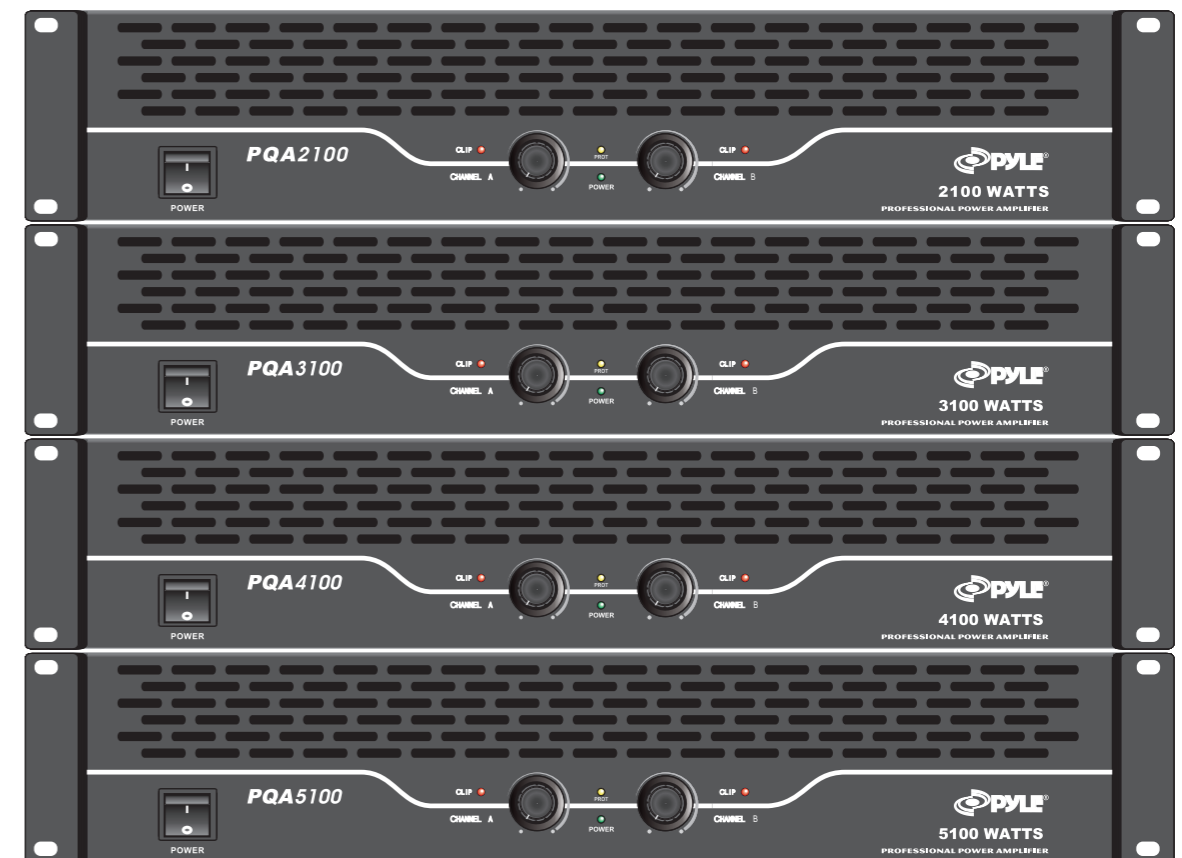




Professional Power Amplifier

PQA 2100
PQA 3100
PQA 4100
PQA 5100



PROFESSIONAL SERIES SPECIFICATIONS

Model	PQA2100	PQA3100	PQA4100	PQA5100
OUTPUT POWER AT 20Hz-20KHz THD	1050+1050wrms 460+460w 230+230w 920+920w	1550+1550wrms 760+760w 380+380w 1520+1520w	2050+2050wrms 1000+1000w 500+500w 2000+2000w	2550+2550wrms 1200+1200w 600+600w 2400+2400w
FREQUENCY RESPONSE	10Hz-50KHz -1.5dB			
MAXIMUM INPUT LEVEL (LIMITER On)	21dB/9V			
INPUT IMPEDANCE ACTIVE BALANCED	20K OHMS			
SIGNAL/NOISE RATIO A-WEIGHTED RMS	>85dB	>85dB	>90dB	>90dB
CROSSTALK AT RATED OUTPUT POWER 8 OHMS	>70dB	>70dB	>70dB	>70dB
DAMPING FACTOR f=1KHz 8 OHMX	>250	>250	>250	>250
SLEW RATE	30v/μs	30v/μs	30v/μs	30v/μs
PROTECTION	Short circuit,Current limiter, Thermal cut off, Slow Start, Limiter,AC line fuse, DC fault,Power up/down transients			
COOLING	Variable Speed Fan			
POWER CONSUMPTION HALF POWER 8 OHMS	<140W	<300W	<300W	<300W
POWER SUPPLY	AC 115V-230V/50-60Hz			
DIMENSIONS(W×D×H)mm	482x314x88mm			
NET WEIGHT	8kg	9.5kg	10.5kg	11.5kg

