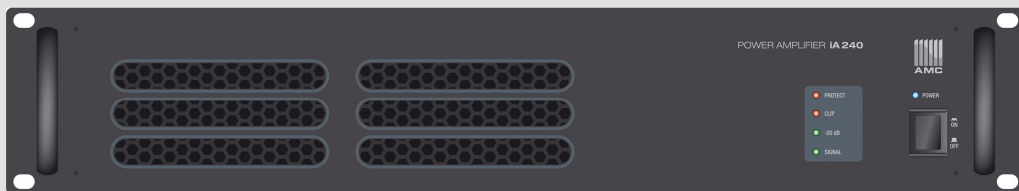




**iA series**

Power Amplifiers



User Manual

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### Security Precautions

- Carefully **READ** instructions before use.
- Amplifier can be operated on either 115 V or 230 V (50-60Hz), which can be selected by changing switch position on the rear panel. The amplifier is factory set to 230 VAC mains voltage.
- Keep this user manual nearby for any reference.

### Precaution points and notices

Below-described precaution points and notices are to prevent self injury and property damage. Before operating the amplifier, read this manual first to get known of potential safety hazard and to understand the meaning of the precaution points and notices.

- **DO NOT** install or mount the amplifier on unstable objects, such as on the rickety table or the slanted surface. It may result in the amplifier to fall and cause body injury and/or property damage.
- **Be sure to ground** to the safety ground (earth) terminal to avoid electric shock. Never ground to a gas pipe.
- Use the amplifier only with appropriate voltage specified on the amplifier. Using the voltage higher than specified may cause fire or electric shock.
- **DO NOT** cut, twist, damage, nor modify the power supply cord. In addition, avoid using the power cord close to heaters, and don't place heavy object, including the amplifier itself, on the power cord, for it may cause fire or electric shock.
- **DO NOT** expose the amplifier to rain or the environment where water or other liquids may be splashed, doing this, it may cause fire or electric shock.
- **DO NOT** remove nor plug in the power supply plug with wet hands, for it may cause electric shock.
- Be sure to grasp the power supply plug when unplugging. **DO NOT** pull on the cord itself. Operating the amplifier with damaged power supply cord may cause fire or electric shock.
- **Avoid** installing the amplifier in humid or dusty places, the area exposed to the direct sunlight, locations generating smoke or steam, or the spot near the heaters. It may result in fire or electric shock.
- When moving the amplifier, be sure to remove its power supply cord from the wall outlet. Moving the amplifier with the power cord connected to the outlet may cause damage to the power cord, and resulting in fire or electric shock. When removing the power cord, be sure to grasp its plug to pull.
- **DO NOT** Block the ventilation slots of the amplifier chassis. It will cause the temperature rising and may result fire.

WARNING: THIS APPLIANCE MUST BE EARTHED



- **AC Power Source** The supply transformer has been designed for use on either 115V or 230V, (50-60Hz), selected by a push switch on the rear panel. The amplifier is factory set to 230V mains voltage.

### When using the Amplifier

- When following irregular situations are found while using amplifier, immediately switch off the power, disconnect the power supply plug from the AC outlet. Don't try to operate the amplifier again until inspected by local dealer. Contact your local dealer to check the amplifier.
- ✓ The amplifier falls.
- ✓ Amplifier is malfunction.
- ✓ Water or any metallic object gets into the amplifier.
- ✓ The smoke or strange smell coming from the amplifier.
- ✓ The power supply cord is damaged, such as exposure of the core, disconnection etc..
- **DO NOT** put cups, bowls, or other containers with liquid or metallic object in it on the top of the amplifier. If accidentally spilled onto the amplifier, it may result fire or electric shock.
- **DO NOT** touch the power supply plug during thundering and lightning, for it may result electric shock.
- **DO NOT** insert or drop the metallic objects or flammable materials into the ventilation slots of the amplifier, for it may result fire or electric shock.
- **DO NOT** open nor remove the amplifier cover to prevent fire or electric shock, for there are high voltage components inside.
- Make sure that the volume control is turned to minimum position before power is switched on. Loud sound produced at high volume when power is switched on may damage hearing.
- **DO NOT** place heavy objects on the amplifier, for it may cause it fall and may result in body injury and/or property damage. Besides, the object itself may cause damage or body injury.
- **DO NOT** operate the amplifier for the extended period of time when sound distortion is heard. It is an indication of malfunction, which may cause heat and result fire.
- Switch the power off, and unplug the power supply plug from the AC outlet for safety purposes, when cleaning or leaving the amplifier unused for 7 days or more. Fire or electric shock may occur.
- If the dust accumulates on the power supply plug or on the wall AC outlet, fire may result in. Clean it periodically. In addition, make sure the plug is inserted in the wall outlet securely.
- Contact your local dealer to clean the dust, if the dust has accumulated in the amplifier for a long period of time. Dust accumulation may result fire or damage.

