234 STEREO 2-WAY / 3-WAY / MONO 4-WAY CROSSOVER





VISIONARY DESIGN

Let's take a look at the construction features of the dbx 234. At first glance you'll notice the units are great looking, and as you turn the controls something else becomes apparent; these units are extremely well built. The controls exude great precision, and the feel is a solid "click". Also, when you open the box, you won't find the external power supply that accompanies most processors in this price range. That's because we know how difficult external power supplies can be to work with and even though it costs a little more we put the high quality power supply right in the unit. All the inputs and outputs are TRS differentially balanced 1/4" jacks that are bolted down to the chassis. This "nutting down" of the jacks insures that even if someone steps on a cable plugged into the unit, it's not going to tear up the circuit board inside. All dbx crossovers feature Linkwitz-Riley 24 dB per octave filters, the professional standard, but then again, what did you expect?

Via two switches on the back panel you first select whether you're operating your system in stereo 2-way, 3-way or mono 4-way. Another back panel switch also selects whether or not you want to mono sum the LF (subwoofer) out. (Most systems that use a subwoofer are mono subbed to take advantage of amplifier power and because low frequencies are non-directional.) Back panel switches allow you to select the range of the crossover frequencies individually for both channels. The crossover frequency controls have a green LED that indicates the X10 switch on the back panel is activated (we wouldn't make you check the switch position on the back every time you wonder where it's set). All these switches are on the back panel because it could be disastrous if you were to change them mid-program. On the front panel you'll notice there are LEDs that indicate whether the unit is in mono or stereo mode. Each channel has an input gain control for proper level setting. There's a recessed 40 Hz low cut (HPF) on each channel to remove unwanted low frequencies. Both the low and high outputs on each channel have a gain control ranging from $-\infty$ to +6dB, to allow muting of individual outputs and for level matching. Also, these outputs each have phase reverse switches that'll help get you out of a bind without having to reconfigure your system. These phase reverse switches may be internally reconfigured as mute switches.

You'll get great performance, all the features you'd expect from a professional product, and the knowledge that you're buying a processor from the people that have been producing the world's finest processors for over 20 years. The technology that made us famous brings you a dbx crossover which has been tested to the highest professional standards at a price that's just too low to admit!

FEATURES

- TRS differentially balanced ins and outs
- Mode switches for mono 4-way or stereo 2way/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 band 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

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ARCHITECTS' AND ENGINGEERS' **SPECIFICATIONS**

The crossover shall be selectable for stereo 2-way, 3-way or mono 4-way operation, each stereo channel having input gain and low, mid, and high output gain controls, a switchable low-cut filter, two variable crossover frequency controls, and low, mid, and high output phase invert switches on the front panel. Rear-panel input connectors shall be 1/4" TRS balanced/unbalanced with input impedance of not less than 50 k Ω balanced and 25 k Ω unbalanced and maximum input level of not less than +21 dBu. Rear-panel low, mid, and high output connectors shall be 1/4" TRS impedance-balanced/unbalanced with output impedance of no more than 200 Ω balanced and 100 Ω unbalanced and maximum output level of not less than +21 dBu into 2 k Ω or greater. Input gain controls shall be variable from -12 to +12dB and output gain controls shall be variable from $-\infty$ to +6dB. Each output's phase invert switch shall have an LED to indicate inverted phase and shall be internally selectable to change the invert function to a mute function. Low-cut filters shall be 12dB/octave Butterworth type at 40 Hz and shall be activated by recessed switches with LEDs indicating active status. Low/mid frequency controls shall be variable from 45 to 960 Hz and shall be scaleable to 450 Hz to 9.6 kHz via rear-panel "x10" frequency range switches with front-panel LEDs indicating "x10"

