vulf COMPRESSOR

Manual for version **3.15**

- Introduction
- Interface Preview
- Controls
- Specs
  - Supported Channel Configurations
- Presets
- Acknowledgements
- Authors
- Translators
- About Goodhertz Plugins
  - User Interface
  - Preset Bar
  - Toolbar
  - Keyboard Shortcuts
  - Right-Click Actions
  - Right-Click Preferences
  - Mouse Modifiers
  - Automation
  - Plugin Settings
  - System Requirements
  - Contact Support

Vulf Compressor

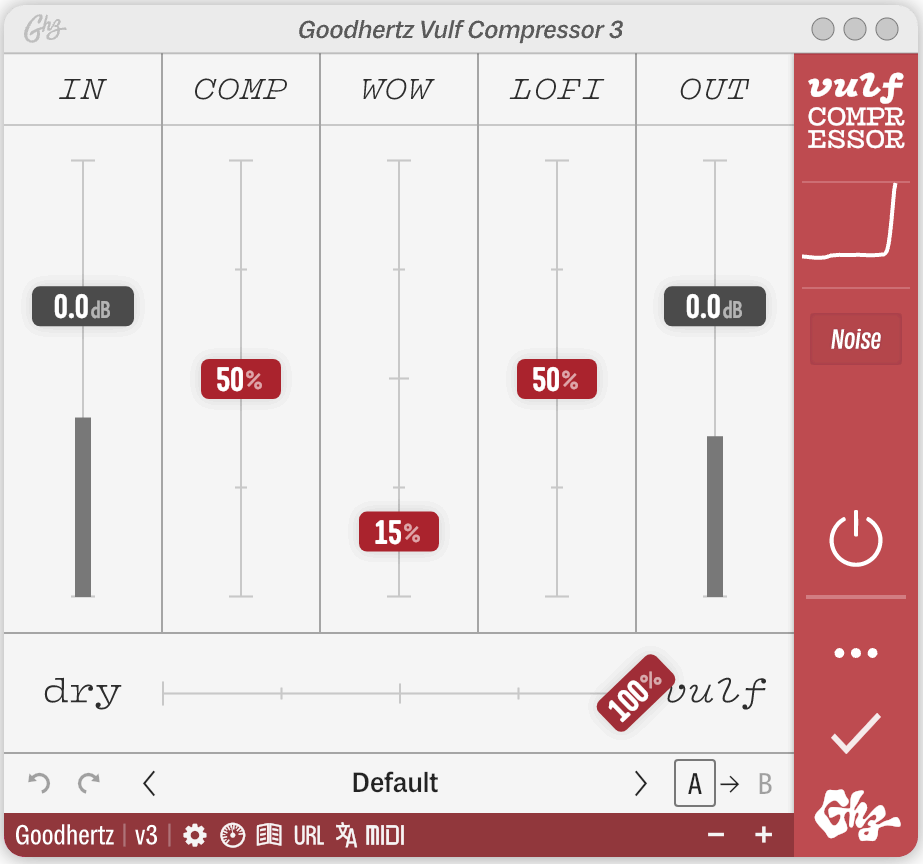
Beastly compression, by Vulf

(dictated via notes app)

