



Professional Public Address System

EMMA-45E EMMA-60E EMMA-120E Mixing Amplifier



USER MANUAL

Before operating, please read this manual completely

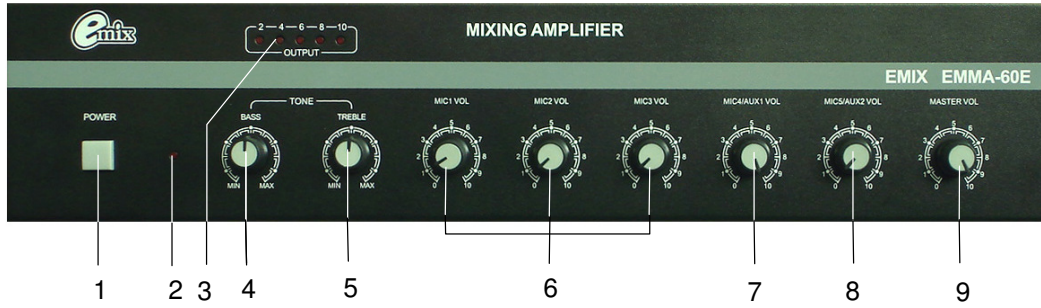
FEATURES:

- 5 MIC inputs, 2 AUX inputs, 1 line output
- Priority muting for MIC1
- 5 LED level meter
- Individual volume control for each input, master bass and treble control
- Speaker outputs 100V, 70V and 4Ω
- Power supply AC 220V-240V /50-60HZ
- Thermal, over load, short circuit protection and siren

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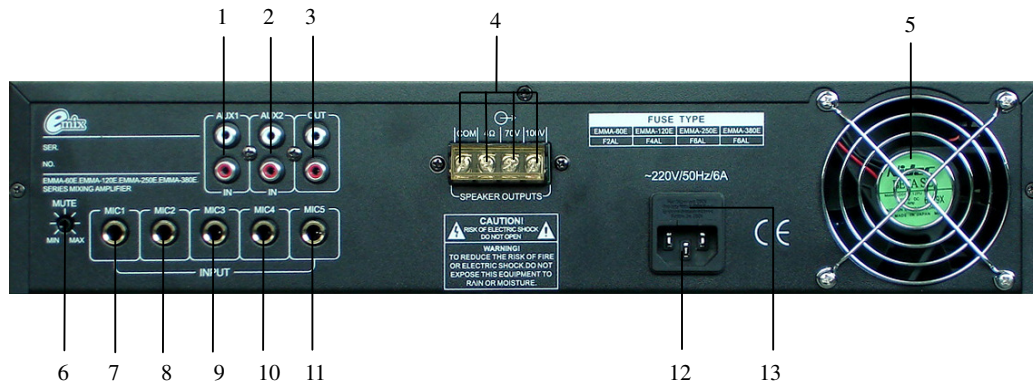
FRONT PANEL



- | | |
|------------------------|-------------------------------|
| 1. Power Switch | 6. Mic1, 2, 3 Volume Control |
| 2. Led Power Indicator | 7. Mic4 / Aux1 Volume Control |
| 3. Led Level Meter | 8. Mic5 / Aux2 Volume Control |
| 4. Bass Control | 9. Master Volume Control |
| 5. Treble Control | |