Congratulations and thank you for the purchasing iA series commercial power amplifier. These amplifiers are designed to provide a big impact in sound reproduction and to produce the best and highest quality audio at an affordable price. We wish you great enjoyment and satisfaction when using your amplifier, whether you are an installation, or reinforcement engineer.

### Unpacking and Installation

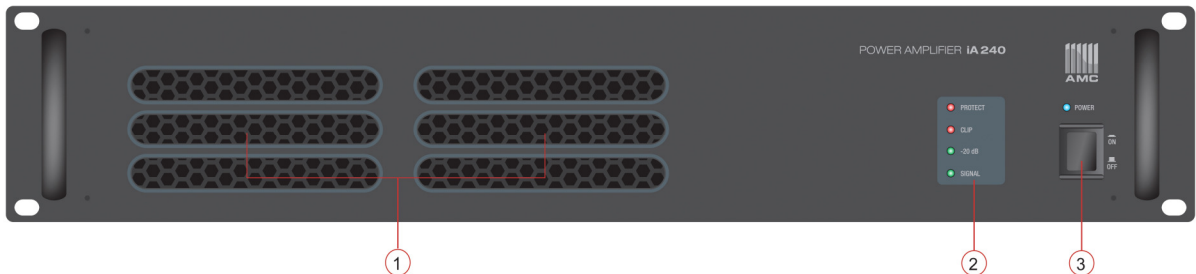
Although it is neither complicated to install nor difficult to operate your amplifier, a few minutes of your time is required to read this manual for a properly wired installation and becoming familiar with its features and how to use them. Please take a great care may be needed when moving your set and are required if it ever becomes necessary to return your set for service. Never place the unit near radiator, in front of heating vents, to direct sun light, In excessive humid or dusty location to avoid damages and to guaranty a long reliable use. Connect your unit with the system components according to the description on the following pages.

### Features

The iA120, iA240 and iA360 are comprehensive, qualified power amplifier solutions for commercial and industrial applications. These low-cost units provide all necessary features in a multifarious building-block format.

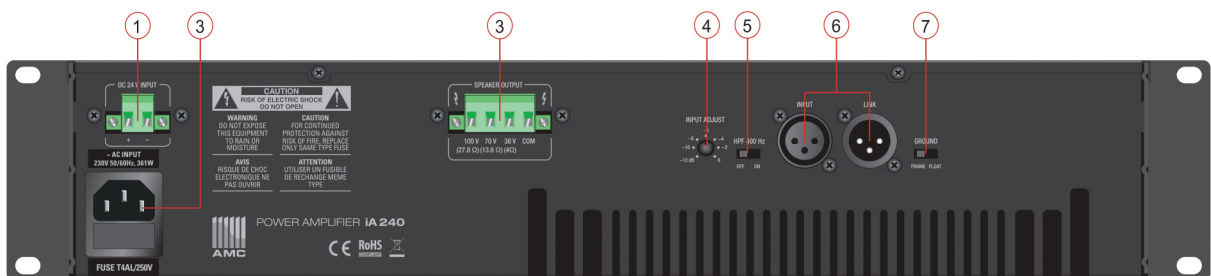
- One line input and one link output with XLR jacks.
- Low impedance(4Ω) and constant voltage(70V, 100V) output with phoenix connector.
- 120 Watts (iA120), 240 Watts (iA240) and 360 Watts (iA360) rated power output.
- Advanced protection system includes current limiting, over current and thermal protection.
- 19-inches standard rack mountable type.
- Wide frequency range from 40 Hz to 16 kHz  $\pm$  3dB.
- Low distortion and low noise level.
- Designed for operation on either AC Mains or DC 24V evacuations.
- Adjustable input level from -12dB to 0dB.
- Built in 400Hz high-pass filter.
- Built in high temperature detection and automuting function.
- Expandability by adding power amplifier with LINK terminal.
- Compact size(2U) and lightweight.
- Ideal commercial and industrial use.

