

# 1231 DUAL CHANNEL 31 BAND EQUALIZER

**dbx**<sup>®</sup>  
PROFESSIONAL PRODUCTS

## VISIONARY DESIGN

The dbx 12 Series were designed to meet the needs of the most demanding sound reinforcement environments, while offering the simplicity of straightforward controls. The 1231 provides standard features like dual-channels, 31 1/3 octave bands, ISO frequency centers, +/- 12 dB input gain range, and switchable 40Hz/18 dB per octave low-cut filters, but also includes other insightful features. These include 45 mm faders; selectable +/-6dB or +/-15dB boost/cut range for precise gain adjustments; XLR, barrier strip, and 1/4" TRS connectors for installation ease; balanced inputs and outputs for quiet operation; and chassis/signal ground lift capabilities for quick hum isolation. The visionary design of the dbx 12 Series makes your job easier.

## REVOLUTIONARY ENGINEERING

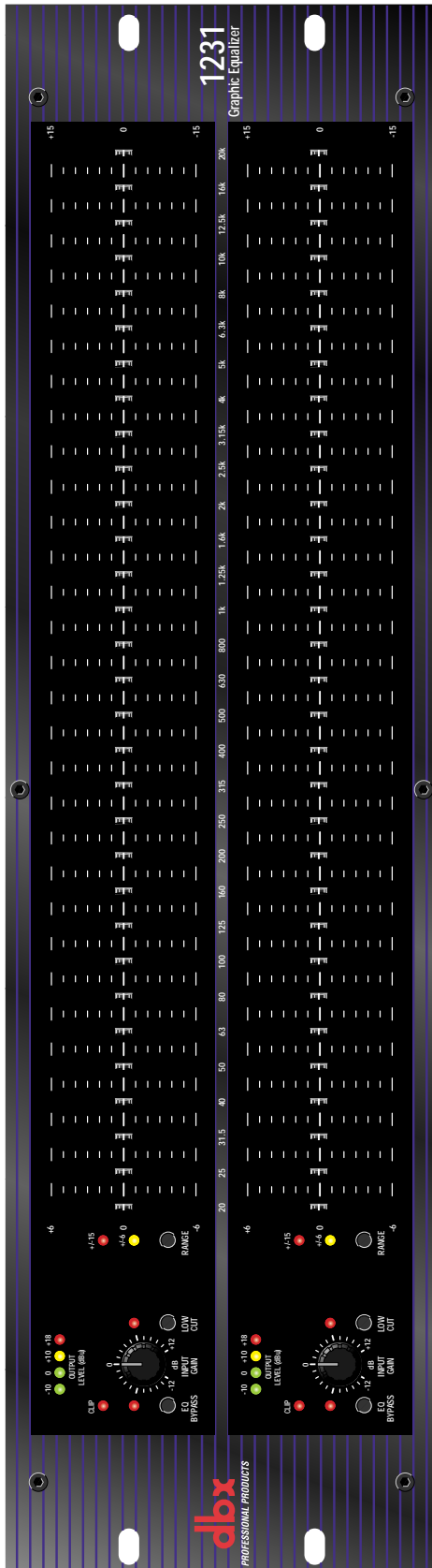
The dbx 12 Series Equalizers were precision engineered to provide years of maintenance-free operation in any application. The magnetically isolated transformer, electronically balanced/unbalanced inputs and servo balanced/unbalanced outputs, RF-filtered inputs and outputs, and power-off hard-wire relay bypass with 2 second power up delay were steps our engineers took to ensure compatibility for all installations. Only the best components were utilized, yielding a 10Hz to 50kHz frequency response, greater than 90dB SNR (ref +4dBu), less than 0.005% THD +Noise (1kHz at +4dBu), and interchannel crosstalk of less than -80dB from 20Hz to 20kHz. All this attention to detail is contained in a 3U steel/aluminum chassis. It's no wonder that dbx has been a leader in the industry for over 25 years.

