

MIXING AMPLIFIER

# PA SERIES

PA-60/120/240/360/480/600



# MIXING AMPLIFIER

## PA-60/120/240



## PA-360/480/600



## Summary

The Inter-M PA Series is an mixing amplifier. They are complete and economical multi-purpose desktop mixing amplifiers providing a cost-effective solution to public address and other similar applications.

It is a successor model of **PA-2000A / 4000A / 6000A** which are the best-selling models of Inter-M. While retaining most of the features of the existing system, it is designed to make higher amplifier output and more compact design than conventional systems by using the technology of Class-D amplifier.

Six versions are available with outputs of **60, 120, 240, 360, 480 and 600 watts** respectively into **Low-Impedance(4  $\Omega$ ) or High-Voltage(70 V/100 V line)** speaker systems. Especially from PA-240 to PA-600 has designed a High-Voltage output without the output transformer(OPT) by using the Inter-M digital amplifier technology.

The PA Series amplifier is designed for reliable service for voice reproduction and BGM applications. It is an ideal solution for medical offices, restaurants, schools, etc.

# PA-60/120/240

# PA-360/480/600



# Feature



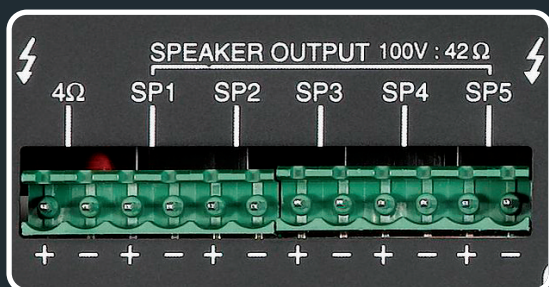
## Analog Mixing Amplifier

PA series receives analog audio through XLR, euroblock and RCA connector. All inputs are mixed, and outputs the amplified audio through the Class-D amplifier to the speaker.



## Output Zone Selector

Users can be configured to controllable five output zones. PA Series provide the five High-Z (100 V/70 V) output terminals and Low-Z (4  $\Omega$ ) output terminal. it can be configure to commercial audio and professional audio.



• PA-360/480/600 terminals

## High-Z and Low-Z Output

PA Series provide the five High-Z (100 V/70 V) output terminals and Low-Z (4  $\Omega$ ) output terminal. In order to easily connect the speakers, PA-60/120/240 are provide screw terminals, and PA-360/480/600 are provided with euroblock terminals.

\* Z : Impedance

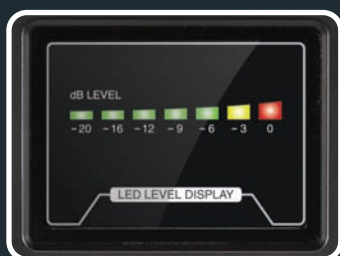


## Volume and Tone Control

Through the Volume and Tone Control on the front panel, users can control master volume and Bass/Treble Tone.



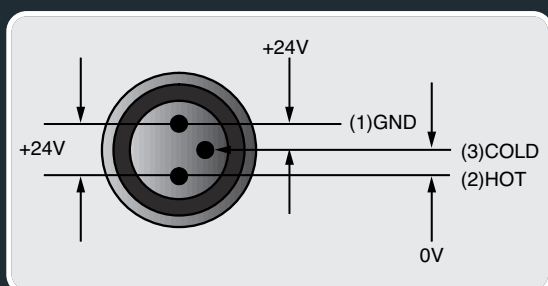
• PA-60/120/240



• PA-360/480/600

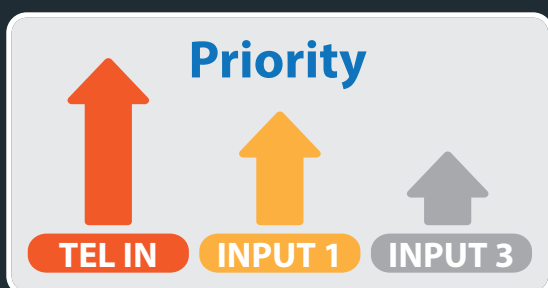
### *Output Level Meter*

Users can check the volume level meter that is output. Output volume is displayed from 0dB to -20dB.



### *Microphone Phantom Power*

Use phantom power when connecting condenser microphones that require an external power supply.



