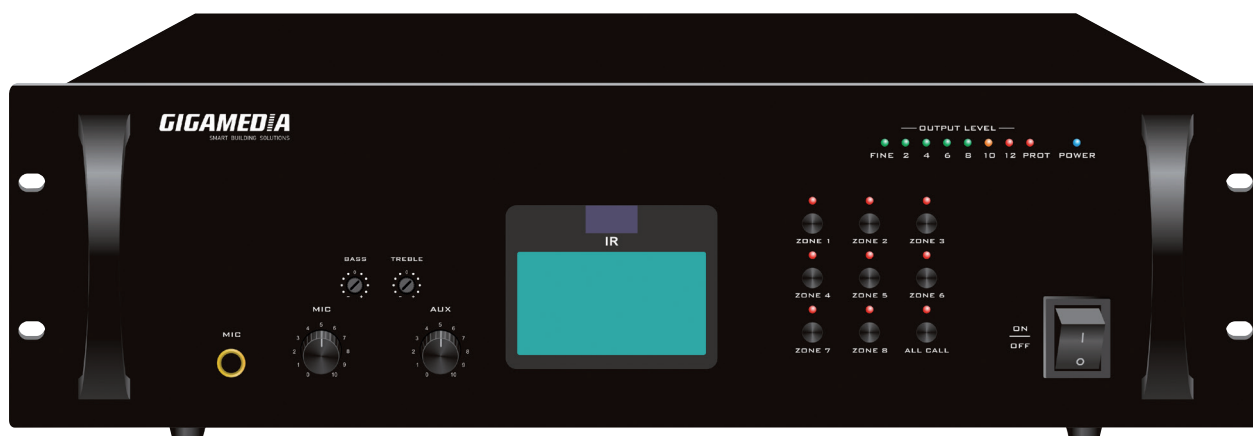


GGM IPAP8120
GGM IPAP8240
GGM IPAP8350
GGM IPAP8500

USER MANUAL



Please follow the instructions in this manual to obtain the optimum results from this unit.
We also recommend that you keep this manual handy for future reference.

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WEEE regulation



This product is covered by the WEEE II Directive (Directive 2012/19 / EU). It should not be thrown in the trash or dumped. Substances in the product may be hazardous to human health or the environment. Disposal may be done by returning the product to your dealer or leaving it a collection point provided for this purpose.

Battery directive



This product contains batteries. The logo indicates that they should not be thrown in the trash or landfill. Batteries may contain substances that may be hazardous to human health and the environment and heavy metals that have the following designations: Cd = Cadmium, Hg = Mercury, Pb = Lead. To facilitate the treatment and recycling of used batteries, you can return them to your dealer, deposit them in a collection bin provided for this purpose or return them to your municipal waste which is obliged to recover them.



This product bears the CE mark which certifies its conformity with the directives LVD 2014/35/EU ; EMC 2014/30/EU and RoHS 2011/65/EU. Compliance has been assessed in accordance with applicable standards in effect.

1. SAFETY PRECAUTIONS

- Be sure to read the instructions in this section carefully before use.
- Make sure to observe the instructions in this manual as the conventions of safety symbols and messages regarded as very important precautions are included.
- We also recommend you keep this instruction manual handy for future reference.

Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety.

WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.

CAUTION

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

WARNING

When Installing the Unit

- Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in fire or electric shock.
- Use the unit only with the voltage specified on the unit. Using a voltage higher than that which is specified may result in fire or electric shock.
- Do not cut, kink, otherwise damage nor modify the power supply cord. In addition, avoid using the power cord in close proximity to heaters, and never place heavy objects -- including the unit itself -- on the power cord, as doing so may result in fire or electric shock.
- Be sure to replace the unit's terminal cover after connection completion. Because high voltage is applied to the speaker terminals, never touch these terminals to avoid electric shock.
- Be sure to ground to the safety ground (earth) terminal to avoid electric shock. Never ground to a gas pipe as a catastrophic disaster may result.
- Avoid installing or mounting the unit in unstable locations, such as on a rickety table or a slanted surface. Doing so may result in the unit falling down, causing personal injury and/or property damage.