## FRONT PANEL



1. Ventilation fan
2. Indicators (Protection and Output level)
3. Power switch with power indicator.

## REAR PANEL



1. DC +24V input terminal
2. AC power input connector with fuse holder

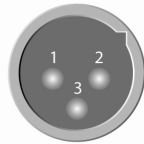
Model / Voltage	115/120 Vac	220 /230 / 240 Vac
<b>iA120</b>	T4AL / 250V	T 3.15AL / 250 V
<b>iA240</b>	T8AL / 250V	T4AL / 250 V
<b>iA360</b>	T12AL / 250V	T6.3AH / 250 V

3. Speaker connection terminal (4 Ohm, 70 V, 100 V and COM)
4. Level adjustment (-12 dB to 0 dB)
5. HPF (400 Hz) On/Off switch
6. Signal input and Link output connectors
7. Ground switch for provide against ground loop
8. Air flow

## Wiring Guide

AMC recommends using pre-built or professionally wired balanced line for input connector. 22 to 24 gauge cables.

Below picture shows connector pin assignments for wiring.



1. ground/shield
2. hot (+ve)
3. cold (- ve)

For unbalanced connection  
pin 1 and 3 have to be bridged

For output connector AMC recommends using pre-built or professionally wired, High quality, and heavy gauge speaker wires. You may use Phoenix blocks for your output connectors. To prevent the possibility of short-circuits, wrap or insulate exposed loudspeaker cable connectors. Using the guidelines below, select the appropriate size wire based on the distance between amplifier and speaker. The wire sizes are given for a 4-ohm load.

**NOTE :** Custom wiring should only be performed by qualified personnel.

**CAUTION :** Never use shielded cable for output power wiring

Distance	Wire size
Up to 25 ft. (7,5 m)	16 AWG (Ø 1,29mm)
25 - 40 ft. (7,5 - 12 m)	14 AWG (Ø 1,62mm)
40 - 60 ft. (12 m - 18 m)	12AWG (Ø 2,05 mm)
60 -100 ft. (18 m - 30 m)	10AWG (Ø 2,5 mm)
100 - 150 ft. (30 m - 45 m)	8AWG (Ø 3,2 mm)
150 - 200 ft (45 m - 60m)	6AWG (Ø 4,11 mm)

4 Ohm Wire Guide

OUTPUT : Maintain proper polarity on output connectors.

