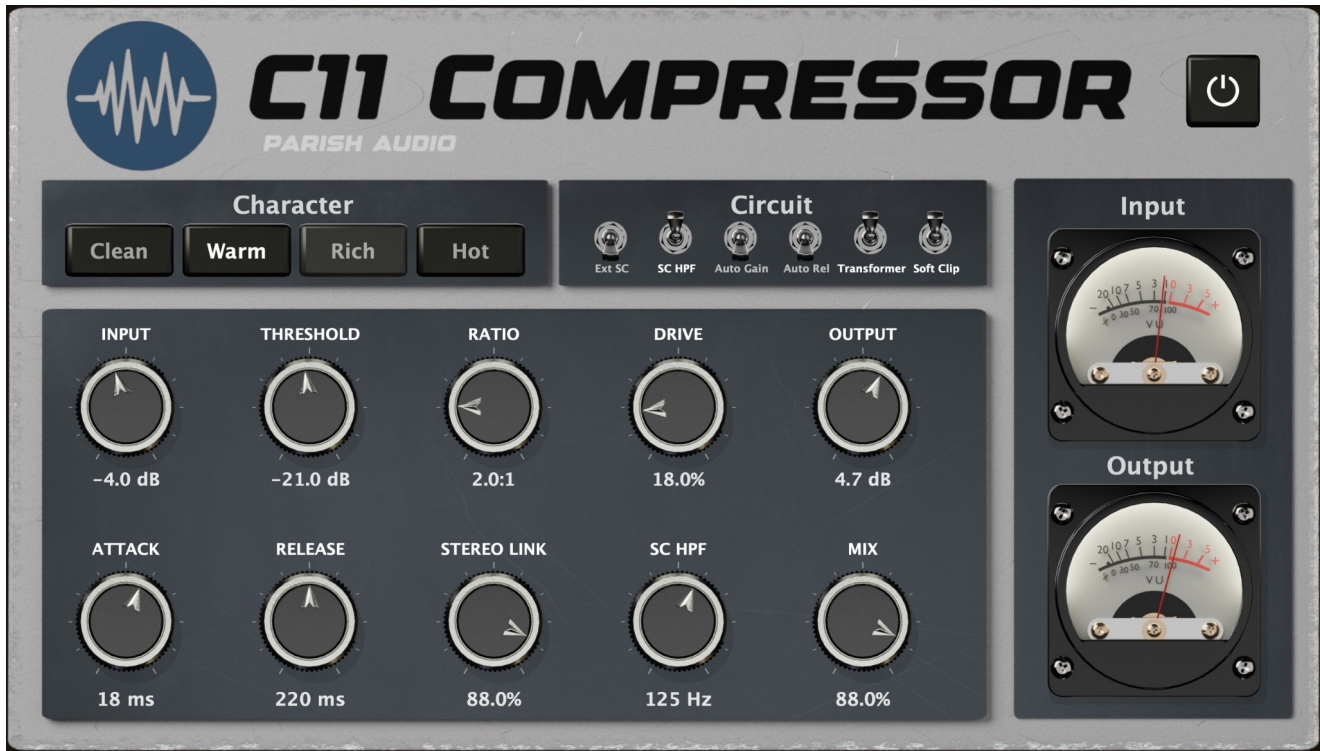


C11 Compressor

User Guide | Parish Audio

Tube-style compression with variable character, detector control, and analog-inspired finishing stages.



Product page: <https://parishaudio.com/products/c11compressor>

C11 combines soft-knee compression with two stages of tube-style coloration, four Character voicings, sidechain filtering, external sidechain detection, program-dependent release, transformer coloration, soft clipping, and parallel mix control.

1. Quick Start

1. Insert C11 Compressor on the track or bus you want to control.
2. Start with Input near 0 dB, choose a Character mode, then lower Threshold until the compressor reacts on the moments you want to control.
3. Set Ratio for the amount of dynamic control. Use lower ratios for smooth leveling and higher ratios for firmer compression.
4. Adjust Attack to decide how much initial transient passes, and Release to determine how quickly the compressor recovers. Auto Release can make recovery program-dependent.
5. Use Drive to add tube-style density and harmonic color. The Character buttons move from cleaner to progressively more colored behavior.
6. Enable SC HPF when low frequencies are causing too much compression, and set the SC HPF frequency to keep the detector from overreacting to bass energy.
7. Use Mix for parallel compression, then set Output so the processed signal is level-matched to bypass.

