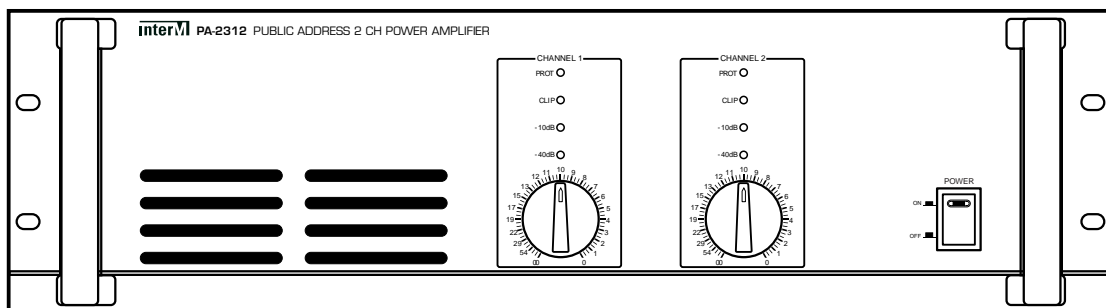


# Operating Manual

## *PA-2312 Public Address 2 CH Power Amplifier*



**interM**

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## Unpacking and Installation

Although it is neither complicated to install nor difficult to operate your PA Amplifier, a few minutes of your time is required to read this manual for a properly wired installation and becoming familiar with its many features and how to use them. Please take a great care in unpacking your set and do not discard the carton and other packing materials. They 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 radiators, in front of heating vents, in excessively humid or dusty location to avoid early damage and for your years of quality use. Connect your complementary components as illustrated in the following page.

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
<p>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK.</p> <p>DO NOT REMOVE COVER (OR BACK).</p> <p>NO USER-SERVICEABLE PARTS INSIDE.</p> <p>REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>		

### WARNING

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



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.

## Features

**- 2 CHANNEL POWER AMPLIFIER**

This unit is composed of two power amplifier circuits.

**- GAIN VOLUME ADJUSTMENT & OUTPUT LEVEL INDICATOR IN FRONT PANEL**

Gain volume is located at the front panel, so you can easily control output level. And you can monitor output level throughout LED indicator in front panel.

**- THERMAL PROTECTION & AUTOMATIC IDLING CIRCUITRY**

To insure stability and reliability against over-current and over-heating, thermal protection circuitry is provided. In addition, automatic idling circuit is provided to protect against thermal run-away.

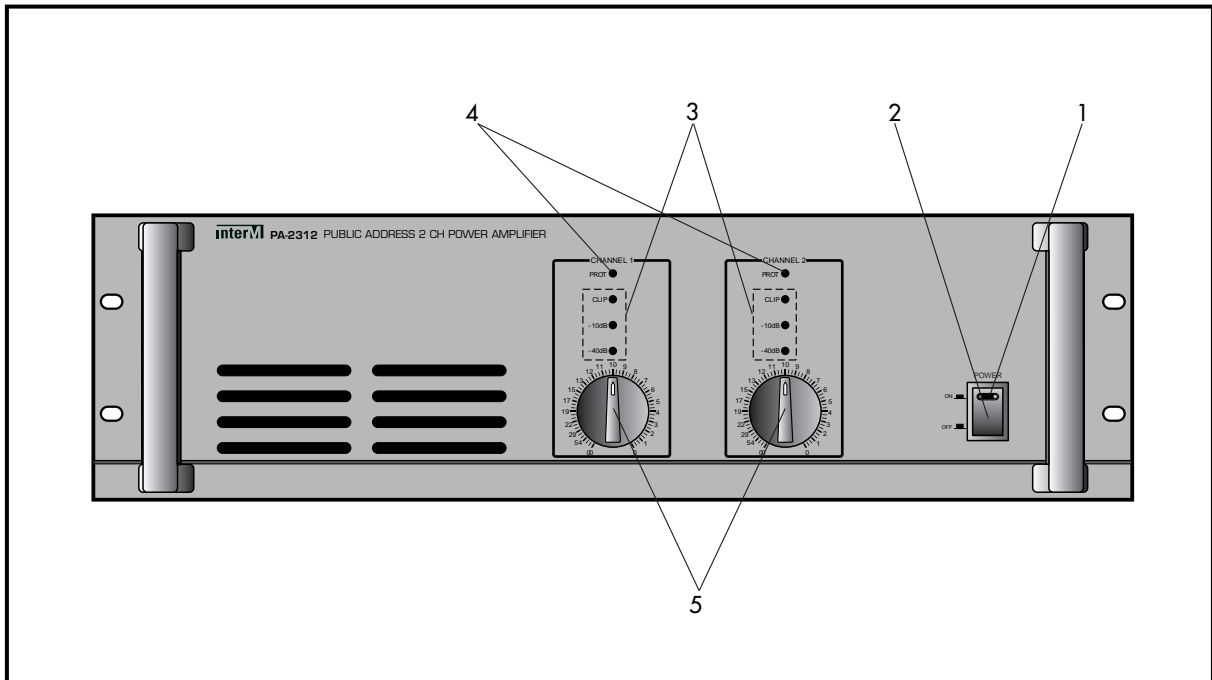
**- BALANCED INPUT**

A balanced input is provided to reduce hum pick up from a long distance input cable and to avoid ground loop problem when you build the system.

