

# OPERATION MANUAL

## PMA-60/120

### PUBLIC ADDRESS MIXING AMPLIFIER



 **PASCOM**

دليل المستخدم

# Unpacking

PMA-60/120 is easy to install and use, but still we recommend you take a few minutes to read this brief manual and familiarize yourself with the important information regarding product features, setup and operation.

As with most electronic devices, we strongly recommend you to retain the original packaging. In case the product must be returned for service, which is not likely to happen, the original packaging (or reasonable equivalent) is required.

  	 <p>This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.</p>
<p>CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS IN SIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>	 <p>This symbol is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying the appliance.</p> <p>Caution : To prevent electric shock do not use this (polarized) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.</p>
<p><b>WARNING</b></p> <p>To prevent fire or shock hazard, do not expose the unit to rain moisture.</p> <ul style="list-style-type: none"><li>* Do not install this apparatus in a confined space such as a book case or similar unit.</li><li>* The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.</li></ul> <p>Worded: "WARNING FOR YOUR PROTECTION PLEASE READ THE FOLLOWING-WATER AND</p> <ul style="list-style-type: none"><li>* MOISTURE: Unit should not be used near water (e.g. near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc). Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings."</li></ul>	<p>Attentions : Pour prevenir les chocs electriques ne pas utiliser cette fiche polarisee avec un prolongateur, une prise de courant ou une autre source de courant, sauf si les lames peuvent etre inserees a fond sans en laisser aucune partie a decouvert.</p>

# Installation

## Environment

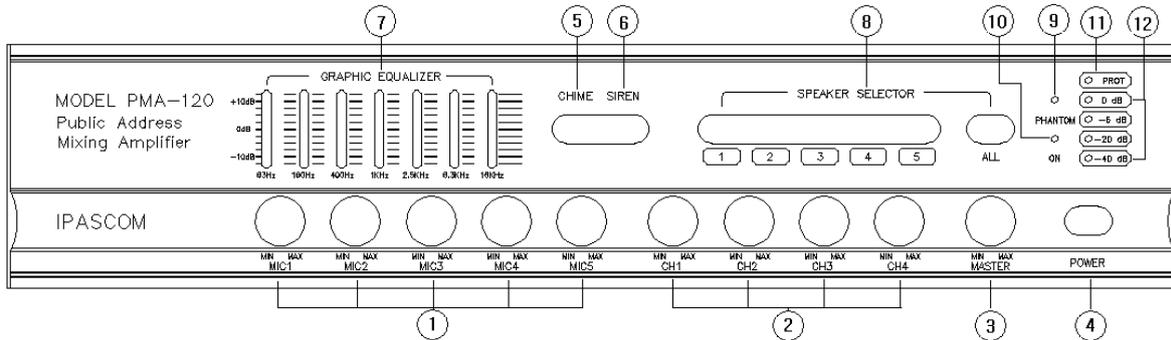
Never place this product in any environment which could alter its performance or reduce its service life. Such environments usually include high levels of heat, dust, moisture, and vibration.

## Important safety Instructions

1. Read these instructions and follow as written.
2. Keep this user manual for later use.
3. Do not use this product near water or any humid area.
4. Clean only with dry cloth.
5. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
6. Do not install near any heat sources such as radiators, heater, stoves, or other amplifiers or electronic products that produce heat.
7. Protect the power cord from being walked on or pinched, especially on plugs and convenience receptacles.
8. Only use attachments/ accessories supplied by the manufacturer or authorized seller.
9. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or authorized seller. When operating with such accessory, be extra careful to avoid accidents.
10. Leave this device unplugged when not used for long periods of time.
11. Make sure this device is unplugged during lightening storm.
12. Refer all service to qualified service personnel. When opened, damaged or repaired by anyone unauthorized, service warranty might be invalid.



# FRONT PANEL CONTROL



## 1) MICROPHONE VOLUME CONTROLLER

## 2) CHANNEL VOLUME CONTROLLER

## 3) MASTER VOLUME CONTROLLER

Controls volume of finally mixed sound from each channel.

## 4) POWER BUTTON

Turns on LED lamp and supply power to the device.

## 5) CHIME BUTTON

Releases 4-tone Chime

## 6) SIREN BUTTON

Press and hold to release siren.

## 7) 7 BAND EQUALIZER

63 Hz ~ 16 kHz with 10 dB interval

## 8) SPEAKER SELECTOR

Choose zones to release address out of 5 zones. Press ALL button for all channel output.

**9) PHANTOM LED**

Turns on when PHANTOM POWER button on rear panel is on and power is supplied to condenser microphone.

**10) POWER LED**

Turns on when POWER BUTTON is on and power is supplied to the device.

