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TECHNICAL DATA SHEET

Product Ov rv

The Bose ControlSpace SP-24 sound processor makes optimizing 2x4 installed and portable sound systems easy. Use the purposefully simple front panel interface for basic operations, or the intuitive SP-24 Editor software for full access to all signal processing settings.

Product or t o

While many loudspeaker controllers offer complicated user interfaces, the SP-24 processor keeps the front panel interface simple with basic preset/scene recall and gain/delay operations. For full system access, the straightforward and intuitive SP-24 Editor software provides access to all signal processing settings and signal routing, whether connected live or offline. Scenes created with the SP-24 Editor software can be saved locally to a PC or, using a USB connection, stored in the SP-24 processor hardware. Full access includes custom channel routing, input and output 9-band equalization, band pass filters, delays, peak limiter, gain and polarity control. Custom loudspeaker EQ curves can be created or Bose professional loudspeaker EQs can be recalled for quick, optimized setup. The hardware includes standard XLR connectors to easily connect to balanced pro-level source devices, amplifiers and powered loudspeakers.

c t o

Designed for a wide range of applications, including:

- Auditoriums
- Houses of worship
- Live music performances
- Restaurants and bars
- Retail stores
- Auxiliary zones

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- **-t co tro** and the ability to program and store custom scenes with the easy-to-use SP-24 Editor software
- **P- d tor o t r** provides complete access to all signal processing functions including custom channel routing, input and output 9-band dual equalization, band pass filters, delays, peak limiter, gain and signal polarity for full system control
- **d ro t** LCD menus and controls are purposely designed to make it easier to select preprogrammed scenes, gain and delay parameters, or quickly access Bose® loudspeaker presets
- **ort** enables plug-and-play PC access for system configuration, programming, signal level monitoring and firmware updates using the SP-24 Editor software
- **t v o ro o oud r r r** enables quick access to factory-created equalization curves while the SP-24 Editor software provides intuitive graphical tools for optimizing any passive or powered loudspeaker
- **ut** (2) and outputs (4) for balanced connectivity to professional audio gear
- **d c d c tor** show the signal status of the input channels
- **ro t oc out** feature prevents unauthorized use

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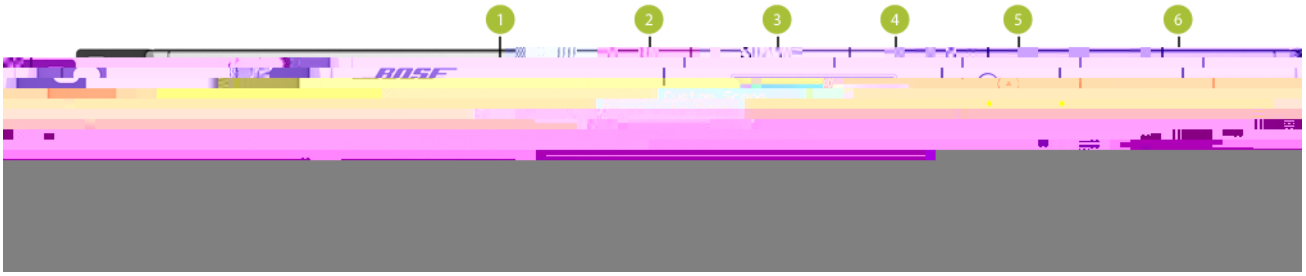
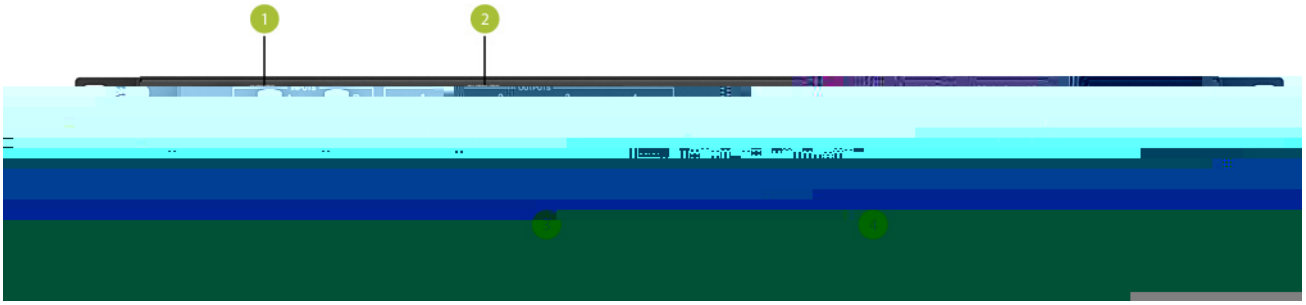
Audi i i i	
Frequency Response	20 Hz - 20 kHz (+0/-1 dB)
THD+N	0.015 % (yp c)
nne ep r on (ross k)	100 dB (yp c)
Dyn c R n e	10 dB (yp c)
d d	
ud o ency	1.52 s
/D nd D/ on er ers	2 -
p e R e	kHz
u u pu De y	1 0 s
Audi u	
npu nne s	2 c nne s
npu s	2 n o nced d eren
u npu e e	+1 dBu
onnec ors npu	R
npu ped nce	D eren 2.2 k 1 kHz
ens y	e ec e 0/+ /+1 dBu
Audi u u d	
u pu s	n o nced d eren
onnec ors u pu	R
u pu ped nce	D eren 200
u u pu e e	+1 dBu
di d	
ud o nd c ors	npu s n presen (reen D) npu s n c p 0 dBF (Red D)
i d i i i	
ns o e	100 - 2 0 (+/- 10% 50/ 0 Hz)
o er onsu p on	15
ns	nd rd (1)
o er D ss p on	52 BT (1 .1 kc)
i	
R ck p ce n s	1R
D ens ons	1. H 1 . D (5 21)
Ne e d	5. (2. k)
pp n e	. (. k)
per n Te per ure	2 F - 11 F (0 - 5)
or e Te per ure	- 0 F - 15 F (- 0 - 0)
Hu d y	5% re e u d y u
o un c on or	B Type B (re r p ne) n er ce



