



Professional Mixing Controller

**PMC50**

**OWNER'S MANUAL**

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## CONGRATULATIONS!

Thank you for purchasing VESTAX PMC-50, Professional Mixing Controller. Innovative features pioneered by VESTAX, such as User Replaceable Crossfader, VCA crossfader operation, Transformer Buttons and Crossfader Curve Adjustment have been incorporated into a club mixer of highest grade. Top of the range, the PMC-50 is high specification mixer designed to meet the most professional requirements of Dance Music DJ's today. Please read this owner's manual carefully before you start to use your mixer, so that you will fully understand all of the special features and enjoy the full use of the product.

### FEATURES

- A high specification VCA, Voltage Controlled Amplifier, is utilized in the Crossfade system. This minimizes noise and wear from the mechanical parts of the Crossfader. Additionally, the Crossfader "Curve" can be easily adjusted on the front panel for changes in Mixing styles. At one extreme is the long running mix and at the other is the Scratch or Cut mix.
- Each of the input channels will accept one stereo phono and two stereo line sources, these are instantly switchable giving a massive twelve input capability. Each input channel has a gain control for the setting of input levels. A level display, balance control and three band EQ are also provided on each channel. The separate Mic input section has its own EQ.
- One stereo input of each channel can be connected via the top panel for quick and easy access. This is particularly useful for "visiting" DAT players, etc. The stereo Insertion ports are provided on the front panel. These allow for the easy connection of outboard effects such as VESTAX DCR-1200 Frequency Separator, Compressor and Gate machines. And the stereo Master Loop is provided on the top panel also. This allows for total sound control with Graphic EQ or Reverberator, etc. The PMC-50 has the most comprehensive output lineup as well. No less than two separate Masters (balanced and unbalanced), one DJ Booth Monitor, one stereo Cue and a Headphones Monitor makes this mixer the most versatile "MIXER'S MIXER" available today.

### IMPORTANT

To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified personnel. Always disconnect all equipment from the main supply when disconnecting/reconnecting signal leads. The power cord should be connected last. Make sure that the power switch is off when connecting. Disconnect from AC supply when equipment is not used for extended time.

### WARRANTY

Warranty might vary from country to country. Each distributor has their own warranty system in accordance with country or state regulations or laws. VESTAX observes the manufacturing country's regulations.

### PRECAUTIONS

- \*Humidity and dust  
Avoid use where there is high humidity and dust which may cause damage to internal parts.
- \*Temperature  
Avoid use in hot, (over 35°C) and cold, (below 5°C) locations. Keep the unit away from extreme direct heat such as direct sunlight, heating radiators, or closed vehicles.
- \*Power cord handling  
Connecting the power cord to other cords or joining cords together can cause fire and electric shock. This is extremely dangerous. Take precaution when handling AC plugs and connectors. Handle only the plug or connector and do not perform these operations with wet hands.
- \*Keep away from liquids  
Do not stand vessel containing liquids on or near the equipment. If liquid enters equipment, disconnect the power cord from the power outlet immediately.

