



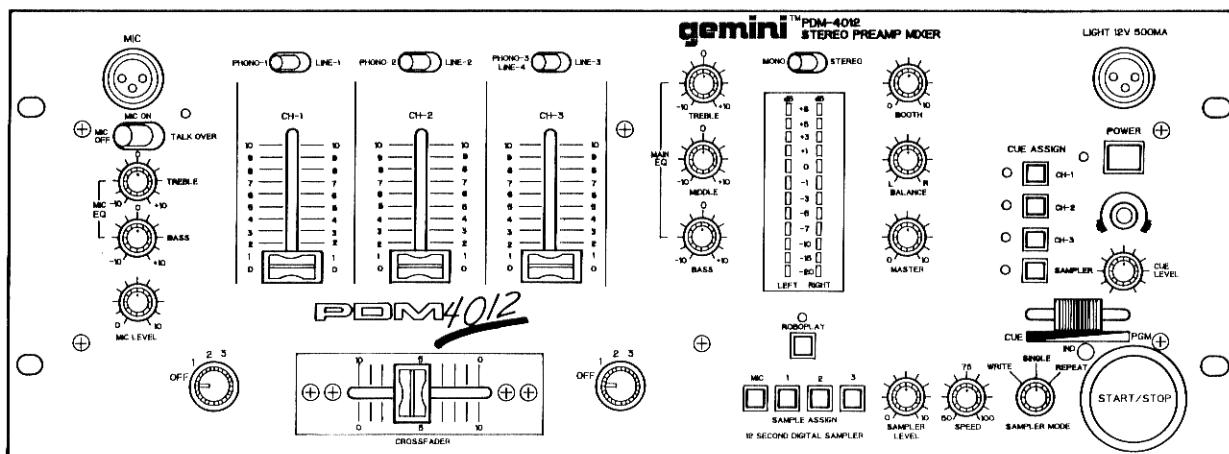
# SERVICE MANUAL

## STEREO PREAMP DIGITAL SAMPLING MIXER

MODEL PDM-4012

## STEREO PREAMP MIXER

MODEL PMX-1600



### CONTENTS

SPECIFICATIONS .....	2
CONNECTION , OPERATING AND SAMPLER INSTRUCTIONS .....	3
DISASSEMBLY PROCEDURES .....	7
INTERNAL DIAGRAMS AND PINOUT OF INTEGRATED CIRCUITS .....	8
WIRING DIAGRAM .....	11
SCHEMATIC DIAGRAM .....	15
PRINTED CIRCUIT BOARDS .....	19
EXPLODED VIEW OF CABINET .....	23
CABINET PARTS LIST .....	25
PARTS LIST .....	25

**GEMINI SOUND PRODUCTS CORP.**  
1100 MILIK STREET CARTERET, NEW JERSEY 07008 U.S.A.  
TEL:908-969-9000 FAX:908-969-9090

## SPECIFICATIONS

### PMX-1600

#### INPUTS:

Mic: 1.5mV 3Kohm  
balanced/unbalanced  
Phono: 3 mV 47 Kohm  
Line: 150 mV 27Kohm

#### OUTPUTS:

Amp/Booth: OdBd 1V 400ohm  
Max: 24V Peak to Peak  
Rec: 225mV 5Kohm

#### GENERAL:

Bass: +/- 12dB  
Mid: +/- 9dB  
Treble: +/- 12dB  
Frequency Response: 20Hz-20KHz +/- 2dB  
Distortion: less than 0.02%  
S/N Ratio: better than 80dB  
Talkover Level: -16dB  
Headphone Impedance: 16ohm  
Power Source: 115/230V 50/60Hz 15W  
Dimensions: 482mmx178mmx95mm  
Weight: 19"x7"x3 3/4"  
9 lbs (4Kg)

### PDM-4012

#### INPUTS:

Mic: 1.5mV 3Kohm  
balanced/unbalanced  
Phono: 3mV 47Kohm  
Line: 150mV 27Kohm

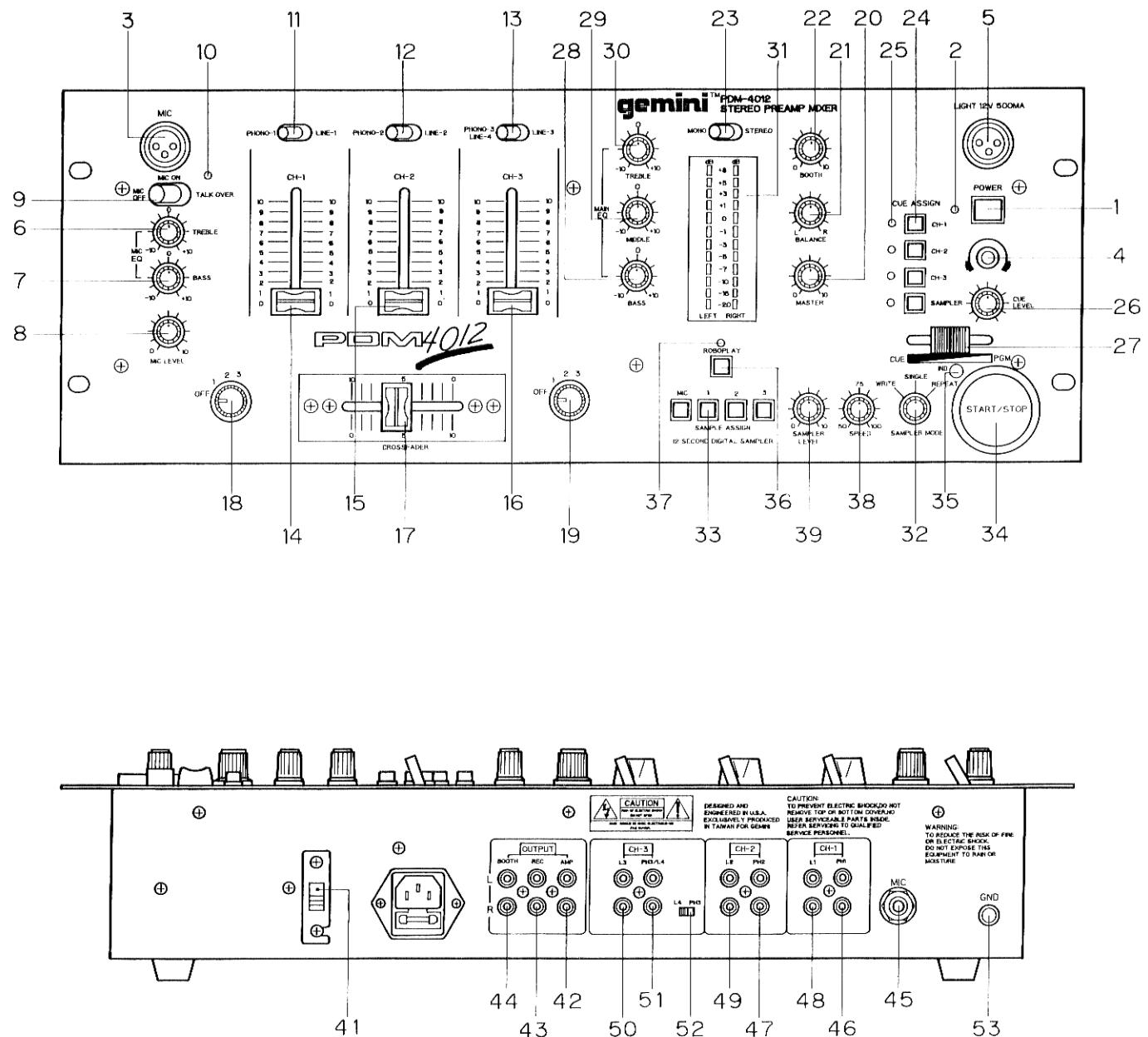
#### OUTPUTS:

Amp/Booth: 0 dB 1V 400ohm  
Max: 24V Peak to Peak  
Rec: 225mV 5Kohm

#### SAMPLER:

Sampler System: 12Bit Sampling  
Maximum Sample Length: 12 Second  
(at normal speed)  
  
GENERAL:  
  
Bass: +/- 12dB  
Mid: +/- 9dB  
Treble: +/- 12dB  
Frequency Response: 20Hz-20KHz +/- 2dB  
Distortion: less than 0.02%  
S/N Ratio: better than 80dB  
Talkover Level: -16dB  
Headphone Impedance: 16ohm  
Power Source: 115/230V 50/60Hz 15W  
Dimensions: 482mmx178mmx95mm  
Weight: 19"x7"x3 3/4"  
9 lbs (4Kg)

## CONNECTION, OPERATING AND SAMPLER INSTRUCTIONS



## INSTRUCTIONS FOR CONNECTION

1. Before plugging in the power cord, make sure that the VOLTAGE SELECTOR (41) switch is set to the correct voltage.
2. Make sure that the POWER (1) switch is in the off position. The POWER LED (2) will be off. All connections should be made with the power off.
3. The unit is supplied with 3 sets of output jacks. The OUTPUT AMP (42) jacks are used to connect to your main amplifier. The OUTPUT REC (43) jacks can be used to connect the mixer to be record input of your recorder enabling you to record your mix. The OUTPUT BOOTH (44) jacks allow you to hook up an additional amplifier.

### NOTE

The OUTPUT REC (43) has no level control. The level is set by the channel slides of the selected channels.

4. The unit is equipped with 2 microphone inputs. The DJ MIC (3) input (found on the front panel) accepts 1/4" or XLR connectors and is suitable for balanced or unbalanced microphones. The MIC (45) input (found on the rear panel) is a 1/4" jack for a balanced or unbalanced microphone.

### NOTE

Even though the unit is equipped with 2 microphone inputs, only one (1) may be used at a time.

5. On the rear panel are 2 stereo PHONO (46,47) inputs, 3 stereo LINE (48,49,50) inputs and 1 shared PHONO/LINE (51) input. The shared PHONO/LINE (51) can be either PHONO 3 or LINE 4 depending on the setting of the rear panel mounted LINE/PHONO SELECTOR SWITCH (52). The stereo phono inputs will accept only turntables with a magnetic cartridge. A GROUND (53) screw for you to ground your turntables is located on the rear panel. The stereo line inputs will accept any line level inputs such as CD players cassette players, etc.
6. Headphones can be plugged into the front panel mounted HEADPHONE (4) jack.
7. The unit comes with a front panel XLR LIGHT (5) jack. This jack is for use with a gooseneck right like the Gemini GNL-500. NEVER plug a microphone into this jack.

## OPERATING INSTRUCTIONS

### 1. POWER ON

Once you have made all the equipment connections to your mixer, press the POWER SWITCH (1). The power will turn on and the POWER LED (2) will glow RED.

### 2. MIC SECTION

The MIC SWITCH (9) controls the microphone functions, the MIC LEVEL (8) controls the mic volume and the TREBLE (6) and BASS (7) adjust the mic's tonal qualities. MIC. SWITCH (9) is a three position switch. When it is in the left position, the microphone is off, in the center position, the microphone is on (the MIC LED (10) is on), and in the right position, the microphone is on and talkover is activated.

#### NOTE

Talkover, when activated, will reduce the overall volume of the mix without effecting the microphone volume. You will find this feature very useful when you need to make announcements over the music.

### 3. MAIN CHANNEL SECTION

To assign an input source to a channel, set the PHONO / LINE (11,12) and the PHONO-LINE/LINE (13) switches to their appropriate positions. To make the proper adjustments to your music, set the CHANNEL (14,15,16) slides to their proper positions.