### *Priority Broadcasting*

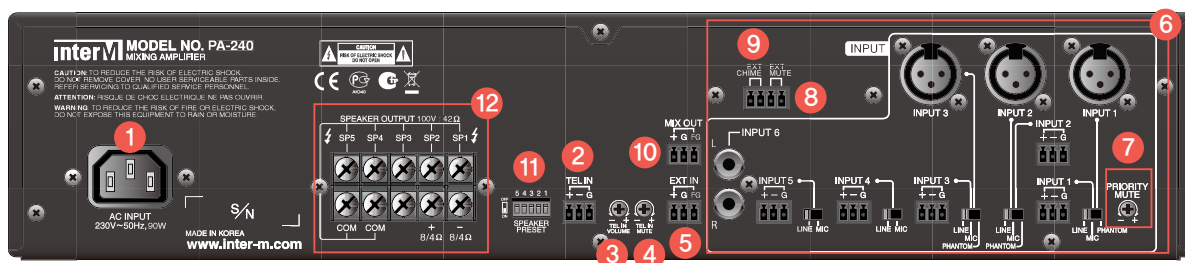
The signal from INPUT 1~2, EXT IN, CHIME input has priority over all other input signal and BGM broadcasting. And when the TEL IN signal is present, all other input signal are muted. User can adjust the mute volume using volume switch at the rear panel.



# PA-60/120/240 FRONT/REAR PANEL



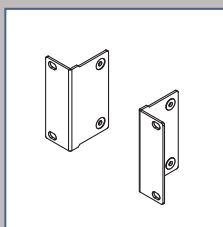
- |                          |                         |                                  |
|--------------------------|-------------------------|----------------------------------|
| 1 INPUT VOLUME CONTROL   | 5 TONE CONTROL          | 9 POWER INDICATOR                |
| 2 INPUT SIGNAL INDICATOR | 6 PROTECTION INDICATOR  | 10 SPEAKER ZONE SELECTION SWITCH |
| 3 CHIME SWITCH           | 7 MASTER VOLUME CONTROL | 11 OUTPUT LEVEL DISPLAY          |
| 4 SIREN ON/OFF SWITCH    | 8 POWER SWITCH          |                                  |



- |                                |                           |                            |
|--------------------------------|---------------------------|----------------------------|
| 1 AC MAINS (AC INLET)          | 5 EXT IN                  | 9 EXT CHIME                |
| 2 TEL IN TERMINAL              | 6 INPUT 1~6               | 10 MIX OUT                 |
| 3 TEL IN VOLUME CONTROL        | 7 PRIORITY CONTROL VOLUME | 11 SPEAKER PRESET SWITCH   |
| 4 TEL IN PRIORITY MUTE CONTROL | 8 EXT MUTE                | 12 SPEAKER OUTPUT TERMINAL |

## Optional Accessory

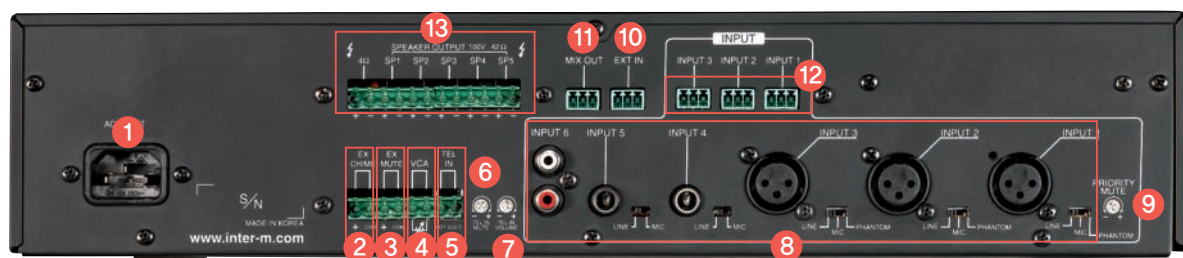
### Rack Mount Bracket BKT-A120



# PA-360/480/600 FRONT/REAR PANEL



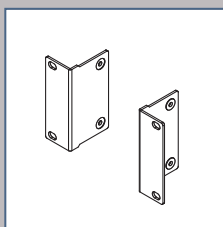
- |                        |                 |                   |            |
|------------------------|-----------------|-------------------|------------|
| ① INPUT VOLUME CONTROL | ⑤ CHIME SWITCH  | ⑨ POWER DISPLAY   | * NOT USED |
| ② INPUT SIGNAL DISPLAY | ⑥ TONE CONTROL  | ⑩ ATTENUATOR      |            |
| ③ MAIN VOLUME CONTROL  | ⑦ POWER SWITCH  | ⑪ AUX INPUT       |            |
| ④ PROTECTION DISPLAY   | ⑧ ZONE SELECTOR | ⑫ LED LEVEL METER |            |



