

Cobalt Clipper Neo User Manual

Manual language: English

Manual revision: 2026-07-09

Product version: 0.9.0

1. Introduction

Cobalt Clipper Neo is a saturation and clipping plugin designed for club music, electronic music, and mix / pre-master work. It can be used for density shaping and peak control on drums, 808s, bass, synths, buses, and pre-masters.

Version 0.9.0 supports the **Windows 64-bit** edition in **VST3** and **CLAP**. A macOS version is not available at this time.

Main features:

- **Five Types** — Steel Clip / Cobalt Lift / Club Heat / Bass Forge / Tape Alloy
- **Gain staging** — Input / Drive / Ceiling / Mix / Output
- **Tone controls** — Character / Tone / Bias / Dynamics / Low Guard
- **Oversampling** — Off / 2x / 4x
- **Visual feedback** — Input / Output meters, Clip Reduction, Transfer Curve
- **Presets** — Factory Bank / User Bank, Browser, .neop / .neob

On startup, **Init** from the Factory Bank is selected.

Cobalt Clipper Neo can be used as an Insert effect on its own, and within effect chains of other Cobalt-series products.

About Version 0.9.0

Cobalt Clipper Neo 0.9.0 is a published free build. Full operation is not guaranteed in every DAW, environment, or project.

Sound, presets, GUI, parameter layout, and save formats may change in future updates.

Back up important DAW project files before use.

Version 0.9.0 is published mainly for:

- Basic operation checks
- DAW loading verification
- Identifying areas for future improvement

2. Installation

System Requirements

Supported OS

- Windows 11 64-bit recommended

- Windows 10 64-bit or later

Supported Formats

- VST3
- CLAP

The CLAP edition is an experimental distribution format. Behavior may vary depending on the host environment. If stability is your priority, we recommend starting with the VST3 edition.

Supported Hosts

- 64-bit DAWs that support VST3 or CLAP
- Mono or stereo audio tracks (matching input and output channel counts)

Distribution and Placement

Cobalt Clipper Neo is distributed as a zip package. There is no installer. Extract the zip and place the plugin files manually.

Distribution file names

Expected file names:

- Cobalt Clipper Neo.vst3
- Cobalt Clipper Neo.clap

VST3 install location

Place the plugin in one of the following folders:

```
C:\Program Files\Common Files\VST3\  
%LOCALAPPDATA%\Programs\Common\VST3\
```

For all users, the following folder is usually recommended:

```
C:\Program Files\Common Files\VST3\
```

CLAP install location

Place the plugin in one of the following folders:

```
C:\Program Files\Common Files\CLAP\  
%LOCALAPPDATA%\Programs\Common\CLAP\
```

After placing the VST3 or CLAP file, restart your DAW or run a plugin rescan.

First Steps

1. Load Cobalt Clipper Neo as an **Insert** on an audio track (or bus)
2. Feed audio to the track (playback, input, or loop material)
3. Check track monitor, mute, level, and master output
4. Choose a Factory preset from Bank / Preset at the top, or select a **Type**
5. Shape density and clipping with **Drive** and **Ceiling**, then match final level with **Output**

3. Plugin Overview

Screen Layout

The Cobalt Clipper Neo window uses a single-screen layout based on **1100 × 560** pixels. The window can be resized from **75% to 200%** with a fixed aspect ratio. Tiles, knobs, faders, meters, and text keep their relative layout while scaling from the design canvas.

Area	Position	Content
Header	Top	Bank / Preset, previous / next, Browser, Save / Load / Init, Undo / Redo, Menu, Bypass, Oversampling
INPUT	Left	Input meter, Input knob
DRIVE CORE	Center-left	Type, Drive, Character, Tone
TRANSFER	Center	Transfer Curve and related parameter chips
OUTPUT	Right	Ceiling, Mix, Output, Output meter, Clip Reduction
Advanced	Lower area	Bias, Dynamics, Low Guard, Auto Gain

A practical workflow is to choose direction with **Type**, shape tone with **Drive / Character / Tone**, then set density and final level with **Ceiling / Mix / Output**.

Signal Flow

Signal flows roughly in this order:

```
[Input L/R]
  → [Input meter measurement]
  → [Input Gain]
  → [Shared DC block]
  → [Dry signal capture]
  → [Active Type saturation (Oversampling Off / 2x / 4x)]
  → [Dry / Wet Mix]
  → [Output Gain]
  → [Final Ceiling clipper]
  → [Output L/R]
  → [Publish Output meters / Clip Reduction]
```

Key points:

- Tone-shaping clip stages inside each Type are separate from the final **Ceiling** stage
- Oversampling is applied around the active Type's nonlinear processing
- In v0.9.0, **Auto Gain DSP is disabled** (the UI switch remains)
- Reported host latency is currently **0 samples**

Five Types

Type	Typical use
Steel Clip	Clean, controlled clipping for peak management and clear loudness
Cobalt Lift	Density and presence lift with restrained harmonics
Club Heat	Warm asymmetric saturation for drums, synths, and bus dirt / heat
Bass Forge	Sub-safe bass harmonics for 808s and low-end speaker weight
Tape Alloy	Light glue and rounded transients for buses and pads

Switching Type resets the active mode’s internal state. Switching while audio is playing is designed not to crash, but the sonic change can be large.

