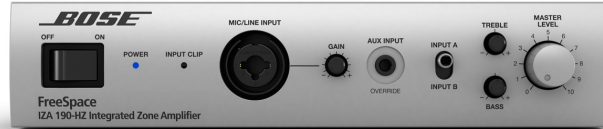# FreeSpace IZA 250-LZ / 190-HZ
Integrated Zone Amplifier

BOSE

Product Description

For background/foreground music and paging applications, the Bose FreeSpace IZA 250-LZ and IZA 190-HZ integrated zone amplifiers are designed to deliver premium sound, provide simplified set up and easy daily operation, and offer the flexibility to expand when more loudspeakers are required. When used with FreeSpace FS2 and FS4 loudspeakers, even further sound optimization is possible through onboard selectable EQ presets.

Product Information

The Bose FreeSpace IZA 250-LZ / IZA 190-HZ integrated zone amplifier provides signal processing, routing, paging and amplification for a wide range of commercial applications such as retail stores, restaurants and bars, hospitality venues, conference rooms, schools and auxiliary zones. The integrated zone amplifier offers a variety of easy-to-use input connections (mic/line/page), input gain and output level adjustments, and operational modes. Selectable Bose FreeSpace FS2 and FS4 loudspeaker EQ presets are available for loudspeaker optimization.

Applications

Designed for a wide range of applications, including:

Retail stores

Restaurants and bars

Hospitality venues

Conference centers

Schools

Auxiliary zones

Key Features

Amplification for premium sound from a reliable, high quality Class-D amplifier provides optimized performance and premium sound quality through the use of internal digital signal processing

Installation made simple with set up done locally from the front and rear panels of the amplifier—no computer is required

Opti-voice paging provides smooth automatic transition between the music and page signals

End-user friendly front panel allows users to connect devices easily, make tonal adjustments or select between two sources. Optional wall mountable Bose Volume control with A/B switch userinterface allows volume and source selection controls to be placed awayfrom the amplifier for user convenience

Compact, lightweight design enables the FreeSpace integrated zone amplifier to be placed out of the way—on a table, desk, counter, shelf or in an equipment rack using the optional Rack Mount Kit accessory

FreeSpace IZA 250-LZ / 190-HZ
Integrated Zone Amplifier

Technical Specifications

POWER RATING		
	FreeSpace IZA 250-LZ integrated zone amplifier	**FreeSpace IZA 190-HZ integrated zone amplifier**
Amplifier Power	2 x 50 W @ 4 Ω, 2 x 25 W @ 8 Ω	1 x 90 W @ 70/100 V

AUDIO PERFORMANCE		
Frequency Response	40 Hz - 20 kHz (+0/-3 dB, @ 1 W reference 1 kHz)	60 Hz - 20 kHz (+0/-3 dB, @ 1 W reference 1 kHz)
THD+N	≤0.3 % (at full rated power)	≤1 % (at full rated power)
Channel Separation (Crosstalk)	≤-60 dBV (below rated power, 1 kHz)	≤-60 dBV (below rated power, 1 kHz)
Dynamic Range	88 dB	88 dB

INTEGRATED DSP	
A/D and D/A Converters	24-bit / 48 kHz
Processing Functions	Loudspeaker EQ, Bose Opti-voice paging, Dynamic equalization
Loudspeaker Presets	FreeSpace FS2 and FS4 loudspeakers, High-Pass Filter (HPF)
Audio Latency	10.4 ms - (any input to speaker output or aux output)

