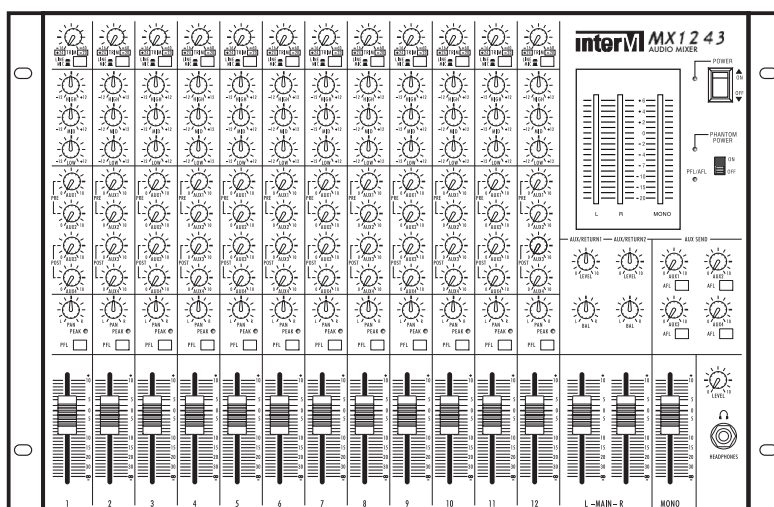


Operation Manual

MX-1243 Audio Mixer



interM





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Unpacking and Installation

Although it is neither complicated to install nor difficult to operate your Audio Mixer, 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.

<div style="display: flex; justify-content: space-between; align-items: center;">  <div style="text-align: center;"> <p>CAUTION</p> <p>RISK OF ELECTRIC SHOCK DO NOT OPEN</p> </div>  </div> <p style="text-align: center;">CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK.</p> <p style="text-align: center;">DO NOT REMOVE COVER (OR BACK).</p> <p style="text-align: center;">NO USER-SERVICEABLE PARTS INSIDE.</p> <p style="text-align: center;">REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>	<div style="display: flex; flex-direction: column; align-items: flex-start;"> <div style="margin-bottom: 10px;">  <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> </div> <div style="margin-bottom: 10px;">  <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> </div> <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> </div>
<p>WARNING</p> <p>To prevent fire or shock hazard, do not expose the unit to rain or moisture.</p>	<p>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.</p>

Features

- 12CH INPUT AND 4 OUTPUT

Any sound source of microphones, cassette decks, electric guitars, organs can be applied to the 12 channel input, and 4 AUX SEND, MONO OUT and MAIN L, R OUT are provided for convenient use.

- 3 BAND TONE CONTROLS

3 band tone controls are provided to adjust the acoustic characteristics according to microphones, speakers and room structured.

- AUX SEND AND AUX RETURN

For the convenient use of effect equipment, reverb, delay or phasor AUX SEND and AUX RETURN function are provided.

- OUTPUT MONITORING

You can monitor by LED meter and headphone.

