



Voxengo Marquis Compressor User Guide



Version 2.8

<https://www.voxengo.com/product/marquiscomp/>

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Introduction

Marquis Compressor is a “universal” compressor plug-in for professional music production applications. You’ll find a very smooth compression performance in this compressor, coupled with a harmonically-rich sound, both suitable for mixing and mastering. Being “universal” this compressor can be used on a wide range of sound material: individual tracks, stems and mixes, producing “clean” or “colored” sound.

Marquis Compressor plug-in was built around a tube triode-modeled amplifier cascade. At low Drive settings this cascade produces a mild harmonic coloration while at higher Drive settings you can get a brutal tube saturation which works great for drums, bass, and vocals. At moderate Drive settings this cascade can add a pleasant grit to the mix.

Marquis Compressor features a unique “round” signal level detection algorithm, which creates a very open, punchy, compressed, sound with an impressive transient response. Beside this, Marquis Compressor offers a classic feedback (opto) compression mode switchable to a more common feed-forward compression.

Marquis Compressor carries 3 distinctive compression algorithms, one of them (T3) being modeled after a classic analog compressor. The Gate algorithm is also available which is handy at reducing drum bleed in drum tracks.

Features

- 3 compressor modes
- 4 tube amplifier modes
- Feedback compression mode
- Auto make-up gain
- Gate/downward expander mode
- External side-chaining
- Key signal filtering
- Stereo and multi-channel processing
- Internal channel routing
- Channel grouping
- Up to 8x oversampling
- 64-bit floating point processing
- Preset manager
- Undo/redo history
- A/B comparisons
- Contextual hint messages
- All sample rates support
- Zero processing latency

Compatibility

This audio plug-in can be loaded into any audio host application that conforms to the AAX, AudioUnit, VST, or VST3 plug-in specification.

This plug-in is compatible with Windows (32- and 64-bit Windows XP, Vista, 7, 8, 10 and later versions, if not announced otherwise) and macOS (10.11 and later versions,

if not announced otherwise, 64-bit Intel and Apple Silicon processor-based) computers (2.5 GHz dual-core or faster processor with at least 4 GB of system RAM required). A separate binary distribution file is available for each target computer platform and audio plug-in specification.

User Interface Elements

Note: All Voxengo plug-ins feature a highly consistent user interface. Most interface elements (buttons, labels) located on the top of the user interface are the same in all Voxengo plug-ins. For an in-depth description of these and other standard features and user interface elements please refer to the “Voxengo Primary User Guide”.

Dynamics

The “Threshold” parameter adjusts the knee point of the compressor (in decibel) – the position of the knee is reflected on the “Key In” level meter.

The “Ratio” parameter adjusts knee’s steepness expressed as “input to output” ratio.

The “Attack” parameter specifies attack time of the compressor, in milliseconds.

The “Release” parameter specifies release time of the compressor, in milliseconds.

The “Gate” switch enables gate operation mode. In this mode, the meaning of the Attack and Release controls change their meaning to Gate Open and Close time, respectively. Gate open time should be usually set to a very fast value or otherwise the attack phases of transients may become smoothed-out.

The “Mode” selector specifies the compression mode to use. The “Legacy” modes implement compression algorithms found in the previous version of Marquis Compressor. Note that these legacy modes are not exact replicas, you may need to use different attack and release settings compared to the previous version: their timing characteristics were fine-tuned to match those of the new compression algorithm.

The “Feedbk” switch enables the “feedback” compression mode which usually sounds a little bit “punchier” than the “feed-forward” mode. The “feedback” mode in many cases tends to produce a more controlled, less fluctuating sound due to its inherent “prognostic” behavior.

The “Detector” switch selects the signal level detection algorithm. You may use the “Normal” detector type instead of the “Round” to get a more conventional compression sound. The “Round” mode is more fluid and creates a smoother sound, may be especially apparent when compressing a bass drum.

The “Auto Gain” switch enables the automatic makeup gain adjustment that depends on the Dynamics parameters. Note that the auto gain may be imprecise: it may apply too little or too much gain adjustment depending on the input signal since it does not analyze the input signal; this is especially true if key signal filtering is used.

Key Filter

This section allows you to load key filter presets and to open the “Key Filter Mode Editor” window where you can define your own key filter shapes. The “Mon” switch enables monitoring of the filtered key signal. The “Int/Ext” switch selects key signal source: Internal (Input) or External side-chain signal. The use of the External side-chain signal requires an appropriate Routing setting.

When defining the key filter shape do not forget that the frequency regions which are louder will be compressed more than other frequency regions.

The “Key Gain” parameter contained in the editor adjusts the overall loudness of the key signal. This parameter can be adjusted if the side-chain signal routed to the compressor is overly loud or quiet.

To learn how to adjust the key filter, please refer to the “Voxengo Primary User Guide” and its topic called the “Standard Controls – Equalizer”.

Output

The “Amp” selector specifies amplifier mode. The “On/Off” switch can be used to disable the amplifier (saturation) stage completely.

The “Drive” knob specifies the amount of amplification in decibel. Note that amplification is applied to the input signal, followed by compression. The “Drive” setting does not affect key signal’s loudness level. For a clear sound it is suggested to leave the “Drive” setting at -10, or reduce it further.

The “Out Gain” parameter changes overall output signal level of the plug-in (in decibel).

The “Dry Mix” parameter specifies an amount of original unprocessed signal being routed to the output after the output gain is applied. By increasing this parameter, you may reduce the overall distortion: hence one of the tactics when using this plug-in can be getting a high distortion amount at first and then adjusting the “Dry Mix” parameter to achieve a required proportion between the clean and processed signals. In other terms, this parameter engages “parallel compression”.

Level Meters

Marquis Compressor features three RMS level meters, with scales shown in decibel. Peak level indication is present on all meters. The “Key In” meter estimates the level of the input (key) signal. The “G/R” is a gain reduction meter showing gain reduction changes relative to the 2-second average gain reduction. Look at the “out/in” indicator to see the average/constant gain change taking place. The “Out” meter shows plug-in’s master output level.

Credits

DSP algorithms, internal signal routing code, user interface layout by Aleksey Vaneev.

Graphics user interface code by Vladimir Stolytko. Graphics elements by Vladimir Stolytko and Scott Kane.

This plug-in is implemented in multi-platform C++ code form and uses “zlib” compression library (written by Jean-loup Gailly and Mark Adler), “LZ4” compression library by Yann Collet, FFT algorithm by Takuya Ooura, “base64” code by Jouni Malinen, filter design equations by Magnus Jonsson and Robert Bristow-Johnson, VST plug-in technology by Steinberg, AudioUnit plug-in SDK by Apple, Inc., AAX plug-in SDK by Avid Technology, Inc., Intel IPP and run-time library by Intel Corporation (used under the corresponding licenses granted by these parties).

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Happy Mixing!