

SOUND

SECURITY

VISUAL

User Manual

MAJORCOM:

Operating Manual

CPA-60/120/240 WMR 7000E/7000S



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MAJORCOM \ QUALITE \ ENREGISTREMENT DES DOCUMENTS \ ADMINISTRATIF \ ENR-12-PEM-V02

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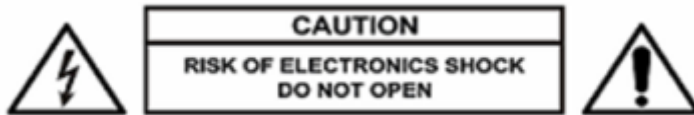
User Manual

MAJORCOM:**Before installing equipment**

Please read this manual carefully from beginning to end before you use for the best performance and correct use of this product.

Please be careful that it may cause the failure of this product if you install in the following places.

- A place which is exposed to direct sunlight or near to heating units such as steam, heater and stove .
- A place of bad ventilation or lot of dusts.

Important Precautions**1. Warning**

- Do not repair disassembled parts or do not alter the product.
- Do not operate the product with wet hands. (It may cause electric shock.)
- Do not install the product in the place where there is a lot of moisture and dust. (It may cause the fire or electric shock.)
- Do not sprinkle water on the parts of the product when you clean.
- Wipe exterior surface with a dry cloth lightly.
- Do not use chemicals or detergents.

2. Caution

- Please insert the power plug firmly not to be shaken. (It may cause the fire if it is not connected completely.)
- Do not insert or drop the metal ware (coins, hairpins or irons etc.) into the ventilation holes. (It may cause the fire or electric shock.)
- Please install the product in a well-ventilated place.
- Do not install the product in the place where there are heating equipment or heat.
- Do not drop or give impact to the product.

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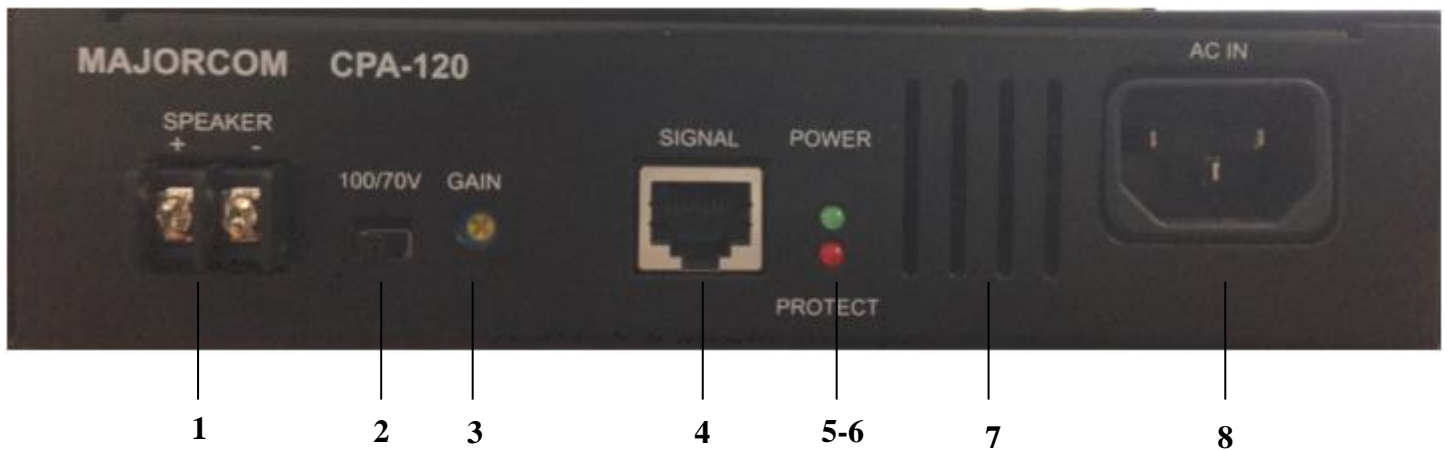
- If the smoke arises or you smell the strange odors, stop the operation of the product. In this case, turn off the power and pull the plug out of the socket and contact service center.
- Although there is the embedded protection circuit, please be careful of a short causing the connection between plus output terminal and minus output terminal.

User Manual

Features

- Easy Operation Method
- 1 x MIC input, 1 x LINE input
- MP3 player (USB, SD), FM tuner
- Volume control for each input
- TONE CONTROL
- LEVEL METER

Functions of Power Amplifier

**1. Speaker Output Terminal**

Terminal for high (70/100V) Impedance outputs.

2. Switch for selecting an output impedance

Terminal for high (70/100V) Impedance outputs.