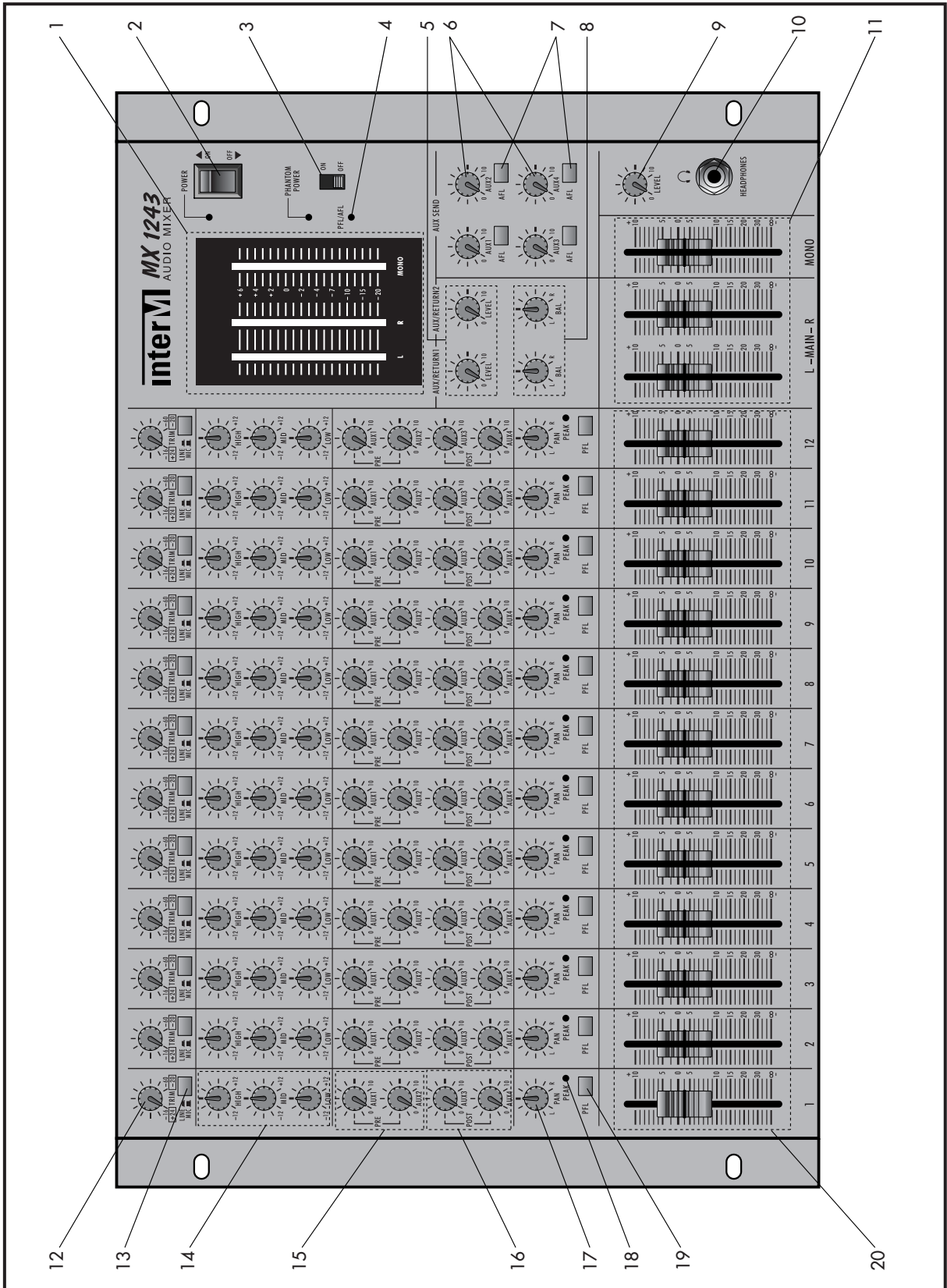
- PFL/AFL FUNCTION

The PFL/AFL function allows you to monitor through headphone any input channel before the channel fader and AUX output channel after the AUX SEND volume.

- PHANTOM POWER

Phantom power is provided for easy connection of condenser microphones requiring an external power supply.

Front Panel Controls



1. OUTPUT LEVEL METER

These meters show the level of output signal appearing at the STEREO OUT L, R and MONO OUT.

2. POWER SWITCH AND INDICATOR

The POWER switch is used to turn on and off the AC main power, and the LED is illuminated when the AC main power is ON.

3. 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 switches on, it produces 48volts DC (with 6.8kohms source impedance) at pins 2 and 3 on all of the 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 switches 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.

4. PFL/AFL INDICATOR

This indicator will light when a PFL or AFL switch is turned on.

5. AUX RETURN CONTROLS

These controls adjust the level of the L and R signals that are received at the rear panel AUX RETURN 1, 2. You can use the AUX RETURN as auxiliary inputs, as well as affects returns.

6. AUX SEND CONTROL (OUTPUT CHANNEL)

This control adjusts the level of the signal output from the AUX SEND OUT.

7. AFL SWITCHES

Press this switch to monitor the AUX SEND signal through the HEADPHONE.

8. BALANCE CONTROL

This knob assigns the signal of AUX RETURN, determining the stereo of the sound.

9. HEADPHONE LEVEL CONTROL

This control is used for adjusting the level of headphone monitoring.

10. HEADPHONE JACK

Connect the headphones here. You can monitor the following signals.

1) Pre-fader signal: When the corresponding PFL switch is ON.

2) AUX SEND signal: When the corresponding AFL switch is ON.

3) Normally when PFL and AFL switch is OFF, the headphone will monitor the same signal as the STEREO L/R jacks.

