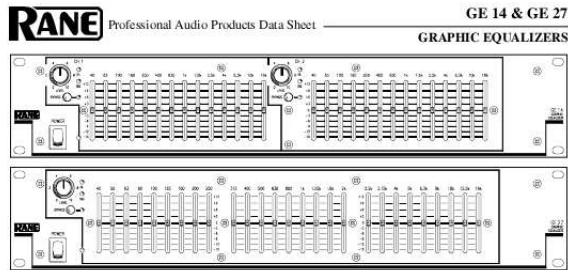




Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for RANE GE 14. You'll find the answers to all your questions on the RANE GE 14 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual RANE GE 14
User guide RANE GE 14
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GE Series Constant-Q Equalizers

General Description

The Rane GE Series Constant-Q Graphic Equalizers consists of the GE 14, a 2-Channel, 14-band, 2/3-octave design, and the GE 27, a single Channel, 27-band, 1/3-octave version. Housed in two rack-space units, these equalizers feature a long throw, high resolution slide controls on each band, ensuring good resolution over its extended boost/cut range of -12dB to +15dB.

The active filter sections are of the constant bandwidth (constant-Q) variety. The bandwidth of each individual filter is guaranteed to be narrow enough to prevent unwanted interaction between filters, yet wide enough to produce exactly the type of correction curve demanded by even the most unusual acoustic surroundings. This differs dramatically from conventional designs of the past encumbered with the

unfortunate characteristic of changing bandwidth with changing boost/cut amounts.

Front panel controls and indicators include an overall LEVEL control for each Channel as well as Signal present and Overload indicators. The rear of the unit provides 1/2" Tip-Ring-Sleeve connectors for Inputs and Outputs. The Inputs are fully actively balanced: the tip is the positive input, the ring negative and the sleeve is signal ground. Unbalanced sources may be connected to the GE series through the use of either "mono" 1/4" connectors or by tying the ring to the sleeve on TRS type plugs. The outputs are active unbalanced.

Please consult the references cited on the back for additional details.

Features

- GE 14: (2) 14-BAND, 2/3-OCTAVE CHANNELS
- GE 27: (1) 27-BAND, 1/3-OCTAVE CHANNEL
- CONSTANT-Q BANDWIDTH DESIGN
- 1/4" TRS CONNECTORS
- OVERALL LEVEL CONTROLS
- PASSIVE BYPASS SWITCHES
- 45mm FILTER SLIDE CONTROLS
- +12, -15dB BOOST/CUT RANGE
- GROUNDED CENTER-DETENTS
- OVERLOAD INDICATORS
- SIGNAL PRESENT INDICATORS
- INFRASONIC FILTERS
- ULTRASONIC FILTERS
- RFI FILTERS
- UL LISTED



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Manual abstract:

This differs dramatically from conventional designs of the past encumbered with the unfortunate characteristic of changing bandwidth with changing boost/cut amounts. Front panel controls and indicators include an overall LEVEL control for each Channel as well as Signal present and Overload indicators. The rear of the unit provides 1/4" TipRing-Sleeve connectors for Inputs and Outputs. The Inputs are fully actively balanced: the tip is the positive input, the ring negative and the sleeve is signal ground. Unbalanced sources may be connected to the GE series through the use of either mono 1/4" connectors or by tying the ring to the sleeve on TRS type plugs. The outputs are active unbalanced. Please consult the references cited on the back for additional details. Features GE 14: (2) 14-BAND, 2/3-OCTAVE CHANNELS GE 27: (1) 27-BAND, 1/3-OCTAVE CHANNEL CONSTANT-Q BANDWIDTH DESIGN 1/4" TRS CONNECTORS OVERALL LEVEL CONTROLS PASSIVE BYPASS SWITCHES 45mm FILTER SLIDE CONTROLS +12, -15dB BOOST/CUT RANGE GROUNDED CENTER-DETENTS OVERLOAD INDICATORS SIGNAL PRESENT INDICATORS INFRASONIC FILTERS ULTRASONIC FILTERS RFI FILTERS UL LISTED GE 14 & GE 27 GRAPHIC EQUALIZERS Professional Audio Products Data Sheet Features and Specifications Parameter Equalizer:

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.....
.. Bands: GE 14 ...