AUDIO INPUTS	LINE INPUTS	MIC/LINE INPUTS	PAGE INPUTS	AUXILIARY INPUT
Input Channels	2 unbalanced line	1 balanced mic/line	1 Balanced mic	1 unbalanced line
Connectors	Stereo RCA	Combo XLR - 1/4"	4-pin Euroblock	3.5mm (1/8") TRS
Input Range	-10 dBV - +10 dBV	-60 dBV - +10 dBV	-60 dBV - +10 dBV	0 dBV - +10 dBV
Adjustment Range	-20 dB - +20 dB	0 dB - +50 dB	0 dB - +50 dB	Fixed
Input Impedance	20 kΩ	2 kΩ	2 kΩ	20 kΩ
Maximum Input Level	+10 dBV	+10 dBV	+10 dBV	+10 dBV
Sensitivity	N/A	N/A	N/A	0 dBV
Nominal Input Level	0 dBV	-40 dBV	-40 dBV	0 dBV

AUDIO OUTPUTS	AMPLIFIER OUTPUTS		AUXILIARY OUTPUT	
	FreeSpace IZA 250-LZ	**FreeSpace IZA 190-HZ**	**FreeSpace IZA 250-LZ**	**FreeSpace IZA 190-HZ**
Outputs	2	1	1 unbalanced	1 unbalanced
Connectors, Output	2-terminal barrier strip	3-pin inverted Euroblock	Stereo RCA	Stereo RCA
Output Impedance	4 Ω	N/A	400 Ω	400 Ω
Nominal Output Level	2 x 50 W @ 4Ω (min); 2 x 25	1 x 90 W @ 70/100 V	0 dBV (max)	0 dBV (max)

INDICATORS AND CONTROLS	
LED Status Indicators	Power - blue, Input clip - red (-3 dBFS)
Controls, Front Panel	Power On/Off, Input Select (A/B), Tone Controls (Treble/Bass), Mic/Line Gain, Master Level
Controls, Rear Panel	Amplifier Mode DIP switch, Loudspeaker EQ preset selector, Input Gain (A/B/Page mic), Output trim

ELECTRICAL	
Mains Voltage	100 V AC - 240 V AC (+/- 10%, 50/60 Hz)
AC Power Consumption	15 W (Idle), 200 W (Max)
Mains Connector	Standard IEC (C14)
Maximum Inrush Current	13.9 Amps (230 V / 50 Hz), 7.6 Amps (120 V / 60 Hz)
Overload Protection	High temperature, short

PHYSICAL		
Rack Space Units	1 RU high, half rack wide	
Dimensions	45 mm x 214 mm x 310 mm D (1.8" H x 8.4" W x 12.2")	
	FreeSpace IZA 250-LZ	**FreeSpace IZA 190-HZ**
Shipping Weight	3.0 kg (6.7 lb)	4.1 kg (9.0 lb)
Net Weight	2.2 kg (4.8 lb)	3.2 kg (7.0 lb)
Cooling System	Natural convection	

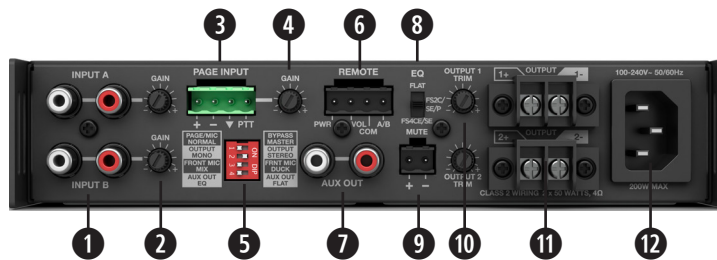| GENERAL	
Inputs (Control)	Remote input for CC-1 volume control (operates with a fixed input B) or CC-2 volume control with A/B source select user interface, Mute input for amplifier muting via contact closure

FreeSpace IZA 250-LZ / 190-HZ
Integrated Zone Amplifier
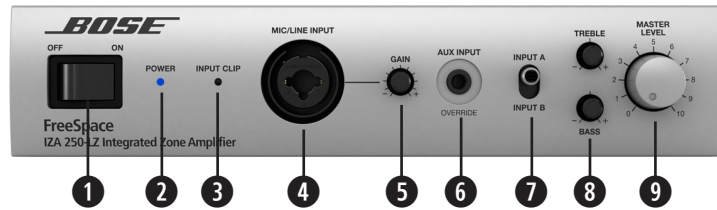
❶ **POWER SWITCH** – ON/OFF AC power

