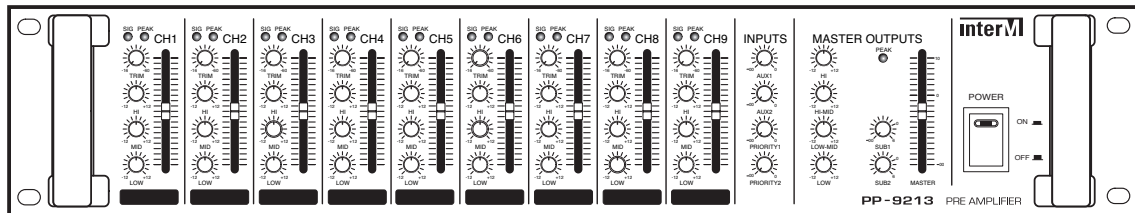


Operation Manual

PP-9213 Pre Amplifier



* Rack mount products in the Western Hemisphere(North America, South America, and the Caribbean) do not have handles installed due to customer preference.

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Unpacking and Installation




Although it is neither complicated to install nor difficult to operate your Pre 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, excessive 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.

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

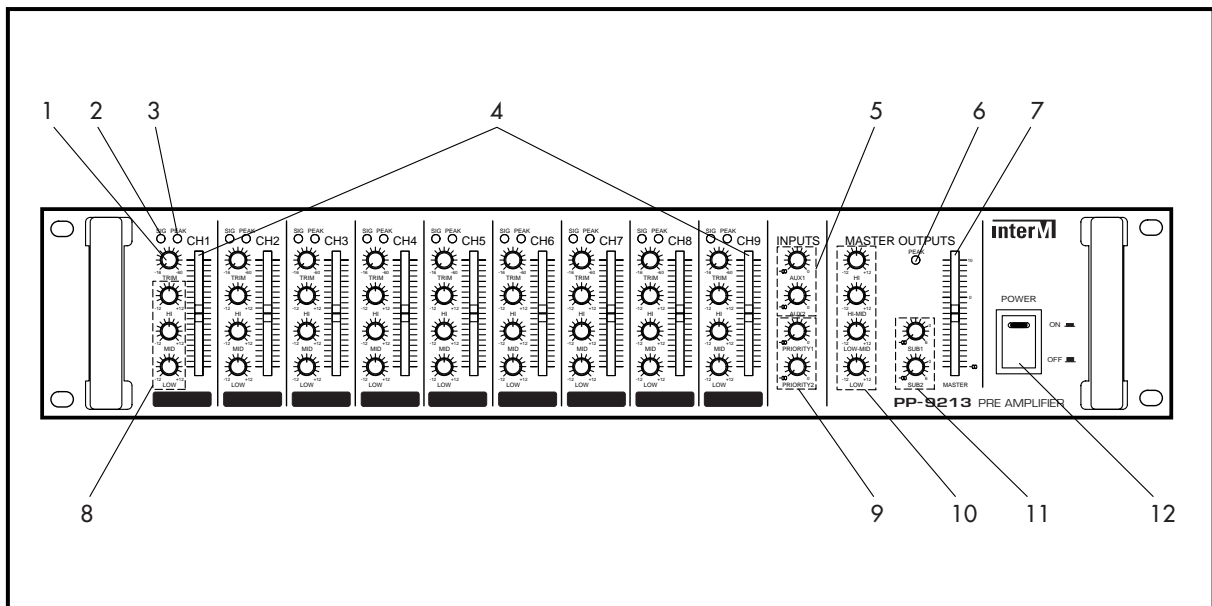
The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such vases, shall be placed on the apparatus.

 <p>CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN</p> <p>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.</p>	 <p>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.</p>  <p>This symbol is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying the appliance.</p> <p>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.</p>
<p>WARNING</p> <p>To prevent fire or shock hazard, do not expose the unit to rain or moisture.</p>	<p>Attention: 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.</p>

Features

- Low, Mid, High and Trim controls on each channel.
- 2 Channel Aux inputs.
- 2 Auto Ducking Priority inputs.
- 4 Band (Low, Low-mid, Hi-mid and High) EQ on master channel.
- 1 Master output, 2 Sub output and 1 Recording output.
- 2 Ducking channels. (channel 1, 2)
- Signal and Peak indicators on each channel.
- 2 Channel Phantom powers.
- DC power operation.

