

# M7CL Version3

## Digital Mixing Console



### M7CL-48ES



M7CL-48ES Rear Panel

*\*Peak Meter Bridge MBM7CL is option.*



### M7CL-48



M7CL-48 Rear Panel

*\*Peak Meter Bridge MBM7CL is option.*



### M7CL-32



M7CL-32 Rear Panel

*\*Peak Meter Bridge MBM7CL is option.*



## Centrallogic™ Touch Panel Operation Takes Another Step Forward. New M7CL-48ES Model Offers Easy EtherSound Stage Box System Setup

- Straightforward hands-on operation with no layers.
- Large touch-panel display offers intuitive control.
- Centrallogic™ interface allows access to all channels from a front-and-center fader group.
- Two models with onboard analog input: choose the M7CL-48 for a total of 56 inputs (48 microphone and 4 stereo line), or the M7CL-32 for a total of 40 inputs (32 microphone and 4 stereo line).
- Newly-added M7CL-48ES model with built-in EtherSound for easy digital networking and setup using EtherSound stage boxes.
- 16 mix bus and 8 matrix configuration, with an INPUT TO MATRIX function that provides 24 mix bus output capability.
- Powerful channel processing including dynamics, 4-band parametric EQ, and more.
- A versatile range of multi-effects built-in, including the REV-X Add-on Effect package.
- Memorizes up to 300 scenes, with programmable fade time.
- Three Mini-YGDAI card slots for expandability.
- M7CL Editor software provides advanced viewer/controller capability via a personal computer.
- Multi-level security features include password and USB memory key protection.
- USB memory data management capability.
- Ethernet port provided for control.
- Version 3 includes high-performance VCM effects.

### [M7CL-48ES]

- Up to three SB168-ES stage box units can be directly connected in daisy chain or ring configuration via a built-in EtherSound I/O connectors.
- An AUTO CONFIGURE function provides easy automated stage box setup.

Owners of previous M7CL versions can download the free Version3 update.

#### OPTIONS

##### MBM7CL Meter Bridge



The optional MBM7CL Meter Bridge fits right above the console's display and provides high-visibility level monitoring while the display to be used for other operations.

##### LA1L Gooseneck Lamp



##### PSL360 Power Supply Link Cable

##### PW800W Power Supply Unit

3U

When a PW800W unit is added the internal power supply and the PW800W provide redundant failsafe operation.



Rear Panel

#### M7CL StageMix for iPad®

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

M7CL StageMix is an application for the Apple iPad that allows remote control of M7CL 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.

\* M7CL 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.



Input Channel Faders

#### 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

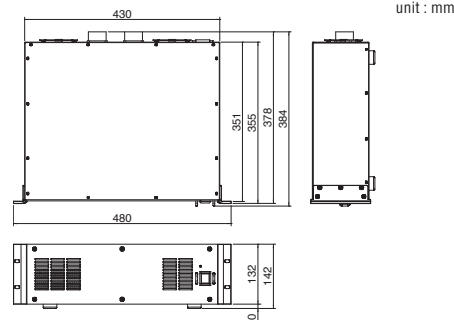
- Converts between PM5D and M7CL, and between M7CL and LS9 file formats
- Converts parameters for multiple scenes (including HA and Ch Name)
- Parameters that exist on the target console but not on the source console are set to their default values
- Three conversion options
- Windows and Mac versions: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



#### GENERAL SPECIFICATIONS (PW800W)

Power requirements	AC100-240V 50/60Hz
Power consumption	1000W When using with M7CL-48ES: 170W (Max) When using with M7CL-48: 310W (Max) When using with M7CL-32: 260W (Max)
Dimensions (W x H x D)	480 x 142 x 384mm (18.7" x 5.5" x 14.98")
Weight	10kg (22lbs)

