

Operation Manual

Pre Amplifier
PP-100



interM

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!

	CAUTION 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>		



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.

WARNING

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

*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 than objects do not fall and liquids are not spilled into the enclosure through openings.

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

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

*This apparatus shall be connected to a mains socket outlet with a protective earthing connection.

*It has heed to be easy to disconnect the device. To disconnect the device from power, separate AC input cable from inlet or unplug the AC Cord.

CAUTION

*These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

NOTE

*This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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Unpacking

Although your PP-100 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

- **IPC SYSTEM INTERLOCKING**

It interlocks with SI-100 and is available to connect ANALOG/DIGITAL amplifier in the output terminal according to a purpose.

- **6 channel pre-amplifier**

It is possible to conduct six broadcastings with the single CAT5 line.

- **Remote control using work**

Available to automatically allocate an amplifier ID and recognize.

- **Self broadcasting function using a local input**

- **Make available to be interfaced with other devices using an output interface.**

- **Make available to control each of the output volumes for 6 channels.**

Operation

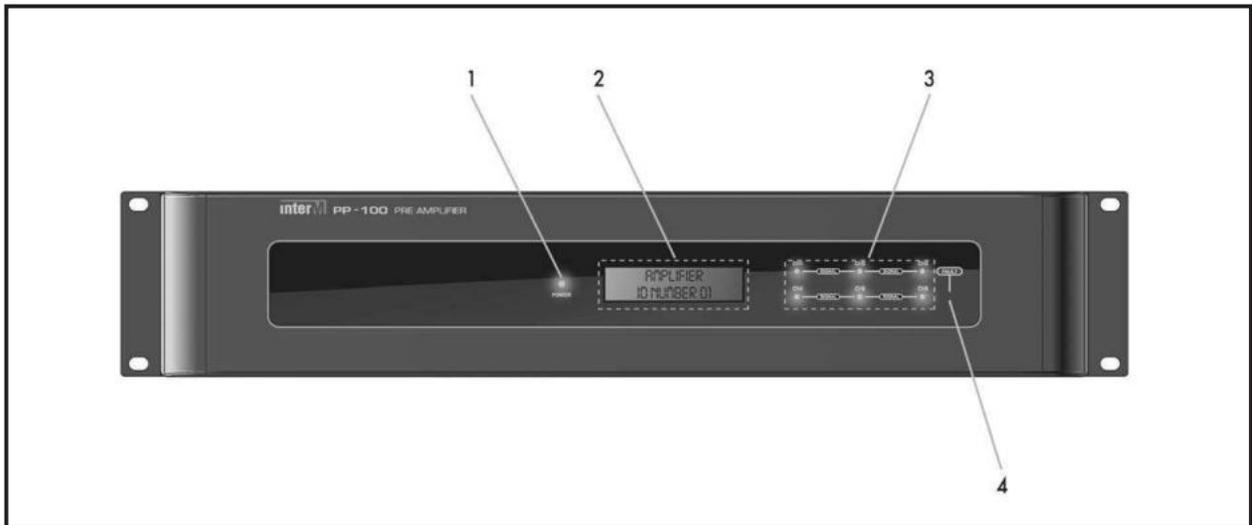
This pre-amplifier offers an expansion of output to IPC system, a remote control of the system through CAT5 cable, and a support of local input to XLR/PHONE jack.

And it has 4 output interfaces and 6 input interfaces, which is utilized to the grand output amplified in the rear part.

Precautions when setting up your utilization environment

Environment setting up menu of SP-100 is commonly utilized then.

Front Panel



1. POWER LED

It becomes stand-by that Red LED lights when power is supplied to the device. And it becomes Operational State that Green LED lights when the power supply is switched ON by pressing the Power Switch in the rear part.

2. LCD DISPLAY

It displays a communicating status with the set and a channel volume level.