### 4. CROSSFADER SECTION

The CROSSFADE (17) allows the mixing of one source into another. The unit features an assignable crossfader. The ASSIGN (18,19) switches allow you to select which channel will play through each side of the crossfader. ASSIGN (18) switch allows you to select channel 1, 2, or 3 to play through the left side of the crossfader. ASSIGN(19) switch does the same to the right side of the crossfader. The CROSSFADE (17) in your unit is REMOVABLE and if the need arises can be easily replaced. Crossfader units are available

in two sizes. Part # RF-45 (which is identical to the crossfader supplied with the PDM-4012) has a 45mm travel from side to side. Also available is part # RF-30 which has a 30 mm travel distance Just purchase either of these crossfader units from your Gemini dealer.

### 5. OUTPUT CONTROL SECTION:

The level of the AMP OUT (42) is controlled by the MASTER(20) control. The BALANCE (21) control will allow the Amp Out signal to be balanced between the left and right speakers. The BASS(28), MIDDLE(29) and TREBLE (30) controls allow tonal adjustment of the output and the MONO/STEREO (23) switch allows you to choose a Mono or a Stereo output. The DISPLAY (31) indicates the MASTER (20) output left and right levels. The BOOTH (22) control adjusts the level of the BOOTH OUTPUT (44).

#### NOTE

The DISPLAY (31) indicates the AMP OUT (42) signal only and is not affected by the BOOTH OUTPUT (44) signal.

#### HITE

The boooth output is used by some DJs to run monitor speakers in their DJ booth. You can also use it as a second zone or amp output.

### 6. CUE SECTION

By connecting a set of headphones to the HEADPHONE(4) jack, you can monitor any or all of the channels CUE ASSIGN (24) buttons are for channels 1-3 and the sampler. Select the correct Cue assign button or buttons and their respective CUE LED (25) indicators will glow. Use the CUE LEVEL (26) control to adjust the headphone volume without effecting the overall mix. By sliding the CUE PGM (27) control to the left you will be able to monitor the assigned cue signal. Sliding to the right will monitor the PGM ( program ) output.

## SAMPLER OPERATION (PDM-4012 only)

### SAMPLE RECORDING

1. Put the MODE SELECTOR (32) switch into the WRITE position.
2. Select the source you want to sample from by pressing the appropriate ASSIGN BUTTON (33).
3. Tapping the START/STOP (34) button begins the sampling process (the SAMPLER INDICATOR (35) will illuminate RED). Tapping the START/STOP (34) button a second time ends the sample (the SAMPLER INDICATOR (35) will turn off ). If you do not tap the START/STOP (34) button a second time, the sampling process will stop automatically after 12 seconds.

### SAMPLE PLAYBACK

1. Put the MODE SELECTOR (32) switch into the SINGLE or REPEAT position.
2. Tapping the START / STOP (34) button with the MODE SELECTOR (32) in the SINGLE position will cause the sampler to playback one time (the SAMPLER INDICATOR (35) will illuminate GREEN ). Every push of the START / STOP (34) button will restart the sample from the beginning. Rapid pressing of the START / STOP (34) button will cause a stuttering effect. Once the sample has started playback and the START / STOP (34) button is not pushed a second time, the sample will play to the end and then stop( the SAMPLER INDICATOR(35) will turn off ).
3. Tapping the START / STOP (34) button with the MODE SELECTOR (32) in the REPEAT position will cause the sample to continuously play over and over ( the SAMPLER INDICATOR (35) will illuminate GREEN). The START/STOP (34) button will act as an on/off switch. The first push will start the sample, the second push will stop it.

### ROBO PLAY

1. With the ROBO PLAY (36) button in the OFF position (the ROBO PLAY INDICATOR(37) will be OFF) and the MODE SELECTOR (32) switch in either the SINGLE or REPEAT mode, pressing the START / STOP (34) will cause the sample to play along with the selected source.
2. When the ROBO PLAY (36) button is in the ON position (the ROBO PLAY INDICATOR (37) illuminates RED), starting the sampler mutes the selected source. When the sample ends, the source automatically turns back on.

### SPEED CONTROL

- 1.The PDM-4012 comes equipped with a sampler SPEED (38)control. To get a perfect sample, set the control to its center position and record the sample.
- 2.During playback, raising or lowering the control will raise or lower the pitch of the sample playback. The center position will remain as normal pitch.

### HINT

You can record a sample with the SPEED(38) control in any position. Whatever that position is will become normal sound. If you start to record a sample with the SPEED (38) control set at minimum (this now becomes your normal pitch), by increasing the pitch to maximum, the pitch effect will double in speed. Recording at maximum and lowering to minimum will do exactly the opposite.

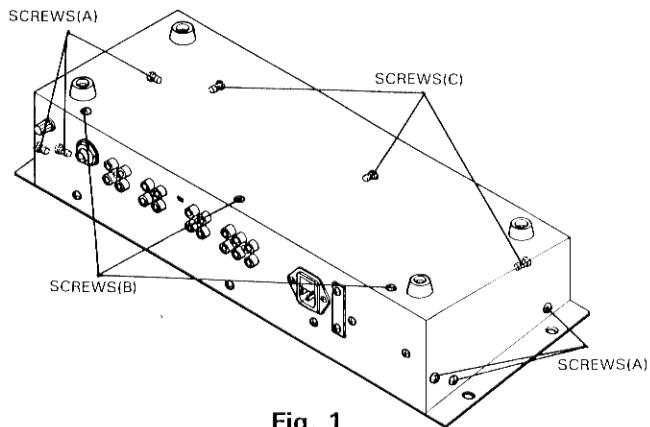
### SAMPLER LEVEL CONTROL

By adjusting the SAMPLER LEVEL (39) control, you can control the output volume of the recorded sample.

## DISASSEMBLY PROCEDURES

### 1. Removal of Bottom Cover

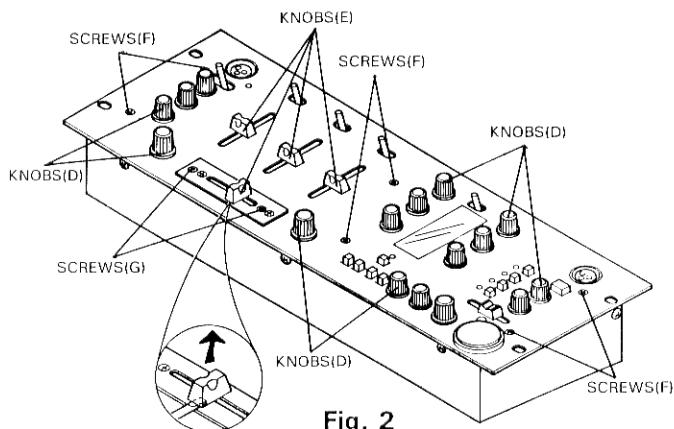
- (a) Remove 6 screws(A). (Fig.1)
- (b) Remove 3 screws(B). (Fig.1)
- (c) Remove 3 screws(C). (Fig.1)



**Fig. 1**

### 2. Removal of Control panel

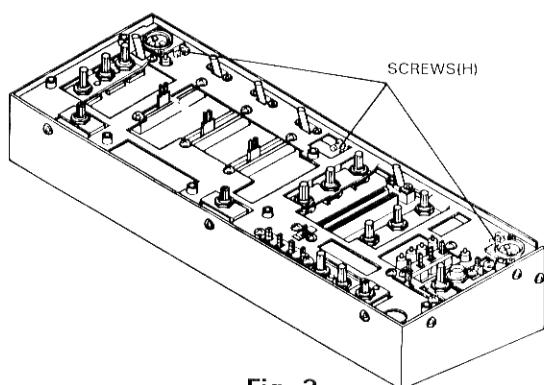
- (a) Remove 16 knobs (D). (Fig.2)
- (b) Remove 5 knobs (E). (Fig.2)
- (c) Remove 6 screws(F). (Fig.2)
- (d) Remove 2 screws(G). (Fig.2)



**Fig. 2**

### 3. Removal of Chassis

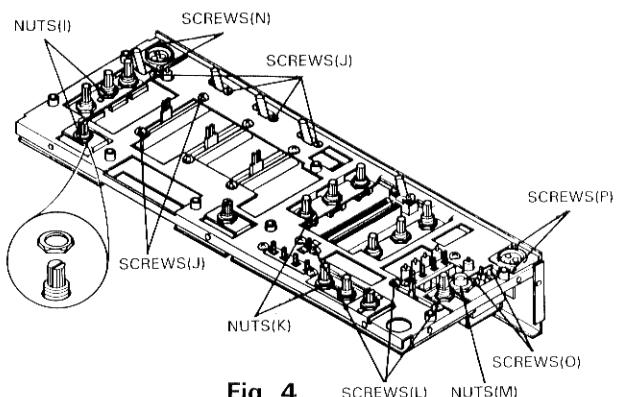
- (a) Removal of chassis.(Fig.3)
- Remove 3 screws(H).



**Fig. 3**

### 4. Removal of each P.C.B.

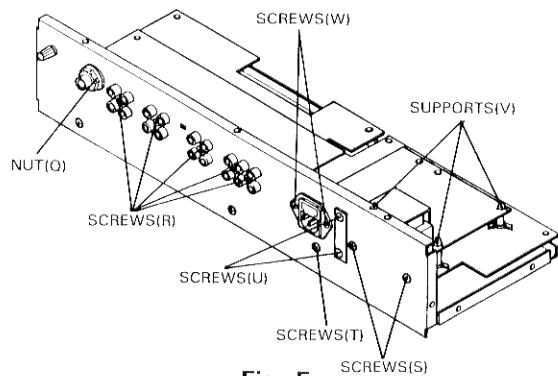
- (a) Removal of Main P.C.B.(Fig.4)
- Remove 5 nuts(I).
- Remove 14 screws(J).
- (b) Removal of Control P.C.B.(Fig.4)
- Remove 10 nuts(K).
- Remove 10 screws(L).
- (c) Removal of Phone Jack P.C.B.(Fig.4)
- Remove 1 nut(M).
- (d) Removal of MIC P.C.B.(Fig.4)
- Remove 2 screws(N).
- (e) Removal of Power SW. P.C.B.(Fig.4)
- Remove 2 screws(O).
- (f) Removal of Light P.C.B.(Fig.4)
- Remove 2 screws(P).



**Fig. 4**

### 5. Removal of Rear Panel

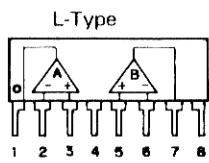
- (a) Removal of IN/OUT P.C.B.(Fig.5)
- Remove 1 nut(Q).
- Remove 5 screws(R).
- (b) Removal of Transformer.(Fig.5)
- Remove 2 screws(S).
- (c) Removal of 7805A TRC.(Fig.5)
- Remove 1 screw (T).
- (d) Removal of Voltage Selector(Fig.5)
- Remove 2 screws(U).
- (e) Removal of SAMPLER P.C.B.(Fig.5)
- Remove 3 supports(V).
- (f) Removal of AC Inlet (Fig.5)
- Remove 2 screws(w).



