



## Professional Public Address System

### Mixing Amplifier with Zone Selector

EMMA-120ZS

EMMA-250ZS

EMMA-380ZS



# USER MANUAL

Before operating, please read this manual carefully

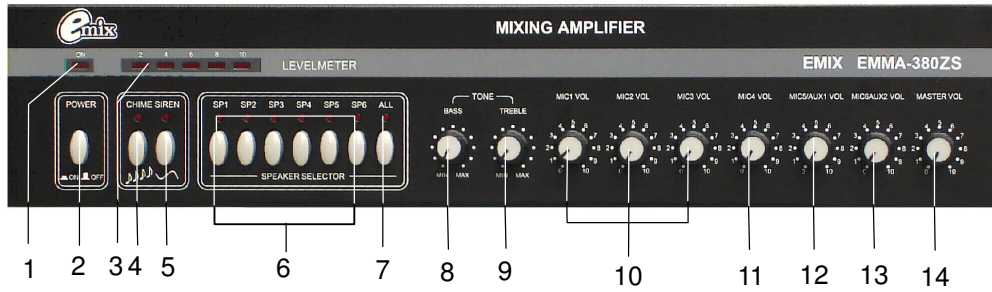
## FEATURES:

- 6 MIC inputs, 2 AUX inputs, 1 Record input, 1 Record output
- Phantom power supporting different sorts of MIC input
- Priority muting for chime and siren
- Three levels of priority muting: MIC1 > siren > chime
- 5 LED signal level meter
- 6 zones output with all-call button control
- Individual volume control for each input, master volume, bass, and treble control
- Speaker outputs 100V, 70V and 4Ω
- Power supply AC 220V-240V and DC 24V
- Thermal, over load, short circuit protection with siren warning

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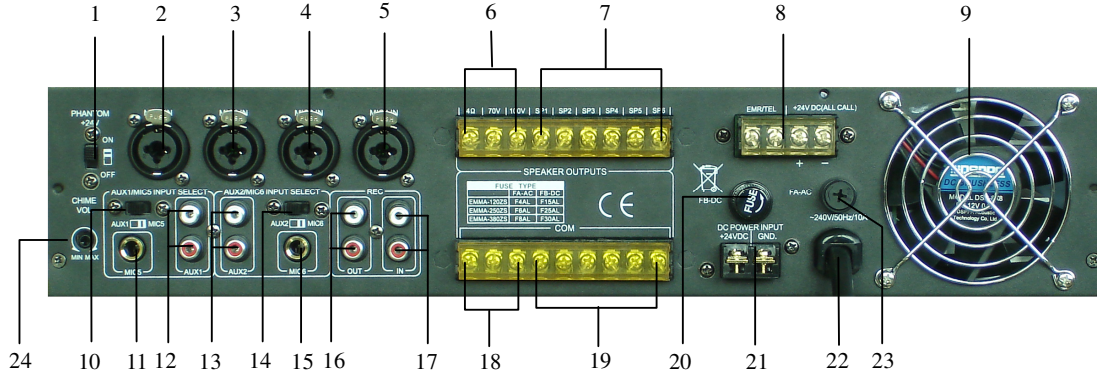
# FRONT PANEL



- |                            |                                |
|----------------------------|--------------------------------|
| 1. Led Power Indicator     | 8. Bass Control                |
| 2. Power Switch            | 9. Treble Control              |
| 3. Led Level Meter         | 10. Mic1, 2, 3 Volume Control  |
| 4. Chime                   | 11. Mic4 Volume Control        |
| 5. Siren                   | 12. Mic5 / Aux1 Volume Control |
| 6. 6 zone Selection Button | 13. Mic6 / Aux2 Volume Control |
| 7. All-call Button Control | 14. Master Volume Control      |

**NOTE: When all 5 LED level meters remain light and sound is distorted. In such case, adjusting each volume control button till LED 4 (+8dB) and LED 5 (+10dB) flash.**