Visual Feedback

Display	Content
Input / Output meters	Studio-style dB scale, updated on a UI timer (about 20 fps)
Clip Reduction	Approximate clip amount at the Final Ceiling stage
Transfer Curve	UI-side approximate curve from current parameters, not a live DSP measurement

Transfer Curve is especially approximate for stateful Types such as Tape Alloy. Use it as a sound-design guide, and make final decisions with your ears and DAW meters.

Preset Overview

- **Factory Bank** — built-in presets. Category examples: Kick, Snare, Hi-Hat, Bass, Bass / 808, Drum Bus, Lead Synth, Synth, Acid, Mix Bus, Pre-Master, FX, Parallel Dirt, and more
- **User Bank** — user-saved presets (. neop)
- **Browser** — category / Type filters, sorting, and rating display (0–5)
- Factory presets apply Output-only level matching when needed to reduce preset-to-preset loudness jumps

The startup preset is **Init**.

4. Parameters

Parameter List

The “layout default” column below is the parameter-layout default. On plugin launch, the Factory **Init** preset is applied, so actual startup values may differ from this table (for example, Type may start closer to Tape Alloy, and Mix may be below 100%).

GUI Label	Host Name	Range	Layout Default	Description
Type	Type	Steel Clip / Cobalt Lift / Club Heat / Bass Forge / Tape Alloy	Steel Clip	Saturation / clip character
Input	Input	–24.00 to +24.00 dB	0.00 dB	Input gain
Drive	Drive	0 to 100 %	25 %	Distortion / push amount
Character	Character	0 to 100 %	50 %	Type-specific tone
Tone	Tone	–100 to +100 %	0 %	Bright / dark tilt
Ceiling	Ceiling	–12.00 to 0.00 dBFS	–0.30 dBFS	Final output ceiling
Mix	Mix	0 to 100 %	100 %	Dry / Wet balance
Output	Output	–24.00 to +12.00 dB	0.00 dB	Final output gain
Oversampling	Oversampling	Off / 2x / 4x	2x	Oversampling around nonlinear processing
Bias	Bias	–100 to +100 %	0 %	Asymmetry / offset
Dynamics	Dynamics	0 to 100 %	20 %	Dynamics-linked drive amount

GUI Label	Host Name	Range	Layout Default	Description
Low Guard	Low Guard	Off / 40 / 60 / 80 / 120 Hz	60 Hz	Low-frequency protection target
Auto Gain	Auto Gain	Off / On	Off	UI present; DSP disabled in v0.9.0
Bypass	Bypass	Off / On	Off	Processing bypass

Note: Drive / Character / Mix / Bias / Dynamics are stored internally as 0.0–1.0 (Tone / Bias as –1.0–1.0) and shown as percentages in the GUI.

Type

Selects the saturation direction. At the same Drive setting, harmonic content, transient retention, and low-end behavior change by Type.

Input

Gain at the plugin input. Raising it increases level into Drive, making clipping and saturation more likely. If the source is already loud, lower Input slightly before raising Drive for easier control.

Drive

The main distortion control. Higher values strengthen nonlinear processing. Start around 20–50% and set density together with Ceiling.

Character

Adjusts Type-specific tone:

- Steel Clip — knee width / edge direction
- Cobalt Lift — density / presence direction
- Club Heat — heat / dirt direction
- Bass Forge — growl / body direction
- Tape Alloy — glue direction

Tone

Spectral tilt. Positive values tend to brighten; negative values tend to round or darken. Response differs by Type.

Ceiling

Final safety ceiling. Lowering it pushes the signal harder and can increase density and impact. This stage is separate from each Type's tone-shaping clip stages.

Mix

Dry / Wet balance. 100% is fully wet; 0% is dry only. To keep more transient punch, try around 70–95%.

Note (v0.9.0): Dry / Wet delay compensation with oversampling is not implemented. Mix below 100% may introduce slight phase or tone differences. For strict parallel comparison, use Mix 100% or Oversampling Off.

Output

Final output gain. Because Auto Gain DSP is disabled in v0.9.0, use Output for level matching after preset or Drive changes.

Oversampling

Option	Description
Off	Nonlinear processing at the host sample rate
2x	2× equivalent (typical starting point for many Types)
4x	4× equivalent (useful for high-Drive peak work)

Suggested starting points by Type:

Type	Suggested starting point
Steel Clip	4x (high-Drive peak work)
Cobalt Lift	2x
Club Heat	2x
Bass Forge	2x
Tape Alloy	2x

Use Off or 2x to reduce CPU load. Try 4x if high-frequency aliasing is noticeable.

Bias

Adds asymmetry or offset. Character can change more clearly on Club Heat and Tape Alloy. Large moves may introduce DC-like feel or low-end wobble, so start small.

Dynamics

Strengthens drive response based on input level. Higher settings tend to ease peak push while helping density on quieter signals. Behavior differs by Type.