Front Panel Controls



1. TRIM CONTROL
This control adjusts the input sensitivity of each channel from -16dB to -60dB for microphone source, and from +24dB to -20dB for line source.
For the best performance, adjust this TRIM control so that PEAK indicator LED lights occasionally.
2. SIGNAL INDICATOR
LED indicates that a signal is present at the channel input.
3. PEAK INDICATOR
This warning light indicates an overload situation. This indicator light in red when the post EQ, or pre fader signal of the corresponding channel's input reaches a level 3dB below the clipping level.
4. CHANNEL FADER
This is the main level control for each input channel. It determines level of the signal sent from the corresponding input channel to the master mixing buss. Faders of channels not in use should be pulled down.
5. AUX CONTROLS
These controls adjust the level of the Aux signals that are received at the rear panel AUX 1, 2.
6. MASTER PEAK INDICATOR
This warning light indicates an overload situation. This indicator light in red when the post fader signal of the corresponding Master output reaches a level 3dB below the clipping level.
7. MASTER OUTPUT FADER
The master faders independently adjust level of the master mixing buss signals appearing at the MASTER OUT connectors.

8. EQ CONTROLS OF INPUT CHANNEL

Each input channel equalizer is divided into three band. This level is adjustable over a wide range of boost and cut.

HIGH: ± 12 dB at 10kHz

MID: ± 12 dB at 1kHz

LOW: ± 12 dB at 100Hz

9. PRIORITY CONTROLS

These controls adjust the level of the Priority signals that are received at the rear panel PRIORITY 1, 2.

10. EQ CONTROLS OF MASTER

Master output channel equalizer is divided into four band. This level is adjustable over a wide range of boost and cut.

HIGH: ± 12 dB at 10kHz

HI-MID: ± 12 dB at 2kHz

LOW-MID: ± 12 dB at 400Hz

LOW: ± 12 db at 80Hz

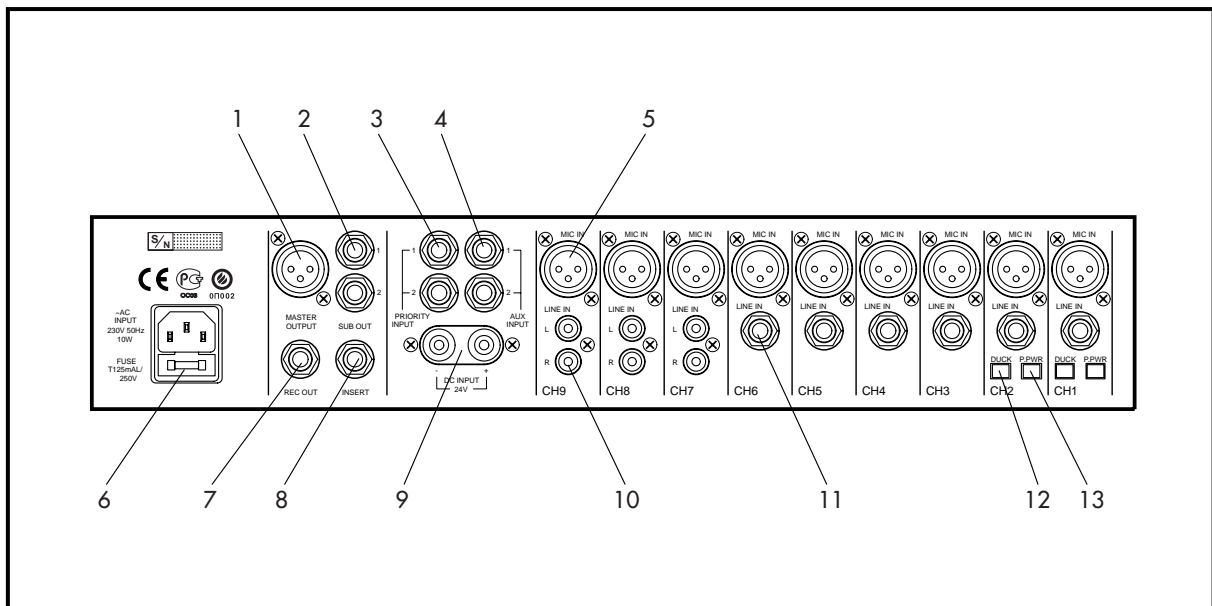
11. SUB OUTPUT CONTROLS

This control adjusts the level of the signal output from the SUB OUT.