1. **O O tc** Turns the product off or on
2. 2 x 16 backlit LCD display shows presets, scenes and parameter values
3. **v t o co tro** 4 pushbuttons allow navigation of the user interface
4. **O co tro** Pushbutton loads presets and custom scenes. Saves Utility Menu parameters
5. **P** Illuminates to show signal and clipping (0 dBFS) indication for each input channel
6. **ov r c r** For use when installing into rack mount enclosures



1. **P** Balanced XLR inputs, +18 dBu max
2. **O P** Balanced XLR outputs, +18 dBu max
3. **Port** Type B USB port for optional connection to a personal computer running the ControlSpace SP-24 Editor software
4. **ut o r** Power cord input

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The unit shall be a 2-input, 4-output standalone sound processor using a floating point digital signal processing architecture running at a 48 kHz sample rate with 24-bit A/D and D/A converters. Total latency through the unit, analog input to analog output shall total 1.52 milliseconds. The processor shall run the following signal processing algorithms: 9-band parametric equalization, routing, band pass crossover, signal delay and peak limiting.

Input and output connections shall utilize XLR type connectors. Each input shall be a balanced, differential circuit with an input impedance of 2.2 kilohm capable of accepting input signals up to +18 dBu. Each output shall be a balanced, differential circuit with an output impedance of 200 ohms capable of delivering a signal level up to +18 dBu.

The frequency response shall be +0/-1 dB from 20 Hz to 20 kHz. The dynamic range shall be 107 dB (typical) from 20 Hz to 20 kHz. The THD shall be < 0.015% (typical). Crosstalk shall be < -100 dB (typical).

The processor shall include a front panel user interface consisting of a 2x16 blue backlit LCD display, and four navigation buttons. The front panel interface shall allow for the selection of predefined loudspeaker configurations and the ability to recall equalization presets for Bose® professional loudspeakers. The front panel interface shall include the ability to recall custom scenes that are stored in the unit. The front panel interface shall provide access to the following functions: input level, output level, loudspeaker equalization preset and signal delay (per output channel). The processor shall have a maximum signal delay capability of 170 milliseconds per output channel. The front panel interface shall provide a user lockout function and firmware upgrade mode. The processor shall E□oRR 17nSiClliodeTshaonse of deli:channel). efined