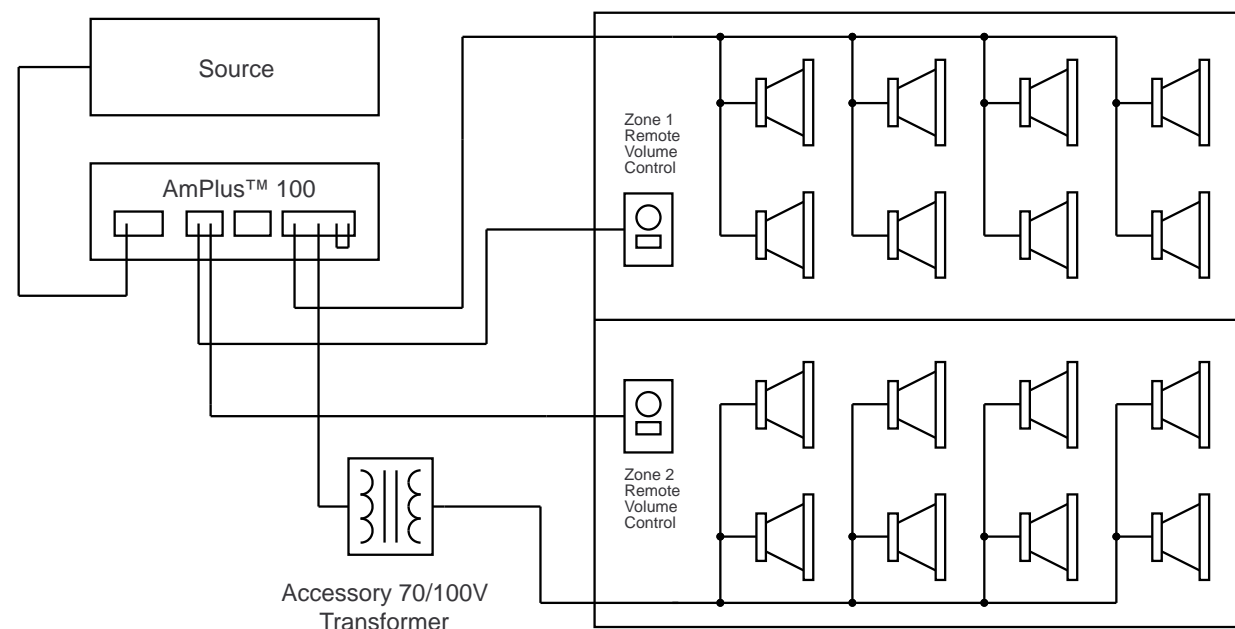
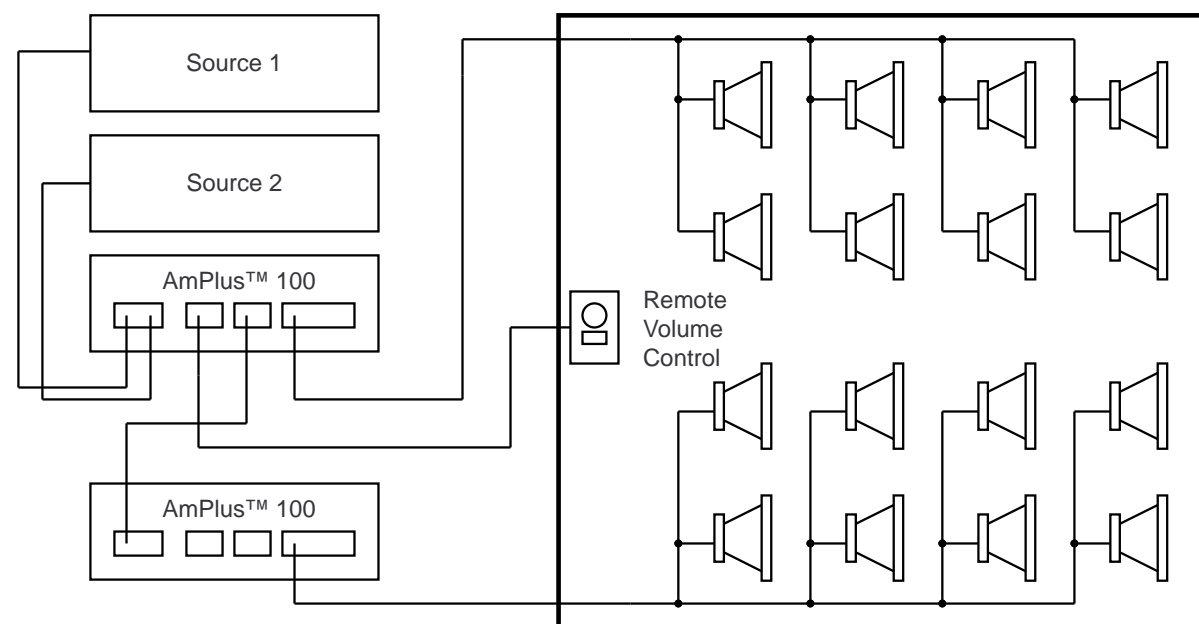