12. POWER SWITCH

Pressing this switches to on the power is supplied to this unit.

Rear Panel Controls



1. MASTER OUTPUT
This is XLR type connector used to connect a power amplifier. (Pin assignment- 1: GND, 2: HOT, 3: COLD)
2. SUB OUTPUTS
These are phone type connectors used to connect another amplifier.
3. PRIORITY INPUT JACKS
This inputs are unbalanced line level input with phone jacks. All other channels are controlled by the signal of priority inputs with Automatic ducking operation.
4. AUX INPUT JACKS
This inputs are unbalanced line level input with phone jacks.
5. MIC IN
These XLR type connectors be connected with microphone. (Pin assignment 1: GND, 2: HOT, 3: COLD)
Impedance range is 50Ω to 600Ω .
Turn the phantom power switch ON to apply +18V DC to pin 2 and 3 of these connectors. (MIC1 and MIC2)
6. AC POWER ENTRY MODULE
An inlet socket to connect the power cable and fuse holder. A correct capacity of fuse should be applied. Please make sure the value of fuse before replacing.
7. REC OUTPUT
This phone jack is unbalanced outputs for use with tape recorder.

8. INSERT JACK

Whenever a plug is inserted into INSERT jack, the master mixing buss is disconnected from the Master output stage.

The Master output is direct connected to INSERT jack.

9. DC POWER TERMINAL

A terminal to connect the DC24V output terminal of power distributor unit. (PD-9211 or PD-9359)

10. STEREO LINE IN

These are Unbalanced Stereo input connector which can be connected line level equipment.

11. MONO LINE IN

These are balanced input connector which can be connected line level equipment.

12. DUCKING SWITCH

When the ducking is on, the set will automatically lower the gain of other channel inputs when someone is speaking into one of the microphones.