#### DIMENSIONS (PW800W)



## M7CL Version3

### GENERAL SPECIFICATIONS

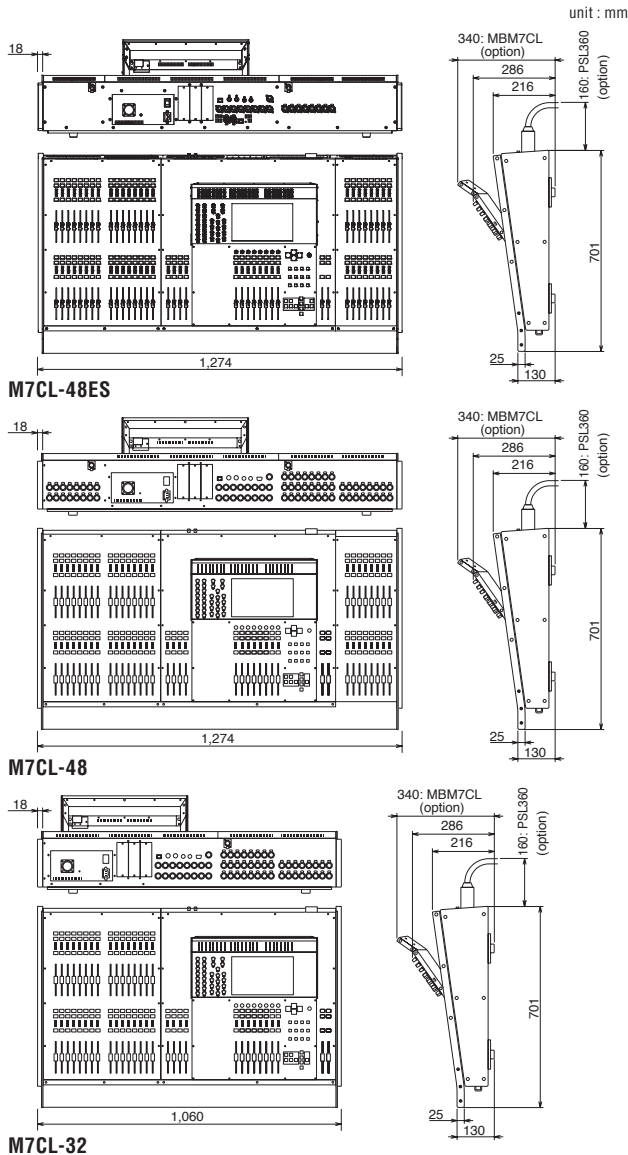
<b>Internal processing</b>	32bit (Accumulator=58bit)
<b>Number of scene memories</b>	300
<b>Sampling frequency rate</b>	Internal: 44.1kHz, 48kHz External: 44.1kHz (-10%) to 48kHz (+6%)<M7CL-32/48> 44.1kHz (-2.5%) to 48kHz (+2.5%)<M7CL-48ES>
<b>Signal Delay</b>	Less than 2.5 ms CH INPUT to OMNI OUT (@fs=48kHz)
<b>Total harmonic distortion**1</b> CH INPUT to OMNI OUT Input Gain=Min.	Less than 0.05% 20Hz to 20kHz @+4dBu into 600Ω
<b>Frequency response</b> CH INPUT to OMNI OUT	+0.5, -1.5dB 20Hz to 20kHz @+4dBu into 600Ω
<b>Dynamic range</b> (maximum level to noise level)	110dB typ, DA Converter (OMNI OUT) 108dB typ, AD+DA (to OMNI OUT)
<b>Hum &amp; noise level**2</b> (20Hz to 20kHz), Rs=150Ω	-128dBu Equivalent Input Noise -84dBu residual output noise
<b>Crosstalk</b> @1kHz Input Gain=Min.	-100dB*3, -80dB, Adjacent Input Channels -100dB*3, -80dB, Input to Output
<b>Phantom Power</b>	+48V
<b>Power requirements</b>	AC110V-240V, 50/60Hz
<b>Power consumption</b>	M7CL-48ES: 150W, M7CL-48: 300W, M7CL-32: 250W
<b>Dimensions (W x H x D)</b>	M7CL-48ES: 1274 x 286 x 701mm (50.2" x 11.2" x 27.5") M7CL-48: 1274 x 286 x 701mm (50.2" x 11.2" x 27.5") M7CL-32: 1060 x 286 x 701mm (41.7" x 11.2" x 27.5")
<b>Weight</b>	M7CL-48ES: 46kg (101lbs) M7CL-48: 50kg (110lbs) M7CL-32: 42kg (92lbs)

