, Gain, Drive and Parallel. In the independent modes with LINK off, choose the bank A parameter for L or Mid, and bank B for R or Side.

> COMPARE FROM A FIXED POINT
>
> If you want to try another preset without losing your current setup, save the state in the DAW or duplicate the instance before switching.

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VOCALS, BASS AND MIX BUS.

Use the numbers as a starting point. Set the Threshold while listening to the loudest part and match the output volume before deciding.

VOCALS UP FRONT

Manual · Ratio 3:1 · Attack 10 to 20 ms · Release 120 to 250 ms

Aim for 2 to 5 dB of reduction on the peaks. If the first syllables lose definition, lengthen the attack. Start with Drive low and raise it until the texture appears on the loudest passages. Make up for it with Output Trim.

A STEADIER BASS

Manual · Ratio 4:1 · Attack 20 to 35 ms · Release 200 to 400 ms

Look for 3 to 5 dB on the loudest notes. Set the release so the needle recovers enough between notes. If a few low notes are driving the whole detector, try the sidechain high-pass and reset the Threshold.

A BUS WITH MOVEMENT

Stereo Linked · Ratio 2:1 · Attack 30 to 60 ms · Release 150 to 300 ms

Start with 1 to 2 dB on the densest passages. Try Fix / Manual to hear the recovery reacting to the program. If the kick pulls the bus down, use the detector EQ to ease the lows.

> LISTEN IN CONTEXT
>
> Compare in solo to identify the effect. Go back to the mix to decide whether the reduction, the sustain and the color help the arrangement.

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PARALLEL, SATURATION AND STEREO IMAGE.

Three ways to use the same instance to add density to drums, color a track or control the center of a mix.

DRUMS IN PARALLEL

Manual · Ratio 4:1 · Attack 15 to 30 ms · Parallel 20 to 40%

Start at 100% to dial in the compressor. Lower the Threshold until you hear more body between the hits. Set the release to the groove and bring Parallel back to blend the sustain with the original attack.

TUBE COLOR WITHOUT REDUCTION

Amplifier Only · COMP IN off · Parallel 100%

Raise Drive and make up for it with Output Trim. When you want a distortion texture, engage 2x with Drive low and go by ear from there. Check the peaks and compare with BYPASS ALL. Try OS 4x or 8x with the transport stopped.

CENTER AND SIDES

Mid/Side · LINK off · VU on GR

Select EDIT M and set the reduction in the center. Then select EDIT S to set the sides. Compare the balance in stereo and in mono. Large differences in reduction or output between the two paths change the perceived width.

> COME BACK TO THE SAME LEVEL
>
> Use the output to match the perceived volume before comparing. In Mid/Side, also confirm that the center and side relationships came out the way you wanted.

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DYNAMICS AND AUDIO PATH.

Factory values with the Init preset. The channel parameters can be set separately in Dual Mono and Mid/Side with LINK off.

CONTROL	RANGE OR OPTIONS	INIT
Gain	−60 to +30 dB. The minimum is shown as OFF.	0 dB
Ratio	2:1 to 10:1	4:1
Threshold	−40 to +20 dBu	0 dBu
Attack	0.5 to 300 ms	10 ms
Release	50 ms to 10 s	200 ms
Attack / Release	Fixed, Fix / Manual, Manual	Manual
COMP IN	Optical reduction active or inactive	On
Drive	0 to 18 dB. With 2x, 0 to 36 dB displayed and extra drive.	0 dB
2x	Extra drive into the amplifier	Off
Output Trim	−24 to +12 dB	0 dB
Parallel	0 to 100% processed	100%
CHANNEL IN	Channel path active or dry	On

In the independent modes, the bank being edited determines the values shown in the panel.

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CHANNELS, SIDECHAIN AND QUALITY.

Factory configuration. The level reference and the oversampling keep their current value when you change presets.

CONTROL	RANGE OR OPTIONS	DEFAULT
Channel Mode	Stereo Linked, Dual Mono, Mid/Side	Stereo Linked
LINK	Settings shared or separate	On
VU	INPUT, GR, OUTPUT	GR
0 VU	−24 to −10 dBFS	−18 dBFS
EXT SC	Uses the auxiliary input when available	Off
OS	1x, 2x, 4x, 8x	1x
BYPASS ALL	Bypass of the whole instance	Off

SIDECHAIN EQ

BAND	TYPE IN INIT	FREQUENCY	GAIN / Q
1	Off	80 Hz	0 dB / 0.707
2	Bell	320 Hz	0 dB / 1
3	Bell	3.2 kHz	0 dB / 1
4	Off	12 kHz	0 dB / 0.707

Every band has an adjustable frequency from 20 Hz to 20 kHz. On a Bell, the gain runs from −18 to +18 dB. On the filters with adjustable Q, the range is 0.2 to 12. The EQ in Init has a flat response.

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FIND THE CAUSE.
GET BACK TO WORK.

SYMPTOM	WHAT TO CHECK
The plugin doesn't show up.	Check the format, the system version and the architecture. Reopen the DAW and force a new scan. On Windows, confirm the entire VST3 bundle was copied.
The sound doesn't change.	Check LICENSE, BYPASS ALL, CHANNEL IN and Parallel. To hear the color, raise Drive with Parallel above 0%.
The needle shows no reduction.	Select GR, turn COMP IN on and lower the Threshold. Check the 0 VU reference and whether there is signal on the sidechain.
The output got loud when I turned COMP IN off.	The reduction left the path and Gain is still active. Reset Gain or Output Trim and compare with BYPASS ALL.
The EQ doesn't seem to change the tone.	Use the spectrum and the GR to judge the detector. The difference shows in how much and when the compressor reacts.
EDIT or OS is unavailable.	To edit per channel, use a stereo track in Dual Mono or Mid/Side. To change the OS, stop the transport.
The audio glitches at high OS.	Try a lower factor, raise the DAW's buffer or freeze the heaviest tracks.
The license asks for verification.	Connect to the internet, check the date and time and open LICENSE to revalidate. To free up a slot, deactivate a previous installation.

ISOLATING IT

Test on a fresh track with Init. If the problem persists, note which format it happens in and at what point in the setup.

20

BEFORE YOU EXPORT. BEFORE YOU ASK FOR HELP.

Check the session on its most demanding passage. For help with installation, activation or operation, use SomBinário support.

01 LEVELS AND METERING

Compare with BYPASS ALL, match the volume and check the peaks on the DAW's meter. In the independent modes, check the VU on both channels.

02 ROUTING AND QUALITY

Confirm the channel mode and the send to EXT SC, if you are using it. Set the OS with the transport stopped before exporting.

03 SAVE THE STATE

Save the session and, if you need to reuse the setup, store a DAW preset. In the independent modes, confirm that LINK is in the position you want.

CONTACT SOMBINÁRIO

suporte@sombinario.com.br
Página do OptoBlue Comp

Tell us the OptoBlue Comp version, the system, the DAW, the format and the steps to reproduce it. A screenshot and your buffer setting help when the problem involves audio. Keep your full license key somewhere private.
