



Products and accessories

Bose® Entero®
Power Amplifiers

BOSE PROFESSIONAL SYSTEMS DIVISION - COMPLETE COMMERCIAL SOLUTIONS

Customer Focus

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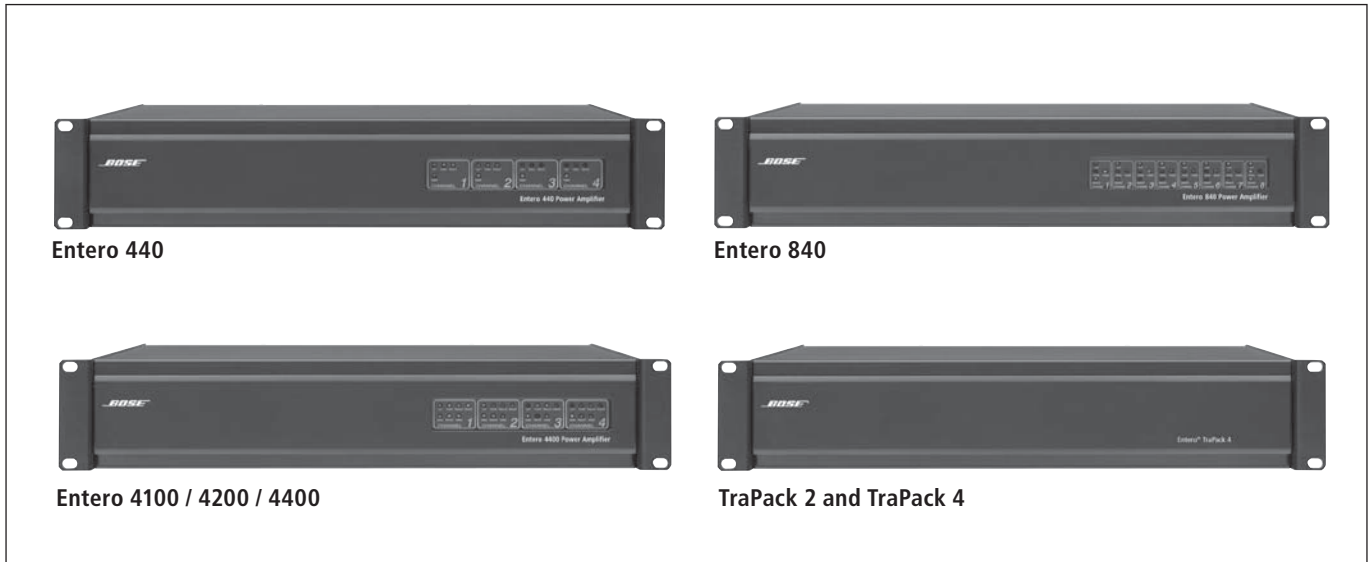
Project management

Products and accessories

Installation services

After sales services

BOSE



TECHNICAL INFORMATION

Power Output

Table 1: power output					
	440	840	4100	4200	4400
Continuous RMS output power (from 20Hz to 20kHz) with no more than 0.05% THD					
8Ω	60W	60W	100W	200W	400W
4Ω	80W	80W	160W	310W	450W
2Ω	100W	100W	250W	400W	550W
Bridged mono operation (from 20Hz to 20kHz) with no more than 0.2% THD					
8Ω	160W	160W	320W	620W	900W
4Ω	200W	200W	500W	800W	1100W

Power bandwidth, all models:
20Hz to 80kHz (+0dB, -3dB)

Frequency response, all models:
20Hz to 20kHz (+0dB, -0,2dB)

Channel separation:
Model 440/840:
> 65dB @ 1kHz
> 54dB @ 10kHz

Model 4100/4200/4400:
> 72dB @ 1kHz
> 58dB @ 10kHz

Input impedance all models:
18.4kΩ

Sensitivity (for maximum output power into 8 Ω):
Model 440/840: 3,0dBu
Model 4100: 3,4dBu
Model 4200: 4,6dBu
Model 4400: 6,4dBu

Input overload all models:
+21dBu

THD all models:
At 1kHz into 8 Ω < 0.05%

Signal-to-noise ratio:
Models 440/840:
> 101dB, A-weighted, referenced to rated power into 8 Ω

Models 4100/4200/4400:
> 106dB, A-weighted, referenced to rated power into 8 Ω

Noise gate:
Threshold -54dB nominal, switchable to -48dB

Damping factor:
Model 440/840:
> 500

Model 4100/4200/4400:
> 700

Power consumption:
Table 2 shows the power consumption in VA at idle, 1/8, 1/3 and at full power into 8 Ω (all channels driven)

Table 2: power consumption					
	440	840	4100	4200	4400
Idle	50	100	88	101	118
1/8	152	307	220	289	396
1/3	295	590	412	545	800
Full	712	1408	1747	2380	3438

Power requirements:
230VAC/50-60Hz

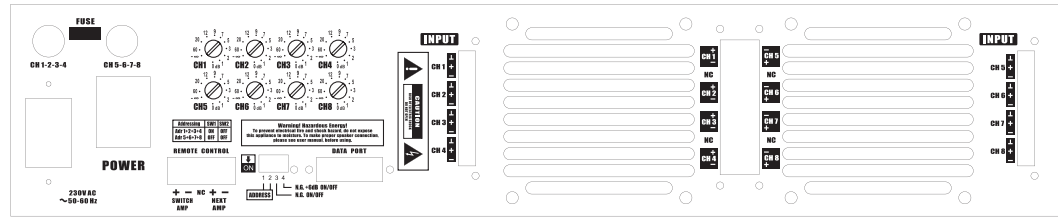
Fusing:
Model 440/840: 10 Amp fast-blow (230V)
Model 4100/4200/4400: 10 Amp slow-blow (230V)

