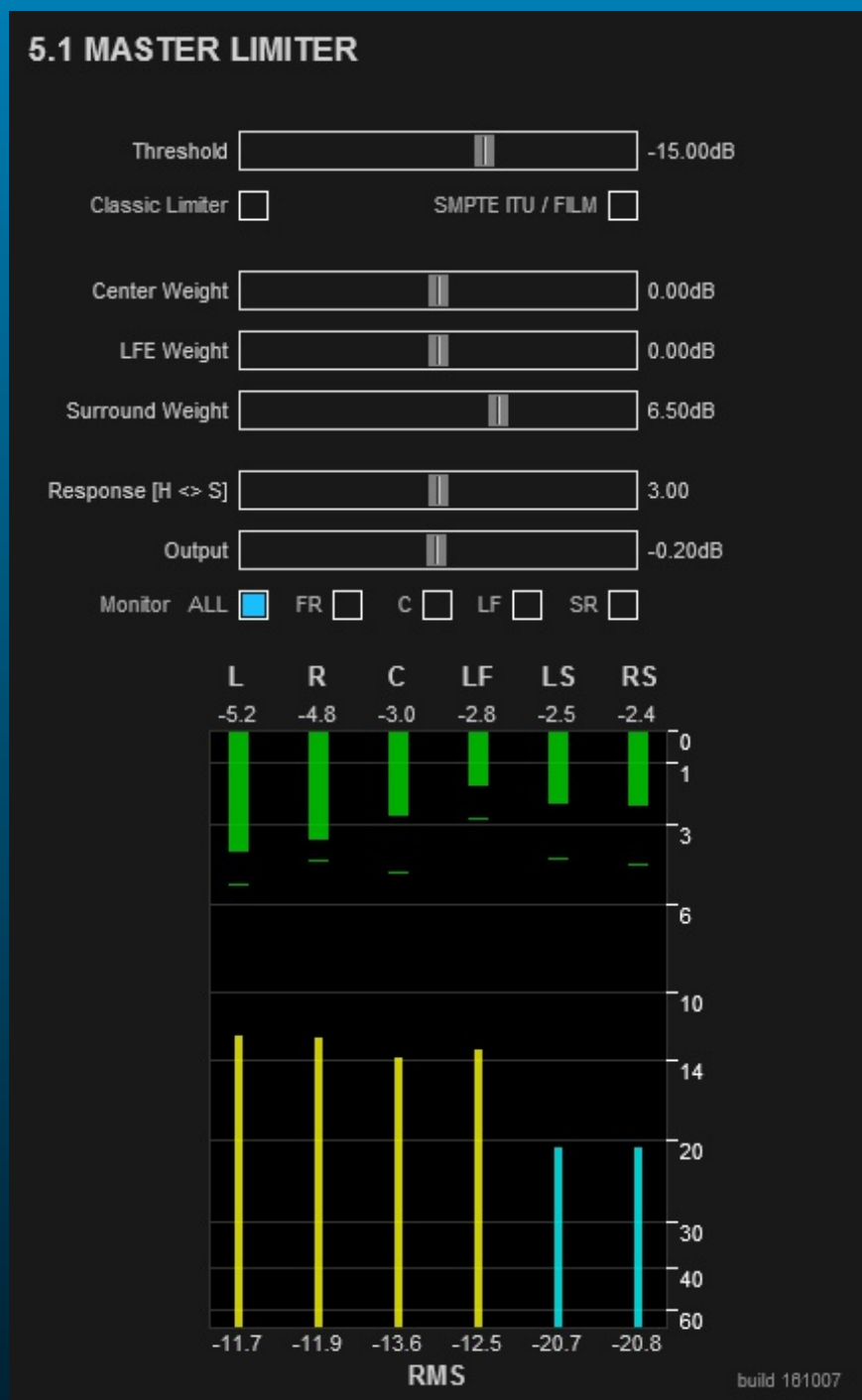


# 5.1 Master Limiter



Quick Start Guide



# 1. Introduction

5.1 Master Limiter is a multichannel dynamics optimization plugin. Depending on settings, it can be used as:

- Loudness maximizer
- Limiter
- Leveler

5.1 Master Limiter suits well for dynamic tonal instruments like piano, full orchestras, ambient soundscapes and such. Much care has been taken that there should be as little audible distortion as possible. Many loudness maximizers perform clipping of peaks as part of their process. That can give you an impression of high loudness and transparency with typical pop/rock mix, but will easily lead to audible distortion when used with material where tonal components are more pronounced than rhythmic. 5.1 Master Limiter tries to avoid clipping, but still reaching a high loudness if that is required.

Although the goal with 5.1 Master Limiter was to offer a functional loudness maximizer/limiter for multi channel material like movie audio, live concerts, soundtracks and ambiences, it can be used for traditional stereo music as well.

## 2. Threshold & Limiting mode

The threshold controls the absolute peak limit of input signal. When "Classic Limiter" mode is active, no signal can go above the threshold value. If "Classic Limiter" mode is not engaged, the plugin operates in Loudness Maximizer mode and input is being automatically maximized into 0dBFS. There is no sonic difference between the two modes.

## 3. Weight Controls

Sometimes it may occur that equal limiting threshold on all channels will lead into balancing problems. The weight controls can be used to balance the limiting amount between front, center, LFE and surround. You can imagine it to be like an independent threshold control for each channel.

*Notice: if you decrease the weight below zero, then an extra headroom is being added to the output - leading into quieter total output (when using Loudness Maximizer mode). Practically that means that the threshold of that specific channel(s) is higher than the global threshold set with the threshold slider. In order to achieve that, headroom must be added.*

## 4. Response

The Response slider can be used for changing the characteristics of the limiter. When at position 1, the response is the hardest possible, giving the highest output level.

At position 5, the response is very soft and suitable for signal leveling without too much limiting artefacts.

For basic loudness maximizing purposes, the default value of 1.5 is suitable.

## 5. SMPTE ITU / Film

This checkbox changes the mapping of channels that 5.1 Master Limiter is expecting. The default mode is SMPTE ITU, which has the following channel mapping:

L-R-C-LFE-Ls-Rs.

When the checkbox is checked, the Film mode is active. The Film mode has the following mapping:

L-C-R-Ls-Rs-LFE.

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