- |                           |                                      |   |                                    |
|---------------------------|--------------------------------------|---|------------------------------------|
| ① AC POWER TERMINAL       | ⑤ TELL IN TERMINAL                   | ⑧ INPUT 1~6 TERMINAL<br>LINE / MIC / PHANTOM<br>SELECTOR SWITCH | ⑪ MIX OUT                          |
| ② EXTERNAL CHIME TERMINAL | ⑥ TELL IN VOLUME<br>CONTROL          | ⑨ PRIORITY MUTE VOLUME  | ⑫ INPUT 1~3 EURO<br>BLOCK TERMINAL |
| ③ EXTERNAL MUTE TERMINAL  | ⑦ TELL IN PRIORITY<br>VOLUME CONTROL | ⑩ EXT IN  | ⑬ SPEAKER OUTPUT<br>TERMINAL       |
| ④ VCA TERMINAL            |                                      |   |                                    |

## Optional Accessory

### Rack Mount Bracket BKT-A120



### Wall Volume Controller VCA-100



# APPLICATION 1

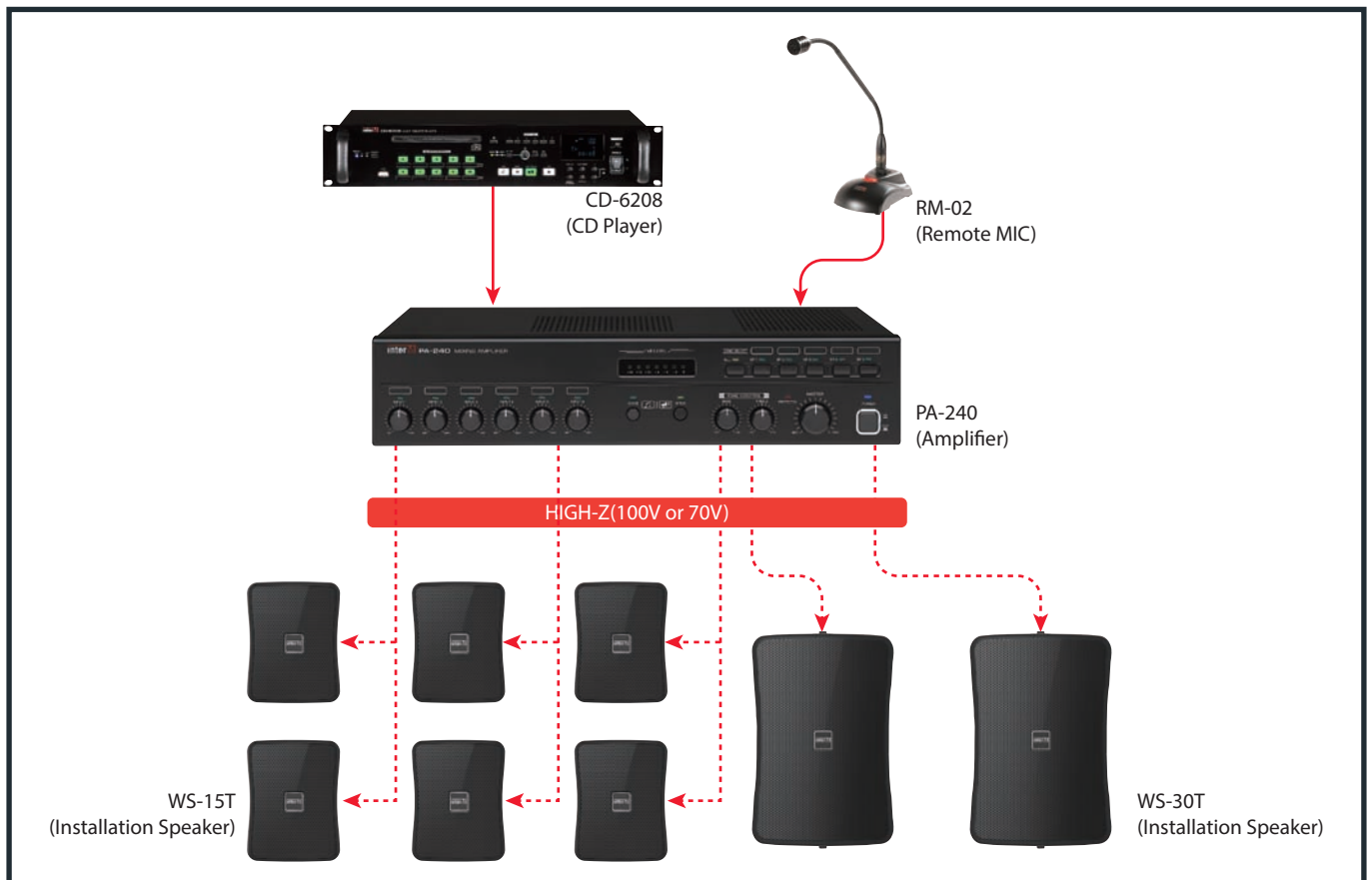
## *Application for commercial audio environment like cafe or retail store*



If you want to play background music in the store or call out a customer (paging broadcast system), PA series is the best choice for your broadcast environment. Also you can configure the optimal commercial audio environment through the WS series which is a professional indoor/outdoor installation speaker.

