



Professional Mixing Controller

PMC-46MKII

OWNER'S MANUAL

VESTAX CORP.

2-37-1 Kamiuma, Setagaya-ku, Tokyo 154-0011 Japan

Phone : 03-3412-7011 Fax : 03-3412-7013

VESTAX MUSICAL ELECTRONICS CORP.

2860 Cordelia Rd., Suite 120 Fairfield, CA 94585 U.S.A.

Phone : 707-427-1920 Fax : 707-427-2023

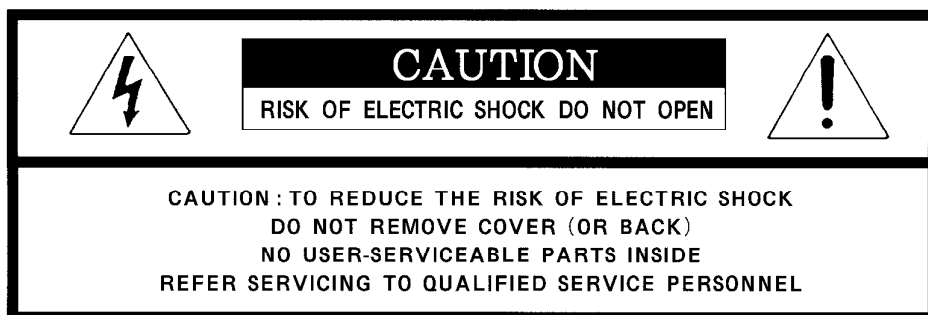
VESTAX (Europe) Ltd.

18 St. Christophers Road, Haslemere, Surrey GU 27 1DQ England.

Phone : (0)1428-653117 Fax : (0)1428-661021

CONGRATULATIONS!

Thank you for purchasing the VESTAX PMC-46mk2, Professional Mixing Controller. 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.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION : TO PREVENT ELECTRIC SHOCK, MATCH BLADE OF PLUG TO WIDE SLOT, FULLY INSERT

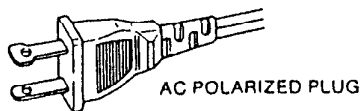
ATTENTION : POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND

IMPORTANT SAFEGURDS

READ BEFORE OPERATING EQUIPMENT

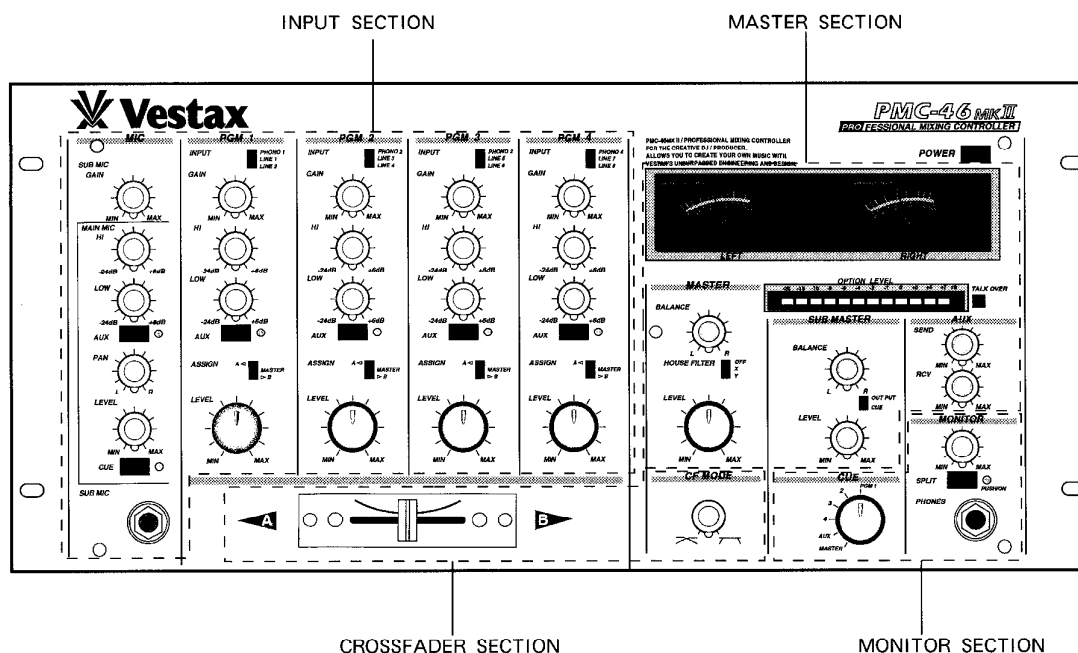
This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