SPECIFICATIONS

INPUT:				
Connectors:	1/4" TRS		FUNCTION SWITCHES	:
Туре:	Electronically balanced/unbalanced, RF fil-		Front Panel:	
	tered		Low Cut:	Activates 40 Hz Butterworth, 12 dB/octave
Impedance:	Balanced > 50 k Ω , unbalanced > 25 k Ω			high-pass filter, one switch per channel.
Max Input Level:	> +21 dBu balanced or unbalanced		Phase Invert:	Inverts the phase at the output, one switch
CMRR:	> 40 dB, typically > 55 dB at 1 kHz			per output.
			Rear Panel:	Market Providence and Alforence and Alforenc
			x1 / x10:	Multiplies the low-mid (mono: low/low-mid)
Connectors:	1/4" TRS Impedance-balanced/unbalanced, RF fil-			crossover frequency range of the front-
Type:				parter markings by a factor of 1 or 10, one
Immediance	tered		Modo:	Selects stored 2-way 2-way or mono 4-
Impedance:	Balanced 200 Ω , unbalanced 100 Ω		wode.	way operation and disables all LEDs for
wax Output Level:	> +21 dBu balanced/unbalanced into 2 KD			controls that are non-functional in the
	or greater			mono mode
DEDEODMANCE.			LE Sum:	Selects normal (stereo) or mono-summed
ERFORMANCE.		Li ouini.	low frequency operation and disables Ch	
Bandwidth:	20 Hz to 20 kHz, +0/-0.5 dB			2's low output phase invert LED to indi-
Signal to Noise:	< 3 HZ 10 > 90 KHZ, +0/-3 UB			cate that this output is not operational in
Signal-to-Noise.	width			the LF sum mode.
	Storeo Mode:	Mono Modo:		
Low Output:		s 94 dB	INDICATORS:	
Low-Mid Output:	> 04 GD	94 dB	Stereo Operation:	Green LED
Mid Output:	> 93 dB	- 04 00	Mono Operation:	Yellow LED
High-Mid Output:	2 00 02	92 dB	Low Cut:	Red LED per channel
High Output:	> 92 dB	> 92 dB	x10:	Green LED per channel
Dynamic Range:	> 114 dB, unweighted, a	nv output	Phase Invert:	Red LED per output (3 per channel)
THD+Noise:	< 0.004% at +4 dBu, 1 kHz			
	< 0.04% at +20 dBu, 1 kHz		POWER SUPPLY:	
Interchannel Crosstalk:	< -80 dB, 20 Hz to 20 kH	lz	Operating Voltage:	100-120 VAC 50/60 Hz; 120 VAC 60 Hz
				230 VAC 50 Hz
CROSSOVER FREQUENCIES:			Power Consumption:	15 Watts
Stereo Mode:			Mains Connection:	IEC 320 receptacle
Low/Mid: 45 to 960 Hz or 450 Hz to 9.6 kH		to 9.6 kHz (x10		
	setting)		PHYSICAL:	
Mid/High:	450 Hz to 9.6 kHz		Dimensions:	1.75" H X 19" W X 6.9" D (4.4Cm X
Mono Mode:	de:		M/sisht.	48.3Cm X 17.5Cm)
Low/Low-Mid:	45 to 960 Hz or 450 Hz to 9.6 kHz (x10		Shipping Woight:	4.0 IDS. (1.8 Kg)
	setting)		Shipping weight.	5.0 IDS. (2.0 Kg)
Low-Mid/High-Mid:	450 Hz to 9.6 kHz		Note: Chapifications subject to chapped	
High-Mid/High:	450 Hz o 9.6 kHz		Note. Specifications subject	to change.
Filter Type:	LINKWITZ-HILEY, 24 dB/oct	ave, state-vari-		
	able			

status, and mid/high frequency controls shall be variable from 450 Hz to 9.6 kHz. A rear-panel LF sum switch shall sum the pre-output gain signals of both channels' low-frequency outputs and route the combined signal to channel 1's low output and shall disable channel 2's low phase invert LED.

A rear-panel mode switch shall select between stereo 2-way, 3-way, and mono 4-way operation with front-panel LEDs indicating the selected mode. Mono operation shall convert channel 1's low/mid and mid/high and channel 2's mid/high crossover frequency controls to low/low-mid, lowmid/high-mid, and high-mid/high controls respectively, and shall convert channel 1's low and mid outputs and channel 2's mid and high outputs to low, low-mid, high-mid, and high outputs respectively, while channel 1's input, input gain, and low-cut filter shall remain active. All other functions shall be inactive and the mono mode shall disable LEDs for all inactive functions.

Frequency response shall be 3 Hz to 90 kHz or greater and signal-to-noise ratio shall be not less than 92 dB on any output in any mode. THD+Noise shall be less than 0.004% at +4 dBu and less than 0.04% at +20 dBu from 20 Hz to 20 kHz and interchannel crosstalk shall be no greater than -80 dB from 20 Hz to 20 kHz. The unit shall operate from a power source of 100 VAC 50/60 Hz to 120 VAC 60 Hz for a domestic unit and 230 VAC 50 Hz for a european unit via IEC type AC cable and shall consume no more than 15 W. The size of the 1U high, full rack width unit shall be 1.75" H X 19" W X 6.9" D (4.4cm x 48.3cm x 17.5cm) with a net weight of 4.0 lbs. (1.8 kg) and a shipping weight of 5.8 lbs. (2.6 kg). The crossover shall be a dbx 234.

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



FOR MORE INFORMATION CONTACT: dbx Professional Products • 8760 S. Sandy Pkwy. • Sandy, Utah 84070 Phone (801) 568-7660 • Fax (801) 568-7662 • Int'l Fax (801) 568-7583 customer@dbxpro.com · http://www.dbxpro.com