AmPlus 100™ Amplifier With Two 70V/100V Zones Installation



AmPlus 100 Amplifier Large Monophonic Installation



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JN97811 PN187933 Rev. 00 AM187933 Rev. 00 PC019040



AmPlus™ 100 Business Music Amplifier

General Description

The Bose AmPlus 100 business music amplifier is a 100 watt amplifier that satisfies a wide variety of applications in the commercial marketplace. The AmPlus 100 amplifier is a 2-channel, multipurpose amplifier used in powering the FreeSpace® Model 8, Model 25, Model 32, and Bose 102® loudspeakers as well as powering low impedance loudspeakers like the Model 1B Acoustimass® module, the 203™ loudspeaker, and the FreeSpace 6 loudspeakers.

Mechanical Specifications

Desk mount
17"W x 10"D x 3¾"H
(43.2 cm (W) x 25.4 cm (D) x 9.52 cm (H))
Rack mount – chassis supported
19"W x 10"D x 3¾"H
(48.3 cm (W) x 25.4 cm (D) x 9.52 cm (H))

Components

The AmPlus 100 business music amplifier has front end processing permitting the connection and level adjustment of two sources: left/right or source A/source B. Power hookup, remote volume hookup, line output connections, and provision for bass adjustment are provided on the rear panel.

Option card accessories offer the freedom to add additional sources, paging, or active equalization. Source or paging cards may be plugged into option card slots provided on the rear panel. Active equalization can be implemented by removing the chassis cover and connecting the equalizer card directly to the power amplifier.

System Configuration

Detailed installation and system design guidelines are provided in the *Bose® AmPlus™ 100 and AmPlus 50 Business Music Amplifier Installer's Guide*.

Warranty Information

5 FIVE YEAR WARRANTY
The AmPlus 100 business music amplifier is covered by a five-year, transferable limited warranty.

Technical Specifications

Power Output

Stereo: 65W per channel into 4Ω
50W into 8Ω
70V Bridged Mono: 100W into 49Ω
100V Bridge Mono: 100W into 98Ω
70V/4Ω: 50W @ 70V output into 98Ω
65W @ Ch. 2 output into 4Ω
100V/4Ω: 50W @ 70V output into 196Ω
65W @ Ch. 2 output into 4Ω

Input Sensitivity
315mV required to drive both channels to full power in any mode.

Input Attenuation
0dB to off

Input/Output Configurations

- 2-channel (stereo)
- Mono into 4Ω load
- Mono into 70V/100V load
- Dual-Mono (1 source/2 zones)
- Channel 1: 70V/100V; Channel 2: 4Ω

Input Impedance
32kΩ balanced
11kΩ unbalanced

Line Output Impedance
600Ω

Line Output Distortion
≤0.1%

Frequency Response
(active EQ bypassed)
4Ω outputs: 40Hz – 16kHz, ±1dB
70V outputs: 60Hz – 16kHz, ±1dB

THD @ Rated Power
4Ω outputs: ≤1% THD (40Hz – 16kHz)
70V outputs: ≤1% THD (60Hz – 16kHz)

Hum and Noise
Line outputs: 92dB
Power amplifier outputs: 80dB below maximum output with 4Ω load

LED Indicator
Power: front panel

Controls

- Inputs 1 and 2
- Input attenuation
- Remote volume
- Bass adjust 1 and 2
- Input mode switch
- Amplifier mode switch
- Front panel power switch

AC Power Consumption
120V-AC, 50/60Hz, 350W maximum
220-240V-AC, 50/60Hz, 350W maximum

