

12 SERIES

EQUALIZER



OPERATION MANUAL

MODE D'EMPLOI

BEDIENUNGSANLEITUNG

MODO DE EMPLEO

IMPORTANT SAFETY INFORMATION



The symbols shown above are internationally accepted symbols that warn of potential hazards with electrical products. The lightning flash with arrowpoint in an equilateral triangle means that there are dangerous voltages present within the unit. The exclamation point in an equilateral triangle indicates that it is necessary for the user to refer to the owner's manual.

These symbols warn that there are no user serviceable parts inside the unit. Do not open the unit. Do not attempt to service the unit yourself. Refer all servicing to qualified personnel. Opening the chassis for any reason will void the manufacturer's warranty. Do not get the unit wet. If liquid is spilled on the unit, shut it off immediately and take it to a dealer for service. Disconnect the unit during storms to prevent damage.

SAFETY INSTRUCTIONS

NOTICE FOR CUSTOMERS IF YOUR UNIT IS EQUIPPED WITH A POWER CORD.

WARNING: THIS APPLIANCE SHALL BE CONNECTED TO A MAINS SOCKET OUTLET WITH A PROTECTIVE EARTHING CONNECTION.

The cores in the mains lead are coloured in accordance with the following code:

GREEN and YELLOW - Earth BLUE - Neutral BROWN - Live

As colours of the cores in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- The core which is coloured green and yellow must be connected to the terminal in the plug marked with the letter E, or with the earth symbol, or coloured green, or green and yellow.
- The core which is coloured blue must be connected to the terminal marked N or coloured black.
- The core which is coloured brown must be connected to the terminal marked L or coloured red.

This equipment may require the use of a different line cord, attachment plug, or both, depending on the available power source at installation. If the attachment plug needs to be changed, refer servicing to qualified service personnel who should refer to the table below. The green/yellow wire shall be connected directly to the units chassis.

CONDUCTOR		WIRE COLOR	
		Normal	Alt
L	LIVE	BROWN	BLACK
N	NEUTRAL	BLUE	WHITE
E	EARTH GND	GREEN/ YEL	GREEN

WARNING: If the ground is defeated, certain fault conditions in the unit or in the system to which it is connected can result in full line voltage between chassis and earth ground. Severe injury or death can then result if the chassis and earth ground are touched simultaneously.

WARNING FOR YOUR PROTECTION READ THE FOLLOWING:

KEEP THESE INSTRUCTIONS
HEED ALL WARNINGS

FOLLOW ALL INSTRUCTIONS

THE APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING LIQUID AND NO OBJECT FILLED WITH LIQUID, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

CLEAN ONLY WITH A DRY CLOTH.

DO NOT BLOCK ANY OF THE VENTILATION OPENINGS. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

DO NOT INSTALL NEAR ANY HEAT SOURCES SUCH AS RADIATORS, HEAT REGISTERS, STOVES, OR OTHER APPARATUS (INCLUDING AMPLIFIERS) THAT PRODUCE HEAT.

ONLY USE ATTACHMENTS/ACCESSORIES SPECIFIED BY THE MANUFACTURER.

UNPLUG THIS APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Use only with the cart stand, tripod bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

POWER ON/OFF SWITCH: If the equipment has a Power switch, the Power switch used in this piece of equipment DOES NOT break the connection from the mains.

MAINS DISCONNECT: The plug shall remain readily operable. For rack-mount or installation where plug is not accessible, an all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated into the electrical installation of the rack or building.

FOR UNITS EQUIPPED WITH EXTERNALLY ACCESSIBLE FUSE RECEPTACLE: Replace fuse with same type and rating only.

MULTIPLE-INPUT VOLTAGE: This equipment may require the use of a different line cord, attachment plug, or both, depending on the available power source at installation. Connect this equipment only to the power source indicated on the equipment rear panel. To reduce the risk of fire or electric shock, refer servicing to qualified service personnel or equivalent.

If connected to 240V supply, a suitable CSA/UL certified power cord shall be used for this supply.

This Equipment Is Intended For Rack Mount Use Only.

IMPORTANT SAFETY INFORMATION

U.K. MAINS PLUG WARNING

A molded mains plug that has been cut off from the cord is unsafe. Discard the mains plug at a suitable disposal facility. **NEVER UNDER ANY CIRCUMSTANCES SHOULD YOU INSERT A DAMAGED OR CUT MAINS PLUG INTO A 13 AMP POWER SOCKET.** Do not use the mains plug without the fuse cover in place. Replacement fuse covers can be obtained from your local retailer. Replacement fuses are 13 amps and **MUST** be ASTA approved to BS1362.

ELECTROMAGNETIC COMPATIBILITY

This unit conforms to the Product Specifications noted on the **Declaration of Conformity**. Operation is subject to the following two conditions:

- this device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

Operation of this unit within significant electromagnetic fields should be avoided.

- use only shielded interconnecting cables.

LITHIUM BATTERY WARNING

CAUTION!

This product may contain a lithium battery. There is danger of explosion if the battery is incorrectly replaced. Replace only with an Eveready CR 2032 or equivalent. Make sure the battery is installed with the correct polarity. Discard used batteries according to manufacturer's instructions.

