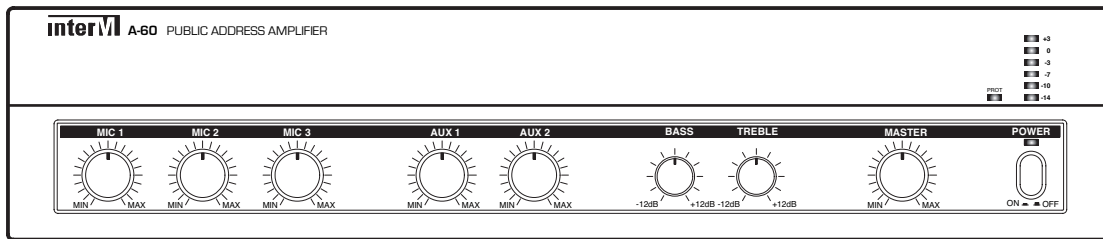


# Operation Manual

## A-60/120 Public Address Amplifier



**interM**

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## 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!



### WARNING

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

\*Do not install this equipment in a confined space such as a book case or similar unit.

\*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.

\*Worded: "WARNING FOR YOUR PROTECTION PLEASE READ THE FOLLOWING-WATER 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."



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.

Attentions: Pour prévenir les chocs électriques ne pas utiliser cette fiche polarisée avec un prolongateur, une prise de courant ou une autre sortie de courant, sauf si les lames peuvent être insérées à fond sans en laisser aucune partie à découvert.

## Unpacking

Although your A-60/120 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.

## Installation

### Environment

Never place this product in an 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.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with 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 with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for 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 this apparatus during lightning storms or when unused for long periods of time.
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.



## Features

- **HIGH POWER, LOW DISTORTION**  
60W (A-60) or 120W (A-120) of RMS power, with less than 1% THD.
- **VERSATILE AND EASY TO USE**  
Three Mic inputs, two Aux Inputs.
- **PRIORITY MUTING**  
Mic1 input mutes other inputs when in use.
- **FLEXIBLE DESIGN**  
Mono 4 $\Omega$  or 70V/100V High-Impedance Outputs.
- **TONE CONTROL**  
Separate Bass and Treble controls to tailor your sound.

### Accessories

One detachable AC power cord is provided for use with this product.