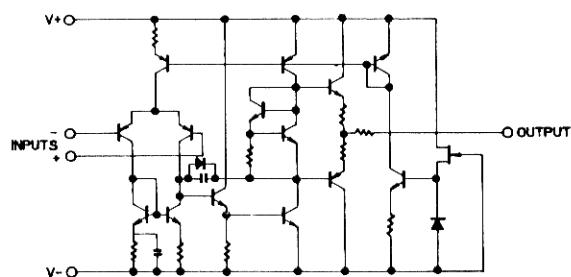
**Fig. 5**

## INTERNAL DIAGRAMS AND PINOUT OF EQUIVALENT CIRCUITS

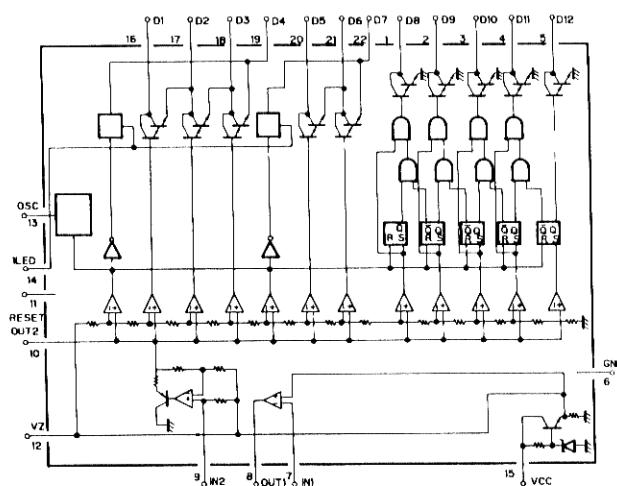
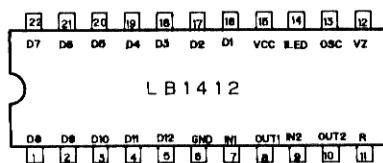
NJM4558



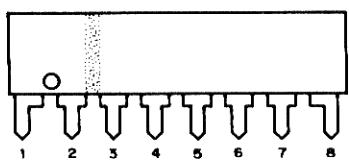
L-Type  
PIN FUNCTION  
1. A OUTPUT  
2. A- INPUT  
3. A+ INPUT  
4. V-  
5. B+ INPUT  
6. B- INPUT  
7. B OUTPUT  
8. V+



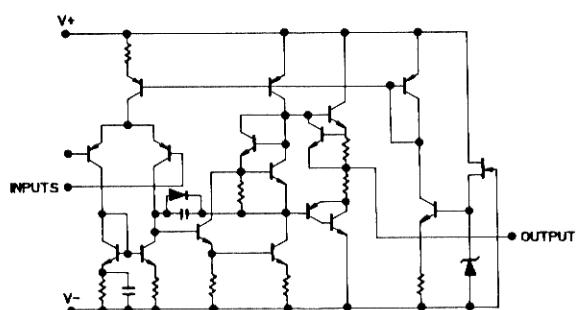
LB1412



NJM4556L

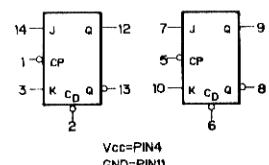


PIN FUNCTION  
1. A OUTPUT  
2. A- INPUT  
3. A+ INPUT  
4. V-  
5. B+ INPUT  
6. B- INPUT  
7. B OUTPUT  
8. V+



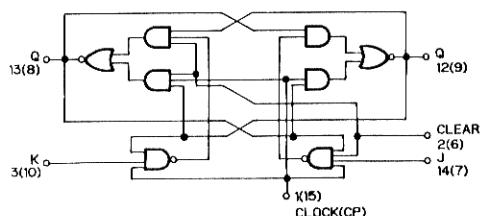
SN54/74LS73A

LOGIC SYMBOL

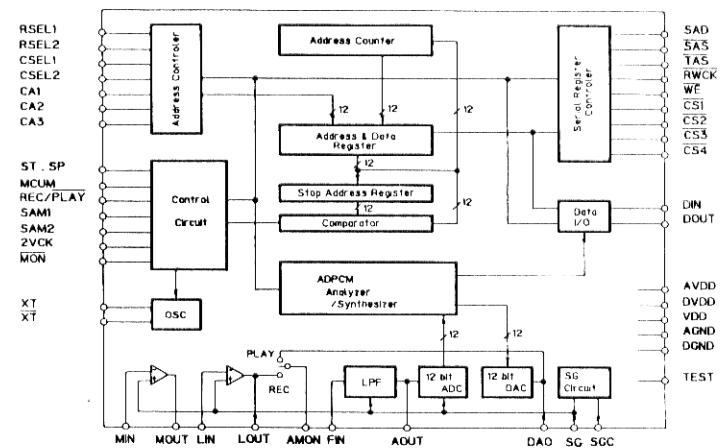
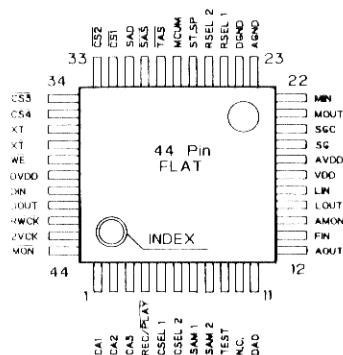


Vcc=PIN4  
GND=PIN11

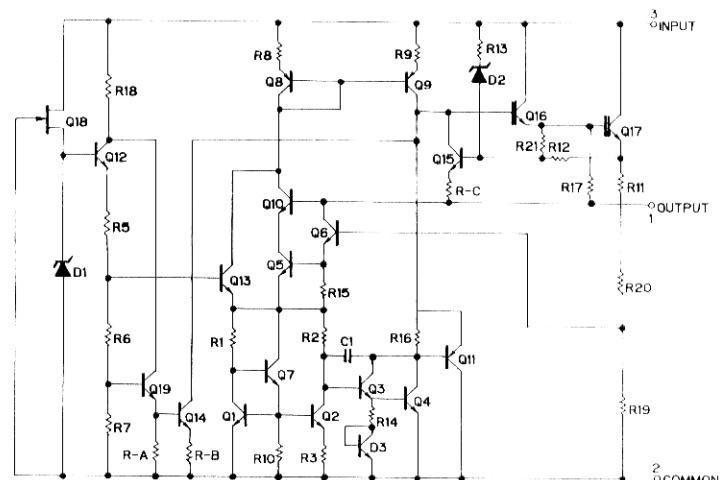
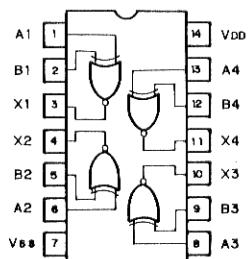
LOGIC DIAGRAM (Each Flip-Flop)



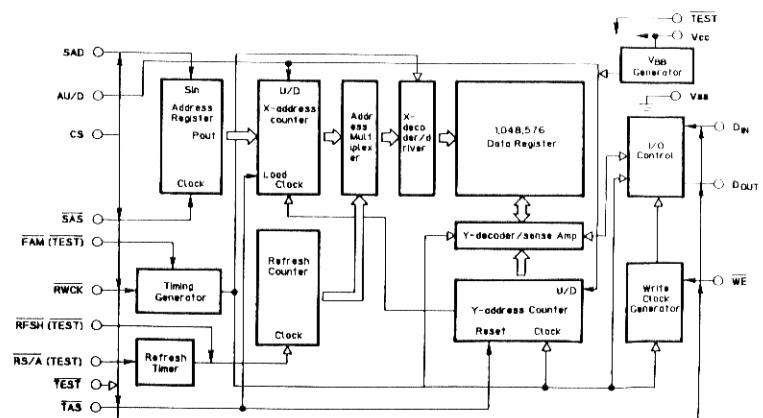
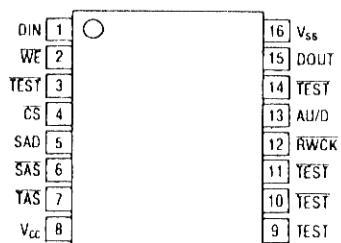
## MSM6388GS-V1K



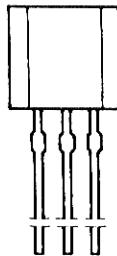
## TC4077BP



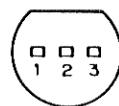
## MSM6389RS



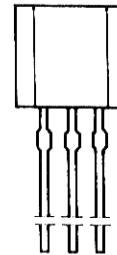
**2SC2878  
2SC2240  
2SC1815  
2SC945**



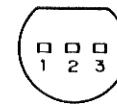
1. Emitter  
2. Collector  
3. Base



**2SC1048  
2SC1317**

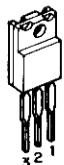


1. Emitter  
2. Collector  
3. Base



**NJM7800FA**

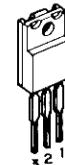
(TO-220F)



1. GRD  
2. OUT  
3. IN

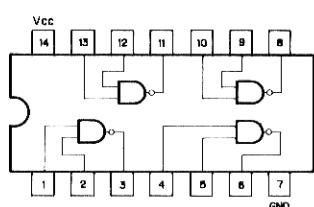
**NJM7900FA**

(TO-220F)