ADVARSEL!

Lithiumbatteri - Eksplosjonsfare. Ved utskifting benyttes kun batteri som anbefalt av apparatfabrikanten. Brukt batteri returneres apparatleverandøren.

ADVARSEL!

Lithiumbatteri - Eksplosjonsfare ved feilagtig håndtering. Udsiftning må kun ske med batteri av samme fabrikat og type. Levér det brugte batteri tilbage til leverandøren.

VAROITUS!

Paristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

VARNING!

Explosionsfara vid felaktigt batteribyte. Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

WARRANTY

This warranty is valid only for the original purchaser and only in the United States.

1. The warranty registration card that accompanies this product must be mailed within 30 days after purchase date to validate this warranty. You can also register online at www.dbxpro.com. Proof-of-purchase is considered to be the responsibility of the consumer. A copy of the original purchase receipt must be provided for any warranty service.

2. dbx warrants this product, when bought and used solely within the U.S., to be free from defects in materials and workmanship under normal use and service.

3. dbx liability under this warranty is limited to repairing or, at our discretion, replacing defective materials that show evidence of defect, provided the product is returned to dbx WITH RETURN AUTHORIZATION from the factory, where all parts and labor will be covered up to a period of two years. A Return Authorization number must first be obtained from dbx. The company shall not be liable for any consequential damage as a result of the product's use in any circuit or assembly.

4. dbx reserves the right to make changes in design or make additions to or improvements upon this product without incurring any obligation to install the same additions or improvements on products previously manufactured.

5. The foregoing is in lieu of all other warranties, expressed or implied, and dbx neither assumes nor authorizes any person to assume on its behalf any obligation or liability in connection with the sale of this product. In no event shall dbx or its dealers be liable for special or consequential damages or from any delay in the performance of this warranty due to causes beyond their control.



If you want to dispose this product, do not mix it with general household waste. There is a separate collection system for used electronic products in accordance with legislation that requires proper treatment, recovery and recycling.

Private household in the 25 member states of the EU, in Switzerland and Norway may return their used electronic products free of charge to designated collection facilities or to a retailer (if you purchase a similar new one).

For Countries not mentioned above, please contact your local authorities for a correct method of disposal.

By doing so you will ensure that your disposed product undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health.

DECLARATION OF CONFORMITY

Manufacturer's Name: dbx Professional Products
Manufacturer's Address: 8760 S. Sandy Parkway
Sandy, Utah 84070, USA

declares that the product:

Product name: dbx 1215 and dbx1231
Note: Product name may be suffixed by the letters-EU.

Product option: None

conforms to the following Product Specifications:

Safety: IEC 60065 -01+Amd 1
EMC: EN 55022:2006 (N/A; Analog Product)
IEC61000-4-2
IEC61000-4-3
IEC61000-4-4
IEC61000-4-5
IEC61000-4-6
IEC61000-4-8
IEC61000-4-11

Supplementary Information:

The product herewith complies with the requirements of the:
Low Voltage Directive 2006/95/EC
EMC Directive 2004/108/EC
RoHS Directive 2002/95/EC
WEEE Directive 2002/96/EC

With regard to Directive 2005/32/EC and EC Regulation 1275/2008 of 17 December 2008, this product is designed, produced, and classified as Professional Audio Equipment and thus is exempt from this Directive.

Roger Johnsen
Director, Engineering
Signal Processing
8760 S. Sandy Parkway
Sandy, Utah 84070, USA
Date: November 19, 2010

European Contact: Your local dbx Sales and Service Office or

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INTRODUCTION

Congratulations on your purchase of a dbx graphic equalizer. All dbx graphic equalizers are high performance multi-functional units designed to deliver all the flexibility and power that professional users demand. We recommend that you take a moment to read through this operation manual. It provides information that will assist you from system set-up to EQ applications. The 12 Series Equalizers include the following features:

- Switchable Boost/Cut range between $\pm 6\text{dB}$ and $\pm 15\text{dB}$
- Balanced inputs and outputs
- XLR, Barrier Strip, and 1/4" TRS connectors
- $-12\text{dB}/+12\text{dB}$ input gain range
- $18\text{dB}/\text{octave}$ 40Hz Bessel Low-Cut filter
- Chassis/signal ground lift capability
- Internal power supply transformer
- Power-off hard-wire relay bypass with 2-second power-up delay

INSPECTION

Verify that the equalizer's package contains the following:

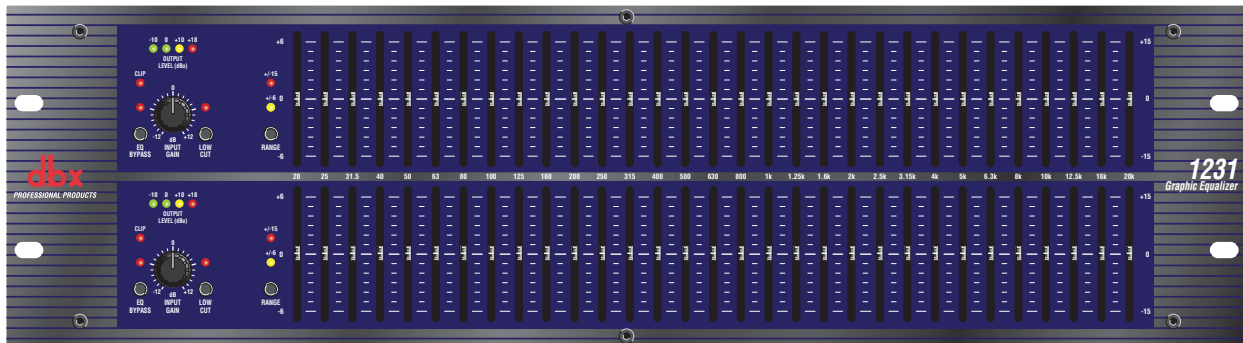
- Equalizer unit matching serial number marked on package
- AC power cord
- Operation Manual
- Registration Card
- Four rack mount screws and washers

If any of these items are missing please contact dbx customer service at the number provided on the back cover of this manual.

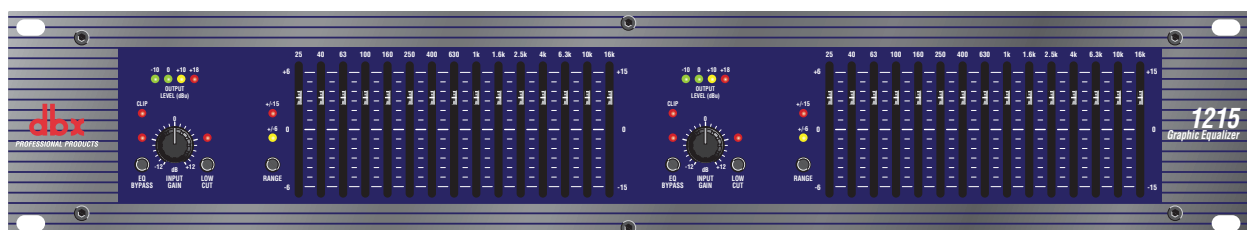
OPERATING CONTROLS

Front Panels

1231 - dual channel 31 band graphic equalizer



1215 - dual channel 15 band graphic equalizer



Input Gain Control: This control sets the signal level to the equalizer. It is capable of -12dB to +12dB of gain. Its effect is apparent by viewing the OUTPUT LEVEL BAR GRAPH.

EQ Bypass: This switch removes the graphic equalizer section from the signal path. (See Block diagram on Page 8.) The BYPASS switch does not, however, affect the INPUT GAIN, or LOW CUT filters.

EQ Bypass LED: This red LED lights when the EQ is in bypass mode. Note that bypass mode only effects the graphic equalizer section of the 12 Series EQs. The INPUT GAIN and LOW CUT controls remain unaffected when the EQ is bypassed.

Boost/Cut Range Selection Switch and LEDs: This switch selects which of the two boost/cut ranges the equalizer will use, either ± 6 dB or ± 15 dB. The red LED lights when the ± 15 dB range is selected, and the yellow LED lights when the ± 6 dB range is selected. Note that the BOOST/CUT switch is slightly recessed. This is to prevent accidental activation of the switch, possibly causing damage to other sound system components.

Output Level Bar Graph: These four LEDs indicate output level of the equalizer. The red LED is 3dB below clipping and is marked as +18dBu. It monitors the level at the output of the equalizer after all other processing.

Clip LED: This LED lights whenever any internal signal level reaches 3dB below clipping which may occur when any of the following happen: 1) the input signal is "hotter" than +22dBu, 2) excessive gain is applied by the input gain control, or 3) excessive boost is applied using the frequency sliders.

Frequency Band Slider Controls: Each one of these slider potentiometers will boost or cut at its noted frequency by ± 6 dB or ± 15 dB, depending upon the position of the BOOST/CUT RANGE switch. When all the sliders are in the center detented position the output of the equalizer is flat. The frequency band centers of the 1231 are marked at 1/3rd of an octave intervals on ISO standard spacings, while the frequency band centers of the 1215 are marked at 2/3rds of an octave intervals on ISO standard spacings.

Low Cut Enable Switch: The LOW-CUT switch inserts or removes the 18dB/octave 40Hz Bessel low-cut filter from the signal path. When the LOW-CUT switch is pushed in, the LOW-CUT filter is IN the audio path.

