



# Inter-M PM-236 Public Address Mixing Amplifier Instruction Manual

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**Inter-M PM-236 Public Address Mixing Amplifier**



## Welcome

- A personal welcome to you from the management and employees of Inter-M
- All of the co-workers here at Inter-M are dedicated to providing excellent products with inherently good value, and we are delighted you have purchased one of our products.
- We sincerely trust this product will provide years of satisfactory service, but if anything is not to your complete satisfaction, we will endeavor to make things right.
- Welcome to Inter-M, and thank you for becoming part of our worldwide extended family!

## CAUTION

- RISK OF ELECTRIC SHOCK DO NOT OPEN
- CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
-  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.
-  This symbol is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying the appliance.

**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.

## WARNING

- To prevent fire or shock hazards, do not expose the unit to rain or moisture.

## WARNING FOR YOUR PROTECTION PLEASE READ THE FOLLOWING AND 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.
- CLASS 2 WIRING (Adjacent to speaker terminal): The speaker output of this apparatus can exceed 10 Watts and could be a shock injury. Connection to speakers should be performed by a skilled person.

- Do not install this equipment in a confined space such as a bookcase or similar unit.
- Warning Reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture, and objects filled with liquids, such as vases, should not be placed on this apparatus.
- This apparatus shall be connected to a main socket outlet with a protective earthing connection.
- To completely disconnect this apparatus from the AC mains, disconnect the power supply cord plug from the AC receptacle.
- The mains plug of the power supply cord shall remain readily accessible.

## **CAUTION**

- These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

## **NOTE**

This equipment has been tested and found to comply with the limits for a Class A digital device, under Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used by the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## **Unpacking**

Although your PM-236/248/260 is neither complicated nor difficult to operate, 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 retain the original packaging. In the unlikely event the product must be returned for servicing, the original packaging (or reasonable equivalent) is required..ed.

## **Installation**

### **Environment**

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

### **Important Safety Instruction**

1. read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install by the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including

amplifiers) that produce heat.

9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for the replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug the apparatus during lightning storms or when unused for long periods.



14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

## Overview

PM-236/248/260 are designed to have a higher output and compact size by class-d design. They are configured with the models having respectively 360W/480W/600W of output and can be used as High-Z (100V/70V) and low-Z (4Ω). PM series is designed to allow the stable operation of office play and bgM applications and provide the ideal solution to various places like hospitals, restaurants, and schools.

## Features

- CLASS-D AMPLIFIERS HAVING 360W/480W/600W OF OUTPUT
- PM-236: 360W, PM-248: 480W, PM-260: 600W
- High-Z (100V/70V) AND LOW-Z (4Ω)
- MULTIPLE INPUTS (THREE MICS/LINES, TWO LINES, TWO STEREO/LINE INPUTS, TEL In, USB) AND A FEATURE FOR CONTROLLING THE VOLUME OF EACH CHANNEL
- EXT In AND MIX OUT
- DISPLAYING INPUT SIGNALLED BY CHANNEL AND OUTPUT LEVEL
- TONE(BASS/TREBLE) CONTROLLING
- A SWITCH FOR SELECTING 5 SWITCHES (ZONE SELECTION SWITCH)
- BROADCASTING IN PRIORITY (TEL In > INPUT 1 = INPUT 2 = CHIME = SIREN > INPUT 3 = INPUT 4 = INPUT 5 = INPUT 6 = EXT In)
- EXTERNAL MUTE AND EXTERNAL CHIME
- CHIME AND SIREN

## Contents and Accessories

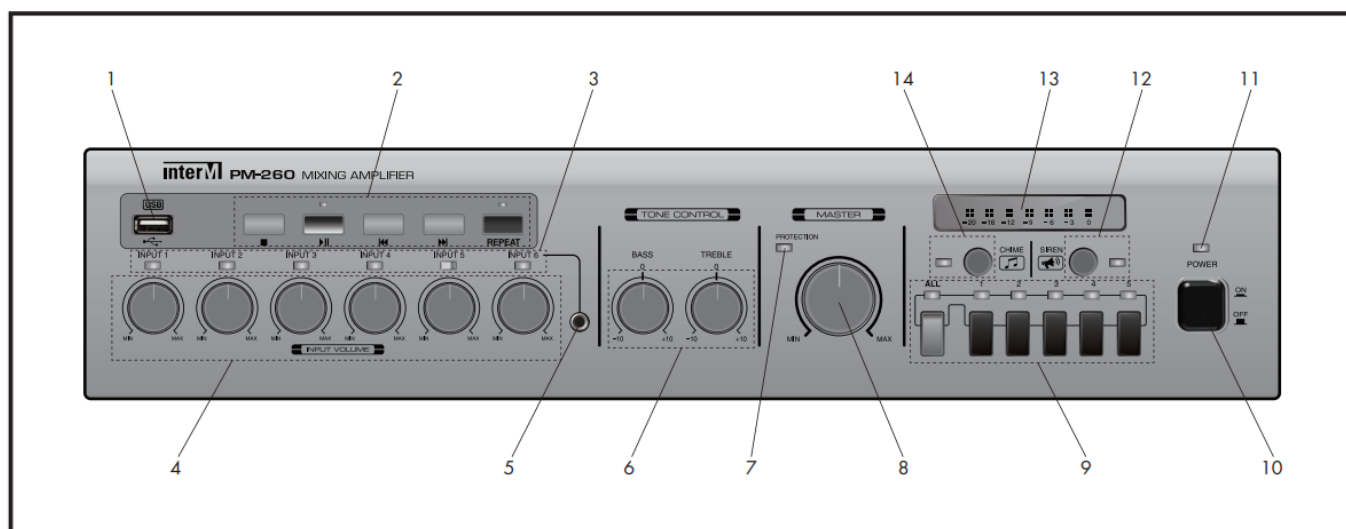
1. Washer for Rack Mount x 4EA
2. Screw for Rack Mount x 4EA
3. AC power cord x 1EA

