

# PA-240P



The PA-240P is developed and manufactured by

**Audioprof NV.**

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BELGIUM

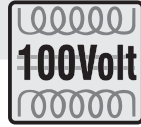
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## OWNER'S MANUAL



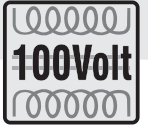
# SAFETY INFORMATION

Before using your PA240P, take a few minutes to read these instructions carefully. This little time can avoid a lot of headaches afterwards.

1. Keep this manual for future reference.
2. Water and humidity are the biggest enemies of electric equipment. Operating it under moist conditions can even be dangerous.
3. Clean only with dry cloth.
4. Do not operate near heaters or place it on other apparatus which produces a lot of heat.
5. Be sure your unit is always connected to the electrical safety earth. Do not defeat the safety purpose of a grounding-type plug. If you have any doubt, please consult your dealer or a qualified technician.
6. Take care for the power cord. Never use a damaged power cord and install it in such a way that no one can walk on it.
7. Only use accessories specified by the manufacturer.
8. Distorted sound indicates that operating conditions are bad. Decrease the volume or switch off the unit.
9. Disconnect the unit from the mains power supply, when you do not use it for a longer period or during lightning.
10. When smoke or a bad smell comes from your PA-240P, switch off immediately and disconnect from mains.
11. This apparatus should only be serviced by qualified personnel. If not, the warranty might be void.
12. Do not remove the cover panel. Removal of the cover will expose hazardous voltages.
13. We advise to use the back mounting holes as well; certainly in mobile racks.
14. Do not block the air inlets at both sides of the amplifier and see that sufficient cool air can be supplied.
15. Please check the units' condition after unpacking. If the outside of the carton box has been damaged, inform your shipper immediately.

**CAUTION**

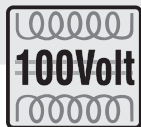
TO REDUCE THE RISK OF ELECTRIC SHOCK  
DO NOT REMOVE COVER OR BACK  
NO USER-SERVICEABLE PARTS INSIDE  
SERVICING ONLY FOR QUALIFIED PERSONNEL



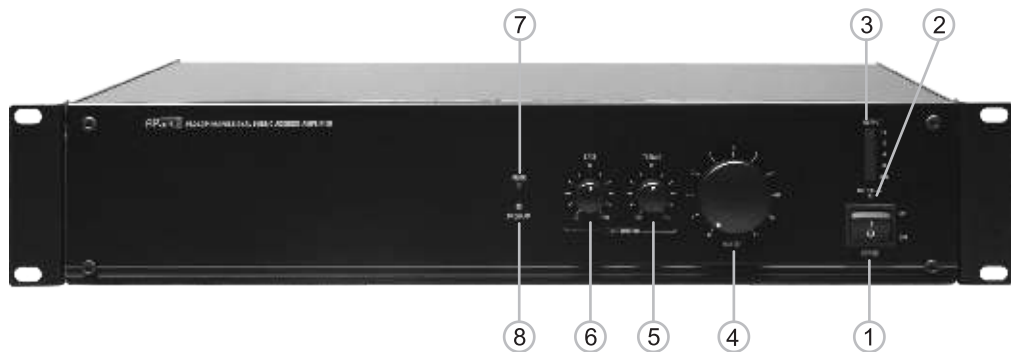
## PA-240P

### TECHNICAL SPECIFICATIONS

Type	240 watt power amplifier	
Output power capacity	240 watt RMS	
Frequency response	35 Hz - 22 kHz	
Total Harmonic Distortion	≤ 0.5% (1 kHz nominal power capacity)	
Signal to Noise Ratio	> 95 dB	
Inputs:	Program Priority	0 dB - 10k / Balanced + Link 0 dB - 10k / Balanced
Speaker output:	Ohms Volts	4 Ohm 50V, 70V, 100V
Additional outputs	24V priority output, Max 0.6A	
Tone controls	Bass Treble	±10 dB - 100 Hz ±10 dB - 10 kHz
Controls	1 Priority volume control (rear) 1 Program volume control (front) 1 treble control 1 bass control 1 priority control	
Power supply /consumption	230V AC (±5%) 50 Hz / Max 500 VA 24V DC emergency supply	
Dimensions	88 (h) x 430 (w) x 366 (d) mm (Detachable 19" brackets not included)	
Weight	13.15 Kg	



**PA-240P**



**1. Power switch**

To turn the power on and off.

**2. Overload indicator**

This red LED illuminates when one of the protections have been activated. No sound will be heard anymore. This will be in case of overheating being the result of drawing too much power from your amplifier or the impedance connected is below the load impedance.

**3. Level indicators/clip-limit**

The bottom LED will light green after powering on. To work under normal conditions the volume indicator should be kept under 0dB. At +4dB a limiter will be activated. This red LED indicates that the "auto gain circuit" reduces the level below clipping. This can be bypassed by qualified personnel only (see jumper inside), but voids the guarantee and the LED will continue to flicker. This is NOT a clip indicator!

**4. Master level control**

Here you can set the desired volume of the signal presented to the 'program' line input. Most of the times this will be background music.

**5. Treble control**

Adjust the level as per your taste or needs. Adding high frequencies gives brilliance to your sound. High frequency feedback can be removed by decreasing treble. The centre position gives you a flat response.