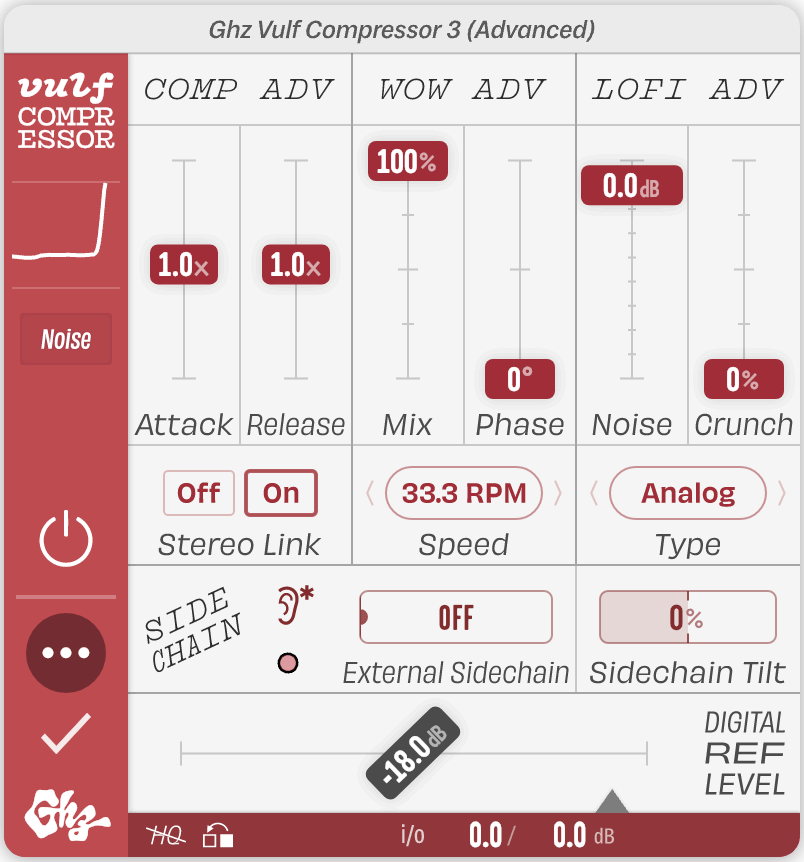
> *It is with great pleasure that I dictate this to you via the notes app on my cellular device please enjoy this plug-in and use it as much is your CPU allows please use it on the master bus try it on individual instruments it's great on drum brakes and electric bass to add extreme attack please do not treat this like a classic plug-in where they tell you to not use as much bass it save presets save channel strips let this be a part of your mixing thank you.*
>
> — *Jack Stratton, Vulfpeck*

Interface Preview

Here's a screenshot of Vulf Compressor in action. Click anywhere on the interface to jump to a control's definition below.



Advanced Controls



Controls

Primary Controls

Input Gain

Default 0.0dB

Varies the input gain, pre-compression.

Input Gain includes a level meter embedded in the slider. This meter shows the peak level of the input signal before **Vulf Compressor**'s processing.

If the signal peak exceeds or equals 0.0dB the meter color turns red, indicating that clipping *could* occur. **Vulf Compressor** will never clip internally, due to its double-precision floating-point processing, but the signal might be clipped at a later stage (by the host/DAW or DAC).

Compression Amount

Default 50%

Controls the overall compression amount.

It's not possible to entirely shut off the compression. Even at 0%, **Vulf Compressor** still imparts a bit of its signature compressor sound.

If you *do* want absolutely no compression, use the Master Mix.

Wow/Flutter Amount

Default 15%

Controls the depth of the vinyl *wow & flutter*.

> ℹ️ Wow/Flutter Mix, Wow/Flutter Speed, Wow/Flutter Phase are all controllable in the Advanced Wow/Flutter controls.

Lo-Fi Amount

Default 50%

Controls overall fidelity. Higher **Lo-Fi Amount** produces more total harmonic distortion, decreased high frequency resolution, and more noise.

> ℹ️ More precise control for the distortion (Lo-Fi Crunch), noise (Lo-Fi Noise Gain), & overall lo-fi flavor (Lo-Fi Type) are available in the Advanced Noise section.

Output Gain

Default 0.0dB

Varies the output gain, post-compression.

> 📊 **Output Gain** includes a level meter embedded in the slider. This meter shows the peak level of the output signal after **Vulf Compressor**'s processing.
>
> If the signal peak exceeds or equals `0.0dB` the meter color turns red, indicating that clipping *could* occur. **Vulf Compressor** will never clip internally, due to its double-precision floating-point processing, but the signal might be clipped at a later stage (by the host/DAW or DAC).

Master Mix

Default 100%

Controls the overall impact of **Vulf Compressor**. At `0%`, the Compression Amount, Wow/Flutter Amount, & Lo-Fi Amount processing are fully bypassed.

⚠ The Input Gain & Output Gain are unaffected by the **Master Mix** setting.