1. Read instructions - All the safety and operating instructions should be read before the appliance is operated.
2. Retain instructions - The safety and operating instructions should be retained for future reference.
3. Heed Warnings - All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions - All operating and use instructions should be followed.
5. Cleaning - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. Attachments - Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. Water and Moisture - Do not use this product near water - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.
8. Accessories - Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with product. Any mounting of the appliance should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
9. Ventilation - Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
10. Power sources - This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company.
11. Grounding or Polarization - This product is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If this should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
12. Power-Cord Protection - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. Protective Attachment Plug - The appliance is equipped with an attachment plug having overload protection. This is a safety feature. See Instruction Manual for replacement or resetting of protective device. If replacement of the plug is required, be sure the service technician has used a replacement plug specified by the manufacturer that has the same overload protection as the original plug.
14. Lightning - For added protection for this product during lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power-line surges.
15. Overloading - Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
16. Object and Liquid Entry - Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
17. Servicing - Do not attempt to service product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
18. Damage Requiring Service - Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power-supply cord or plug is damaged.
 - b. If liquid has been spilled or objects have fallen into the product.
 - c. If the product has been exposed to rain or water.
 - d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
 - e. If the product has been dropped or cabinet has been damaged.
 - f. When the product exhibits a distinct change in performance - this indicates need for service.
19. Replacement Parts - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock or other hazards.
20. Safety Check - Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
21. Carts and Stands - The appliance should be used only with a cart stand that is recommended by manufacturer.
22. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



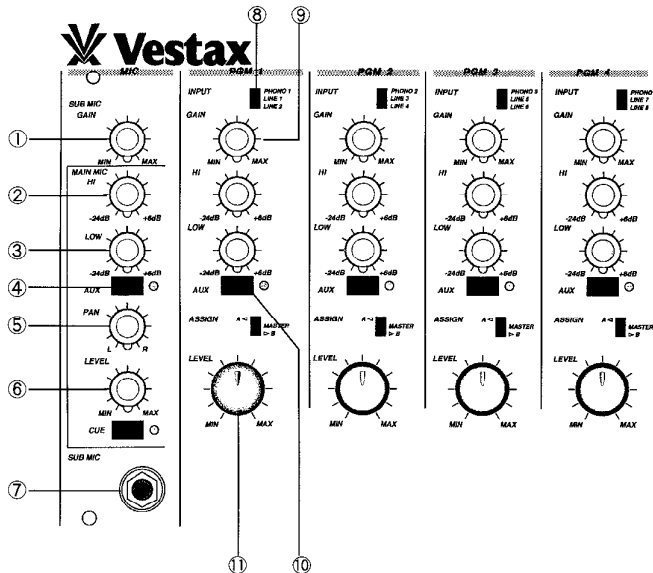
FEATURES

1. 4 Channels can be mixed from a total of 12 inputs. (8 line & 4 Phono; all stereo).
2. The source input to the various channels can be assigned to the crossfader or master by using the CROSSFADER/MASTER switch. This makes it possible to output to sampler, rhythm machines, etc..., independent of the crossfader. Also this allows normal four channel mixing.
3. Each channel is equipped with a gain control. This allows matching of different level input sources. This means a smooth remix can be obtained.
4. An Aux assign switch allows each channel to be selected for connection to the Aux send and return loop.
5. The two microphone inputs, main and sub, can be used simultaneously. The mic channel is equipped with 2 band EQ and Pan controls to give the DJ best control.
6. 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.
7. The newly designed ROTARY FADER is used by many of Top DJ's in the world.
8. The monitor section has rotary switch type program monitor system for MIC and PGM channels. Also the AUX RETURN and MASTER can be monitored.
9. The newly employed HOUSE FILTER system is equipped with two different types of filter. This system can match the sound quality to the space perfectly for DISCO, CLUB, LIVE HOUSE etc..
10. PMC-46MK2 is equipped with 1/4" jack (unbalanced) and XLR (+4dB balanced) outputs. Therefore the mixer can be matched with any commercial or professional SR systems.)
11. The sub master output can be used for a second master output or a booth monitor output (same as headphone outputs but at line level).
12. The unit size is EIA 5U. Perfect for 19" rack mounting.



