

elysia alpha compressor V2

Plugin Manual



elysia • BRAINWORX



Developed by Brainworx Audio in partnership with elysia.
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1. Welcome to elysia alpha compressor V2

The elysia alpha compressor is one of the most highly-regarded mastering compressors ever made. It's a super-versatile hardware masterpiece, offering M/S and stereo processing, feed backward and forward modes, filters in the audio- and sidechain-paths, parallel compression and a soft clip limiter.

With V2 of the elysia alpha compressor plugin, we at Brainworx have brought one of our most iconic emulations up-to-date. We have enhanced it with patented TMT technology and TX-Drive functionality to improve coloration and saturation. We also reworked the built-in Lehle transformer model to achieve higher precision of our elysia alpha compressor V2 model. The workflow has been improved by implementing a resizable UI for high resolution displays and adding plugin-exclusive features for monitoring, and many more.

Thank you for choosing elysia alpha compressor V2. We hope you enjoy it!



2. Key features

The following list gives you an overview of elysia alpha compressor V2's key features:

- Modeled exactly after the original elysia design, schematics and hardware in very close cooperation with Ruben Tilgner and his team.
- New in V2:
 - Brainworx top toolbar including
 - Undo/Redo and Banks
 - M/S monitoring
 - Expandable plugin only section with:
 - Advanced i/o metering
 - Brainworx's TMT inside: Tolerance Modeling Technology (US Patent No. 10,725,727) simulates channel-to-channel variances in electronic components for the most realistic analog sound in digital recreation of analog characteristics
 - Sidechain Listen and Ambience
 - Variable sidechain link
 - Gain reduction limiting
 - TX-Drive including an updated model of the hardware's built in Lehle transformer.
 - Headroom, Output Gain and Auto Output Gain
 - Stereo Width and Mono Maker
- Included hardware features
 - Maintains the character of the original source material even when extreme compression settings are applied
 - Feed Forward & Backward: Compression types can be individually chosen for each channel
 - Auto Fast/Release: Switchable semi-automation consistently provides perfect attack and release based on adjustable values
 - Audio Filter: The Niveau Filter changes the proportions between high and low frequencies
 - Sidechain Filter: Onboard frequency selective compression
 - Integrated M/S Matrix
 - Parallel Compression

3. elysia alpha compressor V2 overview

elysia alpha compressor V2 consists of the following areas and main controls:



- 1. Top toolbar:** Additional global controls relevant to the plugin's processing. For more information, refer to [Top toolbar](#).
- 2. Hardware section:** The original elysia alpha compressor V2 for flawless and crystal-clear mastering compression in all its beauty. For more information, refer to [Hardware section](#)
- 3. Plugin-only section:** Additional Brainworx tools for greater detail and tweaking. For more information, refer to [Plugin only section](#)

4. Hardware section

For a better overview, this section of the elysia alpha compressor V2 manual is divided into three parts:

1. *Compressor*
2. *Niveau Filter and Sidechain-EQ*
3. *Output parameters*

Compressor

The main controls for setting alpha compression to be applied.

This section consists of the following controls:



1. **Thresh:** If the input level exceeds the threshold, the compression process will start.
2. **Feed Forward:** Set to feed backward by default (**OFF**-position), it switches the feed of the sidechain alternatively in front (feed forward) or behind (feed backward) of the actual compressor section.
3. **Attack:** The transient response of the compressor. It determines the time the alpha compressor needs to react to a peak.
4. **Auto Fast [Attack]:** A semi-automated regulation of the attack time.
5. **Release:** The return phase of the compressor. It controls the period of time that the compressor takes to return back to unity gain after 6 dB of gain reduction.
6. **Auto Fast [Release]:** The semi-automated regulation of the time constants is also available for the release controller.
7. **Ratio:** The relation between the input level and the output level. The printed values double in feed forward mode.
8. **Gain Reduction [Meter]:** Displays the amount of gain reduction in dB. An additional orange LED in the GR-Meter indicates the gain reduction limiter's activity and its value when turning the **GR-Limit** knobs in the Plugin-Only section.



Clicking the elysia logo will open a splash screen containing team credits and default settings.

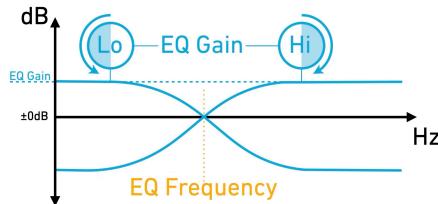
Niveau Filter and Sidechain-EQ

Two equalizers for fine-tuning the audible and sidechain signals for exciting results.