Master On/Off

Default On

Bypasses **Vulf Compressor**'s processing.

ℹ We recommend using the **Master On/Off** instead of your DAW's plugin bypass to avoid digital artifacts.

Advanced Controls

The Advanced section offers more precise control and fine adjustment options.

To access **Vulf Compressor**'s advanced controls, click the ··· icon in the sidebar.

Advanced Compression

Comp Attack Time Constant

Default 1.0x

Modifies the speed of **Vulf Compressor**'s attack.

ℹ This control is unitless (i.e. not specified in seconds or milliseconds) because **Vulf Compressor** does not have a traditional fixed attack time (it involves a complex interaction of signal dynamics and feedback). Smaller **Comp Attack Time Constant**'s will clamp down quickly, damping transients. Larger **Comp Attack Time Constant**'s cause **Vulf Compressor** to react more slowly, emphasizing the attack and punch of the incoming signal.

Comp Release Time Constant

Default 1.0x

Modifies the speed of **Vulf Compressor**'s release.

> Like Comp Attack Time Constant, this control is unitless (i.e. not specified in seconds or milliseconds). Smaller **Comp Release Time Constant**'s cause **Vulf Compressor** to release more quickly, often sounding louder and causing more audible pumping or even distortion. Larger **Comp Release Time Constant**'s cause **Vulf Compressor** to release more slowly and smoothly.

Comp Stereo Link

Default On

Turns the **Vulf Compressor** stereo link On or Off.

Options: Off, On

> When **Comp Stereo Link** is On, the same amount of compression is applied to each channel. This preserves the existing stereo image.

> When **Comp Stereo Link** is Off, each channel is compressed separately. This can affect the stereo image when loud sound sources are panned far left or right but can also result in a louder, more powerful overall sound.

Advanced Wow & Flutter

Wow/Flutter Mix

Default 100%

Overall *wow & flutter* mix.

- 100% is all *wow & flutter*, no dry signal. 0% is all dry, no *wow & flutter*.
- Intermediate **Wow/Flutter Mix** settings will produce some nice flanging effects, which can be just the right thing to spice up a vocal or melodic instrument.

Wow/Flutter Phase

Default 0°

Controls the stereo phase of the wow & flutter.

- 0° produces a monophonic wow & flutter, whereas 180° produces opposite modulation in the left and right channels.
- For some subtle stereo widening, try a **Wow/Flutter Phase** of 180° with a **Wow/Flutter Amount** around 10%.

Wow/Flutter Speed

Default 33.3 RPM

Speed of the *wow & flutter*.

Option	*Discussion*
33.3 RPM	Rotational speed for a standard 12-inch vinyl record
45 RPM	Rotational speed for 7-inch vinyl records
78 RPM	Rotational speed for shellac and 10-inch vinyl

Advanced LoFi

Lo-Fi Noise Gain

Default 0.0dB

Controls the amount of lo-fi noise.

> ℹ️ You can quickly turn toggle the lo-fi noise `On` or `Off` by clicking the small sidebar “noise” icon.

Lo-Fi Crunch

Default 0%

Amount of total harmonic distortion from moderate: `0%`, to crunchy: `100%`.

Lo-Fi Type

Default Analog

Selects the flavor of the lo-fi degradation.

Option	*Discussion*
Analog	Harmonically rich with just the right amount of dirt
1990's Digital	Bad 1990’s digital converter with moderate aliasing
1980's Digital	Harsh 1980’s digital converter with some nasty aliasing

Sidechain

Sidechain Listen

Default Off

Listen to the detector signal instead of the output of **Vulf Compressor**. The detector signal is what **Vulf Compressor** is “listening” to when calculating gain reduction.

> ℹ️ **Sidechain Listen** makes it easy to monitor the detector signal and ensure that the sidechain is correctly routed.

> ℹ️ The detector signal will be a blend of the internal and external sidechain inputs, as set by Sidechain External

Sidechain Listen includes a small meter that shows the detector signal.

Sidechain External

Default 0%

Controls how much of the detector signal is from the external sidechain input.

