



Eventide 2830AU Omnipressor Dynamic Effects Processor Instruction Manual

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Processor Instruction Manual

Eventide®

OMNIPRESSOR® 2830*Au



INSTRUCTION MANUAL

GENERAL DESCRIPTION



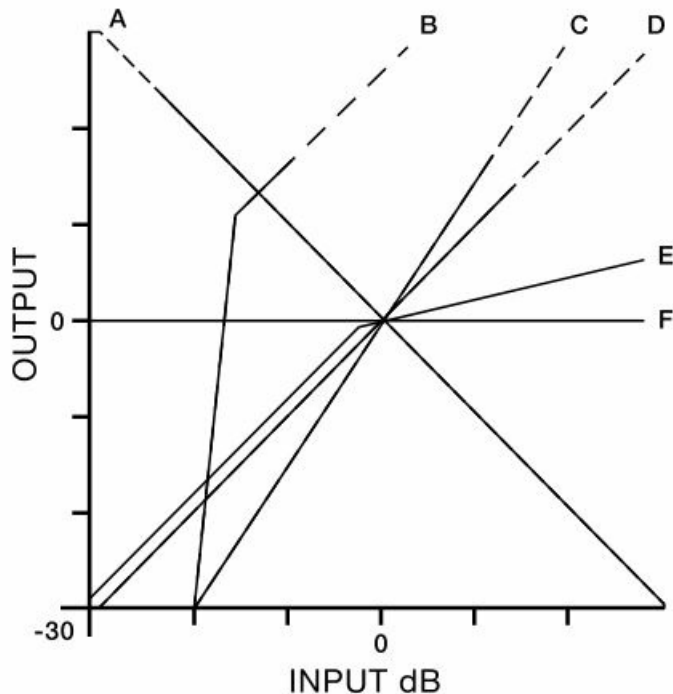
The 50th anniversary Model 2830*Au Omnipressor® is a professional-quality dynamic modifier, combining the characteristics of a compressor, expander, noise gate, and limiter in one convenient package. Its dynamic reversal feature makes high-level input signals lower than corresponding low-level inputs. Musically, this reverses the attack-decay envelope of plucked strings, drums, and similar instruments and gives the effect of “talking backward” when applied to a voice signal. When a return to normalcy is desired, the LINE switch is used to bypass the Omnipressor.

The Omnipressor provides an unusually wide range of controls, useful in all pro-gram-controlled gain changes. The continuously variable Expansion/Compression control goes from an expansion range of 10 to 1 (gate) to a compression range of -10:1 (abrupt reversal); attenuation and gain limit controls adjust the gain control range

from a full 60dB to as little as plus and minus 1dB; and variable time constant controls adjust attack/decay times over an approximate 1000 to 1 ratio. The unit's bass-cut switch limits low-frequency response in the level detector.

The Omnipressor's unique metering system employs a logarithmic amplifier to generate information on Input, Output, and Gain. Some of the unusual capabilities of the unit are illustrated on the graph below.

OMNIPRESSOR CAPABILITIES



A: DYNAMIC REVERSAL An input level of +10 results in an output of -10. An input level of -10 results in an output of +10.

B: GATE As the signal decreases below +10, the device gain rapidly goes to minimum.

C: EXPANSION A 40dB input range results in a 60dB output range.

D: CONTROL CENTERED Input level equals output level.

E: LIMITING Gain is unity until input is 0dB. Above 0dB. A 30dB change in input produces a 6dB output change. (Line is offset for clarity.)

F: INFINITE COMPRESSION Output level remains unchanged regardless of input level.

SPECIFICATIONS


INPUT LEVEL	0 to +8dB nominal level. Threshold control provided to center gain control operation over range of -25 to +15dB. Maximum level should not exceed +20dB or clipping will occur.
INPUT IMPEDANCE	600 ohm audio transformer.
OUTPUT LEVEL	0 to +8dB nominal level. Maximum level before clipping is +18dB. Output level control may be used to compensate for extremes of gain reduction.
OUTPUT IMPEDANCE	600 ohm audio transformer.
FREQUENCY RESPONSE	+0, -½dB 20Hz-16kHz; +0, -1dB 15Hz-20kHz.
GAIN	AGC disabled: Unity, -12dB to +12dB depending upon OUTPUT level.
COMPRESSION	Continuously variable from 1:1 through ∞ through -10:1.
EXPANSION	Continuously variable from 1:1 through 10:1.
GAIN LINEARITY	Infinite compression setting gives constant output level ± 1 dB for 60dB change in input level.
FUNCTION CONTROL	Continuously variable function knob is used to set appropriate compression/expansion ratio. Control operates parabolically to give spread near center. Common settings are calibrated.
LIMIT CONTROLS	The ATTEN LIMIT and GAIN LIMIT controls serve to restrict the gain control range to any value between 0 and 30dB in each direction.
DISTORTION	AGC DISABLED: .05% between 20Hz and 20kHz. Typ. .02% at 1kHz. -20dB AGC, +20dB output gain: Less than 1% above 100Hz, .5% at 1kHz.
SIGNAL/NOISE	At unity gain, output noise level is below -90dB.
METERING	Front panel meter provided which measures either absolute input level, absolute output level, or gain on linear/log scale over 60dB.
TIME CONSTANT	DEFINITION: Numbers refer to the time required for the Omni-pressor to change gain by 10dB in response to an input step change of 10dB in infinite compression mode. ATTACK TIME: Continuously variable from 100 μ s through 100ms. RELEASE TIME: Continuously variable from 1ms through 1 second.
POWER REQUIRED	115V AC, 50-60 Hz $\pm 12\%$ or 230V AC, 50-60Hz $\pm 12\%$; nominal 10 watts.
DIMENSIONS	19in (48.26cm) wide; 3.5in (8.89cm) high; 9in (22.86cm) deep.

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References

- [User Manual](#)