

# Techivation M-Compressor

## User Manual



# Techivation M-Compressor

## Overview

M-Compressor is a spectral compressor with both upward and downward capabilities, developed with new technologies to offer clean, distortion-free dynamic processing for any type of sound. It works on individual frequencies, and uses a dynamic spectral threshold that follows the spectral contour of the signal to ensure balanced compression across the spectrum.

M-Compressor provides a whole new audio compression experience, helping creators achieve better results in their work. It's a nice combination of full control over the sound and ease of use, ensuring a fast and flawless user experience to help you achieve the results you're after with minimal effort.

Learn more: <https://techivation.com/M-Compressor/>

# Techivation M-Compressor

## Features

- Down Threshold
- Up Threshold
- Down Ratio
- Up Ratio
- Attack/Release
- Intensity
- Punch
- Tilt Amount
- Tilt Centre Frequency
- Diff
- Sidechain
- Ext. SideChain
- Sidechain Highpass Filter
- Auto Gain
- Analyser Level Range
- Input-Output Level Meters
- Diff Meter
- Makeup Gain
- Dry/wet Mix
- Stereo Link
- Internal On-Off Switch
- A/B Switch
- Undo-Redo Options
- Scaleable Graphic User Interface (GUI)
- Internal Menu
- Show/Hide Tooltips
- Stereo and Mono
- Presets

# Quick User Guide

**Down Threshold:** Defines the level above which the signal will be compressed downwards.

**Up Threshold:** Defines the level below which the signal will be compressed upwards.

**Down Ratio:** Controls the strength of downward compression. When set to 1.0:1, downward compression is disabled.

**Up Ratio:** Controls the strength of upward compression. When set to 1.0:1, upward compression is disabled.

**Attack/Release:** Attack controls how quickly the compressor responds to an increase in signal level, and Release controls how long it takes to stop compressing once the signal level have subsided.

**Intensity:** Controls how soft or hard the compression character is. Lower settings use softer knee with a limited compression range. Higher settings use harder knee and the full compression range.

**Punch:** Controls the amount of transient emphasis.

**Tilt Control & Centre:** 'Tilt' sets the dB/octave slope of the spectral threshold tilt, and 'Tilt Centre' controls the centre frequency around which the spectral thresholds are tilted.

**Diff & Sidechain:** 'Diff' lets you listen to the difference between processed and original signals, and 'Sidechain' lets you listen to the sidechain input.

**Ext. SideChain:** Enables using an external signal to drive the downward compression.

**Sidechain HP:** Controls the frequency of the sidechain highpass filter.

**Auto Gain:** Enables automatic control of 'Make Up Gain'. When 'Auto Gain' is disabled, the 'Make Up' parameter is set to the latest measured auto gain value.

# Techivation M-Compressor

Features

## Down Threshold Pt. 1

Regular compressors adjust the overall signal level based on its relationship to the compressor threshold. Instead of the overall signal level, M-Compressor works with the signal spectrum. Individual frequencies are compressed based on their levels relative to the spectral threshold curve.

The spectral thresholds are what allows M-Compressor to operate artefact-free. The shape of the spectral threshold is determined by the spectral contour of the input signal, and it dynamically changes with the input. This ensures balanced compression across the spectrum, without over-compressing the low frequencies and under-compressing the highs, which is typical for regular compressors. It also preserves the original tonal balance of the input signal.



# Techivation M-Compressor

Features

## Down Threshold Pt. 2

When you set the Down Threshold in the M-Compressor, you're essentially telling the compressor at what point it should kick in and begin reducing the dynamic range of the audio signal. In other words, it's like establishing a boundary above which the compressor remains inactive and below which it springs into action.

The 'Down Ratio', 'Attack', 'Release', and 'Intensity' parameters directly affect the downward compression behaviour.



# Techivation M-Compressor

Features

## Up Threshold

In addition to the traditional downward compression, M-Compressor also offers a spectral take on the upward compression. In downward compression, the signal level is reduced when it exceeds the threshold. Upward compression works in the opposite way: the signal level is boosted when it falls below the threshold. This is particularly useful when you want to bring out the ambiance in the signal or achieve more aggressive sounding compression.





# Techivation M-Compressor

Features

## Down Ratio

The 'Down Ratio' in the M-Compressor is a vital control for adjusting downward compression strength. It ranges from 1.0:1, disabling compression, to a maximum of 20.0:1, providing flexibility to shape your audio dynamics to perfection.