When the Unit is in Use

- Should the following irregularity be found during use, immediately switch off the power, disconnect the power supply plug from the AC outlet and contact your nearest dealer. Make no further attempt to operate the unit in this condition as this may cause fire or electric shock.
 - If you detect smoke or a strange smell coming from the unit.
 - If water or any metallic object gets into the unit
 - If the unit falls, or the unit case breaks
 - If the power supply cord is damaged (exposure of the core, disconnection, etc.)
 - If it is malfunctioning (no tone sounds.)
- To prevent a fire or electric shock, never open nor remove the unit case as there are high voltage components inside the unit. Refer all servicing to your nearest dealer.
- Do not place cups, bowls, or other containers of liquid or metallic objects on top of the unit. If they accidentally spill into the unit, this may cause a fire or electric shock.
- Do not insert nor drop metallic objects or flammable materials in the ventilation slots of the unit's cover, as this may result in fire or electric shock.

CAUTION

When Installing the Unit

- Never plug in nor remove the power supply plug with wet hands, as doing so may cause electric shock.
- When unplugging the power supply cord, be sure to grasp the power supply plug; never pull on the cord itself. Operating the unit with a damaged power supply cord may cause a fire or electric shock.
- When moving the unit, be sure to remove its power supply cord from the wall outlet. Moving the unit with the power cord connected to the outlet may cause damage to the power cord, resulting in fire or electric shock. When removing the power cord, be sure to hold its plug to pull.
- Do not block the ventilation slots in the unit's cover. Doing so may cause heat to build up inside the unit and result in fire.
- Avoid installing the unit in humid or dusty locations, in locations exposed to the direct sunlight, near the heaters, or in locations generating sooty smoke or steam as doing otherwise may result in fire or electric shock.

When the Unit is in Use

- Do not place heavy objects on the unit as this may cause it to fall or break which may result in personal injury and/or property damage. In addition, the object itself may fall off and cause injury and/or damage.
- Make sure that the volume control is set to minimum position before power is switched on. Loud noise produced at high volume when power is switched on can impair hearing.
- Do not operate the unit for an extended period of time with the sound distorting. This is an indication of a malfunction, which in turn can cause heat to generate and result in a fire.
- Contact your dealer as to the cleaning. If dust is allowed to accumulate in the unit over a long period of time, a fire or damage to the unit may result.
- If dust accumulates on the power supply plug or in the wall AC outlet, a fire may result. Clean it periodically. In addition, insert the plug in the wall outlet securely.
- Switch off the power, and unplug the power supply plug from the AC outlet for safety purposes when cleaning or leaving the unit unused for 10 days or more. Doing otherwise may cause a fire or electric shock.

An all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated in the electrical installation of the building.

2. APPLICATION

Economic Rack Mount IP terminal with built-in amplifier, widely installed in weak-current rooms or branch control room for public address, built-in amplifier, used for hall, corridor and outdoor areas for program broadcasting and local public address.