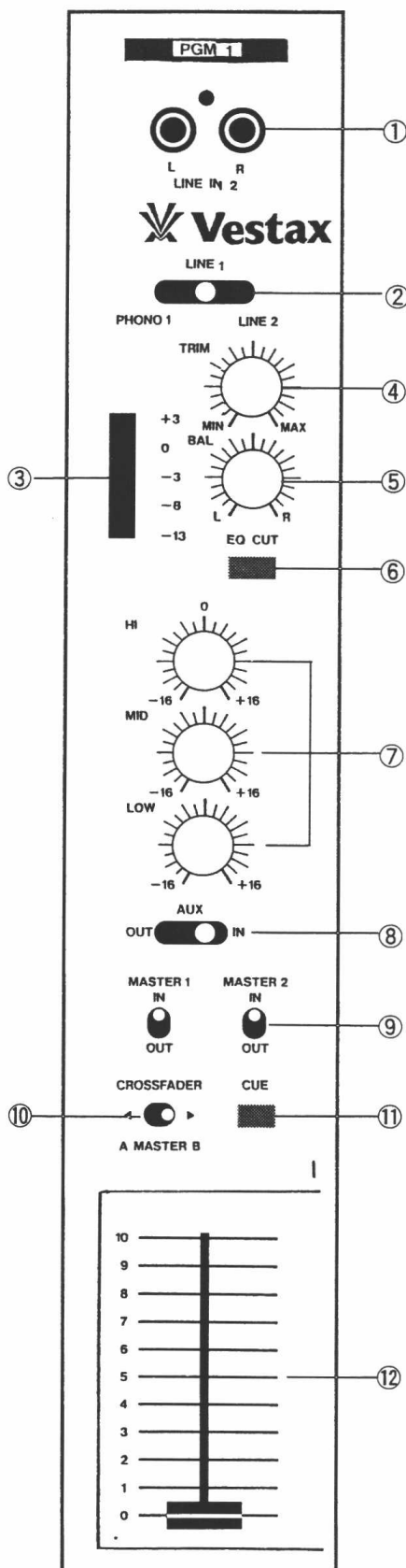
### SPECIFICATIONS

<table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">Nominal Input Level/ Impedance</td> </tr> <tr> <td>PHONO</td> <td style="text-align: right;">-42dBV/ 60kΩ</td> </tr> <tr> <td>LINE</td> <td style="text-align: right;">-10dBV/ 20kΩ</td> </tr> <tr> <td>MIC</td> <td style="text-align: right;">-60dBV/ 2kΩ</td> </tr> <tr> <td>AUX RTN</td> <td style="text-align: right;">-10dBV/ 10kΩ</td> </tr> <tr> <td>MASTER LOOP RTN</td> <td style="text-align: right;">-10dBV/ 10kΩ</td> </tr> <tr> <td>PGM I/O RTN</td> <td style="text-align: right;">-10dBV/ 5kΩ</td> </tr> <tr> <td colspan="2">Nominal Output Level/ Impedance</td> </tr> <tr> <td>MASTER OUT (UNBAL.)</td> <td style="text-align: right;">0dBV/ 1kΩ</td> </tr> <tr> <td>MASTER OUT (BAL.)</td> <td style="text-align: right;">+ 4dBm/ 200Ω</td> </tr> <tr> <td>AUX SEND</td> <td style="text-align: right;">-10dBV/ 500Ω</td> </tr> </table>	Nominal Input Level/ Impedance		PHONO	-42dBV/ 60kΩ	LINE	-10dBV/ 20kΩ	MIC	-60dBV/ 2kΩ	AUX RTN	-10dBV/ 10kΩ	MASTER LOOP RTN	-10dBV/ 10kΩ	PGM I/O RTN	-10dBV/ 5kΩ	Nominal Output Level/ Impedance		MASTER OUT (UNBAL.)	0dBV/ 1kΩ	MASTER OUT (BAL.)	+ 4dBm/ 200Ω	AUX SEND	-10dBV/ 500Ω	<table style="width: 100%; border-collapse: collapse;"> <tr> <td>CUE OUT</td> <td style="text-align: right;">0dBV/ 500Ω</td> </tr> <tr> <td>BOOTH OUT</td> <td style="text-align: right;">0dBV/ 500Ω</td> </tr> <tr> <td>HEADPHONES</td> <td style="text-align: right;">80mW max. @ 33Ω / ≥ 8Ω</td> </tr> <tr> <td>MASTER LOOP SEND</td> <td style="text-align: right;">-10dBV/ 1kΩ</td> </tr> <tr> <td>PGM I/O SEND</td> <td style="text-align: right;">-10dBV/ 500Ω</td> </tr> <tr> <td>Frequency Response</td> <td style="text-align: right;">20Hz - 20kHz (+0, -1dB)</td> </tr> <tr> <td>S/N Ratio</td> <td style="text-align: right;">≥ 120dB</td> </tr> <tr> <td>THD</td> <td style="text-align: right;">&lt; 0.01% Dimensions</td> </tr> <tr> <td>Dimensions(W×H×D)</td> <td style="text-align: right;">330×90×400mm</td> </tr> <tr> <td>Weight</td> <td style="text-align: right;">7.0kg</td> </tr> <tr> <td>Power Requirement</td> <td style="text-align: right;">20W</td> </tr> </table>	CUE OUT	0dBV/ 500Ω	BOOTH OUT	0dBV/ 500Ω	HEADPHONES	80mW max. @ 33Ω / ≥ 8Ω	MASTER LOOP SEND	-10dBV/ 1kΩ	PGM I/O SEND	-10dBV/ 500Ω	Frequency Response	20Hz - 20kHz (+0, -1dB)	S/N Ratio	≥ 120dB	THD	< 0.01% Dimensions	Dimensions(W×H×D)	330×90×400mm	Weight	7.0kg	Power Requirement	20W
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## CONTROL AND FUNCTIONS