**- USE OF EMERGENCY BATTERY**

You can operate this PA amplifier by using emergency battery for unexpected AC power failure.

## Front Panel Controls



### 1. POWER INDICATING LED

This LED indicates power is turned ON.

### 2. POWER SWITCH

Pressing this switch to ON will make the power indicating LED ON and supply the power to unit.

### 3. OUTPUT LEVEL INDICATORS

These LEDs indicates the output level of this amplifier. Be sure not to operate the unit with the clip LED ON continuously (RED).

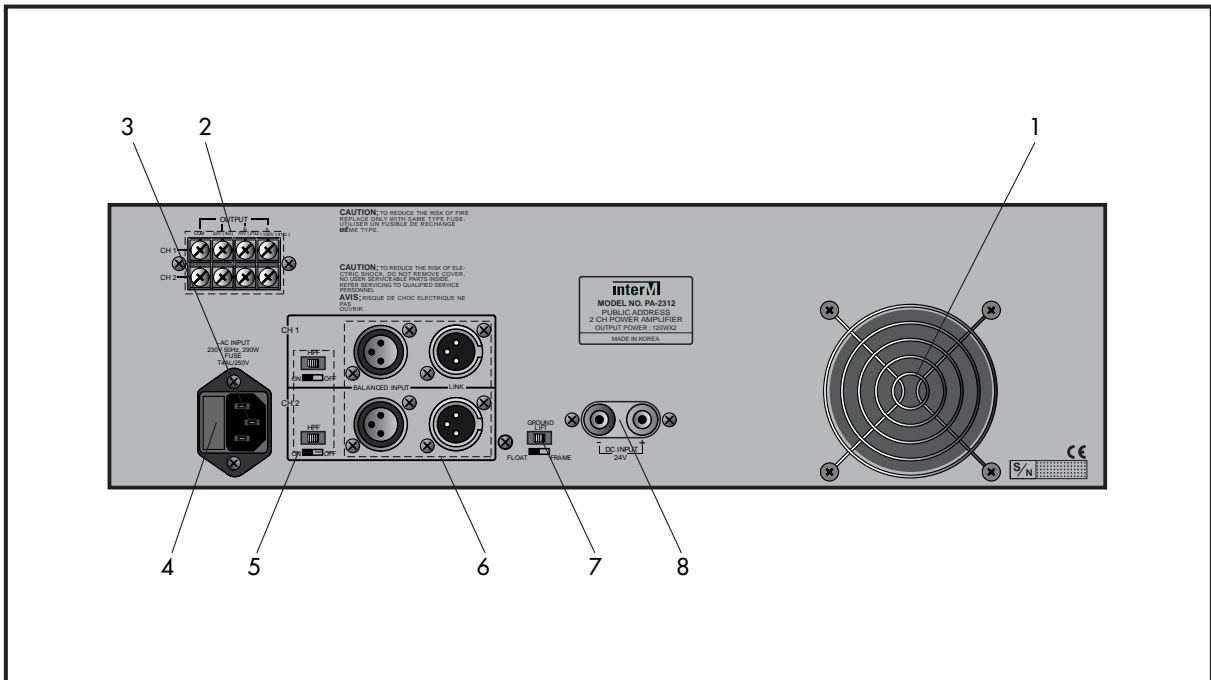
### 4. PROTECTION INDICATOR

This LED indicates the condition of the protection circuit. When the protection LED is "ON" the amplifier is not operating normally (overheating and limiting), please check the INPUT/OUTPUT condition of the amplifier.

### 5. LEVEL ADJUSTMENT VOLUME

This volumes control output levels.

## Rear Panel Controls



### 1. FAN

The fans should be kept free of all obstructions and be accessible to cool fresh air when possible. It is important that the fans be used in a dust free environment.

### 2. SPEAKER OUTPUT TERMINALS

These terminals are for connection of speaker lines to deliver power output to speakers. Impedance (volts) of 4 ohm, 25V, 70V and 100V are provided for convenience. In any case, use the speakers whose combined impedance is equal to or higher than the rated output impedance of amplifier.

4Ω	25V	70V	100V
22V	5.2Ω	42Ω	83Ω

\* 100V or 25V can be selected optionally.

### 3. AC INLET

This terminal is connected AC input cord.

