

User Manual

# MAJORCOM:

**USER MANUAL**

**MIXER POWER AMPLIFIER**

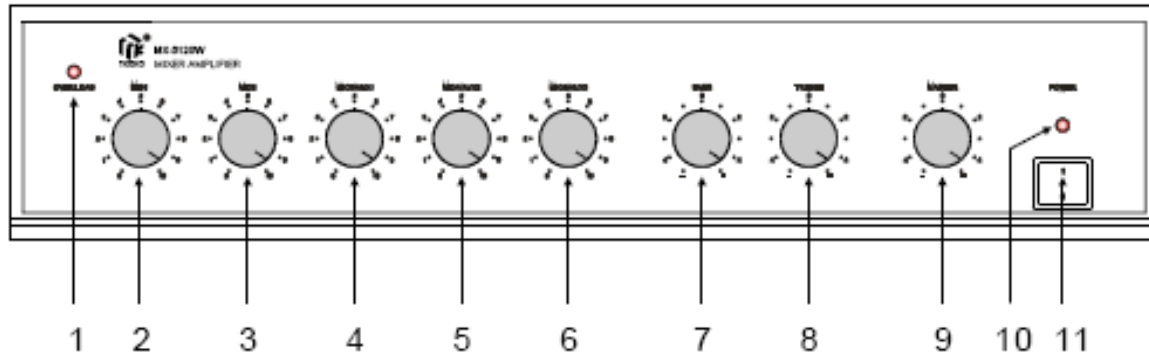
**MX-3120MM**

LE 18/07/2008

## User Manual

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## FRONT PANEL



1	OVERLOAD LED INDICATOR
2	MIC 1
3	MIC 2
4	MIC3 / AUX1
5	MIC 4 / AUX 2
6	MIC 5 / AUX 3
7	BASS
8	TREBLE
9	MASTER
10	POWER LED
11	POWER ON / OFF SWITCH

— :SOUND —

:SECURITY —

:VISUAL —

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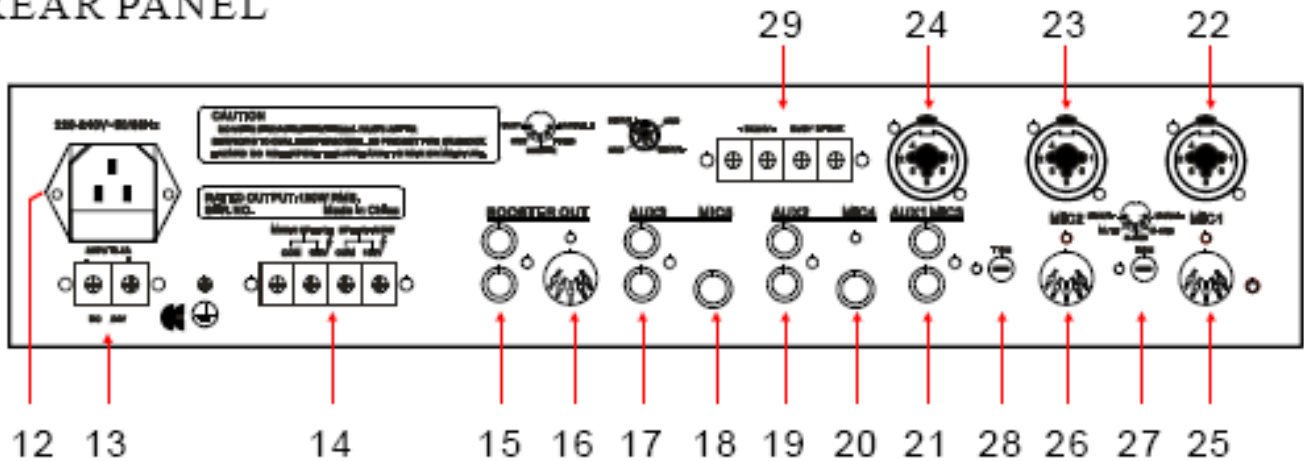
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## MA10000

## REAR PANEL



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15 BOOSTER OUT

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**SAFETY INFORMATION****WARNING : THIS APPLIANCE MUST BE EARTHED  
IMPORTANT**

The wires in the mains lead are coloured in accordance with the following code:

Green and yellow:	<b>Earth (E)</b>
Blue:	<b>Neutral (N)</b>
Brown:	<b>Live (L)</b>

As the colours of the wires in the mains lead of the apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured green and yellow must be connected to the terminal which is marked by the letter E or by the safty earth symbol or coloured green and yellow.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

If a 13 Amp (BS1363) plug or other type of plug is used, a 5 Amp fuse must be fitted either in the plug or at the distribution board.

