SONIFEX

Redbox RB-ML2

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Redbox - Microphone Amplifiers & Limiters

RB-ML2 Stereo Microphone & Line Level Limiter

The RB-ML2 is a stereo microphone and line level limiter. The unit is mainly used where assistance with level control is required, for protection of mixer inputs and to prevent distortion. Ideal for news-booths, and the input to PC workstations, it provides an economical level control solution.

The RB-ML2 has two electronically balanced XLR-3 inputs, which are routed to a line amplifier, or microphone amplifier, via a rear push-button. The microphone amplifiers have independent pre-set gain controls, and DIP switches for a high pass filter (low frequency roll-off at 125kHz) and phantom power to provide +48V to the connected microphones.

The outputs of these amplifiers are passed through a VCA limiter circuit that can operate jointly on the signals in stereo mode, or independently in dual mono mode. The rear panel mode switch changes the unit from dual mono to stereo. Stereo limiting operates by limiting both left and right outputs if either left or right input needs to be limited. Dual mono limiting operates by limiting left and right signals

individually, so you can use the RB-ML2 as two separate mono mic/line limiters.

The characteristics of the limiter can be set via level threshold pre-sets. For each channel there is an input gain and a threshold level control. With the limit threshold set to maximum, the input through to output can be normalised using the input potentiometers. Once the unit is acting as a buffer with gain/attenuation, the limit threshold level can be set, with the recovery adjusted for the application. The power LED indicates limiting by flashing.

The two XLR-3 electronically balanced outputs can be set to either line or mic output levels via a push-button. This allows the RB-ML2 to be used in line with a line or mic input on a mixer, or similar equipment.

> ❝ *The unit is mainly used where assistance with level control is required, for protection of mixer inputs and to prevent distortion.* ❞

Audio Specification For RB-ML2	
Maximum Input Level:	-6dBu (mic), +28dBu (line), electronically balanced
Input Impedance:	>20kΩ balanced bridging
Input Gain Range:	Adjustable +22dB to +67dB gain (mic) via 2 x pre-set potentiometers (L & R), 0dB gain (line)
Maximum Output Level:	-18dBu (mic), +28dBu (line), electronically balanced
Output Impedance:	<50Ω balanced
Output Gain Range:	Adjustable -54dB to -24dB gain (mic), -8dB to +22dB gain (line), ref 0dBu line input, gain via 2 x pre-set potentiometers
Limit Threshold:	Adjustable -8dBu to +28dBu
Frequency Response:	20Hz to 20kHz ±0.1dB (600Ω load, ref 1kHz)
Noise (RMS):	<-70dB unity gain, ref +8dBu output
Distortion:	< 0.02% THD + N @ 1kHz, ref +8dBu output, threshold set at +10dBu
Common Mode Rejection (Line):	>66dB typically
Common Mode Rejection (Mic):	>86dB typically
Phantom Power:	+48V
LF Filter:	125Hz @ 6dB/octave

Connections & Controls	
Analogue Inputs:	2 x XLR 3 pin female mic or line switchable (balanced) (L & R)
Mic/Line Input Control:	2 x push-buttons for mic/line inputs
Analogue Outputs:	2 x XLR 3 pin male mic or line switchable (balanced) (L & R)
Mains Input:	Filtered IEC, switchable 110-120V, or 220-240V, fused, 6W max.
Fuse Rating:	Anti-surge fuse 100mA 20 x 5mm (230VAC) Anti-surge fuse 250mA 20 x 5mm (115VAC)
Mic/Line Output Control:	2 x push-button for mic/line outputs
Phantom Power & LF Filter:	1 x 4-way DIP switch
Mono/Stereo Mode Select:	1 x push-button
Limit Level Threshold Set:	2 x pre-set potentiometers

Equipment Type	
RB-ML2:	Stereo microphone limiter

Physical Specification	
Dimensions (Raw):	28cm (W) x 10.8cm (D) x 4.2cm (H) (1U) 11" (W) x 4.3" (D) x 1.7" (H) (1U)
Dimensions (Boxed):	36cm (W) x 20.5cm (D) x 6cm (H 14.2" (W) x 8" (D) x 2.4" (H)
Weight:	Nett: 0.90kg Gross: 1.35kg Nett: 2lbs Gross: 3lbs

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