Audio Gain Rider



Bulletin 270

Ben Franklin, that father of innovation, would be proud of Moseley today.

When Ben saw a need, he created a solution.

Moseley saw a need for efficiently maintaining audio gain on broadcast program lines and so created the TGR-340.

The Model TGR-340 Audio Gain Rider is designed to automatically ride gain on a program line, providing maximum modulation on a long term basis, with a minimum of audible or measurable byproducts. Simultaneously the program circuits are protected from overload. A switch-defeatable multistage allpass network is provided in increase signal symmetry, a feature especially useful in TV and FM. A recovery-enabling gate freezes the gain-riding activity during pauses in program, preventing background noise from being pumped up (or faded down). A continuously variable control allows a time delay to be added to the AGC recovery for maintenance of short-term dynamic range. Switchable treble AGC is included to prevent overdrive in satellite, STL, tape or other systems using treble pre-emphasis. The transformerless output stage is direct-coupled for preservation of the output waveform. The TGR-340 uses low-noise and FET-input operational amplifiers. Service loops allow inspection without extender cards. Multi-channel (stereo or more) operation is easily accommodated with two line strapping between units.

The TGR-340 joins the legacy of innovation Moseley is building with products responding to today's needs in the broadcast industry.

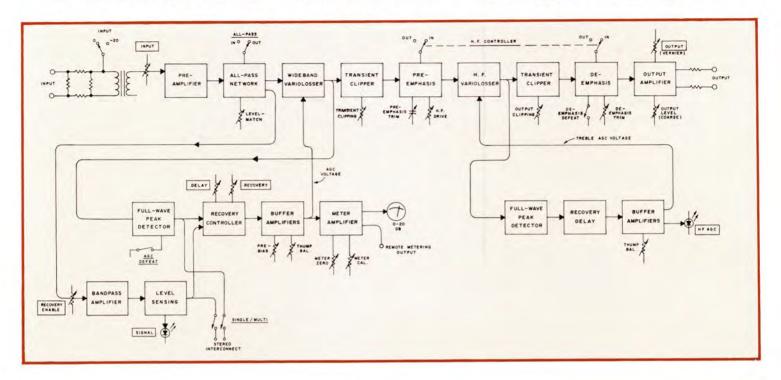
If Ben Could See Us Now.

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MOSELEY ASSOCIATES, INC.

TGR-340 Audio Gain Rider



SPECIFICATIONS

Input Level -26 dBm for limiting threshold with input control at maximum; switchable 20 dB input

attenuator

Input Impedance 600 ohms, ±10%, resistive, balanced, floating

Output Level Adjustable up to +18 dBm

Load Impedance 600 ohms, balanced or unbalanced, trans-

formerless

Control (AGC) Range Greater than 30 dB

Control Mechanism Monolithic semiconductor array

Input/Output Compression Ratio (Slope) Greater than 60:1 in dB (30 dB input variation

yields 0.5 dB output variation)

Attack Time (AGC Loop)

(System) Instantaneous

(System) mstantaneous

Recovery Time 200 milliseconds (transients); 5 to 25 seconds on

2 milliseconds

program, adjustable and program-controlled

Recovery-enable Threshold Adjustable, 0 to 25 dB below AGC threshold

Recovery-enable Bandpass 200 to 4000 Hz; response falls off 12 dB per octave

outside this band

Treble AGC Attack Time 1 millisecond

Treble AGC Recovery 5 to 30 milliseconds, program-controlled

Treble AGC Indication Panel lamp

Polarity Controller Three-stage second-order allpass network

optimized for male voice; switch-defeatable

Frequency Response ±1 dB, 30 Hz to 15 kHz (below treble AGC

threshold)

Harmonic Distortion Less than 0.3% below thresholds of AGC; less than

0.7% at any frequency (50 Hz to 15 kHz) and any degree of AGC (0 to 20 dB), with any combination

of control settings

Intermodulation Distortion Less than 0.3% below thresholds of AGC; less than

1% at any degree of AGC (0 to 20 dB), using 60 Hz

and 7 kHz 4:1

Signal to Noise Ratio Better than 70 dB, 20 Hz to 20 kHz

Recovery-enable Indicator Panel Lamp

Metering Critically-damped movement calibrated (0 to 20

dB) panel meter; external output for remote

metering

Temperature Range −20 to +70° C

Power Requirements 120/240 VAC, 50/60 Hz, 10 W

Size 4.5 CM H X 48.4 CM W X 33 CM D (1.75" H) X (19" W)

X (13" D)

Weight: (Approx.) 3.6 Kg (8 lbs) net 4.5 Kg (10 lbs) shipping

Contact any Moseley Associates Sales Representative for further details

Specifications subject to change without notice.



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