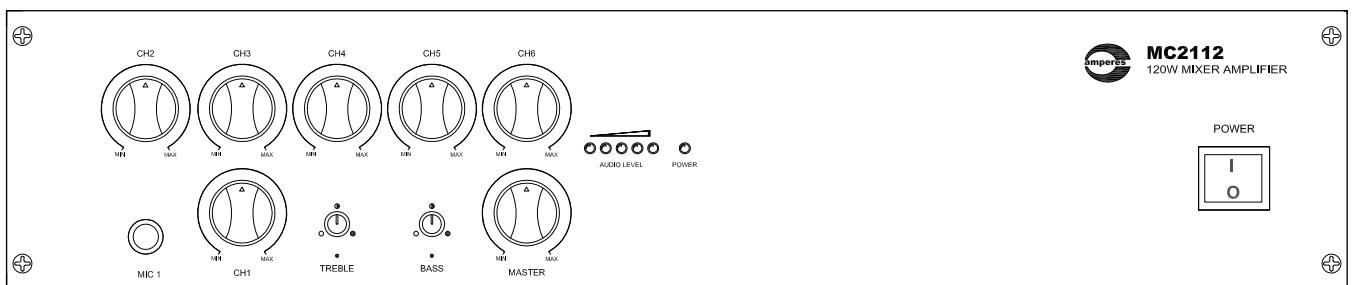




INSTRUCTION MANUAL

MC2106 60W 100V MC2112 120W 100V 60 / 120W Basic Mixer Amplifiers



Thank you for choosing another quality product from Amperes Electronics.

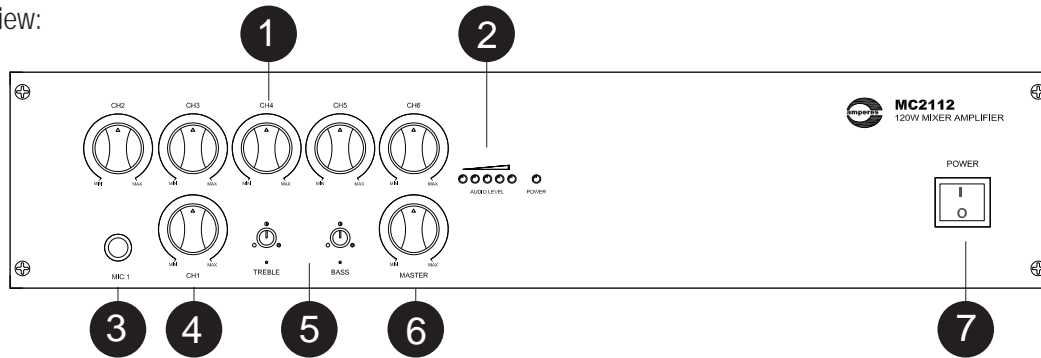
MC2000 serves a variety of simple applications for a small PA setup such as restaurants, meeting rooms, lecture theatres or boutiques. It fits into the requirement where budget is concerned but without compromising the quality and essential needs such as multiple microphone inputs with phantom power, audio source inputs and other line inputs.

60W and 120W 100V line output variants are available. With this latest version, the internal circuits had been improvised to include front mic muting and better circuitry.

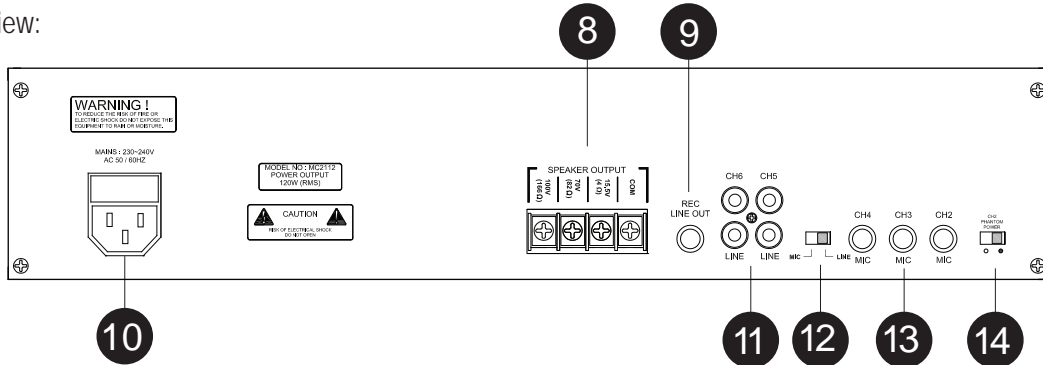
We thank you for trusting another product from Amperes and we shall keep improving the product for better results while keeping the cost low.