\*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



### ANALOG INPUT SPECIFICATIONS

Input terminal	GAIN	Actual source impedance	For use with nominal	Input level			Connector
				Sensitivity	Nominal	Max. before clip	
INPUT 1-48 (M7CL-48)	-62dB	3kΩ	50-600Ω Mics & 600Ω Lines	-82dBu	-62dBu	-42dBu	XLR3-31 type*
INPUT 1-32 (M7CL-32)	+10dB			-10dBu	+10dBu	+30dBu	
ST IN 1-4 [L,R] (M7CL-32/48)	-62dB	3kΩ	600Ω Lines	-82dBu	-62dBu	-42dBu	XLR3-31 type*
OMNI IN 1-8 (M7CL-48ES)	+10dB			-10dBu	+10dBu	+30dBu	
TALKBACK	-62dB	3kΩ	50-600Ω Mics & 600Ω Lines	-70dBu	-60dBu	-40dBu	XLR3-31 type*
	+10dB			-26dBu	-16dBu	+4dBu	

### ANALOG OUTPUT SPECIFICATIONS

Output terminal	Actual source impedance	For use with nominal	GAIN SW	Output terminals		Connector
				Nominal	Max. before clip	
OMNI OUT 1-16 (M7CL-32/48)	75Ω	600Ω Lines	+24dB	+4dBu	+24dBu	XLR3-32 type*
OMNI OUT 1-8 (M7CL-48ES)			+18dB	-2dBu	+18dBu	
PHONES	15Ω	8Ω Phones	—	75mW	150mW	ST Phone Jack**
		40Ω Phones	—	65mW	150mW	

### DIGITAL I/O SPECIFICATIONS

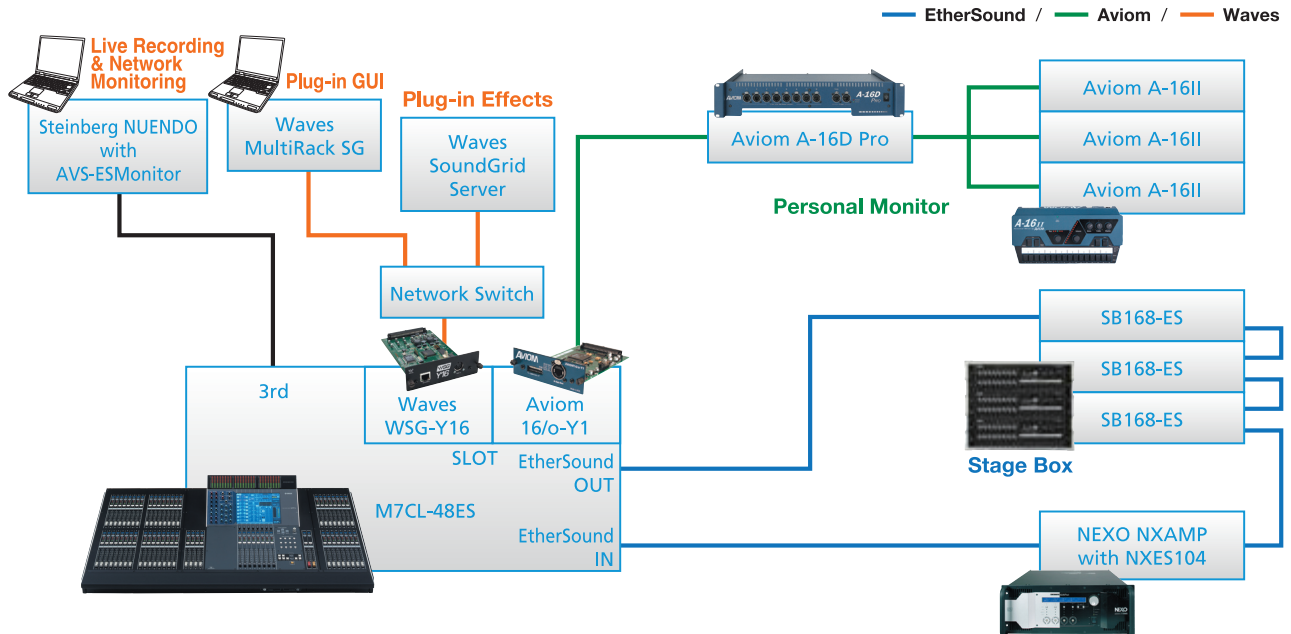
Terminal		Format	Data length	Level	Audio	Connector
2TR OUT DIGITAL	AES/EBU	AES/EBU	24bit	RS422	—	XLR3-32 type
EtherSound (M7CL-48ES)		EtherSound	24bit	100Base-TX	48ch Input/24ch Output @48kHz	etherCON