4. 3P terminal Block x 8EA
5. 4P terminal Block x 1EA
6. Operation manual x 1EA

## Operation

1. before you plug the power cord into the AC outlet, please set the power switch Off, tone control center, and volume level minimum.
2. Please make sure the speakers and input jacks are properly connected before turning the power switch on.
3. Be sure the AC power is the correct voltage before you plug into the power cord. (PM-236: Ac 120V or Ac 220-240V, 50/60Hz, PM-248/260 : Ac 120-240V, 50/60Hz)
4. Please push the power switch, then the power input LED is on, and the unit will be operated.
5. Please use your own with adjustment of the volume using each input volume and master volume, the tone using the tone control

## Front Panel



## USB SIOT

Please use your with adjusting the volume using each input volume and master volume, the tone using the tone control.

- support file systems The maximum number of playable files
- FAT16 512 files
- FAT32 65535 files
- FnTfs not supported
- OuTPuT 5V 0.5A

## USB PIAY MODE SEIECtION BUttOn

1. ■ button: Press the button to stop the audio file currently being played.
2. ►|| button: Press the button to play or pause the audio file. When the LED is turned on (by pressing the button once): the current audio file is played. When the LED blinks (by pressing the button twice): The audio file that is

currently being played is paused.

3. |◀◀ button: Press the button briefly to move to the previous audio file. Press and hold the button for more than 2 seconds to rewind.
4. ▶▶| button: Press the button briefly to move to the next audio file. Press and hold the button for more than 2 seconds to fast forward.
5. repeat button: Press the button to play the audio file repeatedly.
  - When the LED is turned off: All audio files are played repeatedly.
  - When the LED is turned on (by pressing the button once): Those files stored in the folder with currently playing audio files are played repeatedly.
  - Whether n led blinks (by pressing the button twice): Only the currently playing audio file is played repeatedly.

### **InPUt SIgnAl InDICAtoR**

- If there is an input signal to InPuT 1~6, due input signal indicator lights up.

### **InPUt VOIUME ContROILER**

- It is a controller to control the volume of InPuT 1~6. Use by controlling to desired volume.
- ※ set the controllers of unused input terminals to a minimum.

### **AUX InPUt tERMIInAl (InPUt 6)**



- It is an Aux input terminal of InPuT 6. Refer to the below picture for the cable needed for the terminal.

### **Tone Controller**

- It is a controller to control bAss (100Hz) and Treble (10kHz). Users can control their desired tones.

### **PROtECtION CIRCUIt InDICAtoR**

- It is an indicator to display the operation status of the protection circuit inside the device. When the indicator turns on, the output is blocked.

### **Main Volume Controller**

- It is a controller to control the volumes of whole signals controlled by each input volume controller. When turning clockwise, the volume increases.

### **SPEAKER Selection SWItCh**

- It is a switch to turn On/Off the signals printing with five-speaker output terminals or to turn On/Off whole output signals with an All switch. If the speaker output is On, an upper indicator of the switch lights up.
- ※ Turn off the selection switch for unused speakers

## POWER SWItCh

- It is a switch to turn on/off the power.

## POWER InDICAtoR

- It is an indicator to display the status of power. When the power switch is On, the indicator turns on.

## SIREn On/OFF SWItCh

- It is a switch to turn On/Off the siren. When pressing once, the siren turns On and when pressing once again, it turns Off. While the siren is operating, a siren indicator on the right side of the switch lights up.