CONNECTING THE EQ TO YOUR SYSTEM

The 12 Series Equalizers have balanced inputs and outputs that can be used with any balanced or unbalanced line-level device. For more specific information about cabling possibilities, please refer to the section entitled **Installation Considerations, Page 5.**

To connect the equalizer to your sound system refer to the following steps:

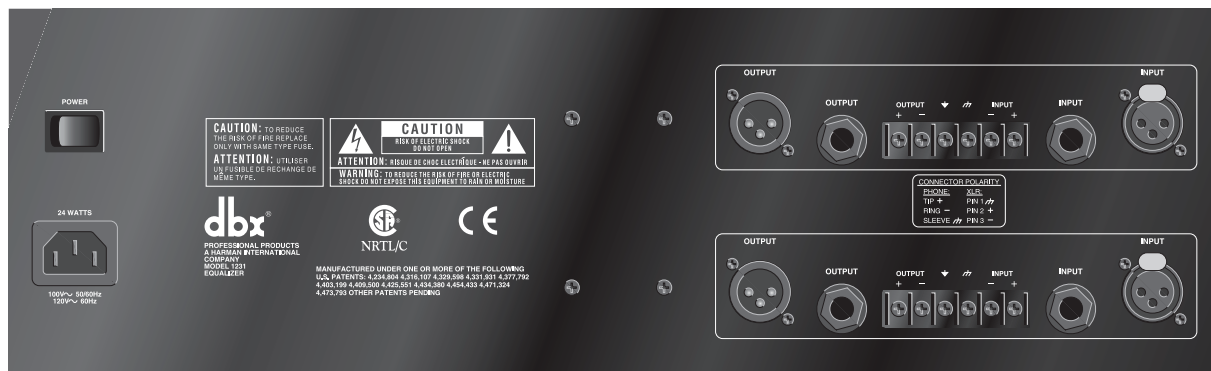
- **Turn off all equipment before making connections.**
- **Mount equalizer in a standard-width rack.**
Install the EQs in a rack with the rack screws provided. It can be mounted above or below anything that does not generate excessive heat. Ambient temperatures should not exceed 113° F (45°C) when equipment is in use. Although the unit's chassis is shielded against radio frequency and electromagnetic interference, extremely high fields of RF and EMI should be avoided.
- **Make audio connections via XLR, barrier strip, or 1/4" TRS jacks (according to application needs)**
All three types of connectors for the inputs and outputs can be used for balanced or unbalanced connections. The use of more than one connector at a time for the inputs could unbalance balanced lines, cause phase cancellation, short a conductor to ground, or cause damage to other equipment connected to the equalizer. More than one output may be used simultaneously as long as the combined parallel load is greater than 600Ω.
- **Select the operating range with the BOOST/CUT RANGE SELECTION switch**
Note: Be sure to reduce audio levels at the power amplifiers when changing the setting of this switch as it may generate an audible transient.
- **Apply power to the equalizer**
Connect the AC power cord to the AC power receptacle on the back of the equalizer. Route the AC power cord to a convenient power outlet away from audio lines. The unit may be turned on and off from the rear panel

power switch or a master equipment power switch. Since the 12 Series Equalizers consume a relatively small amount of power, the units may be left on continuously.

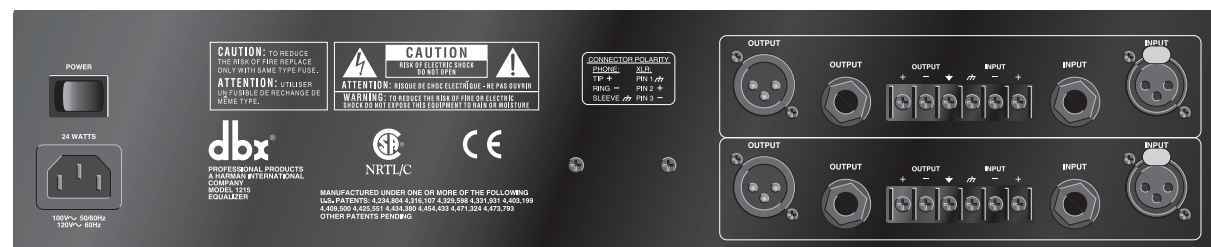
REAR PANEL DESCRIPTIONS

Rear Panels

1231 - dual channel 31 band graphic equalizer



1215 - dual channel 15 band graphic equalizer



Power Switch: Switches the power on and off. Always make audio connections with the power switch in the OFF position.

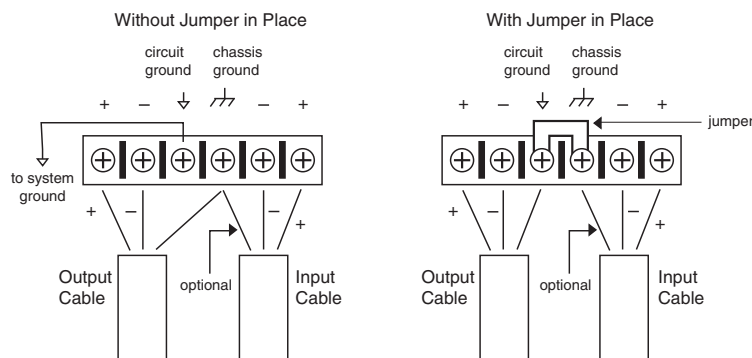
Power Cord Receptacle: Connects AC power to the equalizer.

Output Connectors: Three types of output connectors are provided for output connections: male XLR type connectors, 1/4" tip-ring-sleeve phone jack connectors and a barrier strip.

Input Connectors: Three types of input connectors are provided for input connections: female locking XLR type connectors, 1/4" tip-ring-sleeve phone jack connectors, and a barrier strip. The maximum input level that the equalizer can accept is +22dBu (ref: 0.775Vrms).

