# **PROFESSIONAL AMPLIFIER**



H-P300

H-P400

H-P600

## **INSTRUCTION MANUAL**

## **PRO SOUND EQUIPMENTS**



This symbol is used to alert the operator to follow important operating procedures and precautions detailed in documentation.



This symbol is used to warn operators that dangerous voltages are present within the equipment may cause a risk of electric shock

## **CAUTION!**

Please prevent the equipment dripping by water, do not put the liquid articles such as vase on the equipment.

The power switch of the equipments is monopole; please pullout the plug if the will not be used for a long time. The switch has already been turn on when the power indicator lamp is on, and the switch has already been turn off when the power indicator lamp is off.

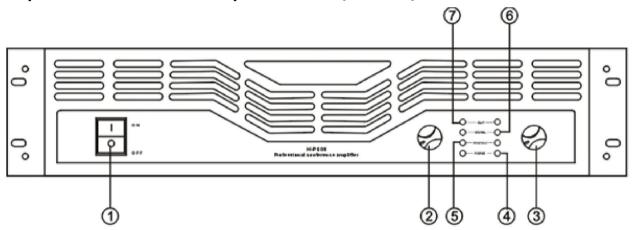
This machine has no maintain part, for preventing electric shock from being dangerous, do not turn on the machine cover without permission. If need to maintain, please contact sale agent.

The appearance of the products is subject to material object; we remain the right to modify any issue without notice in advance.

#### A. Main function of amplifier

- 1. 2-channel, parallel or bridged, mono operating modes for flexible application.
- 2. Independent limiters for each channel offer dependable protection against distortion.
- 3. Precise signal and clip LED indicators to monitor performance.
- 4. High-current toroidal transformer for absolute reliability and lowest noise emission.
- 5. Independent DC and thermal overheat protection one each channel automatically protects amplifier and speakers.
- 6. "Back-to front" ventilation system including air filler will automatically adjust fan speed for smooth operation.
- 7. Balanced XLR and 1/4" TRS inputs.
- 8. Professional connectors compatible to speakon and "touch –proof" binding post loudspeaker outputs enable secure operation.

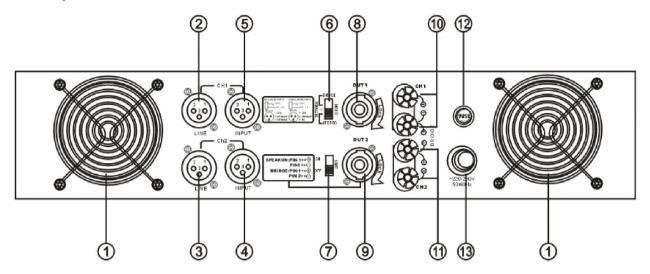
## B. Operation instruction of amplifier H-P300/H-P400/H-P600



## 1. Front panel

- ① Power switch
- O Volume switch of CH A
- 3 Volume switch of CH B
- Power LED
- Protect LED: Indicates that the channel is in protecting mode (speakers disconnected by output relay).
- © Signal LED: Illuminates to indicate that a signal (above a minimum threshold) is present at the amplifier in put and that the signal is being amplified.
- Clip LED: Illuminates at the clipping threshold. Continuous illumination also indicates that ACL (Active clip limiting) protection circuitry is engaged.

#### 2. Rear panel



- 1. Fan inlet ports & Filters.
- 2. CH1 LINE output port
- 3. CH2 LINE output port
- 4. Channel 2 unbalanced/Balance signal input
- 5. Channel 1 unbalanced/Balance signal input
- 6. Mode selection switch
- 7. GND switch
- 8. CH1 XLR output port
- 9. CH2 XLR output port

10-11. Balanced 1/4" (TRS) connectors. These connectors accept input signals on balanced XLR input plugs. Connectors for each channel are in parallel, the unused connectors may be used for "loop through" connection to other amplifiers.

- 12. Fuse
- 13. AC power

#### **D.** Operation

The three-position recessed mode select switch (located on the rear panel) configures the amplifier for stereo, parallel or bridged mono mode. Amplifiers are factory-configured for stereo mode.

#### 1. Stereo mode

In stereo mode, both channels operate independently with their input attenuators controlling their respective levels, signal at channel A's input produces output at Channel A's output, while signal at channel B' input produces output at channel B's output. Recommended minimum nominal load impedance for stereo operation is 2 Ohms per channel. Either the 1/4" (TRS) input or the XLR inputs may be used.

#### 2. Parallel mode

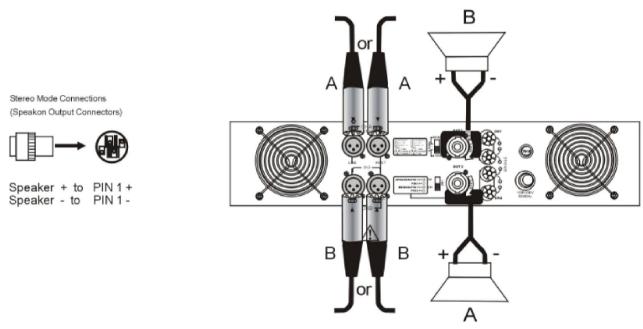
When set to parallel mode, a signal applied to channel A' Signal will be amplifier and appear at outputs for both channels A & B. Either the 1/4" (TRS) input or the XLR input on Channel A may be used.

