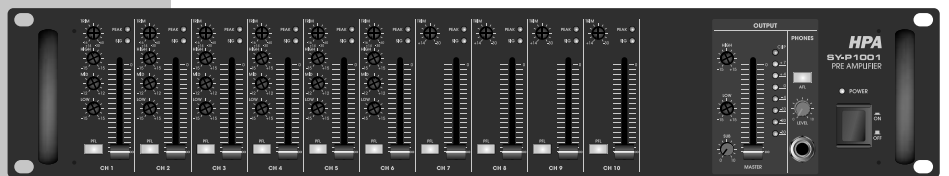
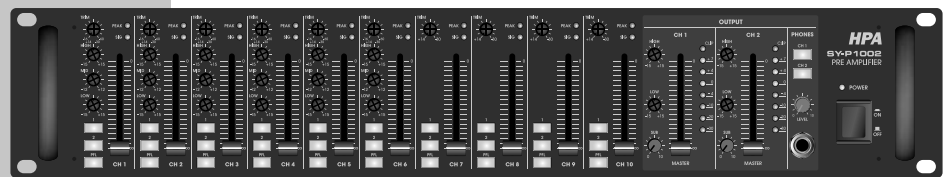


# Owner's Manual

**SY-P1001**






**SY-P1002**



***HPA***

## WARNING

1. Read these instructions - All the safety and operating instructions should be read before this product is operated.
2. Retain these instructions - The safety and operating instructions should be retained for future reference.
3. Heed all warnings - All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow all instructions - All operating and use instructions should be followed.
5. Do not use this apparatus near water - The appliance should not be used near water or moisture - for example, in a wet basement or near a swimming pool, and the like.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacture'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 plug. A polarized plug has two blades with one wider than the other. A grounding plug has two blades and a third grounding prong. The wide blade or the third prong is 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 the plugs, convenience receptacles, and at 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 or rack is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over. 
13. Unplug the apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified 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 has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Please keep the unit in a good ventilation environment.
16. **WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall not be placed on apparatus.
17. **WARNING:** The mains plug or appliance inlet is used as disconnect device, the disconnect device shall remain readily operable.
18. **Power Sources** – This product should be operated only from the type of power source indicated on the rating label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer the operating instructions.
19. **Safety Check** – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
20. Don't touch conductive parts of output terminals to prevent hazardous electrical shock. The external wiring connected to the terminals requires installation by an instructed person or the use of ready-made leads or cords.
21. This equipment is for commercial & professional use only.
22. This product is in compliance with EU WEEE regulations. Disposal of end of life product should not be treated as municipal waste. Please refer to your local regulations for instructions on proper disposal of this product. 
23. To prevent hazardous electrical shock, do not touch the conductive parts of the output terminals. The external wiring connected to the terminals requires installation by a qualified technician or the use of ready-made leads or cords. 



Protective earthing terminal. The apparatus should be connected to a mains socket outlet with a protective earthing connection.



This lightning flash is intended to alert the user to the presence of non-insulated "dangerous voltage" on the output terminals that may be of sufficient magnitude to constitute a risk of electric shock. The external wiring connected to the terminals requires installation by an instructed person or the use of ready-made leads or cords.



### CAUTION

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



**CAUTION:** To reduce the risk of electric shock, do not remove any cover. No user-serviceable parts inside. Refer servicing to qualified service personnel only.



The lightning flash with arrowhead symbol within the equilateral triangle 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.



The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying this 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.