FUNCTIONS

INPUT SECTION



1. SUB MIC GAIN(Sub Mic Input Adjustment Knob)

This knob is used to adjust the input of the sub mic connected to the standard jack on the front panel.

2. HI(Equalizer High)

Auxiliary treble knob. Boosts of +6dB and cuts of -24dB are possible at 20kHz.

3. LO(Equalizer Low)

Auxiliary bass knob. Boosts of +6dB and cuts of -24dB are possible at 80Hz.

NOTE: In certain cases, it is possible to cause distorted sound by overloading the output with low boost. Use the master level meter to check output level.

4. AUX (Aux Switch)

Used when sending signal to external effectors connected to Aux Send/Return jacks.

5. PAN(Pan L or R)

Sets PAN of main mic connected to XLR CONNECTOR on the rear panel.

6. MAIN MIC LEVEL(Main Mic Input Volume)

Adjusts the input of the MAIN MIC connected to the XLR connector on the rear panel.

7. SUB MIC IN(1/4 INCH PHONE JACK)

SUB MIC input connector (for DJ)

8. INPUT SELECT(Input Select Switch)

Used to select the input to be sent to each PGM channel. It allows for selection of one of the three inputs connected to the rear panel. The selections are as follows:

PGM-1.....phono1, Line1, Line2

PGM-2.....phono2, Line3, Line4

PGM-3.....phono3, Line5, Line6

PGM-4.....phono4, Line7, Line8

All phono inputs are RIAA equalized. Connect the output of a CD player or tape deck to the line input.

NOTE: Levels are set for MM type pick up cartridge. When MC type pick up cartridge is used, a head amplifier is required.

9. GAIN

Adjusts input level of each PGM channel. Set INPUT FADER and MASTER FADER at 7-8 position. Set VU METER to indicate 0dB.

10. ASSIGN

Used to assign the signals from each of the PGM channels to either side of the crossfader or to the master section.

ATo the A(left)side of the crossfader.

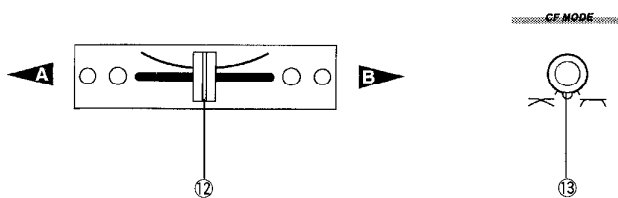
MASTER....To the Master section directly.

B.....To the B(right)side of the crossfader.

11. LEVEL(Channel Level-Rotary Volume)

Used to adjust the input level of the various channels. Usually set 7-8.

CROSSFADER SECTION



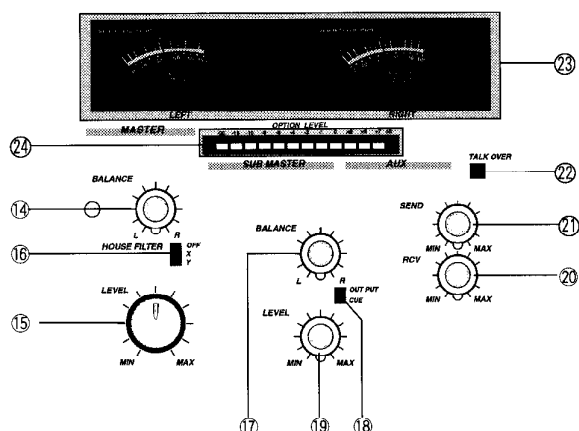
12. CROSSFADER

Mixes the signals assigned by CROSSFADER ASSIGN(10) to left side of the crossfader and right side. When the crossfader is set in the center position, both left and right signals can be heard. This is a detachable fader for ease of replacement with CF-46MK2 when it is worn out.

