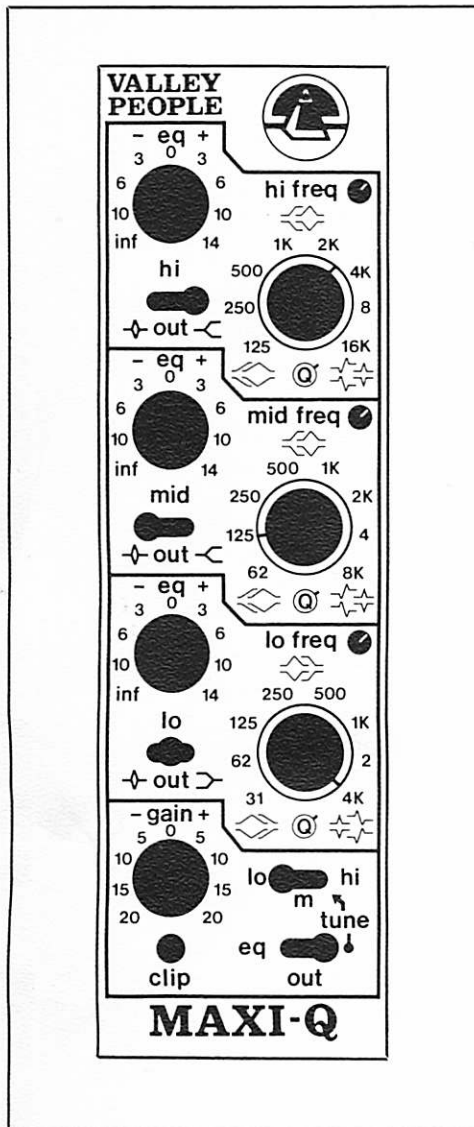


MAXI Q Equalizer



GENERAL INFORMATION

MAXI Q lives up to its name... providing maximum equalization capability, while compactly fitting into the VALLEY PEOPLE Series TR 800 processing packages.

A host of innovative features distinguishes MAXI Q from other equalizer devices.

Each of the three frequency bands features continuously variable frequency tuning over a very wide 7-octave range. The resulting 6-octave overlap allows a spectrum coverage previously requiring 4 or more EQ bands. Still, the tuning resolution is greater than many devices of lesser tuning range.

Each EQ band may be selected to either peaking or shelving curves, or individually de-selected to the bypass mode.

Each band has a "Q" control (Bandwidth Control) which is effective in either the peaking or shelving mode. In peaking mode, the bandwidth may be varied from .3 to 3 octaves, while in the shelving mode, the slope is variable from 3dB/octave to 28dB/octave. At shelving slopes beyond 12dB/octave, the filter section becomes increasingly under-damped, thus producing exaggerated phase/frequency characteristics which are very useful for introducing artificial tonalities and phasing effects. Below 12dB/octave, perfect damping occurs, with the resulting smooth and natural contour of the frequency spectrum.

In a departure from most parametric equalizers, which commonly employ the expedient "parallel filter" approach, MAXI Q utilizes a more elaborate (and more costly) "series filter" configuration. The advantages are twofold: an elimination of filter interaction (when two or more sections are tuned to similar frequencies); and, a reduction in noise and distortion usually developed in the summing stage.

In a second departure, MAXI Q employs an "all feedforward" approach, in contrast to the usual "feedforward/feedback" configuration. This structure offers a tremendous advantage in effectiveness. While most equalizers offer reciprocal ranges that typically provide ± 14 dB of level control at the desired center frequency, MAXI Q offers continuous control from "infinite cut" to 14dB of boost at center frequency, both in the peaking and shelving modes. By selecting the peaking mode and setting the EQ level control at "INF", a deep "notch" (band reject) function is attained; by selecting the shelving mode with the level control at "INF", a variable slope cut-off filter function is attained.

Another important innovation is the "tune mode". By selecting "tune", the main audio feed is disconnected, leaving only the output of the one filter selected. The only part of the audio spectrum which is then heard, is that portion which is passed by the selected filter. Exceedingly accurate aural analysis of the spectrum may be made in "tune mode"... thus allowing quick and effective tuning of the equalizer.

Finally, MAXI Q offers a front panel input gain control, and an overload display which monitors 13 specific circuit points for potential clipping caused by excessive EQ or level structure. In combination, these features assure freedom from distortion and noise in all uses (including semi-pro level structures), as well as allowing for truly meaningful A/B comparisons by eliminating the common level shift between EQ and non-EQ.

All in all, MAXI Q is indeed what the name implies.

PRELIMINARY SPECIFICATIONS

Tuning Ranges: 125Hz to 16kHz (hi); 62Hz to 8kHz (mid); 31Hz to 4kHz (lo).

EQ Range: ≥ 30 dB of attenuation at "INF" cut to 14dB boost. Fully independent sections (no interaction).

Input: Balanced differential input, 60K Ω , +21dBv max input level.

Output: +21dBm @ 600 Ω max.

Clip Indicator: Monitors 13 critical circuit points for overload.

Input Gain Control: ± 20 dB of range (center unity).

Tune Mode: Presents bandpass response of selected filter to output.

"Q" (Bandwidth): .3 to 3 octaves (peaking, boost), 3dB to 28dB/octave (shelving).

Power Requirements: ± 15 v @ 60ma.

Note: The following measurements are performed with all sections "IN" and "-EQ+" controls at mid position. Main gain control is at unity (mid position).

Distortion: Less than .01% THD or IMD.

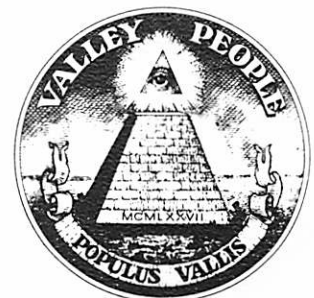
Output Noise: -94dBv (20kHz bandwidth).

Slew Rate: 13v/ μ sec.

Dimensions: 5 1/2"H x 1 1/2"W x 9 1/2"D; mounts in TR 804, TR 805.

Notes: .0dBv = .775v RMS.

All specifications subject to change without notice.



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