1. OUT  
2. IN  
3. COMMON

**SN4/74LS00**



**2SA1015  
2SA733**



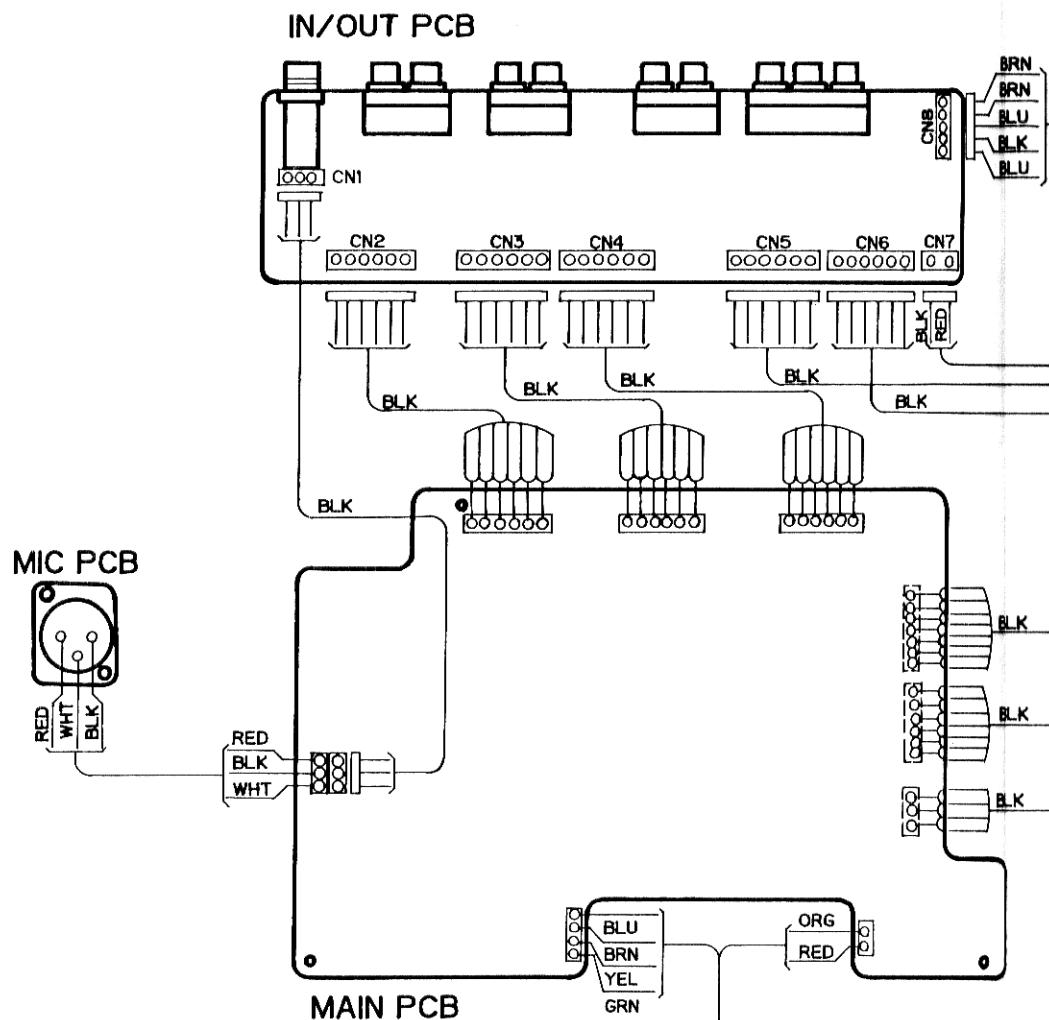
1. Emitter  
2. Collector  
3. Base



# WIRING DIAGRAM

PMX-1600

TRANS

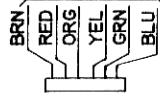


## NOTE:

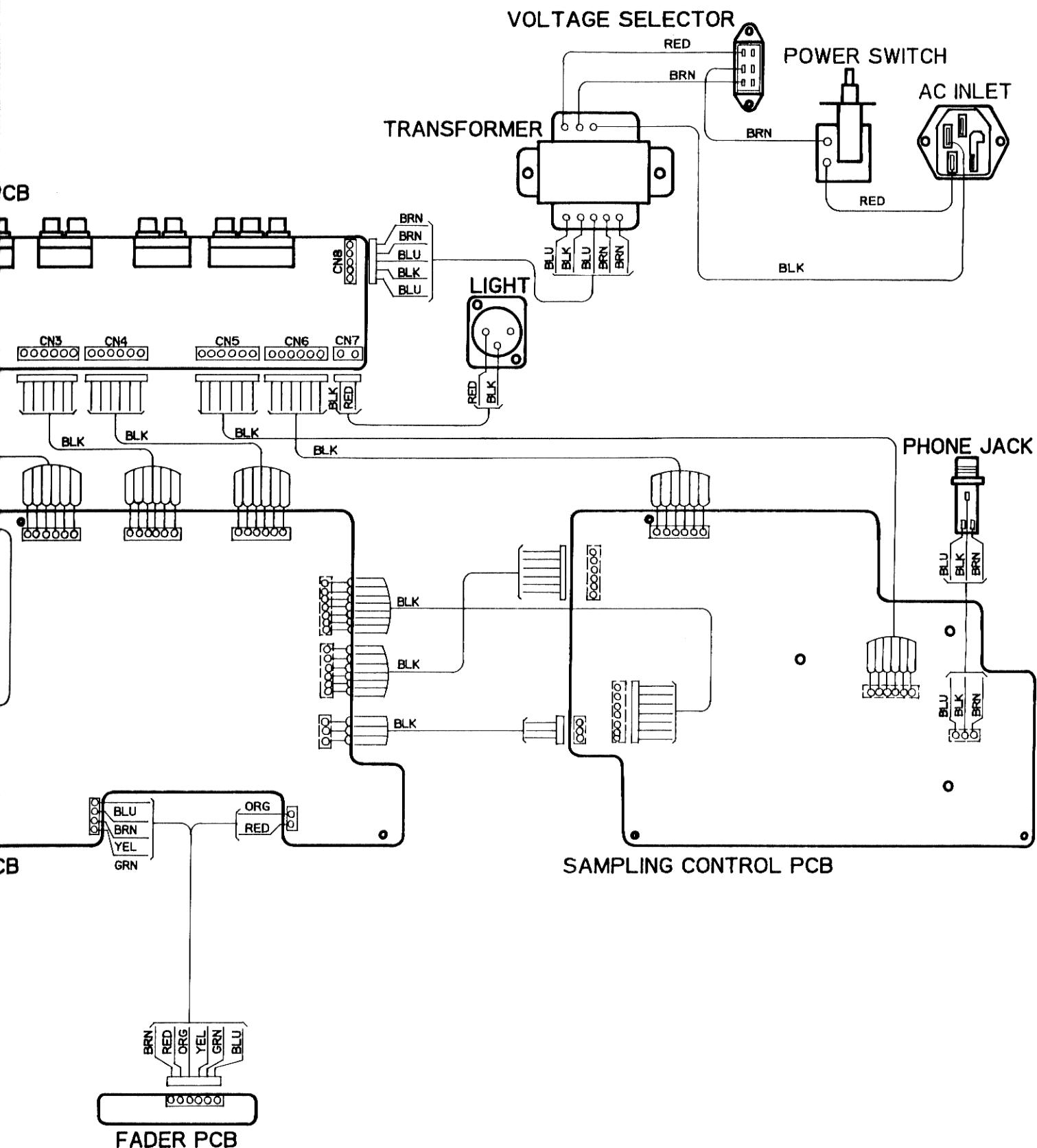
1. The actual colors of wires may differ from those of this diagram.

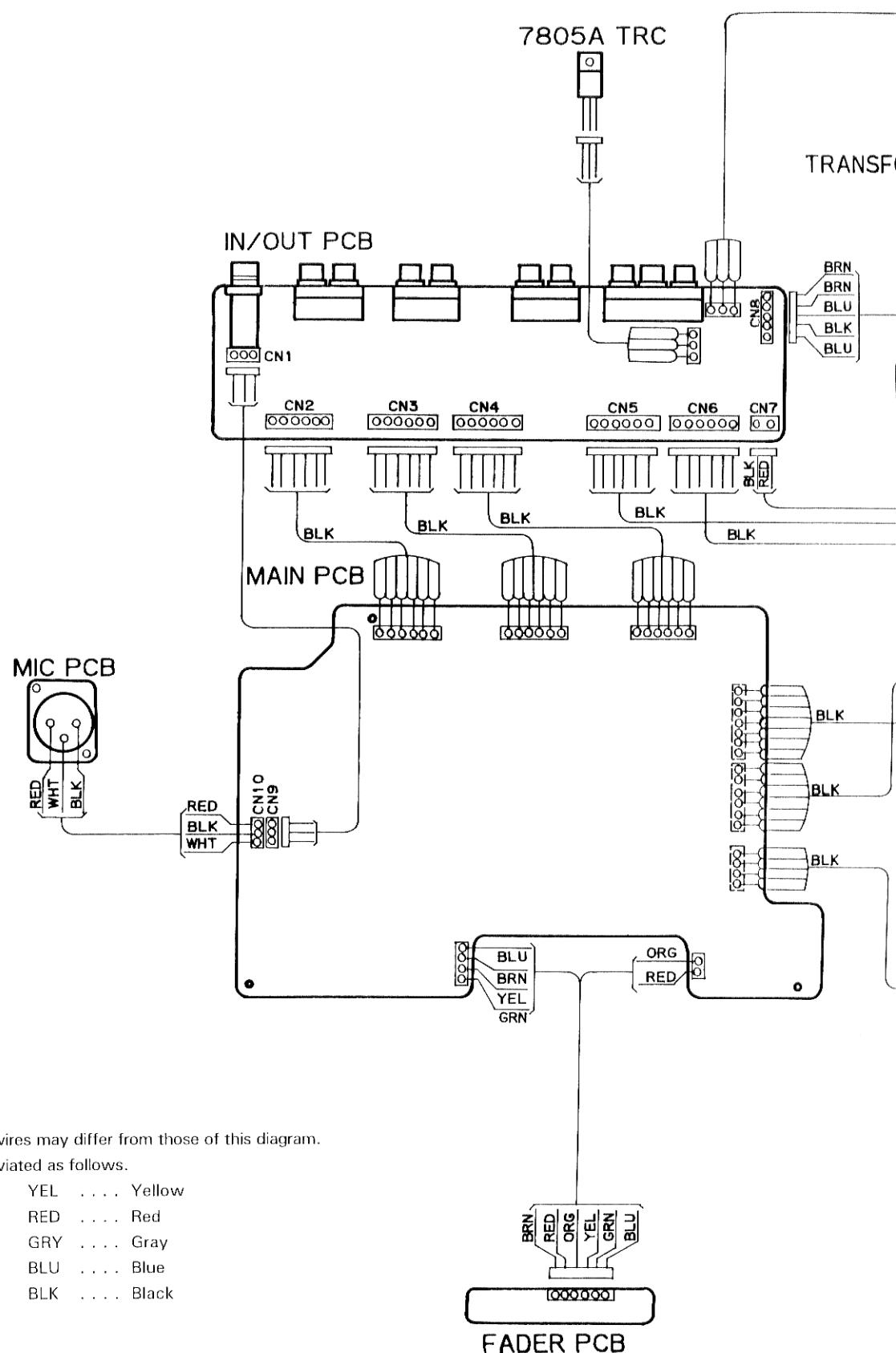
Wire colors are abbreviated as follows.

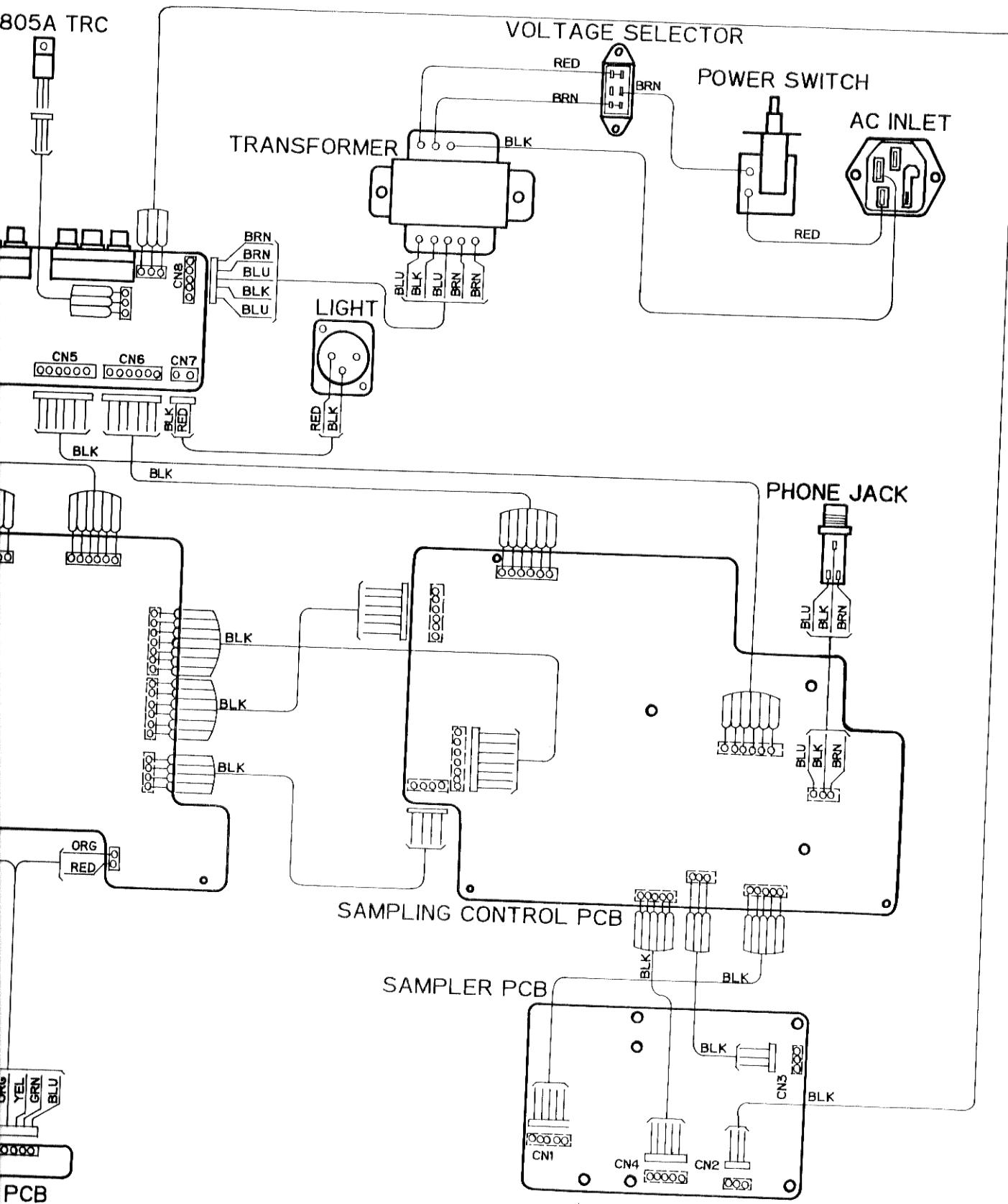
BRN	....	Brown	YEL	....	Yellow
VLT	....	Violet	RED	....	Red
GRN	....	Green	GRY	....	Gray
ORG	....	Orange	BLU	....	Blue
WHT	....	White	BLK	....	Black



