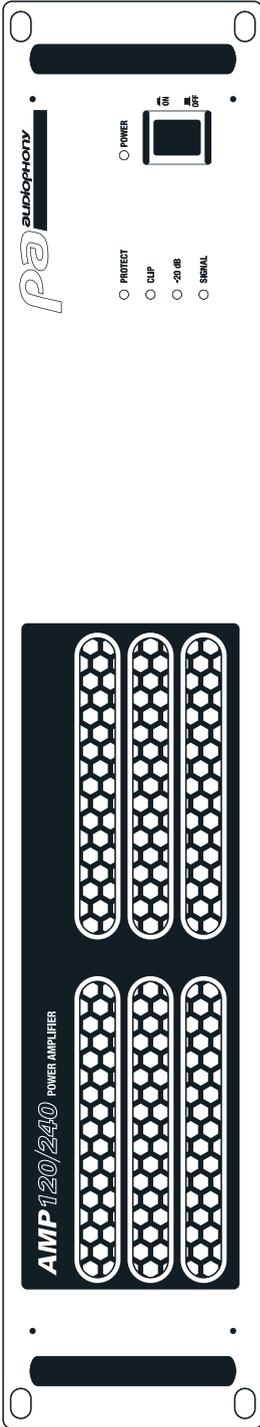


120/240W Public Address Amplifier with 4 Ohms/70/100V outputs



pa audiophony
public-address

AMP 120

AMP 240

USER GUIDE

9903 / 9904 - December 2011 Version 1.0

1 - Safety information

Important safety information



This unit is intended for indoor use only. Do not use it in a wet, or extremely cold/hot locations. Failure to follow these safety instructions could result in fire, electric shock, injury, or damage to this product or other property.



This product contains non-isolated electrical components. Do not undertake any maintenance operation when it is switched on as it may result in electric shock.



Any maintenance procedure must be performed by a CONTEST authorised technical service. Basic cleaning operations must thoroughly follow our safety instructions.



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



WARNING : This unit contains no user-serviceable parts. Do not open the housing or attempt any maintenance by yourself. In the unlikely even your unit may require service, please contact your nearest dealer. In order to avoid any electrical malfunction, please do not use any multi-socket, power cord extension or connecting system without making sure they are perfectly isolated and present no defect.



Risk of electrocution

To prevent the hazard of electric shocks, do not use extension cords, multi-socket or any other connection system without making sure metal parts completely are out of reach.



Sound levels

Our audio solutions deliver important sound pressure levels (SPL) that can be harmful to human health when exposed during long periods. Please do not stay in close proximity of operating speakers.



Recycling your device

- As HITMUSIC is really involved in the environmental cause, we only commercialise clean, ROHS compliant products.
- When this product reaches its end of life, take it to a collection point designated by local authorities. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

Symbols used



This symbol signals an important safety precaution.



The CAUTION symbol signals a risk of product deterioration.



The WARNING symbol signals a risk to the user's physical integrity. The product may also be damaged.

Instructions and recommendations

1 - Please read carefully :

We strongly recommend to read carefully and understand the safety instructions before attempting to operate this unit.

2 - Please keep this manual :

We strongly recommend to keep this manual with the unit for future reference.

3 - Operate carefully this product :

We strongly recommend to take into consideration every safety instruction.

4 - Follow the instructions:

Please carefully follow each safety instruction to avoid any physical harm or property damage.

5 - Avoid water and wet locations :

Do not use this product in rain, or near washbasins or other wet locations.

6 - Installation :



We strongly encourage you to only use a fixation system or support recommended by the manufacturer or supplied with this product. Carefully follow the installation instructions and use the adequate tools.

Always ensure this unit is firmly fixed to avoid vibration and slipping while operating as it may result in physical injury.

7 - Ceiling or wall installation :

Please contact your local dealer before attempting any ceiling or wall installation.

8 - Ventilation :



The cooling vents ensure a safe use of this product, and avoid any overheating risk. Do not obstruct or cover these vents as it may result in overheating and potential physical injury or product damage. This product should never be operated in a closed non-ventilated area such as a flight case or a rack, unless cooling vents are provided for the purpose.

9 - Heat exposure :

Sustained contact or proximity with warm surfaces may cause overheating and product damages. Please keep this product away from any heat source such as a heaters, amplifiers, hot plates, etc...

10 - Electric power supply :



This product can only be operated according to a very specific voltage. These information are specified on the label located at the rear of the product.

11 - Power cords protection:



Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at lugs, convenience receptacles and the point where they exit from the fixture.

12 - Cleaning precautions :



Unplug the product before attempting any cleaning operation. This product should be cleaned only with accessories recommended by the manufacturer. Use a damp cloth to clean the surface. Do not wash this product.