Chassis Ground Lift Strap: By removing the jumper connecting the two screws on the barrier strip, the chassis ground is separated from the circuit ground of the equalizer. This is sometimes necessary to prevent "ground loops" in a sound system. When lifting the ground strap, you must make a connection from the circuit ground (↓) terminal to some other ground point in your audio system in order for the equalizer to function properly.

Wiring Connections With Ground



INSTALLATION CONSIDERATIONS

Hookups and Cabling: The 12 Series Equalizers are designed for nominal +4dBu levels. The equalizers can be used with either balanced or unbalanced sources, and the outputs can be used with either balanced or unbalanced loads, provided the proper cabling is used.

A balanced line is defined as two-conductor shielded cable with the two center conductors carrying the same signal but of opposite polarity when referenced to ground. An unbalanced line is generally a single-conductor shielded cable with the center conductor carrying the signal and the shield at ground potential.

Input Cable Configurations: The equalizer has an input impedance of 40k Ω balanced and 20k Ω unbalanced. This makes the 12 Series Equalizers' audio inputs suitable for use with virtually any low source impedance (under 2k Ω).

Output Cable Configurations: The equalizer's output is capable of driving a 600 Ω load to +18dBu. For maximum hum rejection with a balanced source, avoid common grounding at the equalizer's inputs and outputs. Most balanced (3-conductor) cables have the shield connected at both ends. This can result in ground loops which cause hum. If hum persists try disconnecting the shield on one or more of the cables in the system, preferably at the input of a device, not at the output.

OPERATION AND APPLICATION NOTES

The dbx 12 Series Graphic Equalizers are useful audio signal processing tools in situations where precise frequency control is required across the audible frequency spectrum.

When used with an audio spectrum analyzer the EQs can tune any acoustical environment -- from the studio to the concert hall -- to stop ringing, increase clarity, and flatten the overall frequency response of the environment. A real-time spectrum analyzer or other types of audio environment analyzers are very useful in determining the amount of equalization needed.

Insert the graphic equalizer between the signal source (usually a mixer) and the power amplifiers (or the crossover if there is one). Adjust the level and equalization as required to yield the desired system response. The long throw faders of the EQs allow very precise settings of the equalization for accurate equalization curves.

For optimum signal-to-noise response, the gain structure of the sound system must be properly set up. Each component of the sound system should be set at its nominal operating level, starting with the first element in the system, usually a mixing console. Each element should be run at its nominal operating level in order to take advantage of the maximum signal-to-noise properties of that element. Loudspeaker amplifiers, as the last element in the chain, should be set only as loud as necessary, in order to avoid inducing unnecessary noise into the system.

TECHNICAL SUPPORT / FACTORY SERVICE

The dbx 12 Series EQs are all solid-state products with components chosen for high performance and excellent reliability. Each unit has been tested and burned-in at the factory. No adjustment of any type should be required throughout the life of the unit.

If circumstances arise which necessitate repair, we recommend that your EQ be returned to the factory. This can only be done by receiving a RETURN AUTHORIZATION number from dbx customer service.

If you require technical support contact Customer Service. Be prepared to accurately describe the problem. Know the serial number of your unit (printed on a sticker attached to the chassis of the unit).

Contact information is printed on the back cover of this manual.

SPECIFICATIONS / CARACTÉRISTIQUES TECHNIQUES / TECHNISCHE DATEN / ESPECIFICACIONES

Inputs / Entrées / Eingänge / Entradas

Connectors:	1/4" TRS, female XLR (pin 2 hot), and barrier terminal strip
Connecteurs :	Jacks 6,35 mm, XLR femelle (point chaud = broche 2) et bornier
Anschlüsse:	6,3-mm-Stereoklinkenbuchsen, XLR-Buchsen weibl. (Inphase = Stift 2) und
Klemmleiste	
Conectores:	Clavijas jack estéreo 6,3 mm, XLR hembra (espiga 2 = en fase) y regleta de bornes
Type:	Electronically balanced/unbalanced, RF filtered
Type :	Symétrie, asymétrie électroniques, filtrées contre les interférences radio
Schaltung:	Elektronisch symmetriert/asymmetrisch, HF-geschützt
Tipo:	Electrónicamente balanceado/desbalanceado, con filtro RF
Impedance:	Balanced 40k Ω , unbalanced 20k Ω
Max Input Level:	>+21dBu balanced or unbalanced
CMRR:	>40dB, typically >55dB at 1kHz

Outputs / Sorties / Ausgänge / Salidas

Connectors:	1/4" TRS, male XLR (pin 2 hot), and barrier terminal strip
Connecteurs :	Jacks 6,35 mm, XLR femelle (point chaud = broche 2) et bornier
Anschlüsse:	6,3-mm-Stereoklinkenbuchsen, XLR-Buchsen männl. (Inphase = Stift 2) und
Klemmleiste	
Conectores:	Clavijas jack estéreo 6,3 mm, XLR macho (espiga 2 = en fase) y regleta de bornes
Type:	Impedance-balanced/unbalanced, RF filtered
Type :	Symétrique, asymétrique
Schaltung:	Impedanzsymmetriert/asymmetrisch, HF-geschützt
Tipo:	Balanceado por impedancia/desbalanceado, con filtro RF
Impedance:	Balanced 200 Ω , unbalanced 100 Ω
Max Output Level:	>+21dBu balanced/unbalanced into 2k Ω or greater >+18dBm balanced/unbalanced (into 600 Ω)