PA series can configure background music system via various sources (CD player, Tuner, etc) and can configure paging broadcast system through a remote microphone RM-02.

In addition, depending on the size of the broadcasting area, it can be configured up to five zones separately.





## APPLICATION 2

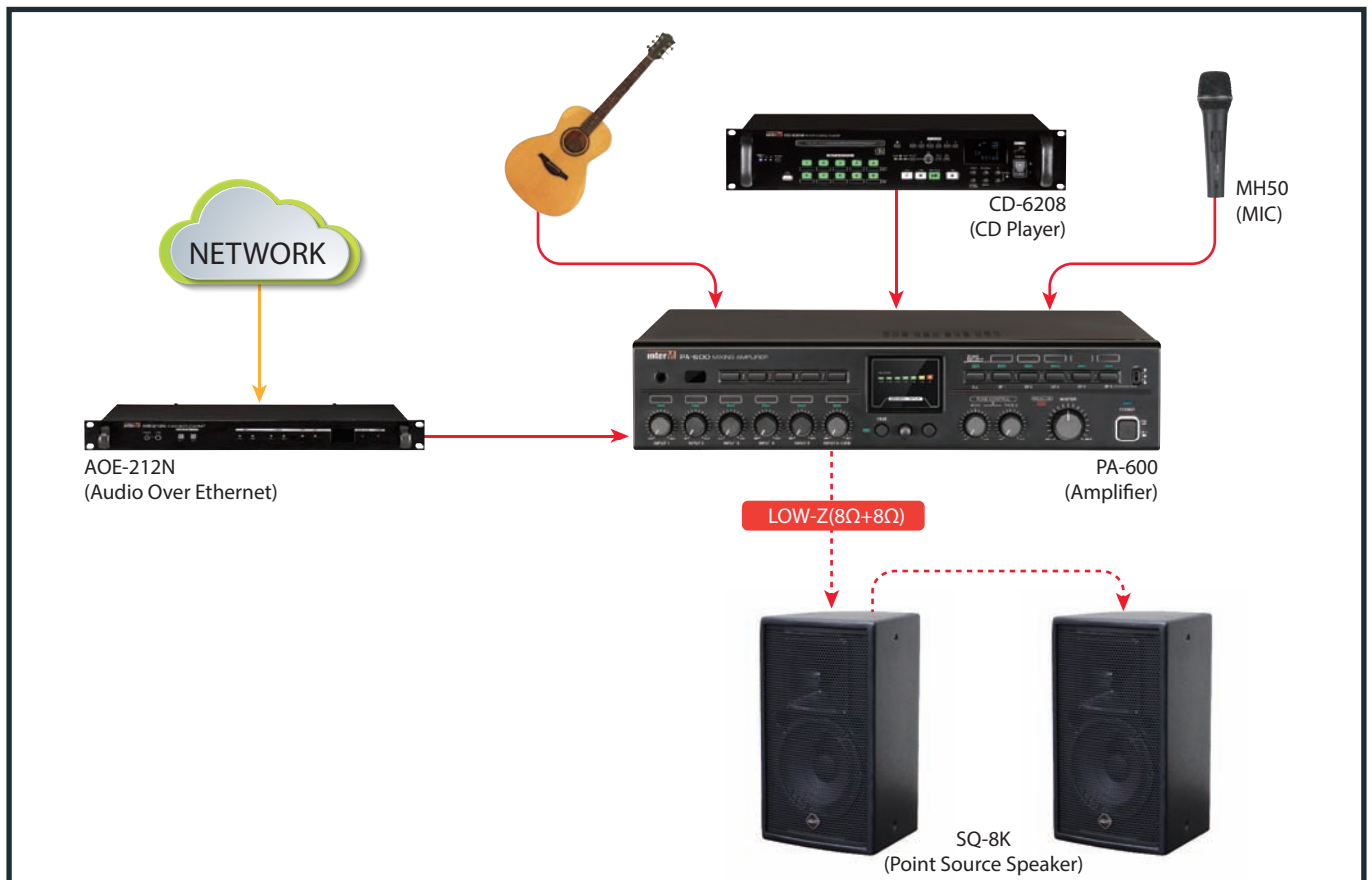
### *Application for professional audio environment like hall or house of worship*



Configure broadcast system with PA Series to make speech and hold musical performance by connecting the Point Source Speaker IX, SE, SQ Series.