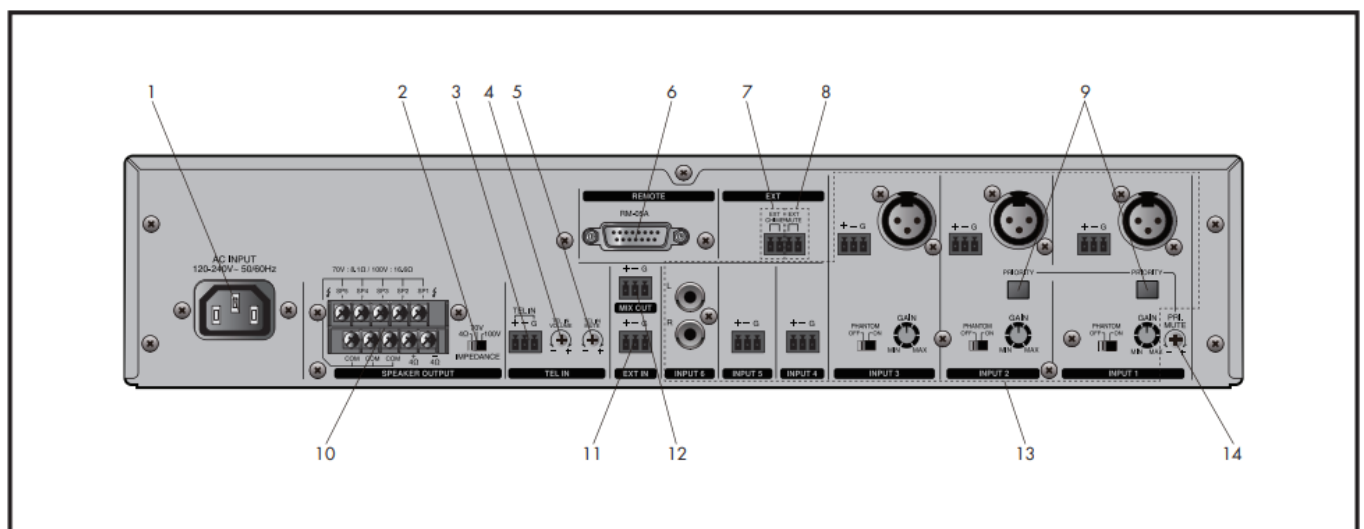
## OUtPUt IEVEl InDICAtoR

- It is an indicator to indicate the level of the signal being printed. The output level is indicated with a 3 – 4db interval.

## Chime Switch

- It is a switch to the sound 4-note scale of the chime. While chiming, a chime indicator on the left side of the switch lights up.

## Rear Panel



## AC Input

- It is a terminal to supply power to this device. The power used for this is PM-236: Ac 120V or Ac 220- 240V,

50/60Hz, PM-248/260 Ac 120-240V, 50/60Hz. Do not bend by force, pull, twist, heat, or cut the power cord. It may cause a fire or electric shock by damaging the cord.

## IMPEDANCE SELECTION SWITCH

- It is a switch to select the impedance before connecting the speaker. Select the impedance to use among 4Ω, 70V, and 100V.

## TEL IN INPUT TERMINAL

- It is a terminal to use by connecting with the telephone exchange. You can broadcast directly with the transmitter of the phone.
- When a signal is input to the Tel In the input terminal, all other input signals will be lower as set by the Tel.
- In priority adjustment volume and the priority adjustment volume. Do not connect directly to the telephone network. (not connected to TnV-3 circuit)

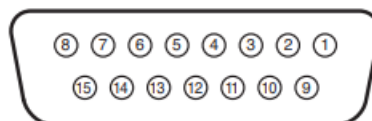
## TEL IN VOLUME CONTROLLER

- It is a controller to control the volume of Tel In input. If you set the volume to minimum, a signal of 0dbV (1Vrms) can be input sensitivity; if you set the volume to maximum, a signal of -20dbV (100mVrms) can be input sensitivity.

## TEL IN PRIORITY CONTROL VOLUME (TEL IN MUTE)

- This is a volume that adjusts the volume of InPuT 1~2, cHIMe, and slren sound when a signal is input to the Tel In. By using Tel In priority adjustment volume, the user can adjust the input signal to InPuT 1~2, cHIMe, and slren. By using the priority adjustment volume of InPuT 1~2, the user can adjust the volume of InPuT 3~6, exT In.

## RM-05A CONNECTION TERMINAL



- It is a terminal to use by connecting our rM-05A. The pin arrangement of the terminal is as follows.

1. Pin 1: remote amplifier input signal hot (+) Pin 9: remote control ground
2. Pin 2: remote amplifier input signal cold (-) Pin 10: dc +24V
3. Pin 3: signal ground Pin 11: remote chime
4. Pin 4: remote control 1 (sP1) Pin 12: NC
5. Pin 5: remote control 2 (sP2) Pin 13: NC
6. Pin 6: remote control 3 (sP3) Pin 14: NC
7. Pin 7: remote control 4 (sP4) Pin 15: NC



8. Pin 8: remote control 5 (sP5)

### EXTERNAL CHIME (EXT CHIME) SWITCH TERMINAL

- It is a terminal to connect the switch when operating the 4-note scale chime of this device on the outside. When the contact closure comes in the external chime switch terminal, the 4-note scale chime operates.