Parts Identifications

Front View:



Rear View:



1. INPUT LEVEL CONTROLS

Individual control knobs for input 1 to 6.

2. LED INDICATORS

LED indicators for Power and 4 segment output level meter.

3. MIC INPUT JACK

Ch 1 is input for Mic Signal (balanced), BGM shall be muted when the front mic is active.

4. FRONT MIC VOLUME CONTROL

To control the volume of front mic input.

5. TONE CONTROLS

Bass and treble controls for mixed signals.

6. MASTER CONTROL

Master volume control for mixed signal ; speaker and line outputs.

7. POWER SWITCH

Mains AC power switch.

8. SPEAKER OUTPUT TERMINAL

Outputs available are for 4 ohm, 70 and 100V line. Multiple output connections are allowed provided that they do not exceed the total load rating of the model.

9. REC OUTPUT

Unbalanced line level output for connection to external link. The output level is independent of master volume.

10. AC INPUT TERMINAL

Supply of 220 ~ 240V ac via fused IEC connector.

11. RCA JACK

For unbalanced line input sources such as CD player, etc.

12. MIC / LINE LEVEL SWITCH FOR CH 4

Inputs to the unit can be either mic or line level. Select the required input type by using these switches and plug the input source to the appropriate jack. Stereo phone jack for balanced mic input whereas the RCA jack is for music source unbalanced line input. It is recommended that at any one time, only one type of input source is connected to the amplifier.

