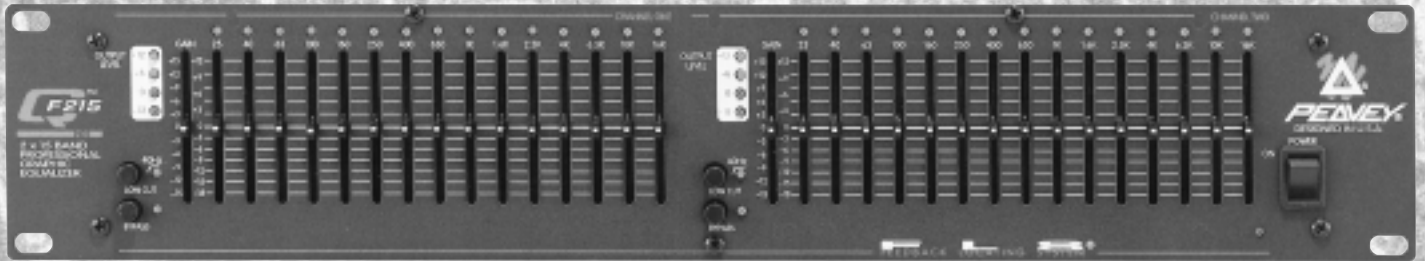


# Q™ Series Graphic Equalizers



**Q215B**



**QF215**



**QF131**



Intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



Intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

**CAUTION:** Risk of electrical shock — DO NOT OPEN!

**CAUTION:** To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

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**WARNING:** To prevent electrical shock or fire hazard, do not expose this appliance to rain or moisture. Before using this appliance, read the operating guide for further warnings.



Este símbolo tiene el propósito, de alertar al usuario de la presencia de “(voltaje) peligroso” sin aislamiento dentro de la caja del producto y que puede tener una magnitud suficiente como para constituir riesgo de descarga eléctrica.



Este símbolo tiene el propósito de alertar al usuario de la presencia de instrucciones importantes sobre la operación y mantenimiento en la información que viene con el producto.

**PRECAUCION:** Riesgo de descarga eléctrica ¡NO ABRIR!

**PRECAUCION:** Para disminuir el riesgo de descarga eléctrica, no abra la cubierta. No hay piezas útiles dentro. Deje todo mantenimiento en manos del personal técnico cualificado.

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**ADVERTENCIA:** Para evitar descargas eléctricas o peligro de incendio, no deje expuesto a la lluvia o humedad este aparato. Antes de usar este aparato, lea más advertencias en la guía de operación.



Ce symbole est utilisé dans ce manuel pour indiquer à l'utilisateur la présence d'une tension dangereuse pouvant être d'amplitude suffisante pour constituer un risque de choc électrique.



Ce symbole est utilisé dans ce manuel pour indiquer à l'utilisateur qu'il ou qu'elle trouvera d'importantes instructions concernant l'utilisation et l'entretien de l'appareil dans le paragraphe signalé.

**ATTENTION:** Risques de choc électrique — NE PAS OUVRIR!

**ATTENTION:** Afin de réduire le risque de choc électrique, ne pas enlever le couvercle. Il ne se trouve à l'intérieur aucune pièce pouvant être réparée par l'utilisateur. Confiez l'entretien et la réparation de l'appareil à un réparateur Peavey agréé.

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**AVERTISSEMENT:** Afin de prévenir les risques de décharge électrique ou de feu, n'exposez pas cet appareil à la pluie ou à l'humidité. Avant d'utiliser cet appareil, lisez attentivement les avertissements supplémentaires de ce manuel.



Dieses Symbol soll den Anwender vor unisolierten gefährlichen Spannungen innerhalb des Gehäuses warnen, die von Ausreichender Stärke sind, um einen elektrischen Schlag verursachen zu können.



Dieses Symbol soll den Benutzer auf wichtige Instruktionen in der Bedienungsanleitung aufmerksam machen, die Handhabung und Wartung des Produkts betreffen.

**VORSICHT:** Risiko — Elektrischer Schlag! Nicht öffnen!

**VORSICHT:** Um das Risiko eines elektrischen Schlages zu vermeiden, nicht die Abdeckung entfernen. Es befinden sich keine Teile darin, die vom Anwender repariert werden könnten. Reparaturen nur von qualifiziertem Fachpersonal durchführen lassen.

