

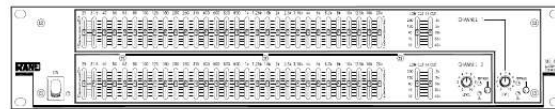


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You can read the recommendations in the user guide, the technical guide or the installation guide for RANE ME 60. You'll find the answers to all your questions on the RANE ME 60 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

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RANE DATA SHEET ME 60 microGRAPHIC EQUALIZER



General Description

The Rane ME 60 Stereo Interpolating Constant-Q Equalizer is a two Channel, 1/3-octave design, housed in a two rack-space unit. The ME 60 evolved by combining two ME 30B equalizers in one unit and then embellishing both. Two adjustable band limiting filters add to each channel's versatility, as well as the increased flexibility gained from the additional RCA input and output connectors. These extra features nicely complement the proven ME 30B design.

The active filter sections feature the GE 30's innovative interpolating constant-Q (constant bandwidth) design. Constant-Q means the bandwidth of each individual filter is guaranteed to be narrow enough to prevent unwarranted interaction between filters, yet wide enough to produce exactly the type of correction curve needed. This differs dramatically from proportional-Q designs encumbered with the unfortunate characteristic of changing bandwidth for every boost/cut level.

Aside from being a constant-Q device, the ME 60 also provides what Rane has dubbed "interpolating" performance. This means that when two adjacent bands are boosted or cut

to the same level, the response of the equalizer peaks (or interpolates a response) at a frequency centered between the filters. Interpolating performance allows effective control between ISO centers.

ME 60 front panel controls and indicators include an overall rotary Level control for each Channel as well as Overload indicators. Passive pushbutton Bypass switches feature LED indicators, avoiding ambiguity by being on when the unit is Bypassed. (A passive Bypass switch requires no power to operate. This allows restoration of the audio path should power fail in the ME 60.)

The rear of the ME 60 provides an unusually flexible array of connector choices. Inputs and Outputs are electrically balanced designs, capable of unbalanced operation when required. They accept and drive all possible signal levels into normal load impedances. Balanced applications choose between the XLR or 1/4" Tip-Ring-Sleeve balanced connectors, while consumer products normally use the unbalanced RCA phono jacks. Unbalanced sources also may tie to the ME 60 through mono 1/4" connectors (no ring connection).

Features

- Stereo 1/3-Octave Design
- ± 12 dB Boost & Cut Range
- Interpolating Constant-Q Bandwidth
- Swappable Low & High Cut Filters
- Channel 1 & 2 Level Controls
- Passive Bypass Switches
- 20 mm Filter Slide Controls
- Grounded Center Detents
- RFI Filters
- Balanced XLR, 1/4" TRS, and Unbalanced RCA Connectors
- UL Listed for USA, cUL Listed for Canada (120 VAC)
- Meets CE Requirements for EMC and Safety (230 VAC)

Data Sheet-1



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Manual abstract:

The ME 60 evolved by combining two ME 30B equalizers in one unit and then embellishing both. Two adjustable band limiting filters add to each channel's versatility, as well as the increased flexibility gained from the additional RCA input and output connectors. These extra features nicely complement the proven ME 30B design. @@@@Aside from being a constant-Q device, the ME 60 also provides what Rane has dubbed "interpolating" performance. This means that when two adjacent bands are boosted or cut to the same level, the response of the equalizer peaks (or interpolates a response) at a frequency centered between the filters. Interpolating performance allows effective control between ISO centers. ME 60 front panel controls and indicators include an overall rotary Level control for each Channel as well as Overload indicators. Passive pushbutton Bypass switches feature LED indicators, avoiding ambiguity by being on when the unit is Bypassed. (A passive Bypass switch requires no power to operate. This allows restoration of the audio path should power fail in the ME 60.

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Features Stereo 1/3-Octave Design ±12 dB Boost & Cut Range Interpolating Constant-Q Bandwidth Sweepable Low & High Cut Filters Channel 1 & 2 Level Controls Passive Bypass Switches 20 mm Filter Slide Controls Grounded Center Detents RFI Filters Balanced XLR, 1/4" TRS, and Unbalanced RCA Connectors UL Listed for USA, cUL Listed for Canada (120 VAC) Meets CE Requirements for EMC and Safety (230 VAC) Data Sheet-1 ME 60 microGRAPHIC EQUALIZER Features & Specifications Parameter Equalizer:

.....Channels

.....Bands

.....

Type

.....Accuracy

.....Travel

.....

Range Inputs:

.....Type

.....Connectors

.....

Impedance

.....Maximum Level Outputs:

.....Type

.....

Connectors

.....Impedance

.....Maximum Level Overall Gain Range RFI Filters Passive Bypass Switches Overload LED Threshold Low Cut Filter High Cut Filter Frequency Response THD & Noise IM Distortion (SMPTE) Signal-to-Noise Ratio Channel Separation Common Mode Rejection Maximum Power Line Voltage:

.....

