7

TECHNICAL SPECIFICATIONS

Model	**615031**
Type	2x 31-band, 1/3 octave, ISO spacing, 2 rack units (2U)
Slider Travel	20 mm with positive center detente
Range	±6dB or ±15dB selectable
Input Connections	Active balanced XLR and 1/4" TRS Unbalanced RCA
Input Impedance	20kΩ (balanced) 15kΩ (unbalanced)
Maximum Input Level	14dBu
Output Connections	Active balanced XLR and 1/4" TRS Unbalanced RCA
Subwoofer Out	Active balanced XLR Frequency 50Hz to 25oHZ
Output Impedance	<600Ω
High Pass Filter	40Hz (12dB/oct)
Low Pass Filter	16kHz (12dB/oct)
Frequency Response	20Hz to 50KHz - 1.5dBu
THD +N%	<0.01% (@ 1KHz, all VR at middle position)
S/N Ratio	>110dB
Power Supply	95 ~ 120 VAC, 60 Hz 220 ~ 240 VAC, 50/60 Hz
Power Consumption	18W
Dimensions	19.0" x 8.7" x 3.5" (483 x 220 x 88 mm)

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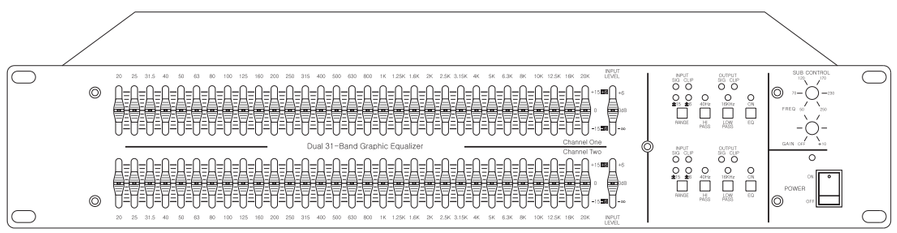
MONOPRICE®

DUAL 31-BAND GRAPHIC EQUALIZER
WITH SUB OUT

User's Manual

PID 615031



Safety Related Symbols

This symbol, wherever used, alerts you to the presence of un-insulated and dangerous voltages within the product enclosure. These are voltages that may be sufficient to constitute the risk of electric shock or death.

This symbol, wherever used, alerts you to important operating and maintenance instructions.

Please read.

Protective Ground Terminal

AC mains (Alternating Current)

AC mains (Alternating Current)

ON: Denotes the product is turned on.

OFF: Denotes the product is turned off.

WARNING
Describes precautions that should be observed to prevent the possibility of death or injury to the user.

CAUTION
Describes precautions that should be observed to prevent damage to the product.
Disposing of this product should not be placed in municipal waste but rather in a separate collection.

WARNING
Power Supply
Ensure that the input voltage from the AC outlet matches the voltage rating of the product, as shown in the Specifications section. Failure to do so could result in damage to the product and personal injury. Unplug the product before electrical storms occur and when unused for long periods of time to reduce the risk of electric shock or fire.

External Connection
Always use proper ready-made insulated mains cabling (power cord). Failure to do so could result in shock/death or fire. If in doubt, seek advice from a registered electrician.

Do Not Remove Any Covers
Within the product are areas where high voltages may present. To reduce the risk of electric shock do not remove any covers unless the AC mains power cord is removed. Covers should be removed by qualified service personnel only.

No user serviceable parts inside.

Fuse
To prevent fire and damage to the product, use only the recommended fuse type as indicated in this manual. Do not short-circuit the fuse holder. Before replacing the fuse, make sure that the product is OFF and disconnected from the AC outlet.

Protective Ground
Before turning the unit ON, make sure that it is connected to Ground. This is to prevent the risk of electric shock.
Never cut internal or external Ground wires. Like wise, never remove Ground wiring from the Protective Ground Terminal.