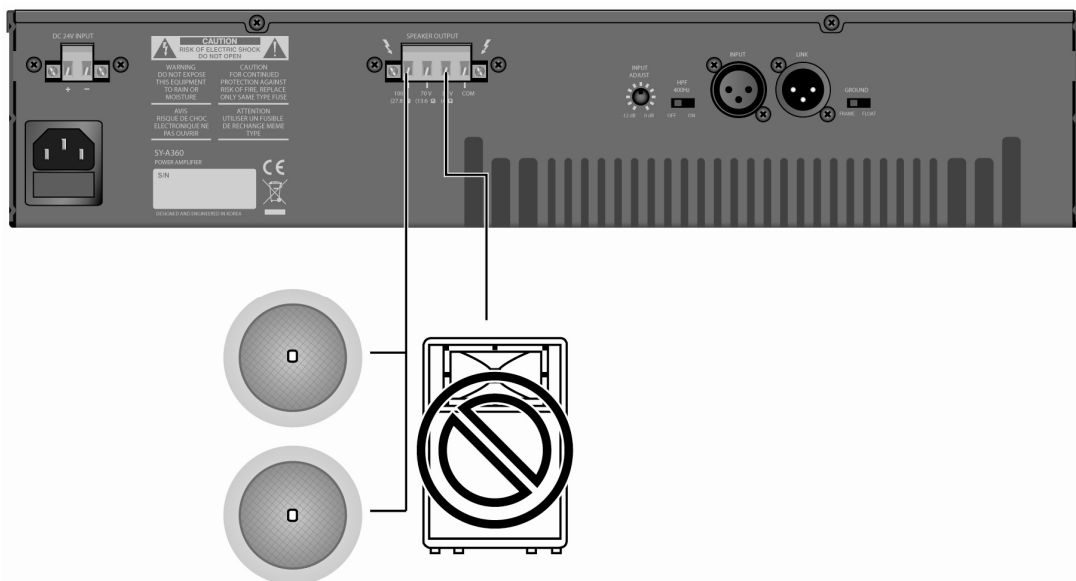
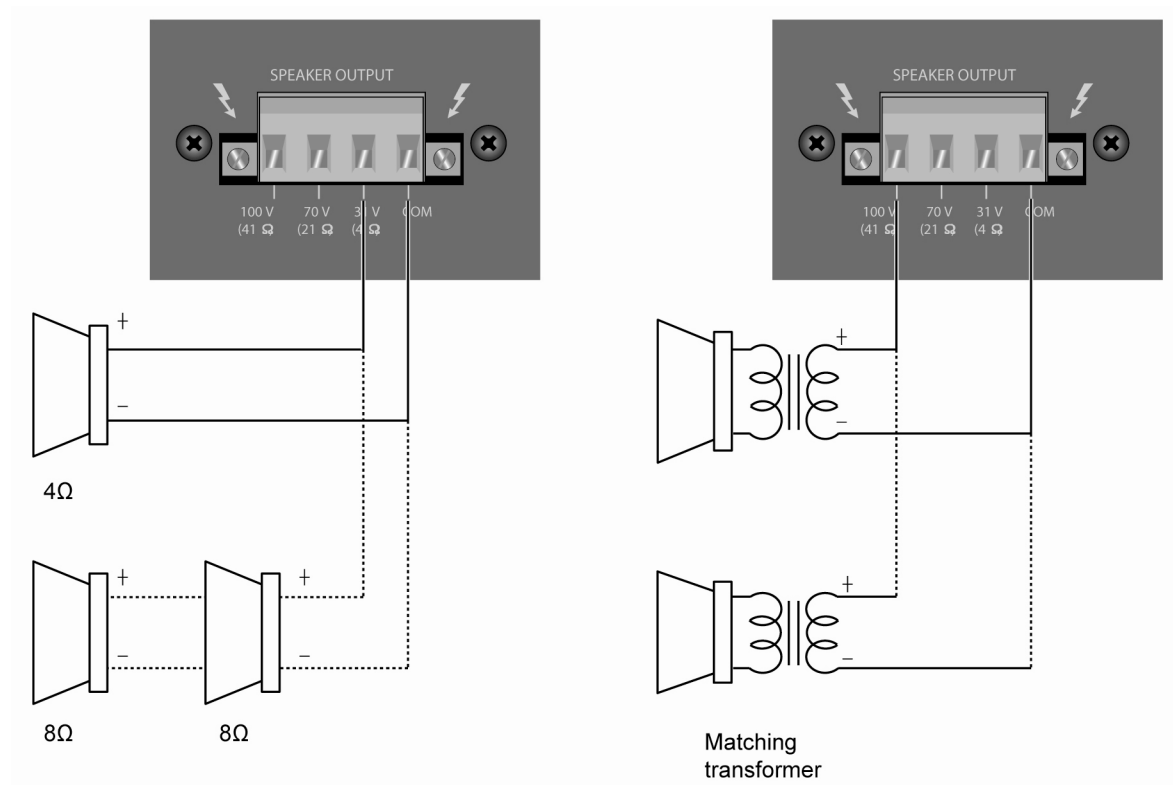
For output channel, connect the output EURO block terminals to the loudspeaker loads. Use terminals marked (4Ω) for a 4-ohm loudspeaker load, or use terminals marked 70V or 100V and COM for constant-voltage loudspeaker loads.

Connect the COM terminal to speaker negative(-) lead; connect one of the other terminals to speaker positive(+) lead.

<b>iA120</b>	4Ω / 22V	41Ω / 70V	83Ω / 100V
<b>iA240</b>	4Ω / 31V	21Ω / 70V	41Ω / 100V
<b>iA360</b>	4Ω / 38V	13.6Ω / 70V	27.8Ω / 100V