13 - Long periods of non use :

Disconnect the unit's main power during long periods of non use.

14 - Liquids or objects penetration :



Do not let any object penetrate this product as it may result in electric shock or fire.

Never spill any liquid on this product as it may infiltrate the electronic components and result in electric shock or fire.

15 - This product should be serviced when :



Please contact the qualified service personnel if :

- The power cord or the plug has been damaged.
- Objects have fallen or liquid has been spilled into the appliance.
- The appliance has been exposed to rain or water.
- The product does not appear to operate normally.
- The product has been damaged.

16 - Inspection/maintenance :



Please do not attempt any inspection or maintenance by yourself. Refer all servicing to qualified personnel.

17 - Operating environment :



Ambient temperature and humidity: +5 - +35°C, relative humidity must be less than 85% (when cooling vents are not obstructed). Do not operate this product in a non-ventilated, very humid or warm place.

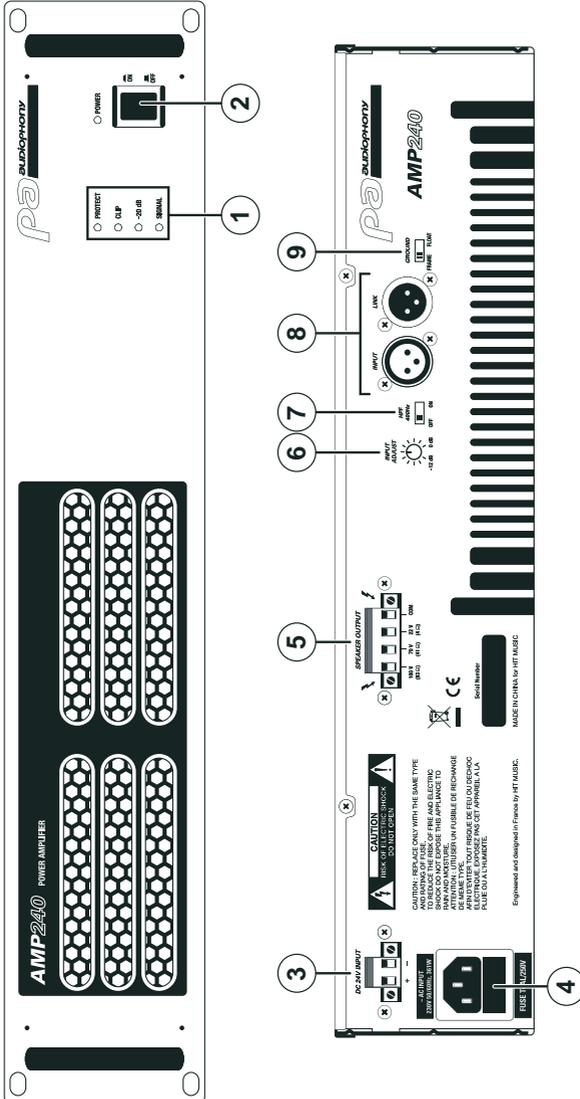
2 - Introduction

The new AMP amplifiers series is dedicated to permanent installations and combines sound quality with ease of use.

These amplifiers have been developed to fit any installation: low impedance, 70 or 100V, they will adapt to your needs.

Their high-pass filter allows you to limit basses and create subtle background musics, without power or quality losses.

3 - Presentation



1 Indicator LEDs

These LEDs indicate the status of your device:

- **SIGNAL:** Indicates an incoming signal.
- **-20 dB:** Indicates the signal is in the best range possible, for an optimal sound quality.
- **CLIP:** Indicates the signal sound level is too high.
- **PROTECT:** Indicate the amplifier is in protection mode due to overheating or short-circuits.

Notes :

- The PROTECT LED should always light up upon activation of your device.
- If the PROTECT LED remains lit, please turn your amplifier off, wait for it to cool down and check the wiring.
- If this LED remains lit and previous instructions have been observed, please contact a qualified technician.

2 Power switch

Allows you to turn ON/OFF your device. The POWER LED will lit when your device is activated.

3 24V DC Connector

The AMP120/240 amplifiers might be set up in public places as public address devices. In order to prevent them from being deactivated upon power failure, they feature a 24V emergency power input.

4 Power input with fuse

Connect here the supplied IEC cord and connect it to an electrical outlet after making sure the delivered voltage is compatible with your device.

Fuses	
AMP120	T3.15AL / 250V
AMP240	T6.3AL / 250V

5 Output terminals

Connect here your speakers or recessed speakers. These terminals can be used in many ways, depending on your installation. Please refer to next chapter for more details about the different types of installations.

6 INPUT ADJUST control knob

Allows you to adjust the incoming signal from -12dB to 0dB.