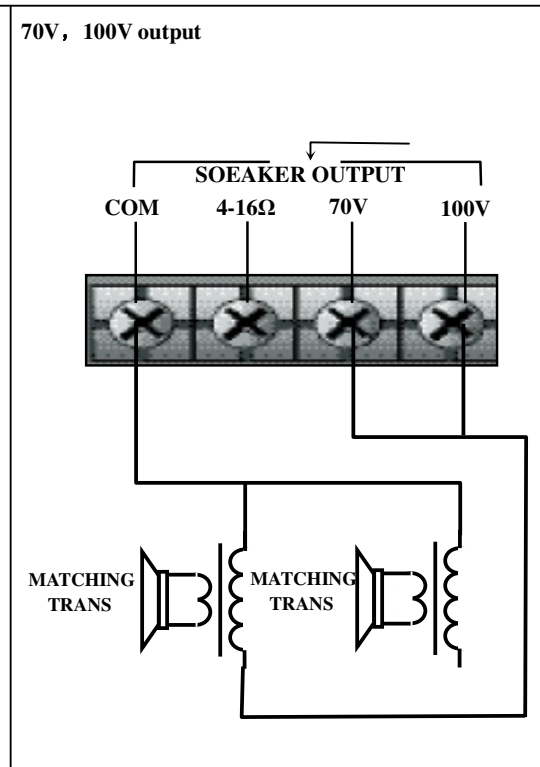
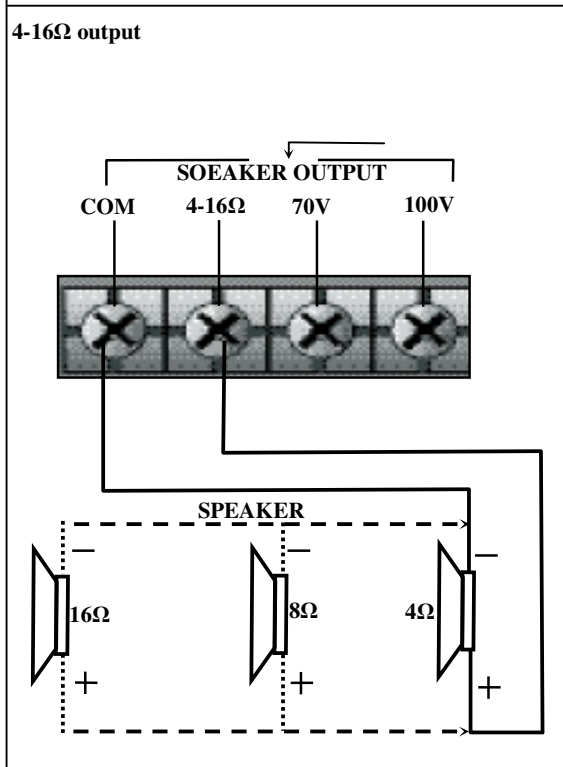
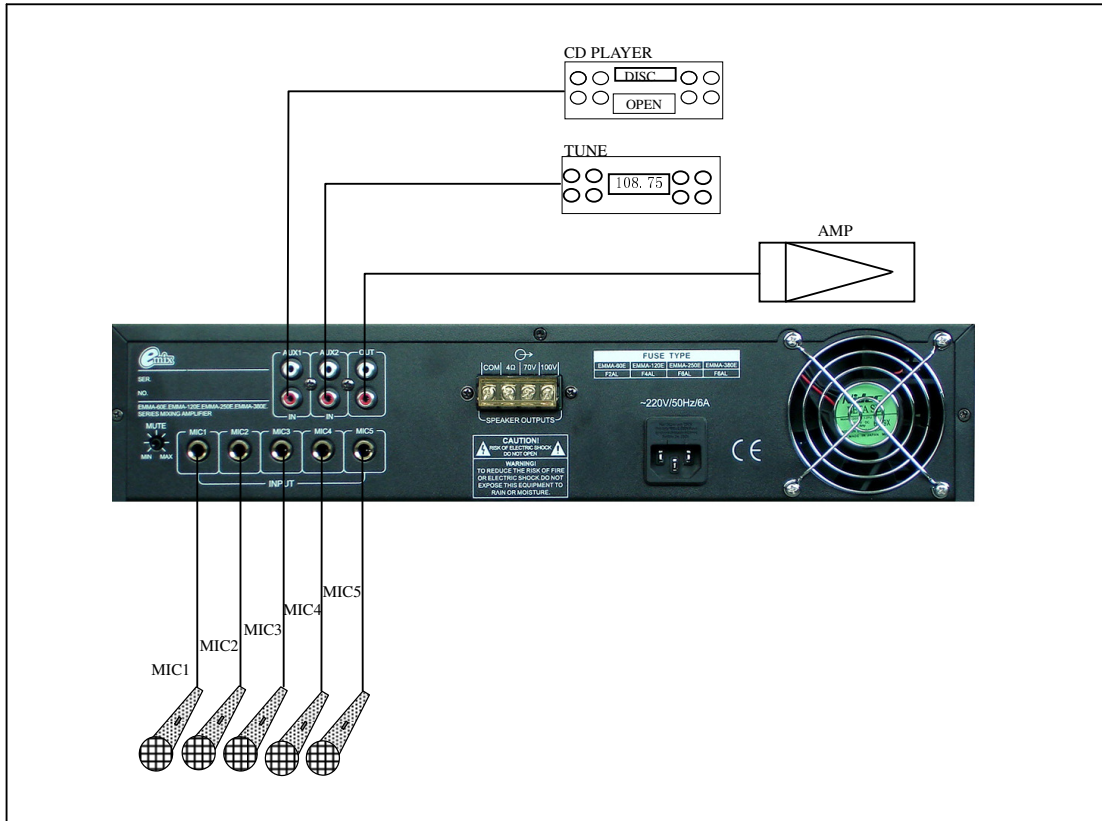
NOTE: When all 5 LED level meters remain lit, sound is distorted. In such case, adjusting the volume control knob till LED 4 (+8dB) and LED 5 (+10dB) flash.