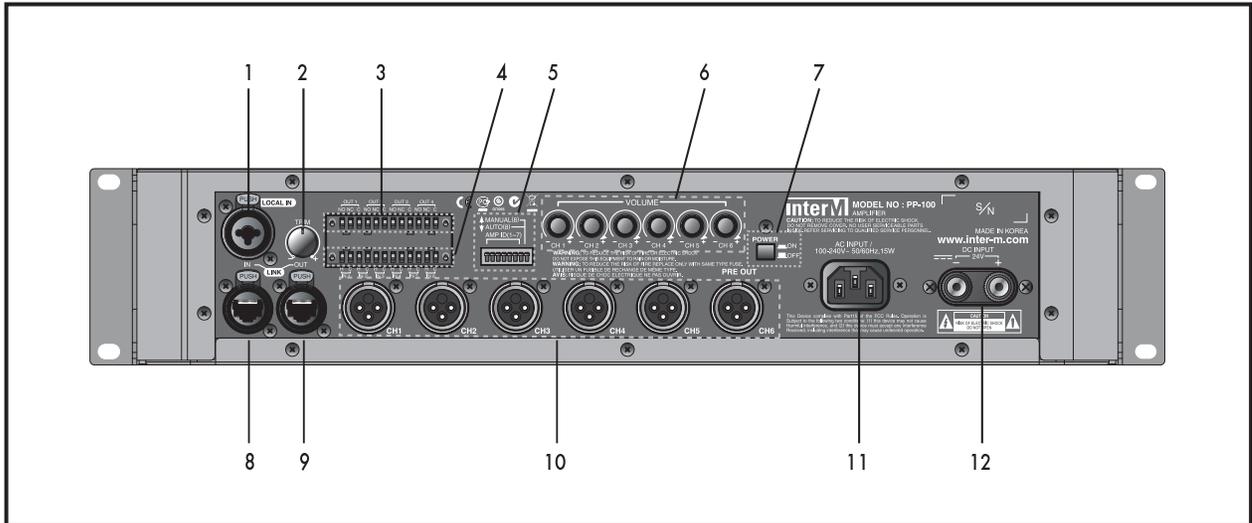
3. SIGNAL OUTPUT INDICATING LED

It indicates Pre-out levels in each of the channels and lights Green LED for a signal output exceeding a pre set level.

4. FAULT INDICATING LED

It indicates an operating status of the communication line and lights Red LED when it happens an abnormality in communication.

Rear Panel



1. LOCAL INPUT

It is the Line Input Jack and MIC Input Jack. According to a local input volume, XLR input is to $-60\text{dBV}\sim-16\text{dBV}$ and Phone input is to $-43\text{dBV}\sim 0\text{dBV}$.

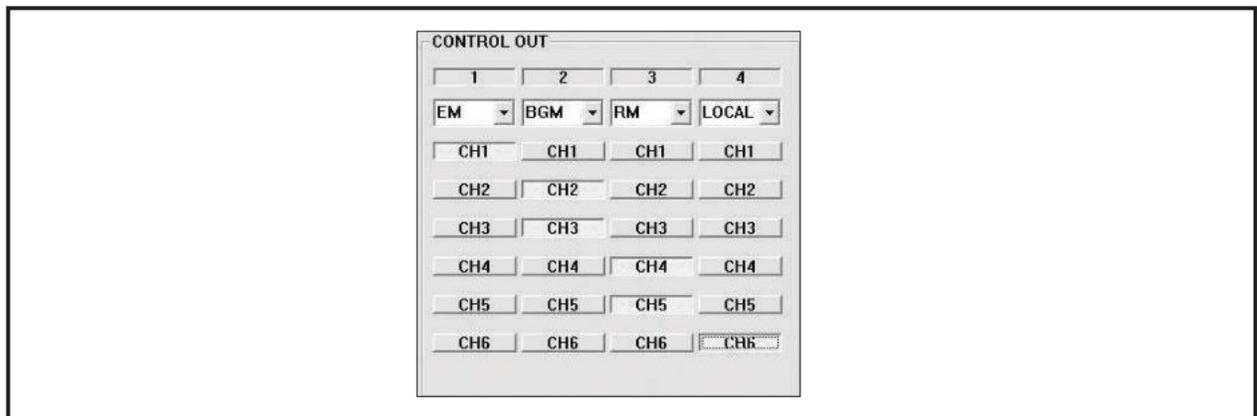
Caution) If high level signal is inputted to MIC Jack, AMP or SPEAKER in the rear part can be damaged due to signal clipping.

2. LOCAL INPUT VOLUME

The volume adjusts levels of XLR and PHONE input signals.

