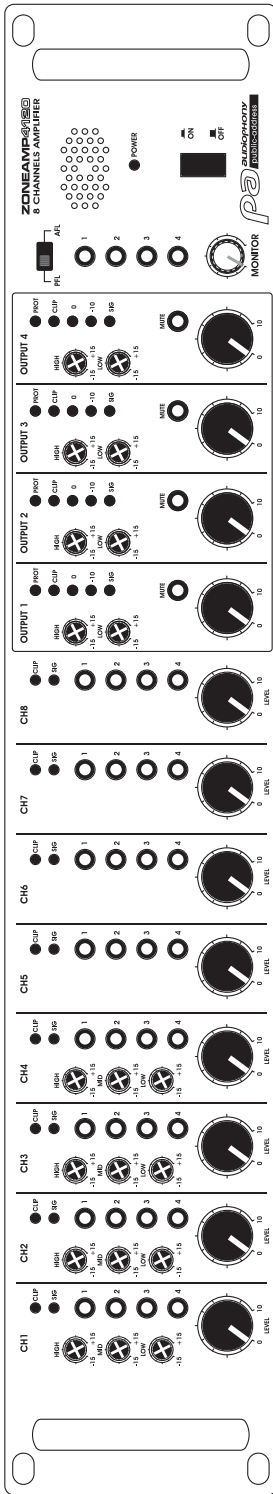


# 120W/100V Rackable multizone Mixer/Amplifier with 8 inputs and 4 outputs



## ZONEAMP4120

### USER GUIDE

10513 - Version 1.0 / 08-2016

# 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 ZONEAMP4120 was clearly thought-out for professionals, and offers 4 micros/line mono inputs via XLR or Jack and 4 stereo inputs via RCA or Jack.

Chaque entrée peut être envoyée indépendamment vers chacune des quatre zones, ou vers les deux simultanément, afin d'offrir un maximum de possibilités.

Le mixer est équipé d'une section de pré-écoute avec sortie casque permettant le contrôle de chaque zone.

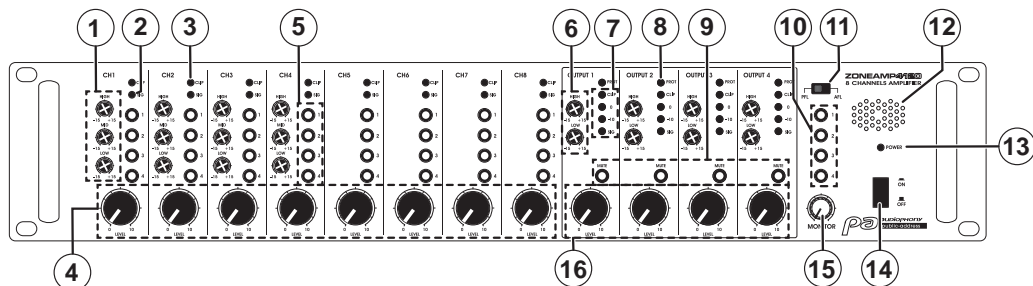
Chaque sortie est amplifiée pour alimenter des haut-parleurs public address en 100V jusqu'à 120W chacune.

## 3 - Main characteristics

- 4 Mic/Line balanced inputs via XLR and Jack 6.35 (TRS)
- 4 stereo inputs via RCA or Mono via Jack 6.35
- 4 x 120W at 100V speaker outputs via Phoenix plugs
- Microphone priority on input 1
- Phantom power supply for inputs 1 to 4
- Gain and tone settings (3 bands) for channels 1 to 4
- Gan control for all inputs
- Tone settings (2 bands) per zone
- RJ45 Connector for WP-1 wall controller and MIC-DESK for each zone
- Contact Mute for every output
- Assign zones 1 to 4 to each input
- Peak and Signal display for each input
- Output display for each zone via 5-LED VU meter
- Headphones output with volume control (zones and PFL)
- Front monitoring speaker
- Screwdriver required to access technician-level settings

## 4 - Presentation

### Front panel



#### 1 Input equalization

Each channel features a 3-way signal equalization. These knobs allow you to increase or decrease basses (LOW), mid frequencies (MID) and trebles (HIGH) of each outgoing signal.

Microphone channels only feature these settings.

- HIGH (High Frequency control): Allows you to adjust trebles of the corresponding channel from -15 to +15 dB at 12.5kHz. Turn this knob clockwise to increase trebles, while turning it counterclockwise decreases them.

- MID (Mid frequency control): Allows you to adjust mid frequencies of the corresponding channel from -15 to

- +15 dB at 2.5kHz. Turn this knob clockwise to increase trebles, while turning it counterclockwise decreases them.
- The middle position does not modify mid frequencies.