### 4. FUSE DRAWER

These fuse drawer contains AC fuse. Replace them with the same type fuse when they are blown out. If they continuously blow, stop replacing fuses and refer servicing to qualified personnel.

### 5. HIGH-PASS FILTER SWITCH

This switch is for activating the High-pass Filter circuit, to protect speakers from excessive low frequency power demands. The -3dB frequency of the High-pass Filter is 400Hz.

**6. INPUT JACKS**

These input jacks and terminals are for the balanced input signal. You can connect amplifiers in parallel by using XLR jack.

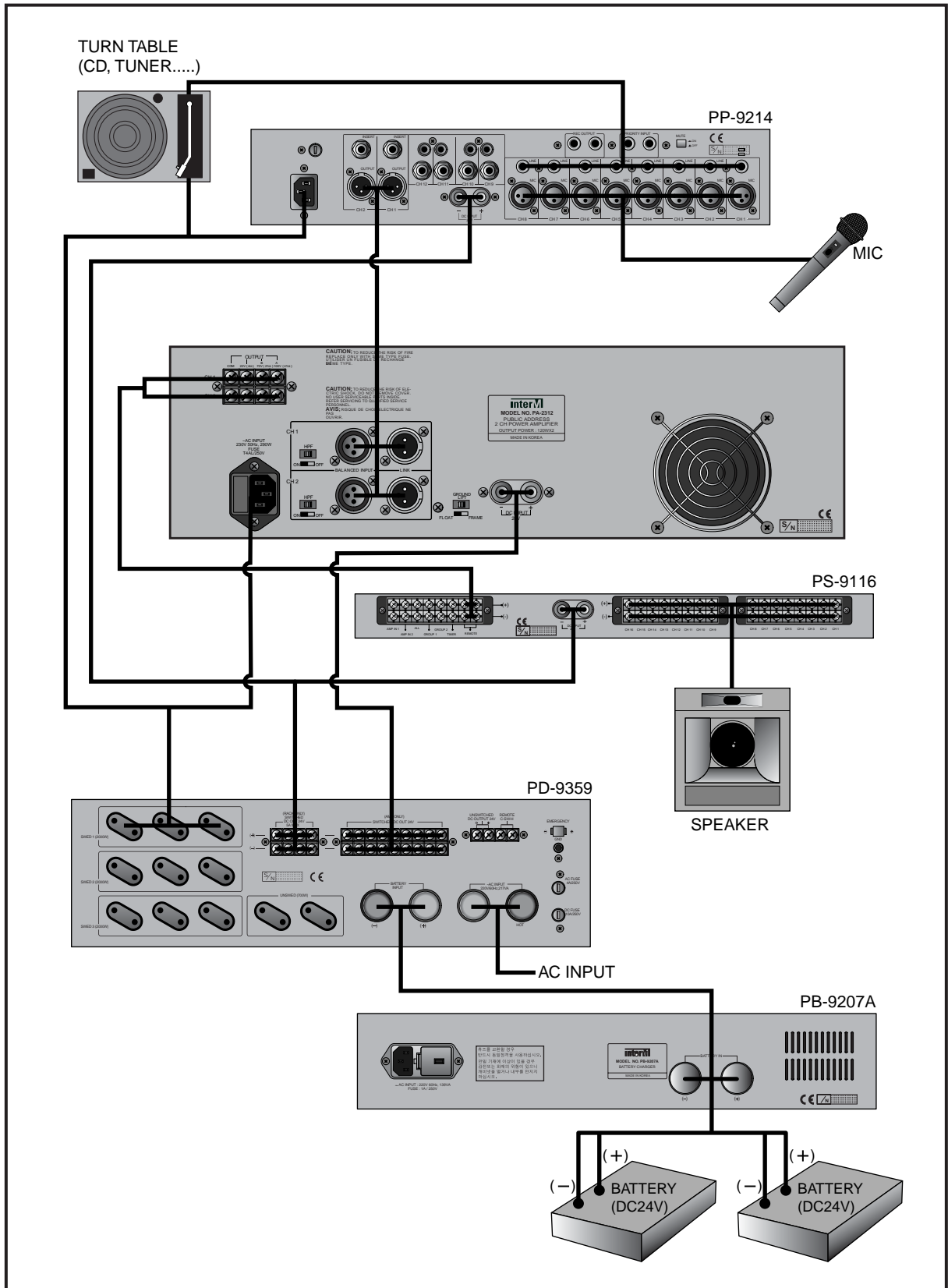
**7. EARTH LINK SWITCH**

This slide switch provides for separation of "safety" earth and "safety" earth to prevent from hum loops.