System Performance / Caractéristiques système / Audiodaten / Datos audio

Bandwidth:	20Hz to 20kHz, +0.5/-1dB
Frequency Response:	<10Hz to >50kHz, +0.5/-3dB +/- 15db Range +/- 6db Range
Dynamic Range:	109db 115db
Signal-to-Noise:	90db 97db
THD+Noise:	<0.005%
Interchannel Crosstalk:	<-80dB, 20Hz to 20kHz

Function Switches / Touches de fonction / Funktionstasten / Selectores de funciones

EQ BYPASS:	Bypasses the graphic equalizer section in the signal path "Bypasse" la section correcteur graphique Schaltet den graphischen Equalizerteil aus dem Signalweg aus Hace una derivación de la sección de ecualizador gráfico en el camino de la señal
LOW CUT	
(recessed):	Activates the 40Hz 18dB/octave Bessel high-pass filter
(enfoncé):	Active le filtre passe-haut 40Hz 18dB/octave de type Bessel
(versenkt):	Schaltet das Bessel-Hochpassfilter (40Hz, 18dB/Oktave) ein und aus
(empotrado):	Activa el filtro de paso alto de Bessel de 40Hz, 18dB/octava
RANGE	
(recessed):	Selects either +/- 6dB or +/- 15dB slider boost/cut range
(enfoncé):	Sélectionne la plage d'atténuation/accentuation +/- 6dB ou +/- 15dB
(versenkt):	Schaltet den Regelbereich der Schieberegler zwischen +/-6dB und +/-15dB um.
(empotrado):	Selecciona una de las dos gamas refuerzo/corte de los deslizadores: +/-6dB ó +/-15dB

Indicators / Témoins / Anzeigen / Indicadores

OUTPUT LEVEL:	4-LED bar graph (Green, Green, Yellow, Red) at -10, 0, +10, and +18dBu VUmètre 4-Leds (verte, verte, jaune, rouge) à -10, 0, +10, et +18dBu 4-teilige LED-Zeile (grün - grün - gelb - rot) bei -10, 0, +10, +18dBu 4 LEDs (verde, verde, amarillo, rojo) a -10, 0, +10 y +18dBu
EQ BYPASS:	1 LED: red/rouge/rot/rojo
CLIP:	1 LED: red/rouge/rot/rojo
LOW CUT:	1 LED: red/rouge/rot/rojo
+/-6dB:	1 LED: yellow/jaune/gelb/amarillo
+/-15dB:	1 LED: red/rouge/rot/rojo

Power Supply / Secteur / Netzteil / Alimentación de corriente

Operating Voltage: 100VAC 50/60Hz, 120VAC 60Hz, 230VAC 50/60Hz

Tension:

Netzspannung:

Tensión de regimen:

Power Consumption: 1215 24W; 1231 24W

Consommation:

Leistungsaufnahme:

Consumo de energía:

Mains Connection: IEC receptacle

Connecteur secteur : Prise châssis IEC

Netzanschluss: IEC-Kaltgerätebuchse

Conexión de red: tomacorriente IEC

Physical / Données physiques / Abmessungen und Gewicht / Dimensiones físicas

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)

Dimensions (h x l x p): 1215: 89 x 483 x 201 mm

Abmessungen (H x B x T): 1231: 134 x 483 x 201 mm

Dimensiones (al x an x prf):

Weight: 1215: 8.5 lbs.
1231: 10.6 lbs.

Poids: 1215: 3.9 kg

Nettogewicht: 1231: 4.8 kg

Peso neto:

Shipping Weight: 1215: 9.5 lbs.
1231: 11.6 lbs.

Poids à l'expédition: 1215: 4,3 kg

Bruttogewicht: 1231: 5,3 kg

Peso de embarque:

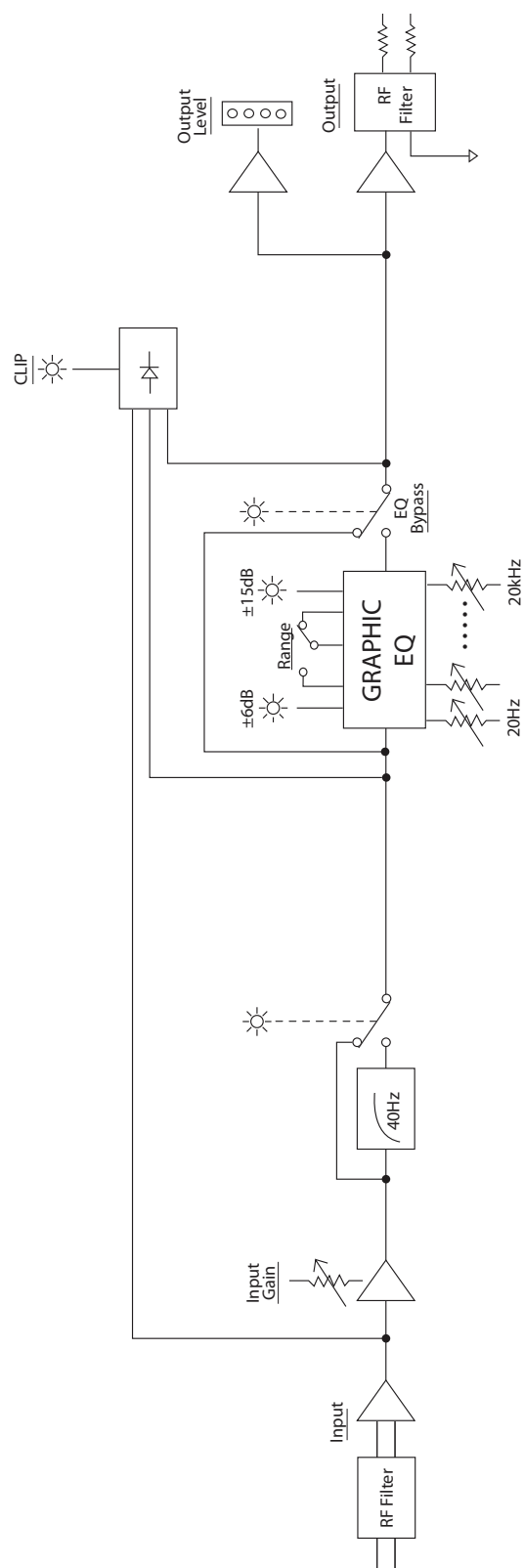
Note: Specifications subject to change.

Note : Caractéristiques sujettes à modifications.

Anm.: Technische Änderungen vorbehalten.

Nota: Especificaciones sujetas a cambio.

dbx 1231 Graphic Equalizer Block Diagram





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Phone: (801) 568-7660 • Fax (801) 568-7662
Int'l Fax: (801) 568-7583
Questions or comments?
Contact us at www.dbxpro.com

1231 DUAL CHANNEL 31 BAND EQUALIZER

dbx[®]
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

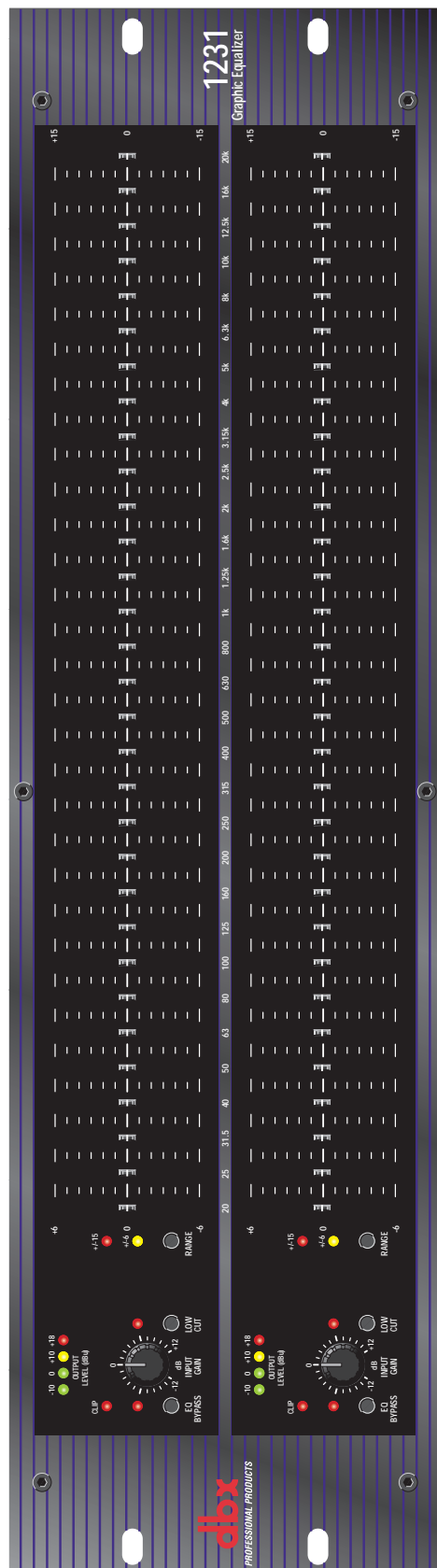
The dbx 12 Series Equalizers were precision engineered to provide years of maintenance-free operation in any application. The magnetically isolated transformer, electronically balanced/unbalanced inputs and servo balanced/unbalanced outputs, RF-filtered inputs and outputs, and power-off hard-wire relay 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 ± 6 dB and ± 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