❷ **POWER** – LED indicates if unit is active

❸ **INPUT CLIP** – LED indicates when any input source approaches the threshold value of -3 dBFS

❹ **MIC/LINE INPUT** – Combination balanced XLR-TRS connector for use with dynamic microphones

❺ **MIC/LINE INPUT GAIN** – Allows gain adjustment (0 dB to +50 dB) of microphones connected to the MIC/LINE INPUT

❻ **AUX INPUT** – 3.5 mm (1/8") stereo line-level input connector. Connection mutes INPUT A and INPUT B for priority override

❼ **INPUT A/B*** – Allows selection of rear line-input channels A or B

❽ **TREBLE/BASS** – Allows tonal adjustments of output channels. Provides +/-6 dB adjustment at 7 kHz and 100 Hz

❾ **MASTER LEVEL*** – Controls the overall system volume for both the loudspeakers and the variable AUX OUT connector

*When using a REMOTE connection with the system, the INPUT A/B selector switch and MASTER LEVEL control become disabled

❶ **INPUT A/B** – Two channels of stereo RCA input connectors

❷ **INPUT GAIN** – Allows for -20 dB to +20 dB of adjustment to each INPUT A/B input

❸ **PAGE INPUT** – Euroblock mic/line input with trigger contact closure for use with push-to-talk microphones

❹ **PAGE INPUT GAIN** – Allows for 0 db to +50 dB of gain control of page input signal

❺ **DIP switches** – A bank of four switches set the amplifier configuration

❻ **REMOTE** – Input jack for CC-1 volume control (operates with a fixed input B) or CC-2 volume control with A/B source select user interface.

❼ **AUX OUT** – Variable output line-level signal for routing signal to additional audio equipment

❽ **EQ** – Provides loudspeaker equalization presets for the FreeSpace FS2 and FS4 loudspeakers. Can be set to high-pass filter (HPF) for an amplifier rated frequency response

❾ **MUTE** – Contact closure connection that upon trigger (short) will mute all outputs (including AUX OUT)

❿ **OUTPUT 1 / OUTPUT 2 TRIM** – Allows for up to 20 dB attenuation of the individual loudspeaker outputs relative to the master level

⓫ **OUTPUT** – Speaker connections for up to two 4Ω or 8Ω loudspeaker loads (IZA 250-LZ) or one 3-pin Euroblock for 70/100 V systems (IZA 190-HZ)

⓬ **AC MAINS RECEPTACLE** – AC line voltage input

FreeSpace IZA 250-LZ / 190-HZ
Integrated Zone Amplifier

AC Current Draw and Thermal Dissipation Information

IZA 250-LZ							
Test Signal & Power Level	Load Configuration (Both IZA channels driven)	Total Audio Output, W	120 VAC 60 Hz Line Current, A	230 VAC 50 Hz Line Current, A	Thermal Dissipation, Max		
					Watts	BTU/hr	kCal/hr
Power On, Idling		0	0.3	0.16	37	127	32
1/8th Rated Power IEC268 Bandlimited Pink Noise	8 Ω / Ch	6	0.4	0.23	45	153	39
6 dB Crest Factor FS2C/SE/P EQ Enabled	4 Ω / Ch	13	0.48	0.29	53	181	46
1/3rd Rated Power IEC268 Bandlimited Pink Noise	8 Ω / Ch	17	0.63	0.37	63	215	54
6 dB Crest Factor FS2C/SE/P EQ Enabled	4 Ω / Ch	33	0.9	0.53	87	298	75