Display:
Model 440/840: 4 LED indicators per channel: 1 Blue (POWER), 1 green (SIGNAL), 2 red (CLIP/PROTECT)

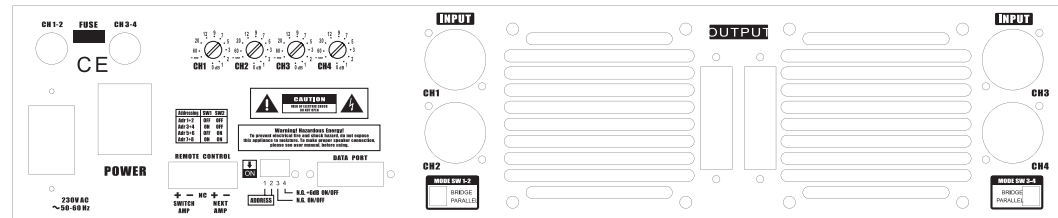
Model 4100/4200/4400: 7 LED indicators per channel: 1 Blue (POWER), 1 green (SIGNAL), 2 red (CLIP/PROTECT), 3 amber (MODE: Stereo, Parallel, Bridge)

Table 3: weight and dimensions		
	net	shipping
440	18 kg	20,6 kg
840	19 kg	21,6 kg
4100	19 kg	21,6 kg
4200	20 kg	22,6 kg
4400	21 kg	23,4 kg
TraPack 2	15 kg	18 kg
TraPack 4	22 kg	24 kg
size (HxWxD)	88 mm(2U) x 483 mm x 454 mm (3.5" x 19" x 17.87")	

Entero 440 / 840



Entero 4100 / 4200 / 4400



GENERAL DESCRIPTION

The Bose® Entero® multi-channel power amplifier is a high performance amplifier designed for use with all Bose Professional Products loudspeaker systems. The unit offers high power in a rugged, lightweight package that is only two rack space units (8.8 cm) high. The 4 and 8 channels may be used in bridge mode to obtain even more power. The amplifier is suitable for professional multi-channel applications, for foreground and background and speech applications but also for portable or permanent installations.

Every Entero amplifier channel has a selectable noise gate to avoid disturbing noises to be heard.

Each channel is provided with an EQ-card slot, suitable for Bose EQ-cards series II (EQCard-II-S). This allows the use of different loudspeaker types with one 4 or 8 channel amplifier.

To avoid wrong settings or abuse, all buttons are placed on the backpanel. The Entero amplifier is prepared for remote monitoring and control. It has connections for remote power switching and for sequential start.

The Entero amplifier accepts both balanced and unbalanced inputs from TRS, XLR connections for the 4X00 series and stripped wire connections for the 440 and 840.

Separate TraPack transformer packages are available in 2U housing for 100Volt applications.

SYSTEM CONFIGURATION

The installation and operating instructions are provided in the Bose Entero multi-channel power amplifier manual. The units can be used in stereo, bridge or parallel mode. These modes can be activated by a dipswitch on the backpanel for the 4X00 series and by using the wiring instructions for the X40 series.

100V SYSTEMS

For 100 Volt applications, the speaker output connections may be connected to a transformer package TraPack 2 or TraPack 4. See table 4.

	TraPack 2	TraPack 4
Entero 440 Entero 840 Entero 4100	Yes	No
Entero 4200 Entero 4400	No	Yes

OPTIONAL EQUALIZER CARD INFORMATION

The Bose Entero multi-channel power amplifier is available with optional Bose equalization cards series II providing active equalization for Bose professional loudspeaker systems. Each channel has its own discrete circuit card input slot. Therefore zones with different speakers, e.g. Panaray 402®, 502A®, FreeSpace M32® and MB4® can all be driven by only one 4 channel amplifier.

Active equalization plug-in circuit cards provide proper equalization for all Bose professional products loudspeakers without use of a separate controller.

ENGINEERS' AND ARCHITECTS' SPECIFICATIONS

The Bose Entero multi-channel power amplifier shall deliver power according to table 1, with no more than 0.05% distortion from 20Hz to 20kHz. For the 4X00 series there shall be combo input connectors for all four channels, capable of connecting a ¼ " TRS or an XLR connector. For the X40 series there shall be quick connect

terminal blocks, capable of accepting wire connections. There shall be an EQ-card slot for each amplifier channel.

The channel separation for the 4X00 series shall be greater than 72dB @ 1kHz and greater than 58dB @ 10kHz. For the X40 series, the channel separation shall be greater than 65 dB @ 1kHz and greater than 54 dB @ 10kHz. The power bandwidth, from 20Hz to 80kHz shall be +0dB, -3dB. The frequency response, from 20Hz to 20kHz, shall be +0dB, -0,2dB. The damping factor shall be at least 500 for the X40 series and at least 700 for the 4X00 series. The signal to noise ratio shall be greater than 101dB for the X40 series and greater than 106dB for the 4X00 series.

The input impedance shall be 18,4kOhm and the maximum input signal shall be 21dBu. The input sensitivity for maximum power into 8 ohm shall be 3,0dBu for the 440 and 840, 3,4dBu for the 4100, 4,6 dBu for the 4200 and 6,4dBu for the 4400.

There shall be a selectable noise gate for each channel, with a threshold of -54dB nominal, switchable to -48dB.

The amplifiers shall consume power according to table 2. The size, net weight and shipping weight of the amplifiers and Transformer packages shall be according to table 3.

REGULATORY INFORMATION

The Bose Entero multi-channel power amplifiers comply with the following regulations: EN-55103-1, EN-55103-2 and EN-60065 6th edition for CE marking.

WARRANTY INFORMATION

The Bose Entero multi-channel power amplifier is covered by a 5-year, transferable limited warranty.



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