

223s/223xs Crossover

Stereo 2-Way/Mono 3-Way Crossover

dbx[®]
by HARMAN



More sound to your amps and speakers

The secret to making speakers sound great lies with the crossover you use. With the dbx[®] 223s and 223xs Crossovers you'll get great performance, ultra low-noise, rugged reliability and four decades of dbx knowledge and expertise in building the world's finest processors. The 223 uses precision filters to separate the audio signal and direct the correct frequencies to your loudspeaker drivers. By directing only the specific frequency bands to each speaker driver the 223 leaves your amplifiers free to use their full power on the usable signal eliminating distortion and giving your PA system a cleaner and better sound.

The dbx 223 is a dual channel crossover with all the features you would expect from a professional product. They feature Linkwitz-Riley 24dB per octave filters, independent output gain controls for level matching, output phase inversion, 40 Hz low cut filter, and optional mono summing of the low frequency (subwoofer) output. Everything in the design exudes great precision from the solid "click" controls to the high quality ¼" TRS (223s) and XLR (223xs) inputs and outputs.

Features

- ▶ TRS differentially balanced ins and outs (223s)
- ▶ XLR balanced ins and outs (223xs)
- ▶ Mode switch for stereo 2-way or mono 3-way operation
- ▶ Low frequency summed (subwoofer) output
- ▶ x10 range switch on both channels
- ▶ 40 Hz high pass (low cut) filter both channels
- ▶ Phase reverse switch on all outputs
- ▶ Individual level controls on all outputs
- ▶ 24dB per octave Linkwitz-Riley filters (the professional standard)
- ▶ Stereo/Mono status LEDs indicate the selected mode
- ▶ dbx 2 year parts and labor as standard
- ▶ CSA NRTL/C approved
- ▶ CE compliant

Who uses this product:



BANDS



DJs



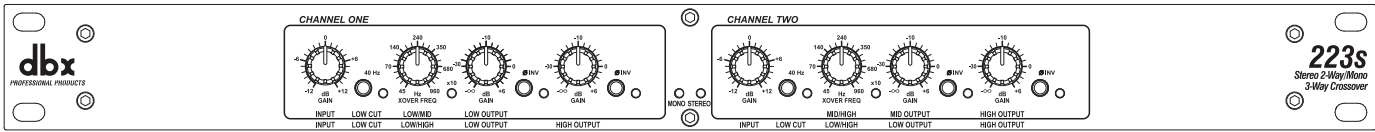
SOUND
INSTALLATION



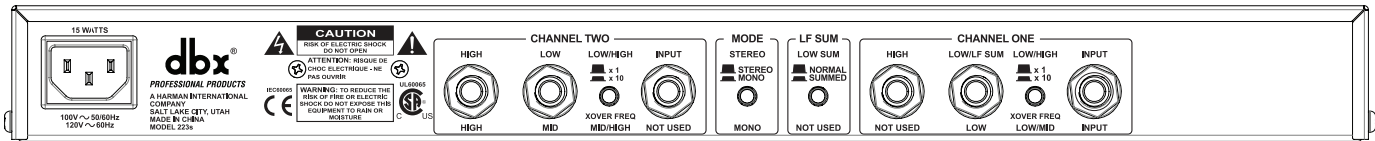
STUDIO

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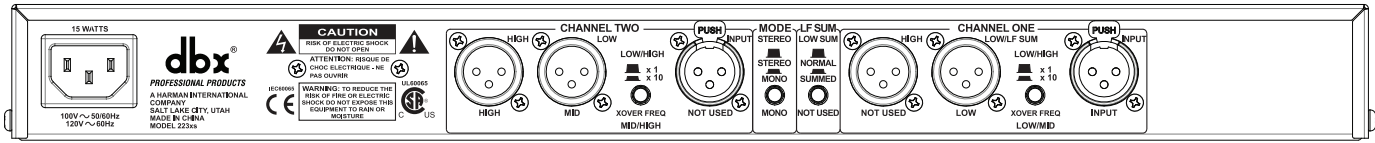
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223s/223xs Front Panel*



223s Rear Panel



223xs Rear Panel

* Note: There are no differences between the 223s and the 223xs front panels. Therefore, the 223s is shown to represent both the 223s and the 223xs.

Specifications

INPUTS:

Connectors: 1/4" TRS (223s) / Female XLR (223xs) (pin 2 hot)
 Type: Electronically balanced/unbalanced, RF filtered
 Impedance: >50kΩ Balanced, >25kΩ unbalanced
 Max Input Level: >+22dBu balanced or unbalanced

OUTPUTS (223s):

Connectors: 1/4" TRS
 Type: Impedance-balanced/unbalanced, RF filtered
 Impedance: Balanced 200Ω, unbalanced 100Ω
 Max Output Level: >+21dBu balanced/unbalanced into 2kΩ or greater

OUTPUTS (223xs):

Connectors: XLR
 Type: Electronically-balanced/unbalanced, RF filtered
 Impedance: Balanced 60Ω, Unbalanced 30Ω
 Max Output Level: >+20dBu balanced/unbalanced into 600Ω or greater

CROSSOVER FREQUENCIES:

Stereo Mode:
 Low/High: 45 Hz to 960 Hz or 450 Hz to 9.6 kHz (x10 setting)
 Mono Mode:
 Low/Mid: 45 Hz to 960 Hz or 450 Hz to 9.6 kHz (x10 setting)
 Mid/High: 45 Hz to 960 Hz or 450 Hz to 9.6 kHz (x10 setting)
 Filter Type: Linkwitz-Riley, 24 dB/octave, state-variable

FUNCTION SWITCHES:

Front Panel:
 Low Cut: Activates 40 Hz Butterworth, 12 dB/octave high-pass filter, one switch per channel
 Phase Invert: Inverts the phase at the output, one switch per output

Rear Panel:
 x10: Multiplies crossover frequency range by 10, one switch per channel
 Mode: Selects stereo/mono and 2/3-way operation.
 LF Sum: Selects normal (stereo) or mono-summed low frequency operation

INDICATORS:

Stereo Operation: Green LED
 Mono Operation: Yellow LED
 Low Cut: Red LED per channel
 x10: Green LED per channel
 Phase Invert: Red LED per output (3 per channel)

SYSTEM PERFORMANCE:

Bandwidth: 20Hz to 20kHz, +0/-0.5dB
 Frequency Response: < 3Hz to > 90kHz, +0/-3dB
 Dynamic Range: >106dB, unweighted, any output
 THD+N: < 0.004% at +4 dBu, 1 kHz
 < 0.04% at +20 dBu, 1 kHz
 Interchannel Crosstalk: <-80dB, 20Hz to 20kHz
 Common Mode Rejection: >40dB, typically >55dB @ 1kHz
 Signal-to-Noise: Ref: +4dBu, 22kHz measurement bandwidth
 Stereo: Mono:
 > 94dB > 94dB
 > 93dB > 93dB
 > 91dB > 91dB

POWER SUPPLY:

Power Requirements: 15 Watts
 Operating Voltage: 100 VAC 50/60Hz; 120VAC 60Hz; 230 VAC 50/60 Hz
 Operating Temperature: 32°F to 113°F (0°C to 45°C)

PHYSICAL:

Dimensions: 1.75" x 6.9" x 19" (4.5cm x 17.5cm x 48.26cm)
 Weight: Net Weight: 3.7 lbs/1.7 Kg
 Shipping Weight: 5.4 lbs/2.5 Kg

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