13. MIC / LINE INPUT JACK

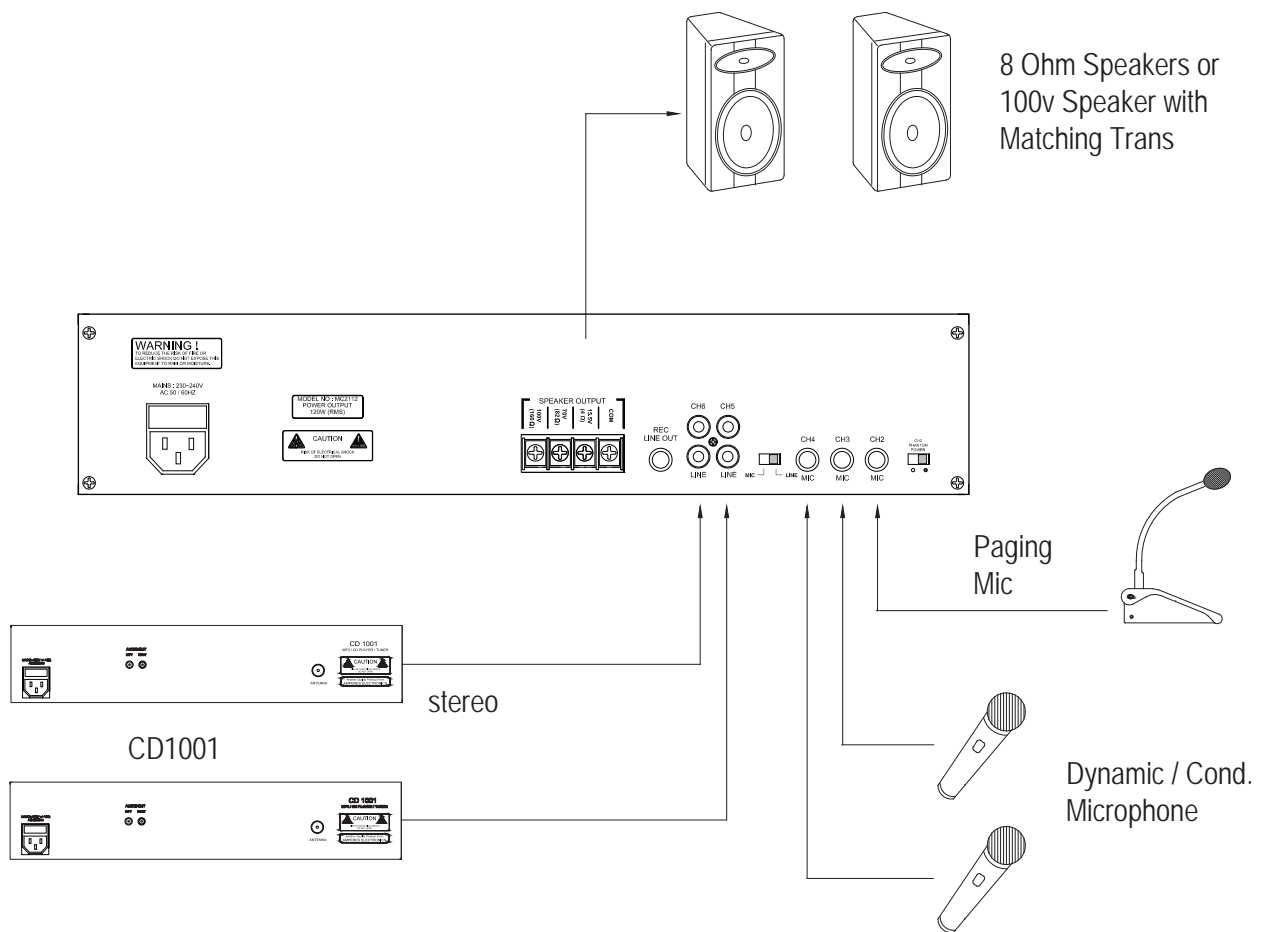
Ch.2 to 4 are inputs for mic signal (balanced)

14. PHANTOM POWER SWITCH

12V DC phantom power is available for input channel 2, which is suitable for connection to condenser microphones. For normal mic inputs, it is recommended that the phantom power feature is turned off.

Ensure suitable condensor microphone is used which could operate at 12V DC.