FADER PCB

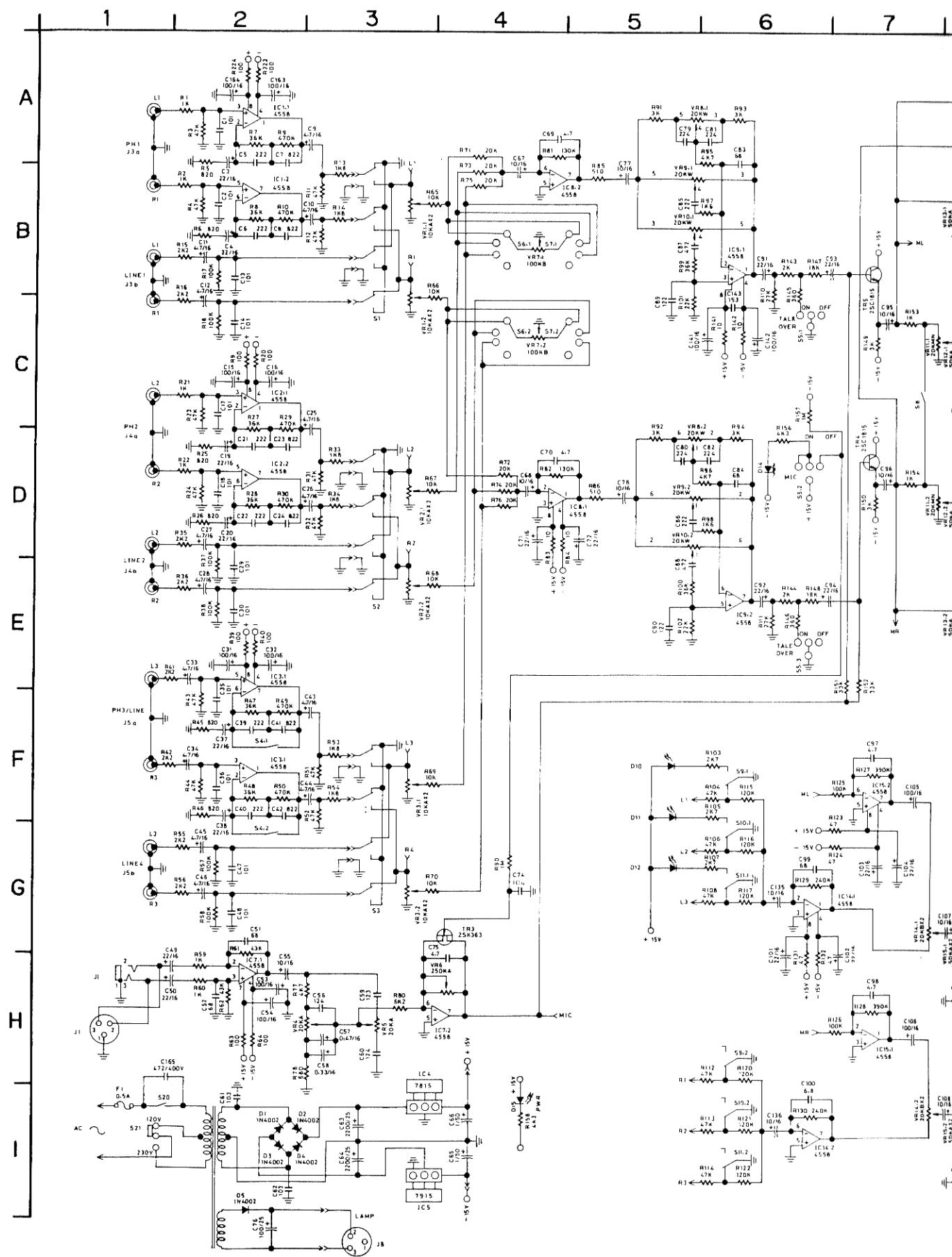


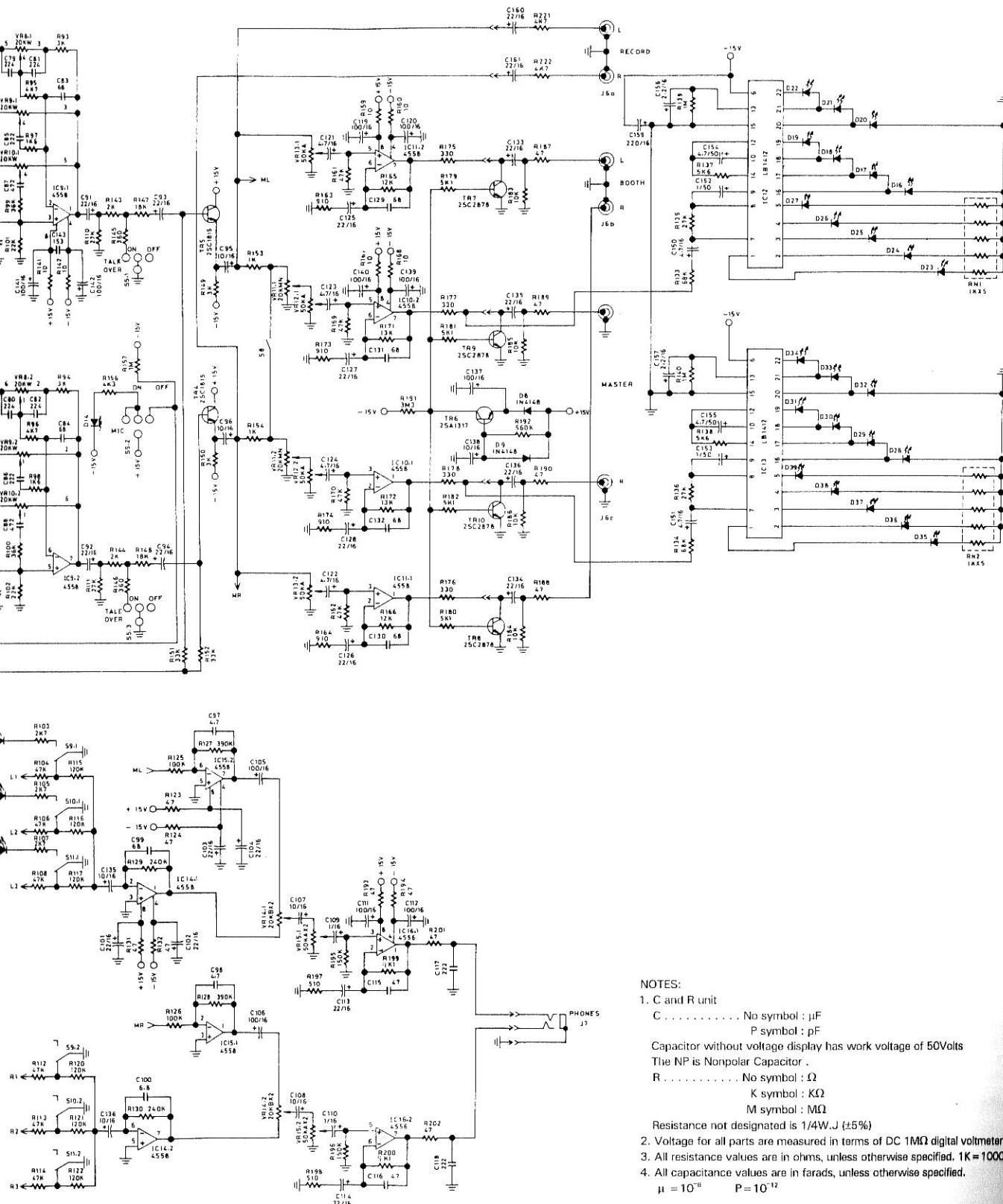


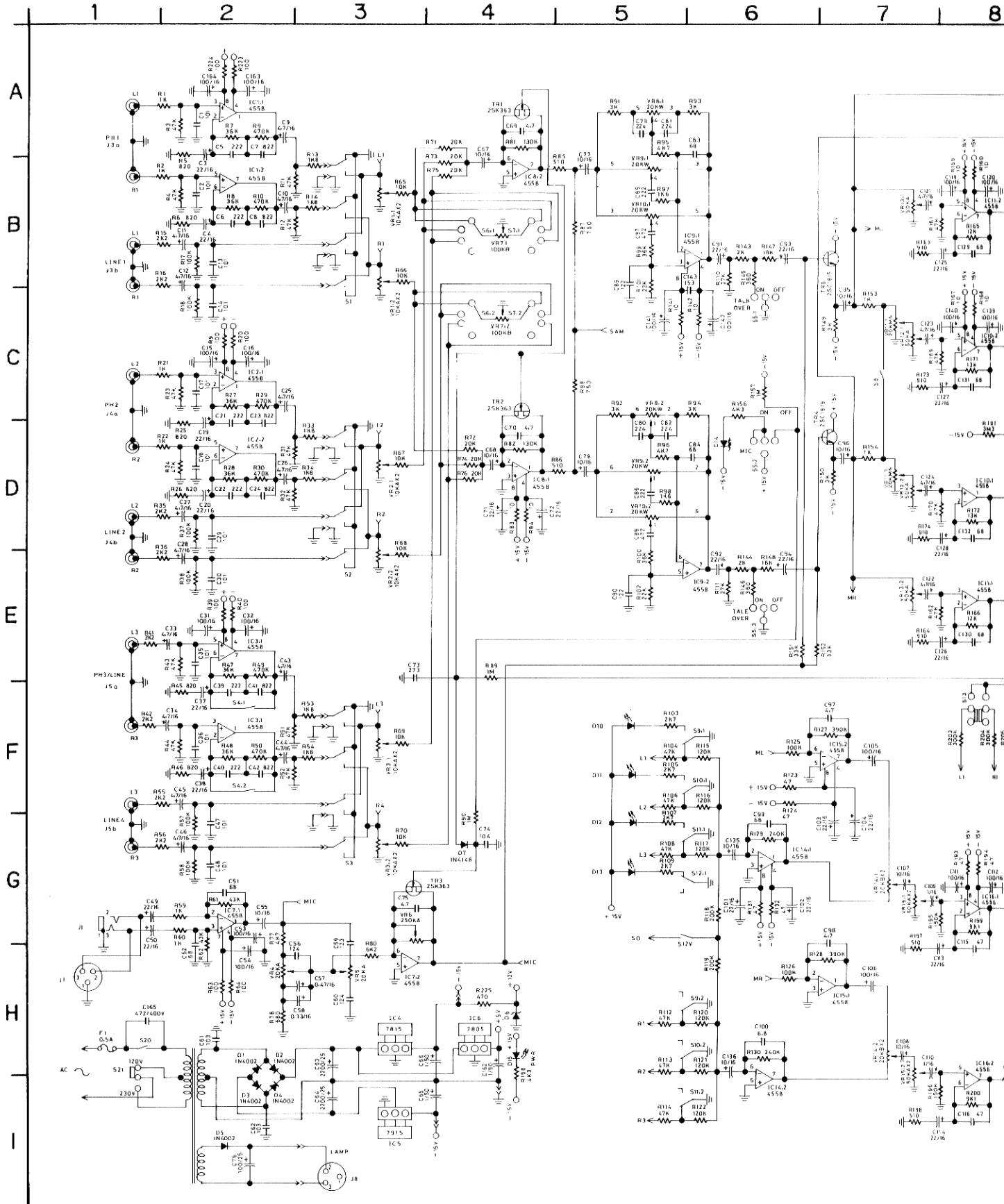


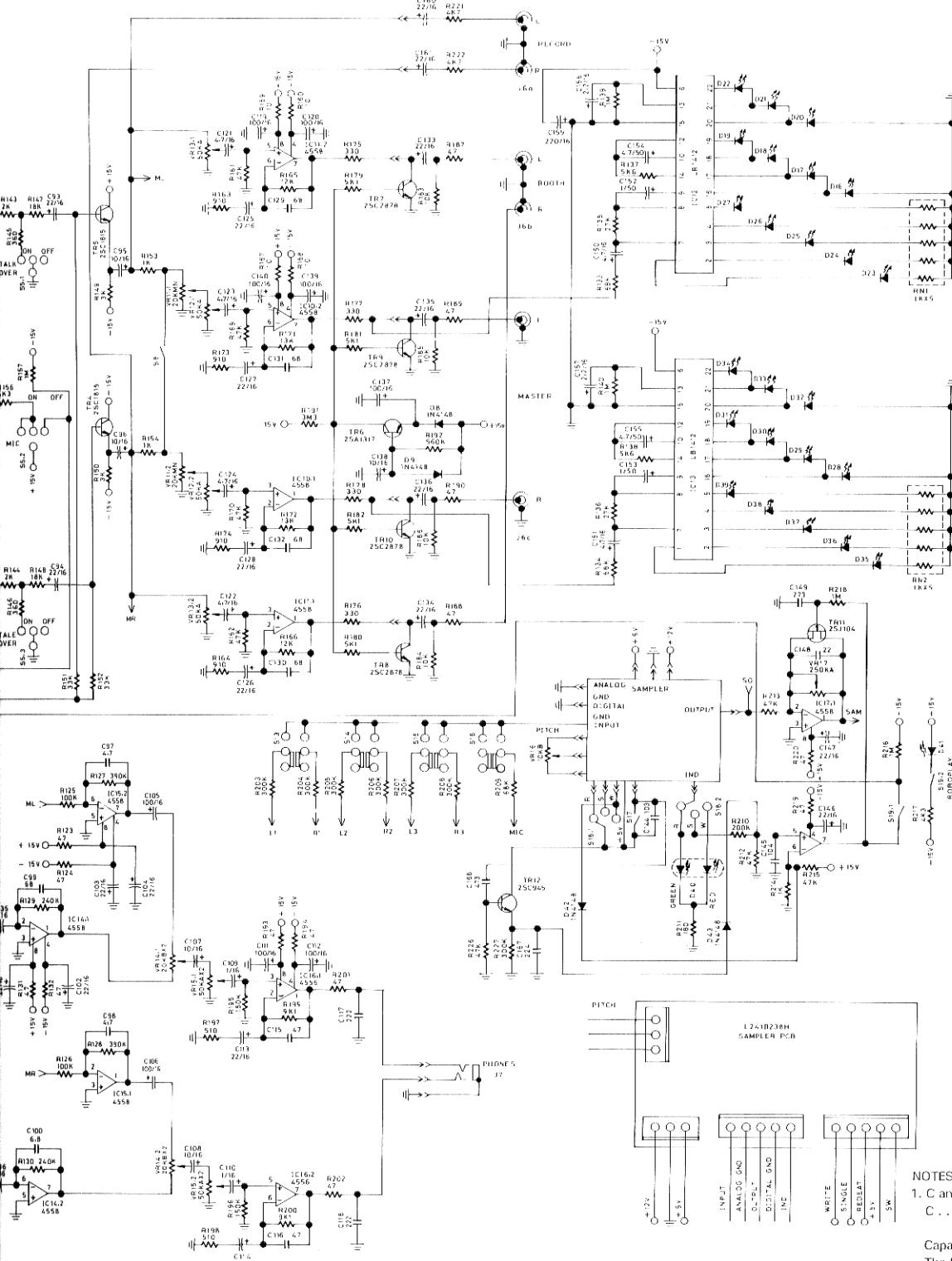
# SCHEMATIC DIAGRAM

PMX-1600









## NOTES:

1. C and R unit

C ..... No symbol :  $\mu\text{F}$   
P symbol : pFCapacitor without voltage display has work voltage of 50Volts  