### TOP PANEL

#### PROGRAM INPUT SECTION



#### ① LINE IN 2, 4, 6, 8 (RCA)

Used for Line level input. Connect CD player or tape deck to these jacks. Line level musical instruments with stereo outputs such as rhythm machine or sampler are also good for LINE IN. And they are located on the top panel for quick and easy access. This is particularly useful for "visiting" equipment.

#### ② INPUT SELECTOR

Used to select the input (two LINE or one PHONO) to be sent to each PGM channel.

#### ③ INPUT LEVEL METER

The LED level meters indicate the input signal level of each PGM channel. GAIN CONTROL

#### ④ Adjusts the input level of each channel. Set INPUT FADER to 7-8 position, adjust GAIN so that INPUT LEVEL METER shows about 0 dB.

#### BALANCE CONTROL

#### ⑤ Adjusts the stereo balance for each PGM channel. Can be used for adjusting the unbalanced stereo image caused by strong Anti-Skating setting. Clockwise rotation from center position increases volume of R over L channel. Counter clockwise rotation increases volume of L channel over R.

#### EQ CUT SWITCH

#### ⑥ Press this switch to bypass EQ section.

#### EQ (HI, MID, LOW)

#### ⑦ Adjusts the HI, MID and LOW frequencies for each PGM channel. Each band has following specifications.

HI	8kHz	±16dB	Shelving type
MID	500Hz	±16dB	Peaking type
LOW	80Hz	±16dB	Shelving type

#### AUX ASSIGN SWITCH

#### ⑧ Used when sending signal to external effect processor connected to AUX SEND/RETURN.

#### MASTER OUT ASSIGN 1, 2

#### ⑨ Used to send the signals from each program to either MASTER OUT 1 or 2. MASTER LOOP is located on MASTER OUT 1.

#### CROSSFADER ASSIGN

#### ⑩ Used to send the signal from each program to either the crossfader (A or B) or the master directory. A for left side of the crossfader, B for right side.

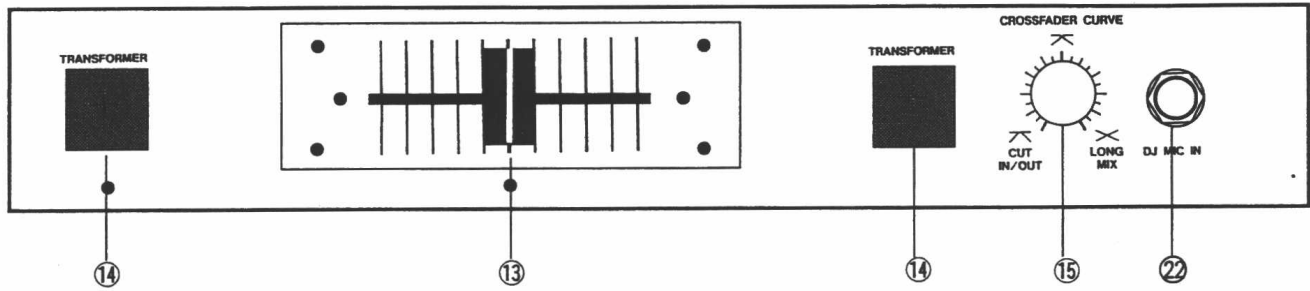
#### CUE ASSIGN

#### ⑪ Used to send the signal from each program to monitor section for headphones monitoring. Signal is sent to CUE OUT too. This allows for sending signal to external sampling unit connected to CUE OUT.

#### INPUT FADER

#### ⑫ Used to adjust the input level of each program. Usually set at 7-8 position. This is a detachable fader for ease of replacement. Replace with IF-50 when it is worn out. How to replace the input fader:

- Remove four screws which hold the fader unit panel.
- Take the unit out with the panel.
- Remove a knob and two screws which hold the fader unit.
- Carefully remove the multi-cable connector from fader unit.
- Insert the connector to the new fader unit.
- Replace the knob and the fader unit to the panel and fix it with screws.
- Replace the fader unit panel and fix it with screws.