### EXTERNAL MUTE SWITCH TERMINAL

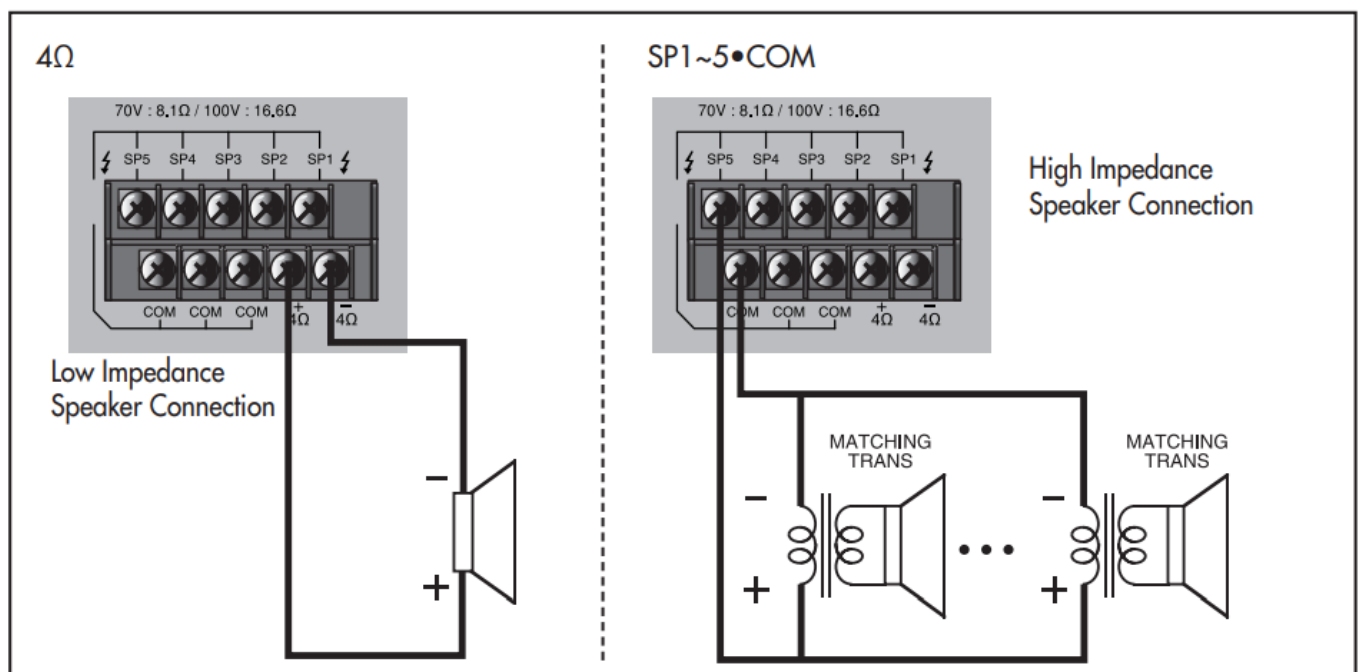
- It is a terminal to connect the switch when operating the degree that the sound of InPuT 1 – 6, cHIMe, exT In are decreasing in this device. When the contact closure comes in the external MuTe switch terminal, the sound of InPuT 1~6, cHIMe, slren, exT In decreases as much as the volume controlled with the Tel In priority control volume and priority control volume (PrIOrITY MuTe).

### PRIORITY SELECT SWITCH

- This is a switch that adjusts the volume of InPuT 3~6, exT In sound when a signal is an input to the InPuT 1 or InPuT 2. ex) When pressing the switch of InPuT 2 and the signal is input to InPuT 2, the sound of InPuT 3~6, exT In is reduced.

### SPEAKER OUTPUT tERMIInAI

- It is a terminal to use when connecting the speaker. When connecting the speaker, do not teben an overload state.
- You can control the sP1 – 5 terminal with the speaker selection switch on the front side.
- be careful not to use 4Ω terminal and sP1 – 5 terminal (high-impedance speaker terminal) simultaneously.
- When connecting the speaker, connect the speaker to the speaker terminal on the rear panel by the following connection after removing the power cord from the outlet.



**Caution:** be careful not to make the total impedance of the speaker terminal lower than the defined impedance in any case. Impedance and output voltage are in the following table.

	4Ω	SP1~5•COM Terminal	
PM-236	4Ω	100V/27.7Ω	70V/13.6Ω
PM-248	4Ω	100V/20.8Ω	70V/10.2Ω
PM-260	4Ω	100V/16.6Ω	70V/8.1Ω

**caution:** select the impedance selection switch to use before connecting the speaker. **caution:** be careful not to use 4Ω terminal and sP1 – 5 terminals simultaneously.