**8. DC INPUT TERMINALS**

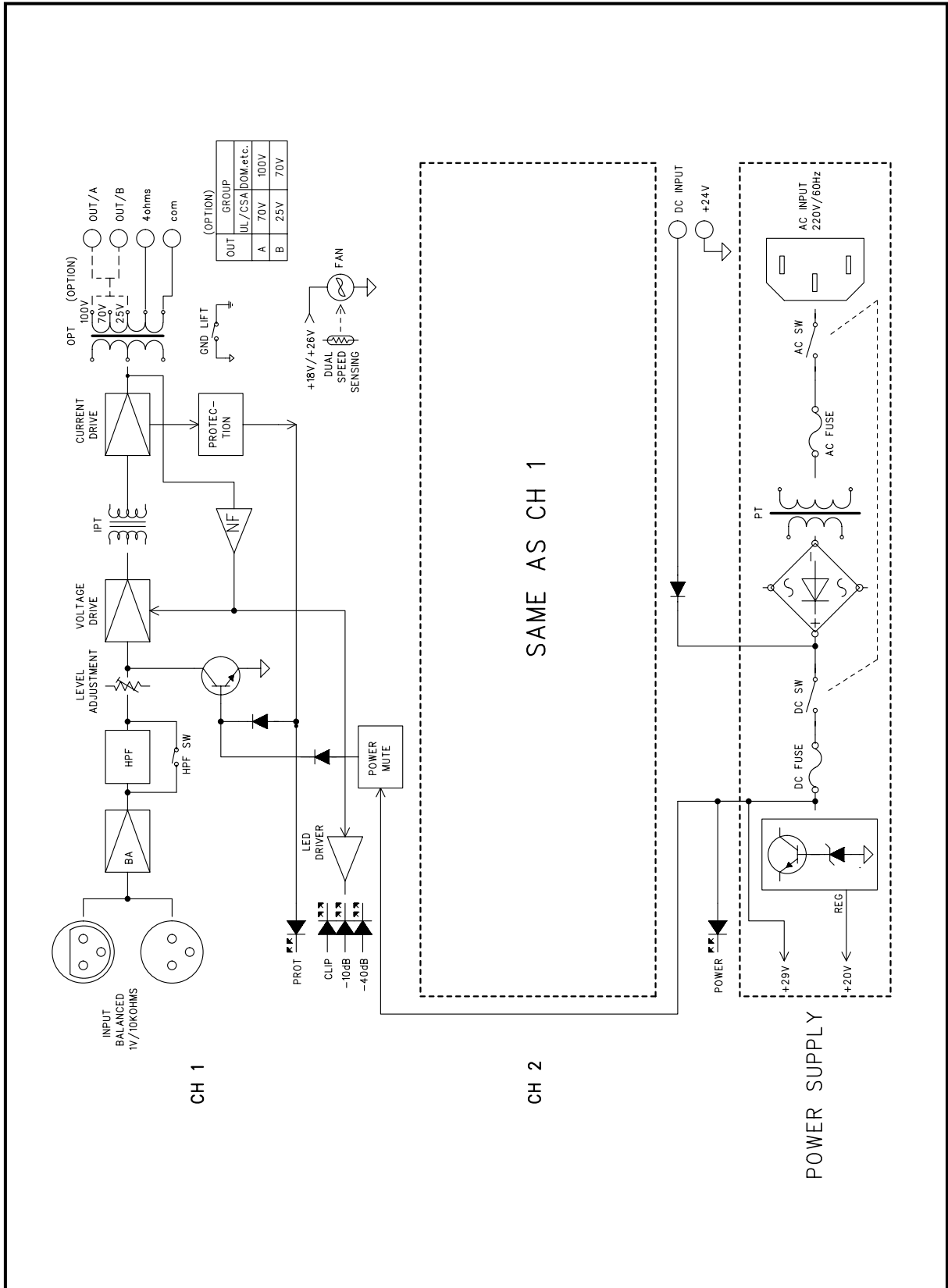
These terminals are for connecting DC power supply of battery. Connect red colored terminal to positive lead of battery and black colored one to negative lead of battery.

# Applications





# Block Diagram



# Specifications

0dB=0.775Vrms

## - ELECTRICAL

Rated Output (THD 1%).....	120W (RMS)
	4Ω (22V)
	5.2Ω (25V)
	41Ω (70V)
	83Ω (100V)
Input Sensitivity/Impedance.....	1V/10kΩ, BAL
Frequency Response (+1/-3dB).....	70Hz-20kHz
T.H.D.....	Less than 1%
S/N.....	Better than 95dB
HPF.....	-3dB at 400Hz
Channel Separation.....	Less than -70dB

## - GENERAL

Power Source.....	AC 110V-240V, 50/60Hz, DC 24V
Power Consumption.....	290W
Weight.....	20kg
Dimensions.....	482(W) × 132(H) × 280(D)mm

\* Specifications and design subject to change without notice for improvements.