The NP is Nonpolar Capacitor .R ..... No symbol :  $\Omega$   
K symbol : K $\Omega$ M symbol : M $\Omega$ 

Resistance not designated is 1/4W.J (15%)

2. Voltage for all parts are measured in terms of DC 1M $\Omega$  digital voltmeter.

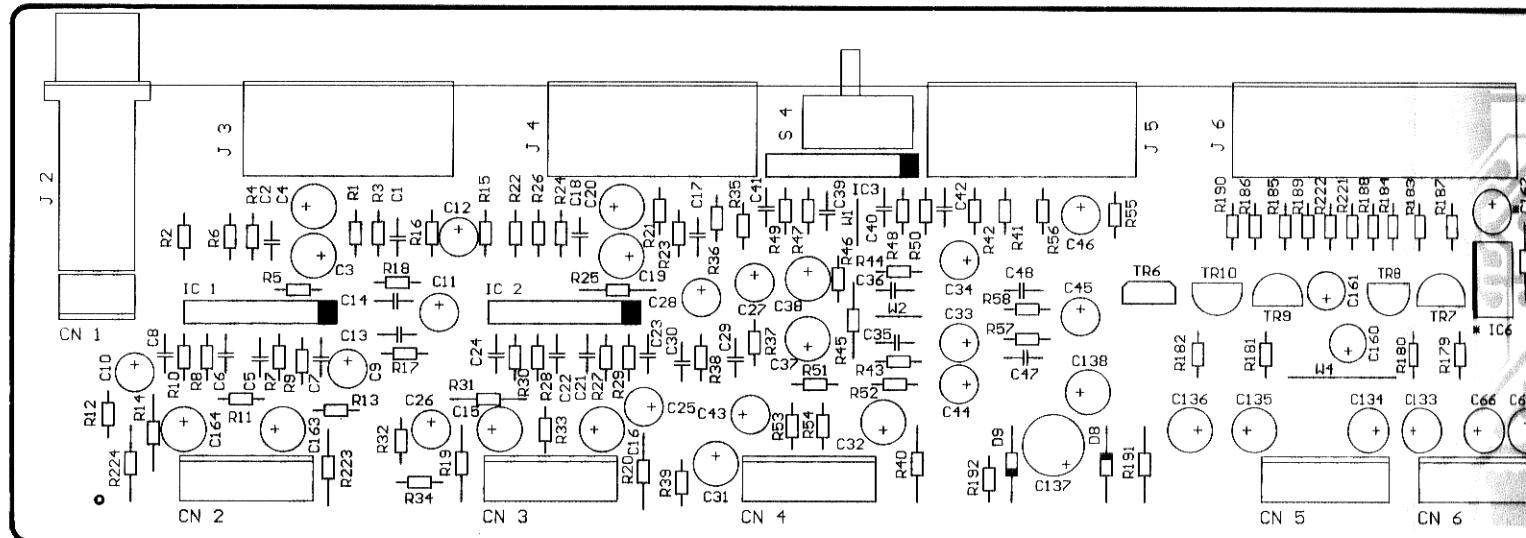
3. All resistance values are in ohms, unless otherwise specified. 1K = 1000