11. MAIN OUTPUT FADERS

The stereo and mono master faders independently adjust level of the L/R and MONO channel main buss signals appearing at the STEREO L/R and MONO OUT connectors.

12. TRIM CONTROLS

This control adjusts the input sensitivity of each channel from -16dB to -60dB for microphone source through the XLR input, and from $+24\text{dB}$ to -20dB for line source through the phone jack input.

For the best performance, adjust this TRIM control so that PEAK indicator LED lights occasionally.

13. MIC/LINE SELECTOR SWITCHES

These switches are used for selecting input level MIC and LINE. When a microphone is connected to the MIC IN jack, set this switch to MIC. When a line source is connected to the LINE IN jack, set this switch to LINE.

14. EQ CONTROLS

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

HIGH: ± 12 dB at 12kHz

MID : ± 12 dB at 2.5kHz

LOW: ± 12 dB at 80Hz

15. AUX SEND 1, 2 CONTROL (INPUT CHANNEL)

You can adjust the level which is assigned to AUX 1, 2 output from each input channel.

Since AUX signal is placed before the channel fader, it will be unaffected by the position of channel fader.

16. AUX SEND 3, 4 CONTROL (INPUT CHANNEL)

You can adjust the level which is assigned to AUX 3, 4 output from each input channel.

Since AUX signal is placed after the channel fader, it will be affected by the channel fader level.

17. PAN CONTROLS

This control assigns the signal of each channel to the STEREO L and R busses, determining the stereo of sound.

18. PEAK INDICATORS

This warning light indicates an overload situation. This indicator light in red when the pre EQ, post EQ, or post fader signal of the corresponding channel's input reaches a level 3dB below the clipping level.

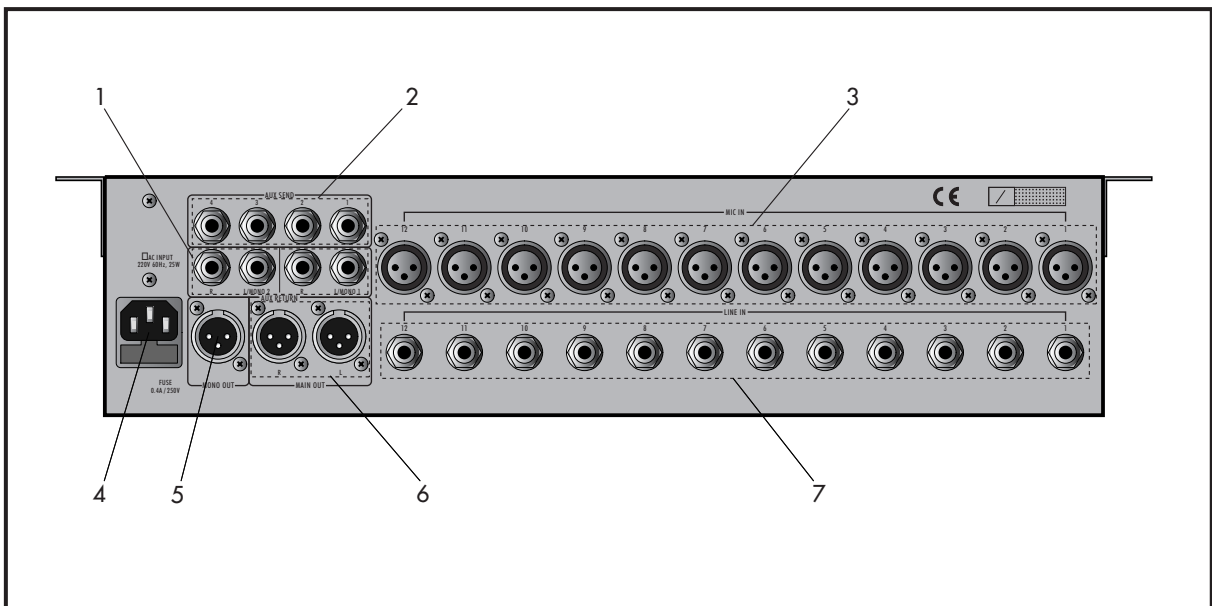
19. PFL SWITCHES

Press this switch to monitor the pre-fader input channel signal through the HEADPHONE. This is useful when you wish to monitor only the signal from a particular channel, or take a counter measure for a problem.

20. CHANNEL FADERS

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 stereo buss. Faders of channels not in use should be pulled down.