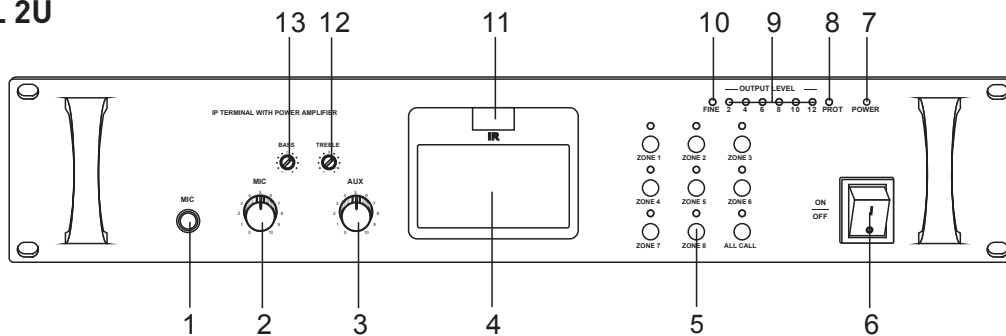
3. FEATURES

01. Standard 19" rack design, black aluminum panel, professional mechanical assembly process, high-end appearance.
02. Industrial grade 3.4-inch LCD, it can clearly show the majority of dot pattern and machine work status; equipped with infrared remote control, on-demand broadcast all contents in server library, can control the playback / pause, flexible and simple operation.
03. Using embedded computer and DSP audio processing technology, high-speed industrial-grade SCM system chip, start time is less than 1s.
04. Built-in 1 network hardware audio decoding module, support TCP / IP, UDP, IGMP (multicast protocol), to achieve network transmission 16-bit CD audio quality audio signal.
05. Built-in high-fidelity analog amplifier, with 8-zone independent control, and 120 W / 240 W / 350 W / 500 W options of 100 V output. Its 1~8 zone output interfaces make it supports to call any zone (or zone group), supports to call all zones, and also supports to configure a zone (or zone group) to perform timing tasks at specific time period .Besides, it supports alarm task, to play preset audio in the preset linkage zone (or zone group), to play real-time file in any zone (or zone group) , to make the terminal to collect real-time audio of any zone (or zone group). The output interface is 100V based, can be used to connect 100V constant voltage speakers.
06. 1 line (AUX) and 1 microphone (MIC) input interface, with independent volume control and treble/bass control, support local paging function in off-line status.
07. 1 channel EMC input interface, the emergency audio signal is direct connected, with the highest priority.
08. 2-channel audio signal auxiliary output interface, can connect with external amplifier; the standard RCA interface makes it easy to connect the cables.
09. Built-in intelligent power management module, when there is no BGM or paging tasks, it will automatically cut off the power of amplifier. When signal comes, it will automatically turn on the power. It supports software programming to pre-open the power of amplifier.
10. Built-in 3 priority settings:
 - EMC has the highest priority.
 - The network alarm signal has higher priority than MIC, AUX and network background music signals.
 - MIC has higher priority than AUX and network background music signals.
 - AUX and network background music has the same level priority.
11. Support preset mute level reducing function, preset background accompaniment function; it has indicators to display the system status, including level indicator, protection indicator, standby indicator, etc. The standby power consumption is less than 3W.
12. Compatible with routers, switches, bridge gateway, Modem, Internet, 2G, 3G, 4G, multicast, unicast and any other network structure.
13. Digitalized products, easy expansion, not limited by geographical location, no need to increase the control room management equipment, easy to install.