4. All capacitance values are in farads, unless otherwise specified.

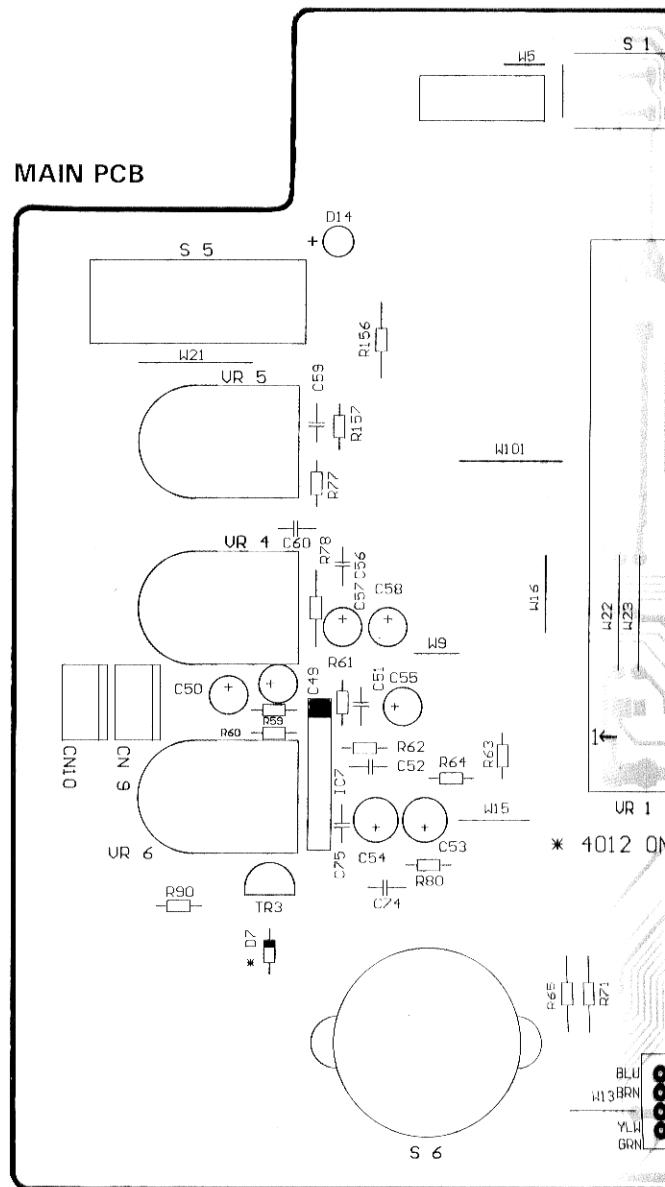
$$\mu = 10^{-6} \quad P = 10^{-12}$$

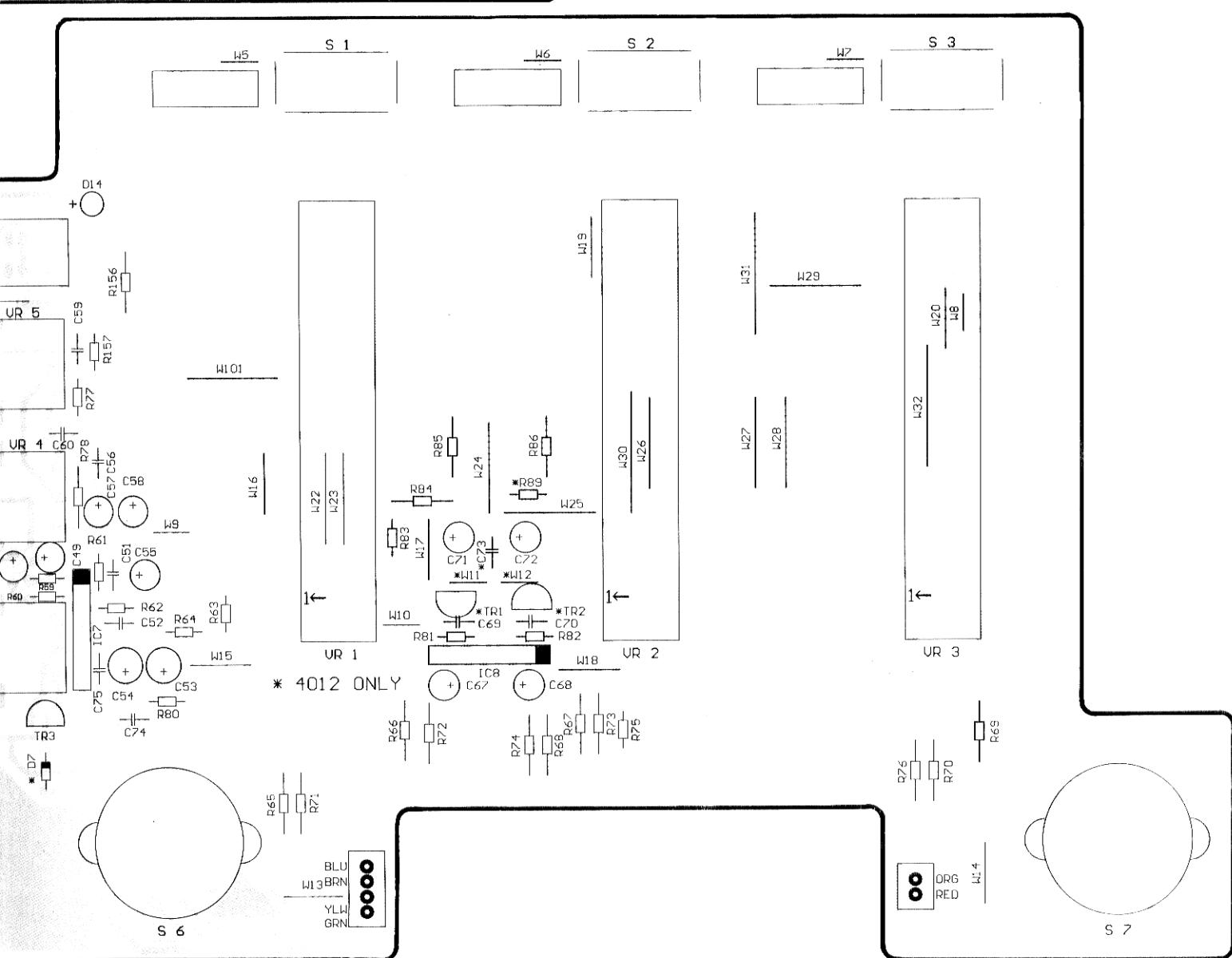
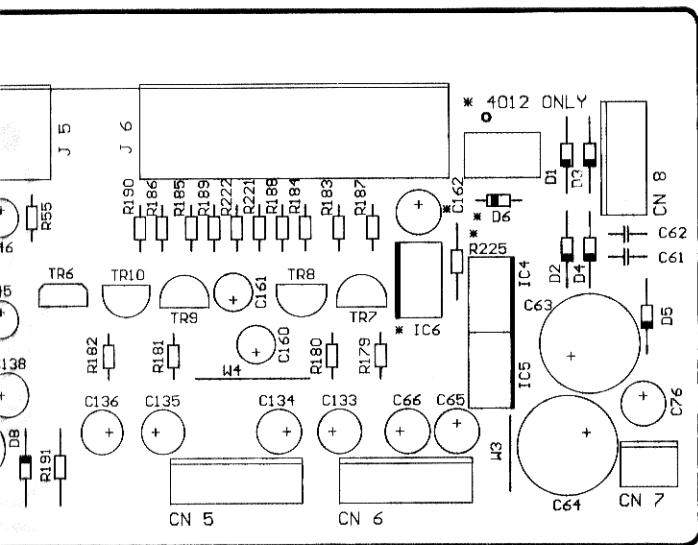
# PRINTED CIRCUIT BOARDS

## IN/OUT PCB

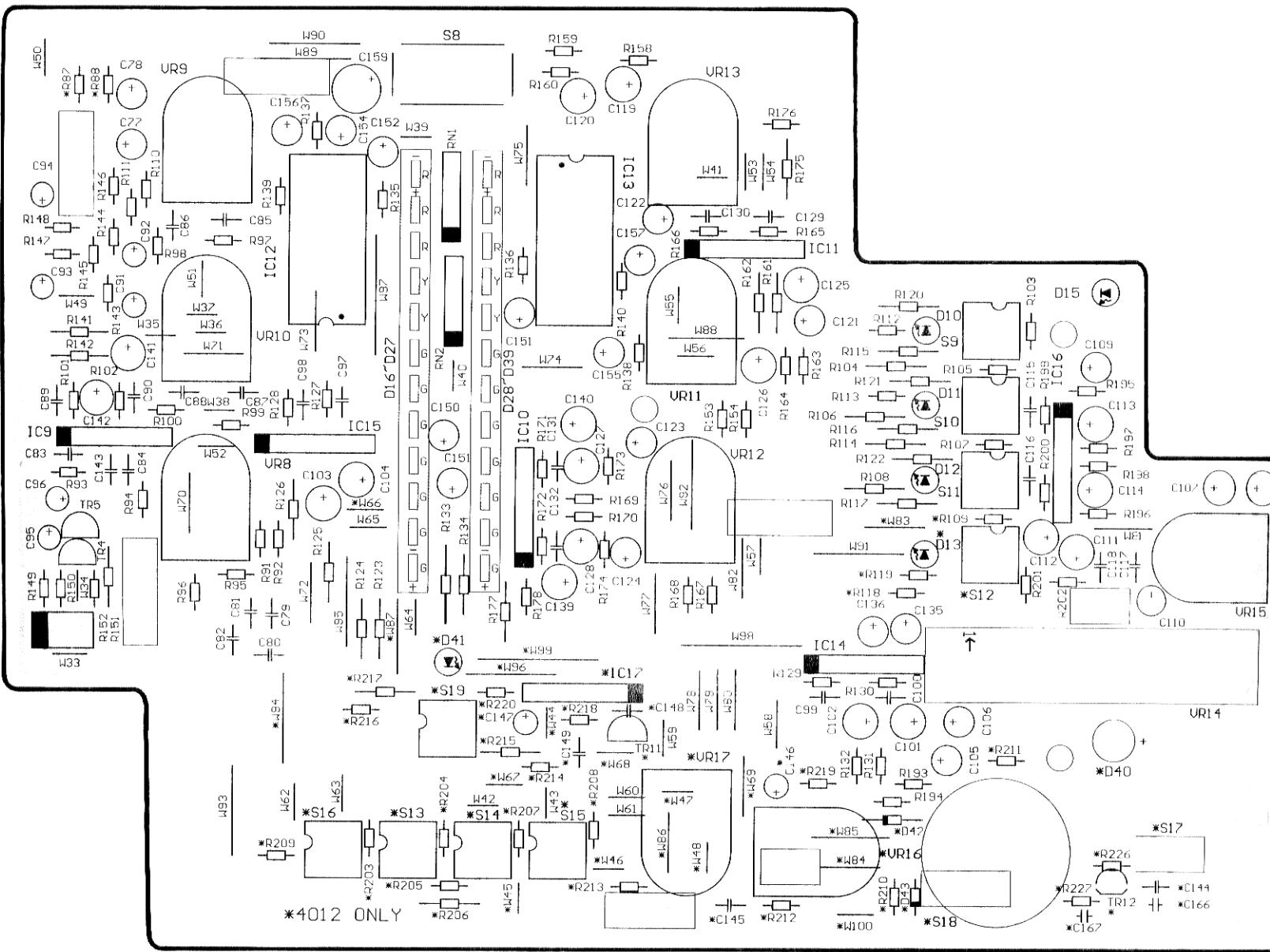


MAIN PCB

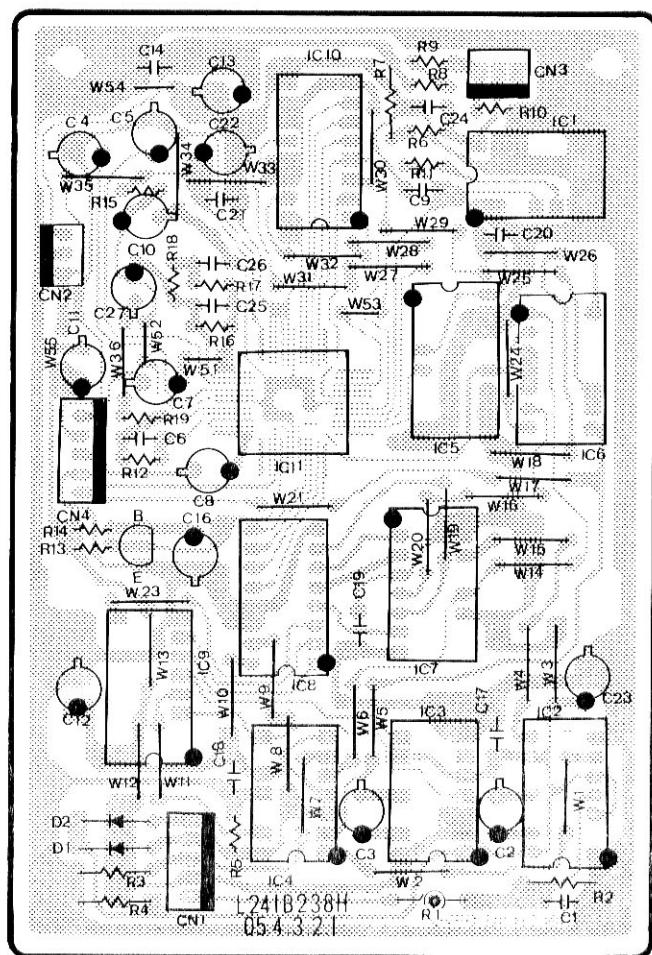
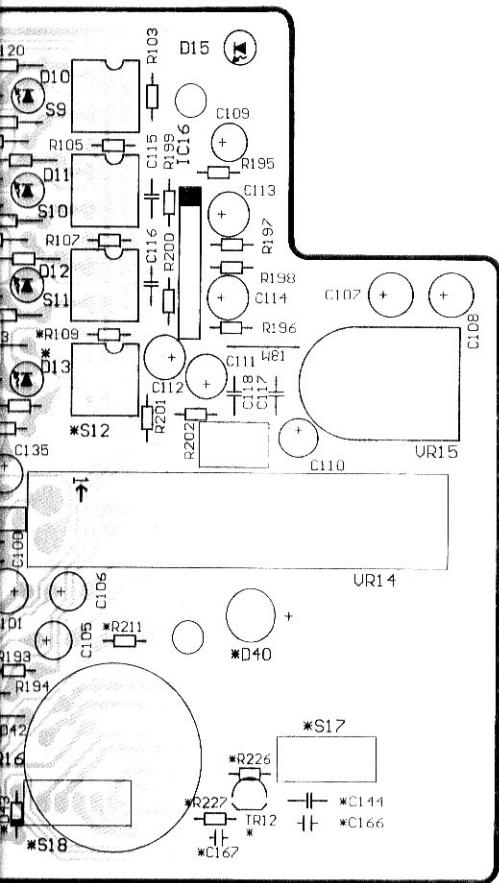