At **100%**, **Vulf Compressor**'s gain reduction will be based on the external sidechain input only (the typical use of a sidechain).

At **0%**, the sidechain is fully internal (normal **Vulf Compressor** operation). At **50%**, the detector signal is an even blend of internal and external sources.

To route to **Vulf Compressor**'s external sidechain input, use the host/DAW's built-in sidechain selection method.

In Ableton, sidechaining with a 3rd party plugin like **Vulf Compressor** is different than with a native Ableton plugin. Here's an Ableton tutorial with more details.

If you aren't seeing the option to sidechain with **Vulf Compressor**, your DAW may not realize that **Vulf Compressor** now supports an external sidechain. Here's how to refresh your plugin data in a few popular DAWs:

- Pro Tools
- Logic
- Ableton (Follow the step labeled "Rescan plug-ins")

Vulf Compressor's makeup gain operates differently for the external sidechain than it does for the internal sidechain. This is due to the high levels of compression that can occur in **Vulf Compressor** and helps prevent extremely high-

> level output signals. As a result, sending the same signal to the external sidechain will result in a different output level (and slightly different sound) compared to just sending it to the input.

This control might seem unconventional (because it is), but it's very useful for dialing in exactly how much external sidechaining you want.

Here's an example: let's say you have a great sounding mix with **Vulf Compressor** on the master bus. You'd like **Vulf Compressor** to compress a bit more when the drums hit, but you don't want to increase the volume of the drums in the mix. No problem! Just route the drums to **Vulf Compressor**'s sidechain (in your DAW) and increase **Sidechain External** until you're getting enough additional compression (pumping) from the drums.

Sidechain Tilt

Default 0%

Adjusts the frequency content of the signal being sent to the sidechain detector.

- Negative values increase bass content in the sidechain, resulting in increased compression sensitivity to the bass frequencies.

- Positive values reduce bass content in the sidechain, resulting in decreased compression sensitivity to the bass frequencies.

This control functions similarly to a sidechain high-pass filter but with more flexibility! In general, tilting the spectrum of the sidechain towards one direction tends to result in a compressed signal with tonal characteristics of the *opposite* direction (i.e. more bass in the sidechain means *less* bass in the output).

Want big, untamed bass? Try **Sidechain Tilt** at 100%. Alternatively, if you wanted a tighter, more restrained bass sound with more obvious pumping, try **Sidechain Tilt** at -100%.

Listen to the detector signal with Sidechain Listen in order to fine tune the spectral tilt applied to the sidechain.

Digital Ref Level

Default -18.0dB

Digital Ref Level defines an approximate reference level as seen by the **Vulf Compressor** input.

- Lowering the **Digital Ref Level** is equivalent to turning up the **Input Gain** and turning down the **Output Gain** by an equal amount. This *greatly* affects how the signal hits the compressor and lo-fi section, and it should absolutely be used for creative effect.

- For louder sources, ref levels closer to 0.0dB may be most appropriate.

- For the snappiest, attack-heavy compression, try **Digital Ref Level** at 0.0dB. For crushed & saturated compression, try **Digital Ref Level** at -36.0dB.

- The **Digital Ref Level** control has some handy metering with a triangle (▲) indicator that points to **Vulf Compressor**'s best guess of the optimal reference level for the current input signal level.

Reset Meters

Default Off

Resets the meter processing. This resets all the metering values across the plugin.

Options: Off, On

HQ Mode

Default Off

HQ Mode is our no-holds-barred processing mode where super high

quality audio is given priority over CPU usage.

When **HQ Mode** is turned On, **Vulf Compressor** uses a higher precision algorithm, providing better spectral resolution at the expense of some added latency (~50 ms) and higher CPU usage.

Option	*Symbol*
Off	~~HQ~~
On	**HQ!**

ℹ We recommend using **HQ Mode** when you need the highest possible quality and don't mind 2-4x higher CPU usage. An important lead instrument, vocal, or a mastering session is a great place for **HQ Mode**.

ℹ **HQ Mode** cannot be MIDI mapped since automating it is not recommended.