User can select an output impedance between 70V and 100V.

Do not change impedance selection switch while the amplifier is working.

In case of 70V

CPA-60 : 82Ω

CPA-120 : 41Ω

CPA-240 : 20Ω

In case of 100V

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CPA-60 : 166Ω

CPA-120 : 83Ω

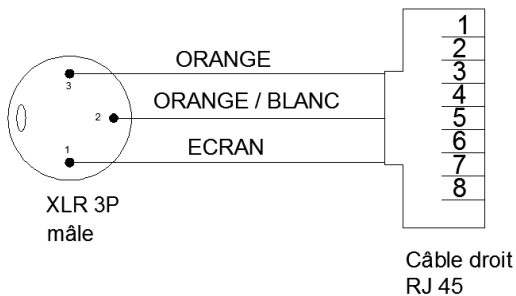
CPA-240 : 42Ω

3. Gain Controller

User can adjust a Gain of power amplifier.

4. Signal Terminal

This RJ45 port is for connecting UTP cable. Power and signal will be delivered via UTP cable. Wiring diagram of audio signal for use without CPA.

**5. Power LED**

Power LED lights in case of Power ON.

6. Protect LED

If abnormal situation such as over current or overheat occurs, power amplifier will be stopped and Protect LED will be lit.

7. Ventilation Hole

Air ventilation to release the heat generated inside an amplifier.

8. AC Inlet

AC power: 220 ~ 230V, 50/60Hz

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Functions of Pre-Amplifier



1. LINE input

User can connect external sound source such as mobile phone, CD player and so on through this connector. The type of connector is 3.5mm (Stereo).

2. MIC input

User can connect microphone via this connector. The type of connector is 6.5mm.

3. Status light and Level meter

These LED indicate status and level of input source.

4. Digital control switch

User can select input source among LINE, MIC and MP3 and adjust tone of each source. (Please refer to Operating method of Pre-Amplifier for more detailed information)

<Operating method of MP3 player>

A. POWER

Pressing this button for long time, the mode of this module will be changed to Standby. Pressing this button for long time again, this module will wake up.

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MAJORCOM:**B. SETUP**

Pressing this button activates setup function. User can setup the Time, Alarm and Sleep.

Note: In setup mode, user can move a cursor by pressing << and >> button and adjust a value by pressing VOL- / VOL+ button. Pressing this button for long time, user can select the repeat mode between one repeat and all repeat

C. PLAY / PAUSE

When this module is used for MP3 player with USB or SD, user can control playing and pausing the sound source by pressing this button.

Pressing this button twice when this module is used for FM tuner, channels will be searched and stored automatically.

Note: User can change a stored channel with << and >> buttons.

D. MODE

User can change the mode of this module in order. (USB -> SD -> FM -> USB)

E. VOL-

Pressing this button, user can turn down a volume of this module.

F. VOL+

Pressing this button, user can turn up a volume of this module.

G. USB INPUT

User can put the USB flash memory for playing sources.

H. SD INPUT

User can put the SD card for playing sources.

I. <<

Pressing this button once the previous track will be started.

Pressing this button while setup mode, the position of cursor will be moved left.

While the module is used for FM tuner, the channel will be moved to previous channel.

J. >>

Pressing this button once the next track will be started.

Pressing this button while setup mode, the position of cursor will be moved right.

While the module is used for FM tuner, the channel will be moved to next channel.

K. IR RECEIVER

This is IR receiver for remote control. Please keep direction of remote control to this receiver.

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<Operating Method of Remote Control>

**1. POWER**

Pressing this button for long time, the mode of this module will be changed to Standby. Pressing this button for long time again, this module will wake up.

2. SETUP

Pressing this button activates setup function. User can setup the Time, Alarm and Sleep.

Note: In setup mode, user can move a cursor by pressing << and >> button and adjust a value by pressing VOL-/VOL+ button.

3. MUTE

Pressing this button, all sound source playing now will be mute.

4. MODE

Pressing this button, user can change the mode of this module in order.

(USB -> SD -> FM -> USB)

5. ↺

User can select the repeat mode between one repeat to all repeat.

6. EQ

User can adjust the tone of sound according to user's preference in order.

(NORMAL -> JAZZ -> ROCK --> POP --> CALSS --> NORMAL)

7. <<

Pressing this button once the previous track will be started.

Pressing this button while setup mode, the position of cursor will be moved left.

While the module is used for FM tuner, the channel will be moved to previous channel.

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MAJORCOM:**8. >>**

Pressing this button once the next track will be started.

Pressing this button while setup mode, the position of cursor will be moved right.