REAR PANEL



- | | | |
|-----------------------|------------------------|------------------------|
| 1. AUX 1 : Line Input | 6. mute Control | 11. Mic5 : 6.3mm Input |
| 2. AUX 2 : Line Input | 7. Mic1 : 6.3mm Input | 12. 220V AC Power jack |
| 3. Line output | 8. Mic2 : 6.3mm Input | 13. 220V AC Fuse |
| 4. Output Terminals | 9. Mic3 : 6.3mm Input | |
| 5. Fan Exhaust Window | 10. Mic4 : 6.3mm Input | |

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 ways shall be COM-4Ω / COM-70V / COM-100V.

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

“Rated Impedance”(4-16Ω) output terminal can be used when speakers are fixed closely, and the gross impedance of speakers should be 4-16Ω.

Note:

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

Tone and volume: “BASS” and “TREBLE” knob provides the tone control of overall system. MIC1, 2, 3, 4, 5 have separate volume control. MIC4 and AUX1 or MIC5 and AUX2 have a common volume control knob.

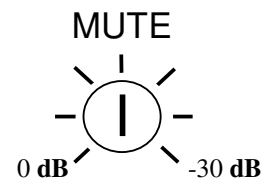
MIC: MIC1 has the highest level of priority muting function and can override all input signals.

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

MUTING FUNCTION

This model provides muting function. The inputs from **MIC 2**、**MIC 3**、**MIC4**、**MIC5**、**AUX 1** and **AUX 2** are automatically muted by the input from **MIC 1**, as the signal from **MIC 1** overrides other input signals. The level of **MUTE** can be adjusted within

the range from **0 dB** to **-30 dB** by adjusting **MUTE** control button on the rear panel. It is preset at **-30 dB** before shipping from the factory.



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 conforms to the socket.
5. For safety, please make grounding.
6. Short-circuit fault happens when short alarm rings during operation, In such case, switch off the power immediately and check the faults before switching on again.

SPECIFICATIONS:

Model	EMMA-45E	EMMA-60E	EMMA-120E
Rated output	45W	60W	120W
Output regulation	Less than 3dB, from off-load to full load		
Speaker output	Balanced 4 Ω , 70V, 100V		
AUX output	600 Ω more than 1V (0dB)		
Inputs	Mic1,2,3 ,4,5/ 600 Ω , 3.5mV unbalanced		
	AUX1,2 / 10k Ω , 300mV unbalanced		
Frequency response	50Hz-20kHz (± 3dB)		
Distortion	Less than 0.8% at 1kHz , 1 / 3 rated power		
The ratio of signal to noise	Mic1,2 ,3,4,5 : 70dB		
	AUX1 and 2 : 75dB		
Tone	Bass : ± 10dB at 100Hz		
	Treble: ± 10dB at 10kHz		
Protection	AC fuse; DC voltage; overload; short-circuit.		
Muting function	Mic1 overrides other input signals with 0 to -30dB attenuation		
Power requirements	AC220-240V/50-60Hz		
Power consumption	80W	120W	250W
Dimensions	419 × 306 × 88mm		
Gross weight	17.5kg	21.3kg	22.6kg
Net weight	15.5kg	18.8kg	20.1kg