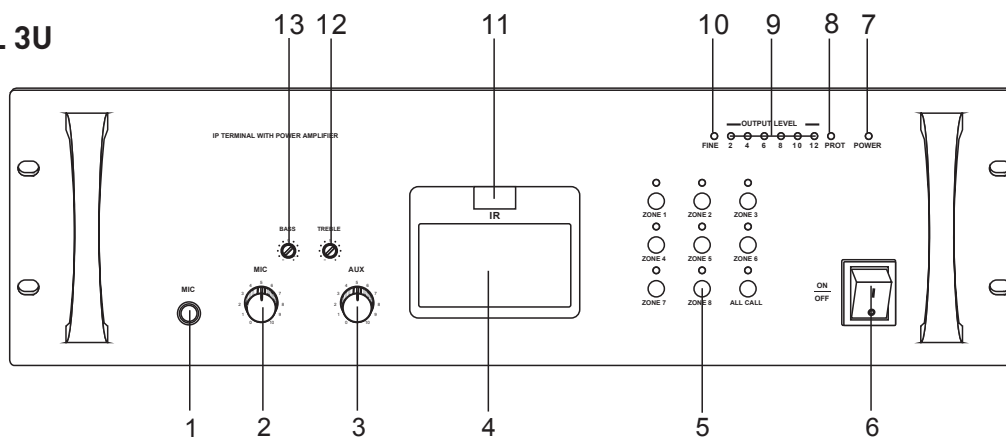
4. NOMENCLATURE AND FUNCTIONS

4.1. FRONT PANEL

FRONT PANEL 2U



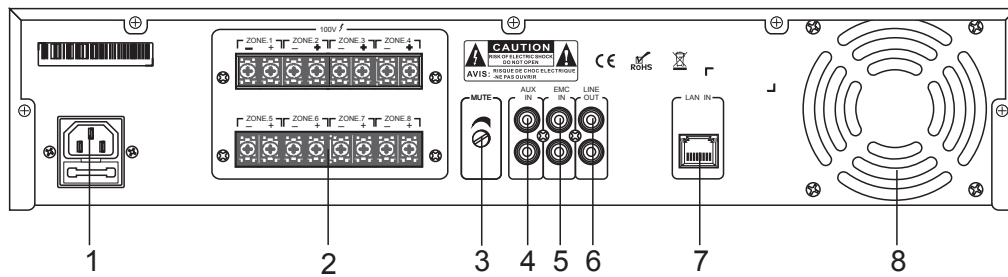
FRONT PANEL 3U



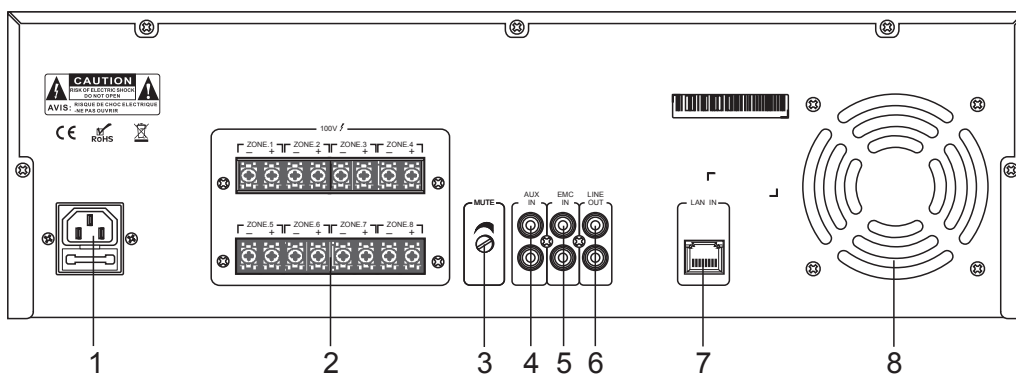
01. Local MIC input- adopting 6.35 mm MIC input interface.
02. Volume control of MIC input.
03. AUX-Auxiliary volume control.
04. Working status display screen- mainly used for showing the different working status while carrying on different tasks.
05. Button for zone selection, light on when turn on the button, light off when turn off the button.
06. Power switch- dial "ON" to turn on the equipment, and dial "OFF" to turn off the equipment.
07. Power Indicator- light on when turn on the equipment, and light off when turn off the equipment.
08. PORT- protection indicator.
09. OUTPUT LEVEL-level indicator.
10. FINE-status indicator.
11. IR-infrared receiving window.
12. TREBLE-treble, adjust the response of treble. Increase treble output by knob clockwise rotation and decrease it by knob anticlockwise rotation.
13. BASS-bass, adjust the response of bass. Increase bass output by knob clockwise rotation and decrease it by knob anticlockwise rotation.

4.2. REAR PANEL

REAR PANEL 2U



REAR PANEL 3U



01. AC power input

02. Output interface of zone 1 to zone 8. After configuring on the PC software, it supports paging to any zone(or zone group) and all zones. It supports to perform timing task, fire alarm task, trigger and linkage broadcasting task, real-time file broadcasting task and real-time terminal live casting task in specific zone(or zone group) in the specified time. The zone output power is 100 V, which can connect to speaker with constant voltage 100 V.

03. Mute potentiometer, turn the knob to the rightmost, the mute level is the maximum; and turn the knob to the leftmost, the mute is the minimum.

04. Line input interface.

05. EMC input interface.

06. Line output interface.

07. RJ45 network interface, connecting with the internet of PC host/Ethernet/switch.

08. Cooling fan.

5. OPERATION

Use a network cable to connect the port LAN IN of your equipment to a computer or network equipment. Open the software “IP network broadcast system” and make sure that the service has started. The next step is to open the software “iptool”. The window will open, you will have to press the button “Inquire” (Figure 1) to display the equipments found by “iptool” (Figure 2).