13. PHANTOM POWER SWITCH

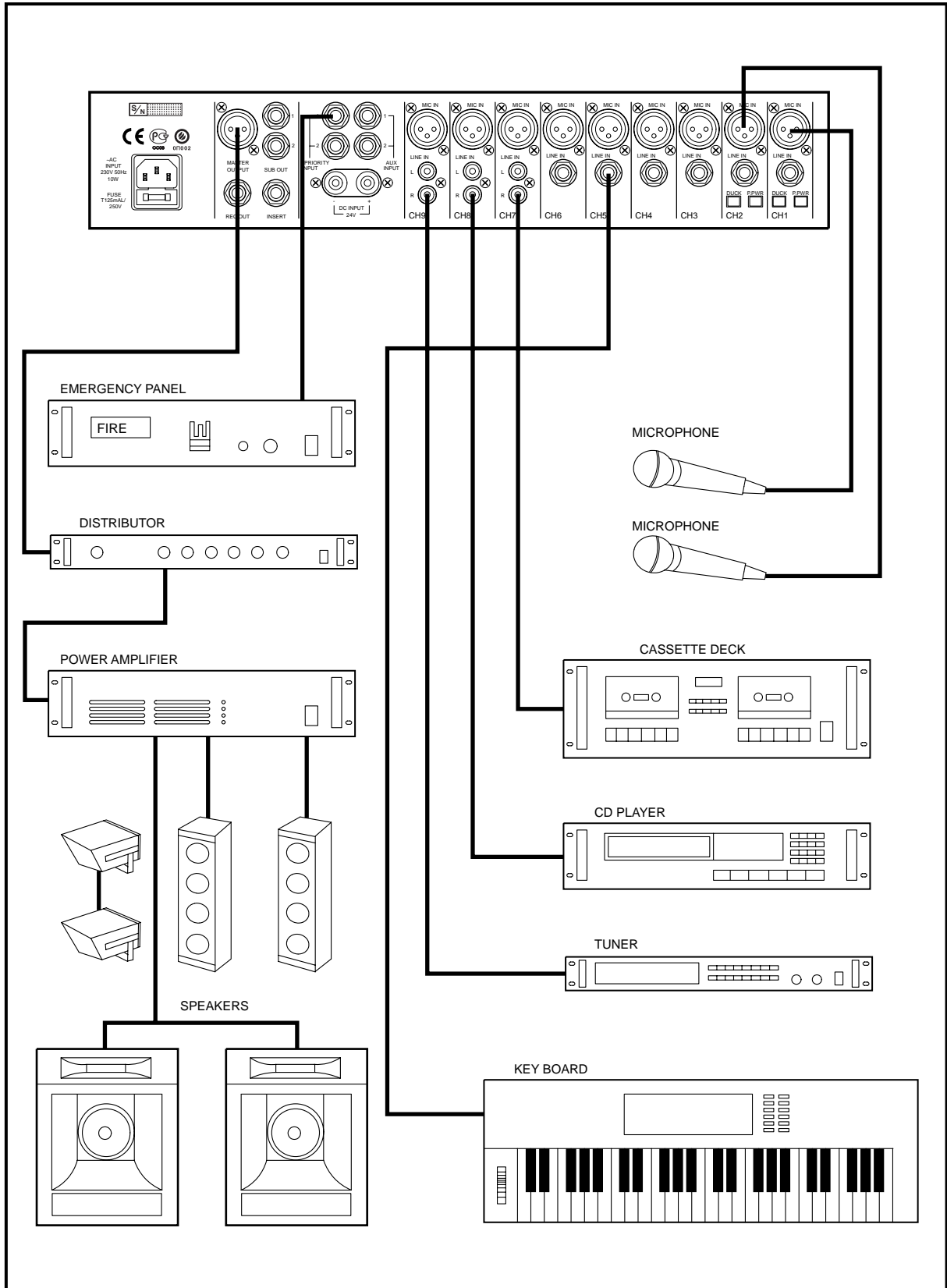
This switch turns on and off the phantom power supply. The phantom power supply provides power for condenser type microphone through the microphone cable.

When switched on, it produces 18 volts DC (with $6.8k\Omega$ source impedance) at pins 2 and 3 on CH1, CH2 microphone input connectors. Pin 1 (the shield conductor) provides the ground return path.

