



Loudness Maximizer

The Loudness Maximizer is a digital compressor/limiter employing completely new techniques to gain perfectly optimized loudness. Developed in cooperation with the University of Bremen/Germany, the algorithms are constantly responding to the characteristics of the input signals to process with highest musical efficiency. Even previously processed mixes can gain additional subjective loudness without introducing distortions or losing punch.

The loudness of a digital full scale signal (0 dBfs) is maximized without tonal changes at all – transients, sound colours and the spatial images remain unchanged, while an absolutely clip-free full scale signal is guaranteed.

Nothing but loudness

Unlike usual compressors, the Loudness Maximizer does not divide the signal in frequency ranges but processes the audio material homogeneously. Together with “no-knee” compression characteristics most unobtrusive operation is ensured.

Standard processing configurations can be stored in 99 presets. All the parameters for dynamic processing are constantly controlled by the audio itself. This reduces the number of controls to three pots and one switch function and optimizes the processing results: no “pumping,” no other side effects at all.

Indispensable

The Loudness Maximizer is perfectly suited for applications in mixing, mastering, post-production and broadcast.

Features

- Internal 56-bit resolution
- Supports mono and stereo processing
- Extremely efficient operation – only three controls and one switch!
- Adaptively automated processing – settings are controlled by the audio itself
- Unique Look Ahead function: the Possible Display indicates possible loudness maximization
- No pumping or any other side effects
- All encoders with “analog” control feeling and alpha-dial logic
- Operates with 24 bit word width and accepts any word width from 16 to 24 bit (output resolution corresponds to input resolution)
- High precision Level-Meter
- Soft/Hard control to adjust intensity
- Stores up to 99 presets (selectable by MIDI program change)
- MIDI fade out
- Synchronisation: Wordclock In and Wordclock Through BNC connectors with switchable 75 Ohms termination
- PC and MAC update ports

Applications

- Zero-Overshoot-Limiting (clip-free loudness maximizing is guaranteed)
- Zero-headroom-optimizing
- Loudness-maximizing in mastering
- Loudness maximizing of single takes during mastering
- Level limiting in broadcast

Specifications

Input/Output

Sample rate frequency: 32-48 kHz, automatic AES/EBU, twisted pair (1), AES 3 AES/EBU in- & output impedance: 110 Ohms S/P-DIF, co-axial (2), SPDIF-2 S/P-DIF input impedance: 75 Ohms Wordclock In/Through, co-axial, BNC Wordclock in- & output impedance: 75 Ohms MIDI In/Through RS 232: software update PC RS 422: (max +/- 14 V), software update MAC Signal and Clip indicators Input transformer: AES Output transformer: AES Relay Hard Bypass: AES

Measurements

AES/EBU: Jitter 1 ns
S/P-DIF: Jitter 3 ns
Wordclock In: Jitter 1.5 ns
Signal delay: 5 ms

Power supply

Toroidal transformer 60 VA
Fuse 1A/slow blow
GND-Lift switch, voltage selector 115 V/230 V

Dimensions

19”/1U; 44.45 x 482 x 350 mm
Weight: 4.9 kg

(1) AES/EBU is defined for levels from 2 V to 7 V.
Measurements AES/EBU: 4.4 V with load.
(2) S/P-DIF is defined for levels from 200 mV to 700 mV.
Measurements S/P-DIF: 500 mV with load.

Loudness Maximizer Rear View