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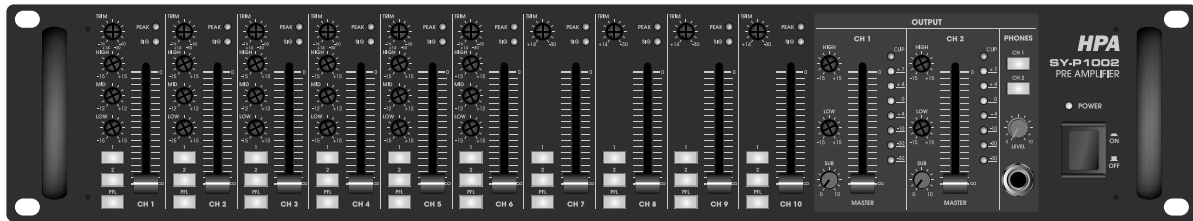
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## Introduction



## SY-P1001 / SY-P1002

### Welcome

Congratulation and thank you for purchasing SY-P series

### Unpacking and Installation

Although it is neither complicated to install nor difficult to operate 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.

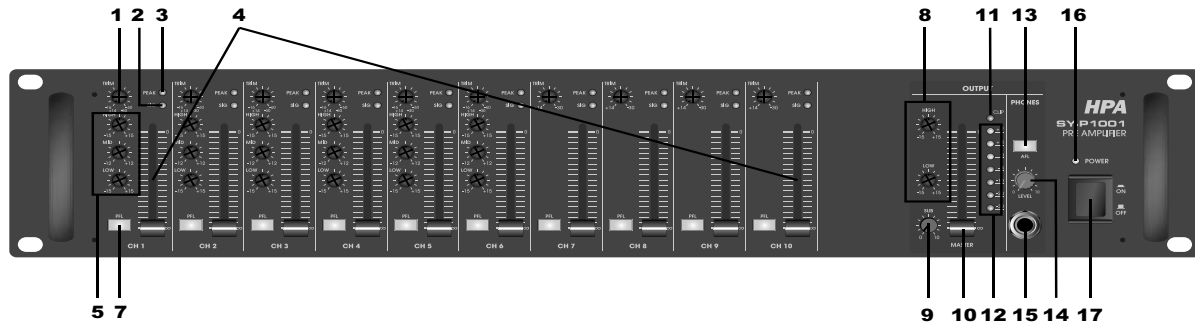
Connect your unit with the system components according to the description on the following pages.

## Features

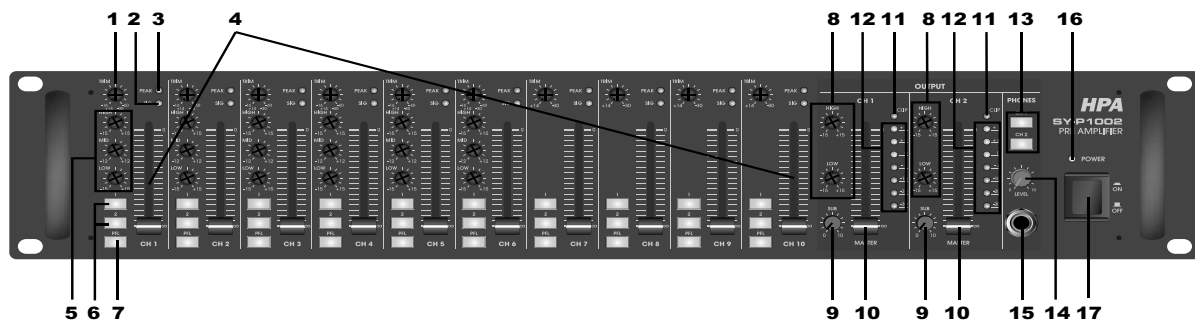
- \* Versatile function and compact size
- \* 6 Channels MIC input with XLR jack
- \* 10 Channels LINE input with 1/4" phone jack
- \* 4 Channels LINE input with RCA jack
- \* 3 Band EQ control on every MIC channels
- \* Acceptable wide range input level with trim pot
- \* Useful monitoring function on the whole input and output channels with PFL/AFL switches.
- \* 2 Band EQ control on every output channels
- \* Signal and peak indicator on each input channels.
- \* DC+18V phantom power for condenser microphone on the MIC channel 1 and 2
- \* Useful ducking function on the MIC channel 1 and 2
- \* 1 Priority input channel for emergency announcement
- \* 2 Insert channels allow connecting external effecter
- \* Multi channel output as 2 main output, 2 sub output and 2 record output
- \* Useful slide fader for each input level and main output level
- \* Runs on 100-120VAC, 220-240VAC and 24VDC for evacuation orders.

