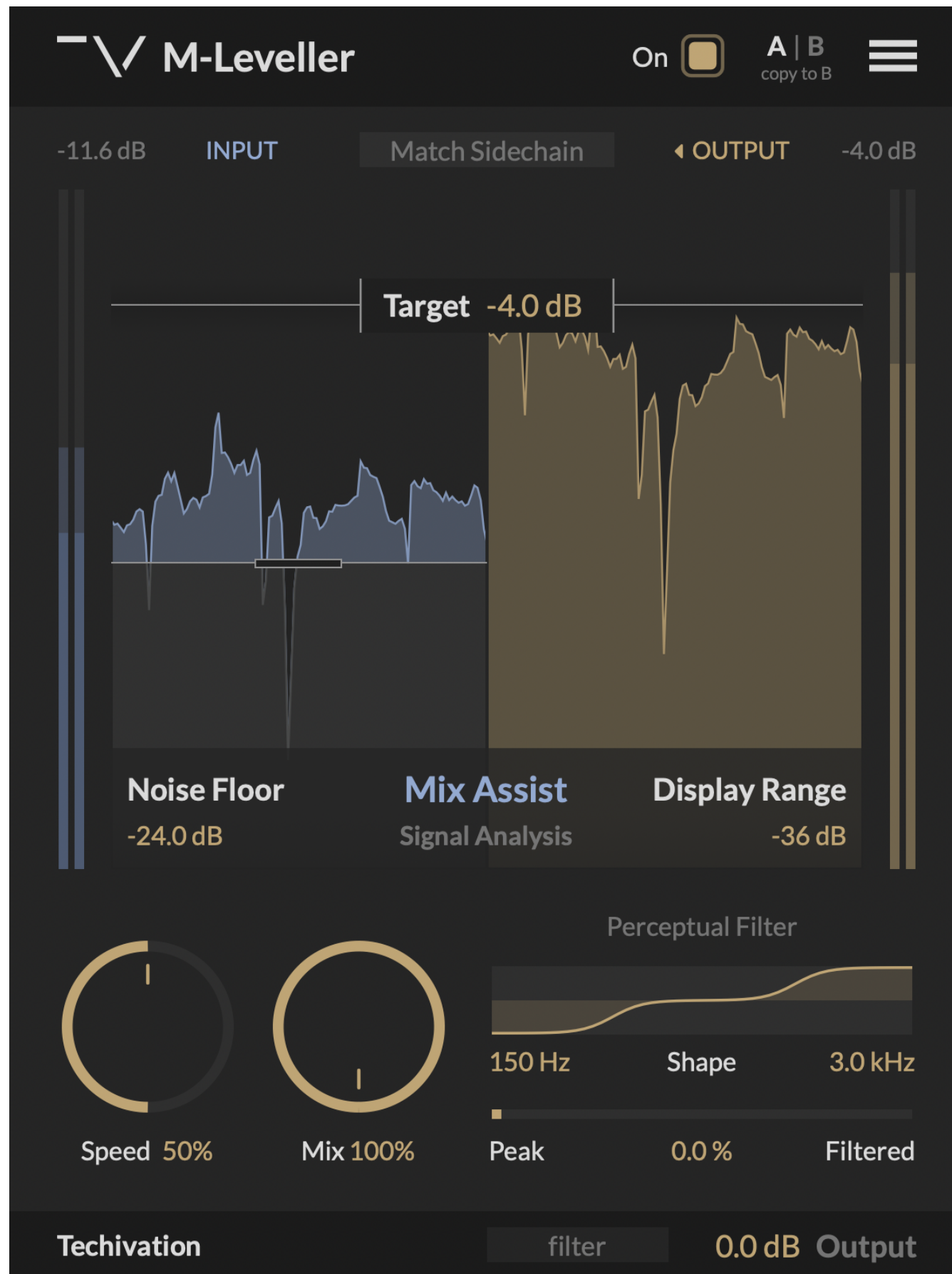


Techivation M-Leveller

User Manual



Techivation M-Leveller

Overview

M-Leveller Mix is an intelligent event-based volume automation plug-in. It delivers consistent levels with superhuman precision and transparency unattainable when using compression.

M-Leveller Mix identifies events like individual notes or whole musical phrases and adjusts their peak level to match the user-defined target. The level adjustments are carried out precisely before the start of each event, with the plug-in gain remaining constant during the events themselves. This ensures unprecedented transparency and gives you a powerful macro-level control over your track's volume, while keeping the tone, timbre, and local dynamics of your audio unchanged.

In most cases you will want to place M-Leveller Mix as the first plug-in in your processing chain, using it as a replacement or enhancement for volume automation.

Main Usage of M-Leveller

Pre-Compression Levelling: Prepare audio tracks for compression by balancing the overall level, reducing the workload of comprehend allowing them to focus on enhancing the groove and character rather than managing uneven volume.

Dynamic Range Preservation in Music Production: Balance audio levels while preserving the dynamic nuances of instruments or vocals, ensuring an expressive and natural sound.

Consistent Dialogue Levels with Dynamic Nuances: Use for dialogue levelling in films, TV, and podcasts where micro-dynamics, such as emotional emphasis, need to remain intact while maintaining overall level consistency.

Preventing Level Spikes: M-Leveller can prevent any signal from rising above the set target level in a transparent distortion-free way, making it an indispensable safety tool for your studio.

Balancing Live Recordings in Post-Production: Process live performance recordings to balance levels across the mix while retaining the natural dynamics of each instrument and voice.

Podcast and Audiobook Production: Ensure audiobooks and podcasts sound polished with consistent levels while preserving the emotional delivery and subtle dynamics of the narrator's voice.

Improved Headroom Management: Bring overall levels of your audio to hit the sweet spot of your saturation or distortion processing to ensure consistent harmonics and tone.

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Features

- Target
- Noise Floor
- Display Range
- Waveform display
- Speed
- Mix
- Perceptual Filter Shape
- Peak / Filtered
- Filter
- Match Sidechain
- Mix Assist
- Output
- Gain Adjustment Mode
- Enable/Disable Range Warning
- Internal On-Off Switch
- Presets
- A/B Switch
- Undo-Redo Options
- Scaleable Graphic User Interface (GUI)
- Show/Hide Tooltips
- Internal Menu
- Stereo and Mono

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[Features](#)