2. Signal Flow at a Glance

C11 is designed as more than a clean gain-reduction stage. The compressor and coloration stages interact, so Drive, Character, compression amount, and the optional circuit stages all contribute to the final sound.

- The original input is retained as the dry path for Mix and power bypass.
- Input gain feeds the active processing path.
- A first tube-style stage colors the signal before compression. The internal detector follows this input-gained, colored signal.
- The detector can instead use the external sidechain bus. External sidechain audio is detector-only and is never mixed into the audible output.
- SC HPF can high-pass the detector so low frequencies contribute less to gain reduction.
- The detector combines peak and RMS behavior, then Threshold, Ratio, Attack, Release, Stereo Link, and Auto Release determine gain reduction.
- Auto Gain can restore part of the level removed by compression.
- Optional Transformer coloration is followed by a second tube-style stage, then optional Soft Clip.
- Mix blends the original dry signal with the processed path. Output is the final active-plugin level.
- Power bypass returns the untouched dry signal, so Output does not change the bypass level.

3. Main Compression Controls

Input -36.0 to +36.0 dB

Controls the level entering C11's active processing path. Raising Input drives the tube stage and compressor detector harder, so it can increase both coloration and gain reduction.

Practical note: Input is not simply an output volume control. It changes how hard the processing stages are driven.

Threshold -40.0 to 0.0 dB

Sets the detector level where compression begins. Lower thresholds produce more frequent and deeper gain reduction; higher thresholds reserve compression for louder moments.

Ratio 1:1 to 50:1

Controls how strongly signals above Threshold are reduced. Low ratios are suitable for gentle leveling and bus glue; higher ratios create firmer control and more obvious compression. C11 uses a 6 dB soft knee for smoother entry into compression.

Attack 0.5 to 100 ms

Controls how quickly gain reduction engages. Faster settings catch peaks more aggressively; slower settings allow more transient impact before the compressor clamps down.

Release 30 ms to 2.00 s

Controls how quickly gain reduction returns toward zero after the signal falls. Shorter releases recover quickly; longer values sound smoother and more sustained.

Mix 0 to 100%

Blends the original dry signal with the fully processed signal. 100% is fully processed; lower values retain more of the original source for parallel compression.

Practical note: Because Mix uses the original dry signal, a heavily compressed or colored wet path can be blended underneath the unprocessed performance.

Output -24.0 to +24.0 dB

Sets the final level after compression, coloration, clipping, and the wet/dry blend. Use it for level matching and final placement in the mix.

4. Drive and Character

Drive 0 to 100%

Controls tube-style coloration in both the pre-compression and post-compression stages. Higher values increase harmonic density and saturation while C11 applies internal compensation so Drive is not merely a loudness control.

***Practical note:** Drive interacts with compression. Heavier gain reduction can feed the post-compression stage differently, so the same Drive setting may feel more colored on a heavily compressed signal.*

Character	Relative behavior	Typical direction
Clean	Lowest asymmetry, drive multiplier, and wet contribution.	Subtle density and the least obvious coloration.
Warm	Moderate tube-style asymmetry and blend.	General-purpose warmth, vocals, bass, and bus compression.
Rich	More drive and nonlinear contribution.	Thicker tone, stronger density, and more obvious harmonic character.
Hot	Highest drive multiplier and coloration blend.	Aggressive compression/saturation combinations and obvious analog-style color.

***Implementation note:** The four Character modes use the same smooth biased nonlinear topology with progressively different drive, asymmetry, and blend settings. They are not four named hardware emulations.*

5. Circuit Controls

Ext SC On / Off

Selects the external sidechain bus as the compressor detector source. With Ext SC off, C11 detects from the internally processed input. With Ext SC on, the sidechain signal drives compression while the main signal remains the audible signal.