### EXTERNAL INPUT (EXT IN) TERMINAL

- It is an input terminal to connect the output terminal of the external device when extending the input of this device. It is a balanced type and pin arrangements are +, -, and g.

### MIX OUTPUT (MIX OUT) TERMINAL

- It is an output terminal to connect when recording the sound printed from this device or using other amps in parallel. It is a balanced type and pin arrangements are +, -, g.

### PRIORITY CONTROL VOLUME (PRIORITY MUTE)

- It is an input terminal of InPuT 1~6. InPuT 1~5 is configured with a balanced input circuit and InPuT 6 is configured with a rcA jack.

### The input terminal of InPuT 1~3

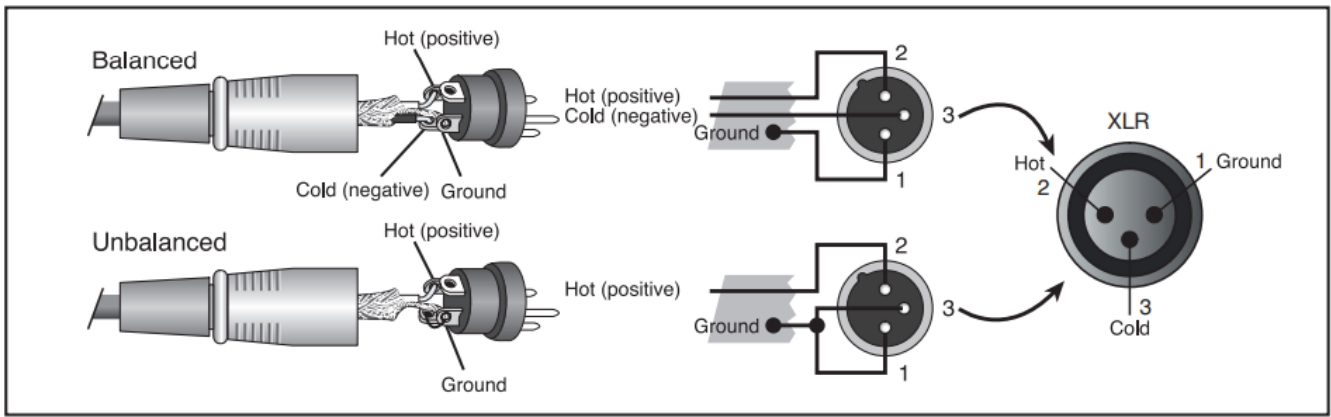
- PHAnTOM switch: When turning the switch On, DCc 24V of phantom power is supplied to use with condenser mic input.
- InPuT gAln volume: It is a volume to control gAln of the input signal. ※ do not use the xlr jack and euro Terminal of InPuT 1~3 simultaneously as they are connected from the inside.

### An input terminal of InPuT 4~5

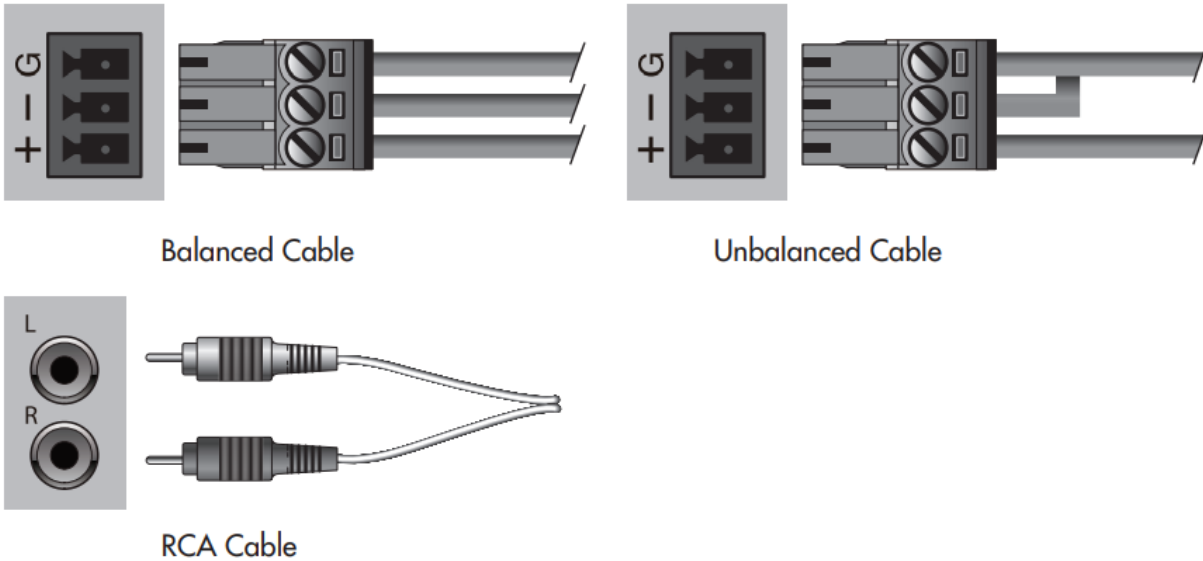
- They can be used with a line input.