Target

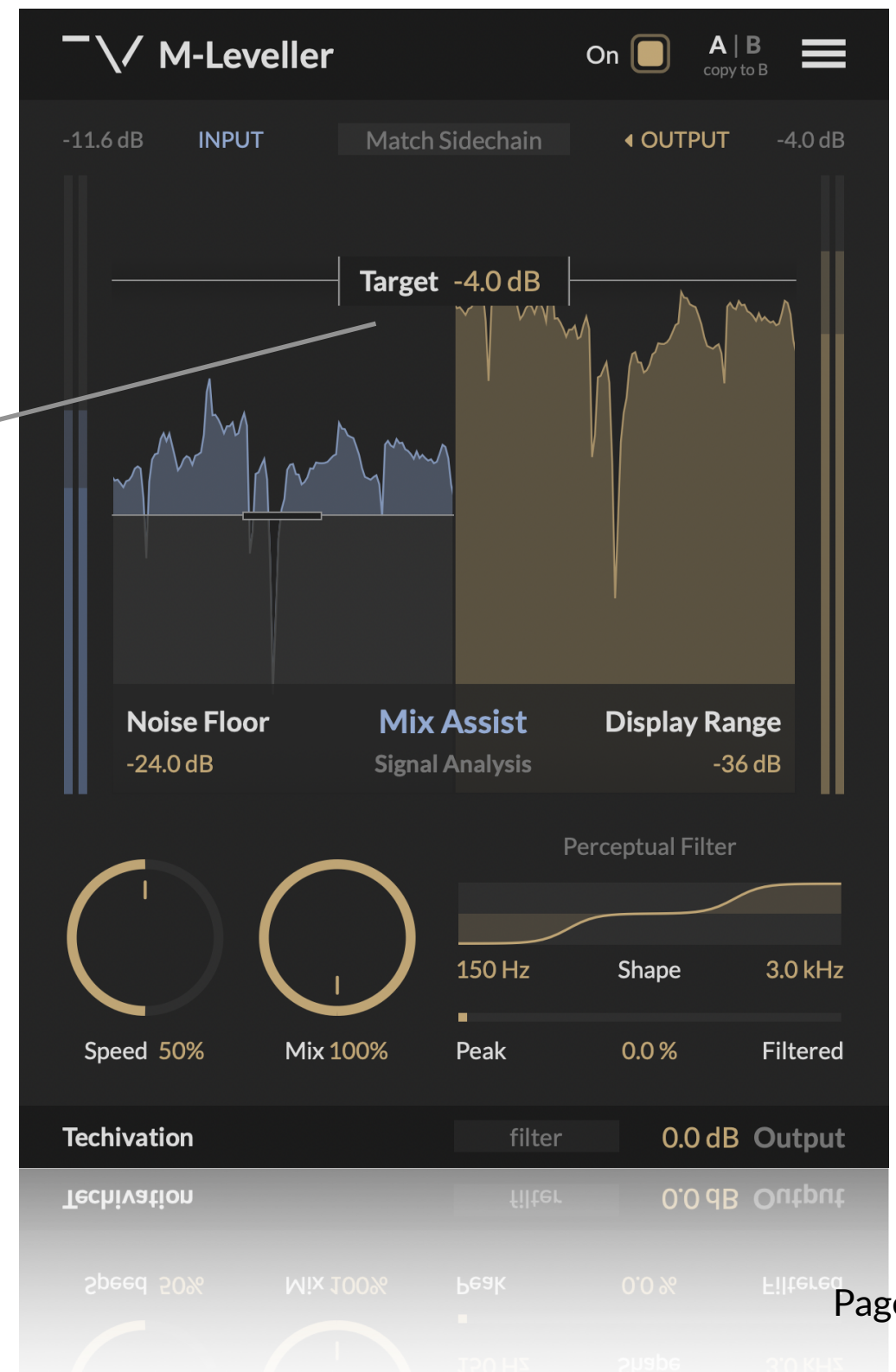
“Target” level is the main control of the plug-in. It sets the desired output peak level for the processed audio in dBFS (decibels relative to full scale).

The available range of “Target” levels depends on the current “Display Range” value. It can start from -48, -36, -24, or -16 dBFS, and goes up to +3 dBFS.

Note: Setting “Target” level close to or above 0 dBFS can lead to digital clipping.

When “Peak/Filtered” balance is set to 0%, “Mix” is set to 100%, and “Output” is set to 0.0 dB, the output peak levels of M-Leveller Mix will never exceed the “Target” level.

Higher “Peak/Filtered” balance values and lower “Mix” values will result in more output level deviation from the “Target” value.



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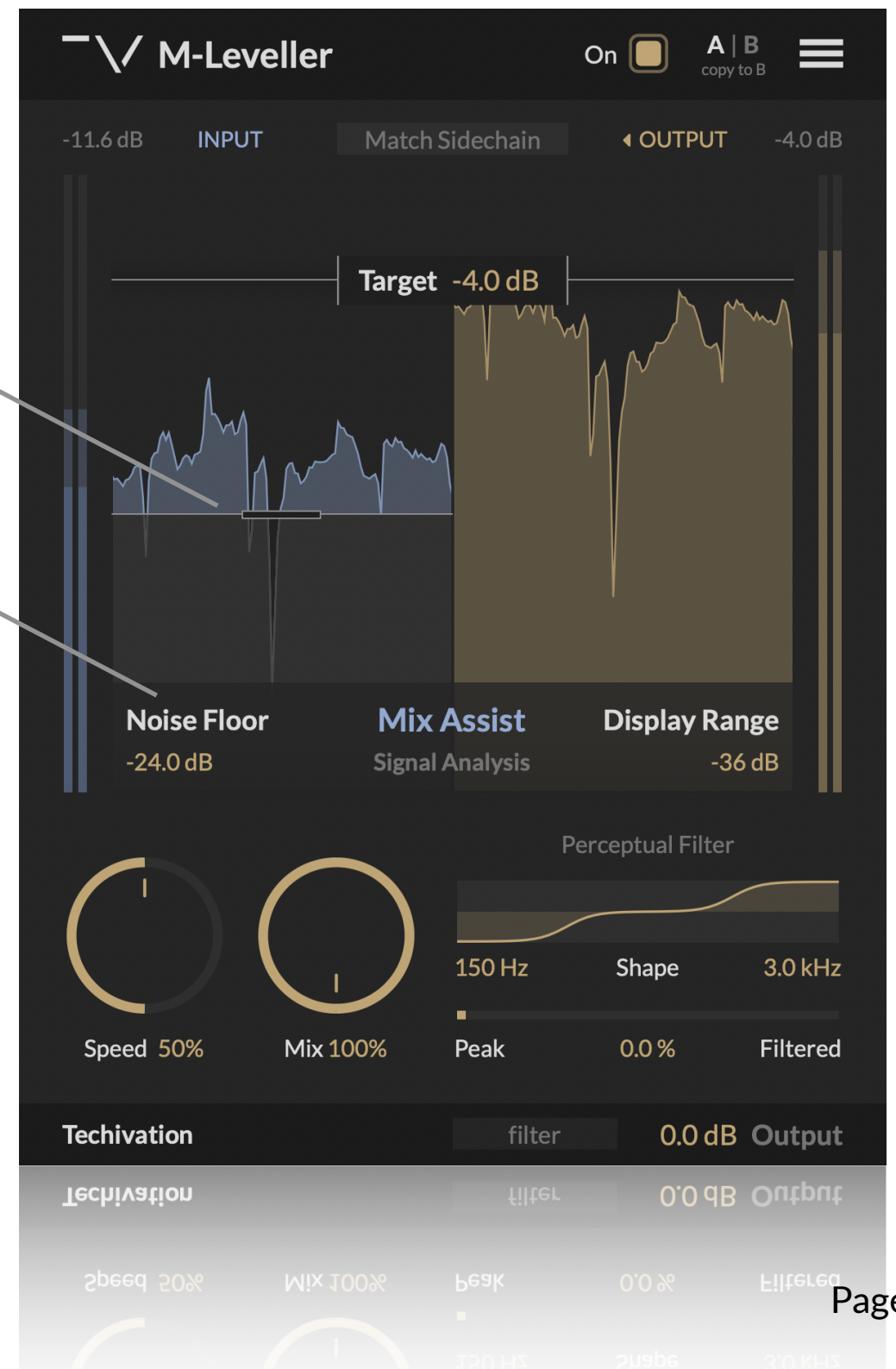
[Features](#)

Noise Floor

“Noise Floor” sets the level below which audio events will not be levelled. Use this control to prevent background noise, bleed, breaths, etc. from being level-matched to the rest of the audio.