Application Example



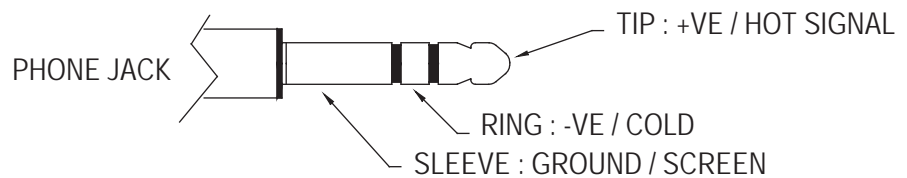
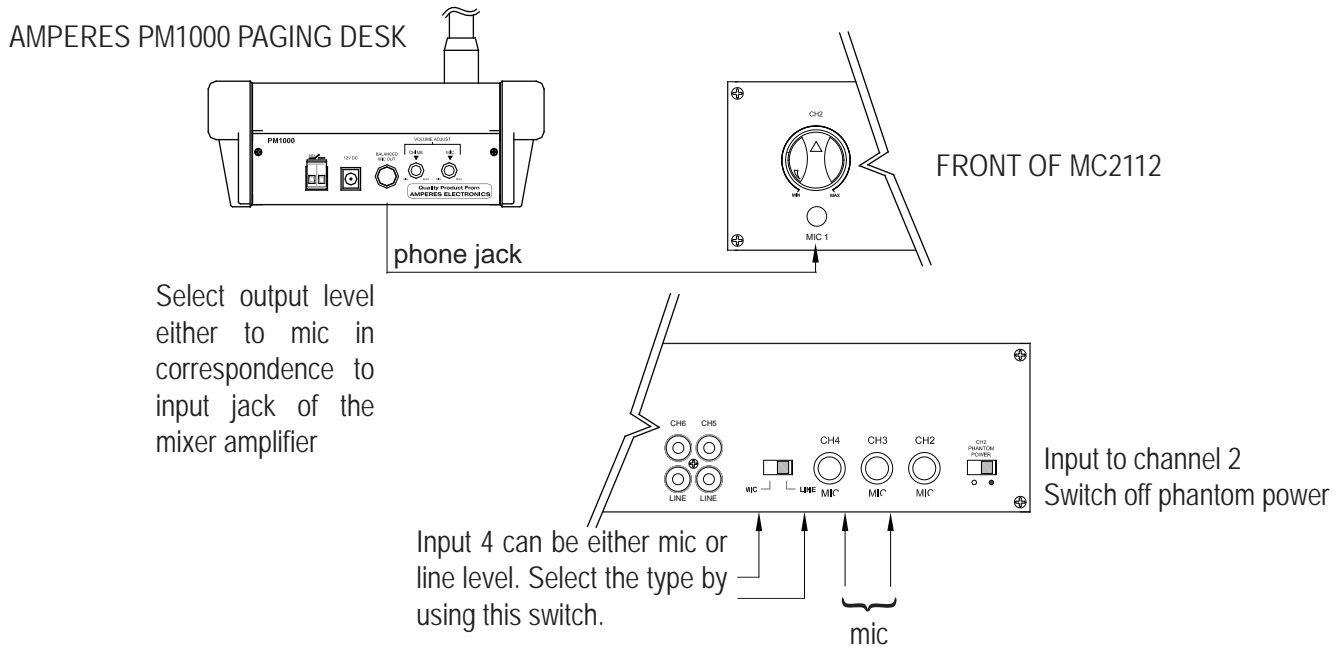
Note :

1. Paging microphone shall be without zone selection.
2. Speaker output connected to speakers with matching transformer (100V line out) or without transformer of 4 Ohm. Total output shall not exceed the specified rating.

Connecting Paging Microphone

External paging desk (eg. Amperes PM1000) can be connected to the unit either at mic or line input phone jack, using 1/4" stereo phone jack.

The diagram below illustrates the connection of Amperes PM1000 paging desk with zone selection :

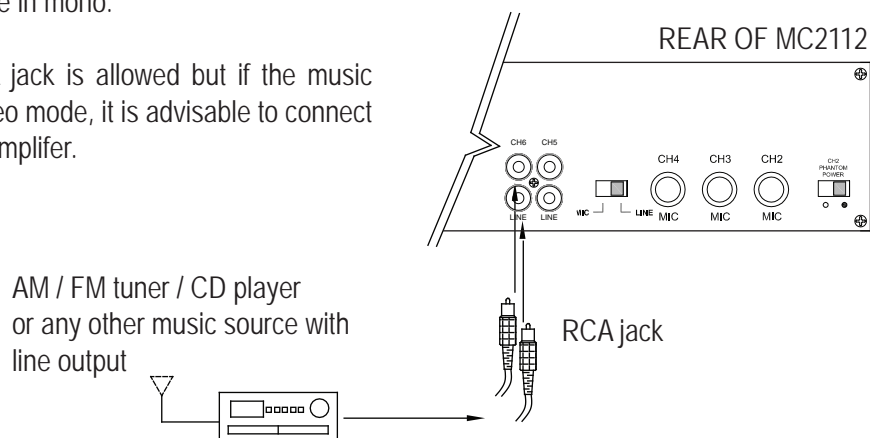


Balanced signal pin configuration of phone jack.