### The input terminal of InPuT 6

- connect it with the audio source device having a stereo output.
- Do not use the Aux input terminal of InPuT 6 on the front side and InPuT 6 terminal on the rear side simultaneously as they are connected from the inside.
- Refer to the following for the connection of the xlr jack, euro Terminal, and RCA jack.



Turn PHANTOM switch OFF if using the unbalanced cable.

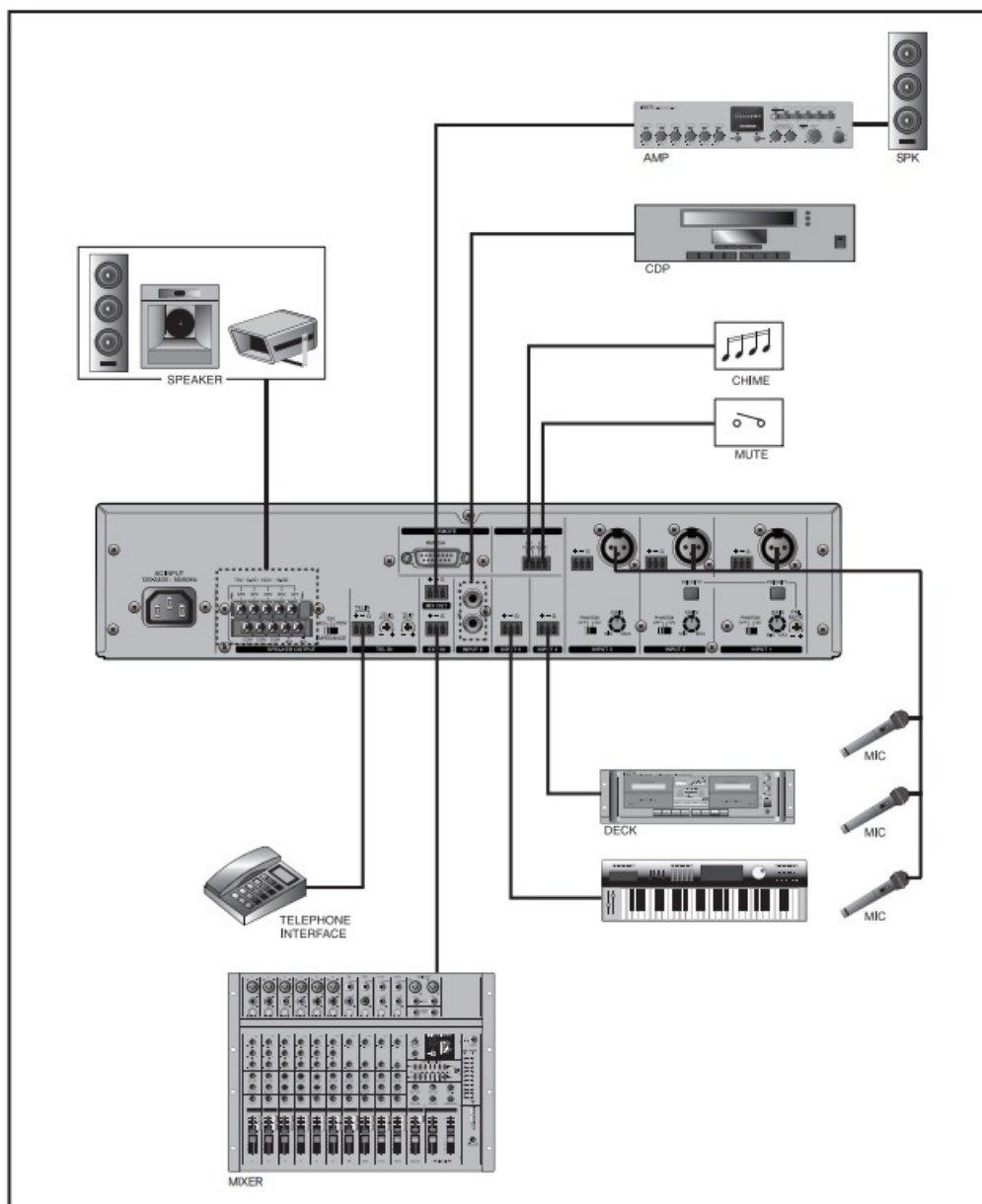