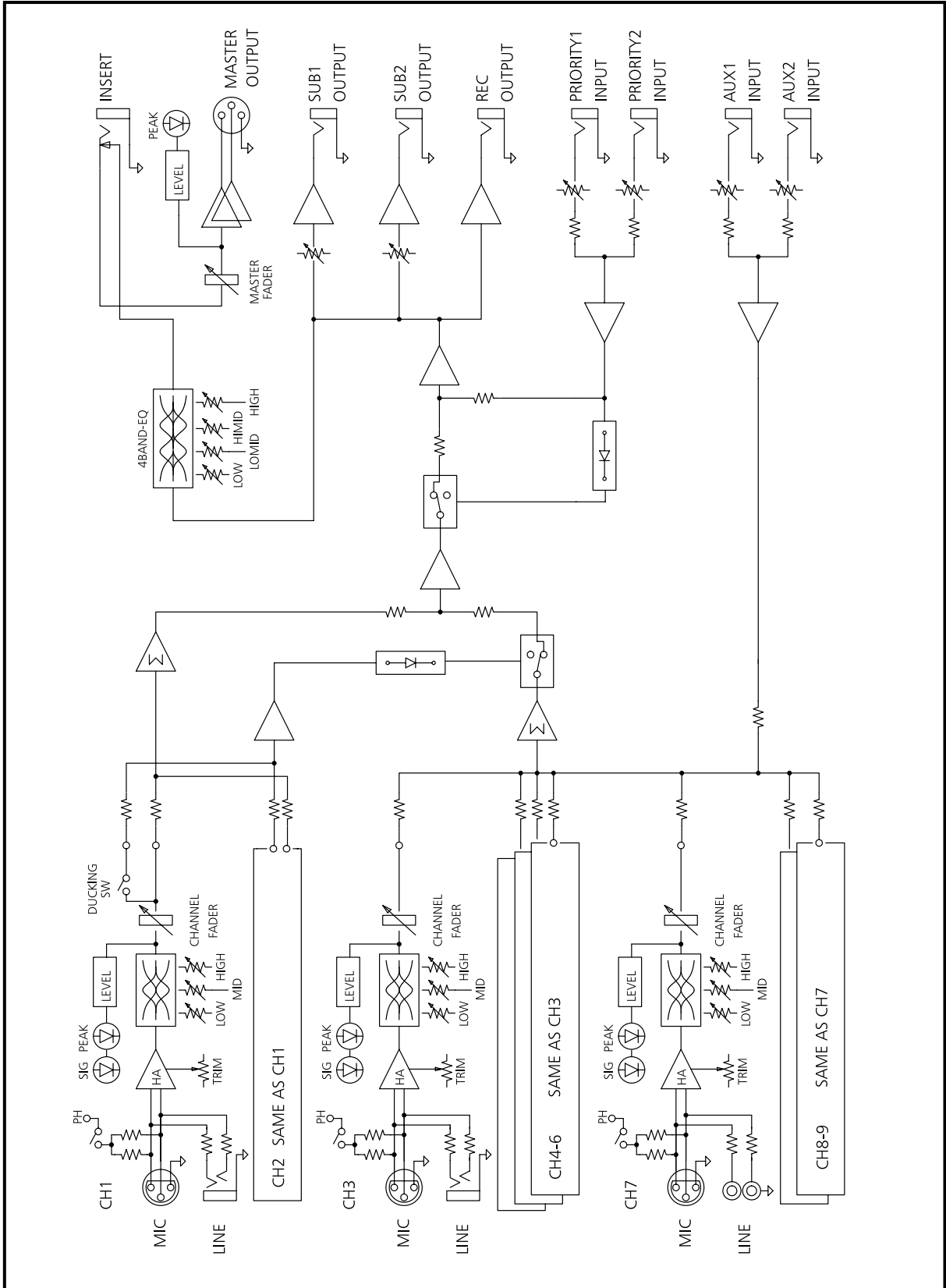
This will power standard condenser microphones and will not affect most dynamic microphones. When switched on or off, the voltage will ramp slowly up or down; it takes a few seconds to reach full level.

This prevents unwanted transients from reaching the microphone inputs.

Connections



Block Diagram



Specifications

- ELECTRICAL

OUTPUTS

Master Output	+4dBm/600Ω, BALANCED
Sub 1, 2 Output	+4dBm/600Ω, UNBALANCED
Rec Output	-10dBv/10kΩ, UNBALANCED

INPUTS

Mic (CH1~CH9)	-60dBm/600Ω, BALANCED
Line (CH1~CH6)	-20dBm/47kΩ, BALANCED
Line (CH7~CH9)	-20dBm/47kΩ, UNBALANCED
Aux 1, 2	-10dBm/20kΩ, UNBALANCED
Priority 1, 2	0dBm/20kΩ, UNBALANCED
Insert	0dBm/20kΩ, UNBALANCED

T.H.D	Less than 0.3%
Frequency Response	30Hz~20kHz (+1d, -3dB)

INPUT Channel EQ

High (10kHz)	±12dB
Mid (1kHz)	±12dB
Low (100Hz)	±12dB

OUTPUT EQ

High (10kHz)	±12dB
Hi-Mid (2kHz)	±12dB
Low-Mid (400Hz)	±12dB
Low (80Hz)	±12dB

Residual Noise	Less than -90dB
Crosstalk	Less than -60dB
Phantom Power	+18V DC

- GENERAL

Power Source	AC 120V, 230V, 240V, 50/60Hz, DC 24V
Power Consumption	10W
Weight	7.5kg
Dimensions	482(W) × 88(H) × 280(D)mm

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



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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