The input waveform display can be used to visually set the “Noise Floor” level to keep the unwanted audio events below, and the meaningful events above.

The available range of “Noise Floor” levels depends on the current “Display Range” value. It can start from -48, -36, -24, or -16 dBFS, and goes up to +3 dBFS.



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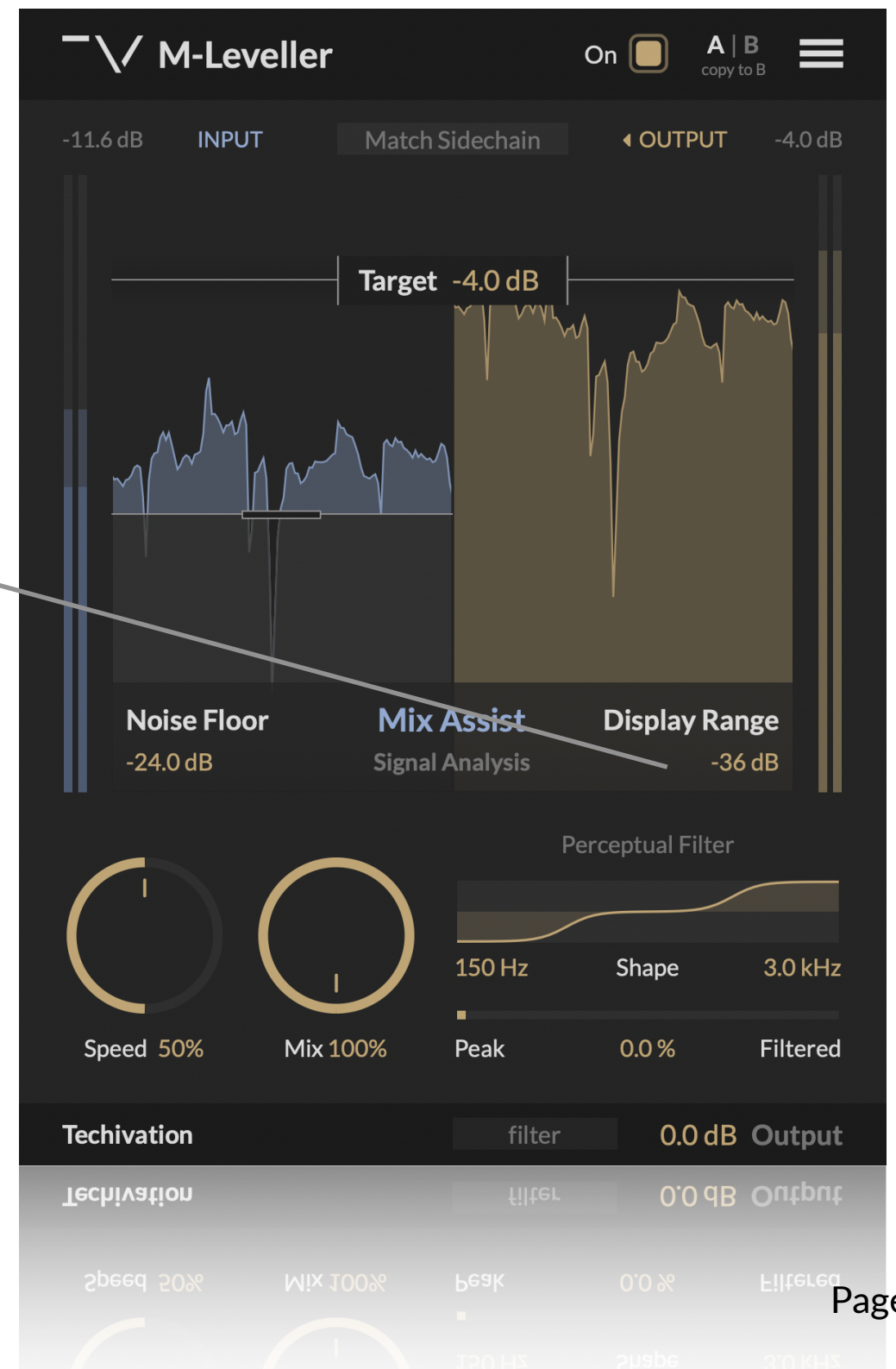
[Features](#)

Display Range

“Display Range” controls the range of levels shown on the waveform display. The maximum level is fixed to +3 dBFS, while the minimum level can be set to -48, -36, -24, or -16 dBFS.

The “Display Range” value also controls the available range for “Target” and “Noise Floor”.

When the plug-in detects input signal, but its level is too low to be visible on the waveform display with the current “Display Range” setting, a warning will be shown prompting you to increase the range. This warning can be disabled from the main plug-in menu using the “Disable Range Warning” option.



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[Features](#)

Waveform display

“Waveform display” visually presents the history of the input and output levels for the past 2 seconds. The left half of the display shows the input levels in blue, while the right half shows the output in gold.

The display presents a clear and convenient way to set “Target” and “Noise Floor” levels, while viewing the effect of the plug-in on the audio waveform.

The “OUTPUT / DIFF” button on the top right of the waveform display switches the function of the right half of the display. In “OUTPUT” mode, the right meter and waveform display show the output level of the plug-in. In “DIFF” (Difference) mode, the right meter and waveform display show the amount of gain applied to the signal: positive in green and negative in red.



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[Features](#)