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**ACHTUNG:** Um einen elektrischen Schlag oder Feuergefahr zu vermeiden, sollte dieses Gerät nicht dem Regen oder Feuchtigkeit ausgesetzt werden. Vor Inbetriebnahme unbedingt die Bedienungsanleitung lesen.

## Q™ SERIES EQUALIZERS

Thank you for purchasing a Peavey Electronics Q Series graphic equalizer. The Q family features two dual-channel models and one single-channel unit, all incorporating Peavey's legendary low-noise, low-distortion design. Ruggedly constructed, Q Series EQs have 45 mm, center-detented control sliders enclosed in metal for durability. These two rack-space units also offer  $\pm 15$  dB gain control and an LED display indicating output level. Other shared features include switchable low-cut filters, +21 dBu balanced inputs and outputs, and bypass switches. Q Series equalizer filters are set at ISO center frequencies within 3% accuracy. Whether on stage, in the studio, or simply tweaking your home hi-fi system, the Q Series has an EQ for you.

### FEATURES

#### Q 215B

- Dual channel (15 bands per channel)
- 2/3 octave filter sets
- 25 Hz to 16 kHz effective equalization range
- Constant Q filters
- 15 dB boost / 15 dB cut per band
- Output level LEDs (-12 to +12 dB)
- 18 dB per octave 40 Hz low-cut filter with status LED
- 1/4" TRS inputs and outputs for balanced or unbalanced operation
- Bypass switch with status LED
- 15 dB boost / 15 dB cut Gain Control

#### QF 215

- Dual channel (15 bands per channel)
- 2/3 octave filter sets
- 25 Hz to 16 kHz effective equalization range
- Constant Q filters
- 12 dB boost / 18 dB cut per band
- Output level LEDs (-12 to +12 dB)
- 18 dB per octave 40 Hz low-cut filter with status LED
- XLR and 1/4" TRS inputs/outputs for balanced or unbalanced operation
- Bypass switch with status LED
- New FLS (Feedback Locating System) circuitry for improved sensitivity
- 15 dB boost / 15 dB cut Gain Control

#### QF 131

- Single channel (31 band)
- 1/3 octave filter sets
- 20 Hz to 20 kHz effective equalization range
- Constant Q filters
- 12 dB boost / 18 dB cut per band
- Output level LEDs (-12 to +12 dB)
- 18 dB per octave 40 Hz low-cut filter with status LED
- XLR and 1/4" TRS inputs/outputs for balanced or unbalanced operation
- Bypass switch with status LED
- New FLS® (Feedback Locating System) circuitry for improved sensitivity
- 15 dB boost / 15 dB cut Gain Control

## EQUALIZATION PROCESS

Always begin the equalization process with all sliders at their center-detent (flat response) positions. For units equipped with FLS<sup>®</sup>, increase system volume until slight feedback occurs. Note the LED(s) that illuminate, and lower the corresponding fader(s) until feedback is eliminated. In other words, see the light pull down the fader. For the Q 215B, lower each fader until the feedback frequency is found. Lower the faders in small amounts to avoid adversely affecting sound quality. Likewise, excessive boosting of a frequency may result in feedback.

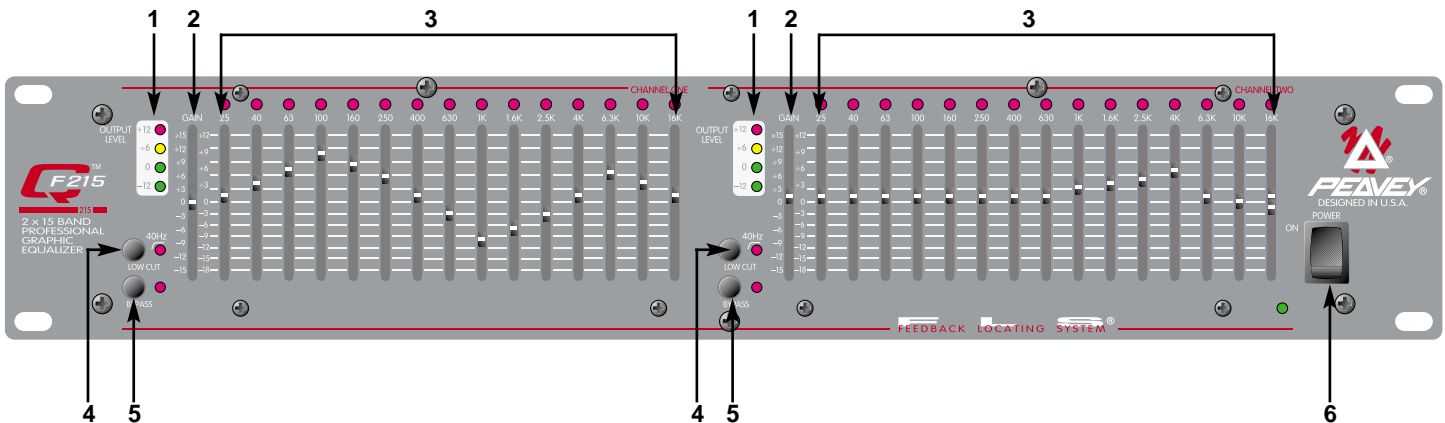
**EXERCISE CAUTION WHEN ATTEMPTING TO BOOST FREQUENCIES BELOW SPEAKER SYSTEM TRANSDUCER CUT-OFF.**

