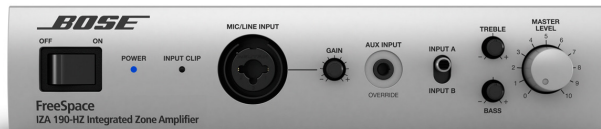


# FreeSpace IZA 250-LZ / 190-HZ

## Integrated Zone Amplifier



### 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.

### 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 user interface allows volume and source selection controls to be placed away from 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

### Applications

Designed for a wide range of applications, including:

- Retail stores
- Restaurants and bars
- Hospitality venues
- Conference centers
- Schools
- Auxiliary zones

# FreeSpace IZA 250-LZ / 190-HZ

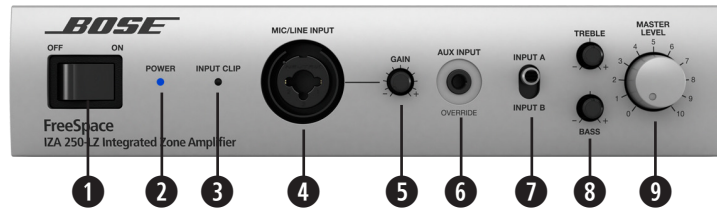
## Integrated Zone Amplifier

### Technical Specifications

| <b>POWER RATING</b>            |  |                             |   |                             |
|--------------------------------|--|-----------------------------|---|-----------------------------|
|                                | <b>FreeSpace IZA 250-LZ integrated zone amplifier</b>  |                             | <b>FreeSpace IZA 190-HZ integrated zone amplifier</b> |                             |
| Amplifier Power                | 2 x 50 W @ 4 Ω, 2 x 25 W @ 8 Ω   |                             | 1 x 90 W @ 70/100 V                                   |                             |
| <b>AUDIO PERFORMANCE</b>       |  |                             |   |                             |
| 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   |                             |
| <b>INTEGRATED DSP</b>          |  |                             |   |                             |
| 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)  |                             |   |                             |
| <b>AUDIO INPUTS</b>            | <b>LINE INPUTS</b>   | <b>MIC/LINE INPUTS</b>      | <b>PAGE INPUTS</b>                                    | <b>AUXILIARY INPUT</b>      |
| 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                       |
| <b>AUDIO OUTPUTS</b>           | <b>AMPLIFIER OUTPUTS</b>   |                             | <b>AUXILIARY OUTPUT</b>                               |                             |
|                                | <b>FreeSpace IZA 250-LZ</b>  | <b>FreeSpace IZA 190-HZ</b> | <b>FreeSpace IZA 250-LZ</b>                           | <b>FreeSpace IZA 190-HZ</b> |
| 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)                 |
| <b>INDICATORS AND CONTROLS</b> |  |                             |   |                             |
| 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  |                             |   |                             |
| <b>ELECTRICAL</b>              |  |                             |   |                             |
| 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  |                             |   |                             |
| <b>PHYSICAL</b>                |  |                             |   |                             |
| 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")  |                             |   |                             |
|                                | <b>FreeSpace IZA 250-LZ</b>  |                             | <b>FreeSpace IZA 190-HZ</b>                           |                             |
| 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   |                             |   |                             |
| <b>GENERAL</b>                 |  |                             |   |                             |
| 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 |                             |   |                             |

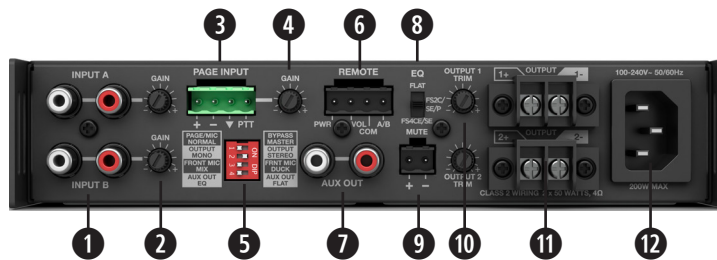
# FreeSpace IZA 250-LZ / 190-HZ

## Integrated Zone Amplifier



- 1 **POWER SWITCH** - ON/OFF AC power
- 2 **POWER** - LED indicates if unit is active
- 3 **INPUT CLIP** - LED indicates when any input source approaches the threshold value of -3 dBFS
- 4 **MIC/LINE INPUT** - Combination balanced XLR-TRS connector for use with dynamic microphones
- 5 **MIC/LINE INPUT GAIN** - Allows gain adjustment (0 dB to +50 dB) of microphones connected to the MIC/LINE INPUT
- 6 **AUX INPUT** - 3.5 mm (1/8") stereo line-level input connector. Connection mutes INPUT A and INPUT B for priority override
- 7 **INPUT A/B\*** - Allows selection of rear line-input channels A or B
- 8 **TREBLE/BASS** - Allows tonal adjustments of output channels. Provides +/-6 dB adjustment at 7 kHz and 100 Hz
- 9 **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