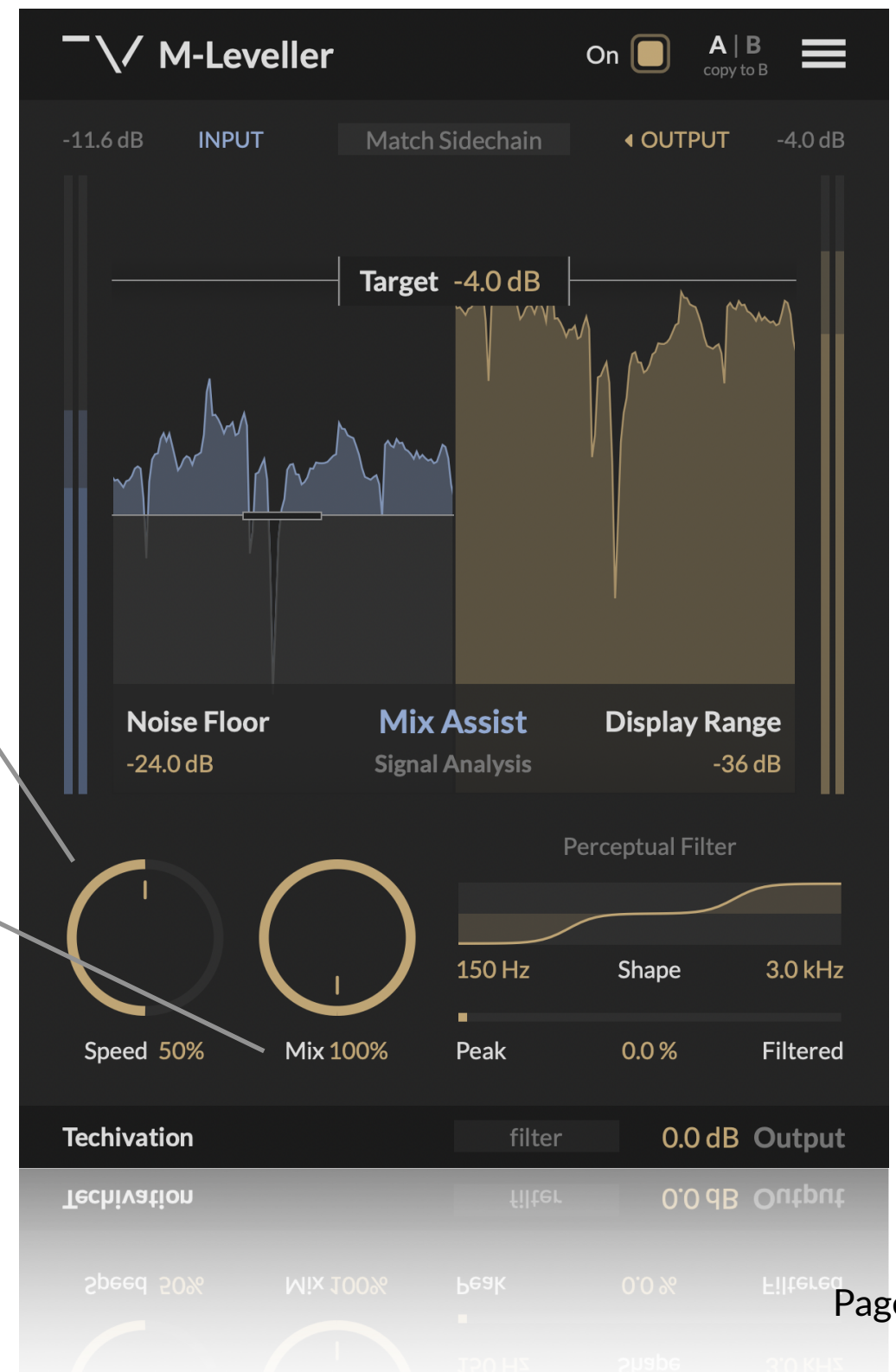
Speed

“Speed” controls the response speed of the leveller. Internally, it determines how long the events that M-Leveller Mix detects are: at high “Speed” values, the plug-in will level individual notes, percussive hits, etc., while low “Speed” values result in levelling whole musical phrases.

Mix

“Mix” parameter controls how much of the leveller gain is applied to the audio. You can use this control to preserve some of the original level variation of your audio, similarly in principle to parallel compression.

Note: When "Mix" is set below 100%, the leveller output will not be able to reach the "Target" level exactly.



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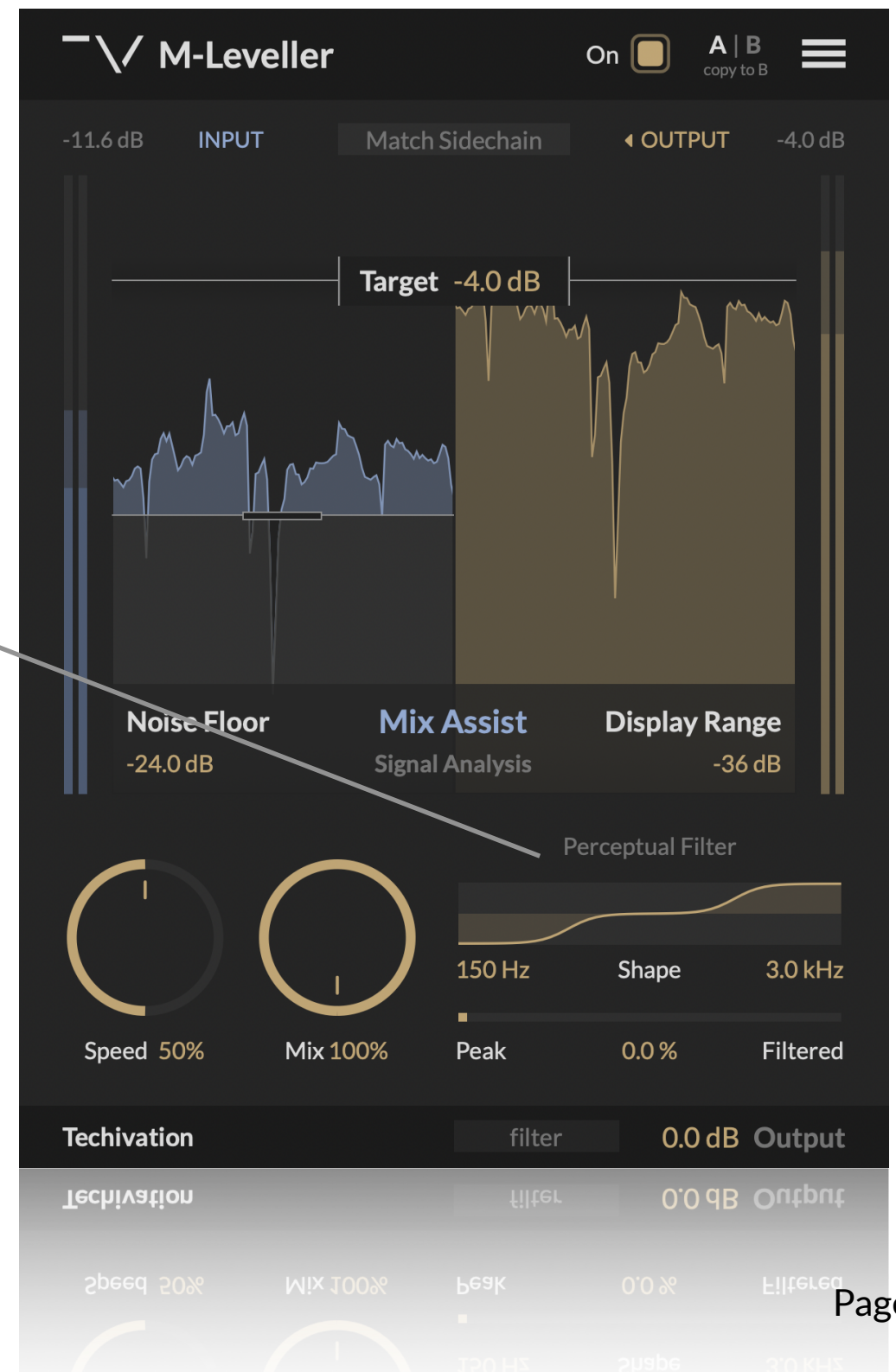
[Features](#)

Perceptual Filter

By default, M-Leveller Mix operates based on the peak levels of your track. However, peak levels are not always representative of how we perceive the loudness of audio. Human hearing is inherently more sensitive to higher frequencies, and less sensitive to low frequencies. This means that a high frequency noise and a low frequency noise with the same peak level can be perceived as having different loudness by the human ear.