Typical sound reinforcement enclosures are not designed for 20 Hz performance, and transducer damage could result from “over-boosting” low frequencies. Excessive boost at very low frequencies could also limit overall system headroom. Engaging the 40 Hz low-cut filter is the best way to avoid these problems.

**NOTE:** Superb tonality, absence of feedback, and great-sounding systems may not be possible with any graphic equalizer. All other system components must be of high quality and designed for the application. No amount of equalization will correct an acoustically bad room, bad microphone/speaker arrangement, or completely correct the response curve of a poor loudspeaker.

## FEATURES AND CONTROLS

### FRONT PANEL



#### (1) OUTPUT LEVEL LED METER

This LED array indicates output level from  $-12$  dB to  $+12$  dB.

#### (2) GAIN

This calibrated, detented control regulates overall gain of the EQUALIZER SECTION (3). Unity gain throughout the signal chain can be maintained by recovering lost signal gain at this point. The equalization process may result in noticeable signal loss. To compensate for this loss, engage the BYPASS (5) switch and compare the signal level with that of the equalized level. Increase the GAIN control until the equalized level approximates that of the bypassed level. Let your ears be your guide.

### (3) EQUALIZER SECTION

These calibrated, detented controls adjust the amount of cut or boost at their respective frequencies. They are adjustable from 18 dB cut to 12 dB boost (15 dB cut to 15 dB boost on the 215B). For units equipped with FLS, the LED at the top of each band will illuminate as an indication of feedback at that frequency.

### (4) LOW-CUT FILTER

This switch activates the low-cut filter that rejects frequencies below 40 Hz. Frequency roll off is 18 dB per octave with the switch engaged. This filter will operate even with the BYPASS (5) switch engaged. The adjacent red LED indicates activation.

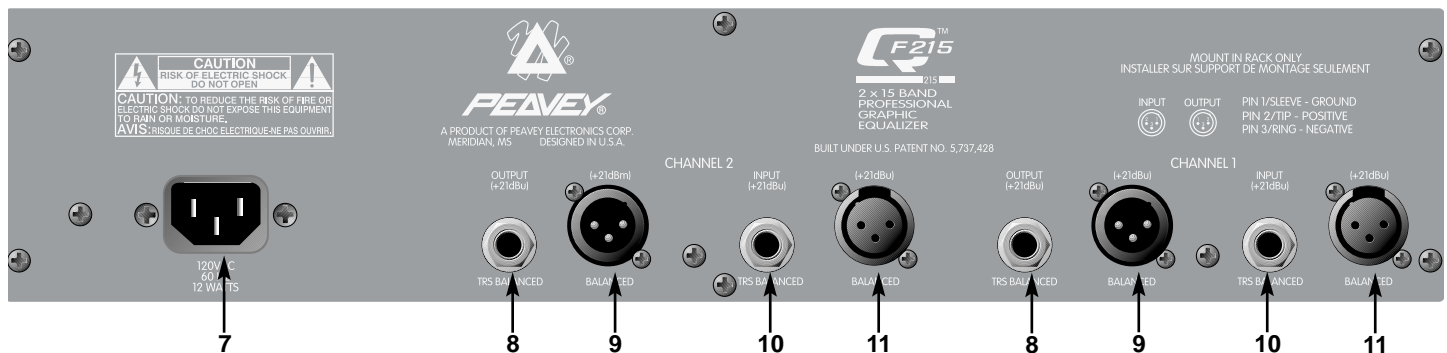
### (5) BYPASS

This switch allows the signal to bypass the unit with the exception of the LOW-CUT FILTER (4). When this switch is engaged, the signal is routed from INPUT (10 and 11) through the low-cut filter to output (8 and 9).