13. CF MODE

Adjust 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.

MASTER SECTION



14. MASTER BALANCE

Adjusts the signal balance of the L to R side of the outputs from LINE OUT and PA OUT jacks on the rear panel.

15. MASTER LEVEL

Adjusts the signal level outputs from LINE OUT and PA OUT jack on the rear panel.

16. HOUSE FILTER

Two different types of filter "X type", "Y type" is set.

X type...This type filter is good for spaces which have many hi band frequency echoes.

Y type...This type filter is good for spaces where there is a lack of low band frequency echoes.

17. SUB MASTER BALANCE

Adjusts the signal balance of the L to R side at the outputs from SUB MASTER OUT jack on the rear panel.

18. SUB MASTER SWITCH

Selects the input source to the SUB MASTER SECTION.

When switch is Off: assign the same source as MASTER OUT.

When switch is On: assign the selected source by CUE SELECTOR SWITCH.

19. SUB MASTER LEVEL

Adjusts the signal level output from SUB MASTER OUT jacks on the rear panel.

20. AUX RTN(AUX Input Adjustment Knob)

Adjusts the signal level input from an external effector connected to the AUX RTN jacks on the rear panel.

21. AUX SEND(AUX Output Adjustment Knob)

Adjusts the signal level output to an external effector connected to the AUX SEND jacks on the rear panel.

NOTE: When the crossfader is used, the signal is taken after the crossfader and returned before the master fader. This makes possible a variety of techniques such as the application of echo to a cut out in which the crossfader would be used.

22. TALK OVER SWITCH

When this switch is depressed, the levels of all sources, except the MAIN and SUB MIC are muted.

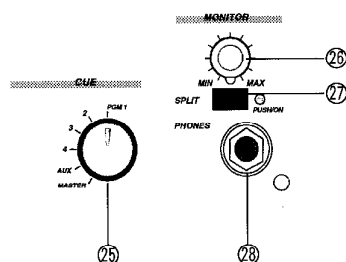
23. MASTER VU METER

The VU level meters indicate the L & R outputs.

24. OPTION LEVEL

Indicates on the LED bargraph meter, the output of either the AUX SEND or CUE selected by CUE SELECT SWITCH.

MONITOR SECTION



25. CUE (Cue Select Rotary Switch)

Used to select the cue monitor for PGM channels 1-4, mic channel and effect receive

26. HEADPHONE LEVEL(Headphone volume)

Adjusts the monitor level through the headphones.

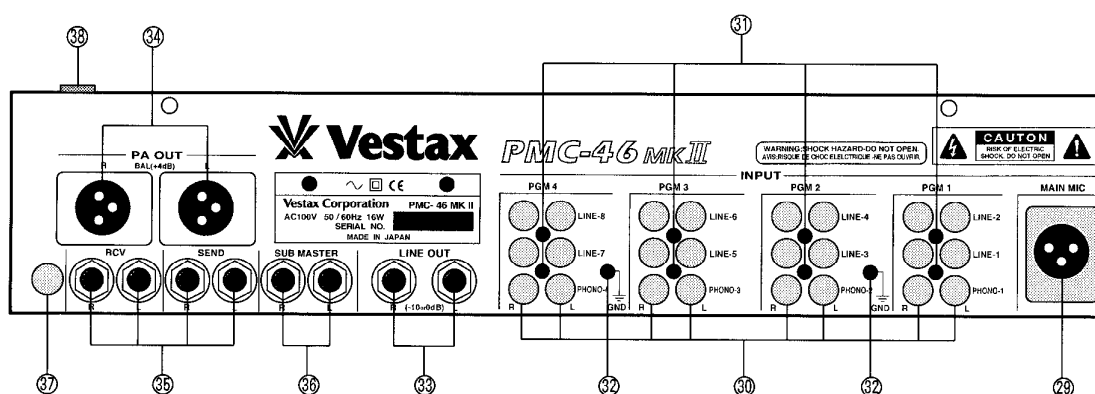
27. SPLIT

When this switch is ON, the master signal is always heard through the right earcup of the headphone. The CUE signal will be heard in the left earcup when that input is selected by the CUE(25). This enables both programs to be monitored simultaneously, thus assisting in beat mixing. When this switch is OFF, no master output is heard in the headphones. Only the cue signal will be heard in both earcups if the correct CUE(15) is depressed.