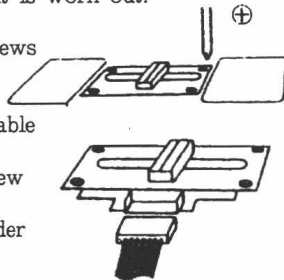
## CROSSFADER SECTION

### 13 CROSSFADER

Mixes the signals assigned by CROSSFADER ASSIGN (10) to A side of the crossfader and B side. When the crossfader is set in the center position, both A and B can be heard. This is a detachable fader for ease of replacement with CF-50 when it is worn out.

How to replace the fader:

- Remove a knob and four screws which hold the fader unit.
- Take the unit out.
- Carefully remove the multi-cable connector from fader unit.
- Insert the connector to the new fader unit.
- Replace the knob and the fader unit and fix it with screws.

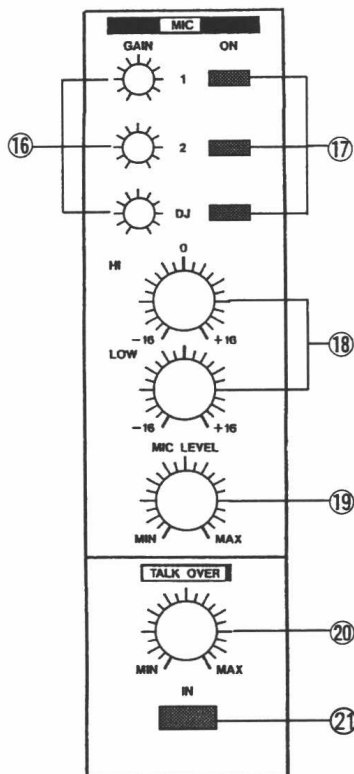


### 14 TRANSFORMER BUTTON

With the crossfader moved to either right or left, the opposite program can be heard instantly by pressing opposite transformer button.

### 15 CROSSFADER CURVE

Adjusts the crossfader curve. Clockwise rotation gives a gentle crossfade good for long running mixes. Counter clockwise rotation gives a steep crossfade good for scratching and cutting.



## MICROPHONE SECTION

### 16 MIC GAIN

Adjusts the input level from each microphone input.

### 17 MIC SELECTOR

Used to select the microphones to be sent to Master section.

### 18 MIC EQ (HI, LOW)

Adjusts the HI and LOW frequencies for all microphone input.

### 19 MIC LEVEL

Adjusts the input level from all microphone input.

### 20 TALK OVER LEVEL

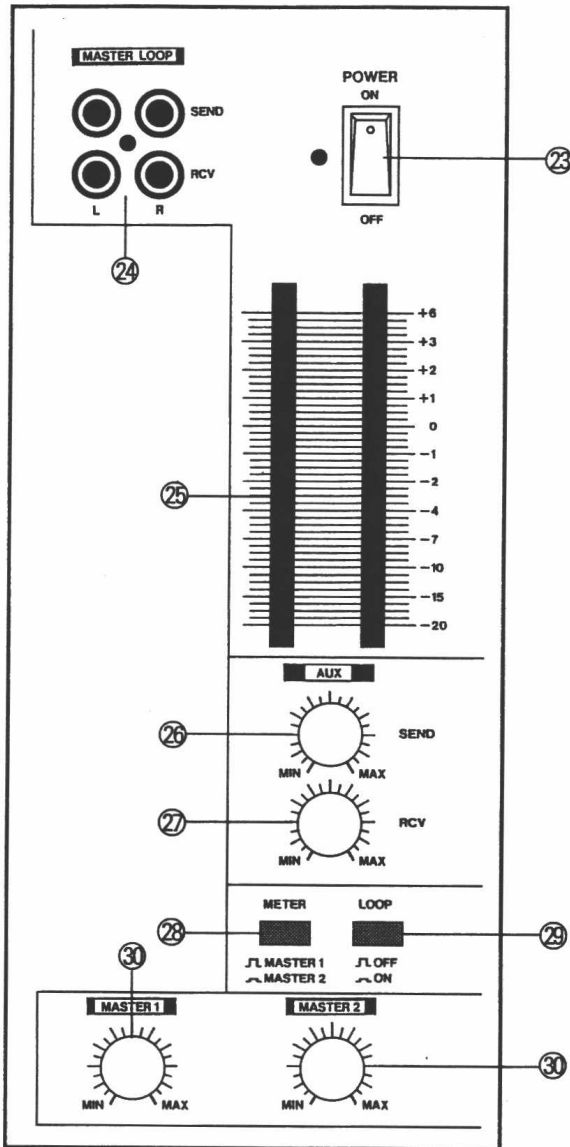
When TALK OVER SWITCH (21) is depressed, the level of all sources excluding the microphone input are reduced. Reduction level can be adjusted by this control. Clockwise rotation gives a large reduction level.