3. CONTROL OUTPUT

The interface sets up 4 operations of the Control output in Setup Mode of SI-100. (It is set up in SI-100.)



Setting up operation specification that Control output is on, when one signal of EM,BGM,RM,LOCAL,SCHED,ALL is inputted to CH1 ~CH6. Control output can be set up to 4.



Control output is as follow:

- 1) If interface is off, connect C with NC.
- 2) If interface is on, connect of C and NC is OFF, and connect NO with NC.

4. CONTROL INPUT

The interface sets up 6 operations of the input interface in Setup Mode of SI-100. (It is set up in SI-100.)

CONTROL IN						
	1	2	3	4	5	6
CH 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CH 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CH 6	<input type="checkbox"/>	<input checked="" type="checkbox"/>				

CH1~CH6 of local input to any output channel to set about the 6 Control inputs.

5. ID SETTING SWITCH

It selects manual Mode or Auto Mode and sets up ID.

- 1) When SW 8 is up-wards : Manual Mode.
Assign ID up to 1~128 AMP in manual by combining SW 1~7.
- 2) When SW 8 is down-wards : It assign ID automatically.

6. CHANNEL VOLUME

The volume adjusts pre-out level of each channels up to CH1~CH6.
(MIN : Output mute , MAX : 0dB , Vol 60: -5dB , Vol 70 : 0dB)

7. POWER SWITCH

It turns ON/ OFF(stand-by) of PP-100 power.

8. NETWORK INPUT JACK (LINK IN)

It is the input terminal for digital signals and control signals coming from SI-100.

9. NETWORK OUTPUT JACK (LINK OUT)

It is the output terminal that makes by pass digital audio signals and control signals coming from SI-100.

10. PRE-OUT JACK

It is the jack that transmits Pre-out outputs to CH1 ~CH6.

