

# YAMAHA

## 8-Channel Microphone/Line Amplifier

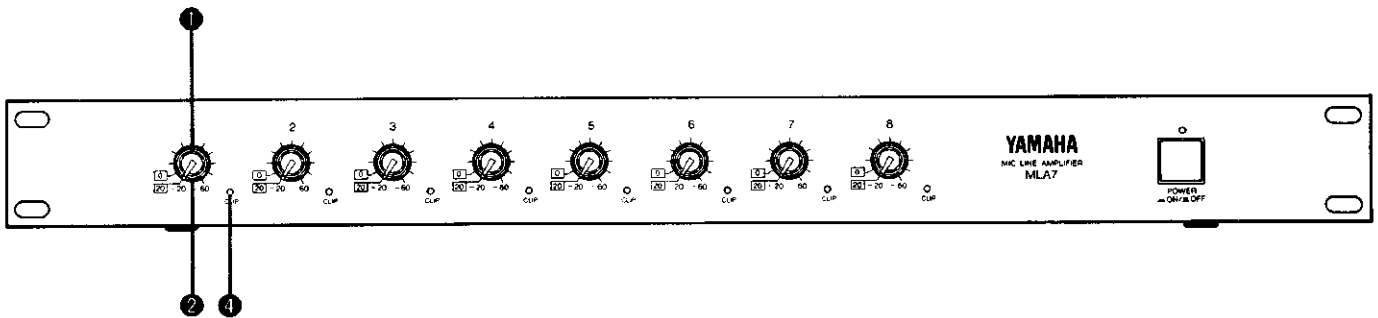
# MLA7



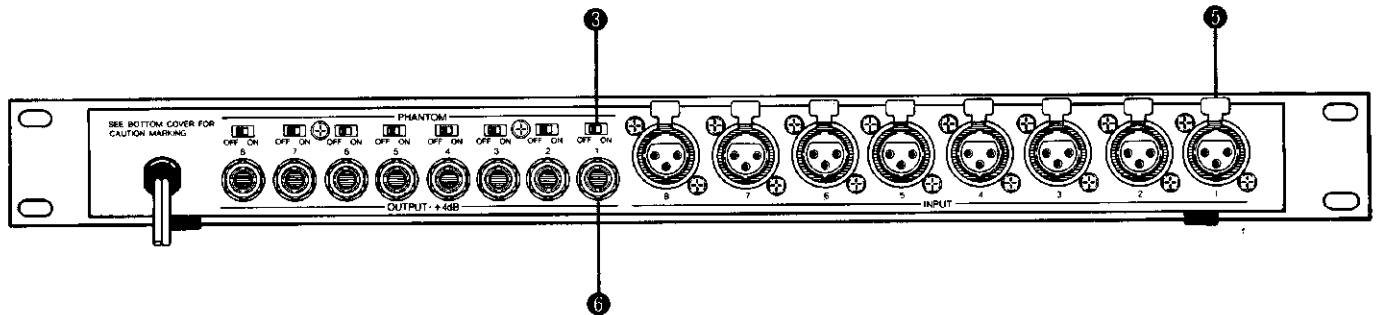
*The MLA7 is designed primarily to add top-quality microphone and balance-line input capability to the Yamaha DMP7 Digital Mixing Processor and other equipment which offers only unbalanced line inputs. In addition to offering the very finest electrical performance possible, the MLA7 accepts a broad range of balanced signal levels, providing full compatibility with balanced microphone and line-level input signals. Each of the 8 amplifiers in the MLA7 has a switchable 20-dB pad, a  $-20 \sim -60$  dB gain control, and a phantom power switch which can be used to apply standard +48-volt DC phantom power to appropriate condenser microphones. The outputs are standard +4 dB unbalanced phone jacks which can be directly connected to the inputs on the DMP7 Digital Mixing Processor or other equipment.*

# CONTROLS

## FRONT PANEL



## REAR PANEL



### 1 GAIN Control

These controls adjust the input sensitivity of each amplifier channel between  $-60$  dB ( $0.775$  mV) and  $-20$  dB ( $77.5$  mV) when the PAD switch is OFF. Continuously variable gain control allows optimum matching with virtually any microphone or line source.

### 2 PAD Switch

Turning this switch on inserts a  $20$ -dB pad in the corresponding amplifier's input, bringing the input sensitivity to  $0$  dB ( $0.775$  V) when the GAIN control is set to  $-20$  dB. The PAD switch should normally be turned ON when receiving line-level input. With the PAD switch ON, the GAIN control covers a  $-40$  dB to  $0$  dB range rather than the marked  $-60$  dB to  $-20$  dB range.

### 3 PHANTOM Power Switch

For use with phantom-powered condenser microphones. When a PHANTOM switch is turned ON, a  $48$  V DC phantom supply voltage is applied to the input connector of the corresponding channel. **MAKE SURE THE PHANTOM POWER SUPPLY IS OFF WHEN NOT USING A PHANTOM-POWERED MICROPHONE!!**

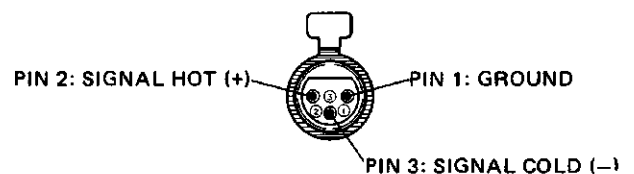
### 4 Channel PEAK Indicator

These LED peak indicators light when the signal at the corresponding channel reaches a level  $3$ -dB below clipping. The GAIN controls and PAD switches should be set so that the CLIP LEDs never light more than just briefly on transient peaks.