Rear Panel Controls



1. AUX RETURN JACKS

These are stereo type phone jacks. Usually the output from effects units such as delay and reverb are returned to the main stereo mix via these jacks. However, you can use these as auxiliary inputs.

2. AUX SEND JACKS

These are final output of AUX and connected unbalanced phone jacks.

3. MIC IN

These XLR type connectors be connected with microphone. (Pin assignment 1: GND, 2: HOT, 3: COLD)
Impedance range is 50Ω to 600Ω.

These the phantom power switch ON to apply +48V DC to pin 2 and 3 of these connectors.

4. 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.

5. MONO OUTPUT

This is XLR type connector used to connect a power amplifier. (Pin assignment– 1: GND, 2: HOT, 3: COLD)

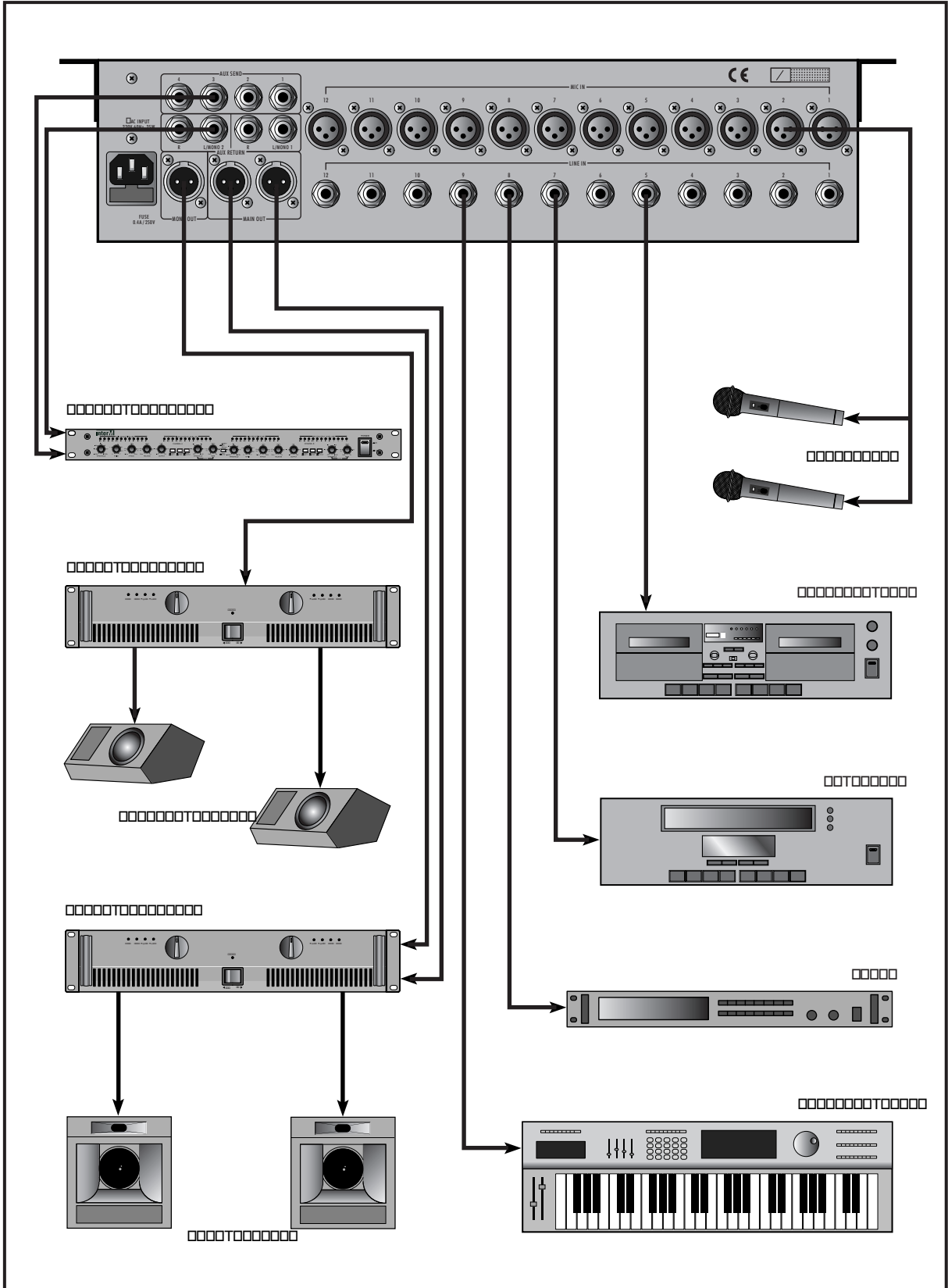
6. STEREO L/R OUTPUT

These are XLR type connectors used to connect a stereo power amplifier.
(Pin assignment– 1: GND, 2: HOT, 3: COLD)