Operating Conditions
Always install in accordance with the manufacturer's instructions.
To avoid the risk of electric shock and damage, do not subject this product to any liquid/rain or moisture.
Do not use this product when in close proximity to water.
Do not install this product near any direct heat source.
Do not block areas of ventilation. Failure to do so could result in fire.
Keep product away from naked flames.

IMPORTANT SAFETY INSTRUCTIONS
Read these instructions
Follow all instructions
Keep these instructions. Do not discard.
Heed all warnings.
Only use attachments / accessories specified by the manufacturer.

Power Cord and Plug
Do not tamper with the power cord or plug. These are designed for your safety.
Do not remove Ground connections!
If the plug does not fit your AC out let seek advice from a qualified electrician.
Protect the power cord and plug from any physical stress to avoid risk of electric shock.
Do not place heavy objects on the power cord. This could cause electric shock or fire.

Cleaning
When required, either blow off dust from the product or use a dry cloth.
Do not use any solvents such as Benzol or Alcohol.
For safety, keep product clean and free from dust.

Servicing
Refer all servicing to qualified service personnel only.
Do not perform any servicing other than those instructions contained within the User's Manual.

PORTABLE CART WARNING

Carts and stands - The component should be used only with a cart or stand that is recommended by the manufacturer.
A component and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the component and cart combination to overturn.

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1 Introduction

Thank you for purchasing this Dual 31-Band Graphic Equalizer with Sub Out from Monoprice!
This high-end equalizer is designed to allow precise control over the sound contour/shape for two channels of audio (typically stereo audio). It can be mounted in a standard 19" equipment rack and occupies 2U or rack space. This equalizer is ideal for live musical performances, studio recordings, or for general audio playback, such as for a DJ in a club.

2 Features

- Easy to operate front panel controls
- Constant Q circuitry with a 3% center frequency accuracy
- Control range selectable: ±6dB or ±15dB
- Active balanced and unbalanced input and output connectors
- Variable input level control
- Signal clip pilot
- Ground "LIFT" switch to disconnect signal ground from chassis ground
- Dual voltage support, accepts 100~240 VAC, 50/60 Hz input
- Robust and compact design
- Manufactured Under QS9000, VDA6.1 certified management system
- Includes dedicated subwoofer XLR output

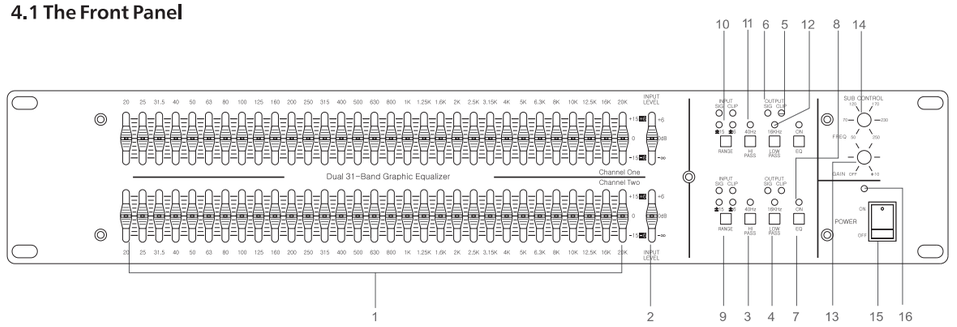
3 Useful Data

Please write your serial number here for future reference.

Serial Number:
Date of Purchase:
Purchased From:

4 Control Elements

4.1 The Front Panel



1. Filter Level Controls
Each of these faders will boost or attenuate (either ±6dB or ±15dB) the selected frequency at a preset bandwidth. When all the faders are in the center position, the output of the unit is flat response.

2. Input Signal Level Control
This fader controls the input signal level. The input is not boosted or attenuated when the fader is in the "0dB" position. If the clip LED (5) lights, please turn down this fader until it only flashes occasionally.

3. High Pass Filter Switch
This is an on/off switch for the high pass filter. The high pass filter is on when the switch is pressed inward and the frequency region below 40Hz will be attenuated at 15dB/octave.