## Controls

### Front Panels



[ Fig.1-SYP1001 FRONT ]



[ Fig.2-SYP1002 FRONT ]

#### 1. TRIM CONTROLS

These controls allow accept variable input level. They have 44dB adjustable range as - 60dB to -16dB for microphone level and -30dB to +14dB for line level.

#### 2. SIGNAL INDICATORS

These indicators show present input signal on the each input channels.

#### 3. PEAK INDICATORS

These indicators warn against clipping shortly on the each input channel. HPA recommend for users to adjust TRIM control when PEAK indicator is flickering to make best performance.

#### 4. INPUT CHANNEL FADER

These faders allow level adjust for each input channel.

#### 5. INPUT CHANNEL EQ CONTROLS

6 MIC input channels have 3 bands equalizer which is adjustable over a wide range.

#### 6. OUTPUT CHANNEL SELECTORS

These selectors allow each input signal through out to selected output channel. This function is in SY-P1002 only.

#### 7. PFL SWITCHES

This switch allows you to monitor the pre-fader signal of input channel through headphone output.

#### 8. OUTPUT CHANNEL EQ CONTROLS

Output channels have 2 bands equalizer which is adjustable over a wide range.

#### 9. SUB OUTPUT LEVEL CONTROLS

These controls allow level adjust for sub output channels.

## Controls

### Front Panels

#### 10. OUTPUT CHANNEL FADER

These faders allow level adjust for main output channels.

#### 11. CLIP INDICATORS

These indicators warn against clipping shortly on the each output channel.

HPA recommend for users to adjust output fader when CLIP indicator is flickering to make best performance.

#### 12. OUTPUT LEVEL METERS

These indicators show output signal level.

#### 13. AFL SWITCHES

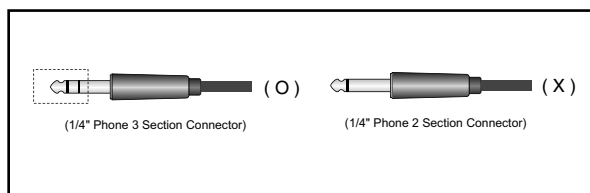
This switch allows you to monitor the main output signal of output channel through headphone output.

#### 14. HEADPHONE LEVEL CONTROL

This control allows you adjust the signal level of headphone output

#### 15. HEADPHONE JACK TERMINAL

HPA recommend for users to use a standard 6.3mm (1/4") jack for connection of headphones. Fig.3 shows proper headphone plug for standard 6.3mm (1/4") jack.



[ Fig.3-HEADPHONE PLUG ]

#### 16. POWER INDICATOR

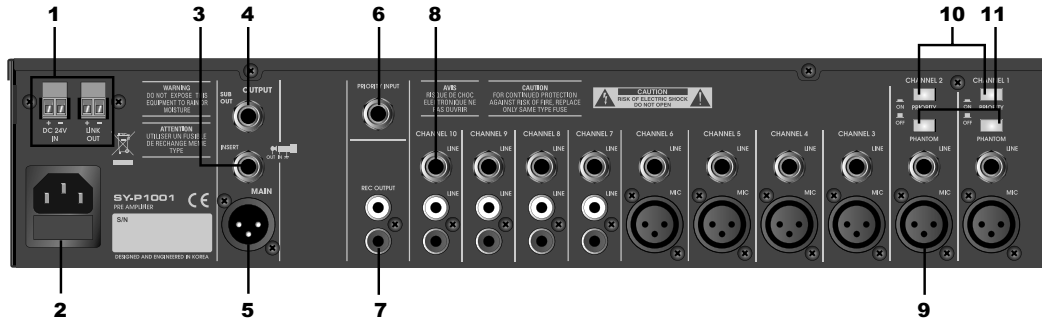
This indicator shows power on/off status.