- 

- LOW (low frequency control): Allows you to adjust basses of the corresponding channel from -15 to +15 dB at 2.5kHz. Turn this knob clockwise to increase trebles, while turning it counterclockwise decreases them.

- The middle position does not modify basses.

#### 2 Signal indicators

Indicate an incoming signal on the corresponding input.

#### 3 CLIP Indicators

Alert when detecting any signal with excessive volumes. It is strongly recommended never exceed a few clip alerts in order to preserve your equipment.

#### 4 LEVEL input knobs

Allow you to adjust input levels.

They have a range of 44dB, from -50 dB to -6 dB for microphones and -30 dB to +14 dB for line levels.

#### 5 1, 2, 3 and 4 buttons

Allow you to assign each way to an output (OUTPUT1, OUTPUT2, OUTPUT3 ou OUTPUT4) or to all 4 zones at the same time.

#### 6 Output equalization

- HIGH (High Frequency control): Allows you to adjust the output signal trebles from -15 to +15 dB at 12kHz. Turn this knob clockwise to increase trebles, while turning it counterclockwise decreases them.

- The middle position does not modify trebles.

- LOW (low frequency control): Allows you to adjust the output signal basses from -15 to +15 dB at 12kHz.

- Turn this knob clockwise to increase trebles, while turning it counterclockwise decreases them.

- The middle position does not modify basses.

#### 7 Output LED indicators

Allow you to visualise the output sound level for each zone.

#### 8 CLIP indicators

Indicate an excessive signal level on the corresponding channel.

We strongly recommend not to exceed brief flashes of these LEDs in order to prevent sound distortions.

#### 9 MUTE buttons

Allow you to mute all zones or only selected zones.

#### 10 1, 2, 3 and 4 switches

Allow you to monitor OUTPUT 1, OUTPUT 2, OUTPUT 3 and OUTPUT 4, either one at a time or altogether.

#### 11 PFL / AFL switch

Allow you to send the pre-fade signal (before channels alterations) to the monitoring area.

PFL : You are monitoring outgoing signals.

AFL : You are monitoring incoming signals.

#### 12 Monitoring speaker

Allows you to monitor selected inputs or outputs.

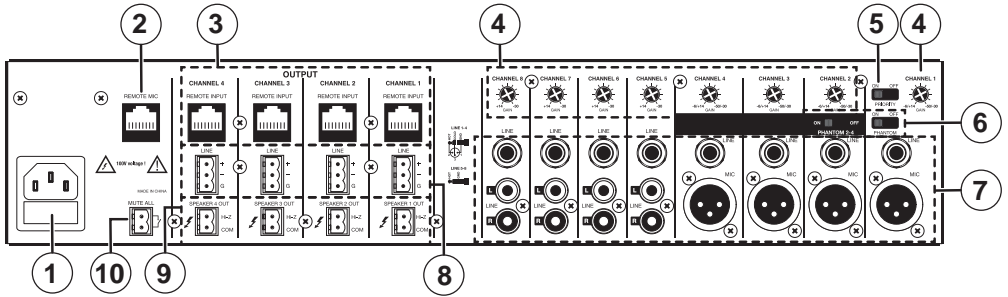
**13 POWER LED**  
Indicates your device is ON or OFF.

**14 POWER button**  
Allows you to activate or deactivate your device.

**15 MONITOR knob**  
Allows you to adjust monitoring levels.

**16 LEVEL knob**  
Allow you to adjust sound levels of OUTPUT1,  
OUTPUT2, OUTPUT3 and OUTPUT4.

REAR PANEL



**1 Power input**  
Connect here the supplied IEC power cord, then connect the other end to an electrical outlet after having checked the voltage.

**2 REMOTE MIC**  
Allows you to connect the MIC-DESK4 announcer. Thanks to your MIC-DESK4, you can individually select each zone for public announcements.

**3 REMOTE INPUT**  
Allows you to connect the remote wall-controller WP-1. Your WP-1 allows you to send a microphone or line signal to each zone and adjust the level of each zone.

**4 CHANNEL 1 to 8 knobs**  
Allows you to adjust input soundlevels. They have a range of -50 dB to -6 dB for microphones and of -30 dB to +14 dB for line levels.

**5 PRIORITY switch**  
When activated, allows you to give priority to channel 1, it acts like a talk-over and interrupt the signals of non-priority channels.

**6 PHANTOM switches**  
Allows you to add a +15V DC phantom power supply to microphone channels 2 to 4 in order to connect electrostatic microphones. Channel 1 phantom power supply is independent and +24V DC.