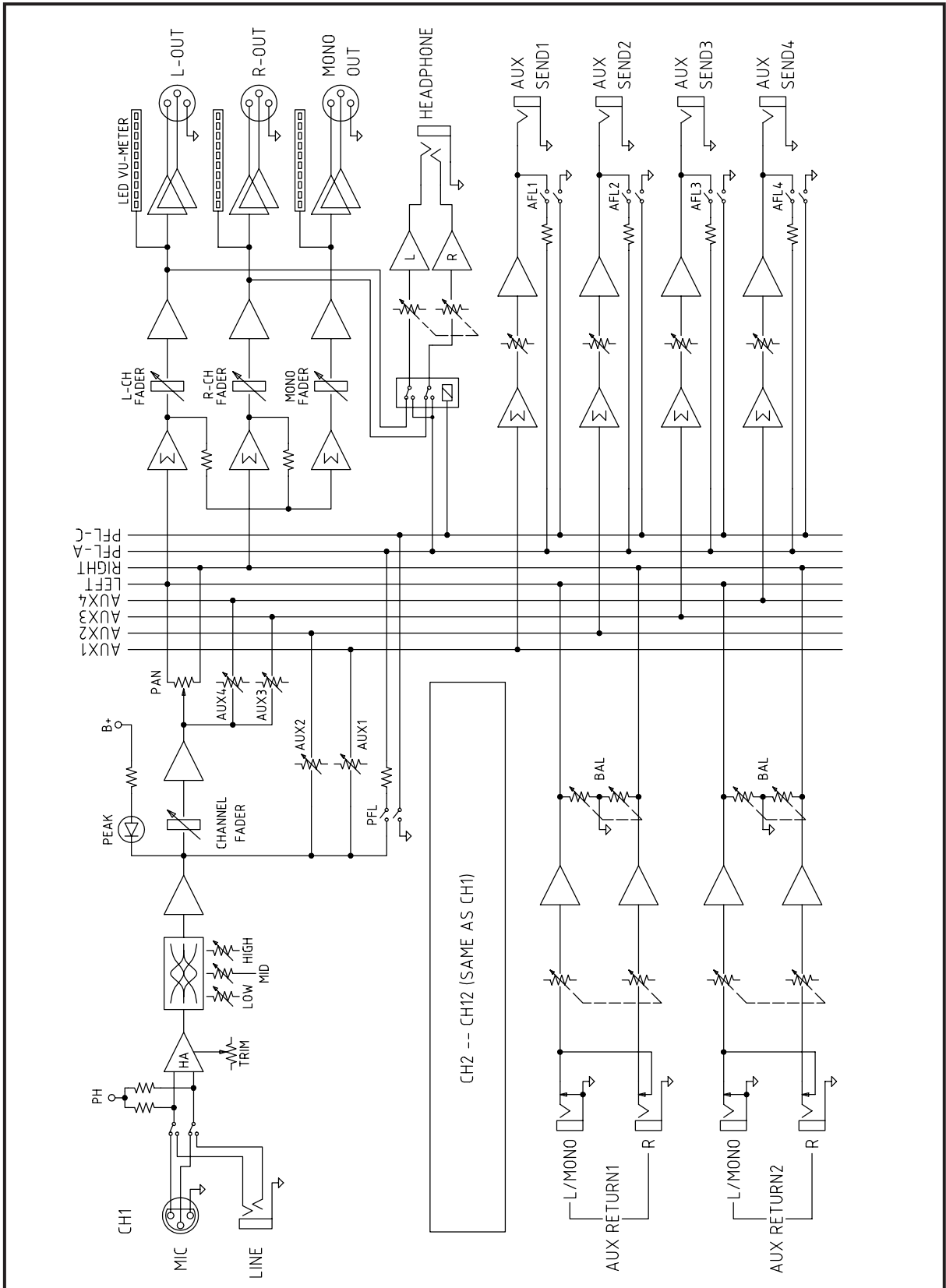
7. LINE IN

These are balanced input connector which can be connected line level equipment.
Impedance is 10kΩ.