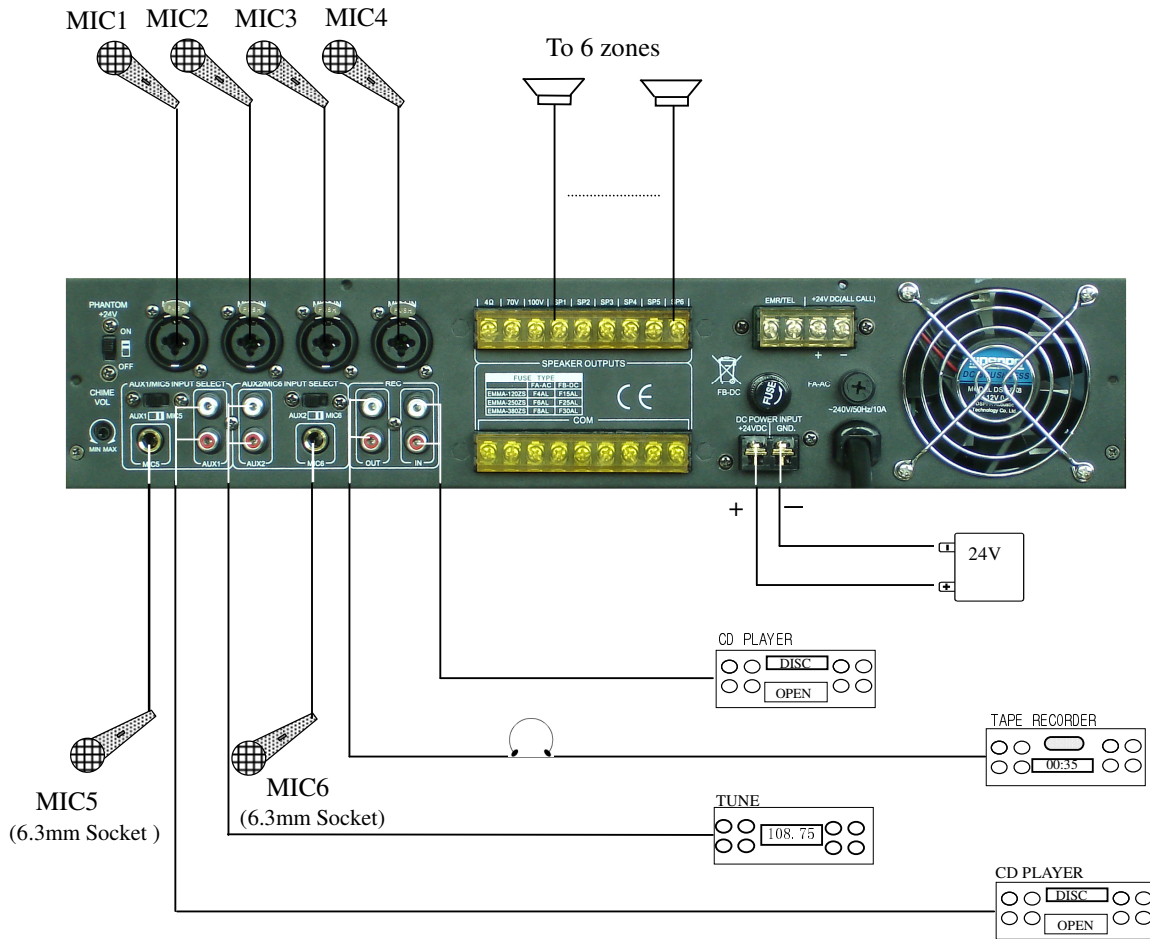
# REAR PANEL



- |  |                                     |                          |
|--|-------------------------------------|--------------------------|
| 1. Phantom power switch                              | 9. Fan exhaust window               | 17. Record input         |
| 2. MIC1: XLR/6.3mm Input                             | 10. AUX 1 / MIC5 switch             | 18. Speaker output COM   |
| 3. MIC2: XLR/6.3mm Input                             | 11. MIC5: 6.3mm input               | 19. Zone output COM      |
| 4. MIC3: XLR/6.3mm Input                             | 12. AUX1: Line Input                | 20. 24V DC fuse          |
| 5. MIC4: XLR/6.3mm Input                             | 13. AUX2: Line Input                | 21. 24V DC supply input  |
| 6. Output terminals                                  | 14. AUX2 / MIC6 switch              | 22. AC power cord        |
| 7. 6 zone output terminals                           | 15. MIC6: 6.3mm input               | 23. AC fuse              |
| 8. Emergency input terminal and +24V all call output | 16. Record output or Amplifier link | 24. Chime Volume Control |

- Notice**
1. +24V DC (ALL CALL) output power is sent to the RELAY of the volume controller
  2. "+24V DC (ALL CALL)" output is controlled by the "ALL" button on the front panel.