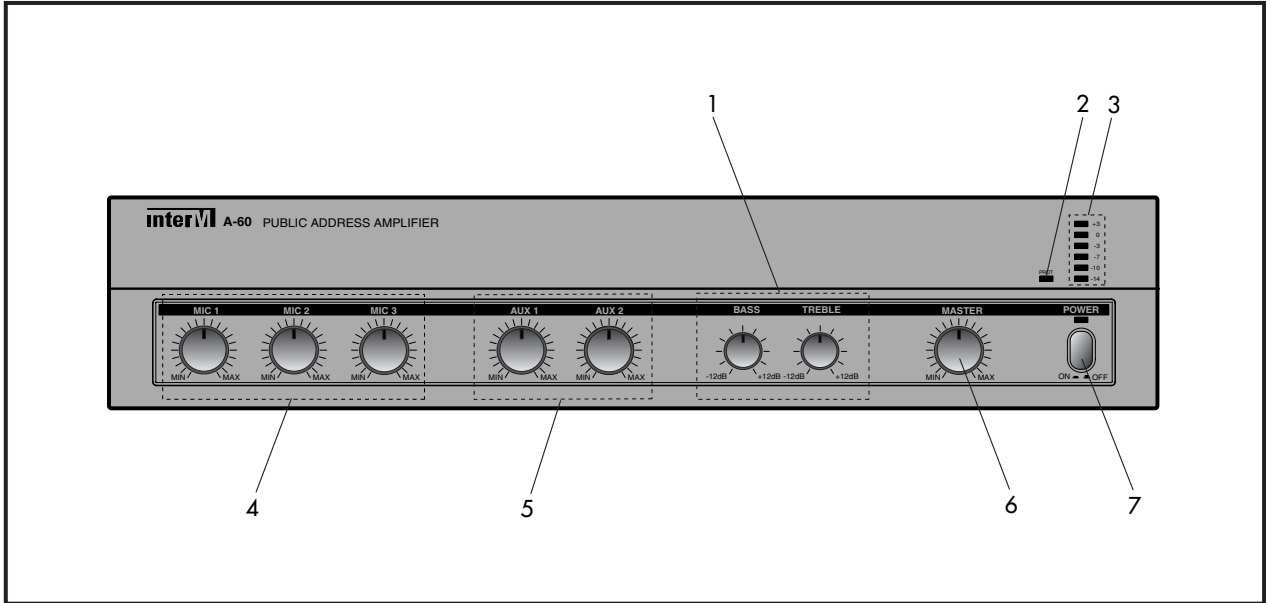
## Operation

Make certain that speakers and input sources are properly connected before switching on.

Keep volume levels turned down before switching on.

**NOTE:** The system's operation is delayed by approximately three seconds after pressing the power switch. This is due to the built-in protection circuitry, designed to protect speakers and other system components.

## Front Panel



### 1. BASS AND TREBLE CONTROLS

These knobs provide continuous control of the high and low frequency response, by adding up to 12dB of cut (decrease) or boost (increase).

### 2. PROTECTION INDICATOR

This LED indicates the state of the amplifier's protection circuitry. When the Protection LED is on (illuminated), the protection circuitry is active, indicating that the unit is not operating normally. This is typically due to overheating or power limiting. Please check the Input and Output condition of the amplifier.

### 3. OUTPUT LEVEL DISPLAY

This six-segment LED meter indicates the amplifier's output level in RMS.

### 4. MIC VOLUMES 1-3

These knobs provide continuous control of the volume of Mic Inputs 1-3.

### 5. AUX VOLUME 1-2

These knobs provide continuous control of the volume of Aux Inputs 1 and 2.

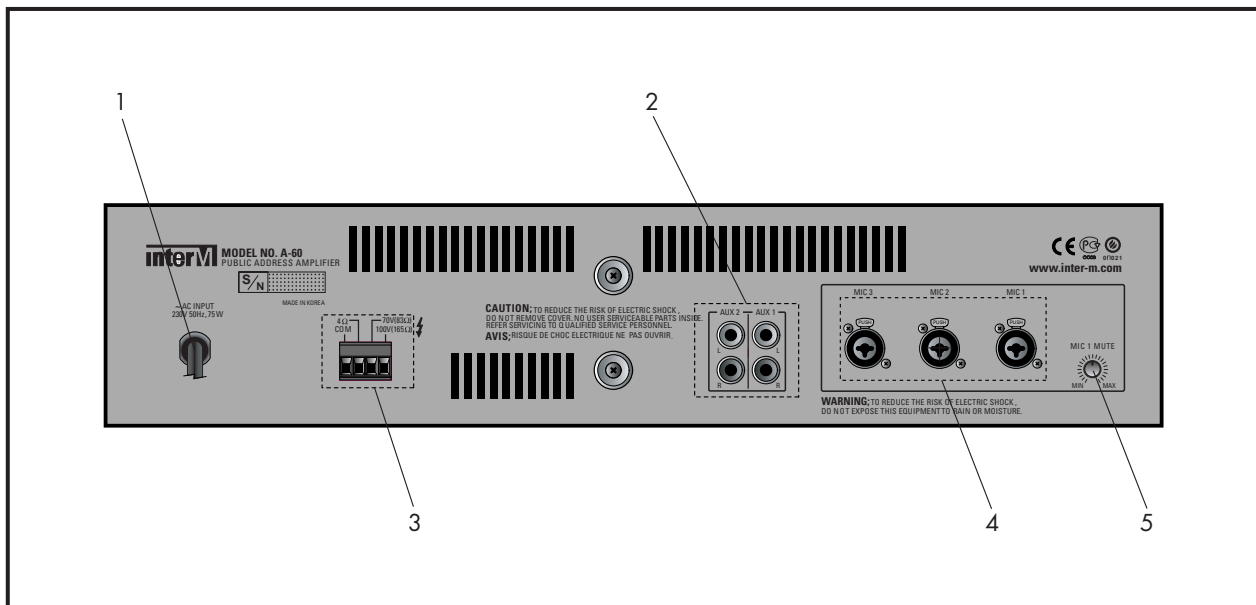
### 6. MASTER VOLUME

This knob provides continuous control of the overall volume of the A-60/120 output.