Connecting BGM Sources

Though inputs to the mixer amplifier are in stereo mode, the output shall only be available in mono.

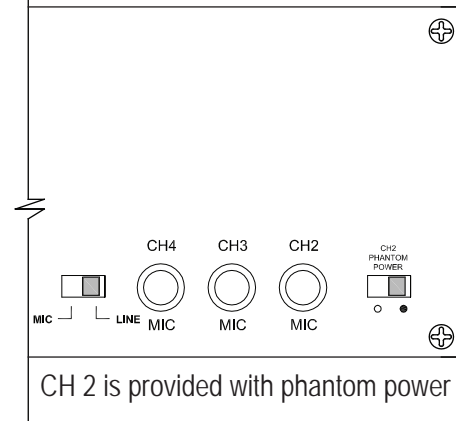
Single connections of RCA jack is allowed but if the music output from player is in stereo mode, it is advisable to connect both L and R to the mixer amplifier.



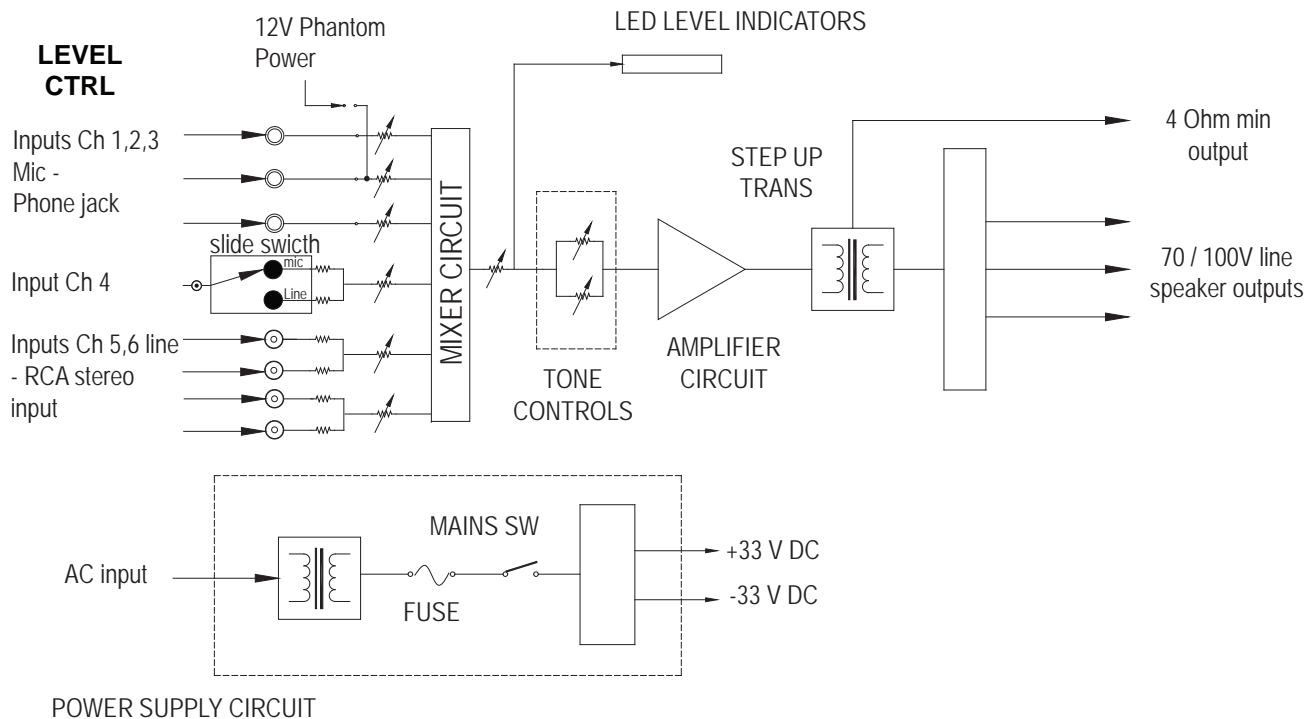
Phantom Power

Channel 2 is provided with switchable phantom power of 12V.