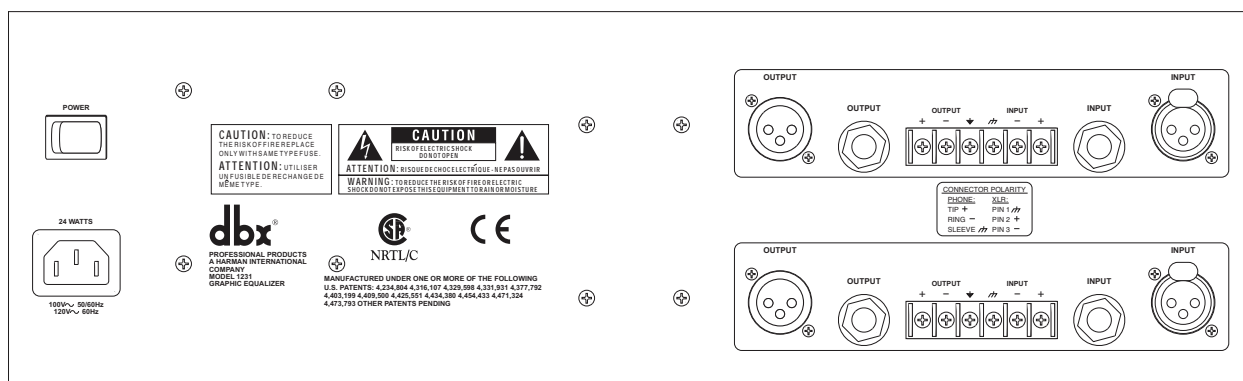
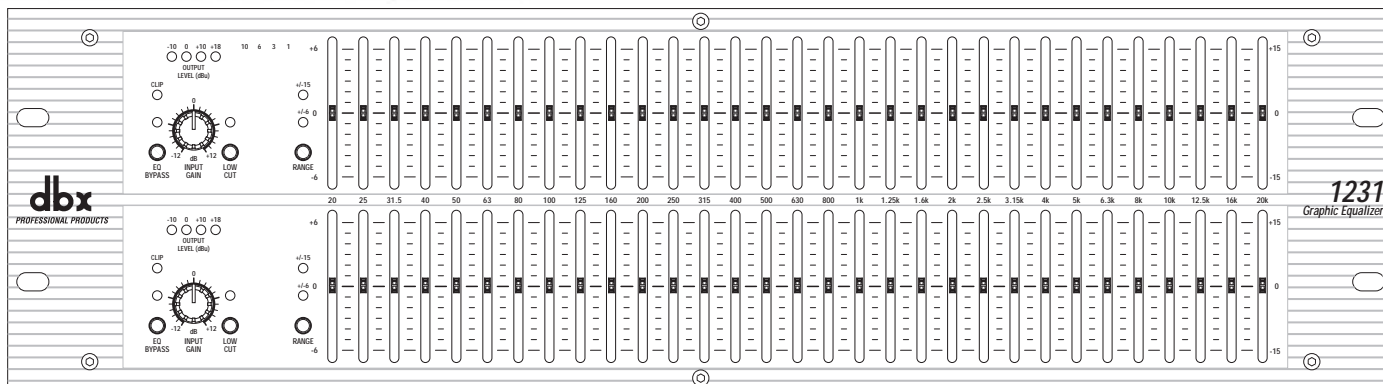
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H A Harman International Company



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

Inputs	1/4" TRS, female XLR (pin 2 hot), and barrier terminal strip	Interchannel Crosstalk: <-80dB, 20Hz to 20kHz
Connectors:	Electronically balanced/unbalanced, RF filtered	Function Switches
Type:	Balanced 40kΩ, unbalanced 20kΩ	EQ Bypass: Bypasses the graphic equalizer section in the signal path
Impedance:	>+21dBu balanced or unbalanced	Low Cut (recessed): Activates the 40Hz 18dB/octave Bessel high-pass filter
Max Input Level:	>+21dBu balanced or unbalanced	Range (recessed): Selects either +/- 6dB or +/- 15dB slider boost/cut range
CMRR:	>40dB, typically >55dB at 1kHz	Indicators
Outputs	1/4" TRS, male XLR (pin 2 hot), and barrier terminal strip	Output Level: 4-LED bar graph (Green, Green, Yellow, Red) at -10, 0, +10, and +18dBu
Connectors:	Electronically balanced/unbalanced, RF filtered	EQ Bypass: 1 LED: red
Type:	Balanced 200Ω, unbalanced 100Ω	Clip: 1 LED: red
Impedance:	>+21dBu balanced/unbalanced into 2kΩ or greater	Low Cut: 1 LED: red
Max Output Level:	>+18dBm balanced/unbalanced (into 600Ω)	+/-6dB: 1 LED: yellow
System Performance	20Hz to 20kHz, +0.5/-1dB	+/-15dB: 1 LED: red
Bandwidth:	<10Hz to >50kHz, +0.5/-3dB	Power Supply
Frequency Response:	+/-15dB range +/-6dB range	Operating Voltage: 100VAC 50/60Hz, 120VAC 60Hz, 230VAC 50/60Hz
Dynamic Range:	109db 115db	Power Consumption: 1215 24W; 1231 24W
Signal-to-Noise:	90db 97db	Mains Connection: IEC receptacle
THD+Noise:	<0.005%	Physical 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)
		1215: 8.5 lbs.
		1231: 10.6 lbs.
		Shipping Weight: 1215: 9.5 lbs.

FOR MORE INFORMATION CONTACT:

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