#### 17. POWER SWITCH

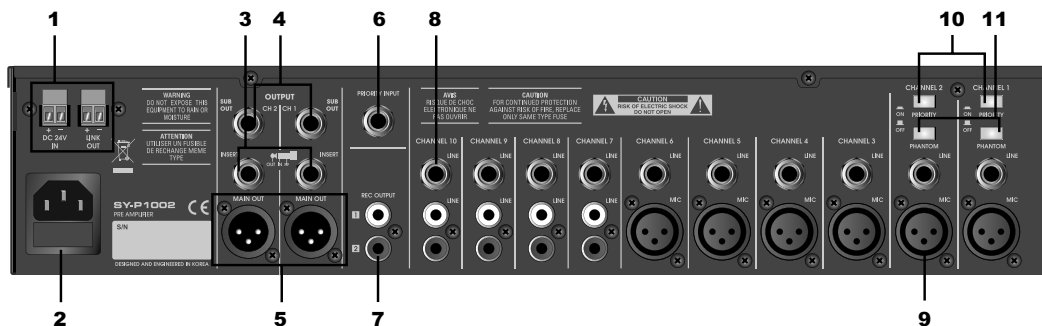
Device will be supplied power when this switch is pressed and locked.

## Controls

### Rear Panel



[ Fig.4-SYP1001 REAR PANEL ]



[ Fig.5-SYP1002 REAR PANEL ]

#### 1. DC 24V INPUT AND LINK OUTPUT

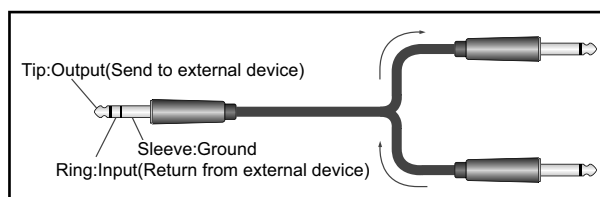
Device will be supplied DC 24V through input terminal and supply to other device through link output terminal.

#### 2. AC INLET

This AC inlet allows replacing fuse conveniently. Please make sure the value of fuse before replacement.

#### 3. CHANNEL INSERT

These insert jacks allow connecting external effectors like compressor, limiter, noise filters. HPA would like to recommend using proper insert cable as below Fig.6



[ Fig.6-INSERT CABLE ]

#### 4. SUB OUTPUT

Sub output channel is prepared for sub amplifier.

#### 5. MAIN OUTPUT

Main amplifier will be connected to this output terminal.

#### 6. PRIORITY INPUT

Whole other input signals will be muted automatically by priority input signal. This terminal will be used to evacuation announcement.

#### 7. RECORD OUTPUT

This terminal allows recording with tape recorder.

#### 8. LINE INPUTS

These line inputs can be connected line level equipments. This device allows connecting 6 balanced(CH1-6) and 4 unbalanced(CH7-10) inputs.



## **Controls**

### **Rear Panel**

Also allow adjusting level with TRIM pot of front panel to accept variable input sources.

#### **9. MICROPHONE INPUTS**

This device allows connecting 6 balanced microphone input with acceptable wide impedance range from 50ohm to 600ohm.

#### **10. PRIORITY SWITCHES**

These switches allow talk over for MIC channel 1 and 2. All other input signals except priority input channel are muted when this function is activated during press.

MIC channel 1 and 2 have same priority grade as priority input channel during these switches are pressed.

#### **11. PHANTOM POWER SWITCHES**

This device supply DC+18V phantom power to use condenser microphone with MIC1 and 2 channels.

## Connections

HPA products are wired to reflect accepted wiring practices used throughout the world.