## FEATURES

- Switchable Boost/Cut range between  $\pm 6$ dB and  $\pm 15$ dB
- Electronically balanced/unbalanced inputs
- Servo balanced/unbalanced outputs
- RF filtered inputs and outputs
- XLR, Barrier Strip, and 1/4" TRS connectors
- -12dB/+12dB input gain range
- 18dB/octave 40Hz Bessel low-cut filter
- Chassis/signal ground lift capability
- Internal power supply transformer
- Power-off hardwire relay bypass with 2-second power-up delay

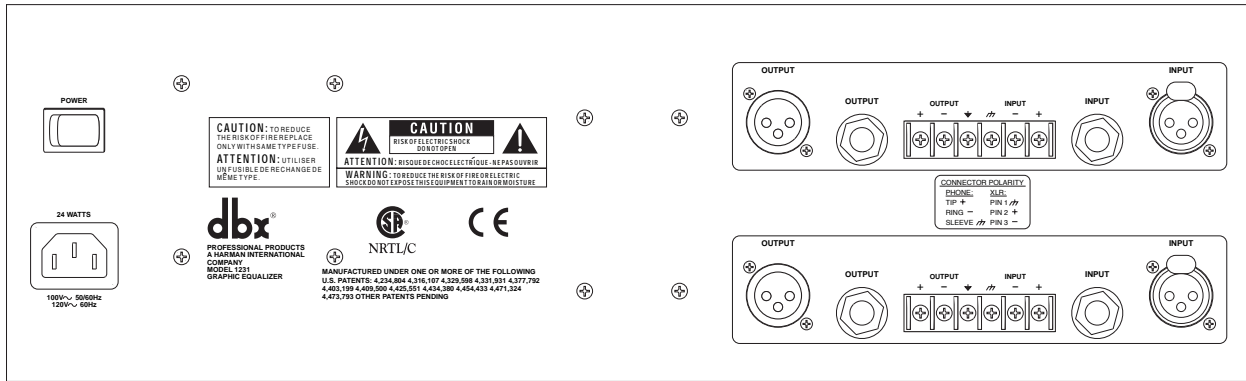
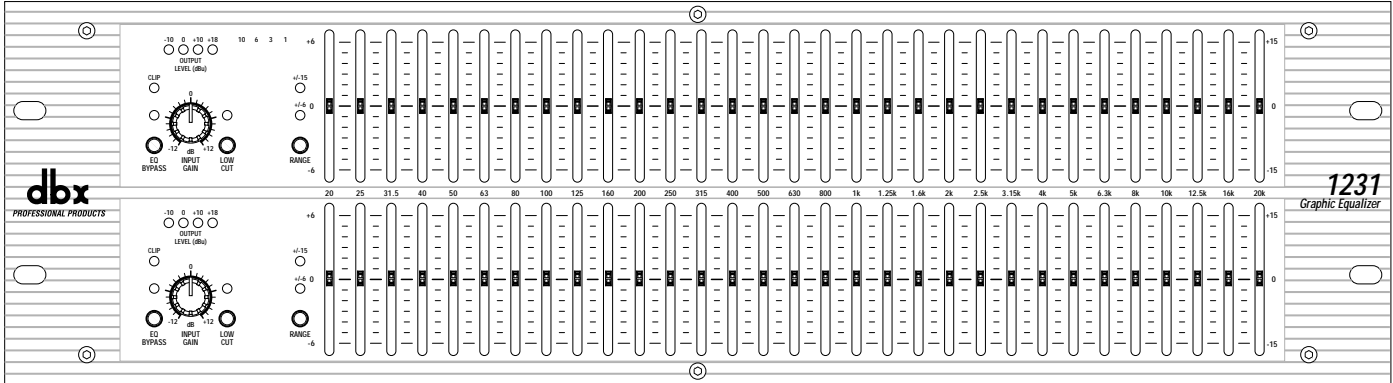
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# 1231

## DUAL CHANNEL 31 BAND EQUALIZER



### ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The graphic equalizer shall be a dual 31-band type with frequency centers on standard ISO one-third octave frequencies ranging from 20Hz to 20kHz. The boost/cut ranges shall be switchable via recessed front panel switches to either +/-6dB or +/-15dB and the selected range shall be indicated on the front panel by either of two LEDs per channel. Low-noise equalization sliders having a 45mm travel shall be utilized having center detents at 0dB. The equalizer shall have front panel 41-detent rotary input gain controls having a +/-12dB range. Bypassing the equalizer sections of the signal path shall be accomplished via front-panel switches having corresponding LEDs to indicate when each channel is bypassed. A 40Hz low-cut Bessel filter per channel with 18dB/octave slope shall be insertable in the signal path via front panel recessed switches with an LED to indicate when the filter is active. Output levels shall be monitored on four-LED peak-reading bar graphs calibrated to read -10, 0, +10, and +18dBu.