### 7. POWER SWITCH

Pressing this switch turns the unit on, as indicated by the Power LED above the switch. Pressing it again turns the unit off.

## Rear Panel



### 1. AC POWER

Connect this cable to your AC outlet.

### 2. AUX INPUTS 1-2

These inputs are used for connecting line-level sources, such as CD, tuner or cassette deck.

### 3. SPEAKER OUTPUT TERMINALS

These terminals are used to connect speakers to the unit. You may select either 4Ω conventional operation, or High Impedance operation at either 70V or 100V.

### 4. MIC 1,2,3 INPUTS

These 1/4" phone jacks accept a standard mic-level input. Input impedance is 600Ω, and input sensitivity is 0.6mV.

### 5. PRIORITY MUTE LEVEL

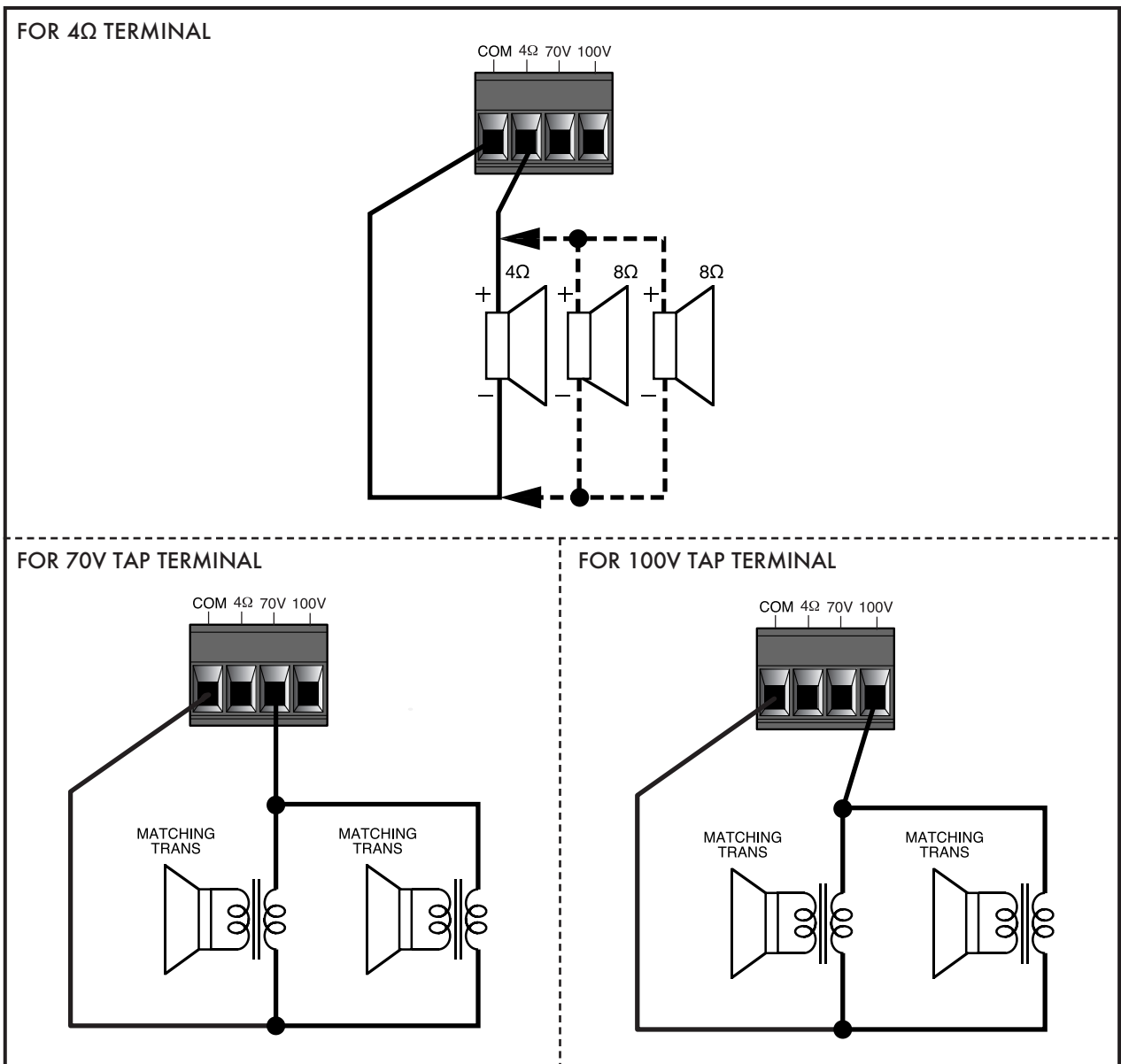
When Mic Input 1 is active, it mutes all other input signals (priority muting). When priority muting is in effect, this control is used to set the amount of attenuation (how much muting) is applied to the other inputs when a signal is present on Mic Input 1. The amount of attenuation can range from very little to complete muting.