It is able to comprise professional audio environment by connecting instruments such as dynamic microphone MH50, Acoustic guitar and digital keyboard. In addition, through AOE-212N you can receive audio in the remote network.

PA Series can make the optimal high-quality audio environment by controlling bass/treble tone to fit the space.



# PA-60/120/240 SPECIFICATION

		PA-60	PA-120	PA-240
Rated Output		60 W	120 W	240 W
Frequency Response(@ Speaker Output, 1 W)		80 Hz~17 kHz		
THD(@ Rated Power, 1 kHz)		less than 1 %		
S/N(@ Rated Output, Line Input)		more than 78 dB		
Tone Control(100 Hz, 10 kHz, $\pm 3$ dB)		$\pm 10$ dB		
Input Sensitivity/Impedance(@ High-Z Output)				
INPUT 1~5	MIC	-50 dBu/2 k $\Omega$		
	LINE	-10 dBu/2 k $\Omega$		
INPUT 6		-10 dBu/10 k $\Omega$		
TEL IN		0 dBu/10 k $\Omega$		
EXT IN		0 dBu/20 k $\Omega$		
MIX OUT / Impedance		0 dBu/10 k $\Omega$		
Speaker Output Level/Impedance	100 V region	100 V/167 $\Omega$	100 V/84 $\Omega$	100 V/42 $\Omega$
	70 V region	70 V/82 $\Omega$	70 V/41 $\Omega$	70 V/21 $\Omega$
	LOW-Z	8/4 $\Omega$ Output		
Rated Output Power (@ 1 kHz, THD 1 %)	8 $\Omega$	40 W	120 W	180 W
	4 $\Omega$	60 W	160 W	240 W
Operating Temperature		-10 $^{\circ}$ C ~ +40 $^{\circ}$ C		
Power Source		AC 120 V/60 Hz or AC 230 V/50 Hz or AC 240 V/50 Hz (Supplied AC mains transformer depends on contrary requirements)		
Power Consumption		40 W	60 W	90 W
Weight		6.2 kg/13.7 lbs	7.4 kg/16.3 lbs	9.8 kg/21.6 lbs
Dimensions(W×H×D)		420×88×319 mm/16.5×3.5×12.6 in		

# PA-360/480/600 SPECIFICATION

		PA-360	PA-480	PA-600
Rated Output		360W	480W	600W
Frequency Response(@ Speaker Output, 1 W)		80Hz~15kHz		
THD(@ Rated Power, 1 kHz)		Less than 0.5%		
S/N(@ Rated Output, Line Input)		More than 70dB		
Tone Control (Treble, Bass)		±10dB		
Input Sensitivity/Impedance(@ High-Z Output)				
INPUT 1~5	MIC	-50dBu/2kΩ		
	LINE	-10dBu/2kΩ		
INPUT 6		-10dBu/10kΩ		
TEL IN		0dBu/10kΩ		
EXT IN		0dBu/20kΩ		
MIX OUT / Impedance		0dBu/10kΩ		
Speaker Output Level/Impedance	LOW-Z	76V/8Ω+8Ω 70V/8Ω+8Ω	88V/8Ω+8Ω 70V/8Ω+8Ω	100V/8Ω+8Ω 70V/8Ω+8Ω
	HIGH-Z	100V/28Ω 70V/14Ω	100V/21Ω 70V/10Ω	100V/16Ω 70V/8Ω
Operating Temperature		-10 °C ~ +40 °C		
Power Source		AC 120 V/60 Hz or AC 230 V/50 Hz or AC 240 V/50 Hz (Supplied AC mains transformer depends on contrary requirements)		
Power Consumption		80W	100W	160W
Weight		5.2kg/11.5lb		
Dimensions(W×H×D)		420×88×319 mm/16.5×3.5×12.6 in		



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CIE-Group Ltd 3 Widdowson Close Blenheim Ind Est Bulwell Nottingham NG6 8WB England  
**T: +44(0)115 9770075 F: +44(0)115 9770081 E: [info@cie-group.com](mailto:info@cie-group.com) W: [www.cie-group.com](http://www.cie-group.com)**

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