

BMS-1032

Background Music System

FSR

Audio Products Group



DIGITAL AUDIO

FSR

POWER

BACKGROUND MUSIC SYSTEM

BMS-1032

Now you can select between 10 stereo audio sources from an elegant wall plate. Utilizing a single CAT-5 cable the digital stereo audio and control signals can be transmitted and distributed up to 32 rooms per system.

The Background Music System works in conjunction with all distributed music systems (AEI, DMX, Muzak), as well as any audio source (i.e.: CD, DVD, etc.). The system is designed for "sky boxes"; luxury suites; small salons; professional offices (doctors, lawyers, commercial suites); cruise ships; tanning salons; fitness centers; language labs; and just about any space that wants selection of multiple background audio sources.

SYSTEM COMPONENTS:

1. A rack or shelf mount chassis, 2 rack units high. This chassis will accommodate the main audio input card and up to eight stacking 4-room output cards. Up to 32 rooms will be handled in this unit.
2. An audio control plate (2-gang) is provided for each room. The headphone jack allows for private listening (if desired). There are two sets of up/down buttons which control volume and channel selection. Numbers 0 through 9 are in the main system, and "L" selects the "local" units.
3. The power supply(s) is provided with the system.

SYSTEM FEATURES:

1. Cost-effective CAT-5 cable connects your system to each room.
2. The paging system will function even if no audio source is selected.
3. Sends digital line level stereo audio to all rooms up to 32 rooms per system (can output mono signal also).
4. Two-gang wall plate in each room controls volume, channel selection and page programming.
5. The wall plate outputs stereo line level audio to the contractor supplied powered speakers or local amp and speaker system in each room or can drive two 8 ohm speakers with a RMS of 2.5w per channel.
6. A local audio input (personal CD player or tape player) can also be connected in each room and selected from the wall plate. The wall plate can control volume of the local device and allow paging through the speakers, even when the music is turned off.
7. Each wall plate homeruns directly to the main unit via one CAT 5 cable. If the wall plate is to power speakers then the cable run is up to 500 ft. from the main system. If you use the line level output of the wall plate then you can run the wall plate up to 1000 ft. from the main unit.

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TECHNICAL SPECIFICATIONS

MAIN UNIT

Music Audio Inputs:

Input Type: Stereo Unbalanced
 Input Impedance: 10k ohm
 Nominal Input Level: 0dBV/0.775 VRMS
 Max Input Level Before Clipping: +12dBV/2.9 VRMS
 (with trim control set to unity)
 Input Trim Control Range: -20 to 6dB
 Crosstalk: -95dB
 Max Number of inputs: 1-10 user selectable via rear panel rotary selector plus 1 local input at wall plate.

D/A Converter Performance:

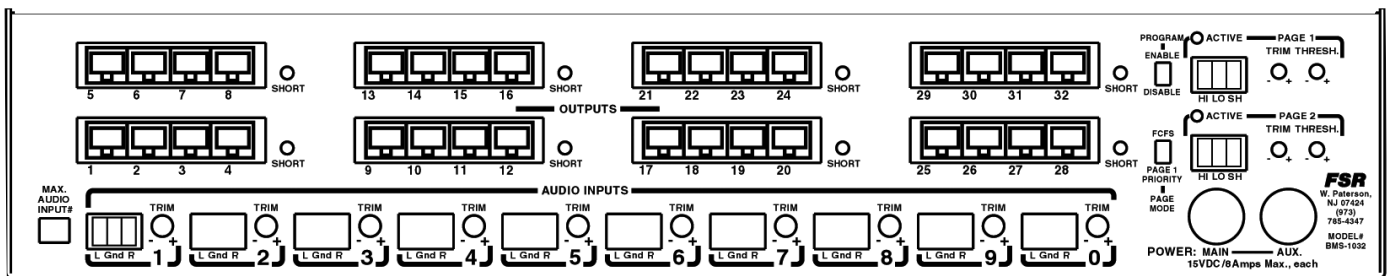
Resolution: 18 bits
 Sample rate: 44.1k samples/second (CD quality)
 Dynamic range: 94dB
 Conversion Method: 128x oversampling delta-sigma modulator with digital anti-alias filtering

Audio Transmission Method:

AES-3 digital encoding

Page Audio Inputs:

Input Type: Mono Balanced
 Input Impedance: 20 k ohm
 Nominal Input Level: 0dBV/0.775 VRMS
 Max Input Level Before Clipping: +12dBV/2.9 VRMS
 (with trim control set to unity)
 Input Trim Control Range: -20 to 14dB
 Crosstalk: -85dB
 Page Detection Threshold: -25 to -5dBV (this is the level required to trigger a page with trim set to unity)
 Page Detection Delay: 50 milliseconds max
 Page Hold Time: 2 seconds (internally adjustable from 0.1 to 8 seconds)
 Number of Page Inputs: 2, may be enabled in any combination by programming each wall plate.

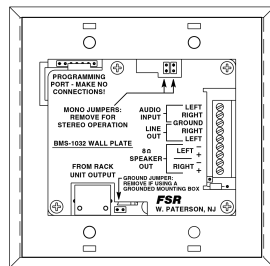


WALL PLATES

Volume control range: -40 to 0 dB

Local Audio Input:

Local Input: Stereo Unbalanced
 Local Input Gain: 10db fixed
 Nominal Local Input Level: -10dBV/0.25VRMS
 Max Local Input Level: +dBV/1.0VRMS



Audio Output:

Line Output: Stereo Unbalanced
 Gain: Unity with respect to rack audio inputs, when rack trim control is set to unity and wall plate volume is set to max.
 Distortion: 0.065% @ 1VRMS, 1kHz, 1k load wall plate volume max. (typical)

Speaker Output:

Power 0.75 watts/channel RMS 2.5 watts/channel music power.
 Speaker Impedance: 8 ohm recommended
 Distortion: 0.3% @ 0.75 watts into 8 ohms 20Hz-20kHz.

Mono Jumper:

When installed, sums left & right rack audio, and feeds it to both left & right outputs. Local inputs remain stereo-bridge them separately for mono operation.

Headphone Output:

1/8" jack provided for connection to 16-32 ohm headphones. Headphones are automatically sensed, and disable line and speaker outputs when plugged in. Page audio unconditionally overrides this feature reenabling all outputs for the duration of the page.

Mechanical:

Main Unit

Size: 19" wide x 3.5" high (2RU) x 12" deep
 Mounting: Standard rack mounting

Wall Plates

Size: 4.5" wide x 4.5" high x 2.5" deep
 Mounting: fits standard 2 gang electrical wall box with 4 screws
 Switches: Membrane
 Connector: RJ45
 Cable: 4 pair 24 awg solid Cat-5 shielded cable, Belden 1584A or equivalent

Power Supply (supplied with system):

Size/Mounting: Wall mount
 Input Power: Auto ranging 100-20VAC/
 200-240VAC at 3.2 amps
 Interconnect: 8 foot cable supplied,
 5 conductor stranded

APPLICATION NOTES

