



JAX [JUST AN EXTENSION] SERIES

JAX : Make Louder [AUDIO UNIT]

MANUAL

VERSION 2.0



JAX !Make Louder is an audio unit processor from our [Just An Extension] series with only one goal: make your sounds gained and saturated in loudness.

Everyone knows the common problem: Sometimes audio just cannot be loud enough. So we have developed an effect, that does just this. Make Louder is not based on over-complicated dynamics processors and it is quick and easy to use, while still providing professional features for fine tuning.

We combined special algorithms that can boost audio in loudness up to a certain limit, or even give your sound that special amplified analog drive. JAX !Make Louder also has an inbuilt algorithm, preventing bogus loudness boosting if a certain level is already reached.

The update 2.0 has brought 2 additional tube amplifier models connected to the main brick-wall limiter, which now allows optionally to apply extra tasty analog style amplification to your sound. There is also the possibility to adjust the speed of the 2 serial brick-wall limiters now.

Normally, when boosting the volume of an audio file or stream, the peaks will digitally distort if exceeding the limit and the audio is hard clipping. This won't happen with analog gear because analog amplifiers rather saturate and compress the audio signals in a more natural, none-linear way.

Now, there are several approaches to get more density into digital sound without hard clipping. Limiting and compression often need many complicated steps, lots of experiences and good feeling for rhythm and transients. A very common problem is to prevent audible pumping with these. Saturators and amplifiers (i.e. tubes) will compact the audio too, without these pumping effects, but such effects will add certain more or less harsh harmonics to the sound, which is a kind of soft analog distortion.



JAX Make Louder in contradiction to this, has only some booster knobs and you do not need to think about any complicated parameters of several chained dynamic processors and you do not even need make plans for applying the desired loudness. Just load, tweak and boost unless it will satisfy your ears.

The unit always will ensure, that the level does not exceed the limit of 0 dB. So it is finally a kind of brick-wall limiter for digital production environments. This is especially useful, if experimenting with new and unknown behaving stuff, like our JAF series, those wild beasts, that sometimes produce very loud levels, exceeding the normalized audio limit easily due to their analog (none-linear) behavior.

Unlike many similar such audio processors of this kind, JAX Make Louder does not introduce any latency for its internal peak analysis nor the boosting algorithms. You can use the audio unit for mastering of entire mixes or to give a single track more presence without struggling with latency issues.

Because of the absence of latency, JAX Make Louder is excellent for live usage, because it does not delay the realtime audio stream, even not with a single sample. Many loudness processors actually introduce a clear latency, because these are realized as so-called “look ahead” limiters, needing to collect a certain amount of sample buffer to react to level changes and calculate the resulting actions. This will delay the output slightly and possibly make it impossible to be used with realtime microphone or external audio input for instance.

The user interface of the JAX !Make Louder will give you an easy to understand visual feedback of what happens and how much, if you just tweak the knobs.

We generally recommend to apply the effects moderately. Because too much loudness will flatten your material to death and make sound boring, harsh and unpleasing. Also the louder the sound will become, the more possible transient clipping and audible fluttering may occur, depending on the kind of input.

The JAX !Make Louder can even used with all knobs at zero position, because the brick-wall is always active at the 0dB boundary, watching the input against exceeding this critical limit. Some audio processors may boost the levels of the resulting audio, i.e. EQs or extreme delay feedbacks with more excessive usage.

If the red indicators are about to hit the middle of the top, then it is usually enough and you should not force the audio to get any louder than this. The indicators show the absolute maxima of the input (green) and the output (red) of the loudness processors. If an audio stream exceeds the level already, the green level meters (input) may overlap on top clearly. This indicates, that you must prevent clipping on the output by tweaking the knobs down to 0 dB. This will effectively limit the output without applying further gain boosting to not to exceed this value.

Please note, that commercial music productions are often already boosted to the maximum (more or less). It does not make any sense trying to make these louder without losing significant sound quality. Classical music or speech in contradiction will get much more presence with moderate loudness boosting. You must consider, that noise levels are boosted too, if raise the loudness.

Note: JAX Make Louder does not replace high end mastering devices. It is thought as an easy to use tool while performing live sessions with mobile devices or for pre-production and

just for the control of loudness clipping while experimenting with effects and processors.

JAX Make Louder is free for an introductory period and it is exclusively available for Apple's mobile platform and will work and behave on iPads as on iPhones the same way.

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