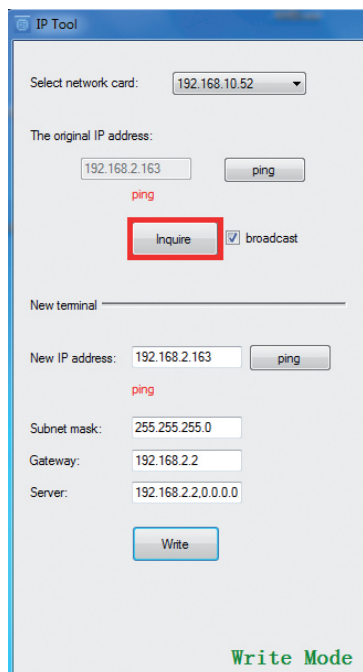


FIGURE 1

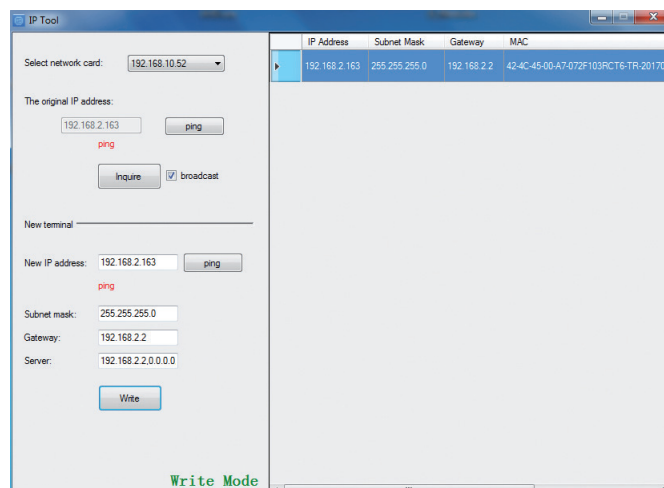


FIGURE 2

You will now have to change the IP address of your equipment to match the IP addresses of your network.

You need to fill every field below “New terminal” (Figure 3). Once all the fields are filled, press the button “Write” to apply the configuration and check with the button “Ping” to see if it is reachable (Figure 4). When all your equipments are configured, you can close the software “iptool”.