- 1 **INPUT A/B** - Two channels of stereo RCA input connectors
- 2 **INPUT GAIN** - Allows for -20 dB to +20 dB of adjustment to each INPUT A/B input
- 3 **PAGE INPUT** - Euroblock mic/line input with trigger contact closure for use with push-to-talk microphones
- 4 **PAGE INPUT GAIN** - Allows for 0 db to +50 dB of gain control of page input signal
- 5 **DIP switches** - A bank of four switches set the amplifier configuration
- 6 **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.
- 7 **AUX OUT** - Variable output line-level signal for routing signal to additional audio equipment
- 8 **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
- 9 **MUTE** - Contact closure connection that upon trigger (short) will mute all outputs (including AUX OUT)
- 10 **OUTPUT 1 / OUTPUT 2 TRIM** - Allows for up to 20 dB attenuation of the individual loudspeaker outputs relative to the master level
- 11 **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)
- 12 **AC MAINS RECEPTACLE** - AC line voltage input

# FreeSpace IZA 250-LZ / 190-HZ

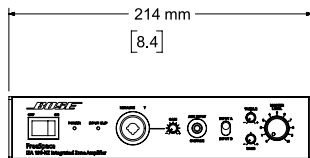
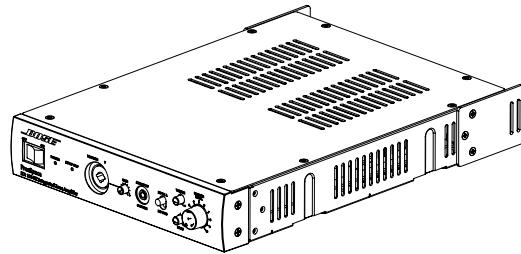
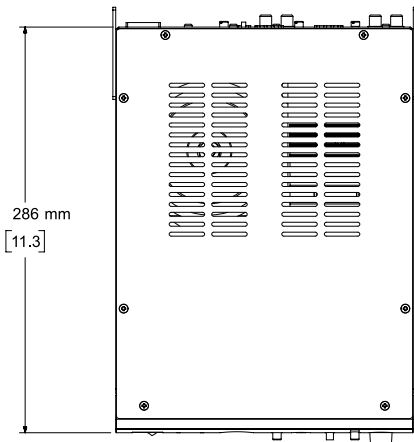
## Integrated Zone Amplifier

### AC Current Draw and Thermal Dissipation Information

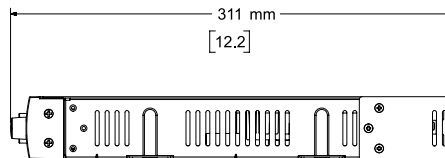
| IZA 250-LZ   |  |                       |                               |                               |                          |        |         |
|--|--|-----------------------|-------------------------------|-------------------------------|--------------------------|--------|---------|
| Test Signal & Power Level  | Load Configuration<br>(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 |
| <b>Power On, Idling</b>  |  | 0                     | 0.3                           | 0.16                          | 37                       | 127    | 32      |
| <b>1/8th Rated Power</b><br>IEC268 Bandlimited Pink Noise<br>6 dB Crest Factor<br>FS2C/SE/P EQ Enabled | 8 Ω / Ch   | 6                     | 0.4                           | 0.23                          | 45                       | 153    | 39      |
|  | 4 Ω / Ch   | 13                    | 0.48                          | 0.29                          | 53                       | 181    | 46      |
| <b>1/3rd Rated Power</b><br>IEC268 Bandlimited Pink Noise<br>6 dB Crest Factor<br>FS2C/SE/P EQ Enabled | 8 Ω / Ch   | 17                    | 0.63                          | 0.37                          | 63                       | 215    | 54      |
|  | 4 Ω / Ch   | 33                    | 0.9                           | 0.53                          | 87                       | 298    | 75      |

| IZA 190-HZ   |  |                       |                               |                               |                          |        |         |
|--|--|-----------------------|-------------------------------|-------------------------------|--------------------------|--------|---------|
| Test Signal & Power Level  | Load Configuration<br>(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 |
| <b>Power On, Idling</b>  |  | 0                     | 0.21                          | 0.17                          | 40                       | 136    | 34      |
| <b>1/8th Rated Power</b><br>IEC268 Bandlimited Pink Noise<br>6 dB Crest Factor<br>FS2C/SE/P EQ Enabled | 70V  | 11                    | 0.46                          | 0.28                          | 53                       | 180    | 45      |
|  | 100V   | 11                    | 0.52                          | 0.32                          | 61                       | 210    | 53      |
| <b>1/3rd Rated Power</b><br>IEC268 Bandlimited Pink Noise<br>6 dB Crest Factor<br>FS2C/SE/P EQ Enabled | 70V  | 30                    | 0.89                          | 0.47                          | 78                       | 266    | 67      |
|  | 100V   | 30                    | 0.82                          | 0.46                          | 76                       | 259    | 65      |

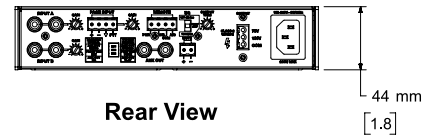
### Mechanical Diagrams



Front View



Right View  
DIMENSIONS APPLY TO BOTH SIDES



Rear View

# 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 |