**6. Bass control**

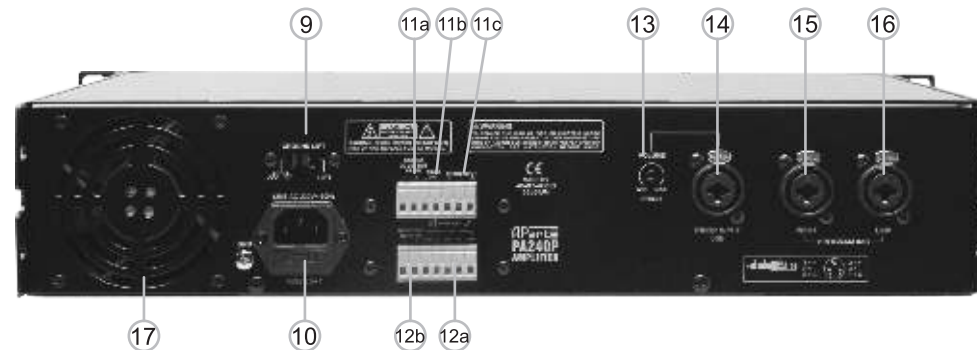
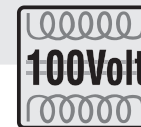
Adjust as per your taste. In reverberant rooms intelligibility can be increased by decreasing bass. The centre position gives you a flat response.

**7. Prior LED**

This red LED will illuminate when the prior input has been selected by means of the priority input contact (see 11b.).

**8. Program LED**

This green LED tells you that the 'program' input is active.



**9. Earth lift switch**

In case hum and buzz appears when a line source has been connected, lifting the audio ground can be a solution.

Correct wiring can avoid this problem.

**10. Mains socket**

The unit can be connected to the mains circuit by a standard IEC type power cord. This socket contains a 6,3AT, slow blow fuse. Use a screw driver to flip out the fuse compartment and to replace it by the same type. When this fuse blows frequently you should check the speaker load or bring the PA-240P to a qualified service centre. First check whether you didn't use a quick-blow fuse!

**11. Priority control connector**

a. At this terminals (-/+) 24V DC will be available (max. 0,6A) from the moment the 'priority switch' has been activated, to activate priority relays of local volume attenuators or other devices.

b. prior contact: when you shorten these contacts, the input of the priority line input will be activated (See 11 c and 14). At the same time 24 V DC will be presented to terminals 11a.

c. prior input: here you can feed the audio source for paging, emergency messages, etc.. The signal should be at line level. Please use a balanced, shielded line cable. Connect the HOT signal to +, the COLD to - and the shield to G.

No microphones should be connected directly to this input without using a mic to line preamplifier. This input is wired in parallel with 'prior input' 14; so it can also be used to feed extra amplifiers.

**12. Emergency power supply/speaker output connector.**

a. emergency power supply: You can power the amplifier directly from a emergency battery or power supply with 24V DC/20A.

b. speaker outputs:

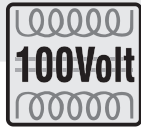
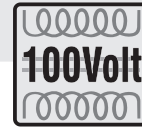
For low impedance use COM and 4 Ω. Keep impedance above 4 Ω.

For 50, 70 or 100V speaker lines use COM and 50, 70 or 100V terminals.

For 100V operation, the total minimum impedance of the loudspeaker line has to be 42 Ω. For 70V operation the minimum impedance should be 20,42 Ω and for 50V 10,42 ohm.

Don't mix the types of speaker connections. Only one at the time should be used.

Warning: Don't mix up the two euroblock connectors, for otherwise 100V might be fed into your preamplifier!



## PA-240P: PROFESSIONAL PUBLIC ADDRESS POWER AMPLIFIER

### 13. Priority volume control

With this attenuator you can set the desired level of the line level signal inserted into the priority signal input 11c or 14.

### 14. Priority input

See 11c.

The connector to be used should be a XLR3 or 6,3mm stereo phone jack.

The wiring diagram has been printed at the back of your amplifier.

### 15. Program input

Here you can feed the line level signal of your program source. In most of the cases this signal will come from a preamplifier or any other line source such as tuners etc.. The connector to be used should be a XLR3 or 6,3mm stereo jack.

The wiring diagram has been printed on the back of your amplifier.

The signal should be at line level. Please use a balanced, shielded line cable. No microphones should be connected directly to this input without a preamplifier. This input is wired in parallel with 'Link' 16.

### 16. Link output

Use this input combojack to feed extra amplifiers. For wiring and connectors see 15.

### 17. Airflow output

This airflow outputs should be kept free at all times ! To give the fan a longer life time, he only starts running when the heatsink reaches a certain temperature.

### INSIDE CONTROLS

Inside settings should only be done by persons familiar to electrical equipment!

#### A. Limiter active jumper

Your PA-240P has been shipped with the limiter enabled (see 3.). The jumper is located on the inner front PCB.

#### B. Power supply fuse (inside the housing)

When this fuse blows, replace it by the same type: 20A quick blow. When this happens frequently, contact your nearest dealer.

Congratulations! You've just purchased a High Quality APart amplifier. The PA-240P is a professional PA amplifier for commercial and industrial applications.

He's able to drive 4-ohm or constant-voltage loudspeaker lines (50-70-100V).

The amplifier has an input for back ground music (with link through) and a priority line input (paging or evacuation messages), which can be activated by means of a dry contact.

The volume of the program input can be set at the front and the volume of the priority input at the back of the amplifier. When the priority input has been activated, 24V DC output will be available to activate priority relays of loudspeaker attenuators or other devices.

The earth lift switch will help you to solve hum or buzz problems.

The PA-240P is meant to be used with preamplifiers such as the AP PM7400MKII or AP PIR7600 or as an extension of the APart MA series (via pre-amp out).

19" Brackets are shipped along with your amplifier.

The PA-240P is the device to built larger professional industrial sound applications.

The PA-240P complies with the CE standards.

Other APart amplifiers and loudspeakers can be found at [www.apart-audio.com](http://www.apart-audio.com)