7 HPF Switch

This switch allows you to activate or deactivate the high-pass filter. Activate this filter when noticing humming or buzzing noises.

8 INPUT and LINK sockets

INPUT : Connect here a line-level source.

LINK : Allows you to send the signal to another device.

9 GROUND Switch

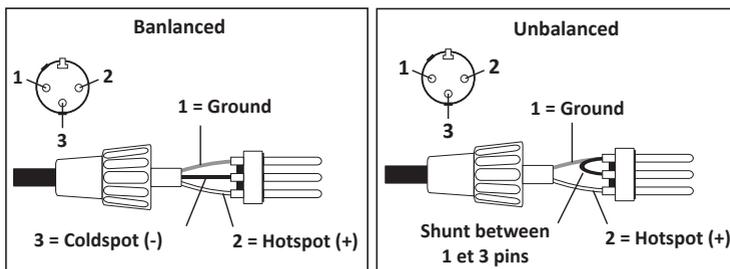
Allows you to connect the housing to the ground. When a "snoring" noise close to 50Hz appears, position this switch onto FLOAT.

4 - Getting started

CAUTION: Before any cabling, please make sure the amplifier is not connected to an electrical outlet and the power switch is positioned onto OFF.

Input connector

The INPUT and LINE sockets are balanced.
They can also receive unbalanced signals.
You will find below the wiring principle of such connectors.



Output terminal

Please use high-quality cables to connect your speakers.
In order to prevent short-circuits, please tin the cables before connecting them to the output terminal.
You will find below a table of correspondence between the amplifier/speakers distance and cable sections in order to prevent signal quality losses.

Distance	Section
Up to 8 m	1,5 mm ²
Between 8 and 12 m	2 mm ²
Between 12 and 18 m	3,5 mm ²
Between 18 and 30 m	5 mm ²
Between 30 and 45 m	8,5 mm ²
Between 45 and 60 m	13 mm ²

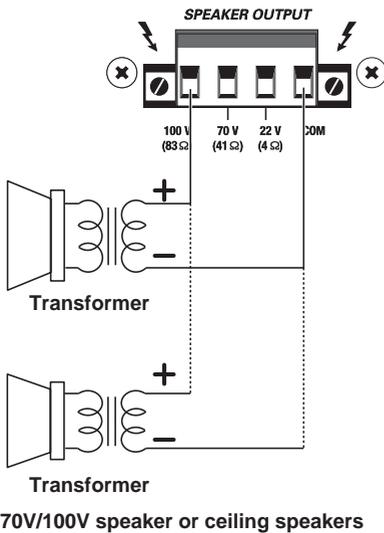
Note: Never use screened cable to carry amplified signals.

Wiring and impedances

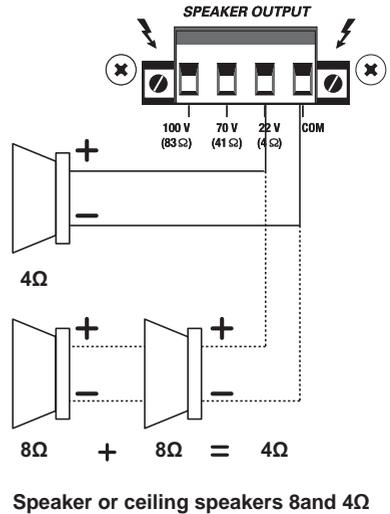
Please make sure to respect the polarities when connecting your speakers to your amplifier.
 Connect the speakers equipped with transformers to COM, 100V or 70V terminals depending on the type of transformer.
 Connect your 4 Ohms speakers to COM and 4 Ohms terminals.
 The table below will give you more information about voltages and impedances of each terminal.

AMP120	4 Ohms / 22V	41 Ohms / 70V	83 Ohms / 100V
AMP240	4 Ohms / 31V	21 Ohms / 70V	41 Ohms / 100V

70 or 100V wiring



4 Ohms wiring





Dangerous voltage
Speakers must be connected last to the amplifier.
Turn the amplifier on when the installation is over and has been checked thoroughly.





Caution: Your speakers or recessed speakers must not have an impedance lower than 4Ω.

