

# LS9

## Digital Mixing Console



### LS9-32



LS9-32 Rear Panel

StageMix REV-X MIDI MY16



### LS9-16



LS9-16 Rear Panel

StageMix REV-X MIDI MY16 12U

## *Lightweight, compact, all-in-one digital mixers with advanced features and outstanding sound quality.*

- 32 or 16 mono mic/line input channels plus 4 stereo input channels, expandable up to 64 or 32 channels in two layers.
- 16 mix buses, 8 matrix buses, plus stereo and mono buses with LCR mode.
- Top-performance analog mic/line preamplifiers.
- Compact and light enough for one person to move and set up easily.
- Yamaha Selected Channel interface allows smooth, intuitive access to detailed channel functions via a color LCD display and logically arranged encoders.
- Extensive gating, compression, and equalization facilities.
- Built-in USB memory recorder/player for recording or BGM playback.
- Virtual Rack packed with effects and EQ for just about any processing requirements.
- Scene memory for instant store and recall of all console parameters, including head amp gain.
- Advanced access management includes user keys (standard USB memory devices) that can be issued with different access levels for different users.
- LS9 Editor Software for enhanced operability and programmability.

### OPTIONS

#### RK-1

Rack-mount Kit for LS9-16



#### LA1L

Gooseneck Lamp

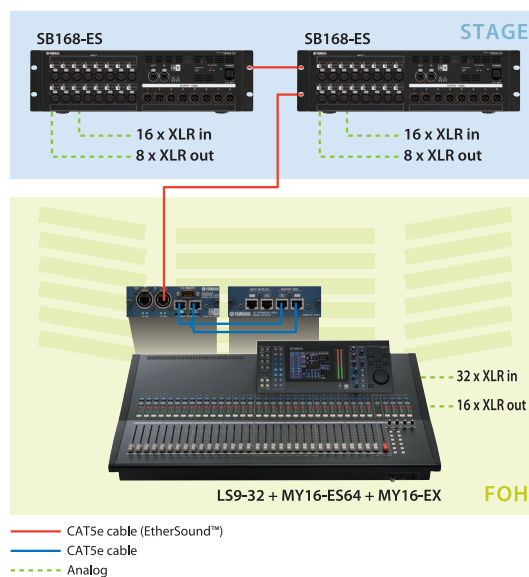


### SYSTEM EXAMPLE

#### **Small / Medium Scale Live Sound System with LS9-32**

This example depicts a live sound system built around an LS9-32 console. This system offers 32 inputs/16 outputs on stage, with additional 32 inputs/16 outputs available at the FOH position.

The two stage boxes and the LS9-32 are daisy-chained using CAT5e cables. SB168-ES dedicated Quick Setup feature within the AVS-ESMonitor software allows quick and easy configuration of your setup. You can use the SB168-ES head amp remote function from the LS9-32 to control microphone gain.



#### LS9 StageMix for iPad®

##### Speedy Monitor Setup from Stage or Audience Position

LS9 StageMix is an application for the Apple iPad that allows remote control of LS9 mix functions via a simple, intuitive graphical interface. Monitor mixes can be quickly and accurately set up from the performers' positions on stage, or from audience seating.

\* LS9 StageMix can be downloaded from the Apple App Store at no charge.  
\* iPad, Apple, and the Apple logo are registered trademarks of Apple Inc., registered in the U.S. and other countries.



StageMix



#### Yamaha Console File Converter

Yamaha Console File Converter can be downloaded from the Yamaha pro audio website at no charge.

The Yamaha Console File Converter is a software application that converts between PM5D and M7CL, and between M7CL and LS9 console file formats, providing data compatibility between these consoles. A PM5D or LS9 can be brought in to replace an M7CL, for example, using the mixing data that was originally created on the M7CL. The Yamaha Console File Converter provides long-awaited data compatibility for PM5D, M7CL, and LS9 users.



##### Features

- Converts between PM5D and M7CL, and between M7CL and LS9 file formats
- Converts parameters for multiple scenes (including HA and Ch Name)
- Parameters that exist on the target console but not on the source console are set to their default values
- Three conversion options
- Windows and Mac versions: the Windows version will be released first, closely followed by the Mac version