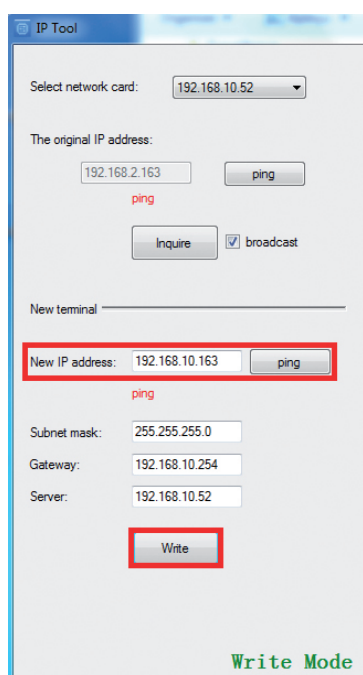


FIGURE 3

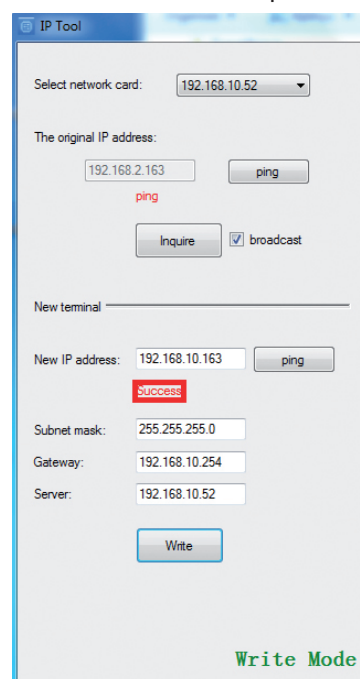
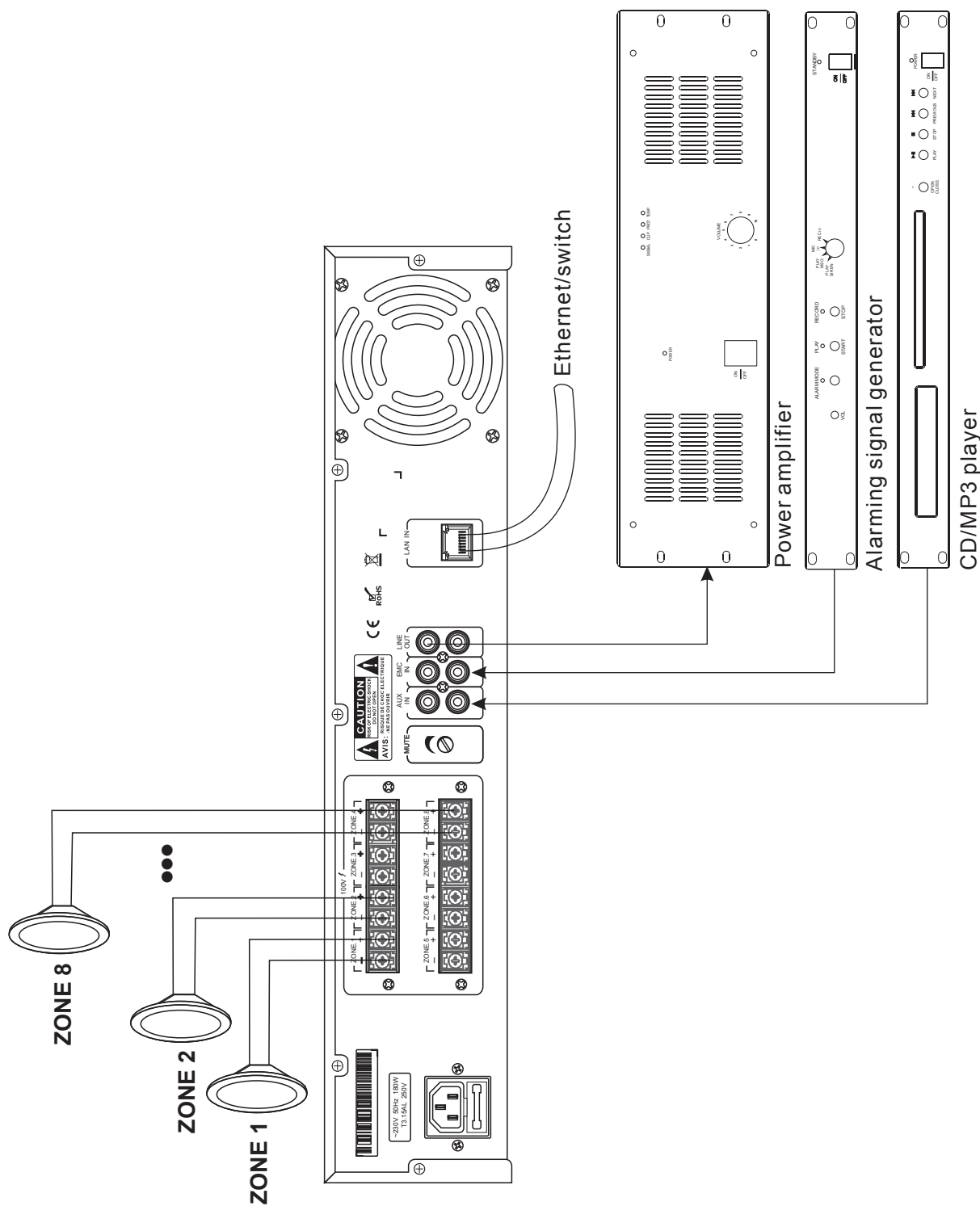
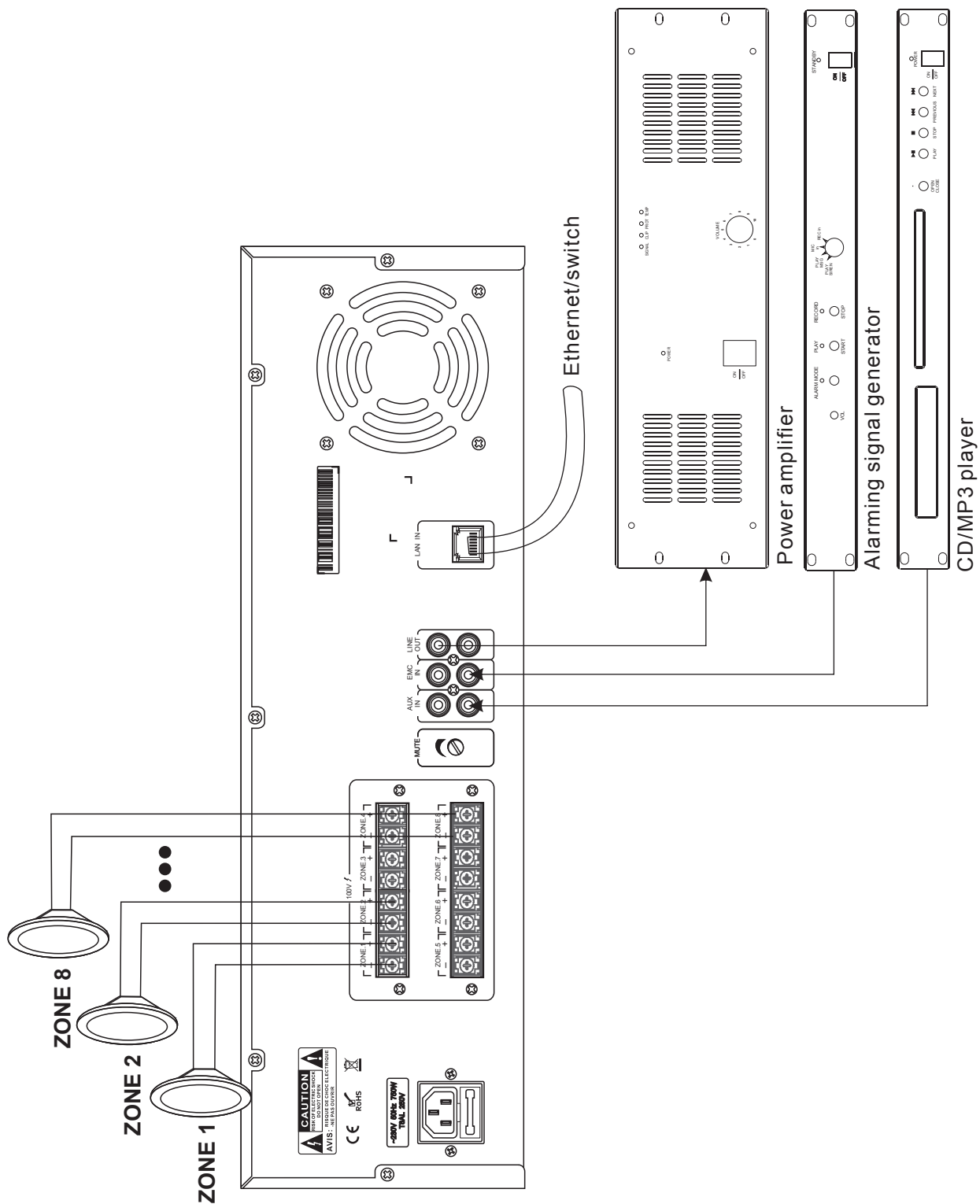