Low Guard

Low-frequency protection target. Choose Off / 40 / 60 / 80 / 120 Hz. Useful for reducing low-end mud on bass and kick. Default is 60 Hz.

Auto Gain

The UI switch exists, but **Auto Gain DSP is disabled in v0.9.0**. Turning it on does not automatically correct output level. Use Output for level matching.

Bypass

Skips processing while keeping parameter settings. Host-automatable.

Header Controls

Control	Role
Bank	Switch Factory Bank / User Bank
Preset	Select preset

Control	Role
< >	Previous / next preset
Browser	Browser with category / Type filters
Save	Save current settings to User Bank (.neop)
Load	Load a user preset
Init	Reset to initial state
Undo / Redo	Undo / redo edits
Menu	About, Expansion (.neob) Import / Export / Rename / Delete
Bypass	Bypass ON / OFF
Oversampling	Off / 2x / 4x

Browser opens as an editor-owned callout so it is less likely to steal DAW mouse focus.

5. Recommended Uses

Starting Points by Material

Use case	Starting Type	Notes
Kick peak control	Steel Clip	Do not over-lower Ceiling; check click
Snare attack and body	Club Heat / Tape Alloy	Lower Mix slightly to keep transients
Hi-hat grit control	Steel Clip / Cobalt Lift	Lower Input; keep Drive moderate
808 / sub bass	Bass Forge	Low Guard 60–120 Hz; check sub integrity
Bass midrange growl	Bass Forge / Club Heat	Shape speaker weight with Character and Tone
Drum-bus glue	Tape Alloy	Medium Drive; add density with Ceiling
Lead synth forwardness	Cobalt Lift / Club Heat	Mix 80–100%; match level with Output
Mix bus / pre-master	Steel Clip / Tape Alloy	Conservative Drive; start with a shallow Ceiling

Basic Sound-Design Steps

1. Choose a **Type**
2. Set distortion amount with **Drive**
3. Shape Type-specific tone with **Character**
4. Lower **Ceiling** to add density and impact if needed
5. Try **Mix** around 70–95%, not only 100%
6. Match final loudness with **Output**

6. Free Plugin Terms Overview

Cobalt Clipper Neo 0.9.0 is a **free plugin** distributed by **Synth Studio Neo**.

Position of This Version

- It is a free plugin, not a paid-product demo

- No activation or serial entry is required
- Save / Load / User Bank / preset management are expected to be available in the free build

For detailed terms of use, follow the terms document included in the distribution package or official guidance.

User Data Locations

User presets and bank-related files are stored here:

```
%APPDATA%\Synth Studio Neo\Cobalt Series\Cobalt Clipper Neo\Presets\  
%APPDATA%\Synth Studio Neo\Cobalt Series\Cobalt Clipper Neo\Banks\
```

- Individual presets: .neop
- Banks / Expansions: .neob

7. Usage Notes

- Lowering **Ceiling** a lot increases density, but also distortion. Check Clip Reduction and listen carefully
- With oversampling enabled, **Mix below 100%** may introduce tone differences from Dry / Wet delay mismatch (compensation is not implemented)
- Reported host latency is currently **0**. Future updates may report oversampling latency
- Transfer Curve is a UI approximation, not a measurement instrument
- Large Bias moves can change low-end feel or introduce a DC-like sensation
- Factory preset level matching is Output-based, not full offline loudness analysis
- If the CLAP edition is unstable, try the VST3 edition
- Specifications, GUI, and presets may change in future updates

8. Troubleshooting

Plugin does not appear in the DAW

- Confirm the VST3 or CLAP file is in the correct folder
- Run a plugin rescan in the DAW
- Confirm you are using a 64-bit DAW

No sound / little audible change

- Confirm audio is reaching the track
- Check track monitor, mute, and level
- Confirm **Bypass** is not ON
- Confirm **Mix** is not extremely low
- Confirm **Drive** is not too low and **Input** is not pulled down too far

Too loud or distorted

- Lower **Output**
- Lower **Input** or **Drive**

- Raise **Ceiling** to reduce push
- Check DAW track meters

Phase or tone changes when Mix is lowered

- Compare with Oversampling Off
- Set Mix to 100% and evaluate wet-only
- Remember that Dry / Wet delay compensation is not implemented in v0.9.0

Auto Gain does nothing when turned on

- This is expected. Auto Gain DSP is disabled in v0.9.0
- Match level with **Output**

Presets cannot be saved or found

- Confirm User Bank is selected
- Confirm write permission for %APPDATA%\Synth Studio Neo\Cobalt Series\Cobalt Clipper Neo\
- Confirm extensions are .neop (preset) / .neob (bank)

High CPU usage

- Set Oversampling to 2x or Off
- Reduce instance count in the project
- Increase DAW buffer size

CLAP edition does not behave as expected

- Confirm the install location is correct
- Try the same settings in another DAW or with the VST3 edition
- Run a plugin rescan in the DAW

9. Specifications and Credits

Item	Details
Product name	Cobalt Clipper Neo
Version	0.9.0
Supported OS	Windows 64-bit
Formats	VST3, CLAP
Distribution	Free plugin
Developer	Synth Studio Neo

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