4. Low Pass Filter Switch
This is an on/off switch for the low pass filter. The low pass filter is on when the switch is pressed inward and the frequency region above 16kHz will be attenuated at15 dB/octave.

5. Clip LED
This LED will light when any section of the unit is within 5 dB of clipping. Occasional flashes of this clip LED is acceptable, but if it remains on continuously, you should turn down the level control or reduce the output level of the preceding component to avoid audible distortion.

6. Signal LED
This green LED will light when any signal appears at input/output stage.

7. EQ Switch
This switch inserts or removes the equalizer to the channel path. When pressed inward, the EQ LED (7) will be illuminated, which means it is in EQ mode. When the switch is out, the input signal is routed directly to the output jacks, which means it is in bypass mode.

8. EQ LED
When this LED lights, it is in EQ mode.

9. Range Switch
This button switches the gain range of the filter slider between -6dB to +6dB or -15dB to +15dB.

10. Filter Range Indicator
When the ±6dB range is selected, the green LED will light. When the ±15dB range is selected, the red LED will light.

11. High Pass LED
When the High pass filter (40Hz/12dB) is in active, this LED will light up.

12. Low Pass LED
When the Low pass filter (16KHz/12dB) is in active, this LED will light up.

13. Sub Control Gain
This control is used to adjust the output level of the subwoofer frequency band.

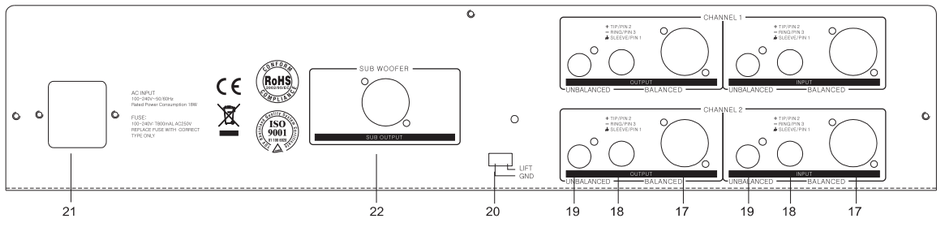
Control Elements

14. Sub Control Freq
This control selects the crossover frequencies of the subwoofer frequency band. You can select crossover frequencies between 50Hz and 250Hz.

15. Power Switch
Switches the unit on/off.

16. Power LED
This LED lights up when the unit is powered on.

4.2 The Rear Panel



17. XLR Input and Output Connector
These XLR connectors are actively balanced and used to input/output the signal.

18. 1/4" TRS Phone Plug Input and Output Connector
These 1/4" TRS connectors are actively balanced and used to input/output the signal.

19. RCA Input and Output Connector
The RCA connectors are unbalanced.

NOTE: While you can use any input connector with any output connector, only one set of these connectors is to be used at one time. Please refer to 5.2 Audio Connection for further details.

20. Ground Lift Switch
This switch is used to disconnect the signal ground from the mains and chassis earth. If it is determined that the equalizer is the cause of hum or buzz in your system due to a ground loop, move this switch to the "lift" position.

21. AC Inlet & AC Fuse holder
Plug the power cord into this connector. Do not connect to a power source until you have verified that the power source is within one of the two voltage and frequency ranges listed in the Specifications section. The fuse for this device is T800mAL AC250V, which is also listed on the back panel fuse holder.

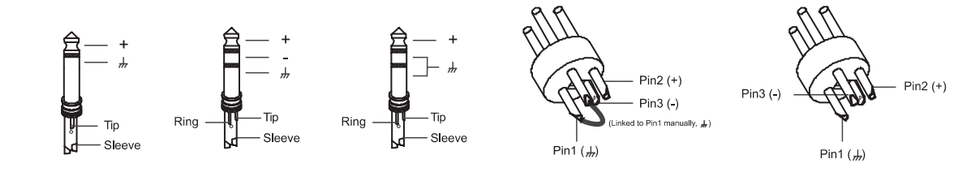
22. Subwoofer Output Connector
Connect your subwoofer amplifier via this balanced XLR jack.