FIGURE 4

6. SYSTEM WIRING DIAGRAM





7. SPECIFICATIONS

Model	GGM IPA8120	GGM IPA8240	GGM IPA8350	GGM IPA8500
Network interface	RJ45			
Transmission speed	100Mbps			
Supportive protocol	TCP/IP, UDP, IGMP (Multicast)			
Audio format	MP3			
Audio mode	16 bit CD quality			
Sampling rate	8 k ~ 48 kHz			
EMC input sensitivity	775 mV (unbalance)			
AUX input sensitivity	350 mV (unbalance)			
MIC input sensitivity	5 mV (unbalance)			
AUX output amplitude	1000 mV, 2 RCA output			
AUX output impedance	470 Ω			
Treble adjustment range	± 10 dB			
Bass adjustment range	± 10 dB			
Rated power	120 W	240 W	350 W	500 W
Power consumption	180 W	370 W	540 W	750 W
Standby power consumption	< 3 W			
Frequency response	80 Hz ~ 16 kHz, +1 dB / -3 dB			
THD	THD ≤ 1 %			
SNR	≥ 65 dB			
Output method	100 V constant voltage output			
Circuit protection	DC output, overload, over temperature, short circuit protection			
Operation temperature	5 $^{\circ}$ C ~ 40 $^{\circ}$ C			
Operation humidity	20 % ~ 80 % relative humidity without moisture condensation			
Power supply	~220 V / 50 Hz			
Size	484 x 303 x 88 mm	484 x 359 x 132 mm	484 x 359 x 132 mm	484 x 359 x 132 mm
Net weight	9.7 kg	13.7 kg	15.5 kg	18 kg