

LA-4 COMPRESSOR LIMITER



FEATURES:

- Long-life LED Optical Attenuator.
- Smooth, natural-sounding RMS action.
- Selectable compression ratios.
- True standard volume indicator (VU).
- Input overload indicator.
- Simple stereo coupling.

The LA-4 Compressor/Limiter is another great performer in the continually expanding product line from UREI—the company which has built and sold more limiters and compressors throughout the world than any other manufacturer. Making use of patented Electro-Optical Attenuator technology owned by UREI, the LA-4 offers smooth, predictable performance coupled with ease of operation. Its electroluminescent light source is a light-emitting semiconductor, which will not change or deteriorate with age.



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Compression is adjustable by an easily re-settable multi-position switch to allow ratios from a soft, smooth 2:1 compression through super tight-sounding 20:1 limiting. The gain reduction circuitry is RMS responding (like our ears) so there are no surprises in its operation, as can happen with pure peak limiters.

The differential input and transformer isolated output assure trouble-free patching with freedom grounding problems. The natural sounding gain control action of the LA-4 makes it an ideal tool for the professional recording studio, offering superior performance in all phases of recording and re-recording. The recent development of dedicated integrated circuits allow an even better signal-to-noise ratio than was possible in earlier designs.

Because its gain reduction circuitry is RMS responding, the LA-4 is not recommended for overmodulation protection of broadcast transmitters, disc or optical recorders, unless followed by a peak limiter, such as the UREI 1176 LN.

Typical Input Versus Output Level Curves of LA-4 at Various Compression Ratios.

dB Input Level

SPECIFICATIONS:

SYSTEM:

Input:	Balanced bridging differential amplifier									
Input Impedance:	40 kohms, used as balanced input. 20 kohms, used as unbalanced (single ended) input.									
Equivalent Input Noise:	Less than -90 dBm, (15.7 kHz bandwidth); input and output terminated with 600 ohm load.									
Maximum Input Level:	Determined by rear panel switch to allow for optimum operation in different level environments. HIGH Range: Maximum +20 dB* LOW Range: Maximum 0 dB*									
Gain:	Adjustable with front panel gain control. Maximum 20 dB with input level switch in LOW position, maximum 40 dB with input level switch in HIGH position.									
Frequency Response:	±0.5 dB, 20 Hz-20 kHz.									
Attack Time:	1 to 10 milliseconds for 63% correction depending on signal waveform.									
Release Time:	100 milliseconds to 1 second for 63% return depending on duration of limiting.									
Compression Ratio:	2:1, 4:1, 8:1, 12:1, 20:1, switch selectable from front panel.									
Threshold of Limiting:	Adjustable with front panel threshold control and rear panel input level switch. Minimum level (±2 dB) to achieve 1 dB limiting is: <table><thead><tr><th>RATIO</th><th>LOW Range</th><th>HIGH Range</th></tr></thead><tbody><tr><td>2:1</td><td>-6.1 dB*</td><td>-4.1 dB*</td></tr><tr><td>4, 8, 12, 20:1</td><td>-4.5 dB*</td><td>-2.5 dB*</td></tr></tbody></table>	RATIO	LOW Range	HIGH Range	2:1	-6.1 dB*	-4.1 dB*	4, 8, 12, 20:1	-4.5 dB*	-2.5 dB*
RATIO	LOW Range	HIGH Range								
2:1	-6.1 dB*	-4.1 dB*								
4, 8, 12, 20:1	-4.5 dB*	-2.5 dB*								
Output	Floating, transformer isolated.									
Output Load	150 ohms or greater									
Power Output	+24 dBm into 600 ohm load +20 dBu into 150 ohm load									
Distortion	Less than 0.25% THD, 30 Hz-15 kHz.									
Power Requirements	100-125 VAC, or 200-250 VAC, 50/60 Hz, switch selectable, less than 10 W.									
Environment	Operating 0°C to +50°C. Storage -20°C to +60°C.									

PHYSICAL:

Connections	Input and output, through rear chassis barrier strip. Stereo interconnect through phono jack. Power through 3-wire IEC style connector.
Indicators	Standard VU Meter. Switch selectable to read output level (0 VU reference +4 dBm or +8 dBm), or amount of gain reduction. LED indicator for input overload. LED power indicator.
Dimensions	216 x 89 mm rack panel, depth behind panel 203 mm, (8 1/2 in. x 3 1/2 in. x 8 in.).
Finish	Panel is 3.18 mm (1/8 in.) brushed clear anodized aluminum in two shades. Chassis is cadmium plated steel.
Weight	2.95 kg (6.5 lbs.)
Shipping Weight	3.63 kg (8 lbs.)
Accessories	SR-1 Single Rack Mount Kit. DR-1 Double Rack Mount Kit. Model 301 XLR/OG Adapter for input and output.
NOTE:	0 dBm = 0.775 volt / 600 ohms = 1 mW. 0 dBu = 0.775 volt / Load not specified.

JBL/UREI continually engages in research related to product improvement. New materials, production methods and design refinements are introduced into existing products without notice as a routine expression of that philosophy. For this reason, any current JBL/UREI product may differ in some respect from its published description but will always equal or exceed the original design specifications unless otherwise stated.

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