Applications



Block Diagram



Specifications

- ELECTRICAL

0dB=0.775Vrms

Maximum Output Level	+24dB @ 600Ω, 0.5% THD at 1kHz (BALANCED) +24dB @ 600Ω, 0.5% THD at 1kHz (BALANCED) +20dB @ 600Ω, 0.5% THD at 1kHz (UNBALANCED) 100mW @ 40Ω, 0.5% THD at 1kHz	MAIN OUT L/R MONO OUT AUX SEND 1-4 HEADPHONE
Input Sensitivity & Impedance	-60dB @ 600Ω, BALANCED -20dB @ 10kΩ, BALANCED +4dB @ 10kΩ, UNBALANCED	MIC (CH1-CH12) LINE (CH1-CH12) AUX RETURN
T.H.D	0.1% @ +14dB, 20-20kHz MAIN OUT L/R @ 600Ω, MONO OUT @ 600Ω, AUX SEND @ 600Ω	
Frequency Response	+1dB/-2dB, 20-20kHz @ +4dB (MAIN OUT L/R @ 600Ω, MONO OUT @ 600Ω, AUX SEND @ 600Ω)	
Input Channel Equalization	±12dB 12kHz Shelving (Max ±15dB) ±12dB 2.5kHz Peaking ±12dB 80Hz Shelving (Max ±15dB)	HIGH MID LOW
Hum & Noise	-127dB -95dB (Average, Rs=150Ω) (Measured with DIN AUDIO)	Equivalent Input Noise Residual Noise (MAIN OUT L/R @ 600Ω, MONO OUT @ 600Ω, AUX SEND@600Ω)
	-76dB (INPUT VR & FADER MIN/OUTPUT FADER MAX)	MAIN OUT L/R, MONO OUT
	-68dB (INPUT VR & FADER MIN/OUTPUT VR & FADER MAX)	AUX SEND 1-4
Crosstalk	-70dB -70dB	Adjacent Input Channels Input to Output
Maximum Voltage Gain	84dB 76dB 44dB 36dB 20dB	MIC to MAIN OUT L/R, MONO OUT MIC to AUX SEND LINE to MAIN OUT L/R, MONO OUT LINE to AUX SEND AUX RETURN to MAIN OUT L/R, MONO OUT
Gain Control	44dB	MIC IN/LINE IN
LED Meters	"0"	+4dB OUTPUT LEVEL
Channel Peak Indicators	Red LED on each channel lights when pre-EQ or post-fader signal reaches 3dB below clip level.	
Phantom Power	+48Vdc	

- GENERAL

Power Source	AC 110V - 240V, 50/60Hz
Power Consumption	25W
Weight	7.5kg
Dimensions	482(W) × 104(H) × 310(D) mm

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

Specifications

- ELECTRICAL

OUTPUTS

STEREO L/R Output	+4dBm/600Ω, BALANCED
MONO Output.....	+4dBm/600Ω, BALANCED
AUX SEND 1~4 Output.....	+4dBm/600Ω, UNBAL
Headphone Output	100mW/40Ω

INPUTS

MIC (CH1~CH12)	-60dBm/600Ω, BALANCED
LINE (CH1~CH12).....	-20dBm/10kΩ, BALANCED
AUX RETURN	+4dBm/10kΩ, UNBAL
T.H.D (20Hz~20kHz).....	0.1%
Frequency Response.....	20Hz~20kHz (+1dB, -2dB)
EQ Response	
High.....	±12dB Shelving (Max ±15dB)
Mid.....	±12dB Peaking
Low.....	±12dB Shelving (Max ±15dB)
E. I. N	-127dB
Residual Noise.....	-95dB
Crosstalk	-70dB
Maximum Voltage Gain	
MIC to L/R, MONO Out.....	84dB
MIC to AUX SEND	76dB
LINE to L/R, MONO Out.....	44dB
LINE to AUX SEND.....	36dB
AUX RETURN to L/R, MONO Out.....	20dB
Phantom Power.....	+48V DC

- GENERAL

Power Source	AC 110V~240V, 50/60Hz
Power Consumption	25W
Weight.....	7.5kg
Dimensions	482(W)? 104(H)? 310(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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