Installation guidelines

- DO NOT use these amplifiers in damp or high humidity environments.
Do not use outdoors or anywhere where liquids could fall or splash onto the amplifier.
- Ensure the amp is adequately ventilated, with free airflow to the front and rear panels.
Keep away from other heat sources. If the amps are mounted in a rack with other amps, ensure there is adequate cool air flow front and rear. Note that air is drawn in through the back panel, and exhausted through the front panel.
- NEVER cover the amplifiers, as they may overheat.
- PQA power amplifiers are designed to fit standard 19 racks, with a 2U height and 17 depth. We recommend the use of rear rack supports, especially if the rack is to be mobile. Use shake proof washers or thread lock adhesive to prevent mounting bolts becoming loose in transit.
- Ensure that the AC power supply is correct for your amplifier. The required AC supply is stated on the rear panel next to the AC power input.
- Ensure that you use the correct type of mains lead for your equipment and country.
This must be free from damage and easily accessible during use.

OVERVIEW

It is well-known the PQA series professional amplifier is designed by the specialist who has full experience and new model equipment. To raise reliability of the amplifier, PQA series professional amplifier has been installed with short distance cooling unit, high-speeding and consistency to increase the life of the power parts. They all have adopted mature and reliable circuit with SMT technology.

The conventional amplifier applies tunnel-model cooling system, this kind of system has long distance for heat dissipation, the hot air is distributed with difficulty, and the radiator is very hot at the top, but too cool at the bottom, the temperature difference goes between 20°C-40°C, those system produces temperature difference easily in the power parts, the electric current is high in hot parts, which results in its damage and reduces the using-life and reliability.

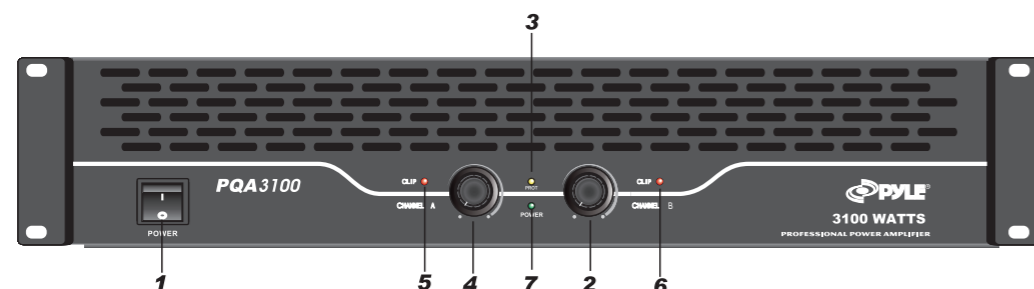
PQA series amplifiers has full-protection, including:

Soft start function to prevent wave shock at power-on.
Delay function for prevent shock at switch power on.
DC protection.
Over-electric current protection.
Cut-wave protection.
Over heat protection.

ATTENTION

Never put any parts on the top of the amplifier.
Using fixed power socket that must be has enough capacity to prove power.
Never switch the power on and off continuously at the same time.
Donruction in the air vent of front panel.
Input stereo level can be adjust by own gain mixer, in bridge-model connection, the adjustment will adjust by CHA channel mixer.
The output connector have 3 kind model, tie-model, phone model and professional speakon connector for connecting.
When using stereo, bridge, mono function, the connect model must be same than model switch selected.
When output high-power signal continuously, the amplifier should be has speed-up in the cooling fan, it may be have low noise produce in this equipment, it is normally.
The general gain of the amplifier can be adjust by gain knob, the input level have 0.77V, 1.4V, full-power out and fixed 26dB gain 3 band should be selected.
Donr vent of rear panel.
When clear-up the cover of the equipment, you must be power off and loose the power Plug using dry-cloth to clear, never using and solvent that have corrosive to clear.
If have problem happened, power down immediately, and contact with dealer.

Main Operation Button and Function Front Panel



1. Power ON/OFF Switch

When press this button, the prevent wave shock current shall start and soft boot up, after 3-4 seconds, you can heard "Ca Ca" noise the relay holding. the soft boot up finish, Than after 1-2 second too, the double noise can heard once time, the amplifier already Connect the speaker, now this equipment in standby status.

2. CHB input level adjust knob

You can using this knob to adjust volume according your need, also you can according the graduation of front panel to adjust when position far than speaker.

3. CHB/CHA protect LED(yellow)

It will be light-up in 3 kind status

1. At 4-6 second after power on, the amplifier now booting to standby status, it still Have' t connect to the speaker, to avoid high current shock to the speaker.
2. Over 85°C of the power parts cover
3. the amplifier work un-normally, Center-voltage move to unbalance.