## CONNECTORS

### 5 INPUT Connectors

The input connectors to each amplifier channel are XLR-31 types wired as follows:



The inputs should be used with  $50 - 250$  ohm balanced microphones or  $600$  ohm balanced lines.

### 6 OUTPUT Connectors

The output connectors are standard monaural  $1/4$ " phone jacks. The nominal output level from these jacks is  $+4$  dB, with a maximum level of  $+20$  dB before clipping begins. The outputs should drive  $10$  k-ohm or higher load impedances.

# GENERAL SPECIFICATIONS

<b>Total Harmonic Distortion</b>	Less than 0.1%, 20Hz ~ 20kHz @ +4dB into 10 k-ohms.
<b>Frequency Response</b>	+1, -3dB, 20Hz ~ 20kHz @ +4dB into 10 k-ohms.
<b>Hum and Noise (20Hz ~ 20kHz, 150-ohm termination)</b>	-128dBu equivalent input noise, PAD 0 GAIN control max. -87dBu equivalent input noise, PAD 20 GAIN control min.
<b>Maximum Voltage Gain</b>	64dB CH IN to CH OUT.
<b>Crosstalk</b>	-70dB at 1kHz/10kHz, adjacent channels

<b>Power Requirements</b>	U.S. & Canadian models 120V (105 - 130V) AC, 60Hz General model 110 - 120/220 - 240V AC, 50/60Hz
<b>Power Consumption</b>	U.S. & Canadian models 20W General model 20W
<b>Dimensions (W x H x D)</b>	480 mm x 45.5 mm x 231.6 mm (18-7/8" x 1-3/4" x 9-1/8")
<b>Weight</b>	3.25 kg (7.2 lbs)

*\*0dB is referenced to 0.775V RMS.  
\*Specifications subject to change without notice.*

## INPUT SPECIFICATIONS

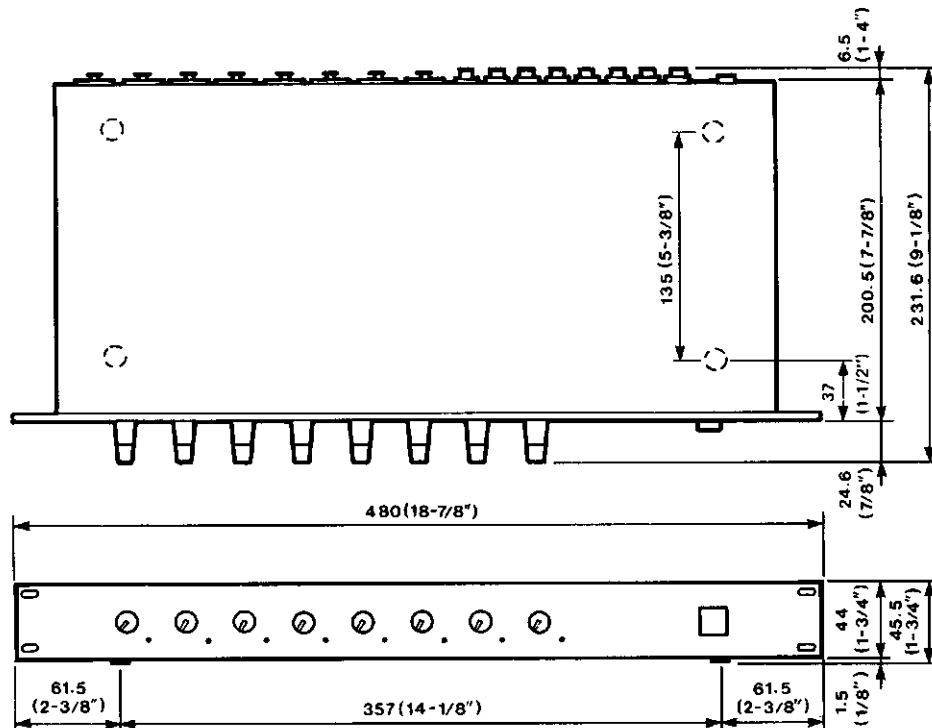
	CONNECTION		ACTUAL LOAD IMPEDANCE	FOR USE WITH NOMINAL	SENSITIVITY** (AT MAX. GAIN)	INPUT LEVEL		CONNECTOR
	PAD	GAIN				NOMINAL	MAX. BEFORE CLIP	
INPUT	OFF (0dB)	-60dB	4k ohms	50 ~ 250 ohm Microphones or 600 ohm Lines  600 ohm Lines	-60dBμ (0.775mV)	-60dBμ (0.775mV)	-44dBμ (4.88mV)	XLR-3-31 type (Balanced)
		-20dB			-20dBμ (77.5mV)	-4dBμ (488mV)		
	ON (20dB)	0dBμ (775mV)			+16dBμ (4.88V)			

## OUTPUT SPECIFICATIONS

CONNECTION	ACTUAL SOURCE IMPEDANCE	FOR USE WITH NOMINAL	OUTPUT LEVEL		CONNECTOR
			NOMINAL	MAX. BEFORE CLIP	
OUTPUT	150 ohms	10k ohm Lines	+4dBμ (1.23V)	+20dBμ (7.75V)	Phone Jack (Unbalanced)

\* : In these specifications, when dB represent a specific Voltage, 0dBμ is referenced to 0.775V.  
\*\* : Sensitivity is the level required to produce an output of +4dB (1.23V).

# DIMENSIONS



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