IZA 190-HZ							
Test Signal & Power Level	Load Configuration (Both IZA channels driven)	Total Audio Output, W	120 VAC 60 Hz Line Current, A	230 VAC 50 Hz Line Current, A	Thermal Dissipation, Max		
					Watts	BTU/hr	kCal/hr
Power On, Idling		0	0.21	0.17	40	136	34
1/8th Rated Power IEC268 Bandlimited Pink Noise	70V	11	0.46	0.28	53	180	45
6 dB Crest Factor FS2C/SE/P EQ Enabled	100V	11	0.52	0.32	61	210	53
1/3rd Rated Power IEC268 Bandlimited Pink Noise	70V	30	0.89	0.47	78	266	67
6 dB Crest Factor FS2C/SE/P EQ Enabled	100V	30	0.82	0.46	76	259	65

Mechanical Diagrams

286 mm
[11.3]

214 mm
[8.4]

Front View

311 mm
[12.2]
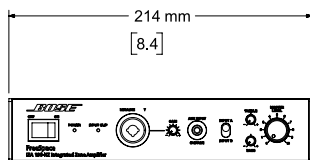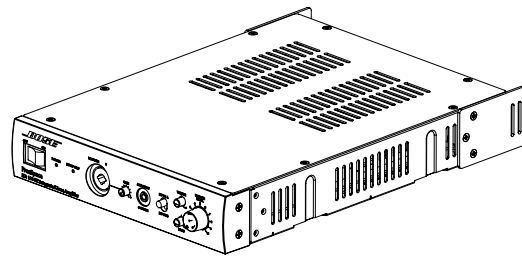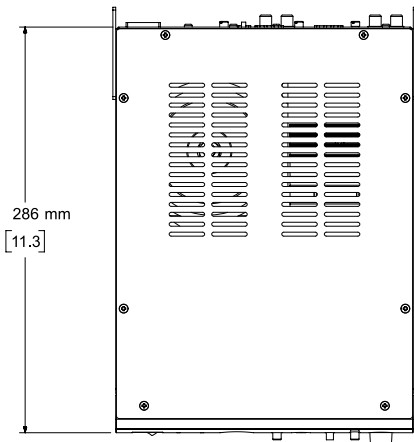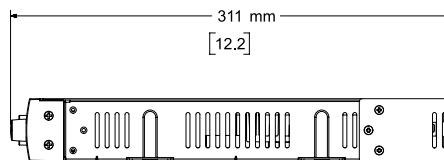
Right View
DIMENSIONS APPLY TO BOTH SIDES

Rear View

44 mm
[1.8]
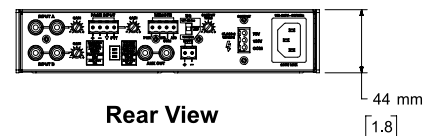
FreeSpace IZA 250-LZ / 190-HZ
Integrated Zone Amplifier

Safety and Regulatory Compliance

FreeSpace IZA 250-LZ / IZA 190-HZ integrated zone amplifiers comply with CE requirements, are cUL listed according to UL/CSA 60065 and UL/CSA 62368-1; CB certified, according to IEC60065 (8th edition) and IEC62368-1 (2nd Edition), including all group and national differences. These models also comply with FCC Part 15B Class A, EN55103-1 (1997), EN55103-2 (1996), and CISPR13 (2003) requirements.

Product Codes

FreeSpace IZA 250-LZ integrated zone amplifier
Product Code Voltage Variant

120V US	344871-1440
230V EU	344871-2440
100V JP	344871-3440
230V UK	344871-4440
240V AU	344871-5440

FreeSpace IZA 190-HZ integrated zone amplifier
Product Code Voltage Variant

120V US	344871-1430
230V EU	344871-2430
100V JP	344871-3430
230V UK	344871-4430
240V AU	344871-5430

Accessories

Rack Mount Kit	353689-0410

ControlCenter CC-1 zone controller

US Black	768932-0110
US White	768932-0210
EU Black	768932-2110
EU White	768932-2210
JP Black	768932-3110
JP White	768932-3210

ControlCenter CC-2 zone controller

US Black	768938-0110
US White	768938-0210
EU Black	768938-2110
EU White	768938-2210
JP Black	768938-3110
JP White	768938-3210