While the module is used for FM tuner, the channel will be moved to next channel.

9. PLAY / PAUSE

When this module is used for MP3 player with USB or SD, user can control playing and pausing the sound source by pressing this button.

Pressing this button twice when this module is used for FM tuner, channels will be searched and stored automatically.

Note: User can change a stored channel with << and >> buttons.

10. ▽

Pressing this button, user can adjust the volume of this module.

Pressing this button while the mode of this module is setup, the value will decrease.

11. △

Pressing this button, user can adjust the volume of this module.

Pressing this button while the mode of this module is setup, the value will increase.

12. NUMBERS (0~9)

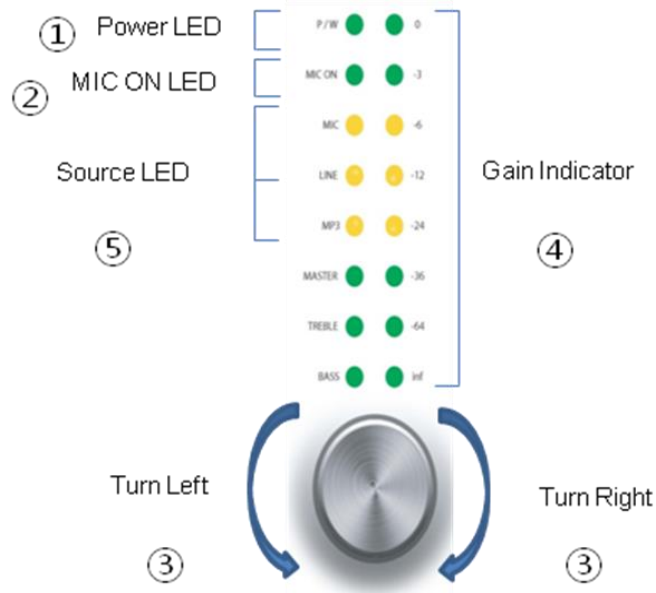
While the module is used for MP3 with USB or SD, the track will be moved to selected track number.

Note: If the track number is over 9, please press numbers in series.

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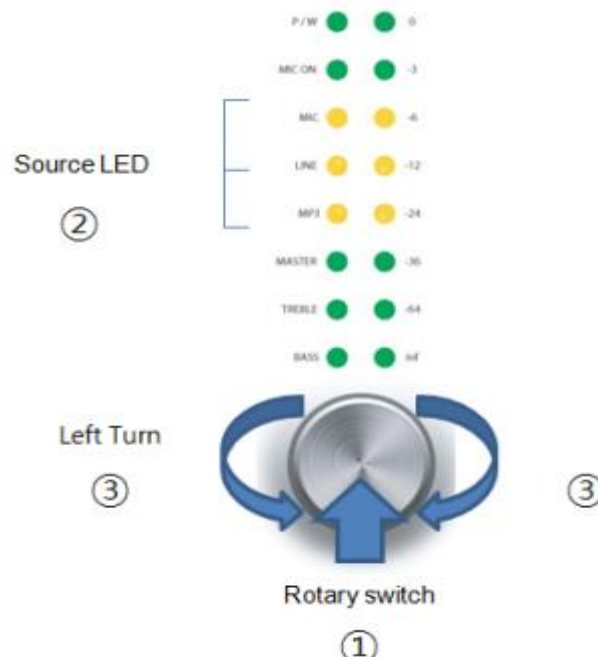
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Operating method of WMR-7000



1. When Power is ON Power LED (①) will be ON automatically.
2. When user use a MIC, MIC ON LED (②) will be "ON" though one of source LED (⑤) (MIC or Line or MP3) is already "ON" in order to indicate that user use a MIC.
3. User can adjust Master volume easily by turning the rotary switch (③) to the left or right whenever user want to adjust it.