***Practical note:** If Ext SC is enabled but the DAW has no sidechain routed to C11, the detector is effectively silent and little or no compression will occur.*

SC HPF On / Off + 20 to 500 Hz

High-passes the detector signal before compression analysis. This reduces the influence of low frequencies on the compressor without removing those lows from the audible signal.

***Practical note:** On a mix bus or bass-heavy source, try 80-160 Hz to reduce pumping caused by kick and sub energy.*

Auto Gain On / Off

Adds partial automatic level compensation based on the amount of gain reduction. It is intentionally not a perfect loudness match; it restores a portion of the level removed by compression.

***Practical note:** Still use Output for final level matching.*

Auto Rel On / Off

Makes Release program-dependent. At lighter gain reduction it can recover faster; at heavier gain reduction it lengthens the effective release for smoother recovery.

Transformer On / Off

Adds an additional nonlinear coloration stage after gain reduction. It introduces subtle density and saturation rather than acting as a simple EQ curve.

Soft Clip On / Off

Adds a smooth tanh-style clipping stage near the end of the processed path. It can round peaks and add density before Mix and Output.

***Practical note:** Output is applied after Soft Clip, so turning up Output does not drive the clipper harder.*

6. Stereo Link and Detector Behavior

Stereo Link 0 to 100%

Controls how much the two channels share detector behavior. At 0%, each channel follows its own detector. At 100%, both channels follow the stronger of the left/right detector values. Intermediate settings blend between independent and fully linked detection.

***Practical note:** For stereo buses, high Stereo Link values preserve image stability when one side contains a strong transient. Lower values can allow more channel-independent movement.*

The detector blends peak and RMS behavior rather than relying on only one measurement. This helps C11 react to transients while still following the body of the signal. External sidechain detection uses the sidechain bus directly and is not affected by C11 Input gain or tube coloration.

7. Practical Workflows

Goal	Starting approach
Lead vocal leveling	Start with Warm, 2:1 to 4:1, medium Attack, 150-350 ms Release, and moderate Drive. Lower Threshold until phrases sit more consistently. Use Auto Release if the vocal varies a lot between short and sustained phrases.
Vocal density / presence	Try Rich with moderate Drive and a 3:1-4:1 Ratio. Keep Mix high for an obvious finished sound or back it down if you want the original transient detail to stay more exposed.
Drum bus glue	Use Warm or Rich, slower Attack to preserve transients, moderate Release or Auto Release, and a high Stereo Link value. SC HPF around 120-180 Hz can stop the kick from dominating the detector.
Parallel drum compression	Use a higher Ratio, faster Attack, stronger Drive, then bring Mix down to blend the compressed path underneath the original drums.
Bass thickening	Use Warm or Rich, moderate Drive, and medium/long Release. SC HPF can be left lower so the fundamental still contributes to the detector, or raised if the lowest notes cause excessive gain reduction.
Mix bus glue	Use a low Ratio such as 2:1, slower Attack, restrained gain reduction, high Stereo Link, and conservative Drive. Transformer can add subtle density; Soft Clip can be left off for maximum headroom.
External sidechain ducking	Route the key signal to C11's sidechain input, enable Ext SC, then set Threshold/Ratio/Attack/Release for the desired amount of ducking. Use SC HPF if low-frequency energy in the key signal should contribute less.
Add color with minimal compression	Raise Threshold or use a low Ratio, then use Drive/Character and optional Transformer for tone. C11 can be used as a color stage even when gain reduction is light.

8. External Sidechain Setup

1. In your DAW, route the desired key/trigger track to C11's sidechain input.
2. Enable Ext SC in C11. The external signal now controls the detector but is not heard through C11.
3. Set Threshold and Ratio for the desired amount of gain reduction.
4. Use Attack and Release to shape the timing of the ducking or keyed compression.
5. Enable SC HPF if you want the external detector to ignore some low-frequency energy.
6. If compression stops when Ext SC is enabled, verify that the DAW is actually sending signal to C11's sidechain bus.