To account for this, M-Leveller Mix features an optional Perceptual Filter. This filter can lower the plug-in's sensitivity to low frequencies, and increase its sensitivity to the highs. By using the Perceptual Filter, tracks with varied frequency contents can be levelled to sound more consistent to the human ear.

If the lows sound too quiet or the highs sound too loud in the levelled signal, move the “Peak / Filtered” balance slider towards “Filtered”.



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[Features](#)

Shape

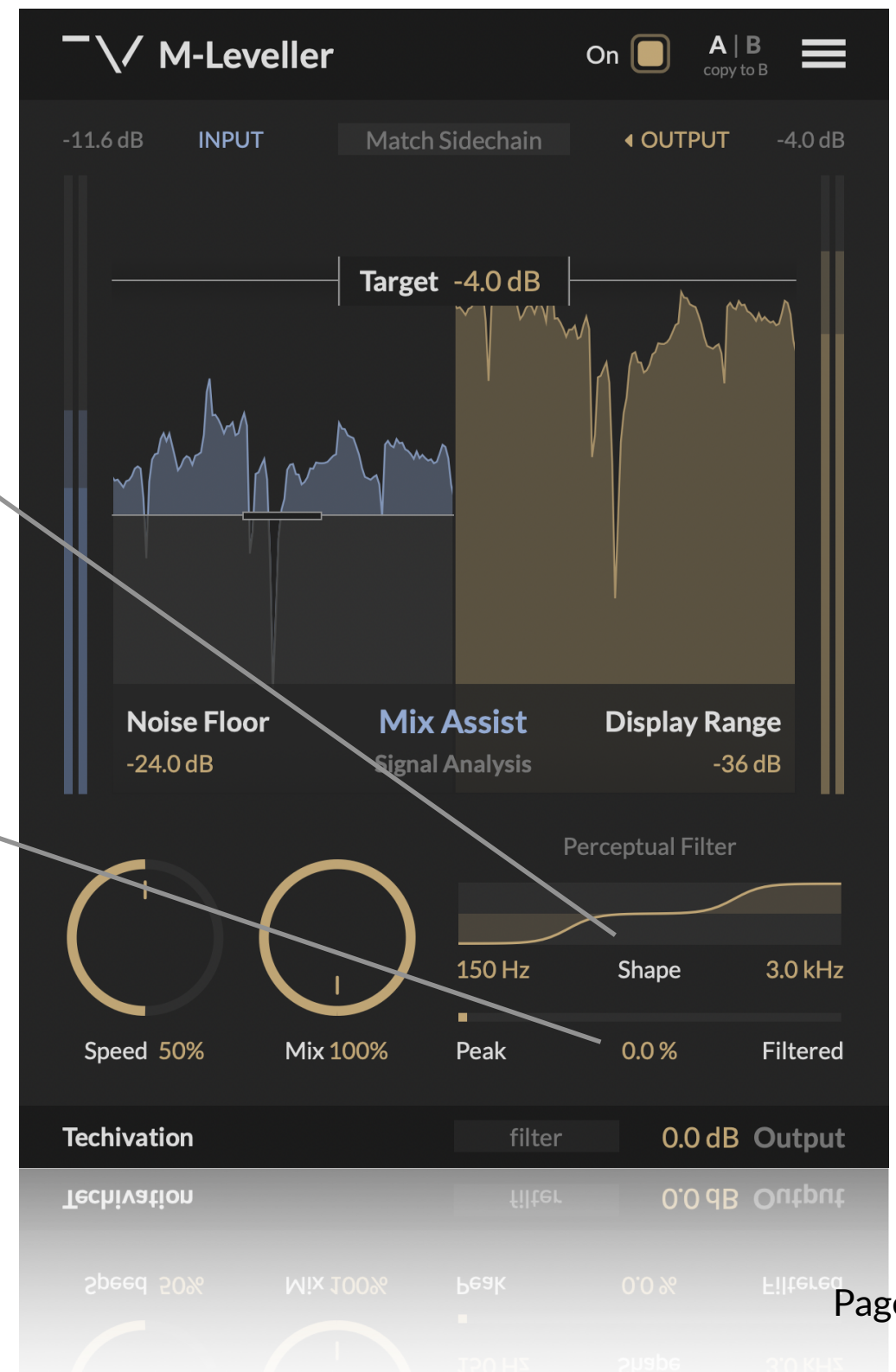
"Shape" control of the Perceptual Filter section lets you set the frequencies for the low cut and the high boost of the filter. This lets you precisely tailor the sensitivity of M-Leveller Mix for your audio.

Peak/Filtered

"Peak / Filtered" control of the Perceptual Filter section determines how much of the filter is applied during levelling. At 0%, the plug-in performs levelling purely based on the peak levels. Higher values adjust the M-Leveller Mix sensitivity in accordance with the "Shape" setting to better imitate human perception.

Note: When "Peak / Filtered" balance is set above 0%, the leveller output might not always reach the "Target" level exactly.

"Filter" button allows you to listen to the output of the Perceptual Filter directly. You can use it to help you set the "Shape" frequencies.