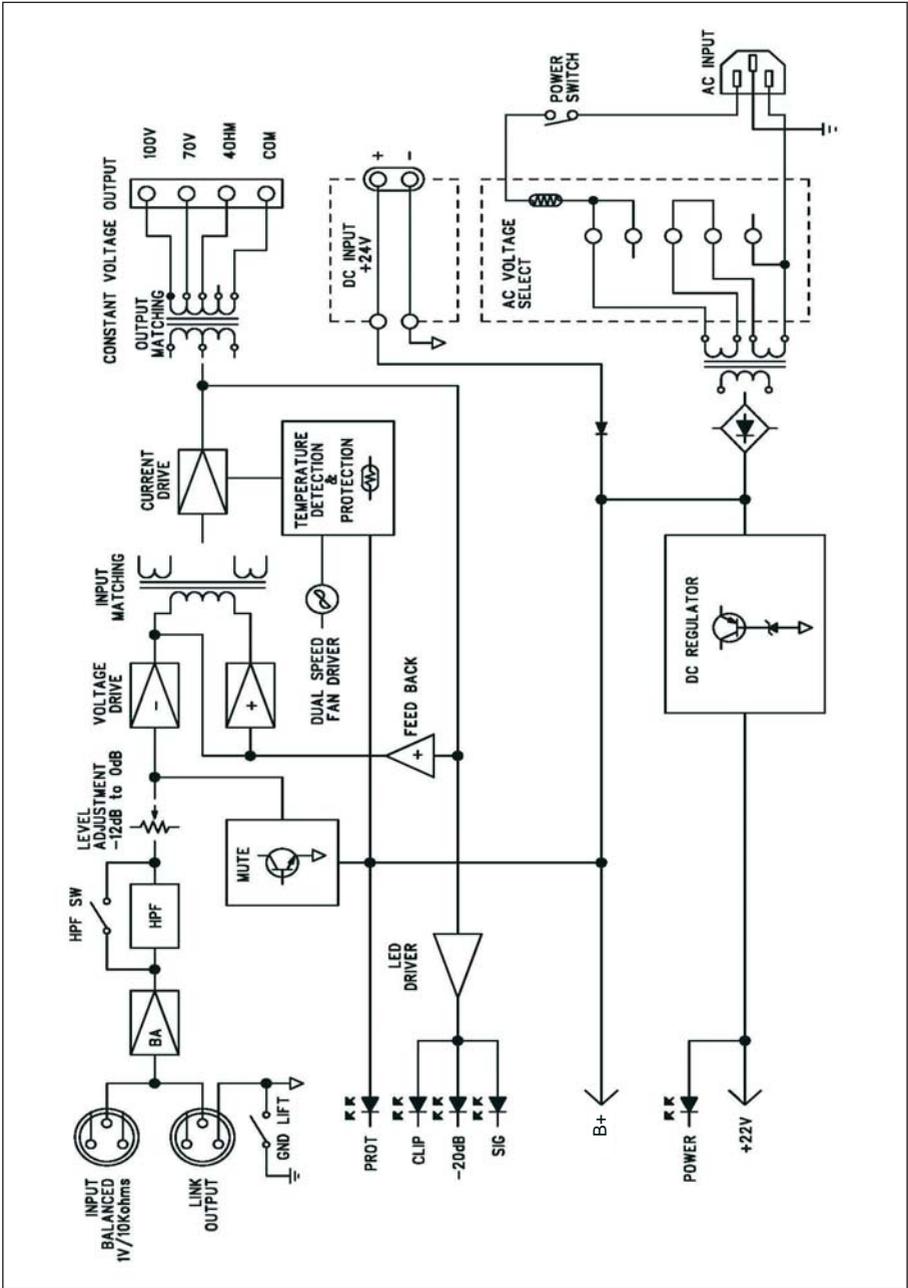


Caution: The sum of all connected speakers must not exceed the maximum power of your amplifier.



Caution: Never connect 4 Ohms speakers and speakers with transformers simultaneously.

5 - Synoptic



7 - Technical specifications

	AMP120	AMP240
ELECTRICAL SPECIFICATIONS		
Power (T.H.D 1,0%, 1KHz)	120 Watts Ω	240 Watts
Gain settings	-12 dB ~ 0 dB	
Input sensitivity (Balanced input)	1.0 +/- 0.1 Vrms / 10 K Ω	
High-pass filter (400 Hz)	- 3 dB	
Frequency response	70 Hz - 18 KHz (+1,5dB / -3dB)	
Signal to noise ratio	Higher than 90dB	
T.H.D at half power and 1 KHz	Lower than 1%	
Output voltages and impedances	4 Ω / 22V	4 Ω / 31V
	41 Ω / 70V	21 Ω / 70V
	83 Ω / 100V	41 Ω / 100V
Power consumption at 1/8 of max power	185 Watts	361 Watts
Power supply	100V~240V AC, 50/60Hz and/or 24V DC	

PHYSICAL SPECIFICATIONS		
Cooling system	Fans	
Operating temperature and humidity	0°~40° with 95% humidity max.	
Dimensions (W x D x H)	482 x 340 x 88 mm	
Net weight	11.65 Kg	13.87 Kg

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