### (6) POWER

This 2-position rocker switch applies mains power to the unit when in the ON position. The adjacent green LED indicates mains power activation.

## REAR PANEL



### (7) IEC MAINS CONNECTOR

 This is a standard IEC power connector. An AC mains cord having the appropriate AC plug and ratings for the intended operating voltage is included in the carton.

Never break off the ground pin on any equipment. It is provided for your safety. If the outlet used does not have a ground pin, a suitable grounding adapter should be used and the third wire should be grounded properly. To prevent the risk of shock or fire hazard, always be sure that the equalizer and all associated equipment is properly grounded.

### NOTE: FOR UK ONLY

If the colors of the wires in the mains lead of this unit do not correspond with the colored markings identifying the terminals in your plug, proceed as follows: (1) The wire that is colored green and yellow must be connected to the terminal that is marked by the letter E, the earth symbol, colored green, or colored green and yellow. (2) The wire that is colored blue must be connected to the terminal that is marked with the letter N or the color black. (3) The wire that is colored brown must be connected to the terminal that is marked with the letter L or the color red.

**(8) TRS BALANCED OUTPUT**

These 1/4" Tip/Ring/Sleeve (stereo) jacks provide balanced output when used with TRS connectors and 2-conductor shielded cables. When used with a mono 1/4" (TS) phone plug, the output is unbalanced.

**(9) XLR OUTPUT**

These male 3-pin connectors provide balanced output when used with female XLR connectors.

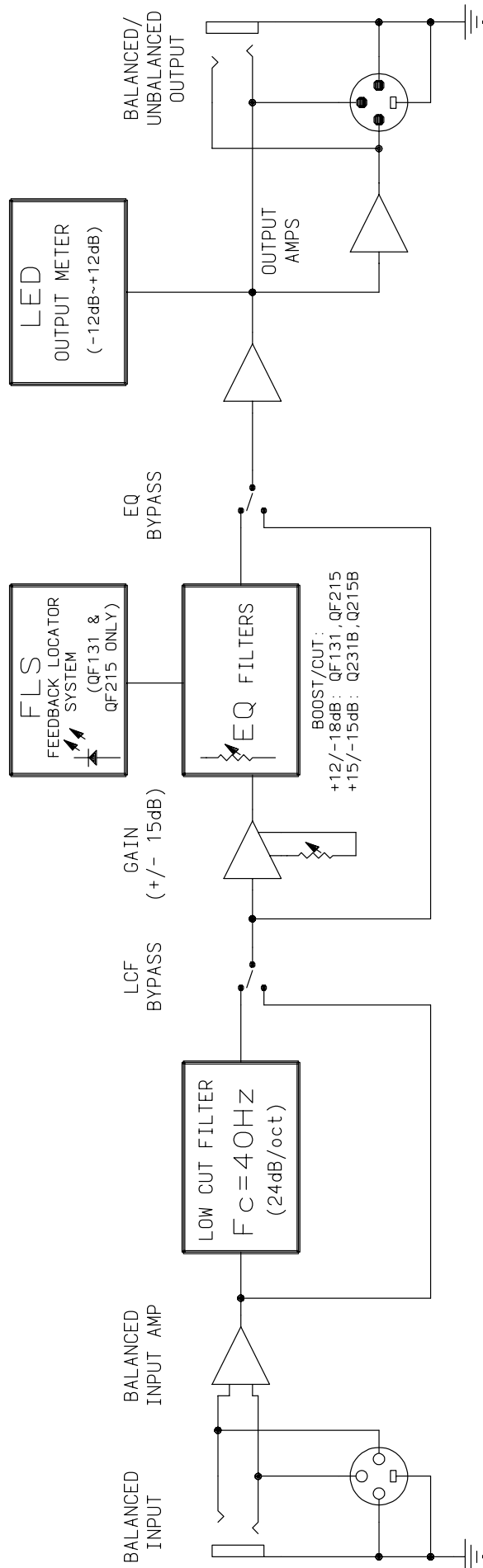
**(10) TRS BALANCED INPUT**

These 1/4" Tip/Ring/Sleeve (stereo) jacks provide balanced input when used with TRS connectors and 2-conductor shielded cables. When used with mono 1/4" (TS) phone plugs, the input is unbalanced.

