



PA SERIES  
PROFESSIONAL POWER AMPLIFIER

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*PA400/PA600/PA800/PA1200*

OWNER'S MANUAL

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*Version:2.0*

## Safety Information



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

**WARNING:** To reduce the risk of fire or electric shock, do not expose this appliance to rain and moisture. Electrical equipment should NEVER be kept or stored in damp environments.



This symbol, wherever it appears, is intended to alert the user to the presence of un-insulated dangerous voltage within the appliance's enclosure that may be of sufficient magnitude to pose a risk of electric shock.



This symbol, wherever it appears, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying this appliance.



This symbol means: indoor use only.



This symbol means: Read instructions.

### Safety Instructions

- 1. Read Instructions** → All the safety and operating instructions should be read before this product is connected and used.
- 2. Retain Instructions** → The safety and operating instructions should be kept for future reference.
- 3. Heed Warnings** → All warnings on this appliance and in these operating instructions should be followed.
- 4. Follow Instructions** → All operating and other instructions should be followed.
- 5. Heat, Water and Moisture** → Do not place this appliance too close to any high heat sources such as radiators. Also this appliance should be kept away from direct contact with liquids.
- 6. Ventilation** → The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a sofa, bed, or similar surface that may block the ventilation opening; or keep the appliance away from those objects such as newspapers, carpet which may cover the ventilation opening or impede the flow of air through the ventilation opening.
- 7. Power Source & Power Cord** → This appliance should be connected to a power supply only of the type described in these operating instructions, or marked on the unit.

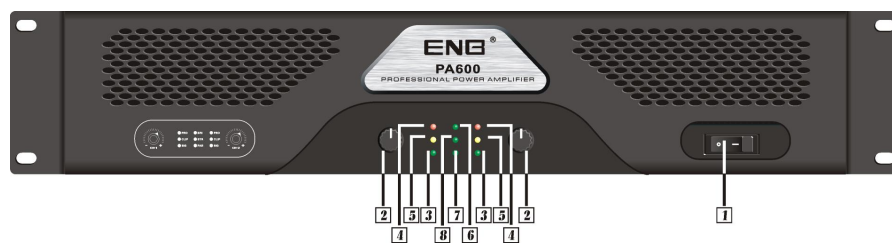
Be sure to connect the appliance to a mains power socket which has a protective grounding connection.

Power supply cord should be routed so that they are not likely to be walked upon or pinched by the items placed on or against them. When removing the cord from a power outlet be sure to remove it by holding the plug attachment and not by pulling on the cord.

Check the total maximum power of your AC wall outlet and make sure it has the enough power to match the Power Consumption of this appliance, otherwise you could overload the wall outlet, which could cause fire.

8. **Internal / External Voltage Selectors** → Internal or external voltage selector switches, if any, should only be reset and re-equipped with a proper plug for alternative voltage by a qualified service technician. Do not attempt to alter this yourself.
9. **Object & Liquid Entry** → Take care to avoid any objects falling into or liquids are not spilled in to the inside of the appliance.
10. **Cleaning** → Unplug the appliance first and clean only with a dry cloth.
11. **Non-use Period** → The power cord of the appliance should be unplugged from the outlet when left unused for long periods of time.
12. **Unpacking & Setup** → Please check your appliance for any damage after unpacking(before connecting) and contact your dealer in case of any related complains. Take care of choosing your installation place and the correct AC connection. If built in to a case, be aware that the depth and the weight of some kind appliance(suCH 1s Amplifier) does require an additional fixing on the backside or the use of rack shelf supports. Never mount the amplifier in a rack just by fixing it on the front plate – Manufacturer takes no responsibility in this case.
13. **Damage Requiring Service** → Servicing is required when the appliance has been damaged in any way, suCH 1s power cord or plug is damaged, liquid has been spilled or objects have fallen in the appliance, the appliance has been exposed to rain or moisture, does not operate normally, or has been dropped. Refer all servicing to qualified service personnel or contact your dealer. Do not attempt to repair by yourself.

## Front panel:



### 1. Mains Power Switch

When press the switch, the soft start circuit run for avoiding surge strike. In about 3-4 seconds, there will be a clicking denote that soft start finished. And more 1-2 seconds later, there will be another “clicking”, the amplifier is connected with speaker and ready to work.

### 2. CH-1/CH-2 Input level control

Adjust it to get the volume desired. Use CH-1 control only while amplifier is set in Bridge or Parallel mode.

### 3. Signal LED

The green signal led indicates that a music signal

is present at this channel input.

### 4. CH-1/CH-2 Protection indicating LED

This red LED will light up when the amplifier is running un-stable or went in to thermal protection after the power elements temperature over 90°C.