### 21 TALK OVER SWITCH

When this switch is depressed, the level of all sources excluding the microphone input are reduced.

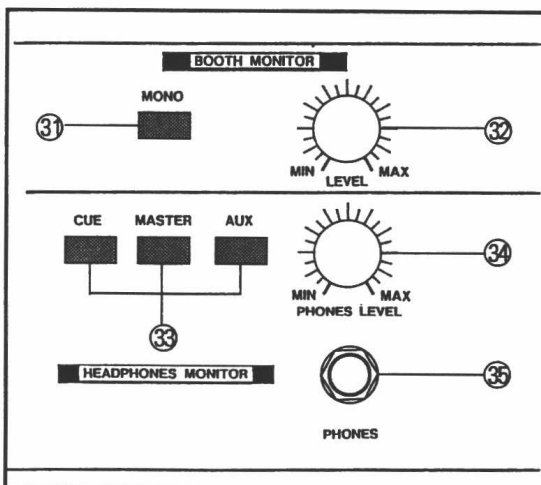
### 22 DJ MIC JACK

Input jack for connecting a DJ microphone.



## MASTER SECTION

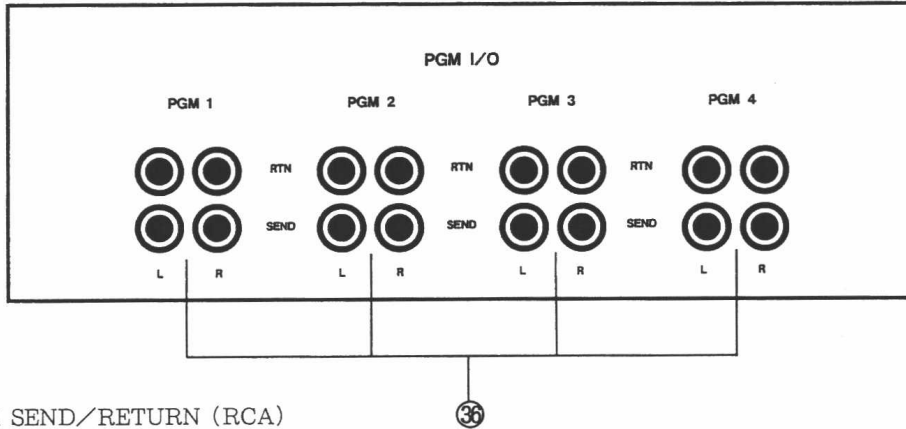
- ②③ POWER SWITCH  
LED located on the top panel is lit when on.
- ②④ MASTER LOOP (RCA)  
This loop (send/return) is located on MASTER OUT 1 before output jack. It is useful for total sound control with Graphic EQ or Reverberator, etc.
- ②⑤ OUTPUT LEVEL METER  
The LED level meters indicate the signal level of MASTER OUT 1 or 2.
- ②⑥ AUX SEND LEVEL  
Used to adjust send level from AUX SEND. The signal is selected by AUX ASSIGN SWITCH (8).
- ②⑦ AUX RETURN LEVEL  
Used to adjust return level to AUX RETURN. This AUX RETURN can be used as the sub line input.
- ②⑧ METER ASSIGN  
Select either MASTER OUT 1 or 2 indicated by OUTPUT LEVEL METER (25).
- ②⑨ LOOP SWITCH  
Used when sending signal to external effect processor connected to MASTER LOOP (24).
- ③① MASTER OUT LEVEL 1, 2  
Used to adjust the output level from MASTER OUT 1 and 2.