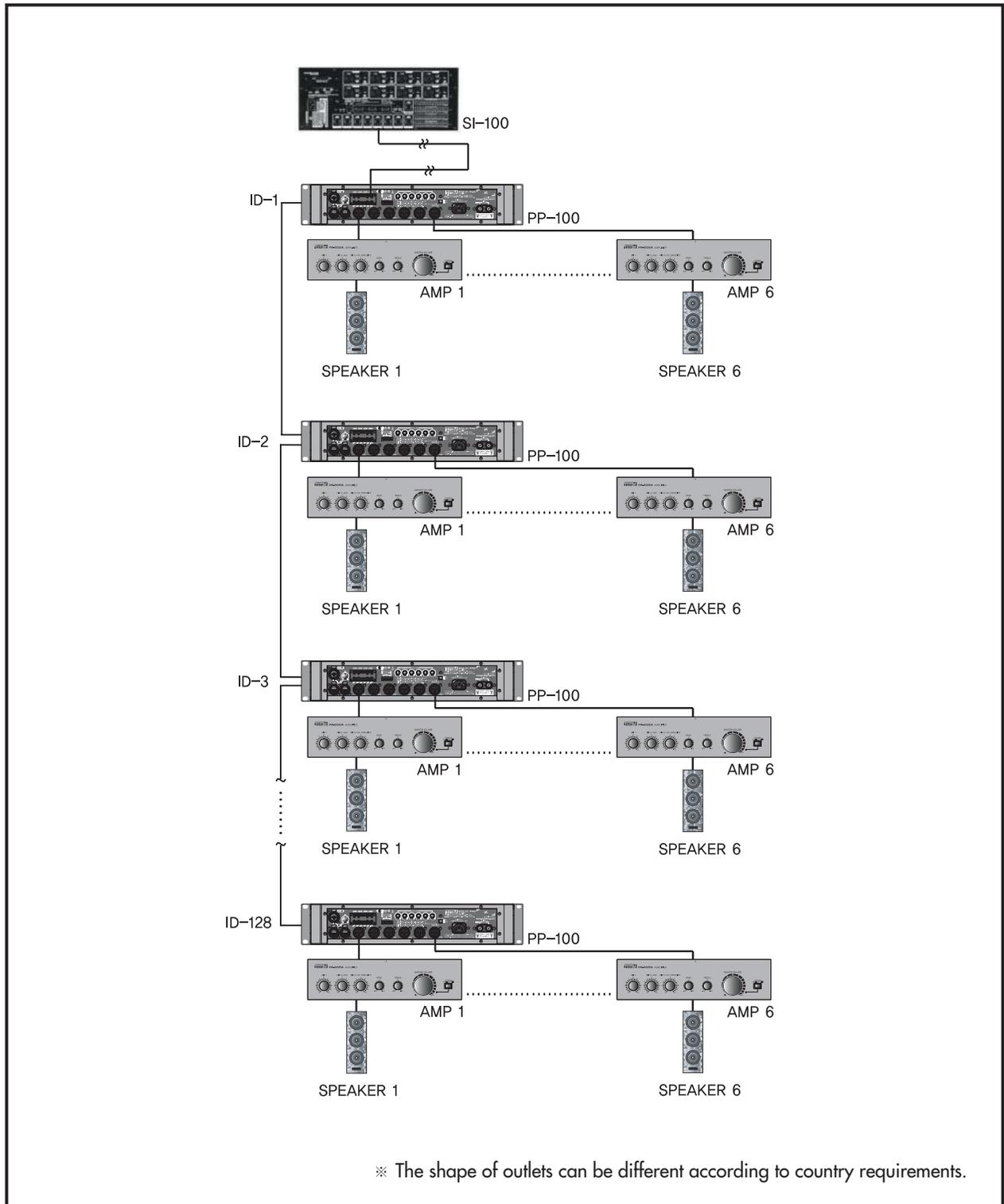
11. AC INPUT

It is the AC power input terminal.
It is available to input a power of 100 ~240V, 50/60Hz free voltage.

12. DC INPUT

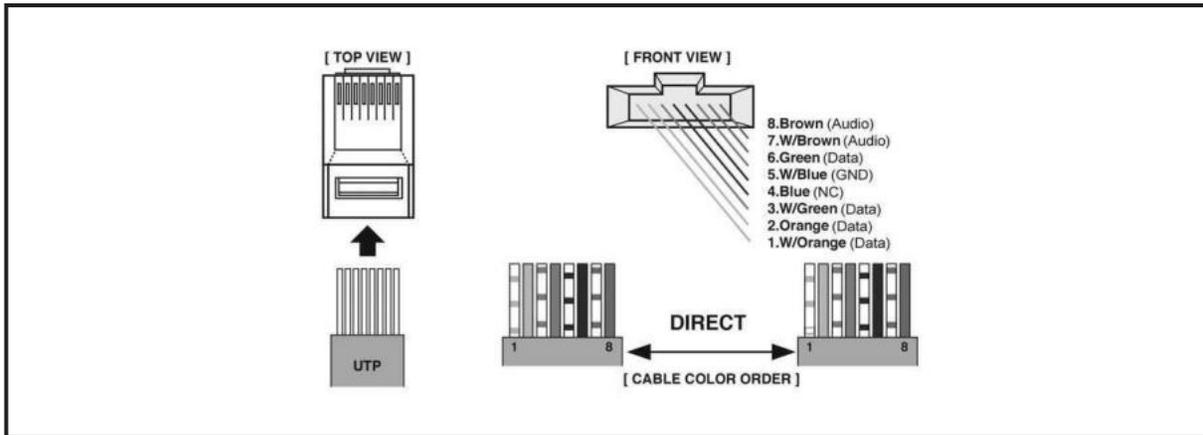
It is an emergency power input terminal of 24V.
It will be automatically converted to the DC power supply terminal when it happens a fault in the AC power supply.