### 5. Clip LED

Turns on just before the maximum, distortion free, output level of the amplifier. The clip leds may turn on shortly from time to time but they may certainly not turn on for longer periods. In this case you have to turn the output level down!

## 6. Bridge mode indicating LED

Indicate the amplifier is working under BRIDGE mode, the indicator is lighten , and the input signal only acts on CH-1.

## 7. Parallel mode indicating LED

Indicate that the amplifier is working under parallel mode,

the indicator is lighten, input signal only acts on CH-1.

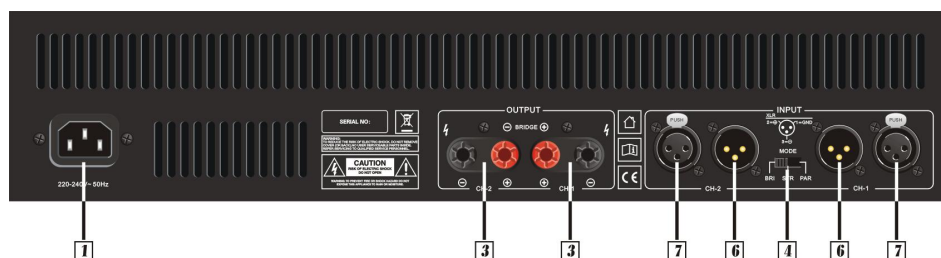
## 8.Stereo mode indicating LED

These green LED will light up while the input signal is connected, the amplifier is working under stereo mode.

### REAR PANEL:

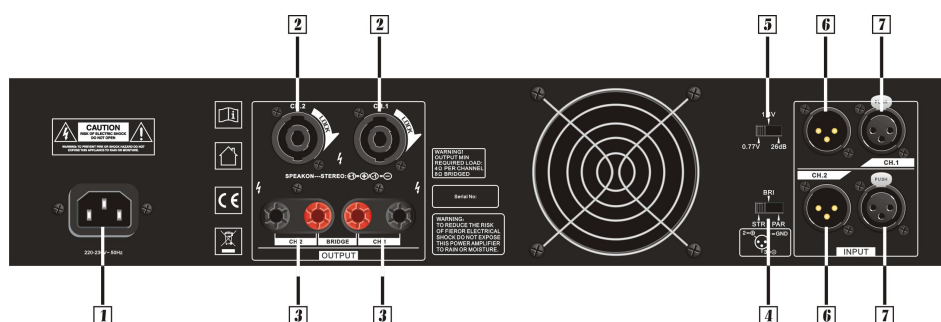
PA400

PA600



PA800

PA1200



### 1. MAINS POWER SUPPLY CORD

### 2..CH-1/CH-2 SPEAKON OUTPUT

Used by a standard SPEAKON connector.

### 3.CH-1/CH-2 BINDING POST OUTPUT

Used by a standard binding connector.

### 4. OUTPUT MODE SET SWITCH.

**BRIDGE MONO MODE.** Sends CH 1 signals out-of-phase to CH 2,producing twice the normal voltage swing between the two RED speaker terminals (CH 1 RED is defined as positive).Only CH 1 controls and input are effective.

**STEREO MODE.** Each channel operates independently.as usual.

**PARALLEL INPUT MODE.** Sends CH 1 signals out CH 2,Only CH 1 controls and input are effective.

NOTE: speaker connections work as usual,Never connect the red output terminals directly together.

### 5. INPUT SENSITIVITY SWITCH.

With this switch you can perfectly adapt the input sensitivity of the amplifier:26dB;1.4V;0.77V

### 6. CH-1/CH-2 XLR INPUT CONNECTOR

Standard XLR (male) socket for input signal link. Pin1: signal ground, Pin2: signal+, Pin3: signal-

### 7.CH-1/CH-2 XLR OUTPUT CONNECTOR

# **TECHNICAL PARAMETER OF PA SERIES AMPLIFIER:**

MODEL			PA400	PA600	PA800	PA1200
Output Power (EIA 1KHz 1%THD)	Stereo	8Ω	350W×2	550W×2	700Wx2	1100Wx2
		4Ω	530W×2	830W×2	1050Wx2	1650Wx2
	Bridge	8Ω	1060W	1660W	2100W	3300W
Output Connections			Binding		SPEAKON and Binding	
Frequency Response			20Hz-20kHz, ±0.5dB		20Hz-20kHz, -0.5dB	
Input Sensitivity			0.77V		0.77V/1.4V/26dB	
Input Impedance			20kΩ/Balanced,10kΩ/un-Balanced			
S/N Ratio			≥95dB			
THD			≤0.03%			
Crosstalk @ Rated Output/8Ω/1kHz			>70 dB			
Damping Factor/8Ω/1kHz			>240			
Slew Rate			15V/μS			
Protection			Soft Start,Short Circuit,Limiter,DC Fault,AC Line Fuse,Thermal Cut			
Cooling system			Two steps speed fan			
Mains Power supply			AC:220-230V 50Hz/60Hz			
Weight-Kg			11.5	12.5	11.8	14.8
Dimensions (WxDxH)-mm			482x307×88		482x316.5×88	482x377.5×88