Domestic

.....Export Unit: Agency Listing

.....120 VAC model

.....

230 VAC model

.....Construction

.....Size

.....

Weight Shipping:

.....Size

.....Weight Note: 0 dBu=0.775 Vrms Specification Two (2x30) 1/3-Octave ISO Spacing Interpolating Constant-Q 3 20 ±12 Active Balanced/Unbalanced XLR, 1/4" TRS & RCA >20k Balanced +21 Active Balanced/Unbalanced XLR, 1/4" TRS & RCA 200 Bal; 100 Unbalanced +21 Bal; +15 Unbalanced +19 Bal; +13 Unbalanced Off to +8 (Balanced Out) Yes Yes 4 10-250 Hz, 12 dB/octave 3k-40 kHz, 12 dB/octave 20-20 kHz 10-40 kHz 0.008 0.005 re +20 dBu / +4 dBu 112 / 96 75 46 12 105-130 VAC, 50/60 Hz 205-250 VAC, 50 Hz UL cUL (Canada) CE-EMC EN55013 & EN55020 CE-Safety EN60065 All Steel 3.5" H x 19" W x 8.

5" D (2U) 9 lb 4.5" x 20.3" x 13.75" 12 lb UL 813 (file E104174) C22.2 (file E104174) EMC directive 89/336/EEC LV directive 73/23/EEC (8.

9 cm x 48.3 cm x 21.6 cm) (4.1 kg) (11.5 cm x 52 cm x 35 cm) (5.

0 kg) Limit Units Conditions/Comments 1 % mm dB From 25 Hz to 20 kHz Smooth combining Center frequency Positive grounded center detent 1% 1 ohms dBu 1% 1 min ohms dBu dBu dB 2k ohms 600 ohms Sliders centered 1 3% 3% ±0.5 +0/-3 .002 .003 2 3 1 dB Hz Hz dB dB % % dB dB dB W Below clipping Butterworth +4 dBu, 20-20 kHz 60 Hz / 7 kHz, 4:1, +4 dBu 20 kHz noise BW; balanced out Sliders centered, unity gain 1 kHz 1 kHz Data Sheet-2 ME 60 microGRAPHIC EQUALIZER Block Diagram (Channel 1 Shown, Channel 2 Identical) Application Information The ME 60 offers the same high quality

interpolating constant-Q performance as its relative, the GE 30. No compromises or trade-offs exist in selecting the ME 60. It is constructed using only precision audio-grade components and advanced integrated circuits, all assembled onto mil-spec glass-epoxy printed circuit boards. Often low frequencies saturate the loudspeaker transformers. Restricting these signals greatly improves system intelligibility. Truth in slider position became a requirement. On conventional designs they do not.

It offers the choice of all common audio input and output connectors. Consequently, whenever the slider is moved, the bandwidth changes. The output exhibits the desired bandwidth only at full boost or cut. It degrades to as much as two octaves at moderate slider settings. This means more effective equalization in significantly less time. Often these lie between ISO centers. Each channel shall have thirty (30) frequency bands located on standard ISO center frequencies. Each band shall have a bandwidth of 1/3-octave. A detented and positively grounded 0 dB point shall be provided on 20 mm linear sliders with dust dams. Low and high cut filters shall be provided with 12 dB/octave slopes and adjustable corner frequencies.

A rotary overall level control shall be provided with a range from off to +8 dB of gain when used in balanced mode. The inputs shall be active balanced/unbalanced designs terminated with XLR, 1/4" TRS (tip-ring-sleeve), and RCA connectors. The outputs shall be active balanced/unbalanced with equal output impedances terminated with XLR, 1/4" TRS, and RCA connectors. RFI filters shall be provided. The unit shall provide a passive bypass feature for each channel requiring no power to operate.

LEDs shall be provided to indicate overload and bypass conditions. The 120 VAC 50/60 Hz model shall be UL and cUL listed and operate by means of its own built-in power supply. The 230 VAC 50 Hz model shall meet the European requirements for EMC and safety and carry the CE mark of compliance. The unit shall be constructed entirely from cold-rolled steel. The unit shall be a Rane Corporation ME 60 microGraphic Equalizer.

Available Accessories · SC 3.5 Security Cover References 1. D. 2. D. 2, pp. 36-39 (Feb. 1984). 3. T.

Pennington, "Constant-Q," *Studio Sound*, vol.27, pp. 82-85 (Oct. 1985). 4. D. Bohn, "Constant-Q Graphic Equalizers," *J. Audio Eng. Soc.*, vol. 34, pp. 611-626 (September 1986). 5. D. 6.

D. Bohn, "Operator Adjustable Equalizers," *Rane Note 122*, (1990). ©Rane Corporation 10802 47th Ave. W., Mukilteo WA 98275-5098 TEL (425)355-6000 FAX (425)347-7757 WEB <http://www.rane.com>

rane.com Data Sheet-4 All features & specifications subject to change without notice. DOC 103106 PN 06709 2-98.



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