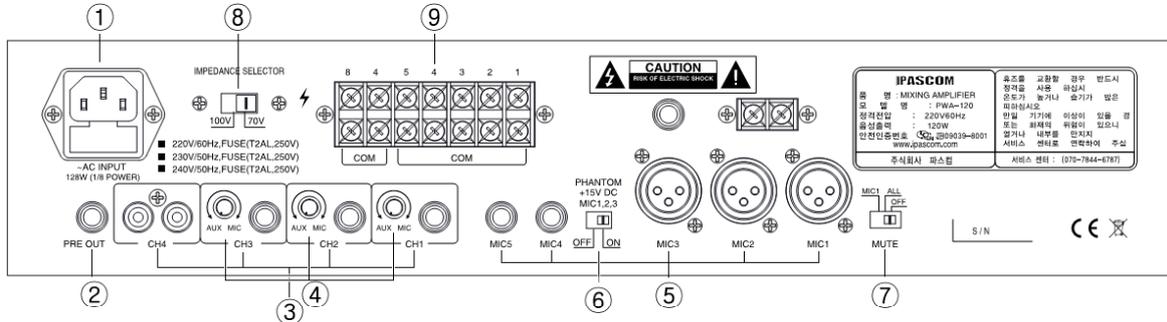
**11) PROTECTION LED**

Turns on when protective circuit is working to avoid damage.

**12) OUTPUT LEVEL LED**

Shows audio output level

# REAR PANEL CONTROL



## 1) POWER CORD JACK

## 2) PRE-AMPLIFIER OUTPUT JACK

Used when recording into another device or parallel connecting another amplifier.

## 3) CHANNEL INPUT JACK

CH 1~3 : 3.5 mV (GANE:min) ~ 135 mV(GANE:MAX)  
CH 4 : 1 V

## 4) GAIN KNOB

Keep minimized when using AUX(SUB).  
Keep maximized when using unbalanced microphone.

## 5) MICROPHONE JACK

Active balanced input jack of microphone channel 1 ~ 5  
Balanced microphone jack is recommended when microphone uses long cord.

## 6) PHANTOM POWER

Supplies DC +15 V power to condenser microphone. Only for balanced type condenser microphone.

## 7) MUTE BUTTON

Mute All : Microphone, Chime and Siren are prior to other signals.  
Mic 1 : Microphone 1, Chime and Siren are prior to other signals.  
OFF : No priority.

### 8) IMPEDANCE SWITCHER

Switches high-impedance terminal to 100 V and 70 V

### 9) OUTPUT TERMINAL

Refer to the table below and check correct output power and impedance.

	COMMON	4 $\Omega$	8 $\Omega$	1 ~ 5	
				70 V	100 V
PMA – 60	COMMON	16V	22 V	83 $\Omega$	167 $\Omega$
PMA - 120	COMMON	22V	31V	41 $\Omega$	83 $\Omega$
PMA-240	COMMON	31V	43.8V	21 $\Omega$	41 $\Omega$

## Service

Before contacting for service, make sure the problem is not operation mistake, misconnection of cables, or of another device connected to this device.

When it is clear that the problem is of this device, please contact warranty provider. A schematic or part list is also available by warranty provider.

## Warranty

Warranty terms and conditions may depend on each local distributor and vary by country. Also may not be the same for all products. To obtain specific warranty information, contact PASCOS directly in Korea.

# SPECIFICATION

■ OUTPUT POWER(RMS) ----- 60(60 W) / 120(120 W) / 240(240 W)

■ INPUT SENSITIVITY

MIC 1~5 ----- 1 MV  
CH 1~3 (AUX/MIC) ----- 15 MV / 150 MV  
CH-4 ----- 1V

■ FREQUENCY RESPONSE

MIC 1~5 ----- 63 Hz ~ 18 kHz  
CH 1~3 ----- 50 Hz ~ 18kHz  
CH-4 ----- 50 Hz~ 20kHz  
SIREN ----- 630Hz

■ SIGNAL TO NOISE ( ON WTD 30KHZ )

MIC -----  $\geq 60\text{DB}$   
CH -----  $\geq 70\text{DB}$

■ TOTAL HARMONIC DISTORTIONS ( ON WTD 20KHZ )

MIC -----  $\leq 0.3\%$   
CH -----  $\leq 0.2\%$

■ POWER SUPPLY ----- AC 220~230V, 50HZ

■ POWER CONSUMPTION----- 60W(95W)/120W(120W)/240W(163W)

■ OUTER DIMENSION----- 60/120:482(W) X 88(H) X 340(D) mm  
240 : 482(W) X 132(H) X 340(D) mm

■ WEIGHT----- 60/120 :9.3KG  
240 : 12KG

\*Note: Specification is object to change without notice for improvement.



MADE IN KOREA  
[www.ipascom.com](http://www.ipascom.com)