## Connecting Speakers

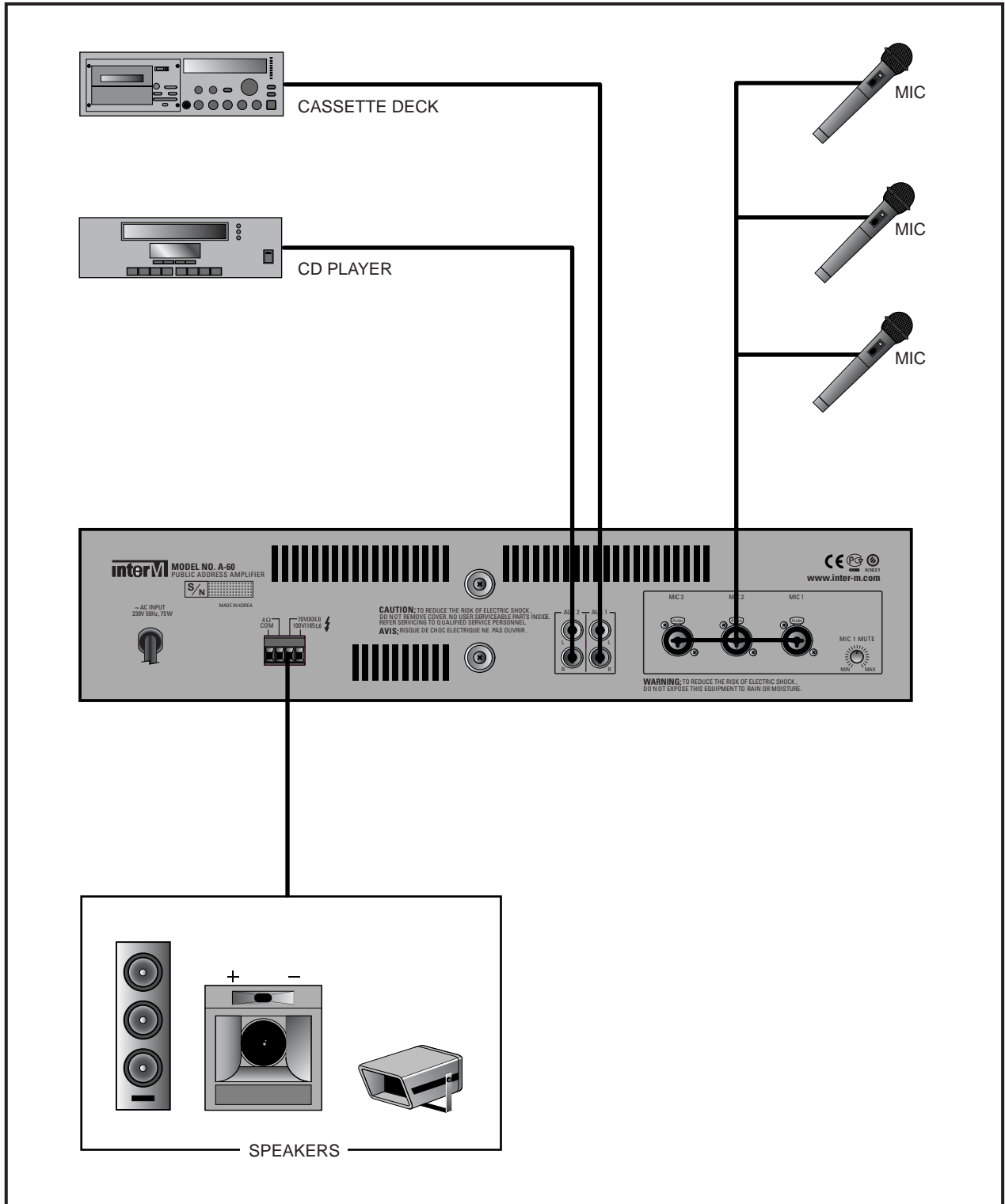
Before connecting speakers to your A-60/120 unit, be sure to disconnect the AC power cable. Make certain that the total impedance is not less than the rated impedance indicated.

