BMS-2

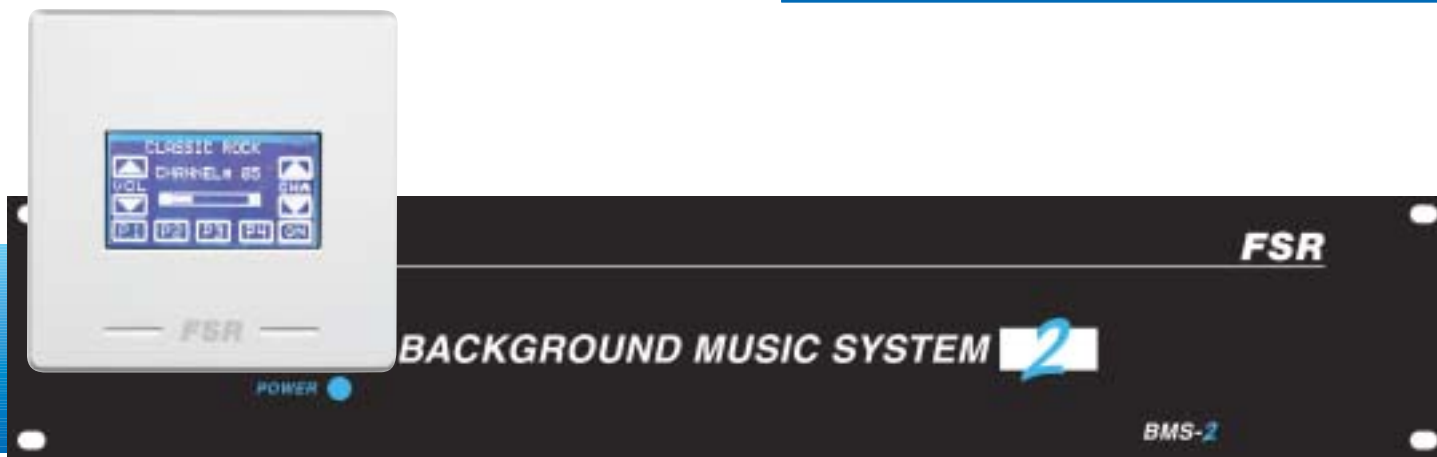## Centralized
Background Music System

FSR
Audio Products Group

The BMS-2 Centralized Background Music System offers an efficient and economical method of providing user-friendly control of stereo audio source distribution and paging. Now up to 12 audio sources can be selected from elegant touch wallplates in up to 32 output zones. The user can define or change custom source input names with simple wallplate programming.

This robust system is scaleable and only the required number of wallplates need be ordered. Audio sources and amplifiers can be placed and terminated in the same location as the BMS-2 Centralized Base Unit. Only power and control signals are present on the wallplate cabling.

The BMS-2 touch wallplate is the setup and operating interface for both the installer and user. Both zone and system level setup menus are conveniently accessed from any wallplate in the system. During normal operation the user can control audio source selection and volume for that location. There are also 4 user configurable preset buttons per zone for fast selection of favorite program channels.

The touch wallplates can be wired in a daisy chain or home run fashion. Up to 10 wallplates can be daisy chained in any single cable run of 750 feet or less.

A very flexible paging structure allows for independent page options within the BMS-2 system environment. A priority page input overrides normal program audio and can be used for important announcements or scheduled pre-recorded messages.

The BMS-2 works in conjunction with all distributed music systems (DMX, MUZAK) as well as any audio source (CD, DVD, etc.). The system is designed for: luxury suites; sky boxes; small salons; professional offices; cruise ships; tanning salons; fitness centers; language labs; and just about any space that requires the selection of multiple background audio sources.

SYSTEM COMPONENTS:

1. The Base Unit chassis is available in two models: The BMS-2-16CH for up to 16 audio output zones or the BMS-2-32CH for up to 32 audio output zones. The required number of BMS-2-OPC8 eight zone audio output cards are ordered to populate either chassis as needed.
2. Touch Wall Plates (2 gang) are ordered separately and are the local user interface for room audio control.This user-friendly panel has up/down "buttons" that control volume, channel selection and preset selection. It also displays volume level, channel name and channel number. There can be two wallplates per room and up to 50 wallplates per system.
3. A UL listed power supply is included with the system.