**GENERAL INSTALLATION**

- DO NOT** expose the unit to rain or moisture. If any fluids or foreign objects should enter the unit, disconnect the power plug immediately.
- DO NOT** run microphone cables near mains, data, telephone or 100V lines.
- PROTECT** the unit from heat and allow adequate ventilation. Place away from direct source of heat, such as heating vents and radiators.
- AVOID** jointing the microphone cables, when this is unavoidable make sure a good screen connector is used.
- ALWAYS** use a balanced or floating low impedance microphone terminating in balanced input on long microphone runs.

**GENERAL DESCRIPTION****MIXER****AMPLIFIER**

The 120 watt RMS amplifier can be used on either mains or DC power. The amplifier has five balanced inputs, two balanced inputs Mic1 /Mic 2 have priority with chime facility over all other inputs.

Inputs 3,4 and 5 are switchable between microphone and line level.

The amplifier has two outputs, one for speech and music and one for speech only. This facility is only available on Mic 1 and Mic 2.

Volume controls for all inputs and individual bass, treble and master volume controls are located on the front panel.

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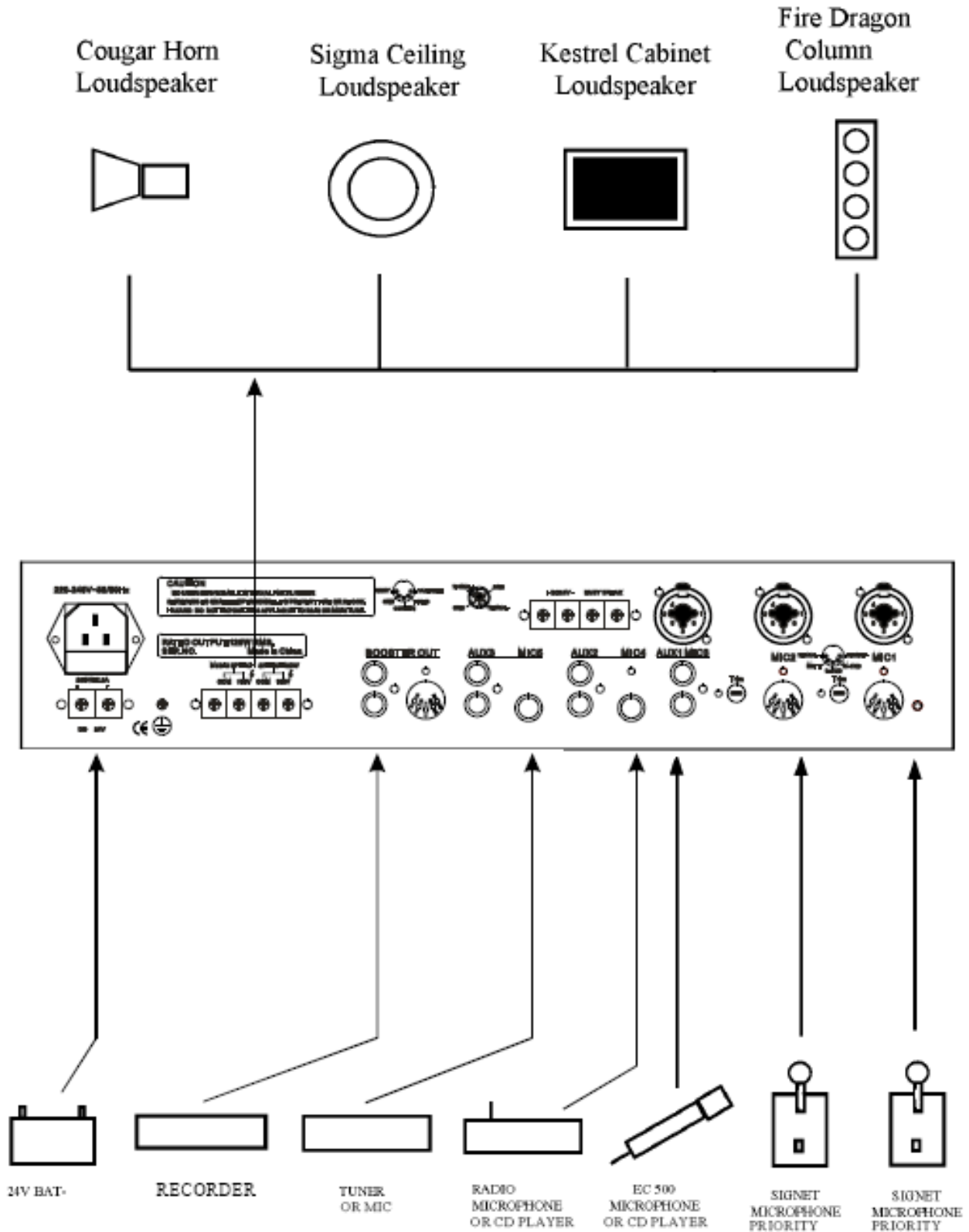
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POSSIBLE INTERFACES