For 4Ω low-impedance speakers, connect in parallel, with the positive (+) connectors to the 4Ω terminal and the negative (-) connectors to the COM terminal. See Figure below.

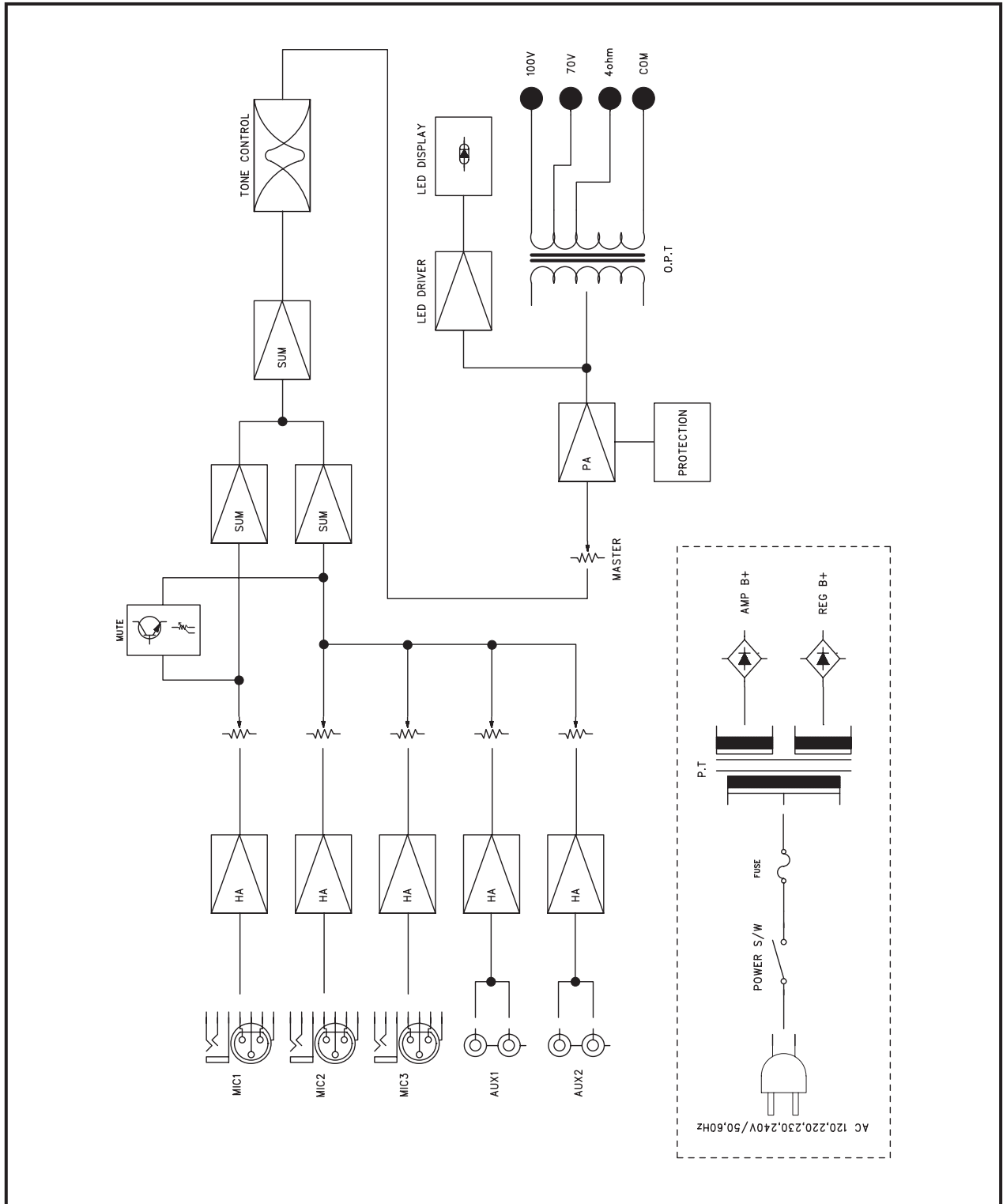
For high-voltage distributed systems, connect with matching transformer to either 70V or 100V terminals, as per Figures below. Be certain that the total impedance does not equal less than the rated impedance.



