

WAVES MAXXBCL



The MaxxBCL incorporates three of Waves' well-known audio processors in a sturdy 2U rack-mount configuration: MaxxBass enhancer (which features a second-generation algorithm used in the company's Renaissance Bass); Renaissance Compressor; and L2 Ultramaximizer limiter.



MaxxBass uses the psychoacoustic phenomenon of the missing fundamental, combining precise harmonics to extend perceived bass by up to 1.5 octaves, resulting in a very natural-sounding bass enhancement. The MaxxBass harmonics and the original bass can be mixed in any proportion at the output.

The Renaissance Compressor provides the classic sound of analogue compression. Two modes are offered: 'Opto', which models a vintage optically driven compression system; and 'Electro', a modern-sounding compressor implementation. Full control of threshold, ratio and attack are included, along with Waves' Automatic Release Control. The Renaissance Compressor is also capable of low-level compression/ expansion.



The L2 Ultramaximizer limiter has a very fast overshoot-free response that puts the sound up-front with astonishing transparency. The first Waves hardware L2 Ultramaximizer unit became a standard piece of gear in the best mastering and post facilities because of its ability to significantly increase signal level without introducing audible artifacts. In addition, the L2's converters' performance was equal to the best-dedicated converters on the market. Now the MaxxBCL goes further, retaining the signature L2 algorithm and adding new converters that offer even better performance.

MaxxBCL features analogue and digital inputs and outputs, the latter including both AES-EBU and S/PDIF capabilities at sample rates up to 96 kHz, allowing flexible analogue and digital format conversion at the highest possible quality. Independent input and output level matching is provided in six steps from 9 to 24 dBu, with 12 additional 1 dB steps of level trim per channel available on the front panel. Transformer-coupled analogue I/O is provided and the unit features a dynamic range of 125 dB.

Analog Input Stage

- Maximum analogue input gain: 24 dBu

Analog Output Stage

- Maximum output: +24dBu

ADC (@44.1kHz)

- Frequency response: 10Hz - 24 kHz / -0.1dB@10Hz + 0.01@24k
- THD + Noise: $\leq 0.0006\%$ @ 1kHz @ -1dBFS

DAC (@44.1kHz)

- Frequency response: 20Hz-21kHz / - 0.4dB@20Hz + 0.05dB@21kHz
- THD+Noise: $\leq 0.003\%$ @1kHz, -1dBFS
- Crosstalk: ≤ -102 dB (1kHz, 0 dBFS)

Processing

- 48 bit end-to-end internal processing path

Compressor

- Opto/Electro mode selection
- Threshold (0-60dB), Ratio (1:1-12:1) and Attack (0.5, 1, 2, 5, 10, 20, and 50 ms) controls
- Proprietary ARC™ Automatic Release Control
- Automatic gain makeup

MaxxBass®

- Adjustable processor frequency from 25Hz to 120Hz
- Adjustable harmonic mix percentage from 0 to 100%
- High Pass Filter "harmonics only" option

Limiter

- Overshoot-free Look-ahead processing
- Adjustable Threshold (0-18dB)
- Adjustable Output Ceiling (0-18dBFS)

User Interface

- Precision Metering with resettable peak hold options (2 sec, infinite)
- Accurate, wide-range metering covering 90dB for input and output and 12dB for compressor and limiter attenuation
- Quick access independent bypass on each processing block