### PRIORITY CONTROL VOLUME (PRIORITY MUTE)

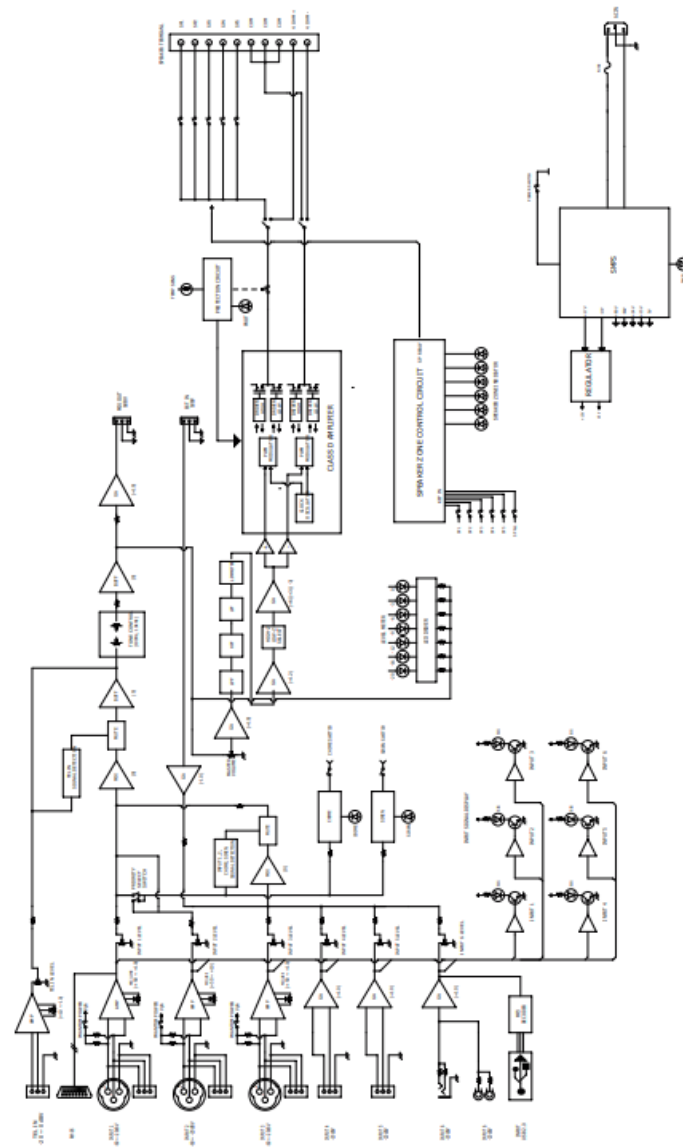
This is a volume that adjusts the volume of InPuT 3~6 and exT In when the device is operated by the below status.

1. When a signal is input to InPuT 1, 2, or cHIMe and slren is operated
2. When the external MuTe switch is operated
3. When a signal is input to Tel In input terminal ※ The broadcasting of InPuT 1~2, cHIMe, and slren signals are printed in priority rather than InPuT 3~6, exT In.