PHANTOM POWER SWITCH
Switch on when condenser microphone is used. In normal usage, it is recommended that it is switched off



Block Diagram



The above drawing illustrates general functional block diagram in the construction of the unit and may not represent the final actual circuit. It is not recommended that the above diagram to be used for servicing any faulty unit. Contact our service centre for any repair works.

Summary Of Features

- 6 input channels for mic and line with phantom power for input 2
- Tone and bass controls
- 70 / 100V line output with 4 ohm terminal with audio line output
- Short circuit, thermal protections
- Fan-less ventilation for silent operation

Technical Specifications

	MC2106	MC2112
Rating	60W 100V line	120W 100V line
Operating voltage	230 ~ 240V AC mains	
24V DC requirement	-	
Current (Load / Standby)	1.2A / 0.1A	2.2A / 0.1A
Input channel	6 inputs; 4 Mic phone jack, 2 line selectable (RCA)	
Input phantom power	Mic 2 : 12V DC	
Input sensitivity @ 1W / 4 Ohm	Mic : 430 mV Line : 650 mV RCA : 642 mV	
Tone controls	Bass (150 Hz) ; Treble (10 KHz) \pm 3 dB	
Outputs	70 / 100V line	
Frequency response (\pm 3dB @ 1Kz 20 ~ 20 KHz)	120 Hz - 15 kHz	
SNR	76 dB @ 1 kHz, 1V	
THD+N (at rated power)	0.02%	
Protections	Thermal, short circuit, AC and DC fuse	
Indicators	Power, Audio Input Level	
Cooling system	Convection	
Dimensions (WxHxD)	424 x 88 x 180 mm	
Weight	7.05 kg	7.80 kg

Warranty Conditions

Only Amperes Electronics Service Centres are allowed to make warranty repairs : a list of Amperes Electronics Service Centres may be asked for by the purchaser or send directly to Amperes Electronics Sdn Bhd or its authorized master distributor, TNT Sales Sdn Bhd. This warranty is not valid if repairs are performed by unauthorized personnel or service centres.

This warranty covers only repairs and replacement of defective parts ; cost and risks of transportation as well as removal and installation of the product from the main system are for the account of the purchaser. This warranty shall not extend to the replacement of the unit.

This warranty does not cover damages caused by misuse, neglect, accident of the product as well as using the product with power supply voltage other than shown on the product, or any other power supply source / adaptor not recommended by the manufacturer.

This warranty does not cover damages caused by fire, earthquakes, floods. Lightning and every cause not directly related to the unit.

This warranty does not include any indemnity in favor of the purchaser or the dealer for the period out of use of the unit; moreover the warranty does not cover any damages which may be caused to people and things when using the product.

This warranty certificate is valid only for the described product, and is not valid if modifications are made on this certificate or on the identification label applied on the product.

This warranty covers all the material and manufacturing defects and is valid for a period of 36 months from the date of purchase or for a longer period in countries where this is stated by a national law. In this case, the extension is valid only in the country where the product is purchased.

Amperes Electronics Sdn Bhd is not obliged to modify previously manufactured products under warranty if the design changes or improvements are made.

Disclaimer

Information contained in this manual is subject to change without prior notice and does not represent a commitment on the part of the vendor. AMPERES ELECTRONICS SDN BHD shall not be liable for any loss or damages whatsoever arising from the use of information or any error contained in this manual.

It is recommended that all services and repairs on this product be carried out by AMPERES ELECTRONICS SDN BHD or its authorized service agents.

AMPERES series must only be used for the purpose they were intended by the manufacturer and in conjunction with this operating manual.

AMPERES ELECTRONICS SDN BHD cannot accept any liability whatsoever for any loss or damages caused by service, maintenance or repair by unauthorized personnel, or by use other than that intended by the manufacturer.



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