MODEL TAL-320

AM Audio Limiter

TM

Bulletin 269

He's been our hero for a long time, that father of modern innovation, Benjamin Franklin. Through his example and Moseley's dedication to broadcasting, we've built a reputation for being first in the industry. Moseley finds itself in the forefront once again with a line of audio processing equipment, engineered with the quality today's listeners demand.

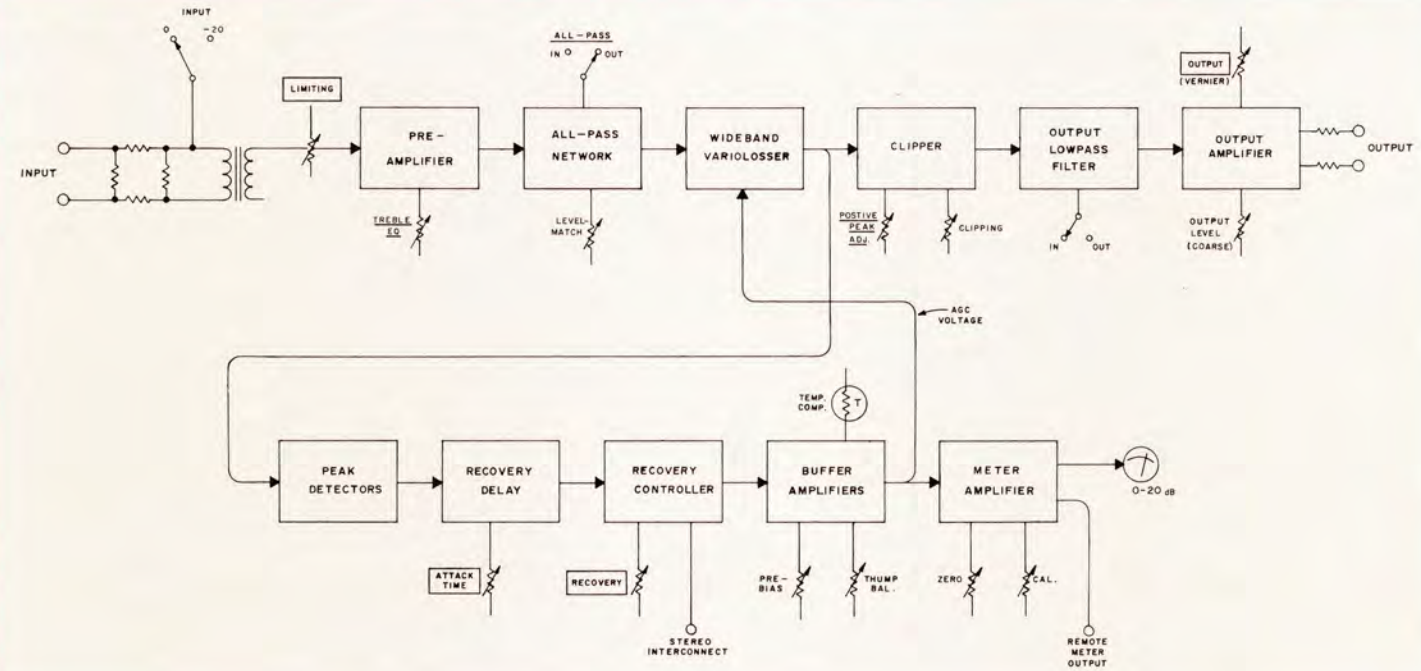
The Model TAL-320 AM Audio Limiter brings AM broadcast sound to the quality level it deserves by providing the broadcaster with a means of cleanly maximizing the modulation of a standard AM broadcast transmitter. An efficient multi-stage second-order allpass network handles asymmetric program material without the problems encountered in competitive designs. Switch-defeatable output lowpass filtering assures operation within the assigned channel. The transformerless output stage is direct-coupled for preservation of the output waveform. The TAL-320 incorporates low-noise and FET-input operational amplifiers as well as distortion-reducing circuitry. Service loops allow inspection without extender cards. AM stereo operation is a primary benefit easily accommodated by two Model TAL-320 Audio Limiters, single line strapping between units and 3rd unit specifically designed on the basis of the formally approved (FCC) transmission system.

With the advent of AM stereo, the TAL-320 is a must.

MOSELEY ASSOCIATES, INC.

A Flow General Company

TAL-320 AM Audio Limiter



SPECIFICATIONS

Input level	−26 dBm for limiting threshold with limiting control at max.; switchable 20 dB input pad
Input Impedance	600 ohms ±10%, resistive, balanced, floating
Output Level	Adjustable up to +18 dBm
Load Impedance	600 ohms, balanced, transformerless
Control (limiting) 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)	Continuously adjustable, 0.2 to 3 milliseconds Instantaneous
Recovery Time	100 milliseconds (transients) to 5 seconds (sustained signal), adjustable and program-controlled
Limiting and Clipping Asymmetry	Adjustable 100% to 130%; limiting and clipping thresholds track
Polarity Control	Three-stage second-order allpass network optimized for male voice; switch-defeatable
Frequency Response	±1dB, 30 Hz to 15 kHz with equalizer set to flat, output lowpass filter switched out
Harmonic Distortion	Less than 0.2% below threshold of limiting; less than 0.7% at any frequency (50 Hz to 15 kHz) and any degree of limiting (0 to 20 dB) with any combination of attack and recovery times
Intermodulation Distortion	Less than 0.3% below threshold of limiting; less than 1% at any degree of limiting (0 to 20 dB) using 60 Hz and 7 kHz 4:1, with any combination of attack and recovery times
Signal to Noise Ratio	Better than 70 dB, 20 Hz to 20 kHz, output lowpass filter in
Metering	Critically damped movement calibrated (0 to 20 dB) panel meter; external output for connection to remote control system
Output Filtering	Non-overshooting fifth-order lowpass; switch-defeatable
Program Equalizer	Continuously adjustable treble boost
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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