SYSTEM FEATURES:

- Two pair standard control cable connects your system to each room.
- The paging system will function even if no audio source is selected or wallplate is off.
- Upscale touch screen panel in each zone controls volume, channel selection, all system and zone set ups, and page programming.
- User can program and select 4 music/volume input presets.
- The BMS-2 base unit outputs stereo or mono (user selectable per zone) line level audio to the local amp and speaker system for each room.
- Each touch wallplate may be "daisy chained" or "home run".
- Remote control via RS-232 or optional Ethernet/ imbedded Webserver control options.

FSR Inc.

TECHNICAL SPECIFICATIONS

MAIN UNIT

Music Audio Inputs:

Input Type:	Stereo Unbalanced
Input Impedance:	10k ohm
Nominal Input Level:	0dBu/0.775 VRMS
Max Input Level	
Before Clipping:	+13dBu/3.5 VRMS
Input Trim	
Control Range:	-5 to +15dB
Crosstalk:	-90 dB @ 1 kHz
Stereo Separation:	-80 dB @ 1 kHz
Max Number	
of inputs:	12
Main Volume Range:	-45 to +5 dB plus Mute (controllable from wall plate)

Audio Output:

Zone Output:	Stereo Balanced
Gain:	Unity
Distortion:	0.065% @ 1Khz +20 dBu out
Max Audio Output:	22dBu
Max # of Outputs:	32 in increments of 8

Page Audio Inputs:

Input Type:	Mono Balanced
Input Impedance:	50 k ohm
Nominal Input Level:	0dBu/0.775 VRMS
Max Input Level	
Before Clipping:	+12dBu/2.9 VRMS
Input Trim Control	
Range:	-5 to 15dB
Crosstalk:	-85dB
Page Detection	
Threshold:	-20 to -0dBu (this is the level required to trigger a page)
Page Detection Delay:	50 milliseconds max
Page Hold Time:	2 seconds
Number of	
Page Inputs:	2, may be enabled in any combination by programming each wall plate.

Mechanical:
Main Unit

Size:	19″ wide x 3.5 ″ high (2RU) x 12″ deep
Mounting:	Standard rack mounting
Weight:	Chassis 16 lbs.
	Wall plate 0.7 lbs.
	Power supply 2 lbs.

Remote Control Port- RS-232 optional Ethernet/imbedded Webserver
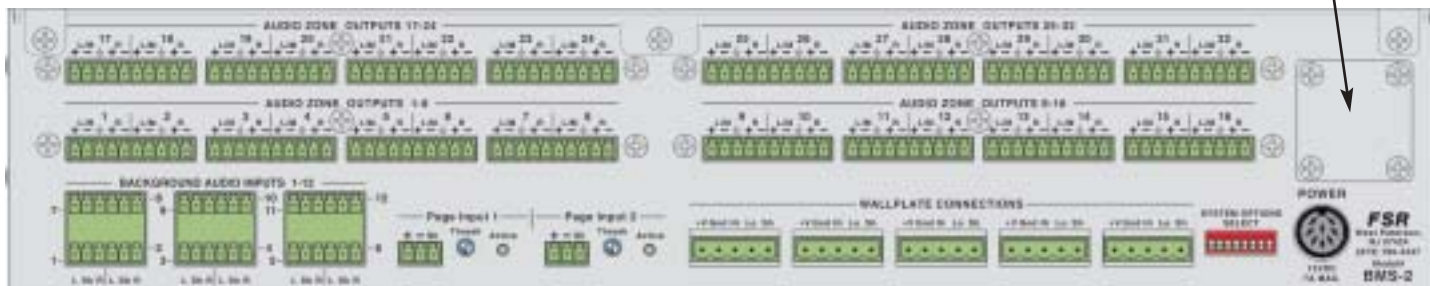
WALL PLATES

Size:	4.625″ wide x 4.625″ high x 1″ deep
Mounting:	fits standard 2 gang electrical wall box with 4 screws
Switches:	Touch panel
Connector:	5 pin screw down connectors
Cable:	2 twisted pair with an overall shield. West Penn 3651 for 22 ga. West Penn 3751 for 18 ga. or equivalent. See chart in manual for details.

Power Supply (supplied with system):

Size/Mounting:	Desktop
Input Power:	Auto ranging 100-20VAC/200-240VAC at 3.2 amps
Interconnect:	IEC 320 inlet with 8 ft. power cord supplied, preterminated 4 ft. low voltage input cord.

APPLICATION NOTES

FSR
BMS-2 BACKGROUND MUSIC SYSTEM

TYPICAL APPLICATION