**(11) XLR INPUT**

These female 3-pin connectors provide balanced input when used with male XLR connectors.

# Q™ SERIES BLOCK DIAGRAM



**SPECIFICATIONS\*****Q™ F131****Q™ 215B****Q™ F215**

	Q™ F131	Q™ 215B	Q™ F215
<b>Filter Q</b>	4.77	2.3	2.3
<b>Filter Frequencies (Hz)</b>	20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1 K, 1.25 K, 1.6 K, 2 K, 2.5 K, 3.15 K, 4 K, 5 K, 6.3 K, 8 K, 10 K, 12.5 K, 16 K, 20 K	25, 40, 63, 100, 160, 250, 400, 630, 1 K, 1.6 K, 2.5K, 4 K, 6.3K, 10 K, 16 K	25, 40, 63, 100, 160, 250, 400, 630, 1 K, 1.6 K, 2.5 K, 4 K, 6.3 K, 10 K, 16 K
<b>Maximum Boost and Cut Filter</b>	+12 dB / -18 dB	+15 dB / -15 dB	+12 dB / -18 dB
<b>Output Noise</b>			
Bypass Mode	-101 dBV	-100 dBV	-100 dBV
Filter Mode (Flat)	-95 dBV	-98 dBV	-98 dBV

**ALL MODELS**

<b>Frequency Response:</b>	± 1 dB (20 Hz – 20 kHz)
<b>Distortion:</b>	.002% (20 Hz – 20 kHz)
<b>Input Impedance:</b>	Balanced 20 K ohms (equal impedances to ground)
<b>Output Impedance:</b>	660 ohms
<b>Maximum Input Level:</b>	+18 dBV (8 V RMS)
<b>Maximum Output Level:</b>	-18 dBV unbalanced; +21 dBV balanced
<b>Nominal Input Level:</b>	0 dBV (1 V RMS)
<b>Nominal Output Level:</b>	0 dBV (1 V RMS)
<b>Input Headroom:</b>	Nominal 18dB
<b>Output Headroom:</b>	18 dB
<b>Maximum Boost and Cut Gain:</b>	+15 dB / -15 dB
<b>Low Cut Filter:</b>	40 Hz @ 18 dB per octave
<b>Power Consumption:</b>	Domestic: 120 VAC, 60 Hz, 12 Watts Export: 220/230 VAC, 50/60 Hz, 12 Watts
<b>Dimension:</b>	3.5" (89 mm) H x 19" (483 mm) W x 7.375" (187 mm) D
<b>Weight:</b>	7.8 lbs. (3.54 kg)

\* All specifications are typical unless otherwise noted. **0 dBV = 1 volt**. All specifications are referenced to nominal output level (0 dBV) unless otherwise stated.

**NOTE:** All specifications measured at 1 V RMS input, unbalanced output, sliders at mid position, and all switches out unless otherwise noted.



## IMPORTANT SAFETY INSTRUCTIONS

**WARNING:** When using electric products, basic cautions should always be followed, including the following:

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water (i.e., a bathtub, sink, swimming pool, wet basement, etc.)
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as a stove, radiator, or another heat producing amplifier.
8. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
9. Never break off the ground pin on the power supply cord. For more information on grounding, write for our free booklet "Shock Hazard and Grounding."
10. Power supply cords should always be handled carefully. Never walk on or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
12. If this product is to be mounted in an equipment rack, rear support should be provided.
13. Metal parts can be cleaned with a damp rag. The vinyl covering used on some units can be cleaned with a damp rag or an ammonia-based household cleaner if necessary. Disconnect unit from power supply before cleaning.
14. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation holes or any other openings.
15. This unit should be checked by a qualified service technician if:
  - a. The power supply cord or plug has been damaged.
  - b. Anything has fallen or been spilled into the unit.
  - c. The unit does not operate correctly.
  - d. The unit has been dropped or the enclosure damaged.
16. The user should not attempt to service this equipment. All service work should be done by a qualified service technician.
17. This product should be used only with a cart or stand that is recommended by Peavey Electronics.
18. Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably in susceptibility to noise induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures.

Duration Per Day In Hours	Sound Level dBA, Slow Response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

According to OSHA, any exposure in excess of the above permissible limits could result in some hearing loss. Ear plugs or protectors for the ear canals or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss if exposure is in excess of the limits as set forth above. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.

**SAVE THESE INSTRUCTIONS!**



*LISTEN TO THIS™*

Features and specifications subject to change without notice.

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