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## MICROPHONE CONNECTIONS

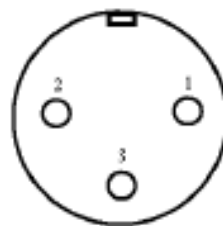
### Microphone 1 & 2

The microphone inputs use XLR connectors and are balanced. Priority operation can be obtained by using the din sockets.(see priority connection)

#### Balanced operation

Pin 1 Screen  
Pin 2 Signal (live)  
Pin 3 Signal (return)

XLR PLUG



#### Unbalanced operation

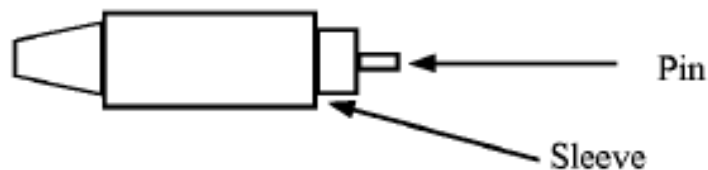
Pin 1 Screen  
Pin 2 Signal  
Pin 3 Short to pin 1

### Microphone 3 and AUX 1

The microphone input uses an XLR connector and is balanced. There are no priority functions available with this input. The input can be reconfigured as an auxiliary input as follows.

- 1 Remove the amplifier top cover
- 2 Locate switch on rear PCB(three switches are located on the rear PCB, the switch required is the left hand one when viewed from the front of the amplifier)
- 3 Set switch to position nearest rear panel
- 4 Replace the amplifier top cover

Pin.....Signal  
Sleeve.....Screen



### Microphone 4,5 & AUX 2&3

These inputs are configured as AUX inputs, to configure as balanced microphone inputs proceed as follows.

- 1 Remove the amplifier top cover
- 2 Locate switch on rear PCB, Mic 4 is centre and Mic 5 is right hand one when viewed from the front.
- 3 Set switch to position nearest front panel.
- 4 Replace the amplifier top cover

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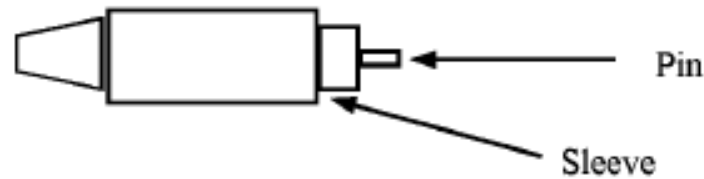
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Two phono sockets are available, they are connected together internally and provide a fixed output.

The output is independent of the master gain and tone controls.

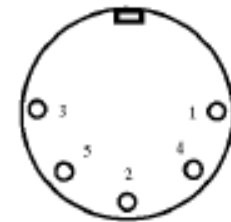
Pin.....Signal  
Sleeve.....Screen



Where a variable output is required they are available on the DIN socket.  
The output is dependant on all controls.

Pin Number	Function
1	Variable Output
2	Signal and chassis ground
3	Open collector to ground when a priority signal is present
4	Fixed output
5	24V DC output (Max current 0.5A total for amplifier)

180° DIN Socket

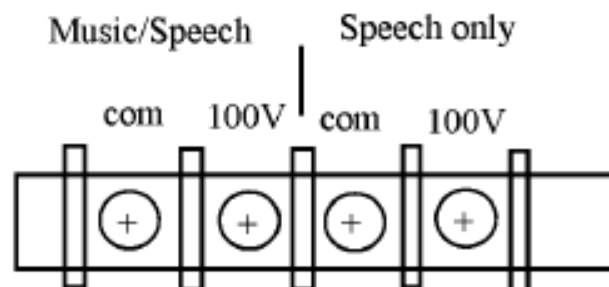


### Loudspeaker Output

Two loudspeaker outputs are available.

Speech/Music gives an output at all times.

Speech only gives an output during a priority condition.



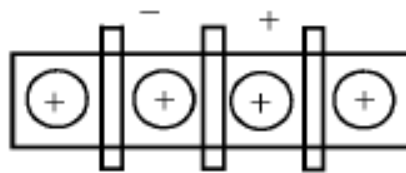
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**Loudspeaker Loading**

To allow sufficient transient overload margin it is suggested that the output load should not exceed approximately 70% of the rated power output

**DC Power**

The equipment may be operated from a battery power source. ENSURE CORRECT POLARITY when connecting batteries