## SYSTEM CONNECTION



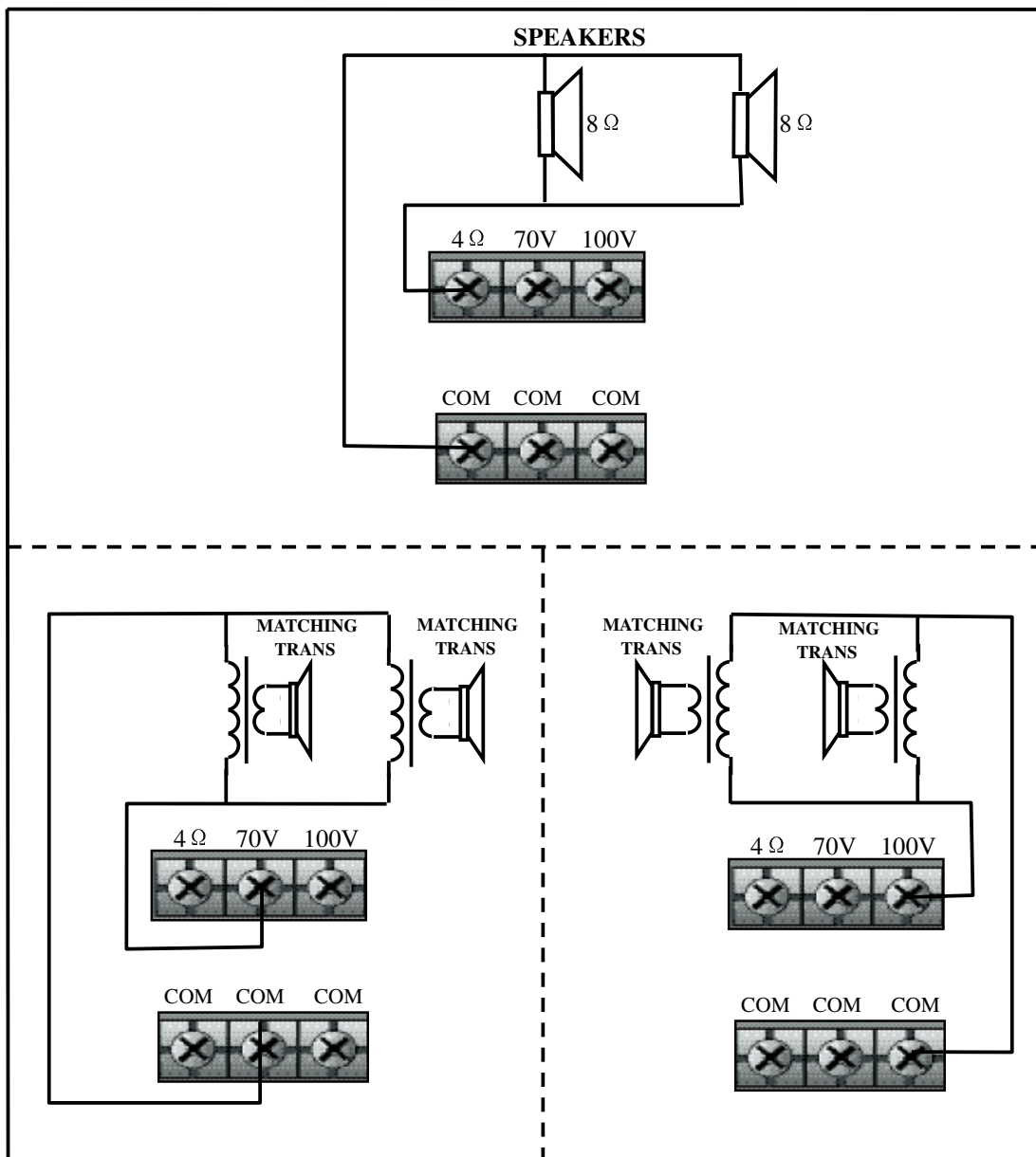
Speaker output terminals are on the rear panel. The terminal under the label "COM" is COMMON. The terminals under the labels "4Ω, 70V, 100V" are Hot. The connection should be COM-4Ω / COM-70V / COM-100V.