Electronically balanced/unbalanced inputs shall include 1/4" TRS, female XLR, and screw terminal barrier strip, while servo-balanced/unbalanced outputs shall include 1/4" TRS, male XLR, and screw terminal barrier strip shared with the input. A circuit/chassis ground lift jumper per channel shall be strapped across circuit ground and chassis ground screw terminals and shall be removable by the user. Inputs shall be electronically balanced/unbalanced and RF filtered having a nominal input impedance not less than 40kΩ balanced and 20kΩ unbalanced, and shall accept maximum signal levels of not less than +21dBu. Outputs shall be servo-balanced/unbalanced and RF filtered having a nominal output impedance of not more than 200Ω balanced and 100Ω unbalanced, and shall be capable of driving not less than +21dBu into 2kΩ or greater and not less than +20dBm (into 600Ω) continuously.

Frequency response shall be better than 10Hz to 50kHz, +0.5/-3dB. Signal-to-noise ratio shall be greater than 90dB, referenced to +4dBu. THD+Noise shall be less than 0.005% with a 1kHz signal at +4dBu, while interchannel crosstalk shall be lower than -80dB from 20Hz to 20kHz.

The internal power supply shall be constructed using a thermally-fused transformer mounted in a low hum orientation and shall be magnetically isolated from equalizer circuitry by means of a mu-metal shield. The power cord shall be detachable from an international standard IEC 320 power inlet receptacle. Unit shall be constructed to meet or exceed all applicable international safety and regulatory agencies. Domestic unit shall be powered from 100VAC 50/60Hz, 120VAC 60Hz, while international unit shall be powered from 230VAC 50/60Hz. Unit shall consume no more than 24W. Housing shall be of all steel/aluminum construction and shall be rack-mountable in an IEC standard 19" rack and shall occupy a 3U (5.25") rack space. The unit shall be a dbx 1231 Equalizer.

dbx engineers are constantly working to improve the quality of our products. Specifications are, therefore subject to change without notice.

### SPECIFICATIONS

|   |  |  |
|---|--|--|
| <b>Inputs</b>   | Connectors: 1/4" TRS, female XLR (pin 2 hot), and barrier terminal strip | Interchannel Crosstalk: <-80dB, 20Hz to 20kHz  |
| Type: Electronically balanced/unbalanced, RF filtered             | Impedance: Balanced 40kΩ, unbalanced 20kΩ                                | <b>Function Switches</b>   |
| Max Input Level: >+21dBu balanced or unbalanced                   | CMRR: >40dB, typically >55dB at 1kHz                                     | EQ Bypass: Bypasses the graphic equalizer section in the signal path                 |
| <b>Outputs</b>  | Connectors: 1/4" TRS, male XLR (pin 2 hot), and barrier terminal strip   | Low Cut (recessed): Activates the 40Hz 18dB/octave Bessel high-pass filter           |
| Type: Impedance-balanced/unbalanced, RF filtered                  | Impedance: Balanced 200Ω, unbalanced 100Ω                                | Range (recessed): Selects either +/- 6dB or +/- 15dB slider boost/cut range          |
| Max Output Level: >+21dBu balanced/unbalanced into 2kΩ or greater | Max Output Level: >+18dBm balanced/unbalanced (into 600Ω)                | <b>Indicators</b>  |
| <b>System Performance</b>   | Bandwidth: 20Hz to 20kHz, +0.5/-1dB                                      | Output Level: 4-LED bar graph (Green, Green, Yellow, Red) at -10, 0, +10, and +18dBu |
| Frequency Response: +/-15dB range +/-6dB range                    | Dynamic Range: 109dB 115dB   | EQ Bypass: 1 LED: red  |
| Signal-to-Noise: 90dB 97dB  | THD+Noise: <0.005%   | Clip: 1 LED: red   |
|   |  | Low Cut: 1 LED: red  |
|   |  | +/-6dB: 1 LED: yellow  |
|   |  | +/-15dB: 1 LED: red  |
|   |  | <b>Power Supply</b>  |
|   |  | Operating Voltage: 100VAC 50/60Hz, 120VAC 60Hz, 230VAC 50/60Hz                       |
|   |  | Power Consumption: 1215 24W; 1231 24W  |
|   |  | Mains Connection: IEC receptacle   |
|   |  | <b>Physical</b>  |
|   |  | Dimensions: 1215: 3.5" H X 19" W X 7.9" D (8.9cm x 48.3cm x 20.1cm)                  |
|   |  | 1231: 5.25" H X 19" W X 7.9" D (13.4cm x 48.3cm x 20.1cm)                            |
|   |  | Weight: 1215: 8.5 lbs.   |
|   |  | 1231: 10.6 lbs.  |
|   |  | Shipping Weight: 1215: 9.5 lbs.  |

#### FOR MORE INFORMATION CONTACT:

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