Requires a 24 Volt source

**PRIORITY CONNECTIONS****Microphone 1 &2****Pin Number****Function**

- |   |  |
|---|--|
| 1 | <b>Mute:</b> used to override Mic inputs 3,4,5 & AUX 1,2 &3. To override short to Pin 2, this will activate the chime. |
| 2 | <b>Ground:</b> Connect to chassis  |
| 3 | <b>Busy:</b> Open collector, going to ground when Pin 1 is shorted to ground.  |
| 4 | <b>Speak now:</b> Open collector going to ground when Pin 1 is shorted to ground and chime has ended                   |
| 5 | 24V DC Output Max current 0.5Amps (total for amplifier)  |

**ACCESSORIES**

Description	Part Number
Power cord	EU standard

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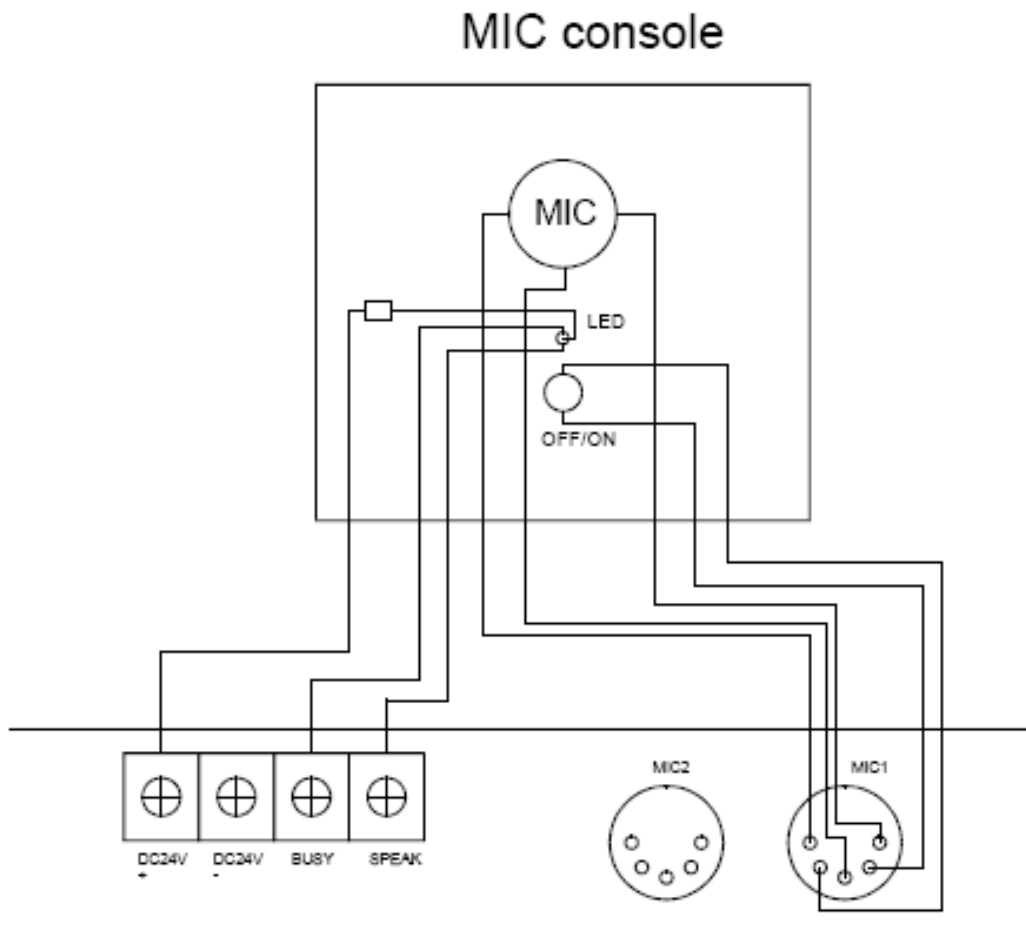
**SPECIFICATIONS**

RMS Output power	120Watts into 8 ohm at 1 kHz
Constant Voltage output	100V Only
Distorsion at rated power	< 1% THD
Frequency responce	50Hz to 18kHz
Tone control range	Bass + or - 10db at 100Hz Treble + or - 10db at 10kHz
<b>Microphone Input</b>	
Sensitivity Mic 1 - 5	0.8 mV at 600ohm
S/N ratio Mic 1 - 5	Better than 60db
<b>Auxiliary Input</b>	
Sensitivity AUX 1 - 3	100mV at 100k ohm 700mV
S/N ratio AUX 1 - 3	Better than 70db
<b>Booster Output</b>	
Output level	1 Volt at 600 oh 850mV
<b>Chime (Bing-Bong)</b>	
Note	2
Mute level	<40 db
<b>Operating Conditions</b>	
Mains power supply	220 - 240V AC at 50Hz
DC power supply	24 Volt
AC power consumption	250W at rated power
DC power consumption	200W at rated power
Dimensions (HWD)	88 x 428 x 268 mm
Weight	10.2 kg

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Binding Post Connection Diagram



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