Installation & Connection

5.1 Mains Connection
Plug the power cord into this grounded IEC 60320 C14 panel connector. Before plugging into an AC power source, ensure that the power source's voltage and frequency ratings match the range of ratings allowed for this unit, as printed on the back panel and documented in the Specifications section of this manual. The stock cable comes with a US standard NEMA 5-15 plug. If your local power uses a different connector, you must obtain a power cable with an IEC 60320 C13 female plug on one end and the appropriate connector for your power source on the other end.

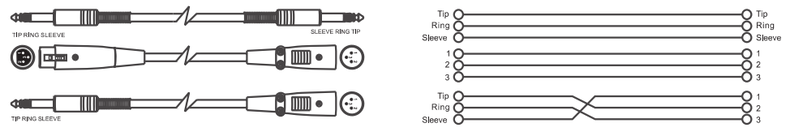
5.2 Audio Connection
This equalizer features balanced XLR, balanced 1/4" TRS, and unbalanced RCA inputs and outputs. You can use it as the final stage, before final amplification, or at some midpoint in the mix. Each channel has independent controls, allowing it to work as two mono EQs or as a single stereo EQ.

The following wiring diagrams show how to create balanced and unbalanced 1/4" and XLR cables, using both similar and dissimilar connectors:

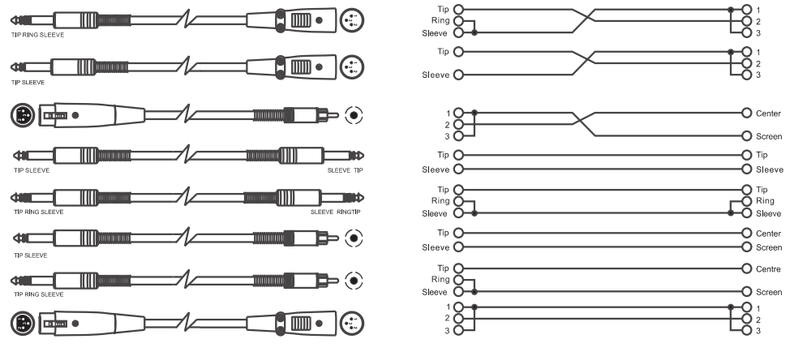


For these applications the Monoprice 615031 provides 1/4" TRS connectors, XLR connectors and RCA connectors to interface with most any professional audio device easily. Follow the configuration examples below for your particular connection.

- Balanced



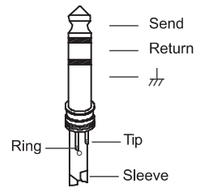
- Unbalanced



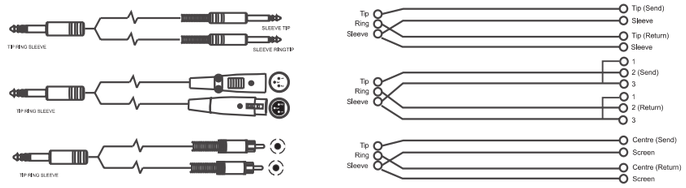
Installation & Connection

If you are connecting to a mixing console's main inserts, you may have a single TRS jack for SEND & RETURN, in this case, use an insert "Y" cable that configured like the examples below.