28. PHONES(Headphone jack)

Use this jack to connect the headphones. Headphones from 8 ohm to 600ohm can be used. 150 ohm is recommended.

REAR PANEL SECTION



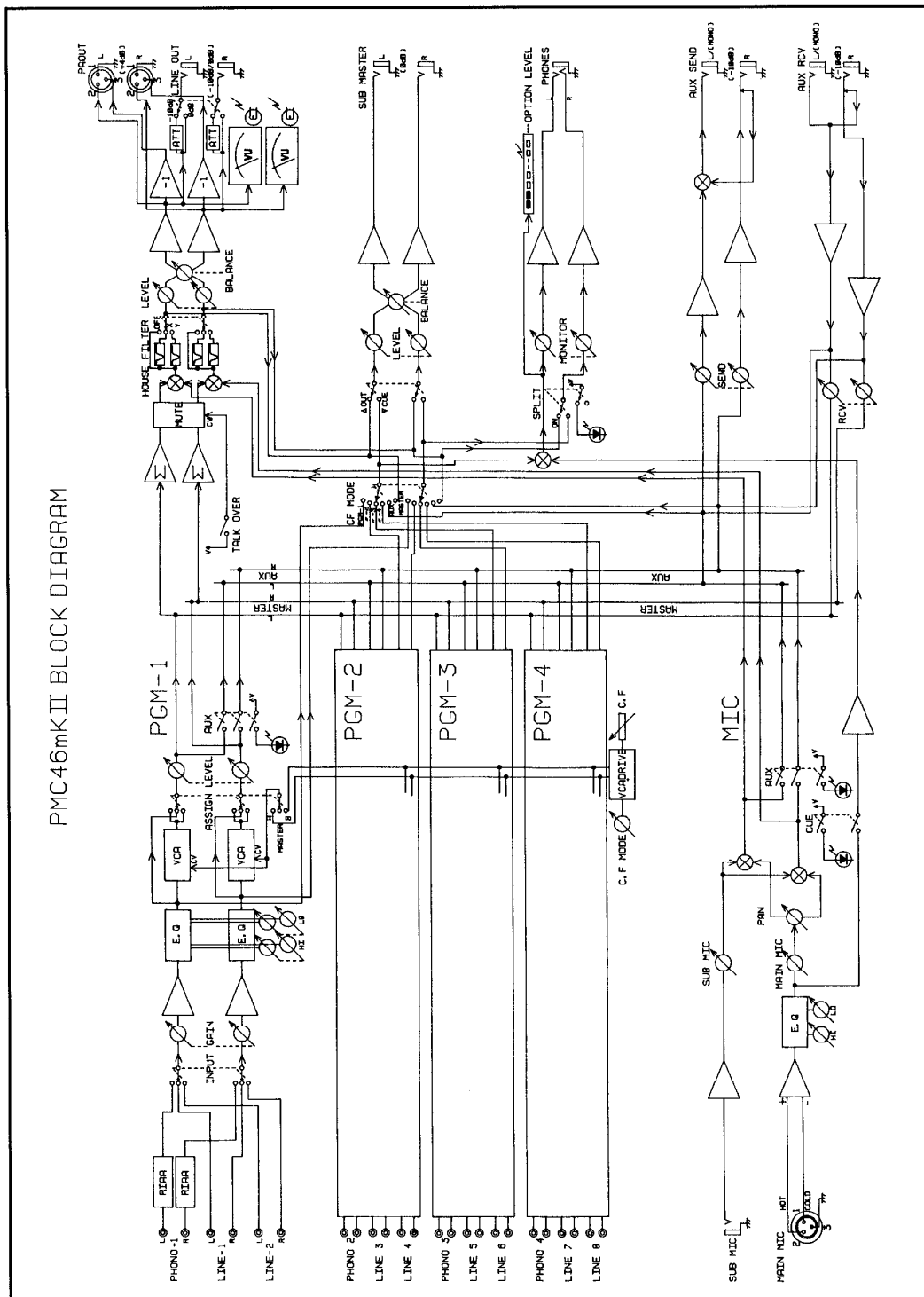
29. MAIN MIC(XLR female-pin 2 hot)
Input jack of the main mic.
30. PHONO INPUT L/R(1-4)
Input jack for each PGM turntable. Connect turntables equipped with MM pick up cartridge.
31. LINE INPUT L/R(1-8)
Input connectors for line level equipment such as CD players, MD players, tape decks, DAT and VTR etc.
32. GND(Ground terminal)
Connect this terminal to ground lead of the turntable. This helps to reduce noises.
33. LINE OUT L/R(1/4" Phone Jacks)
Parallel out of P.A. output. Connect with the input of power amp.
34. PA OUT L/R(XLR male-pin 2 hot)
Parallel output of LINE output, Connect with the input of power amp.
35. AUX SEND/RTN(1/4" Phone Jacks)
Connect the SEND jacks to the input of an external effector unit. (Delay, Reverb etc.) Connect the RTN jacks to the output of the effector. STEREO IN/STEREO OUT effectors or MONO IN/MONO OUT effectors both can be used. When MONO is connected use L terminal.
36. SUB MASTER OUT L/R(1/4" Phone Jacks)
SUB MASTER output jack. Connect to input of power amp as monitor in DJ booth or as a separate sound zone for entrance foyer, etc.
37. AC POWER CORD
Connects the plug to AC outlet on the wall.
38. POWER
VU METER lamp is lit on when on.