## Up Ratio

The 'Up Ratio' in M-Compressor governs the intensity of upward compression, with a range extending from 1.0:1, where upward compression is turned off, to a maximum of 20.0:1 for more pronounced compression effects.



# Techivation M-Compressor

Features

## Attack

The 'Attack' parameter in M-Compressor controls how quickly the compressor responds to increases in the signal level, providing you with precise control over the compression's timing.

Longer attack times allow more of the original transients to pass through unchanged, resulting in snappier sound. This effect can be further amplified by increasing the 'Punch' parameter.

## Release

The 'Release' parameter in M-Compressor determines the duration it takes for compression to cease after the signal level decreases. It's a crucial control for shaping the compression's timing.



# Techivation M-Compressor

Features

## Intensity

The Intensity parameter in M-Compressor is your key to shaping the character of compression. It controls the amount of smoothing applied to the spectral adjustment produced by the compressor

Lower settings create a softer compression effect with a gentle knee and a narrower compression range. On the other hand, higher settings result in more pronounced compression with a harder knee and an unlimited compression range with minimal spectral smoothing.

This control empowers you to fine-tune the compression's texture to match your specific audio processing requirements.



# Techivation M-Compressor

Features

## Punch

The 'Punch' control allows you to shape the transients by controlling the attack response of the compressor. Low 'Punch' settings result in softening of the transients, while higher values emphasise the original transients that are let through during the compressor attack.

It's specially useful for sounds with sharper transients, such as drums. It helps the sound to cut through the mix easier and makes it more punchy.



# Techivation M-Compressor

Features

## Tilt Amount

For cases where changes to the tonal balance are desired, the plugin also offers a tilt control for the spectral thresholds. It allows to apply more compression to one part of the spectrum, while compressing the rest of the spectrum less.

## Tilt Centre Frequency

'Tilt Centre' is the parameter that allows you to control the central frequency around which the spectral thresholds are tilted in M-Compressor. This parameter is instrumental in shaping the tonal balance of your audio by focusing on a specific frequency range.



# Techivation M-Compressor

Features

## Diff

The 'Diff' feature in M-Compressor is a useful tool that enables you to listen to the distinction between the processed and original signals. This feature allows you to audibly perceive the alterations and enhancements made to your audio, making it easier to fine-tune your compression settings and achieve the desired sound quality.

## Sidechain

The 'Sidechain' control allows you to listen to the sidechain input of the compressor. This feature is valuable for understanding how the sidechain input is affecting the processing of your audio and enables you to make precise adjustments to achieve the desired effect.





# Techivation M-Compressor

Features

## Ext. SideChain

The 'Ext. Sidechain' switch allows to drive the compression by an external signal. Make sure to refer to your DAW manual for information on how to set up the external sidechain input to the plugin. When 'Ext. Sidechain' is enabled, the downward spectral threshold level is controlled by the sidechain input level. The shape of the spectral threshold, however, is still determined by the main input.



# Techivation M-Compressor

Features

## SideChain HP

Positions of spectral thresholds in M-Compressor are determined by the sidechain input level (internal or external, when 'Ext. Sidechain' is enabled). The 'Sidechain HP' parameter gives you control over how much the spectral thresholds react to low frequencies of the sidechain. Increasing 'Sidechain HP' value results in low frequencies having less impact on the thresholds. This is achieved by applying a highpass filter to the sidechain signal. You can audition this effect by enabling the 'sidechain' output mode.





# Techivation M-Compressor

Features

## Auto Gain

To make level matching easier while you tweak the M-Compressor settings, it offers the 'Auto Gain' mode.

When enabled, 'Auto Gain' continuously measures the signal levels before and after compression, and automatically applies the appropriate make up gain.

Since 'Auto Gain' is based on measurement, it might need a moment to adjust to quick parameter changes. Important: 'Auto Gain' continuously adjusts the make up gain, so it is recommended to only enable it while you are tweaking the compressor settings. When you disable 'Auto Gain', it sets the 'Make Up' gain parameter to the latest measured value.



# Techivation M-Compressor

Features

## Analyser Level Range

The spectrum analyser in M-Compressor visualises the input signal spectrum, the downward and upward spectral thresholds, and the spectral adjustments performed by the compressor.

