# LEVELIZA

RC AUDIO


## Introducing the LEVELIZA

The LEVELIZA is a totally new type of product.
It maintains consistent mean loudness levels without any compromise in quality or dynamic range of the signal. There is no compression, no pumping, no drifting of levels between different types of music or tracks, just totally inaudible and transparent level control as if a human engineer was attending the fader.

It is a real game changer in many applications where a consistent loudness is required (perhaps a dancefloor) from inconsistent sources (perhaps DJs).


Unless you engage sound engineers to continuously monitor levels and ride the mixer fader at all times then an automated gain control system is required, but the other commonly available solutions tend to have significant drawbacks. These drawbacks include:-
- Compromising the dynamic range of the sound with limiting or compression,
- Audibly «pumping» with the bass,
- Modulating level with changing duty cycle/crest factor of the signal,
- Spoiling a quieter section in a track by releasing their attenuation and getting louder,
- Plus other unfortunate side effects.

So, why would anyone want to spend time and money setting up a top quality system and then spoil the resulting audio performance with such audible side effects?

Now there is finally a really good automated solution to this, meet the LEVELIZA.

## What does it do?

The LEVELIZA uses a new type of circuit to specifically identify the audibly loudest significant components in a music signal, and then it analyses them over a period of time in order to identify the average perceived loudness of the music.
- Just like an engineer would listen and monitor average loudness levels.
When the average perceived loudness drifts above the set threshold the LEVELIZA very slowly and subtly adjusts the system gain so as to try to maintain the average perceived loudness around the threshold.
- Just like an engineer would gently ease the fader down or up a tiny bit at a time to maintain the necessary loudness.
If there is a more sudden increase in loudness the LEVELIZA will activate an emergency response and react quicker.
- Just like an engineer would pull a fader down faster if a DJ suddenly whacked up the levels.
And, uniquely the LEVELIZA achieves these objectives without compression or pumping or otherwise compromising the dynamic range or quality of the audio signal.
- Just like an engineer occasionally easing a fader up or down does not cause audible compression or pumping or limiting.

## What doesn't it do?

The LEVELIZA is not a conventional limiter and will not prevent amplifiers from clipping, so system limiters should still be used as normal to offer system protection.

## Benefits for noise level compliance


The LEVELIZA is uniquely beneficial in situations requiring dB LAeq noise level compliance.
Typically the requirement is for an average dB LAeq level not to be exceeded at specific location(s), and this is usually measured over a specific period such as 15 minutes.
Unlike other conventional limiters and solutions that simply limit the MAXIMUM level, the LEVELIZA works differently to limit the AVERAGE level, and it is usually the AVERAGE (not the MAXIMUM level) that is being measured.
So, the LEVELIZA is controlling the signal precisely in accordance with what is required to satisfy an «LAeq» average offsite noise measurement.
The audible result for the music venue is unbelievably good.
Additionally, the level thresholds can be preset and locked behind security screws, so once levels are carefully set they cannot easily be tampered with. For increased security we make an «Install» version with no external controls.

With a conventional system limiter all the sound becomes compressed at the threshold level. This delivers a sound suffering from compromised dynamic range and every part of the music is being delivered crushed down at the threshold loudness.

With a LEVELIZA there is no compression of the sound at all. Much of the music content will be peaking above the threshold level, so the music will actually sound noticeably louder and totally dynamic, and equally the quieter content will be heard quieter as it was supposed to be. The LEVELIZA will however be monitoring the AVERAGE loudness and will consistently maintain this AVERAGE level at no more than the threshold level.

So,

- with the LEVELIZA the sound is totally dynamic and audibly louder,
- whereas with other system limiters it is compressed and quieter,
- yet the offsite noise readings will measure the same!

## SPÉCIFICATIONS TECHNIQUES

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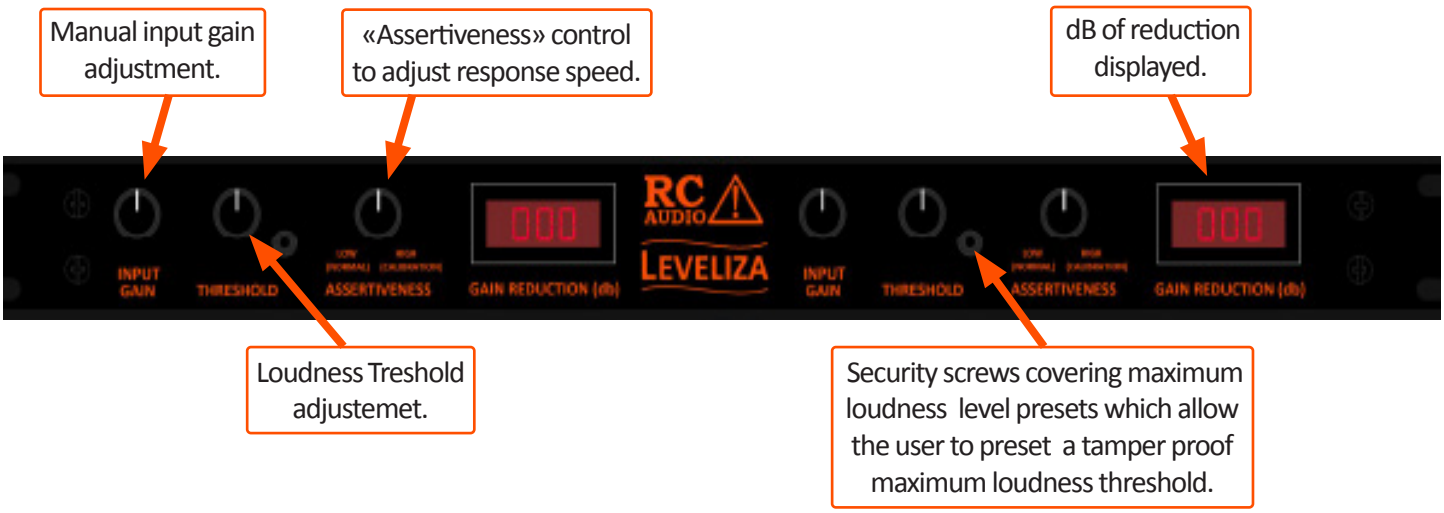
|---|---|
| Dimensions: | Standard 19 inch 1U rack case by 250mm deep |
| Power requirement: | 90-264V AC, 47-63 Hz, maximum 60mA current |
| Audio Connections: | Balanced XLR in and out for each channel |
| Power Connection: | Standard IEC power inlet type C14 |
| Maximum input level: | 20V RMS (balanced) or 10V RMS (unbalanced) before clipping |
| Display: | Approx Gain Reduction in dB shown for each channel |




## LEVELIZA OPERATIONAL FLOWCHART