Applications



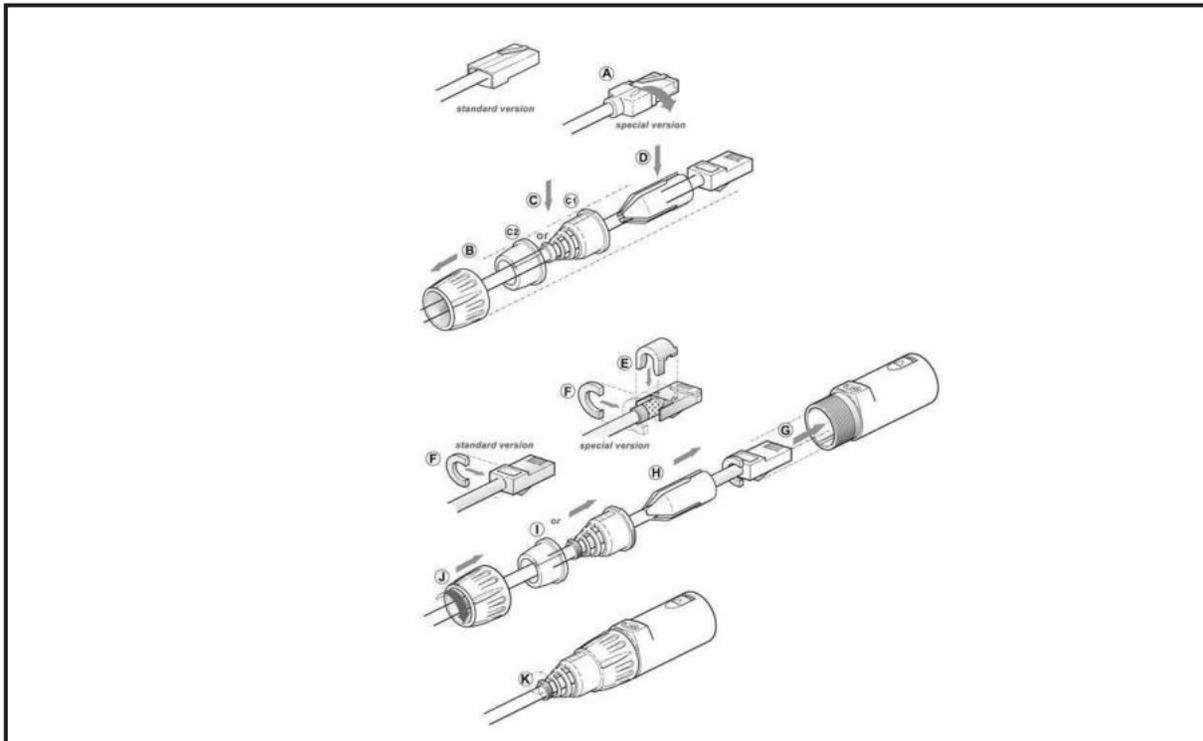
Fabricate The Cables

SI-100 and PP-100 device are wired with CAT5 cable.