## GENERAL SPECIFICATIONS

Internal processing	32bit (Accumulator=58bit)
Number of scene memories	300
Sampling frequency rate	Internal : 44.1kHz, 48kHz External: 44.1kHz (-10%) to 48kHz (+6%)
Signal Delay	Less than 2.5 ms CH INPUT to OMNI OUT (@fs=48kHz)
Total harmonic distortion* <sup>1</sup> CH INPUT to OMNI OUT Input Gain=Min.	Less than 0.05% 20Hz to 20kHz @+4dBu into 600Ω
Frequency response CH INPUT to OMNI OUT	+0.5, -1.5dB 20Hz to 20kHz @+4dBu into 600Ω
Dynamic range (maximum level to noise level)	110dB typ, DA Converter (OMNI OUT) 108dB typ, AD+DA (to OMNI OUT)
Hum & noise level* <sup>2</sup>	-128dBu Equivalent Input Noise (20Hz to 20kHz, Rs=150Ω, Input Gain=Max) -84dBu residual output noise
Crosstalk (@1kHz) Input Gain=Min.	-100dB* <sup>3</sup> , -80dB, Adjacent Input Channels -100dB* <sup>3</sup> , -80dB, Input to Output
Phantom Power	+48V
Power requirements	AC110V-240V, 50/60Hz
Power consumption	LS9-32: 170W, LS9-16: 95W
Dimensions (W x H x D)	LS9-32: 884 x 220 x 500mm (34.8" x 8.6" x 19.6") LS9-16: 480 x 220 x 500mm (18.9" x 8.6" x 19.6")
Weight	LS9-32: 19.4kg (42lbs) LS9-16: 12.0kg (26lbs)

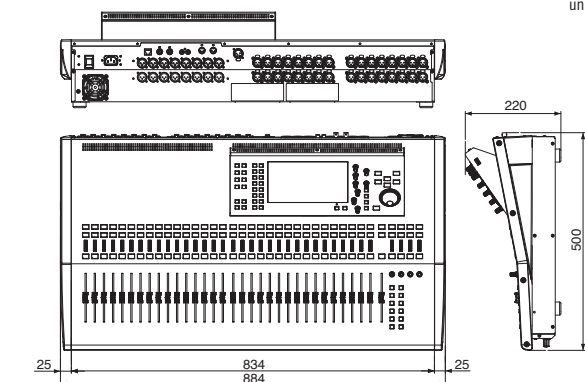
\*1 Total harmonic distortion is measured with a 18dB/Oct filter @80kHz.

\*2 Hum & noise level is measured with a 6dB/oct filter @12.7kHz; equivalent to 20kHz filter with infinite dB/Oct attenuation.

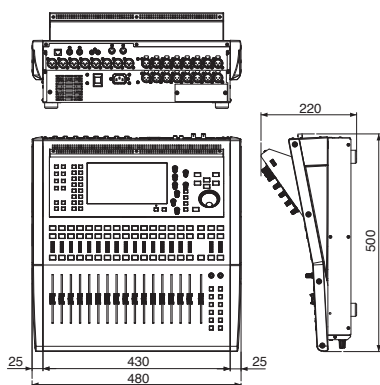
\*3 Crosstalk is measured with a 30 dB/octave filter @22kHz.

## DIMENSIONS

unit : mm



LS9-32



LS9-16

## ANALOG INPUT SPECIFICATIONS

Input terminal	GAIN	Actual source impedance	For use with nominal	Input level			Connector
				Sensitivity	Nominal	Max. before clip	
INPUT 1-n * <sup>1</sup>	-62dB	3kΩ	50-600Ω Mics & 600Ω Lines	-82dBu	-62dBu	-42dBu	XLR3-31 type*
	+10dB			-10dBu	+10dBu	+30dBu	

\*1. LS9-32: n=32, LS9-16: n=16

## ANALOG OUTPUT SPECIFICATIONS

Output terminal	Actual source impedance	For use with nominal	GAIN SW	Output terminals		Connector
				Nominal	Max. before clip	
OMNI OUT 1-n * <sup>1</sup>	75Ω	600Ω Lines	+24dB	+4dBu	+24dBu	XLR3-32 type*
			+18dB	-2dBu	+18dBu	
PHONES	15Ω	8Ω Phones	—	75mW	150mW	ST Phone Jack**
		40Ω Phones	—	65mW	150mW	

\*1. LS9-32: n=16, LS9-16: n=8

## DIGITAL INPUT SPECIFICATIONS

Terminal	Format	Data length	Level	Connector
2TR IN DIGITAL	IEC60958	24bit	0.5Vpp/75Ω	RCA Pin jack

## DIGITAL OUTPUT SPECIFICATIONS

Terminal	Format	Data length	Level	Connector
2TR OUT DIGITAL	IEC60958 (Consumer Use)	24bit	0.5Vpp/75Ω	RCA Pin jack

## CONTROL I/O SPECIFICATIONS

Terminal		Format	Level	Connector
NETWORK (Ethernet)		100Base-T	100Base-T	RJ-45
MIDI	IN	MIDI	—	DIN Connector 5P
	OUT	MIDI	—	DIN Connector 5P
WORD CLOCK	IN	—	TTL/75Ω terminated	BNC Connector
	OUT	—	TTL/75Ω	BNC Connector
USB HOST		USB1.1	—	A type USB Connector (female)
LAMP (LS9-32 only)		—	0-12V	XLR4-31 Type