<How to select a source>

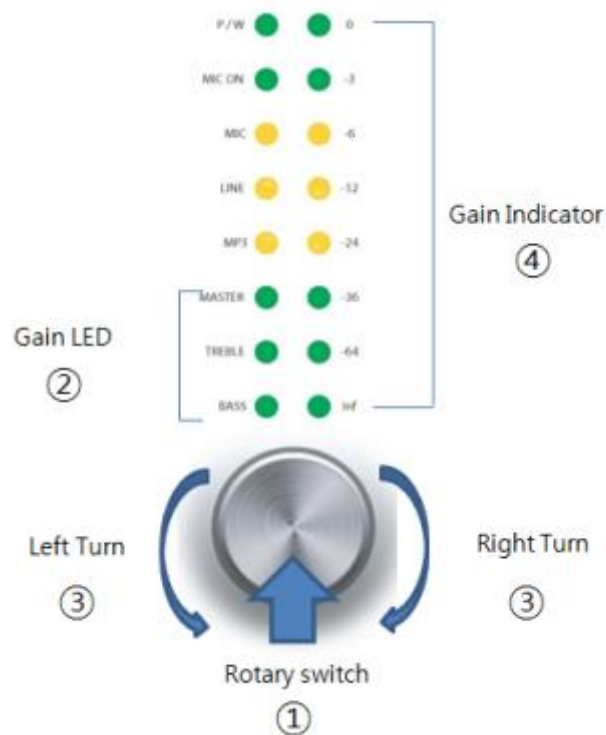


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1. Push the rotary switch (①) shortly
2. Source LED (②) will change in order (MIC Line MP3) as soon as user push the rotary switch
3. User can adjust Master or Treble or Bass by turning (③) the rotary switch to the left or right whenever user want to adjust it but user should change a Gain mode because Master volume won't be set as a default mode. A Gain mode user used lastly will remain.

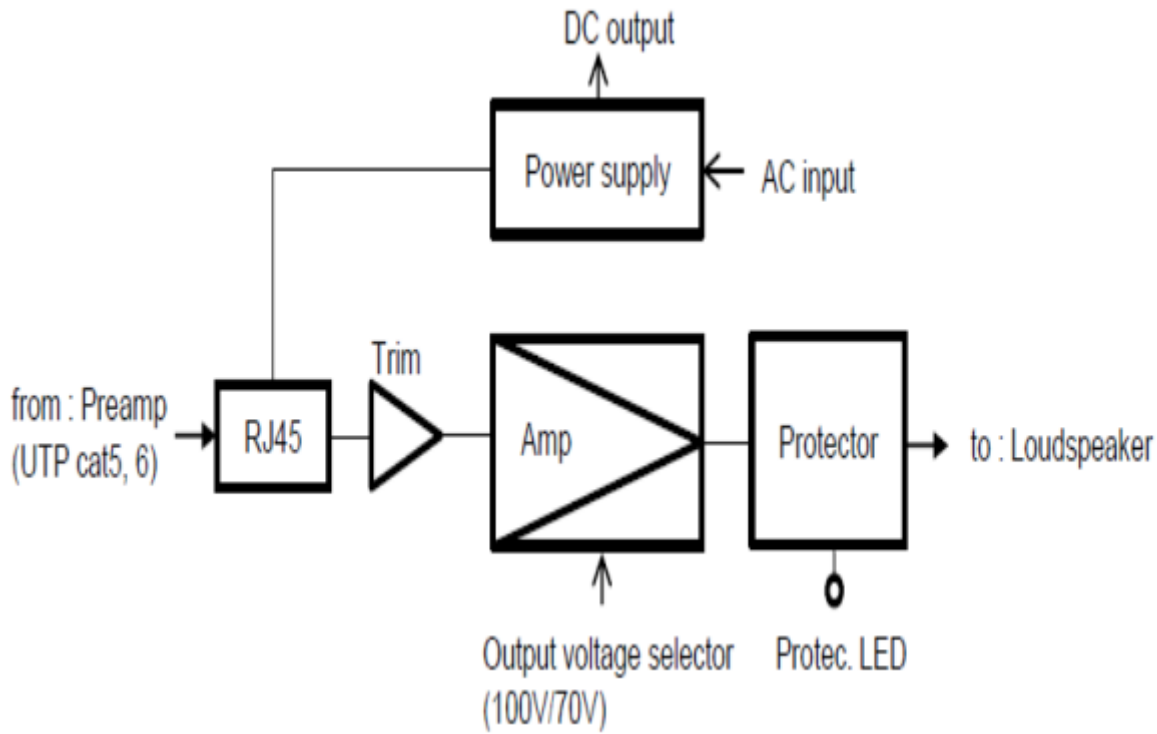
<How to adjust Master/Treble/Bass>



1. Push the Rotary switch (①) for long time and don't stop pushing the rotary switch.
2. Gain LED (②) will change in order (Master → Treble → Bass). The changing cycle is 2 second.
3. User can select one Gain mode if user stop pushing the rotary switch (①) when desired Gain LED is "ON".
4. User can adjust Master or Treble or Bass by turning (③) the rotary switch to the left or right whenever user want to adjust it but user should change a Gain mode because Master volume won't be set as a default mode. It means a certain Gain mode which user used lastly will remain.