# Applications



# Block Diagram



## Specifications

### - ELECTRICAL

Rated Output/Impedance .....	A-60: 15.5V/4Ω, 70V/81.6Ω, 100V/166.7Ω A-120: 21.9V/4Ω, 70V/40.8Ω, 100V/83.3Ω
Frequency Response (±3dB) .....	80Hz~16kHz
T.H.D.....	Less than 1%
S/N	
Mic .....	Better than 50dB
Aux.....	Better than 75dB
Input Sensitivity/Impedance	
Mic Input 1-3 .....	-60dB/600Ω, Bal
Aux 1 Input .....	-10dB/10kΩ, Unbal
Aux 2 Input.....	+3dB/10kΩ, Unbal
Tone Control	
Treble (10kHz) .....	±12dB
Bass (100Hz) .....	±12dB

### - GENERAL

Power Source .....	100-120VAC or 220-240VAC; 50/60Hz (Supplied AC mains transformer depends on country requirements)
Power Consumption .....	A-60: 75W A-120: 105W
Weight .....	A-60: 8.9kg/19.6lb A-120: 10.3kg/22.7lb
Dimensions.....	420(W) x 88(H) x 320(D)mm/16.5(W) x 3.5(H) x 12.6(D)in

\* Specifications and design subject to change without notice.

## Service

### Procedures

Ensure the problem is not related to operator error, or system devices that are external to this unit. Information provided in the troubleshooting portion of this manual may help with this process. Once it is certain that the problem is related to the product contact your warranty provider as described in the warranty section 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 supplied through legitimate sources are compatible with local AC power requirements.

### Options

No optional items are available for this 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 determined first by locating the appropriate country which the product was purchased in, then by locating the product type.

To obtain specific warranty information and available service locations contact Inter-M directly (in Korea or the USA) or the authorized Inter-M Distributor for your specific country or region.



Inter-M, Ltd. (Korea) began operations in 1983.

Since then, Inter-M has grown to become one of the largest manufacturers of professional audio and commercial sound electronics equipment in the world.

Inter-M has gained worldwide recognition for its own branded products, as well as private label manufacturing of electronics sold under other names (OEM).

The company is no longer just a Korean company, but rather a global company that is truly international in scope, with factories and offices in Korea and China, and sales and marketing operations located in Japan, Europe, and the U.S.A.

With more than 850 employees around the globe, Inter-M is well-poised for further growth and expansion.

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