This section consists of the following controls:

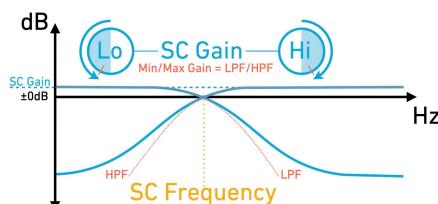


Niveau Filter



- EQ Gain:** The characteristic of the Niveau Filter. Between the mid and fully counter-clockwise position, bass is boosted and treble is cut (vice versa in the other direction).
- [EQ] On:** Activates the Niveau Filter. In the signal-path, this special EQ is placed after the compressor part, thus it will not influence the behavior of the dynamics section.
- EQ Freq:** The center frequency of the Niveau Filter. Around this reference point, the bass is boosted and treble is cut or vice versa.
- x10:** Shifts the frequency range of the Niveau Filter by a factor of ten.

Sidechain Filter



- SC Gain:** Sets the integrated sidechain filter from low pass to high pass with lots of useful intermediate shelving filter positions.
- [SC Filter] On:** Activates the sidechain filter.
- SC Freq:** Sets the center frequency of the integrated sidechain filter.

Output parameters

Output parameters for the final touch and meeting the required mastering standards.

This section consists of the following controls:



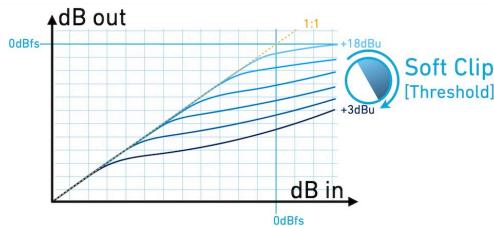
Parallel Mix

- 1. Direct:** Activates the direct and unprocessed signal taken from the input.
- 2. Mix:** If the Direct and Compressed buttons are pressed, this controller can blend between the unprocessed and compressed signals.
- 3. Compressed:** Activates the processed signal.

Output Stage

- 4. Gain:** Compensates the gain reduction caused by the compression process.
- 5. Transformer:** Called "Warm" in the previous version of the alpha compressor, this button activates the new transformer-model to add sweet harmonics to your signal. The **TX-Drive** parameter in the *Plugin only section* allows to drive the transformer more or less.

Soft Clip Limiter



- 6. Soft Clip:** Sets the threshold of the Soft Clip Limiter, which tames short and loud transients and smoothens the signal peaks, providing additional headroom and loudness if needed. Two additional yellow LEDs in the gain reduction meter indicate activity of the Soft Clip Limiter.

- 7. [Soft Clip] On:** Activates the Soft Clip Limiter.

Global Settings

- 8. MS Mode:** Activates Mid/Side processing. If deactivated, the compressor will work in stereo mode.
- 9. Active:** Sets the plugin from bypass to active status. This switch shares the automation parameter "Power" with the Power icon from the top toolbar.
- 10. Channel Link:** Both channels can be linked. In this case, the left set of controllers becomes the master for the right channel. Channel Link excludes the Soft Clip Limiter which has its own link in the *Plugin only section* section.

5. Plugin only section

Increase the functionality of the hardware compressor with additional Brainworx tools.

This section consists of the following controls:



1. **Input [Meter]**: Shows the level of the incoming audio between -36 to 0 dBfs.
2. **[TMT] Stereo Mode**: Toggles between using the same TMT channel for both units (D=digital) and using two adjacent, differing TMT channels (A=analog).
3. **TMT [Channel]**: Switches between 20 different analog channels. In a Stereo instance, two adjacent Channel numbers will be displayed. Each channel has its own, different character.
4. **[TMT] Random Channel**: Whenever a TMT-featured plugin on a channel gets inserted, it will start with the default setup, which is channel 1 in a flat setting. You can randomize a channel by clicking the Random Channel button. The plugin instance you click on will switch to any unused channel number in that session randomly, until you reach 20 channels.
5. **SC Listen**: Allows to isolate and monitor the sidechain signal.
6. **Ambience**: The Ambience control, inspired by the one found on bx_console AMEK 9099, sends the difference between the dry and the compressed signal to the output. This allows to clearly identify the amount of change and characteristics of the compression applied.
7. **Soft Clip Parameter Link**: When switched on, this feature links the controls of the Soft Clip Limiter.
8. **Comp SC Link**: Controls the amount to which the compressors' gain reductions are linked between both channels.
9. **GR Limit**: Set to the dedicated **OFF**-position by default, this function limits the amount of gain reduction to apply. An additional orange LED in the GR-Meter indicates activity and the maximum gain reduction when turning the knob.
10. **Headroom**: Adjusts the volume before processing is applied and adds inverted gain to the output signal. This feature lets you adjust the level of audio material to work with different presets.
11. **TX-Drive**: This is the *"Headroom"* parameter for the transformer model only. Raising this value results in more harmonic distortion in low/low-mid frequencies, and lowering it results in less harmonic distortion. A small portion of the harmonics stays the same, as they result from the hysteresis phenomena that is also a part of our transformer model.
12. **Mono Maker**: Sweepable from 20 to 2000 Hz, this parameter folds the processed sound to mono below the selected frequency.
13. **Stereo Width**: Set the amount of side boost/attenuation.
14. **Auto [Output Gain]**: When activated, a performed analysis compares the volume of input and output signal over a 3 sec. timespan to set the output **Gain** to a position matching the processed signal to the input volume. A better comparison is achieved.
15. **[Output] Gain**: Adjusts the output level of the plugin.
16. **Output [Meter]**: Shows the level of the processed audio from -36 to 0 dBfs.