#### 3. Bridged Mono mode

Bridged Mono mode straps both amplifier channels together to make a very powerful, single channel monaural amplifier. One channel "pushes" and the other "pulls" equally, doubling the power over that of either channel alone. Signal is applied to the channel A input only. Both attenuators are used to control signal level, in addition, both must be adjusted to the same setting, either the 1/4" (TRS) or XLR input may be used.

Note: the channel B input connector (XLR and /or TRS) may be used to "loop through" the channel A signal when in parallel or bridged mono model.

Use external caution when operating the amplifier in bridged mono mode. Never ground either side of the speaker cable when the amplifier is in bridged mono mode; both sides are "hot". If an output patch panel is used, all connections must be isolated from each other and from the panel. There commended minimum nominal load impedance in the bridged mono mode is 4 Ohms, which is the equivalent to driving both channels separately at 2 Ohms. Driving bridged loads of less than the recommended minimums will activate the IGM circuitry.



#### **E. User Precautions**

#### 1. Speaker protection

All loudspeakers have electrical, thermal and physical limits which must be observed to prevent damage for failure. Cone or compression drivers can be damaged (sometimes to the point of failure) from excessive power; low frequencies applied the high frequency drivers, severely clipped waveforms, and subsonic signals.

Mid and high-frequency trans-dupers-compression driver in particular are highly susceptible to damage from overpowering, clipped waveforms, overpowering, clipped waveforms, or frequencies below their rated pass band. When using an electronic crossover, make absolutely certain that the low and mid bands are connected to the correct amplifiers and driver and note accidentally connected to those for a higher or lower frequency band.

#### 2. Maintenance

Amplifier required no routine maintenance other than occasional cleaning or replacement of

the fan intake filters on the rear of the amplifier (This operation does not require any tools). Filters must be kept clear and clean to ensure proper ventilation through the unit. If the amplifier is used in an external dusty or smoky environment, the filter should be cleaned or changed frequently and the unit should be periodically "blown free: (using compressed air) of any foreign matter that may penetrated through the filter.

Users will not need to make any internal adjustments to the amplifier during its lifetime. There are no user serviceable parts or adjustments that require opening the power amplifier. Cover removal exposes the risk of shock, so refer all servicing to qualified service technicians authorized by audio.

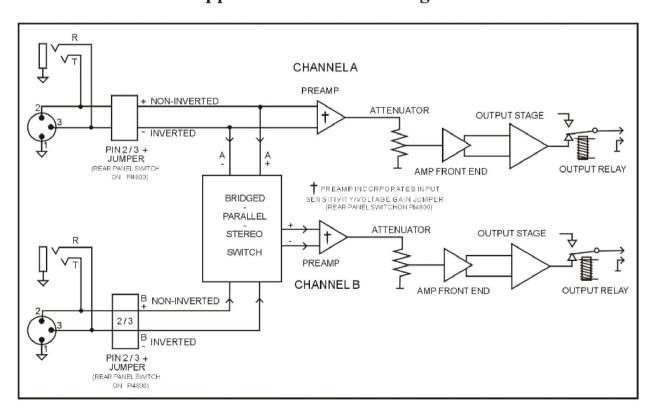
### 3. User responsibility

Amplifier is very powerful and can be potentially dangerous to loudspeakers and operators alike. It is your responsibility to read the section titled "precautions" and make sure that the amplifier is installed, wired, and operated properly as instructed in this manual. Many loudspeakers can be easily damaged or destroyed by overpowering, especially with the high power available from a bridged amplifier. Read the section on speaker protection and always be aware of the speaker's continuous and peak power equability. Our Audio is not responsible for damage to loud speakers for any reason.

#### F. Service and repair

In the unlikely event that your amplifier develops a problem, it must return to an authorized distributor, service center or shipped directly to our factory. To obtain service, contact the nearest audio service center, distributor, dealer, or any of the worldwide audio offices for contact information, reach our company. Customer service directly complexity of the design and the risk of electrical shock, all repairs should be attempted only by qualified technical personnel. If the unit needs to be shipped back to the factory, it must be send in its original carton, if improperly packed, your amplifier may be damaged.

## Appendix B-PA Bloch Diagram



#### Specifications:

MODEL NUMBER		H-P600	H-P400	H-P300
Input		500mv/20KΩ	500mv/22KΩ	500mv/20KΩ
sensitivity/impedance				
	80hm	2 X 600W	2 X 400W	2 X 300W
Output	40hm	2 X 900W	2 X 700W	2 X 600W
consumption	Bridged	1500W	900W	800W
	80hm			
Frequency response		20Hz-20KHz	20Hz-20KHz	20Hz-20KHz
S/N ratio		>90dB	>90dB	>90dB
Wave Distortion		<0.05%	<0.05%	<0.05%
Channel Crosstalk		<-70dB	<-70dB	<-70dB
Output impedance		4~16Ω	4~16Ω	4~16Ω
Power supply		220~230V/50~60Hz	220~230V/50~60Hz	220~230V/50~60Hz

#### **Caution:**

Please prevent the equipment dripping by water, do not put the liquid articles such as vase on the equipment.

The power switch of the equipments is monopole; please pullout the plug if the will not be used for a long time. The switch has already been turn on when the power indicator lamp is on, and the switch has already been turn off when the power indicator lamp is off.

This machine has no maintain part, for preventing electric shock from being dangerous, do not turn on the machine cover without permission. If need to maintain, please contact sale agent.

The appearance of the products is subject to material object; we remain the right to modify any issue without notice in advance.