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MODEL 8900 DYNAMIC RANGE CONTROLLER

The GML Dynamic Range Controller is the result of 22 years of research, prototyping, and limited manufacturing. The unit combines highly accurate log converters, true RMS detectors and other modern analog processing techniques in a stable "feed-forward" topology.

This unit reflects significant improvements in at least three areas:

- * distortion reduction in the signal level determination processor.
- * improved smoothness of the "soft knee" transition generator.
- * increased transparency and low-level performance of the VCA circuitry.

In addition, the unit's design fully exploits modern analog processing elements, and surface-mount construction to offer unprecedented accuracy, reliability, and calibration stability.

SPECIFICATIONS

INPUT

20 kOhm balanced bridging; Pin 2 hot
57 dB common mode rejection at 20kHz
+27.4 dBv maximum before clipping
Individually channel swichable on back panel for +4 or -10

THROUGHPUT

±0.1 dB, 16 Hz to 68 kHz response (controls at zero)
0.01% Harmonic distortion at any frequency 20 Hz - 20 kHz¹, no gain reduction
0.009% SMPTE Intermodulation distortion²
30 v/usec discrete low noise, high performance amplifiers
no electrolytic interstage or output coupling capacitors
noise -96.5 dBv bypassed, -74 dB absolute worst case (control position dependent)
rolloff: 3 dB down at 260 kHz

FORM FACTOR - 2 CHANNELS, Each with Separate Peak and Dual RMS Detectors

Discrete VCA; Discrete Audio Chain
Front Panel Sidechain; Stereo and multiple unit control link
40 Segment Tricolor meter; Meter range -20 to +20, true gain through unit
4 segment instantaneous ratio meter (approximate indication of soft knee actuation)
Peak, FastRMS and SlowRMS indicators

OUTPUT

+27.4 dBv clipping; unbalanced; Pin 2 Hot
3 mv output offset, stabilized by D.C. servo correction

OTHER

external power supply: ±28 VDC & ±18 VDC
ground and chassis straps at rear
19" x 3 1/2" rack case, black anodized aluminium, silver legend, 8 1/2" deep
weight: 7 lbs.

¹ Includes Sound Technology 1710A residual, 30kHz LP filter

² Measured at 0 dBv ST 1710A; analyzer residual 0.0018%