6. Top toolbar

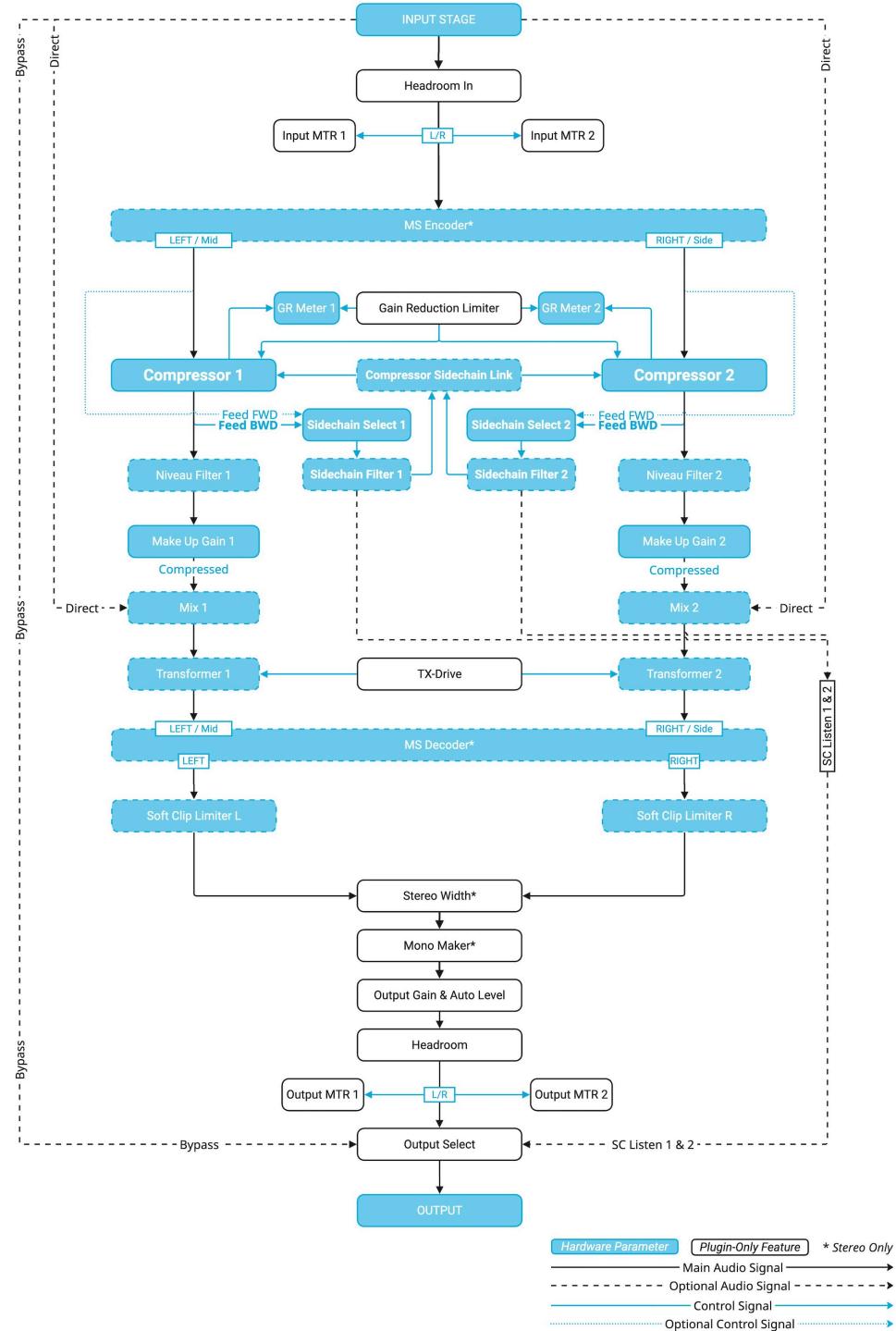
Additional global controls related to plugin settings and processing are available in the top toolbar.



1. **Power**: Bypasses the processor when disengaged.
2. **↶ ↷**: Undo and redo changes made to controls up to 32 steps.
3. **Bank A B C D**: Each preset allows you to switch between four banks (A, B, C, D) of controls.
4. **Copy**: Copy the active settings to memory.
5. **Paste**: Paste the copied settings to the active bank.
6. **Reset**: Reset the current bank.
7. **Solo M**: Isolates to audit the mid (sum) signal being processed by the plugin.
8. **Solo S**: Isolates to audit the side (difference) signal processed by the plugin.

7. Signal flow

This schematic shows the signal flow from the input through the specific modules to the output. M/S matrix, sidechain filters, audio filters, mix stages, transformers and Soft Clip limiters can be optionally switched into the signal path, which is also true of the Auto Fast and Feed Forward/ Backward functions.



8. Credits

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