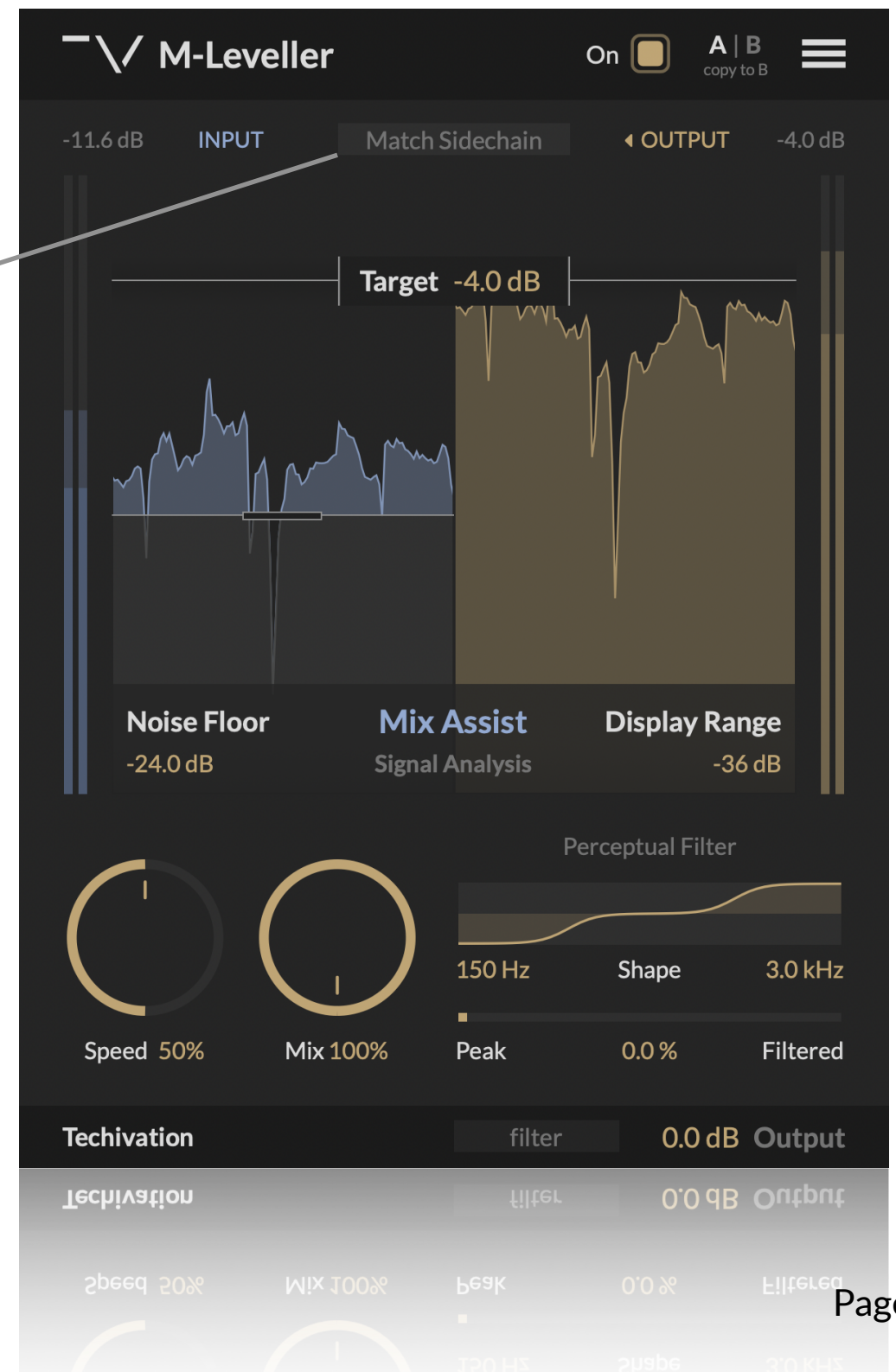
Techivation M-Leveller

Features

Match sidechain

“Match Sidechain” button enables you to match the level of an external signal, instead of manually setting the “Target” level. To take advantage of this feature, please refer to your DAW manual for information on how to set up the external sidechain input to the plug-in. Once “Match Sidechain” is enabled, the “Target” level slider will change its name to “Match” and will start following the level of the external sidechain input.

You can use the “Output” control of the plug-in to offset the M-Leveller Mix output level from the external sidechain “Match” target. A common use case for this feature is to route the instrumental sub-mix of your track to the sidechain input of an M-Leveller Mix instance on a vocal track. This will ensure that the vocals always stay on top of the mix. In this case, it could be best to set the “Gain Adjustment Mode” from the main plug-in menu to “Boost Only”, so that the vocal does not get attenuated when the instrumental sub-mix gets quieter.



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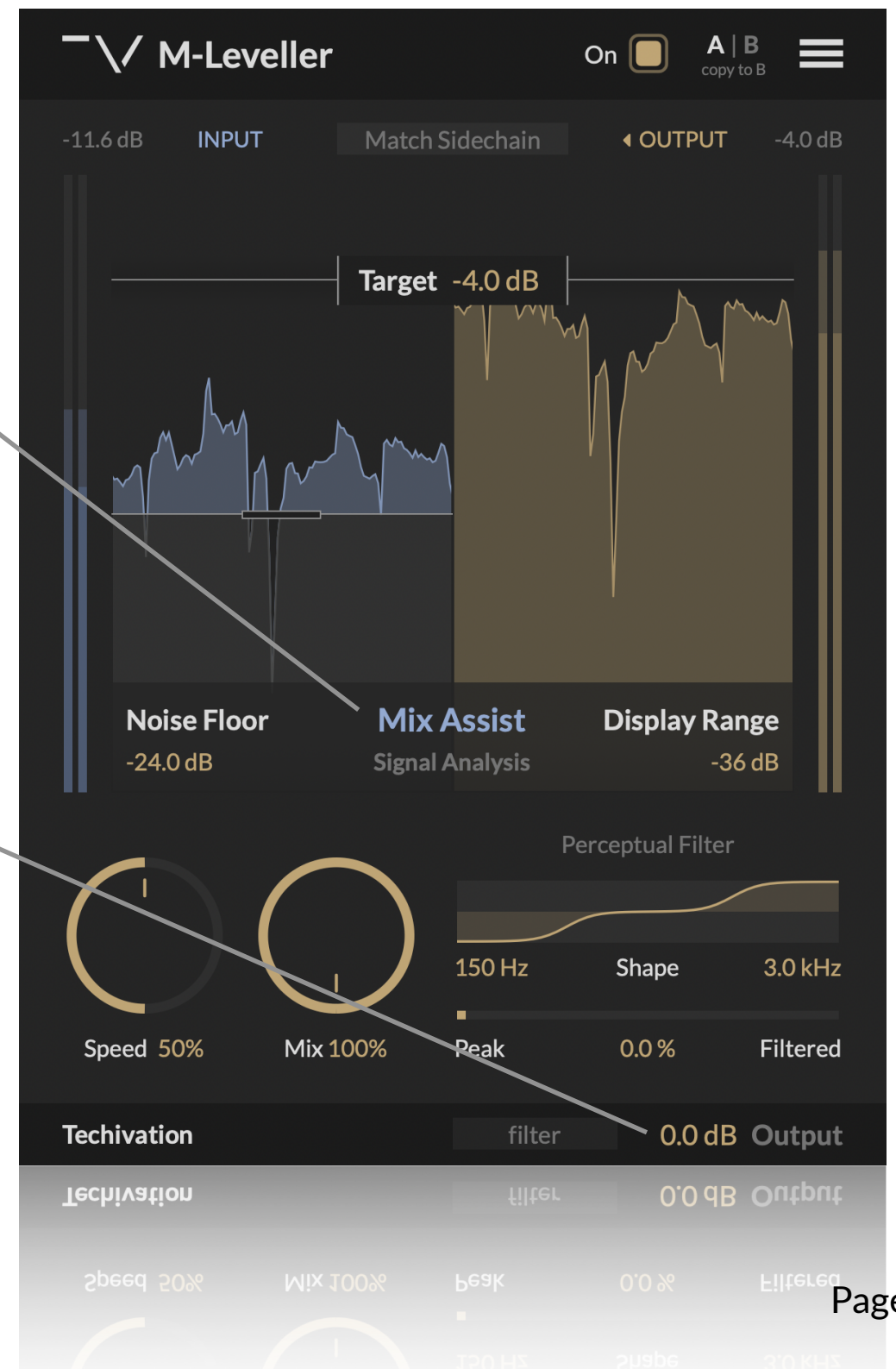
[Features](#)

Mix Assist

“Mix Assist” button enables the plug-in to capture and analyse the input and intelligently set the processing parameters. M-Leveller Mix will capture 3.5 seconds of audio for the analysis. Make sure to play the busiest part of your track when learning to get the best results.