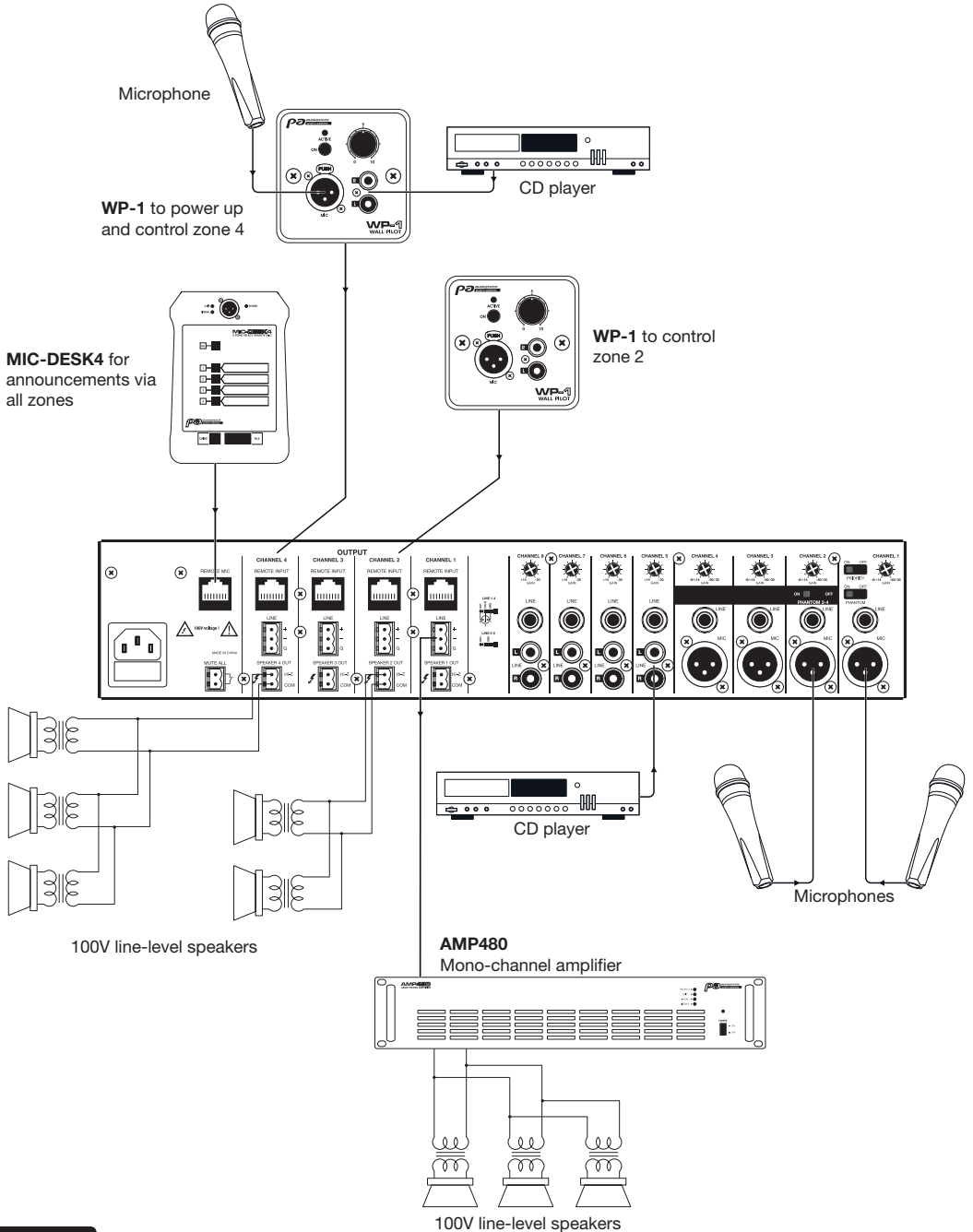
**7 Inputs**  
Inputs are as follows:  
-Inputs 1 to 4: Micros via balanced XLR plugs line mono via Jack TRS (balanced).  
-Inputs 5 to 8: Mono lines via RCA plugs and Mono lines via unbalanced Jack.

**8 LINE Outputs**  
Connect here an amplifier in order to power up speakers. The signals present on these outputs correspond to the mixing of the different inputs.

**9 SPEAKER 1 to 4 outputs**  
Connect here your speakers or recessed speakers. Please refer to chapter 7 for more information.

**10 MUTE ALL socket**  
This 2-pin socket allows you to connect a switch to mute all channels at once.

### 5 - Possible setup





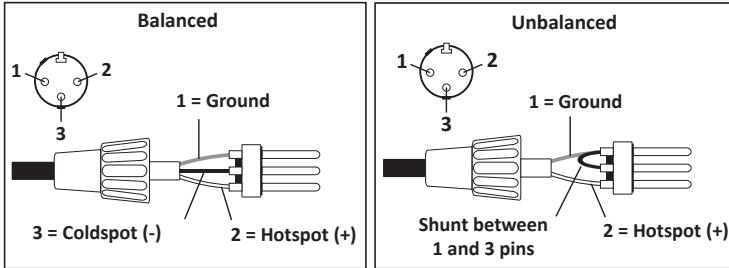
## 6 - Connectors

### 6.1 - Microphone inputs

The microphone inputs are accessible via XLR chassis and can receive both balanced and unbalanced low-level signals. Both low-impedance condenser and dynamic microphones can be connected (channels 1 to 4).