## 安全信息



**注意：** 为防止触电危险，切勿擅自打开/去除本机的任何盖板或后板。机箱内不含任何供维修用零件。维修只能由专业技术人员进行

**警告：** 为防止火灾及触电危险，切勿将本机置于雨渍或潮湿环境中



此符号无论出现在何处，是用于警告使用者存在未经绝缘的带电器件，其电压足以造成触电危险

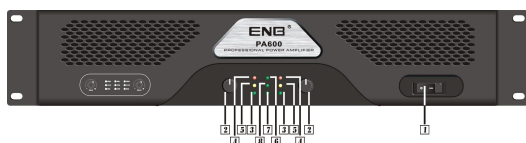


此符号无论出现在何处，是用于提醒使用者留意随机文件中关于操作、维护方面的重要注意事项

### 安全指示

- 1. 阅读指示** → 在连接和使用本产品前，应首先阅读所有的安全和操作指示。
- 2. 保存指示** → 所有的安全和操作指示应良好保存以备今后参考。
- 3. 警示** → 本产品上及操作指示中的所有警示内容必须严格遵守。
- 4. 遵守指示** → 所有操作和其他方面的指示都应被严格遵守。
- 5. 热源、水和潮湿** → 不要将此产品置于高温热源附近，如电暖器。不要将任何明火源，如点燃的蜡烛之类，直接置于本产品之上。本产品应放置于适当的地方以避免直接接触任何液体。
- 6. 通风** → 本产品应正确放置于适当的位置确保其正常的通风条件不受影响。例如，不能将本产品放置在沙发，床或其他类似的表面上面，因为这样会阻塞通风口；此外通风口应确保不被报纸，桌布，窗帘等物品所覆盖。
- 7. 电源和电源线** → 本产品只能由操作指示中或机身上所注明的的电源供电。电源线应置于适当的位置以确保其不会受到踩踏或其它物品的撞击、挤压。将电源线从插座上拔下时，应握住插头拔除，不能扯、拽电源线。
- 8. 内部/外部 电压选择开关** → 本产品如配有内部或外部电压选择开关，在使用本产品前应检查、确保此开关已被置于与使用者当地电源供电电压匹配的位置。如需重新设置，则应由有资格的专业技术人员来操作完成，不要尝试自己转换。
- 9. 固体和液体的进入** → 小心避免任何固体或液体进入该产品内部。
- 10. 清洁** → 清洁本产品前确保已切断电源，并且只能用干布进行清洁。
- 11. 停用期间** → 产品长时间不使用时应将该产品电源线从插座拔下。
- 12. 拆包和安装** → 在打开包装后（连接之前）请检查你的产品是否有任何损坏，发现损坏请即与经销商取得联系。选择正确的安装位置和正确的交流电源连接方式。如果是安装在机柜里，注意由于某些产品（例如功放）的深度和重量的要求，必需在后板上也加以固定或者是使用安装支架。绝不能只靠固定面板而将功放装于机柜中，在此情况下产生的损坏生产商不承担任何责任。
- 13. 损坏、故障的维修** → 无论本产品遭受何种方式的损坏，都需要进行维修，例如电源线或者插头损坏，液体流入或固体物落入机箱内部，产品被雨淋或受潮，产品不能正常工作以及产品跌落等。维修应交由有资格的专业维修人员进行或者联系你的经销商。永远不要试图自己进行维修。

前面板:



#### 1. 电源开关

当按下此键时, 功放的软启动防浪涌冲击电路开始工作, 约 3~4 秒后, 可听见“咔嚓”一声, 软启动工作完成, 再过 1~2 秒, 又听见“咔嚓”声, 功放已接入扬声器, 此时已进入工作状态。

#### 2. CH-1/CH-2 输入电平调整旋钮

调整这个旋钮至所需的音量大小。当远离扬声器时可参照面板上的刻度进行调整。(桥接或并联模式时, 只使用这个旋钮)

#### 3. CH-1/CH-2 输出信号指示灯

当功放进入正常工作状态且有信号输出时, 该指示灯点亮

#### 4. CH-1/CH-2 保护指示灯

有三种情况指示灯会亮:

- (1) 开机后 3~5 秒, 及关机后, 功放在不稳定工作状态时, 功放脱离扬声器。
- (2) 当功率器件的工作温度超过 90°C
- (3) 当功放出现异常时。

#### 5. 峰值指示灯有两种情况指示灯会亮:

- (1) 当功放的输出功率达到最大值, 将要出现削波时, 指示灯点亮, 此时注意适当降低输入电平。
- (2) 当有信号输入而扬声器无声, 指示灯连续不断地亮, 这时确定为负载短路, 应关掉功放电源, 清除短路再恢复工作。

#### 6. 桥接工作模式指示灯

当功放处于桥接工作模式时, 这个灯点亮。  
这时输入信号只作用于 CH-1。

#### 7. 并联工作模式指示灯

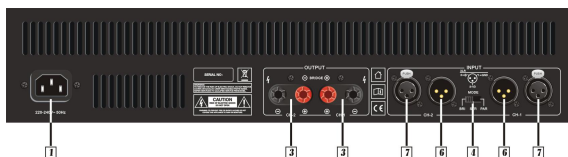
当功放处于并联工作模式时, 这个灯点亮。  
这时输入信号只作用于 CH1。

#### 8. 立体声工作模式指示灯

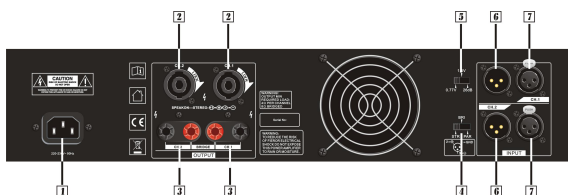
当功放工作在立体声模式下时, 这个灯点亮。

后面板:

PA400/PA600



PA800/PA1200



#### 1. 电源输入插座

#### 2. 专业 SPEAKON 扬声器插座

当工作于立体声模式时, 可使用 **SPEAKON** 插座进行连接, 连接方式为: 1+; 1-。

#### 3. 专业接线柱输出插座

当工作于立体声模式时, 连接方式为: 红+; 黑-。当工作于桥接单声道模式时CH 1红+; CH 2红-。

#### 4. 输出模式选择开关.

**桥接单声道模式.** CH 1 的信号反相 (-180 度) 后发送到 CH 2, 在两个红色的接线端子上输出两倍于平常输出时的交流电压 (CH 1 的红色端子定义为正极), 这时输入信号只作用于 CH 1。

**立体声模式.** 每个通道独立工作, 扬声器的连接同平常一样。

**并联输入模式.** CH 1 的信号同相发送到 CH 2, 这时输入信号只作用于 CH 1。

注意: 扬声器的连接还是和平常 (立体声模式) 一样, 不要将两个红色的端子连接在一起。

#### 5. 输入灵敏度开关.

使用这个开关可以调节功放的输入灵敏度: 26dB; 1.4V; 0.77V

#### 6. CH-1/CH-2 XLR 输入插座

使用一个标准的 XLR (公) 插座, 与同样为 XLR (母) 连接使用可以将同一个信号输出到另外一台功放, 其接线方法为: 1 脚: 信号地 2 脚: 信号+ 3 脚: 信号—

#### 7. CH-1/CH-2 XLR 输出插座

注意: 在机器正常工作时拔插信号线应将音量关至最小, 以免造成机器保护或扬声器损坏。

## PA 系列技术参数

MODEL			PA400	PA600	PA800	PA1200
输出功率 (EIA 1KHz 1%THD)	立体声	8Ω	350W×2	550W×2	700W×2	1100W×2
		4Ω	530W×2	830W×2	1050W×2	1650W×2
	桥接	8Ω	1060W	1660W	2100W	3300W
输出接口			Binding		SPEAKON and Binding	
频响			20Hz-20kHz, ±0.5dB		20Hz-20kHz, -0.5dB	
输入灵敏度			0.77V		0.77V/1.4V/26dB	
平衡输入阻抗			20kΩ/Balanced,10kΩ/un-Balanced			
信噪比			≥95dB			
失真度			≤0.03%			
额定输出功率 8 ohm 1KHz 时分离度			>70 dB			
阻尼系数 f=1KHz 8 OHMS			>240			
转换速率			15V/uS			
保护			Soft Start,Short Circuit,Limiter,DC Fault,AC Line Fuse,Thermal Cut			
冷却系统			Two steps speed fan			
电源			AC:220-230V 50Hz/60Hz			
净重 (kg)			11.5	12.5	11.8	14.8
尺寸 (WxDxH)-mm			482x307×88		482x316.5×88	482x377.5×88