Output

“Output” parameter controls the amount of clean gain applied to the processed signal.



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Features

Gain Adjustment Mode

“Gain Adjustment Mode” option in the main menu of the plug-in allows you to choose whether M-Leveller is allowed to boost (increase level), cut (decrease level), or both to reach the “Target” level.

Enable/Disable Range Warning

This option in the main menu of the plug-in allows you to disable the warning when the input level is too low to be displayed at the current “Display Range” setting.



Techivation M-Leveller

[Features](#)

Tip

M-Leveller can be used as a "Safety Limiter", reducing the output gain if the audio levels exceed a set target (e.g. -1 dBFS), but keeping the signal unaffected otherwise.

To do this, you can use the "Safety Limiter" factory preset, or set up the plug-in parameters as follows. Set "Peak / Filtered" balance to 0%, "Mix" to 100%, and "Output" to 0.0 dB to configure the plug-in for peak levelling.

Set both "Target" and "Noise Floor" levels to the same value, for example -1 dBFS. This will be the level that your audio is not allowed to exceed. By setting the "Noise Floor" to the same value as the "Target", you make sure that the audio level will not be adjusted unless it rises above the "Target" level.

Techivation M-Leveller

[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.

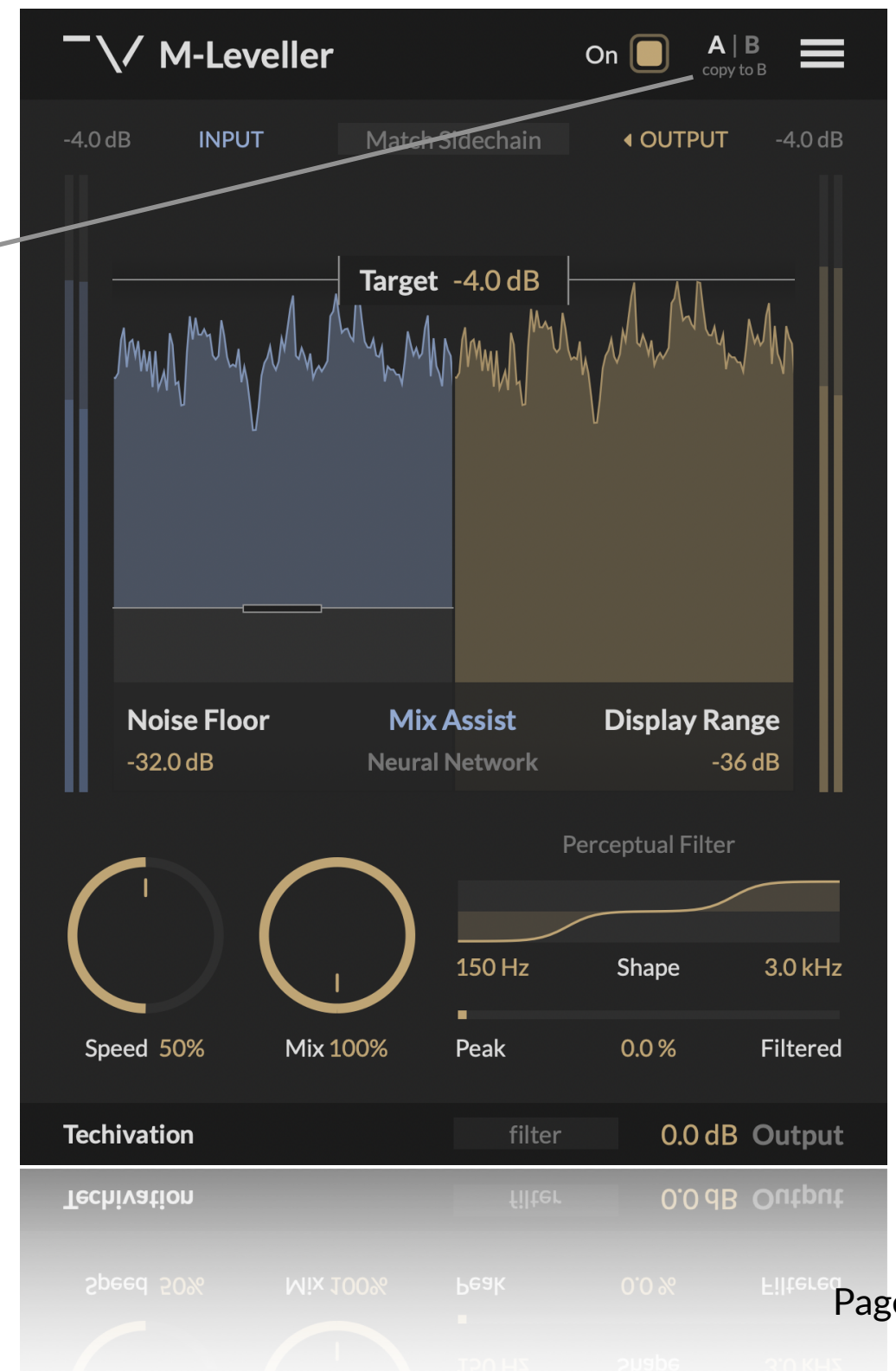
Techivation M-Leveller

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 focus on the creative aspects of your mix without getting bogged down in technical details.



Techivation M-Leveller

[Features](#)

Undo/Redo

The M-Leveller 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.