Normally the "rated power" (70V / 100V) output terminal is used in output connection. The connected speaker should have a matching transformer, and the gross power of speakers should be less than the rated power of the amplifier.

"Rated Impedance"(4Ω) output terminal can be used when speakers are fixed closely, and the gross impedance of speakers should be 4Ω.

# SPEAKER CONNECTION

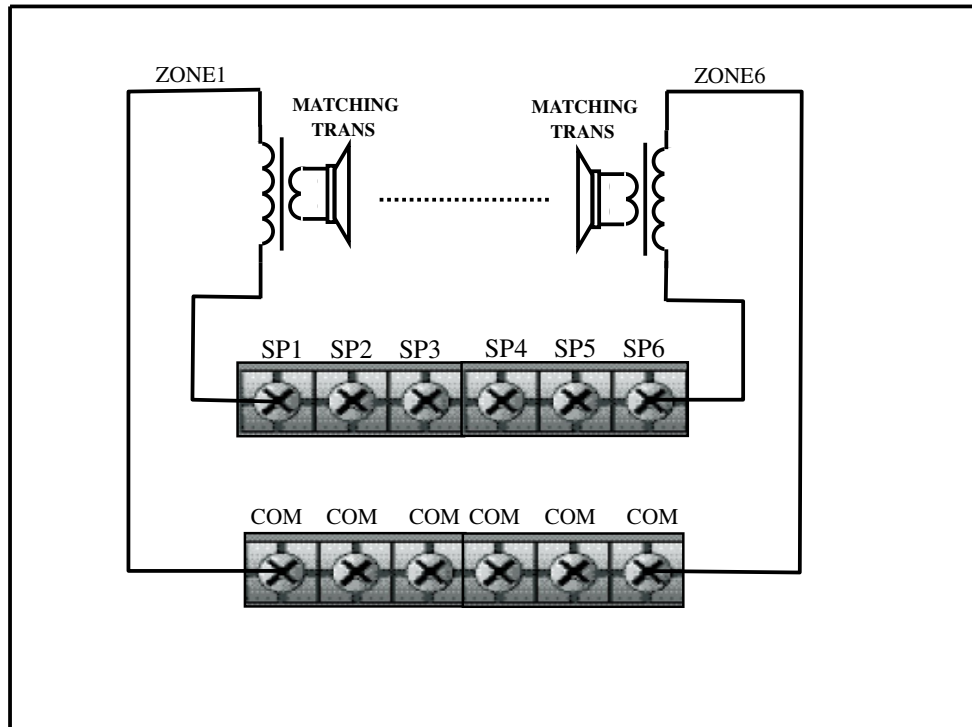
## 1. Single zone output



### Note:

- Never connect two hot terminals (labeled 4Ω, 70V, 100V) together.
- Only choose one pair of output terminals for speaker connection. The connection should be COM-4Ω / COM-70V / COM-100V.

## 2. 6-zone output



**Note:** Voltage of each zone output is 100V

## OPERATION INSTRUCTION

**Tone and volume:** “MASTER VOL”, “BASS”, and “TREBLE” knobs provide volume and tone control of overall system. MIC1, 2, 3, 4, 5, 6 have separate volume control. MIC5 and AUX1 or MIC6 and AUX2 have a common volume control knob. “CHIME VOL” on the rear panel can be adjusted to control the volume of chime. (volume up by turning it clockwise, down by anti clockwise) .