⚠ **HQ Mode** will require more CPU resources and result in a slightly higher processing delay (latency). To ensure proper delay compensation in your host/DAW, automating **HQ Mode** is not recommended.

Preprocess Input Gain

Default 0.0

Controls the input gain *before* it hits **Vulf Compressor**'s processing.

Postprocess Output Gain

Default 0.0

Controls the output gain *after* **Vulf Compressor**'s processing.

Specs

Supported Channel Configurations

Input Channel #	*Output Channel #*
Mono	Mono
Mono	Stereo
Stereo	Stereo

Presets

The presets are a great way to get to know each plugin. The preset drawer can be accessed at the bottom of each plugin by clicking the current preset name.

- ## General
  - *Default*
- ## Vulfmon

  Presets from the spiritual guide behind Vulf Compressor, Vulfmon himself.
  - *Sad Wurli* *So sad*
  - *Master Bump*
  - *Master Hump*
- ## COMP
  - *2-Bus Glue (Parallel)*
  - *Punch 'n Crunch (Parallel)*
  - *Lots of Attack*
  - *Dangerous Attack*
  - *Slam*
  - *Crush*
  - *Heavy Clipping*
  - *Vacuum Pumped*

    - *Untamed 26"* *Big, open kick drum a la John Bonham*
    - *Le Freak Kick* *Reminiscent of disco-era kick drums*
    - *Accordion Boom* *2002 on Mount Washington*

- **FX**
    - *Old School Crunch*
    - *Gentle Stereo Wow*
    - *Mono Flange*
    - *Max Distortion*
    - *Bad 1980's Digital*
    - *Bad 1990's Digital*

- **Tiago's Golden Age of Samplers**
    - *16 Pads Pitch Down*
    - *1200 Crunch*
    - *OG 303 VS*

Acknowledgements

Annlie Huang / Bernard Purdie / Chris Conover / Diana Zheng / James Dewitt Yancey / Mushy Krongold / Otis Jackson, Jr. / Roger Robindore / Stephen Ellison / TaeHo Park

---

Authors

Devin Kerr / Rob Stenson / Jasper Duba / Noah Dayan

Translators

TaeHo Park / Tiago Frúgoli / Gustavo Guzmán / Reda Kermach / Noah Dayan / Gal Cohen / Sydney Bolton / Enrico Cirene

About Goodhertz Plugins

User Interface

Goodhertz plugins are made to be workhorse tools that sound amazing. We've put a lot of thought and care into the audio quality and plugin usability, and for that reason, we've opted for simple and direct controls & interfaces that don't rely on photorealistic knobs or ornamental screw heads to communicate their meaning.

We've also decided to only include meters and graphs when we feel they will directly lead to a better sonic result. Meters/graphs can consume significant CPU resources, and we firmly believe that **if it sounds good, it is good**.

Our meters can be reset at any time using the "Reset Meters" button (in certain plugins) and manually enabled or disabled via the "Enable Metering" User Preference.

Preset Bar

Button	*Action*
↺	Undo the last parameter change.
↻	Redo the last parameter change.
〈	Switch to the previous preset.
"Preset Name"	Opens the preset drawer (Option/Alt + Click to reset all plugin settings to preset).
〉	Switch to the next preset.

Button	*Action*
A	Selects the A settings state.
→ ←	This copies the current settings to the opposite A/B state; i.e. if you're on the A state, clicking the arrow will copy those settings to the B state.
B	Selects the B settings state.

Toolbar

Introduced in version 3.10, the toolbar at the bottom of the plugin holds a handful of shortcut buttons.