Operating Temperature Range
(passively cooled top and bottom vents)
12° F to 120° F (-10° C to +50° C)

Special Features

- Remote volume control
- Turn on/off muting
- Clip detector and limiter
- Short circuit protection
- DC offset protection
- Thermal limiting
- Stable into reactive loads
- RFI protection
- International safety approvals under UL-6500, CSA-E65, IEC-65. EMC CE compliance

Option Card Accessories

- Equalizer (EQ) cards for these loudspeakers: Model 8, Model 25, and Model 32, and for the Model 1B Acoustimass module
- Opti-Source™ card
- Opti-voice® page card

Terminations

Inputs and outputs are quick connect terminal blocks

Weight
20 lb (9.1 kg)

Associated equipment
Rack mount kit
70V/100V transformer for Channel 2

Features, Functions, and Benefits for the Business Owner

Features	Functions	Benefits
Patented Bose® signal processing technology.	High-fidelity, natural sound at all volume levels.	Technology built in to the AmPlus 100™ ensures natural, lifelike sound, no matter how loud or how soft your system is played.
Remote volume control.	Controls the volume of the entire system.	The controls on the amplifier are kept to a minimum. To ensure ease of use in day-to-day operations, the amplifier comes with a remote volume control.
Five-year warranty.	An amplifier you can count on.	The system is designed for maximum reliability. The system goes through rigorous testing by Bose to ensure that it will meet the toughest requirements. As an indication of our confidence in this system's reliability, the AmPlus 100 amplifier is covered by a five-year transferable warranty.
Dynamic range compensation.	Appropriate sound level regardless of variations in the source material.	Digital recordings have a wide dynamic range — there can be great loudness variation between passages of loud and soft music on one CD. Bose technology ensures that the music your customers hear is neither annoyingly loud nor too soft.
A range of amplifiers from which to choose.	An amplifier that gives you the amount of power you need — no more and no less.	Your Bose expert will design a system for you that meets your needs. This includes choosing either the AmPlus 100 amplifier, AmPlus 50 amplifier, or Bose 1800 amplifier to deliver the right amount of power for your specific application.
Optional accessories are available for added functionality.	An amplifier that gives you exactly the functionality you need.	The AmPlus 100 amplifier comes with the ability to connect to one source. Additional sources, paging, and active equalization are added as needed; customers do not pay for functions they do not need.
Opti-voice® paging.	Appropriate sound level regardless of the level of variations in speech.	The AmPlus 100 amplifier can send paging to the zones where you require it. Paging is clear and intelligible. Page signals are electronically filtered to eliminate microphone handling noise. Music gradually returns to the original level after paging for a smooth transition.
Rack mount accessory kit.	Easy to install.	The amplifier can be desk or shelf mounted. It can be rack mounted using a specific rack mount accessory kit.

Engineers' and Architects' Specifications

The power amplifier shall deliver the following Watts of continuous power with less than 1% distortion from 20Hz to 20kHz (direct).

Stereo: 65W per channel into 4Ω
 70V/100V Bridged Mono: 100W into 49Ω/98Ω
 70V/4Ω: 50W @ 70V outputs into 98Ω
 65W @ Ch. 2 outputs into 4Ω
 100V/4Ω: 50W @ 100V into 196Ω
 65W @ Ch. 2 outputs into 4Ω

The signal-to-noise ratio shall be greater than 80dB.

The frequency response shall be the following:

4Ω outputs: 40Hz – 16kHz, ±1dB
 70V/100V outputs: 60Hz – 16kHz, ±1dB

The power amplifier shall have the following controls on the rear panel: two inputs, input attenuation, remote volume control, bass adjust, input mode switch, and amplifier mode switch. The only control on the front panel shall be the power ON/OFF switch. All input and output connectors shall be quick connect terminal blocks. The amplifier shall accept equalization cards for the Bose Model 8, Model 25, Model 32, and Model 1B loudspeakers. It shall also accept optional plug-in cards facilitating paging and additional sources.

The power amplifier shall operate on 120V-AC, 50/60Hz or 220-240V-AC, 50/60Hz and consume 2.0 Amperes at rated output. It shall be desk/shelf mounted or rack mounted using a specific rack mount kit. The power amplifier shall be 17" (43.2 cm) wide x 10" (25.4 cm) deep x 3.75" (9.52 cm) high. The power amplifier shall weigh 20 pounds (9.2 kg).