When the input spectrum (white line) rises above the downward compression threshold (golden curve), the spectral levels are reduced down towards the threshold.

The amount of the reduction depends on the compressor settings ('Down Ratio', 'Intensity') and is visualised in red. When the input spectrum (white line) falls below the upward compression threshold (blue curve), the spectral levels are boosted up towards the threshold. The amount of the boost depends on the compressor settings ('Up Ratio', 'Intensity') and is visualised in green.



# Techivation M-Compressor

Features

## Input-Output Level Meters

Input-Output Level Meters are visual displays that show the audio levels of the input and output signals before and after processing.

These meters provide real-time feedback on the input and output levels, allowing you to monitor the changes in amplitude that occur during the audio compression process.

Checking Input-Output Level Meters in M-Compressor can help you to ensure that the processing settings are appropriate for the input signal and that the output level matches the desired target level.



# Techivation M-Compressor

Features

## Diff Meter (Gain Reduction/Boost Meter)

The gain reduction/boost meter shows the difference between overall signal level before and after compression.

## Make Up Gain

The Make Up Gain in M-Compressor is a allows you to precisely control the amount of gain applied to the compressed signal. This feature is particularly useful in ensuring that your audio output maintains a consistent and desirable volume level. When you enable the 'Auto Gain' option, the compressor intelligently sets the make up gain automatically, taking the guesswork out of the process and ensuring optimal audio quality with minimal user intervention.



# Techivation M-Compressor

Features

## Dry/wet Mix

'Mix' control allows to use M-Compressor for parallel compression. A common scenario would be to set up M-Compressor for an aggressive sound, and then blend it with the original signal by lowering the 'Mix'. The 'Make Up' gain is applied to the compressed signal before the 'Mix', so you can match the 'before' and 'after' levels for seamless parallel blending.

## Stereo Link

'Stereo Link' controls how M-Compressor responds to stereo signals. When it's set to zero, the stereo channels are treated completely independently (dual-mono compression). At 100%, the spectral thresholds for the stereo channels are linked together, preserving the original stereo image after compression (stereo compression). Values between 0 and 100% allow you to find the right level of channel independence when compressing stereo signals.



# Techivation M-Compressor

[Features](#)

## Presets

The plug-in offers the convenience of loading pre-existing presets as well as creating and saving your own custom presets using the menu located in the top-right corner.

This feature enables you to quickly access and apply a variety of settings tailored to specific mixing needs, streamlining your workflow and providing a consistent starting point for your audio processing tasks.

Additionally, by saving your own custom presets, you can easily recall your preferred settings across different projects, ensuring a cohesive and efficient approach to your audio production.



# Techivation M-Compressor

Features

## Internal On-Off Switch

The plug-in features a dedicated bypass/on control, which allows for the swift enabling or bypassing of the effect. This user-friendly control is designed to help avoid potential clicks or audio artefacts that may occur when toggling the effect on or off directly within the DAW host. By utilising this bypass/on control, you can seamlessly audition your audio with and without the plug-in's effect, ensuring a smoother listening experience and more precise adjustments during the mixing process. In addition to its primary function, the bypass/on control can also be particularly useful when working with automation processes within your DAW. By automating the bypass/on control, you can enable or disable the plug-in effect at specific points in your mix, allowing for dynamic and creative changes in the audio processing.



# Techivation M-Compressor

Features

## A | B Comparison

The A/B buttons provide a convenient way to compare different options and find the optimal setting for your audio processing needs. With just a click, you can easily switch between two different versions of the same processing chain and compare the results. Moreover, the 'Copy A to B' and 'Copy B to A' functions enable you to quickly test small tweaks and adjustments by copying the settings from one version to the other and comparing their effects. By using the A/B buttons in conjunction with the 'Copy' functions, you can efficiently assess subtle variations in your processing and make informed decisions on the best approach to take. This streamlined workflow saves you time and effort, allowing you to softness on the creative aspects of your mix without getting bogged down in technical details.





# Techivation M-Compressor

[Features](#)

## Undo/Redo

The M-Compressor plug-in comes equipped with the handy feature of built-in 'Undo' and 'Redo' options, providing added peace of mind while working on your audio processing. With these functions, you can easily revert to previous settings or redo changes that were made in error, saving time and eliminating the stress of potentially losing valuable adjustments.