### CONTROL I/O SPECIFICATIONS

Terminal	Format	Level	Connector
NETWORK (Ethernet)	IEEE802.3	—	RJ-45
3rd Port (M7CL-48ES)			
MIDI	IN	MIDI	DIN Connector 5P
	OUT	MIDI	DIN Connector 5P
WORD CLOCK	IN	—	TTL/75Ω
	OUT	—	TTL/75Ω
REMOTE (M7CL-32/48)	—	RS422	D-Sub Connector 9P (Male)
USB HOST	USB1.1	—	A type USB Connector
LAMP 1, 2**1	—	0-12V	XLR4-31 Type

\*1. M7CL-48ES, M7CL-48

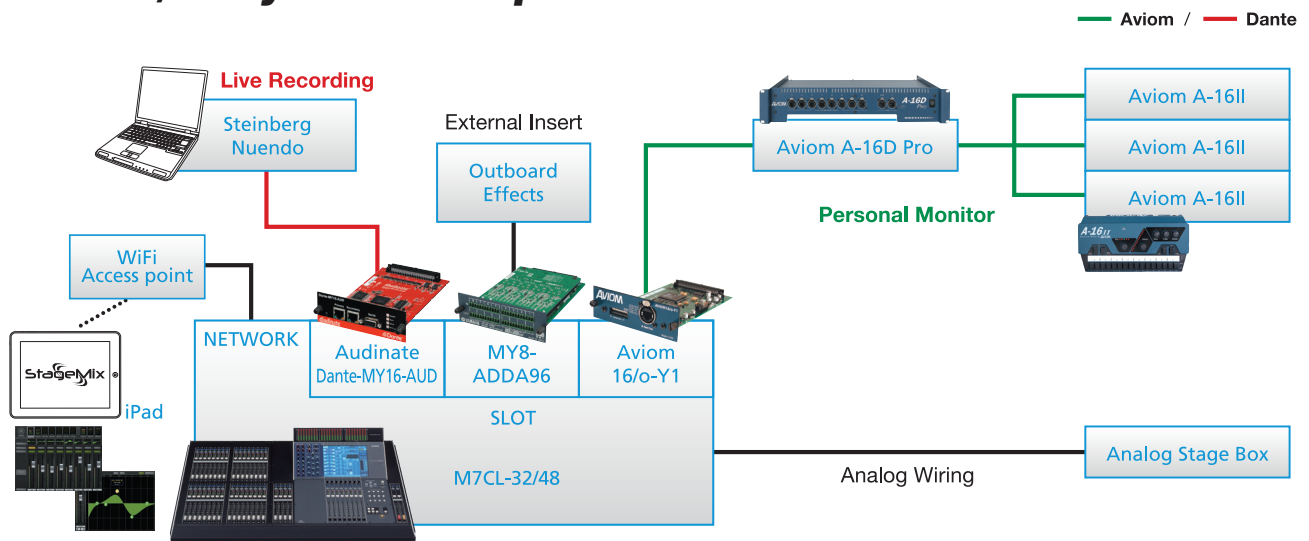
## M7CL-48ES System Example



- The SB168-ES units are connected in a ring configuration for redundancy.
- An Aviom personal monitor system can be used for outstanding clarity and easy operation.
- The Waves MultiRack SG and SoundGrid combination makes it possible to use a variety of plug-in effects.

\* For this system it is necessary to turn Auto Configure OFF and use the AVS-ESMonitor application to set up the patches.

## M7CL-48/32 System Example



- This simple system takes full advantage of existing analog infrastructure.
- An existing analog console can be directly replaced with the M7CL-32/48. The three Mini-YGDAI slots can be used for I/O expansion.
- Adding an Aviom personal monitor system is easy.
- The Dante-MY16-AUD card enables high-quality live recording.
- The MY8-ADDA96 card allows insertion of analog outboard processors.



## BLOCK DIAGRAM (M7CL-48ES)