### Application



**Block Diagram**

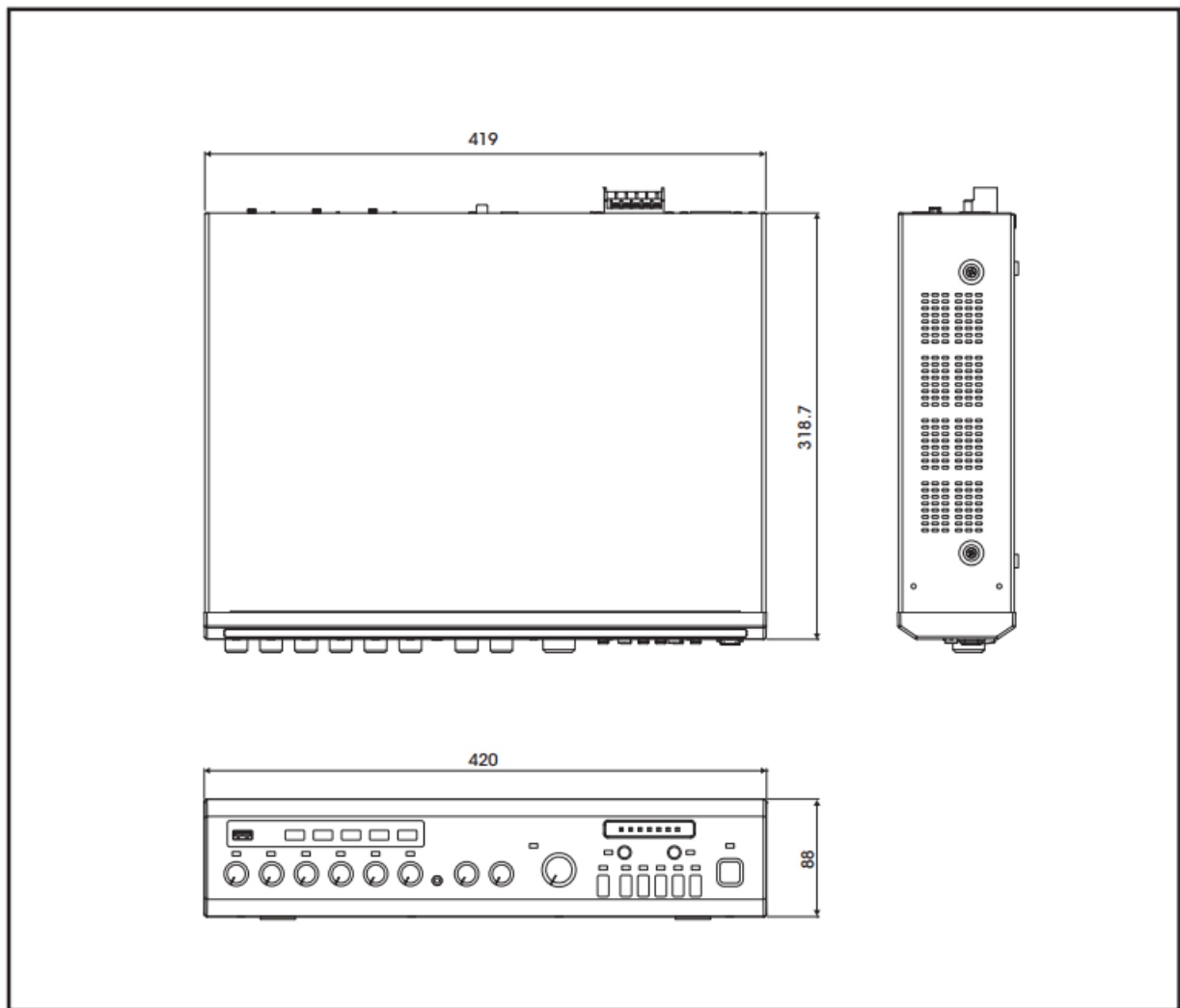


## Specification

		PM-236	PM-248	PM-260
Output Power (1kHz, THd. 1%)		38V(4Ω)	44V(4Ω)	49V(4Ω)
		70V(13.6Ω)	70V(10.2Ω)	70V(8.1Ω)
		100V(27.7Ω)	100V(20.8Ω)	100V(16.6Ω)
s/n	lIne, Tel In	better than 70db		
	Mlc	better than 50db		
	rcA, 3.5Φ PHOne JAcK	better than 70db		
Input sensitivity / Impedance	Mlc (bAlAnce)	-60dbV / 2kΩ		
	lIne (bAlAnce)	-20dbV / 2kΩ		
	rcA (unbAlAnce)	-20dbV / 20kΩ		
	3.5Φ PHOne JAcK (unbAlAnce)	-20dbV / 2kΩ		
	Tel In (bAlAnce)	-20~0dbV / 40kΩ		
	exT In (bAlAnce)	0dbV / 40kΩ		
	Mix OuT (bAlAnce)	0dbV		
THd+n	rated Power(1kHz)	less than 1%		
TOne cOnTrOl	bAss(100Hz)	±10db		
	Treble(10kHz)	±10db		
frequency response (1W,±3db)	lIne	80Hz~15kHz		
	Mlc	100Hz~15kHz		
Operating Temperature		-10℃~+40℃		
Operating Power		Ac 220-240V, 50/60Hz Ac 120V, 50/60Hz (us model)	Ac 120-240V, 50/60Hz	
Power consumption (1/8W)		115W	125W 145W (us model)	145W
Weight (set)		5.1kg/11.2lb	5.27kg/11.6lb	
dimensions (set)		420(W) x 88(H) x 318.7(d)mm/16.5(W) x 3.5(H) x 12.5(d)in		

- design and specification are subject to change for the improvement of product quality without pre-notice

## Dimension



## Service

### Procedures

Take steps to ensure the problem is not due to operator error or other problems within the system- Information provided in the troubleshooting portion of this manual may help with this process. Once it is certain that the problem is to the product contact your warranty provider as described in the warranty section W1 of this manual-

### Schematic

- A Schematic is available by contacting your warranty provider-

### Parts List

- A Parts List is available by contacting your warranty provider.

## Variations and Options

### Variations

- Products through time WJrces are compatible with local AC power requirements.

### Options

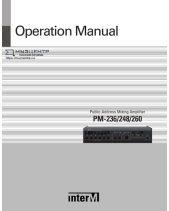


- optional items are available for his product.

## Warranty

- Warranty terms and conditions vary by country and may not be the same for all products. Terms and conditions of 'warranty for a given product may be first by identifying the appropriate country in which the product was purchased ine then by locating the produc.t
- To obtain specific warranty information and available service locations contact Inter-M directly or the Inter-M Distributor for your country or region...

## Documents / Resources

	<p><a href="#">Inter-M PM-236 Public Address Mixing Amplifier</a> [pdf] Instruction Manual PM-236, PM-248, PM-260, PM-236 Public Address Mixing Amplifier, PM-236, Public Address M ixing Amplifier, Address Mixing Amplifier, Mixing Amplifier, Amplifier</p>
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## References

- [Σ1 Профессиональная акустика — Активные акустические системы.](#)
- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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