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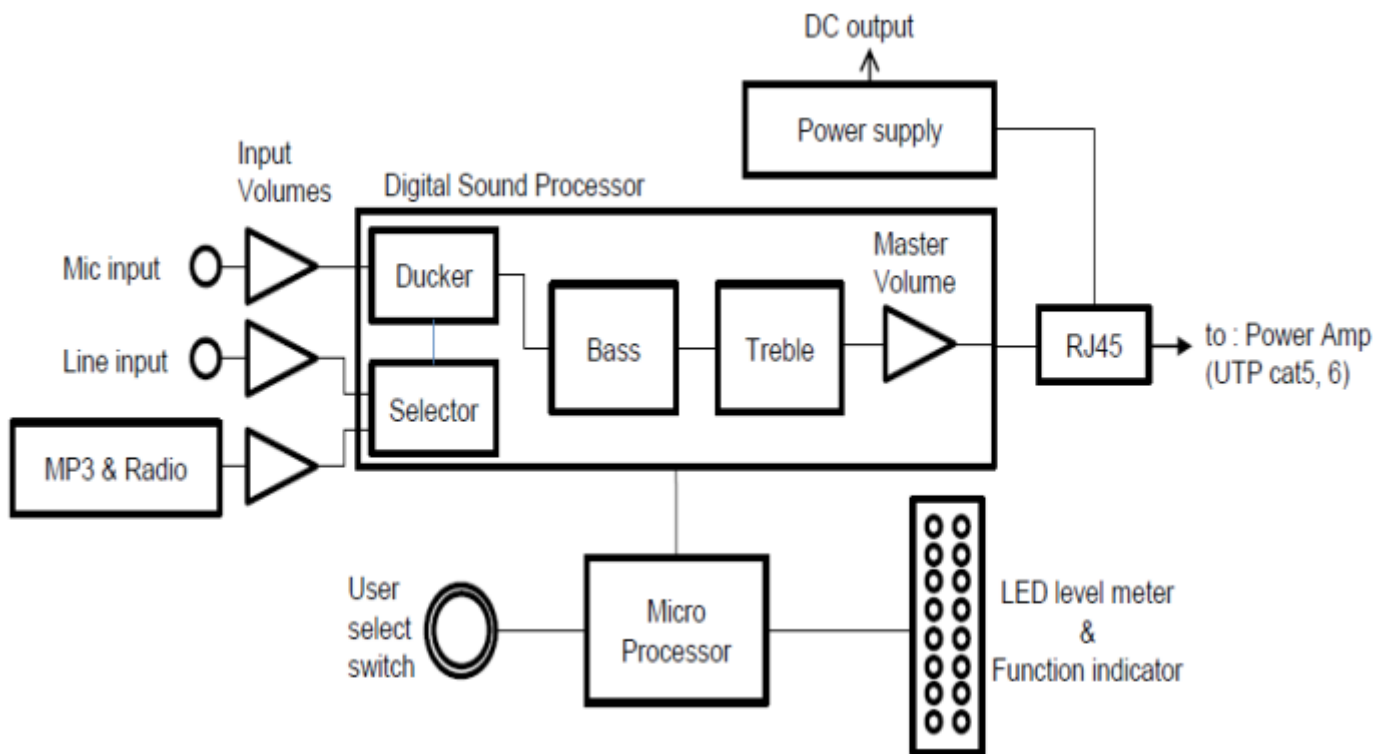
Block Diagram (CPA-60/120/240)



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Block Diagram (WMR 7000E/7000S)



MAJORCOM:**Specifications (CPA-60/120/240)**

*. Reference test AP : AES-17, 20KHz

		CPA-60	CPA-120	CPA-240
Type of Amplification		Class-D		
# of Channels		1 channel		
RATED POWER (<1% THD+N)	100V	60W	120W	240W
	70V	60W	120W	240W
Output Impedance	100V	166 Ohm	83 Ohm	42 Ohm
	70V	82 Ohm	41 Ohm	20 Ohm
INPUT SENSITIVITY	at THD 1%	1V		
FREQUENCY RESPONSE	Ref : 1W,-3dB	20Hz~20KHz		
THD+Noise (CEA-2006, Gain=1V)	at RMS (AES-17, 20kHz)	< 0.1%		
S/N (CEA-2006, Gain=1V)	at RMS (AES-17 20KHz)	> 90dB		
Dimension (W x H x D)		280 x 50 x 200 mm		
Weight		2.0Kg	2.0Kg	2.2Kg

Specifications (WMR 7000E/7000S)

		WMR 7000E	WMR 7000S
INPUT		MIC, Line, MP3	
INPUT SENSITIVITY	at THD 1%	MIC : 18mV Line : 1V MP3 : 320mV	
Dimension (W x H x D)		200 x 118 x 57 mm	
Weight		0.8Kg	1.0Kg