Balanced XLR connectors are wired as described:

Pin #1 Shield

Pin #2 Positive

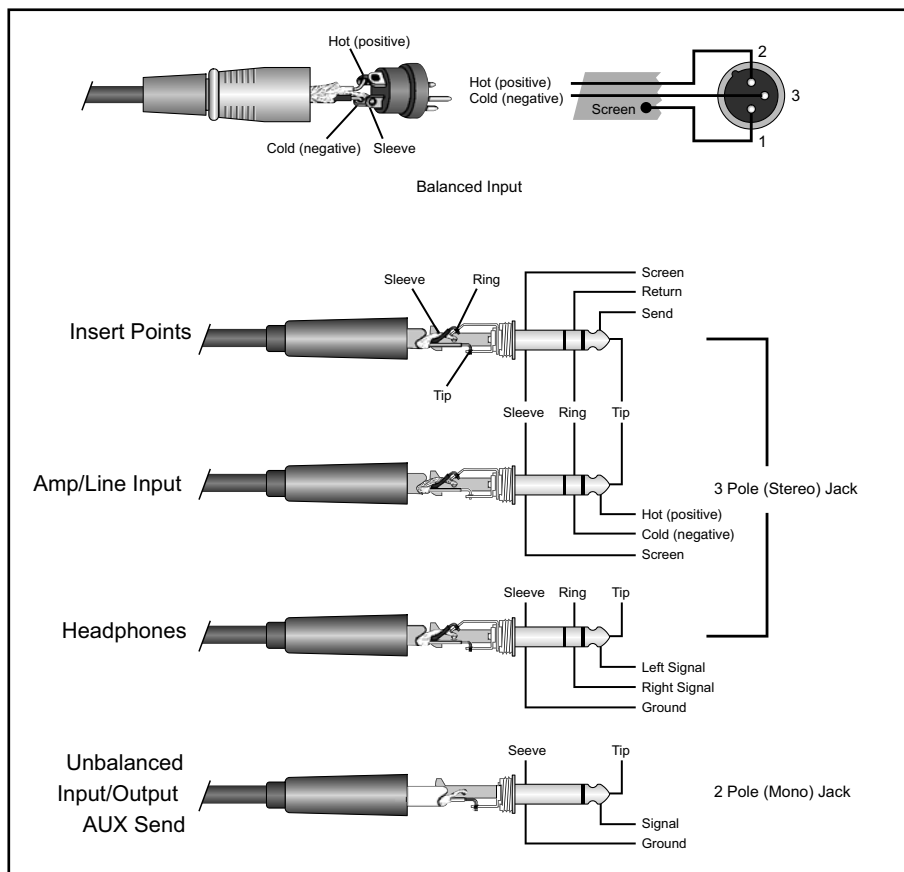
Pin #3 Negative

Balanced 1/4" TRS connectors are wired as described:

Tip is Positive

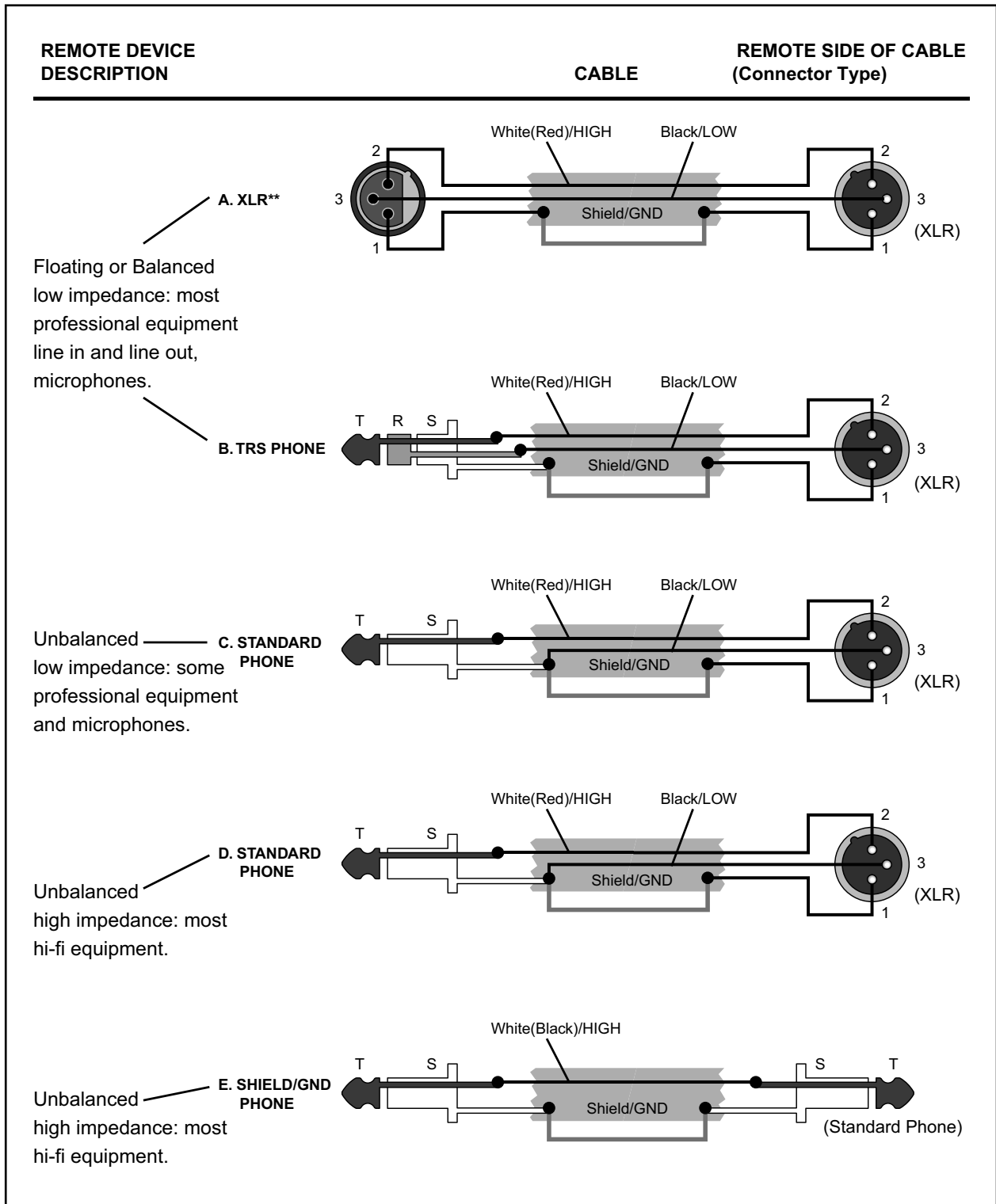
Ring is Negative

Sleeve is Shield



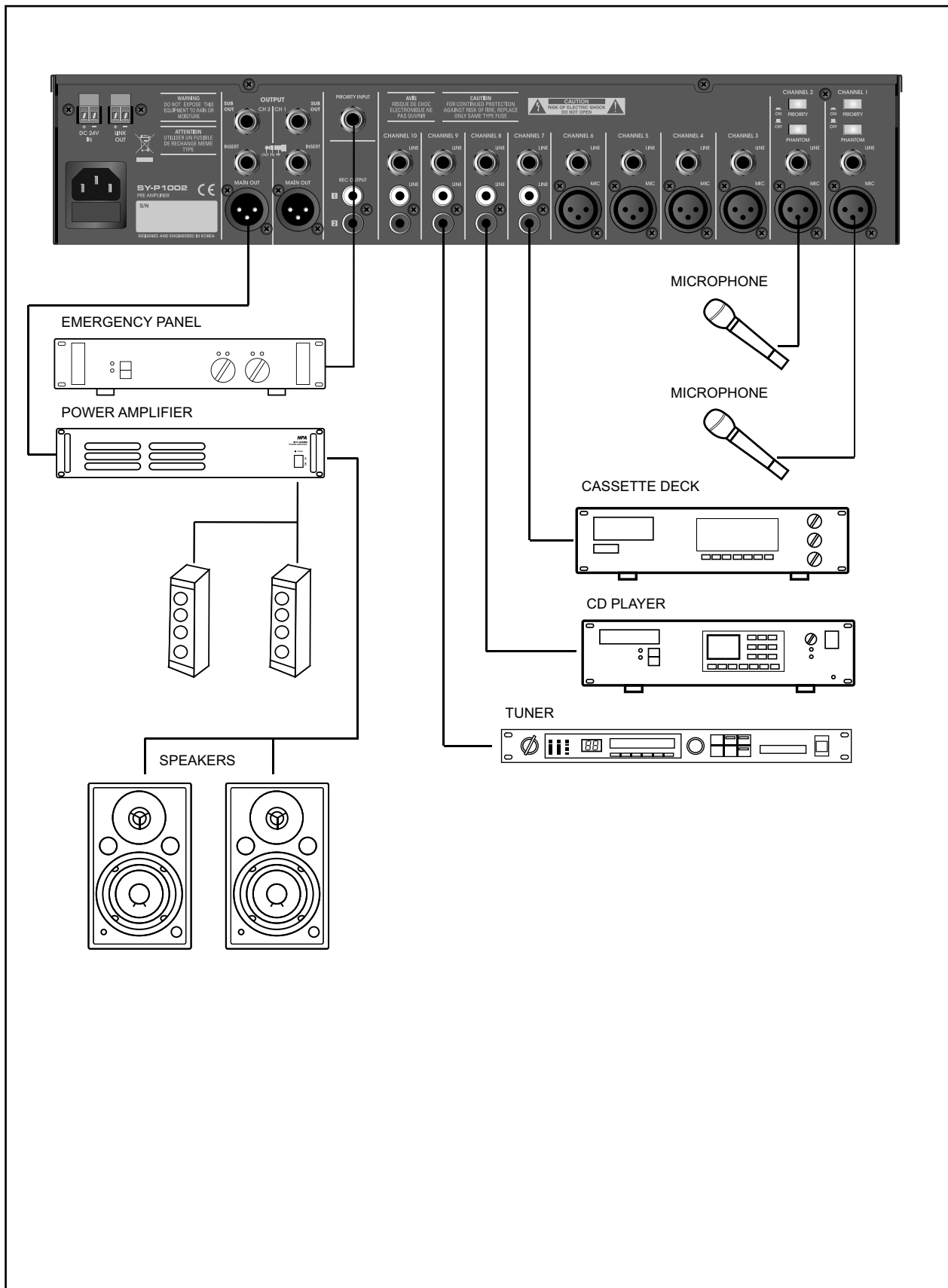
# Connections

## CONNECTOR AND CABLE CONFIGURATIONS

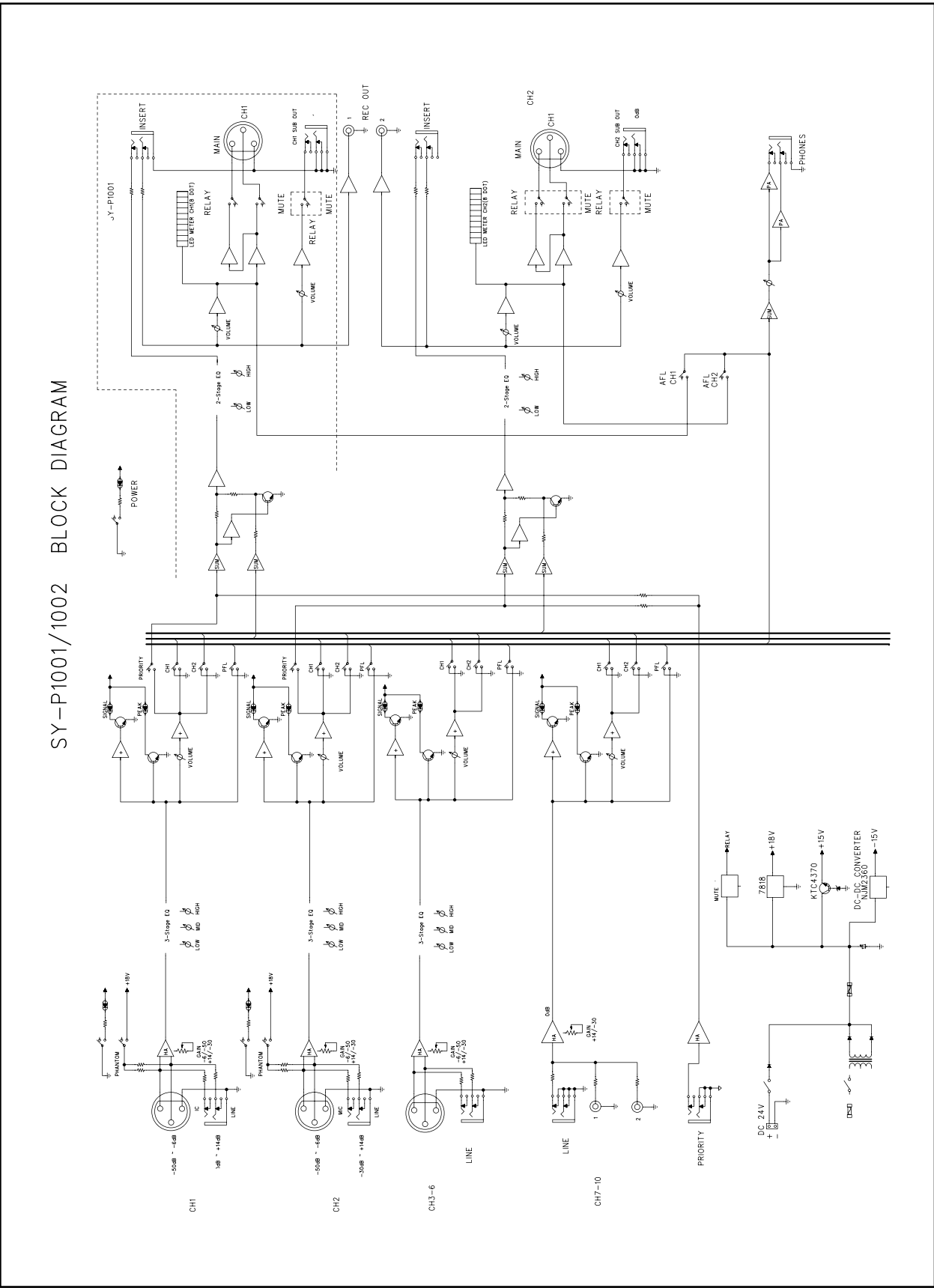


Connector and cable configurations recommended for use with the SY-P Series.  
These cables are based on the use of auxiliary equipment that is isolated from the AC power mains.

## Connestions



# Block diagrams



## Specifications

Rated Output Voltage	Balanced Master Output	0dBm
	Unbalanced Sub Output	0dBm
	Unbalanced Rec output	-10dBm
Input sensitivity for rated output at maximum gain	Balanced Microphone channels	-60dBm
	Balanced Line 1-6 channels	-30dBm
	Unbalanced Line 7-10 channels	-30dBm
	Unbalanced Priority	0dBm
	Insert	0dBm
Total Harmonic Distortion(T.H.D) at 1KHz Rated output	Mic in to Master Output	Less than 0.2%
	Line in to Master Output	
	Mic in to Sub Output	
	Mic in to Rec Output	
Frequency Response	Rated Output 20Hz~20KHz	±3dB
Input Channel EQ	HIGH (12.5KHz)	±12dB
	MID(2.5KHz)	±12dB
	LOW(80Hz)	±12dB
Output Channel EQ	HIGH (12.5KHz)	±12dB
	LOW(80Hz)	±12dB
Residual Noise		less than -90dB
Crosstalk	At 1KHz	less than -70dB
Phantom Power (balanced)		+18V DC
General	Power Source	AC 100~120V / 50~60Hz AC 220~240V / 50~60Hz DC 240 V
	power Consumption	16Watts
	Weight	5.3 kg
	Dimensions	482(W)x325(D)x88(H)

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



***HPA***