9. Factory Presets

Preset	Purpose
Vocal Glue	Warm 4:1 vocal compression with Auto Release, SC HPF, and high wet mix.
Vocal Presence	Rich vocal control with a faster response and moderate Drive.
Drum Smash	Hot, high-ratio, fast compression with Transformer and Soft Clip for aggressive drums.
Drum Glue	Warm bus-style compression with slower Attack, Auto Release, Transformer, and high Stereo Link.
Bass Thickener	Rich, longer-release compression with stronger Drive and Transformer for density.
Mix Bus Glue	Warm 2:1 glue compression with slower Attack, Auto Release, Transformer, and conservative Drive.
Master Warmth	Clean-character 2:1 compression with slow timing, Transformer, and restrained drive.
Acoustic Control	Clean, gentle compression with modest Drive and no extra finishing stages.
Guitar Sustain	Rich 4:1 compression with longer Release, Auto Release, Transformer, and Soft Clip.
Parallel Punch	Hot 8:1 fast compression with Mix near 50% for parallel impact.
Smooth Leveling	Warm 4:1 compression with Auto Gain and Auto Release for smoother level control.
Tube Density	Hot character, high Drive, Transformer, and Soft Clip for maximum density with moderate compression.

Preset behavior: Factory presets preserve the current Output setting and reset Ext SC to the internal detector. User presets also preserve the current Output when loaded.

10. Presets, Undo/Redo, and Resizing

- C11 includes factory presets and supports saving, loading, renaming, and deleting user presets through the Parish Audio menu system.
- Control changes, Character selections, switches, and preset actions participate in C11's undo/redo system.
- The window is resizable and its saved dimensions are stored with the plugin state.
- C11 can load older states that predate external sidechain support; those states restore with the internal detector selected.

11. Troubleshooting

Symptom	What to try
I enabled Ext SC and compression stopped.	Check the DAW sidechain routing. When Ext SC is selected, an unconnected sidechain bus provides no detector signal.
The kick makes the whole mix pump.	Enable SC HPF and raise its frequency until low-end hits stop over-driving the detector. Keep in mind that the HPF affects detection only, not the audible low end.
Drive makes the sound too colored.	Choose a cleaner Character mode, reduce Drive, or lower Input. Drive affects both pre- and post-compression tube stages.
The stereo image moves when one side gets loud.	Increase Stereo Link. At 100%, both channels follow the stronger detector value.
Compression sounds too grabby.	Use a slower Attack, lower Ratio, higher Threshold, or longer Release. Auto Release may also smooth the recovery on variable material.
The output is much louder than bypass.	Disable Auto Gain temporarily, reduce Output, and compare at matched loudness. Drive and optional coloration stages can also add perceived density even when peak level is similar.
Mix at 0% still changes level when I move Output.	That is expected. Mix selects the original dry signal, then Output is applied to the entire active plugin signal. Power bypass is the untouched dry signal.

Symptom	What to try
I cannot hear the external sidechain itself.	That is expected. The external sidechain is used only as a detector/key signal and is never mixed into C11's output.

12. Technical Reference

Item	Specification
Input	-36 to +36 dB
Threshold	-40 to 0 dB
Ratio	1:1 to 50:1
Attack	0.5 to 100 ms
Release	30 to 2000 ms
Drive	0 to 100%
Character	Clean / Warm / Rich / Hot
SC HPF	On/Off, 20 to 500 Hz
External sidechain	Optional mono or stereo detector input; detector-only
Stereo Link	0 to 100%
Auto Gain	On / Off; partial gain-reduction compensation
Auto Release	On / Off; program-dependent release scaling
Transformer	On / Off nonlinear coloration stage
Soft Clip	On / Off smooth clipping stage
Mix	0 to 100% dry/processed blend
Output	-24 to +24 dB
Main channel layouts	Mono or stereo
Sidechain layouts	Disabled, mono, or stereo
Plugin formats	Windows VST3; macOS VST3 and AU

13. Product Information and Support

For current downloads, product information, and updates:

<https://parishaudio.com/products/c11compressor>

Parish Audio support: <https://parishaudio.com/contact>