SPECIFICATION

		RATED INPUT	MAXIMUM INPUT	IMPEDANCE
INPUT SECTION	MAIN MIC (X L R female 2 pin hot, BALANCE IN)	-50dBv	-20dBv	3 kΩ
	SUB MIC (1/4 inch PHONE JACK)	-50dBv	-20dBv	3 kΩ
	PHONO 1~4 L/R (RCA PIN JACK)	-46dBv	-18dBv (1kHz)	5 0 kΩ
	LINE 1~8 L/R (RCA PIN JACK)	-10dBv	+10dBv	1 5 kΩ
	AUX RTN L/R (1/4 inch PHONE JACK)	-10dBv	+10dBv	2 3 kΩ
OUTPUT SECTION		RATED OUTPUT	MAXIMUM OUTPUT	OPTIMUM IMPEDANCE/OUTPUT IMPEDANCE
	PA OUT L/R (XLR male 2 pin, BALANCE OUT)	+4dBv	+25dBv	>600Ω/440Ω
	LINE L/R (1/4 inch PHONE JACK, UNBALANCE OUT)	0dBv, -10dBv	+20dBv, +10dBv	>600Ω/220Ω
	SUB MASTER L/R (1/4 inch PHONE JACK)	-10dBv	+20dBv	>10kΩ/220Ω
	AUX SEND L/R (1/4 inch PHONE JACK)	-10dBv	+15dBv	>10kΩ/2.5kΩ (STEREO), 1.2k (MONO) Ω
	HEADPHONE 出力 ((1/4 inch PHONE JACK)		1 9 0 mW	> 8 Ω / 4 7 Ω
FREQUENCY RESPONSE	MIC (BALANCE +4dB)	30Hz~20kHz ±3d	CROSSFADER CROSSTALK	<-100dB
	LINE	20Hz~20kHz ±1dB	CHANNEL CROSSTALK	<-65dB
S/N RATIO	MIC (BALANCE +4dB)	<-60dB	POWER SUPPLY	AC100V 50/60Hz 16W
	LINE	<-76dB	DIMENSIONS (W X H X D)	482 x 91 x 220mm
FEDER ATTENATION	<-90dB	WEIGHT		5 kg

BLOCK DIAGRAM

PMC46mkII BLOCK DIAGRAM



Vestax Corporation

FEBRUARY, 1998 PMC-46mkII EVI