1/4" TRS insert



Insert Leads

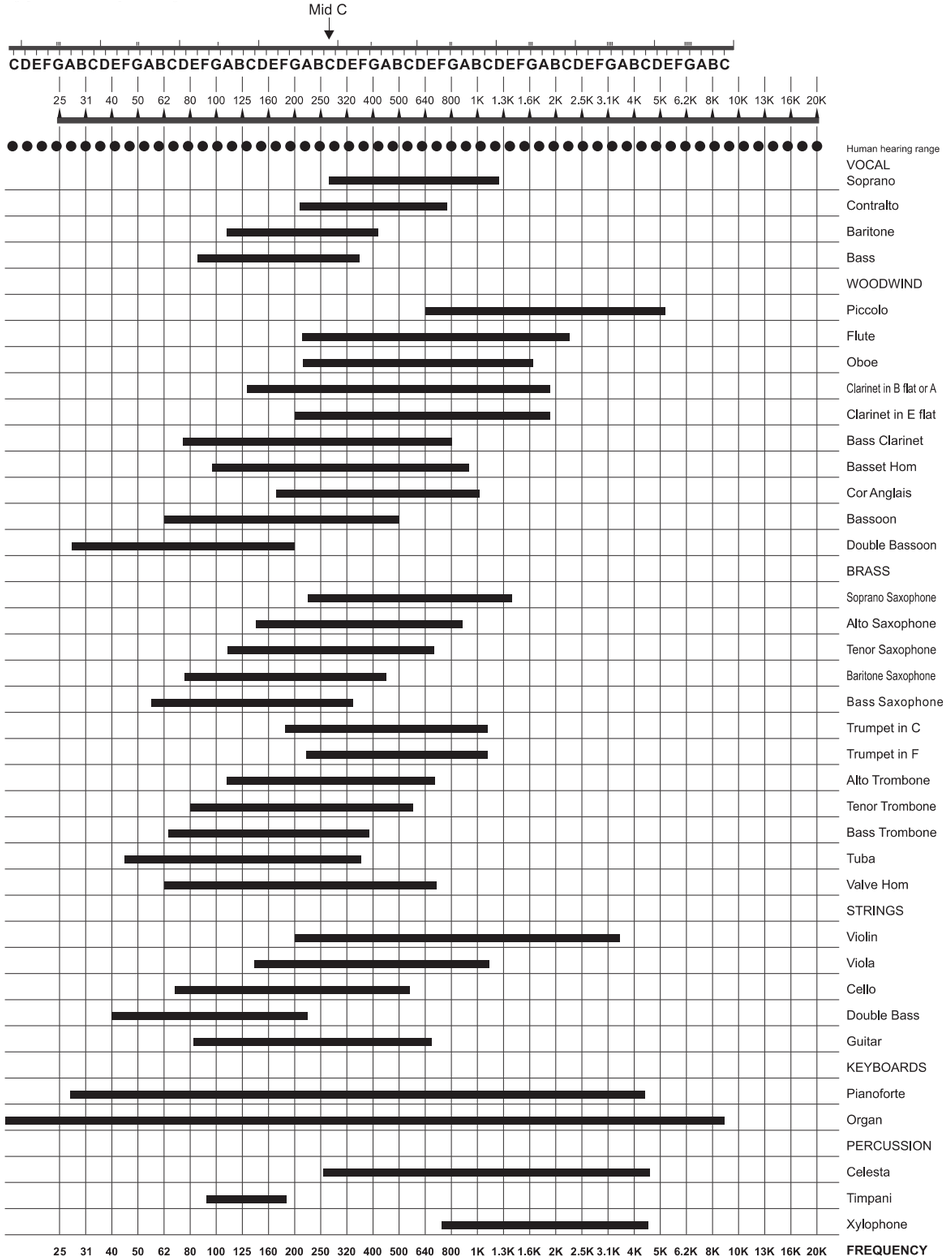


5.3 Rack Mounting

The most secure mounting solution is in a universal 19" equipment rack, such as the various models available from Monoprice. In selecting rack depth, please allow for at least 4" of space behind the rack for the plugs and connectors on the rear panel. Ensure that there is sufficient space around the unit to allow for ventilation and cooling air flow. This EQ occupies 2U of rack space.

Applications

6.1 The Sound Frequency

In recording studios, as well as on stage or during radio plays, this equalizer will prove to be a valuable tool for shaping the "curve" or "contour" of the sound. To help identify the proper frequencies to concentrate on modifying for a given voice or instrument, the following table shows the common frequency ranges for a variety of instrument and voice types.

Typical Frequency of Each Instrument and Voice