4. CHA input level adjust knob

The adjustment is same than CH B, only using this knob when the amplifier in bridge model.

5.6. CHB/CHA Cut-Wave LED(red)

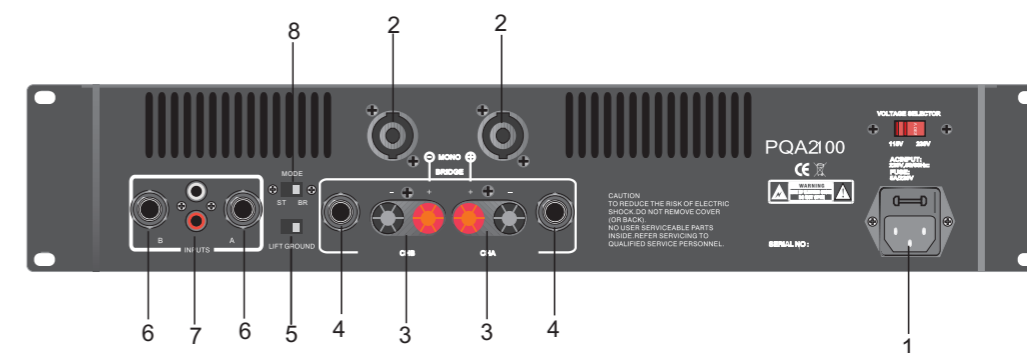
It will be light up at 2 kind status

1. when output level is max, will have cut-wave problem produce, the LED light-up. In this situation, you must be reduce input level.
2. the speaker not have sound to be heard when input one signal, and the LED light-up continuously, it should be produce by short-circuit, you must be power-off your equipment, check it carefully and restart.

7. Power LED(BLUE)

When you push the power on and connect to power supply, the LED will light-up.

Rear Panel



1. Power cord receptacle and fuse

When occurs a problem on this appliance the fuse is cut off power to prevent form a problem, to replace; use standard fuse as specified on this appliance

2. Ch-A and Ch-B speakon output socket

As the work is in stereo mode, can use speaker for connecting, the way of connecting is
1+ 2+; 1- 2-

3. Ch-A and Ch-B binding output connector

As the work is in stereo mode, can use speaker for connecting, the way of connecting is
Red + Black -

4. Ch-A and Ch-B jack output connector

As the work is in stereo mode, can use speaker for connecting, the way of connecting is
Tip=signal+ ring=signal- sleeve=ground

5. Ground lift switch

Setting tubs switch to ground and lift, you can break the ground loop between the amplifier and the chassis grounds of various components. The resistor is 100KOhm.

6. Ch-A and Ch-B jack input connector

Using by 1/4# standard unbalanced connector, you can use unbalance and balance
Tip=signal+ ring=signal- sleeve=ground

7. Ch-A and Ch-B AV connector

Using by AV connector, you can use unbalance only
Tip=signal sleeve=ground

8. Bridge mode(PQA2100 doest have bridge mode)

As the work is bridge mode, CH A output+connector is the Bridge connector +; while CH B+ connector is the Bridge connector -.

PQA SERIES

FAULT	PROBLEM	SOLUTIONS
No sound (power LED off)	AC supply not connected or switched off	Check AC connections and switches
	Blown fuse	Check and replace fuses at plug and IEC socket. USE ONLY SAME TYPE AND RATING!
NO sound (Power LED on)	No input, or input too low	Check input is connected, and LED
	Level controls set too low	Increase level controls
	Speakers faulty or not connected	Check speakers and speaker connections
Hum or buzz is audible	Noise from AC supply is being picked up in the signal path	Use good quality, shielded signal cables and ensure they are kept away from AC power cables and other AC powered equipment
	There is an earth problem	Use a mains tester to ensure the AC outlet has a good earth. Power connected equipment(e.g mixer and amp) from the same AC outlet where possible.
Distortion is audible	Excessive signal level somewhere in signal chain.	Use the LED to ensure the AC outlet has a good earth. Power connected equipment from the same AC outlet where possible
	Damaged or poor quality cables	Use only high quality cables of the appropriate type, protect them from damage and regularly check connections.
Sound cuts out or is I ntermittent	Damaged or poor quality cables or connectors, connectors not properly inserted, amp overheating	Check all cables and connections, refer to above sections regarding distortion and temp warning light

Service

All the products are thoroughly examined and tested before leaving the factory, and if used correctly will give you many years of excellent service. However, if a problem arises, proceed as follows:

(A) contact the retailer from whom the unit was purchased and describe the symptoms of the fault.

(B) if the retailer cannot help, return the equipment to the national distributor for your country. Use the original packaging to protect the product from damage. Include a note with the equipment stating your name and address, details of the problems, date code and date and place of purchase.