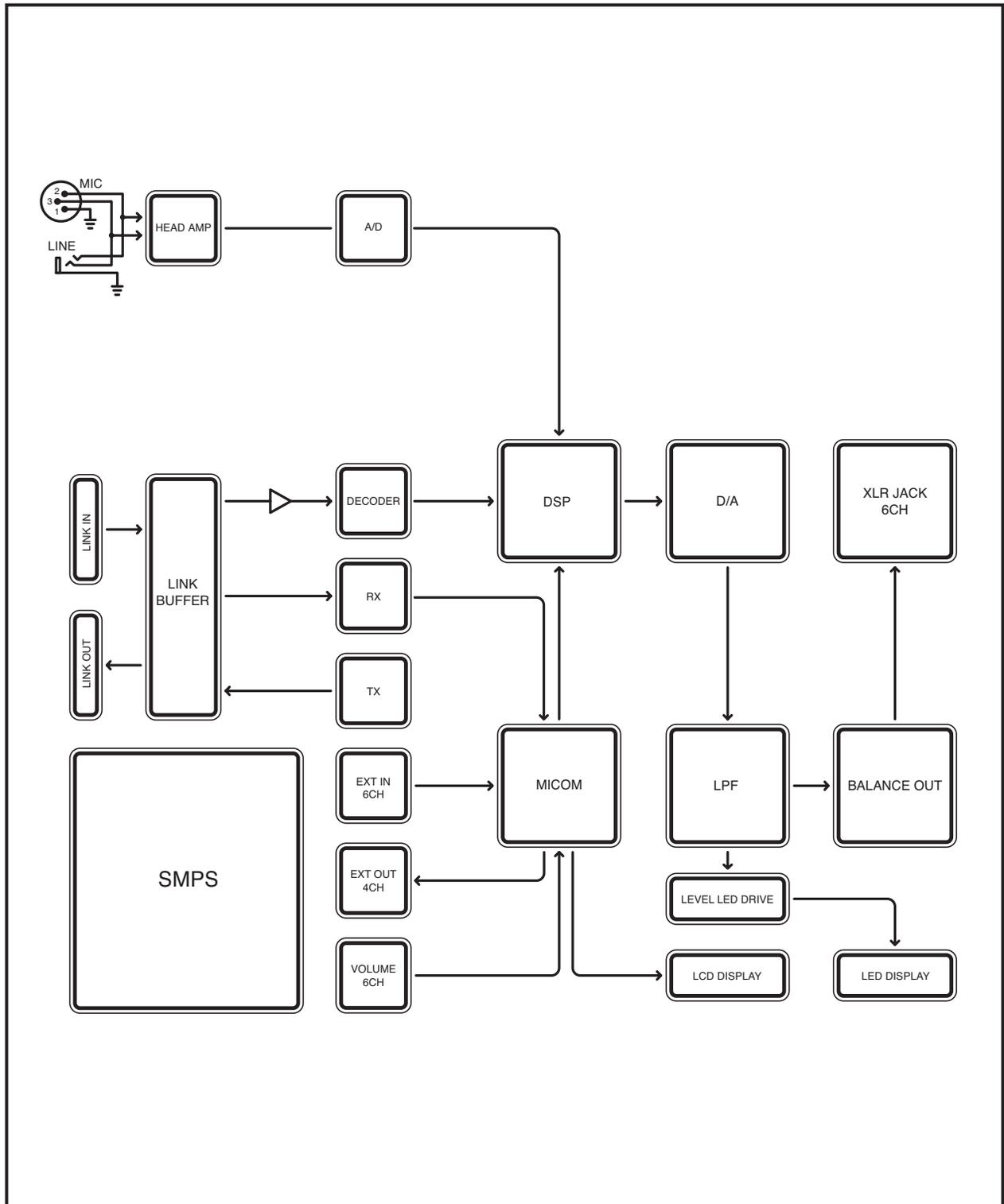
* Caution : Please fabricate CAT5 CABLE for Direct.

RJ45 Data Protecting Connector (Ethercon)



*Caution :[Relating to fabrication of protecting connectors]
 Connector between SI-100 and PP-100 :NE8ME Protecting Connectors are applied in both of the UTP cable ends that are assembled together.

Block Diagram



Specifications

	PP-100
NETWORK INTERFACE	
CONTROL	RS-422
CONNECTORS	RJ-45 JACK
CABLE TYPE	UTP CAT-5
CABLE LENGTH	100m Less than
AUDIO INPUT	
DIGITAL INPUT(RJ-45 INPUT)	
OUTPUT LEVEL	0dBV
INPUT SENSITIVITY(at 0dBV output)	0dBV
S/N (20kHz LPF,A-weight filter)	85dB Better than
T.H.D (at 0dBV output,20kHz LPF)	0.1% Less than
Local Input (XLR input)	
INPUT SENSITIVITY(at 0dBV output)	-60dBV
S/N (20kHz LPF,A-weight filter)	60dB Better than
T.H.D (at 0dBV output,20kHz LPF)	0.1% Less than
FREQUENCY RESPONSE	100Hz ~ 20kHz (± 3 dB)
Local Input (PHONE input)	
INPUT SENSITIVITY(at 0dBV output)	0dBV
S/N (20kHz LPF,A-weight filter)	75dB Better than
T.H.D (at 0dBV output,20kHz LPF)	0.1% Less than
FREQUENCY RESPONSE	100Hz ~ 20kHz (± 3 dB)
Operation Temperature	-10°C ~ 40°C
Power Source	AC: 100-240V, 50/60Hz , DC 24V
Power Consumption	15W
Weight (SET)	6.5kg / 14.33lb
Dimensions (SET)	440(W)x88(H)x388(D)mm / 17.3(W)x3.46(H)x15.27(D)in

※ The specifications and performances may be under modification without a prior notification according to our circumstances.

Service

Procedures

Take steps to insure the problem is not related to operator error or other products within the system. 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

Variations of this product exist to reflect the variations in AC power requirements throughout the world. Product supplied through local 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 or the authorized Inter-M Distributor for your specific country or region.

interM



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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