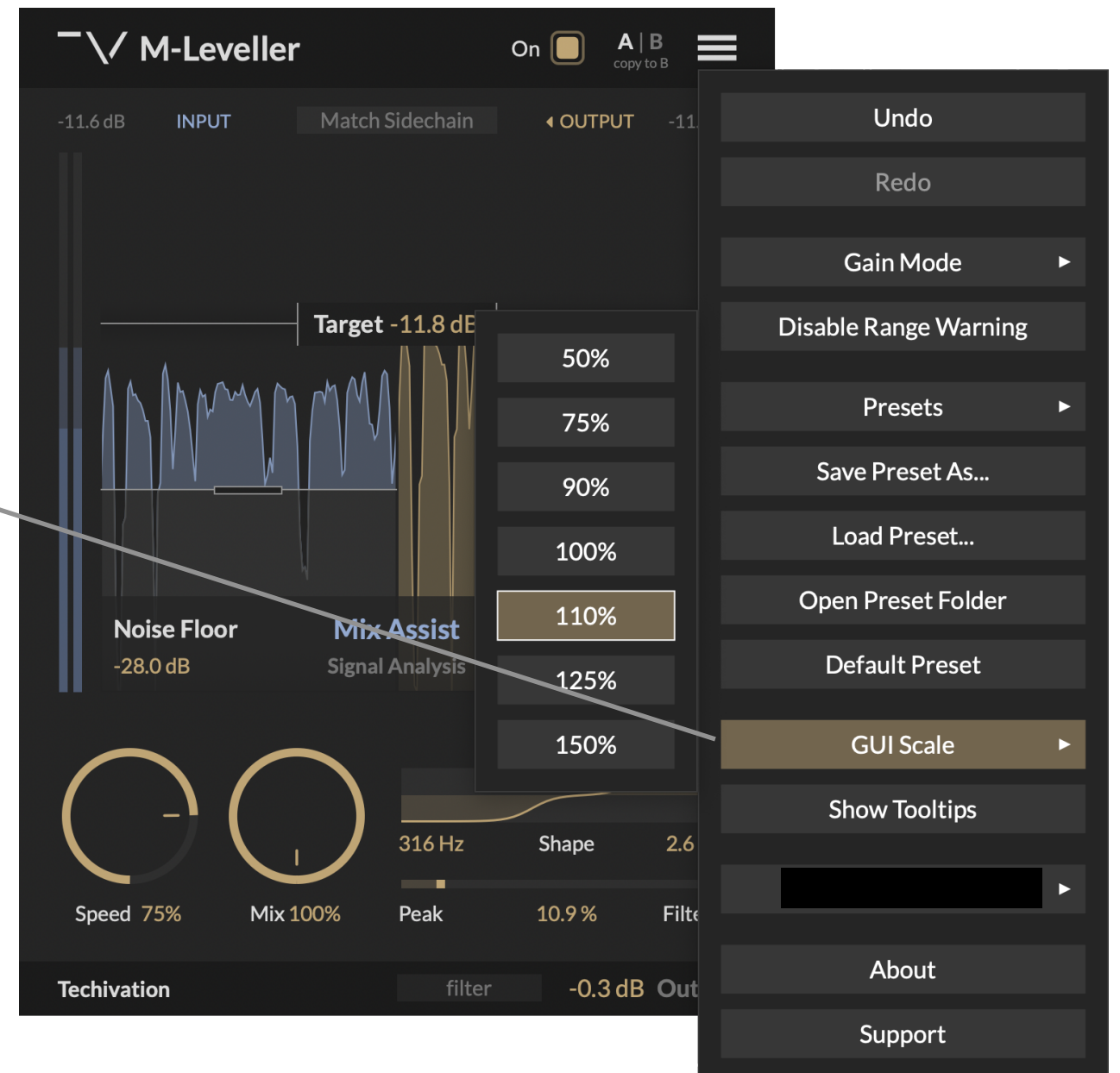


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[Features](#)

GUI Scale

The interface scaling feature in M-Leveller allows you to customise the size of the GUI to suit your preferences and optimise your workflow. With a range of scaling options available, from 50% to 150%, you can personalise 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-Leveller is optimised for high-end quality monitors, including retina displays, ensuring that the plug-in looks great and performs reliably on a variety of devices.



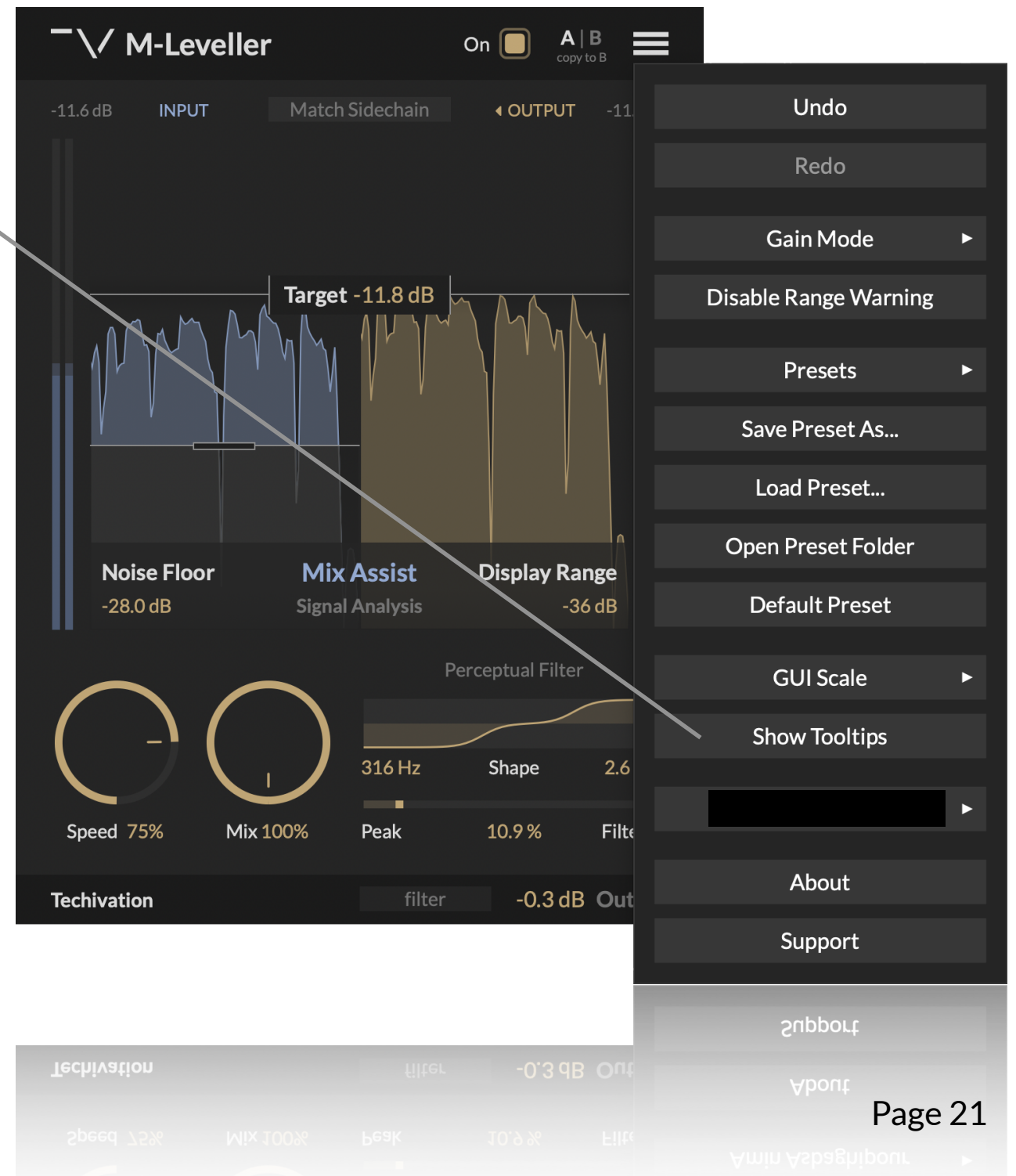
Techivation M-Leveller

[Features](#)

Tooltips

M-Leveller 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-Leveller 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-Leveller

Features

Plug-in Menu

A quick menu of useful features:

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



Techivation M-Leveller

Compatibility

Plugin formats: VST, VST3, AU, AAX.

Platforms supported: Mac OS X 10.15 (Catalina) or higher Intel processors, and Apple Silicon Chips.

Windows 7 and up. 64 bits.

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

Activation

M-Leveller 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

Check out 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 or techivation@gmail.com

Installation

If you purchase a [M-Leveller](#) 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 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

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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."