Icon	*Action*
⚙	Opens preferences menu
	Shows diagnostic information
	Opens plugin manual in your default web browser
URL	Opens a URL representation of the current plugin control state (Command/Ctrl + Click to copy the URL to the clipboard)
	Opens language-selection menu
	Opens MIDI Learn menu
~~HQ~~ HQ!	Toggles HQ mode (only in certain plugins)
	Resets all meters (only in certain plugins)
−	Shrink interface
+	Enlarge interface

Keyboard Shortcuts

Action	*Keyboard Shortcut*
Enter New Parameter Value	Once you've clicked or double-clicked a control, type in a value, then hit `ENTER`, `RETURN`, *or* `TAB`. Depending on the control type, we support a variety of input values, such as fractions (e.g. 1/4 for 0.25), the kilo suffix (e.g. 4k for 4000), note values for time- and rate-based controls (e.g. 1/8T for an eighth note triplet or 1/4D for a dotted quarter note, relative to the current DAW or plugin BPM), and musical notes for frequency controls (e.g. A#5 for 923.33 Hz or Eb2 for 77.78 Hz).
Increment Parameter Value	`↑` *or* `→` arrow keys
Decrement Parameter Value	`↓` *or* `←` arrow keys
Jump to Next Parameter	`TAB`
Jump to Previous Parameter	`SHIFT` + `TAB` *or* `` ` `` (backtick)
Escape Parameter Focus / Close any Open Drawers	`ESC`
Tap Tempo	`T` *or* **Click** (N.B. For this to work, you must have a BPM, milliseconds, or rate (Hz) control selected.)
Save Preset	`N` (N.B. For this to work, the preset panel must be open.)
Set Preset as Favorite	`F` (N.B. For this to work, the preset panel must be open.)
Edit Preset	`E` (N.B. For this to work, the preset panel must be open.)
Update Preset	`U` (N.B. For this to work, the preset panel must be open.)
Delete Preset	`DELETE` (N.B. For this to work, the preset panel must be open.)

Right-Click Actions

Action	*Instruction*
Read about Control in manual	**Right-Click** & select “Show in Plugin Manual”
Reset Control to Default	**Right-Click** & select “Reset to Factory Default Value”
Lock Control when switching presets	**Right-Click** & select “Lock When Switching Presets”
Copy current plugin settings to clipboard	**Right-Click** & select “Copy as URL to Clipboard”
Paste all plugin settings from clipboard	**Right-Click** & select “Paste From Clipboard”
Reset all plugin settings to Defaults	**Right-Click** & select “Reset All to Defaults”
Reset all plugin metering	**Right-Click** & select “Reset Meters” (only available in certain plugins)
Reset all plugin settings to Preset	**Right-Click** & select “Reset to [preset] Preset”
Update Preset with current plugin settings	**Right-Click** & select “Update [preset] Preset”
Create new Preset with current plugin settings	**Right-Click** & select “Create New Preset”
Go to the plugin’s manual page	**Right-Click** & select “Read [plugin name] Manual”

Right-Click Preferences

Action	*Explanation*
Language	Switch the display language of text elements in Goodhertz plugins. We currently support the following languages: English, Spanish, Portuguese, French, Italian, Japanese, Korean, Chinese (Simplified), Chinese (Traditional), and Arabic.

Action	*Explanation*
Advanced Pane	By default, this is *Closed in New Instances* — i.e. when you add a new instance of a plugin, it does not show you the advanced controls available by hitting the ••• button in the sidebar. If you'd like new instances to start with the advanced controls showing, choose *Open in New Instances*. Either way, each instance remembers whether its advanced pane was open, including when you reopen a saved session.
Control Granularity	By default, all Goodhertz controls move in small increments when dragged. If you prefer controls to operate with larger increments by default, change this option to *Coarse*. N.B. This will swap the behavior of the Shift mouse modifier - i.e. Shift-dragging will move a control with standard granularity when set to *Coarse*.
Dark Mode	Allows you to choose the color palette used for displaying the interface. If you prefer the look of dark colors (or work in a darker environment) enable this option. The *Auto* option will automatically adjust the color scheme depending on the system preferences of your machine (Mac only).
Enable Hover Markers	By default, this is *On* — i.e. all controls will show markers on hover. If you find this behavior unnecessary, deselect this option and no markers will be shown.
Enable Metering	By default, this is *On* — i.e. in normal operation, all audio meters and visualizations available in Goodhertz plugins are enabled and running. If you'd like to turn them off and disable all metering and visualization, deselect this option. And to turn them back on, simply reselect it. N.B. If you're struggling to use a large number of Goodhertz plugins on an older processor with an integrated GPU, sometimes disabling metering can help.
Enable Scroll Input	By default, all Goodhertz sliders can be *scrolled* in addition to dragged. If you find this behavior unnecessary, deselect this option and no scrolling events will be used to control Goodhertz sliders.
Enable Tooltips	By default, this is *On* — i.e. all controls will show a tooltip on hover. If you find this behavior unnecessary, deselect this option and no tooltips will be shown.