The 'Undo' and 'Redo' options allow you to experiment with different settings and configurations without the fear of permanently altering your audio. Additionally, this feature enhances your workflow by providing an efficient way to backtrack and explore alternative processing paths, enabling you to make more informed decisions in your audio production.



# Techivation M-Compressor

[Features](#)

## GUI Scale

The interface scaling feature in M-Compressor allows you to customize the size of the GUI to suit your preferences and optimize your workflow. With a range of scaling options available, from 50% to 150%, you can personalize the interface to match your visual and working style. One of the great things about this feature is that the visual quality of the plug-in remains consistent, regardless of the scale you choose. This ensures that the interface remains clear and legible, even when scaled up or down to fit your preferred viewing size. Additionally, the interface scaling feature in M-Compressor is optimized for high-end quality monitors, including retina displays, ensuring that the plug-in looks great and performs reliably on a variety of devices.



# Techivation M-Compressor

[Features](#)

## Tooltips

M-Compressor features a handy 'tooltips' option that you can enable or disable from the plugin's menu. When this option is enabled, you can see a brief description of each part of the user interface by simply holding your mouse over that particular section. Tooltips are an excellent way to quickly learn about the various controls and settings in the plugin, making it easier to navigate and use the interface effectively. They can provide helpful information about each parameter, including its function, range, and how it affects the audio signal. Enabling the tooltips option is a great way to speed up your workflow and make it easier to work with the M-Compressor plugin. If you're not sure what a particular control does, simply hover your mouse over it to get a quick and informative tooltip.



# Techivation M-Compressor

Features

## Plug-in Menu

A quick menu of useful features:

- Undo
- Redo
- Presets
- Save Preset As...
- Load Preset...
- Open preset folder
- Default Preset
- GUI Scale
- Show/Hide Tooltips
- [Your email]/Sign in
- About
- Support



# Techivation M-Compressor

## Compatibility

**Plugin formats:** VST, VST3, AU, AAX.

**Platforms supported:** regular macOS installer supports 10.13 (High Sierra) and up, legacy macOS installer is from 10.9 (El Capitan) to 10.12 (Sierra)  
Windows 7 and up. 32 & 64 bits

DAWs supported: Ableton Live, Logic Pro, Avid Protools, FL Studio, Cubase, Nuendo, Reaper, and other major DAW softwares on the market.

## Activation

M-Compressor requires a purchased license from our website, to get activated according to our [terms and conditions](#). As soon as you purchase a license from us, you'll automatically have your Techivation account activate the plug-in for you, after you sign- in to the plug-in. Everyone with one purchased license can use the plug-in on a maximum of two machines at the same time.

## Support

For any support inquiries check out [techivation.com/support](https://techivation.com/support)

Check out [techivation.com/terms-conditions](https://techivation.com/terms-conditions) to learn more about the rights.

If you have any questions, feel free to reach out to us via email. [info@techivation.com](mailto:info@techivation.com) or [techivation@gmail.com](mailto:techivation@gmail.com)

## Installation

If you purchase a [M-Compressor](#) license, you can sign in to the plug-in to activate, and use it for a lifetime.

A software download is supplied with your sign-up/purchase, however you can always go to [Techivation.com](https://Techivation.com) for the latest software updates.

After downloading, unzip the file and select either Mac or PC installer depending on your system. (Warning: don't run the PC file on a Mac and vice-versa).

- Mac: Double click on the PKG installer and follow the instructions
- PC/Windows: Extract the file content. Double click on the setup file and follow the instructions

**\*Note:** If you have the Mac OS X 10.9 to 10.11 you should download the legacy macOS installer.

# Techivation M-Compressor

## Uninstall Locations

### MAC OS

AU: /Library/Audio/Plug-ins/Components/

VST: /Library/Audio/Plug-ins/VST/

VST3: /Library/Audio/Plug-ins/VST3/

AAX: /Library/Application Support/Avid/Audio/Plug-Ins/

Other data: ~/Library/Application Support/Techivation

### WINDOWS

VST: Custom path from installer

VST3: \Program Files\Common Files\VST3\

or \Program files(x86)\Common Files\VST3

AAX: \Program Files\Common Files\Avid\Audio\Plug-Ins\

Other data: C:\ProgramData\Techivation 'Note: this folder is hidden so you need to change your settings to see the hidden files first.'