**MIC:** MIC inputs are balanced with phantom power. Two types of MIC inputs available: 6.3mm (MIC1,2, 3, 4, 5, 6) and XLR (MIC 1, 2, 3, 4). MIC1-4 are compatible with two input jacks: XLR and 6.3mm. MIC 5 & 6inputs are compatible with AUX 1 & 2 inputs. “MIC5/AUX1” and “MIC6/AUX2” can be selected through the switches on the back panel. MIC1 has the highest level of priority muting function and can override all input signals.

Note: To prevent feedback (howling), keep volume level down to minimum before connecting microphone.

**Microphone application:** The microphone is provided with the phantom power supply, and when the capacitor type microphone is used, please set the phantom mains switch on the back panel to “ON”.

**Chime / Siren:** Pressing the “CHIME” / “SIREN” button will activate the chime or siren circuitry. The LED indicator above the button will be light up simultaneously. Pressing the “SIREN” button again will stop siren broadcasting and the LED will be turned off.

**Levels of priority muting:** MIC1, siren and chime have priority muting functions. MIC1 has the highest level of priority muting and can override all other input signals. Siren has the second level. Chime has the third level and can override all input signals except for MIC1 and siren.

**REC input / output:** REC input can connect to an external source (CD player, tuner, cassette player, etc.) The volume of this input is not adjustable. While recording program signal can send to REC input and at the same time signal send out to recording equipment through REC output. REC output also can be used for monitoring the other input signals.

## PRECAUTION OF INSTALLATION

1. Do not block ventilation holes.
2. Do not use this amplifier if the power cord is frayed or broken.
3. The amplifier should not be placed in any of the areas:
  - 1) Poor ventilation
  - 2) Exposed to sunlight directly
  - 3) High ambient temperature or adjacent to heat-generating equipment;
  - 4) High humidity or heavy dust;
  - 5) Susceptible to vibration.
4. Make sure the plug connected to the socket.
5. For safety, please use electrical grounding.
6. Short-circuit fault happens when short circuit alarm rings during operation, In such case, switch off the power immediately and check for short circuit before switching on again.

### CAUTION

- For safety, when “Power switch” is off, please detach the power plug from the power outlet.
- The apparatus shall not be exposed to dripping or splashing and objects filled with liquids, such as vases, shall not be placed on the apparatus.
- To reduce the risk of electric shock, do not remove the cover.
- No user serviceable parts inside. Refer servicing to qualified service personnel.

## SPECIFICATIONS:

Model	EMMA-120ZS	EMMA-250ZS	EMMA-380ZS
Rated Output	120W	250W	380W
Output Regulation Ratio	Less than 3dB from no-load to full load		
Speaker Output	4Ω Balanced, 70V、100V		
Zone outputs	Six 100V zone outputs		
REC Output	10k 0dB		
Inputs	MIC1, 2, 3, 4, 5、6 : 600Ω, 4.5mV,		
	AUX1, 2: 10KΩ, 270mV unbalanced; REC IN: 10KΩ, 300mV		
	TELE/EMR: 6kΩ 775mV, balanced		
Frequency Response	Line: 40Hz -20KHz (±3dB); Microphone: 80Hz-15KHz (±3dB)		
Distortion	< 0.5% at 1KHz, 1/3rated power		
S/N Ratio	MIC1, 2, 3, 4, 5, 6: 80dB		
	AUX1, 2: 80dB		
Tone Control	Bass: ±12dB at 100Hz		
	Treble: ±12dB at 10KHz		
Protection	AC fuses, DC fuses, overload, short circuit, Temperature		
Muting Function	MIC1 overrides other input signals (Attenuation: 0 to -30dB)		
	SIREN overrides other input signals (except MIC1) (Attenuation: 0 to -30dB)		
	CHIME overrides other input signals (except MIC1,SIREN) (Attenuation: 0 to -30dB)		
Power Supply Requirements	AC220-240V/50-60Hz, DC24V		
Power Consumption	160W	330W	450W
Dimensions	430×360×88mm		
Gross Weight	13kg	17kg	19.3kg
Net Weight	11.9kg	16kg	18.3kg

Specifications are subject to change without notice