**CAUTION:** Connecting unbalanced sources while the phantom power supply is activated will cause severe damages to your devices due to the voltage delivered via pins 2 and 3.

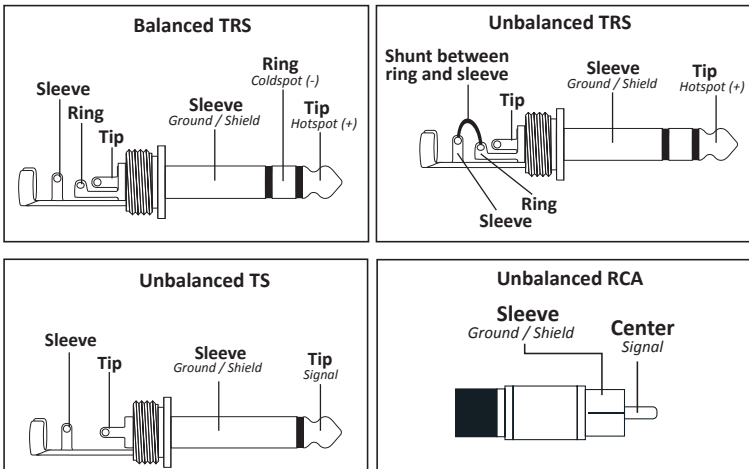


### 6.2 - Line-level inputs

Mono line-level inputs are accessible via Jack or RCA chassis and can receive both balanced and unbalanced signals. These inputs can be connected to CD players, MP3 players, Tuners or cassette players. When connecting unbalanced sources, you will be required to connect the ring to the body. You can also use the RCA inputs to connect CD or MP3 players, etc.

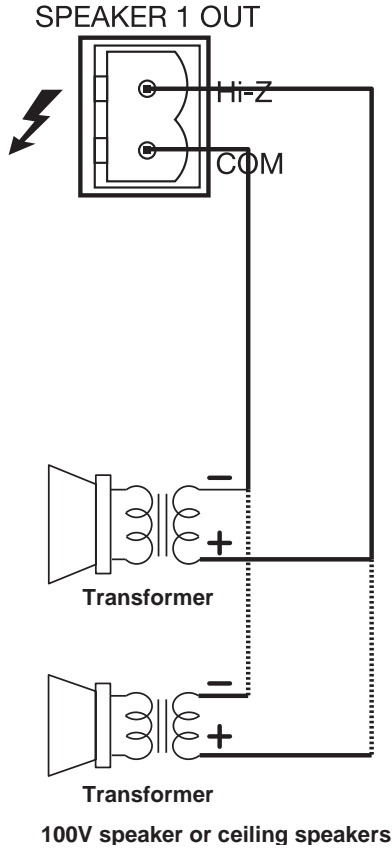


**CAUTION:** Turn the volume of affected channels at their minimum before connecting line-level signals to prevent serious damages to your amplification system.



## 7 - Wiring outputs

Please make sure to respect the polarities when connecting your speakers to your amplifier. Connect the speakers equipped with transformers to COM and 100V terminals.



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

## 8 - Technical specifications

Power output and impedance	Speaker OUTPUT 1 to 4	120W
	Balanced LINE 1 to 4 outputs	0 dB / 600 Ohms
Input sensitivities	Microphone channels	- 60 dB ~ -16 dB / 20 KOhms
	Line-level channels	- 30 dB ~ -4 dB / 20 KOhms
	REMOTE INPUT channels	0 dB / 600 Ohms
T.H.D	Inférieure à 0.1%	
Frequency response	20Hz ~ 20KHz	+/- 3 dB
Input equalization	HIGH (12,5 KHz)	+/-15 dB
	MID (2,5 KHz)	+/-15 dB
	HIGH (80 Hz)	+/-15 dB
Output equalization	HIGH (12 KHz)	+/-15 dB
	MID (2,5 KHz)	+/-15 dB
Cross-over distortion	Higher than 90 dB	
Phantom power supply	+18V (channels 2 to 4) / +24V (channel 1)	
Back-up power supply	+24 VDC with LINK output	
Main characteristics	Power supply	220~240V AC/ 50~60Hz
	Power consumption	580 Watts
	Weight	9 Kg
	Dimensions	482 x 88 x 320 mm

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