Action	*Explanation*
GPU Acceleration	By default, this is *Enabled* — i.e. the GPU will be prioritized whenever possible to improve graphics performance. If your graphics card does not support GPU acceleration, this preference will be automatically set to *Reduced*. N.B. If you experience graphics issues, disabling this preference may help.
Keyboard Focus	By default, you can get keyboard focus on any Goodhertz control with a single click. Change this option to ensure keyboard focus only occurs on double clicks.
Window Size	Enlarge or shrink the Goodhertz plugin window by selecting an option here. This will save your preference for all instances of this plugin.
Diagnostics	Displays general information about the plugin and the configuration of your system for diagnostic purposes. If you experience any issues with the plugin, it can be helpful to include this information when contacting us. N.B. Clicking this window will copy the contents to the clipboard.
MIDI Learn	Configure the mapping used to control parameters via MIDI messages. To assign a MIDI number to a control, enable *MIDI Learn* and send a MIDI message while a control is focused. To remove an assigned mapping, click on a mapping entry in the list or select *Clear All* to reset the entire mapping. N.B. You can assign different types of MIDI messages including Pitch Bend, Note, and CC messages.

Mouse Modifiers

Action	*Combination (Mac)*	*Combination (Windows)*
Reset Parameter to Default Value	`OPTION` + Click	`ALT` + Click
Move Control with Coarse Precision	`SHIFT` + Drag	`SHIFT` + Drag
Move Control with Fine Precision	`COMMAND` + Drag	`CTRL` + Drag

Action	*Combination (Mac)*	*Combination (Windows)*
Move Control with Normal Precision	**Drag**	**Drag**

Automation

Unintentional digital clicks and pops are the worst. They happen for lots of reasons and often end up wasting your time with needless revisions or mastering surgery. When they go unnoticed, they can make their way onto commercial albums and releases.

Plugin automation is a common cause of clicks and pops. Sweeping an EQ band, changing a delay setting, and even automating a plugin bypass can cause digital artifacts if poorly handled.

This is not true for Goodhertz plugins. Any parameter in a Goodhertz plugin, even on/off switches, can be automated freely and smoothly without clicks, pops, or zipper noises (unless otherwise noted). You can push them, pull them, LFO them — whatever you do, they'll handle it gracefully.

Since our Master On/Off controls won't create artifacts, we recommend that you use them rather than your DAW-supplied plugin bypass if you want to disable plugin processing.

Plugin Settings

Goodhertz plugin settings can be copied and pasted as text urls, which look like this: https://goodhertz.com/vulf-comp/3.0.9?cm=0&wf=0&lf=100&lfc=50

To copy and paste, right click anywhere on the plugin interface and select either the copy or the paste option.

E.g. If you paste "https://goodhertz.com/vulf-comp/3.0.9?cm=0&wf=0&lf=100&lfc=50" into Vulf Compressor it will recall the settings associated

with that url. This way you can easily send an *exact* plugin setting to someone — in an email or a text — without any guesswork or screenshots.

System Requirements

Mac OS X ≥ 10.13
Audio Unit 64-Bit, VST 64-Bit, VST3 64-Bit, **or** AAX 64-Bit host

Windows ≥ 10
VST 64-Bit, VST3 64-Bit, **or** AAX 64-Bit host

Contact Support

To send plugin feedback, please e-mail us at feedback@goodhertz.com.

If you're having trouble, experiencing a technical issue, or you think you've found a bug, please email support@goodhertz.com.

Find all our contact info & bug-reporting protocol on the contact page.