## MONITOR SECTION

- ③① BOOTH MONITOR MONORAL SWITCH  
When this switch is depressed, the output from BOOTH OUT becomes monoral mix.
- ③② BOOTH MONITOR LEVEL  
Used to adjust the output level from BOOTH OUT.
- ③③ HEADPHONES MONITOR SELECTOR  
Select either CUE OUT, MASTER OUT or AUX SEND for monitoring by headphones.
- ③④ HEADPHONES LEVEL  
Adjusts the headphones output level.
- ③⑤ HEADPHONES JACK  
When listening with stereo headphones, connect them to this jack. This features stereo cue system.

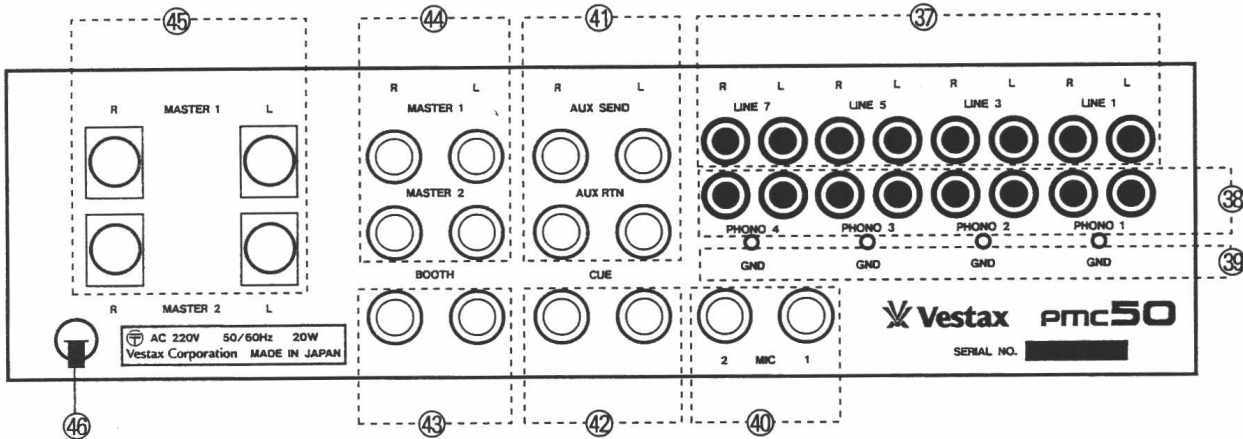
## FRONT PANEL



### 36 PROGRAM SEND/RETURN (RCA)

They are stereo channel insertion ports allow for the easy connection of outboard effects.

## REAR PANEL



### 37 LINE IN 1, 3, 5, 7 (RCA)

They work the same as LINE IN 2, 4, 6, 8(1).

### 38 PHONO IN 1, 2, 3, 4 (RCA)

Connects turntable output equipped with MM type pickup cartridge. If MC type cartridge is used, a pre-amp is required.

### 39 GROUND TERMINAL

Connects to ground lead of the turntable. This helps to reduce noise and hum.

### 40 MIC 1, 2 (1/4" Phone)

Input jack for connecting the microphones.

### 41 AUX SEND/RETURN (1/4" Phone)

Connects to outboard effects such as Delay machine. AUX SEND is located on pre-input fader.

### 42 CUE OUT (1/4" Phone)

When CUE ASSIGN (11) is depressed, the signal comes out from this jack. It can be used for sampling source output.

### 43 BOOTH OUT (1/4" Phone)

This can be used for DJ booth monitor. Same signal as HEADPHONES OUT comes out.

### 44 MASTER OUT 1, 2 (1/4" Phone, Unbalanced)

Connects to the input of power amplifier. These jacks are Phone type for consumer applications. This mixer has two pairs of MASTER OUT. And each output level can be set separately. This means that MASTER OUT can be used for main output and sub. For example, one for hall, the other for entrance. MASTER OUT 1, 2 (XLR, Balanced)

### 45 Connects to the input of power amplifier. These connectors are XLR type for professional audio applications. They work the same as Unbalanced MASTER OUT 1, 2 (44). Pin No. 3 for HOT. AC POWER CABLE

### 46 Connects the plug to AC outlet on the wall.

PMC-50 BLOCK DIAGRAM