.....
..... GE 27 .
.....
.... Type .
..... Accuracy .

..... Travel .
.....
.... Range Inputs: Type .
..... Connectors .

..... Impedance .

.....

.... Maximum Level Specification (14) 2/3-Octave ISO Spacing (27) 1/3-Octave ISO Spacing Constant-Q 3 45 Boost: +12; Cut: -15 Active Balanced/Unbalanced 1/4" TRS 20k +22 +19 +14 Active Unbalanced 1/4" TRS 100 +20 +18 Off to +6 Yes Yes Yes +16 -20 20Hz, 18dB/Oct, Butterworth 50kHz, 12dB/Oct 20-50kHz 0.
009 0.02 GE 14 GE 27 89 94 86 91 75 75 70 70 75 30 95-130VAC, 50/60Hz 190-250VAC, 50Hz All Steel 3.5"H x 19"W x 8.5"D (2U) 9 lbs 7" x 22" x 13" 12 lbs Limit Units Conditions/Comments From 40Hz to 16kHz From 40Hz to 16kHz % mm dB Center Frequency Positive Grounded Center Detent +2/-1 1% 1 1 1 Ohms dBu dBu dBu Level Control Set Less Than Unity Level Control Set For Unity Gain Level Control Max Outputs: Type

... Connectors

... Impedance ..

.....

... Maximum Level Overall Gain Range RFI Filters On/Off Transient Muting Passive Bypass Switch LED Thresholds: Overload

.....

... Signal Present Infrasonic Filter Ultrasonic Filter Frequency Response THD+Noise IM Distortion (SMPTE) Signal-to-Noise Ratio 1% 1 1 -0/+4 Ohms dBu dBu dB Signal & Common to Ground Level Control Max Level Control Set For Unity Gain Sliders Centered Relay Controlled 1 1 3% 3% +0/-3 .002 . 01 2 2 2 2 5 dBu dBu Hz Hz dB % % dB dB dB dB W Output or any Internal Level Input Level Channel Separation (GE 14) Maximum Power Line Voltage: Domestic

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..... Export Unit: Construction

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Size

..... Weight Shipping: Size

..... @@ Truth in slider position became a requirement. @@ On conventional designs they do not. @@@@ This eliminates a phenomenon Rane calls equalizing the equalizer. @@@@ Consequently, whenever the slider is moved, the bandwidth changes. @@@@ This means more effective equalization in significantly less time. @@@@ A boost range of +12dB and a cut range of -15dB shall be provided. A detented and positively grounded 0dB point shall be provided on 45mm linear sliders with dust dams. A rotary overall level control shall be provided with a range from off to +6dB of gain. The inputs shall be active balanced/unbalanced designs terminated with 1/4" TRS (tip-ring-sleeve) connectors. The outputs shall be active unbalanced with equal output imped- Architectural Specifications ances (line & ground) terminated with 1/4" TRS connectors. RFI filters shall be provided. Transient on/off relay muting shall be provided. The unit shall provide a passive Bypass feature requiring no power to operate. Infrasonic and ultrasonic filters shall be built-in. LEDs shall be provided to indicate Overload and Signal Present conditions. The unit shall be capable of operation by means of its own built-in power supply connected to 120VAC (240VAC where applicable). The unit shall be entirely constructed from coldrolled steel. The unit shall be a Rane Corporation GE Series ConstantQ Graphic Equalizer. Available Accessories SC 3.5 Security Cover References 1. D. Bohn, Constant-Q Graphic Equalizers, Rane Note 101, (1982). 2. D. Bohn, A New Generation of Filters, Sound and Video Contractor , vol.

D. Bohn, Constant-Q Graphic Equalizers, J. Audio Eng. Soc. , vol. 34, pp. 611-626 (September 1986). 5. D. Bohn, Exposing Equalizer Mythology, Rane Note 115 , (1986). 6. D. @@@@ @520-153 MAR94.



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