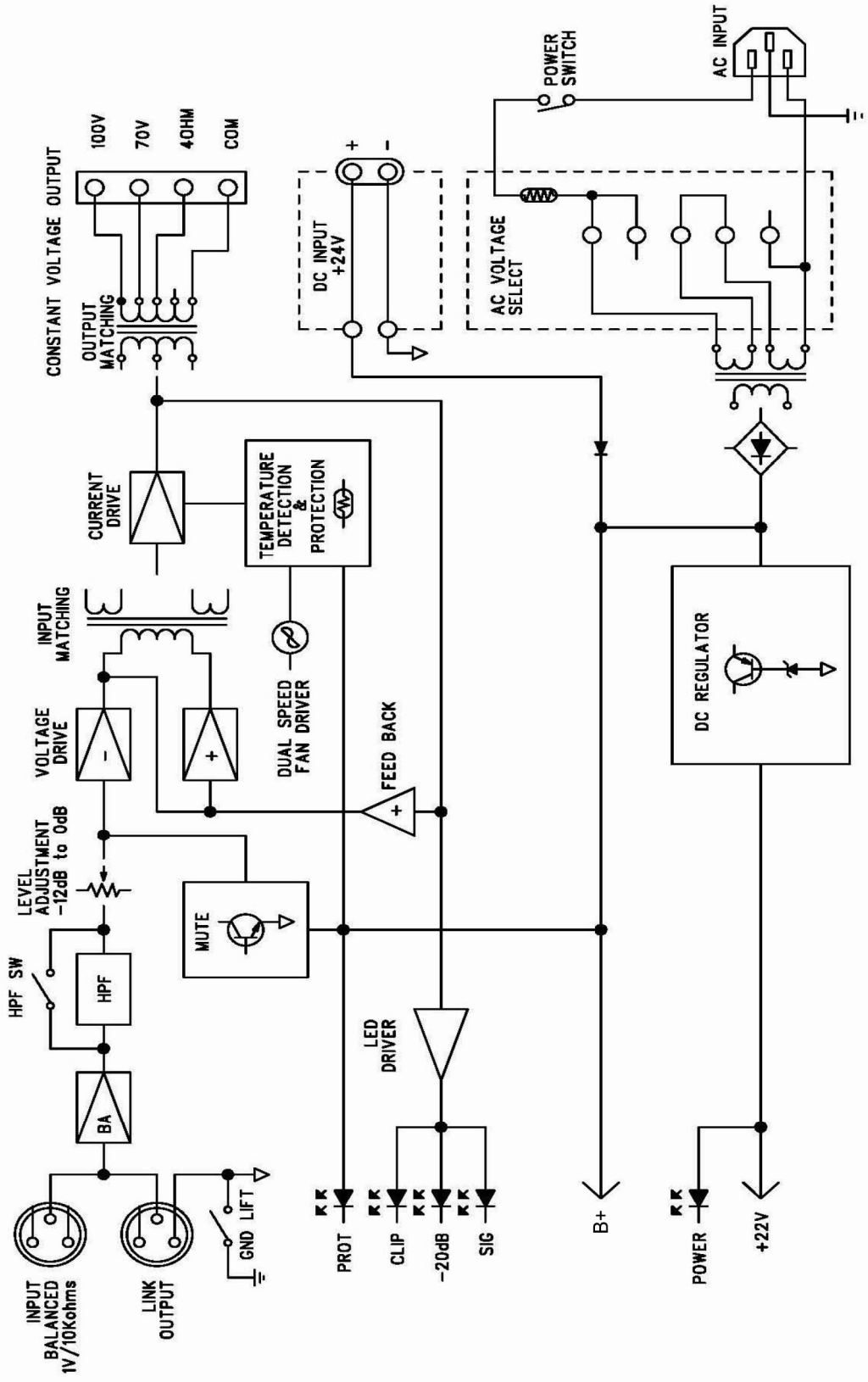
Impedance and output voltages

Impedance and output voltage table represents total speaker system impedances. Possible speaker connections are shown above



**CAUTION :** Never use both the Low-Z(4 ohms) and Hi-Z(70V and 100V) terminals at the same time.





Specifications	iA120	iA240	iA360
<b>Electrical</b>			
<b>Rated output power</b>	120 Watt	240 Watt	360 Watt
<b>Gain control</b>	-12dB - 0dB		
<b>Input Sensitivity (at Balanced line)</b>	1.0 ± 0.1Vrms / 10 kOhm		
<b>High-pass Filter(at 400Hz)</b>	-3dB		
<b>Frequency Response</b>	+1.5 / -3 dB at 70Hz - 18kHz		
<b>S/N Ratio</b>	Better than 90dB		
<b>T.H.D at 1/2 rated output, 1kHz</b>	Less than 1,0%		
<b>Output Voltage and Impedance</b>	4Ω / 22V	4Ω / 31V	4Ω / 38V
	41Ω / 70V	21Ω / 70V	13.6Ω / 70V
	83Ω / 100V	41Ω / 100V	27.8Ω / 100V
<b>Constructions</b>			
<b>Cooling</b>	Fan		
<b>Operating temperature/humidity</b>	0°- 40°C at 95% at non-condensing		
<b>Dimensions (width/height/depth)</b>	482 mm x 88 mm x 340 mm		
<b>Net weight</b>	11,65kg	13,87kg	15,16kg
<b>Power consumption at 1/8 power</b>	185W	361W	525W
<b>Power requirement</b>	AC100V-240V, 50/60Hz and/or DC24V		