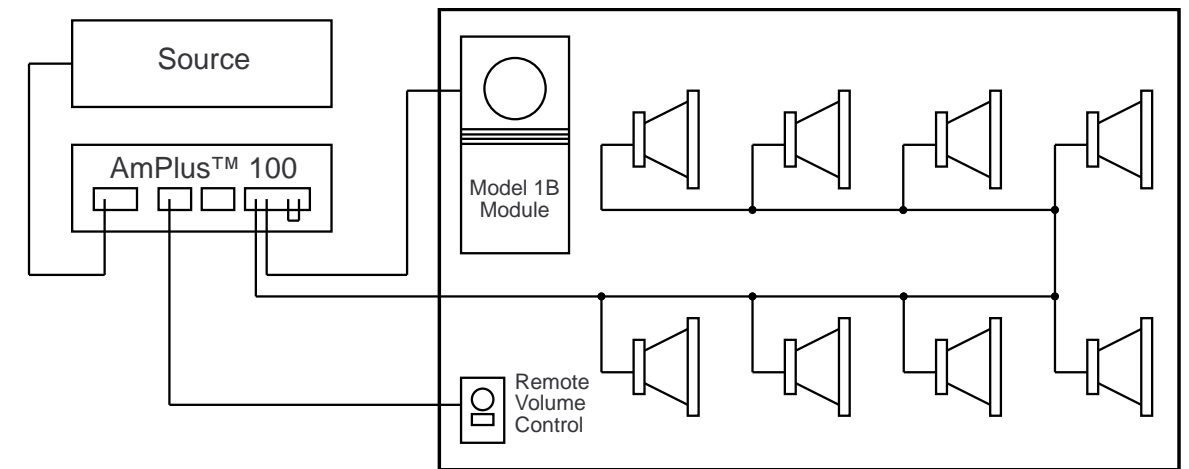
The amplifier enclosure shall be zinc plated or pre-coated and finished in professional grey.

The power amplifier shall be the Bose AmPlus 100 business music amplifier.

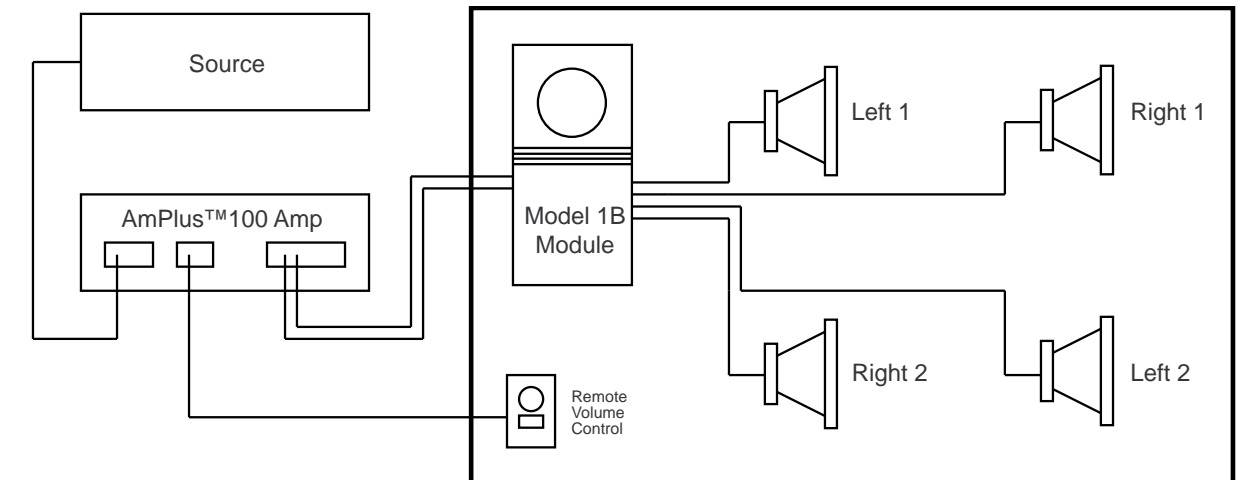
U.L. Certification

The Bose AmPlus 100 business music amplifier meets all regulatory standards for an amplifier.

AmPlus™ 100 Amplifier 70V/100V Model 1B Installation



AmPlus 100 Amplifier Direct-coupled Model 1B Installation



AmPlus 100 Amplifier Simple Monophonic Installation