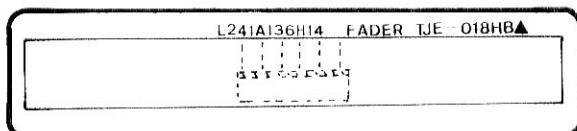
## SAMPLING CONTROL PCB



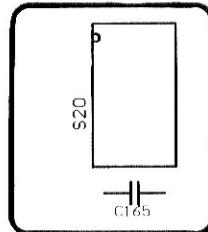
**SAMPLING PCB (PDM-4012 ONLY)**



FADER PCB

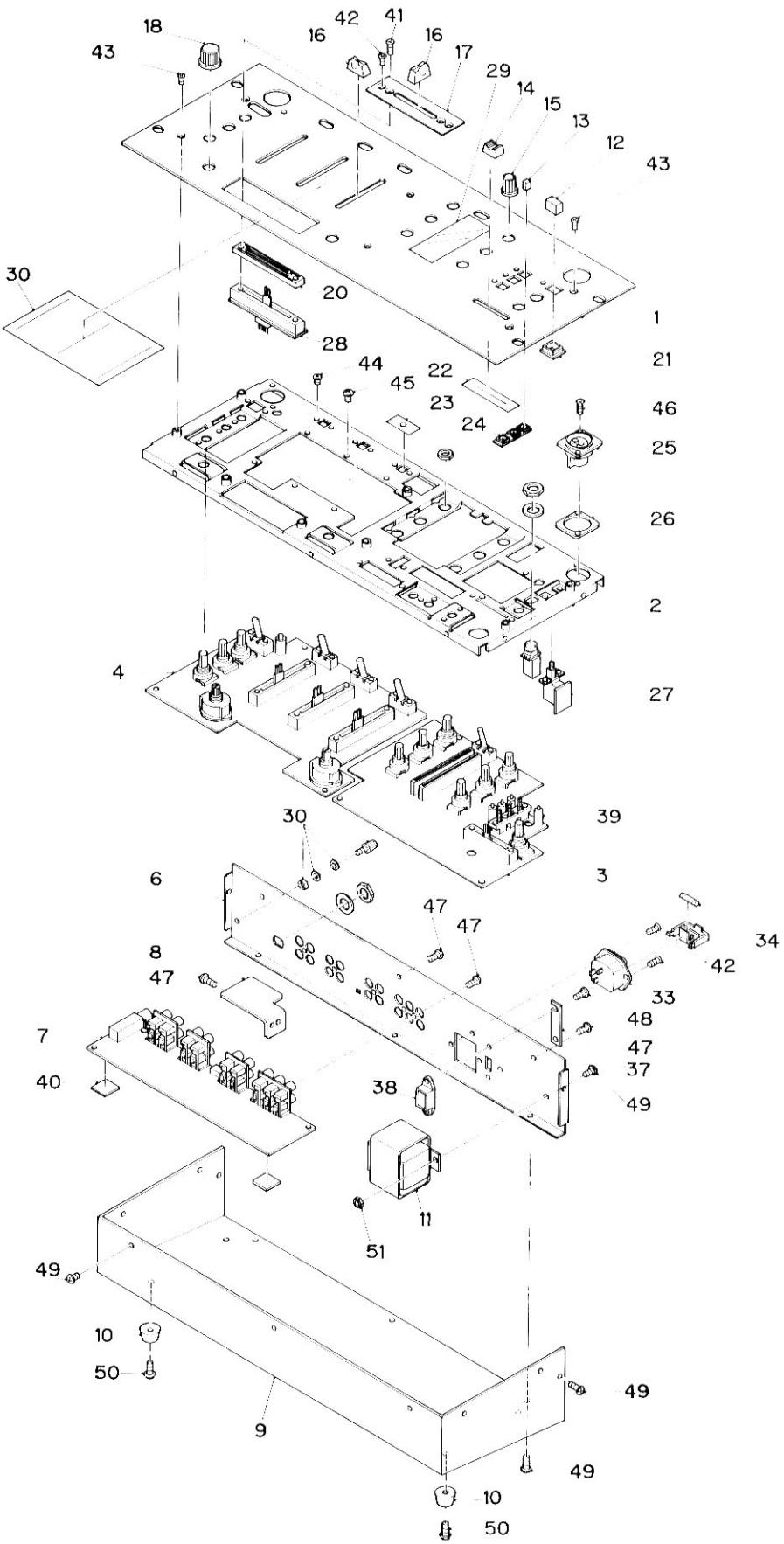


POWER SW PCB

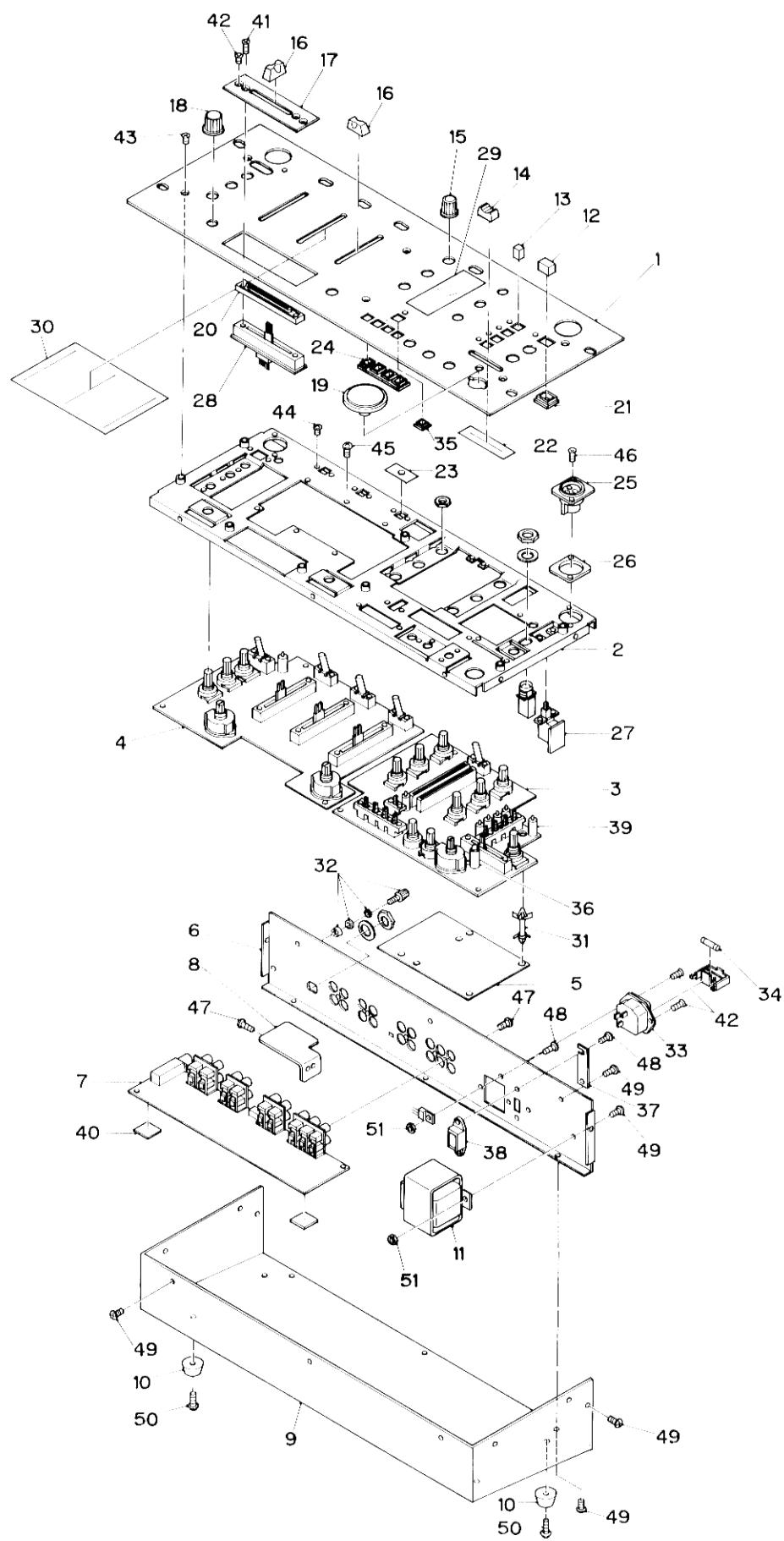


## EXPLODED VIEW OF CABINET

PMX-1600



PDM-4012



**CABINET PARTS LIST**

Symbol No.	Parts No.	Description
1	002-120	PANEL CONTROL(PMX-1600)
1	002-121	PANEL CONTROL(PDM-4012)
2	021-731	BACKET VR((PMX-1600))
2	021-732	BACKET VR((PDM-4012))
3	162-763	SAMPLING CONTROL PCB
4	162-762	MAIN PCB
5	161-695	SAMPLING PCB(PDM-4012)
6	021-855	REAR PANEL
7	162-761	IN/OUT PCB
8	041-035	PLATE HEAT SINK
9	021-204	BOTTOM COVER
10	049-189	PAD FOOT
11	059-146	POWER TRANSFORMER
12	002-533	KNOB PUSH(BIG)
13	002-531	KNOB PUSH(SMALL)
14	002-703	KNOB SLIDE(SMALL)
15	003-110	KNOB ROTARY(B)
16	002-704	KNOB SLIDE(BIG)
17	022-322	HOLDER FADER
18	003-102	KNOB ROTARY
19	002-545	KNOB SET(PDM-4012)
20	003-970	VR INLAY
21	002-535	KNOB BUSHING(BIG)
22	159-167	VR DUST PROOF CLOTH
23	159-168	SWING DUST PROOF CLOTH
24	002-544	KNOB BUSHING
25	092-095	PHONE JACK XLR
26	003-564	WASHER XLR
27	162-764	POWER SW PCB
28	162-627	FADER PCB
29	003-356	PLATE LED
30	159-186	VR DUST PROOF CLOTH
31	047-468	PCB SUPPORT(PDM-4012)
32	146-709	GND SCREW
33	092-100	AC INLET
34	100-050	FUSE 0.5A
35	002-532	KNOB BUSHING(SMALL)
36	003-982	HOLDER LED 5φ mm
37	022-305	SWITCH PROTECT PLATE
38	081-023	SLIDE SWITCH 2S6P
39	003-969	HOLDER LED 3φ mm
40	003-510	EVA PAD
41	111-049A	SAREW FTS-3 3X12(AB)
42	111-043A	SAREW FTS-3 3X6(AB)
43	111-043A	SAREW FTS-3 3X6(AB)
44	102-025	SAREW PMS M2.6X4(B)
45	111-051A	SAREW BST-3 3X5(AB)
46	110-050	SAREW FTS-3 3X12(Y)
47	110-172A	SAREW BTS-2 3X8(AB)
48	111-044A	SAREW BTS-3 3X10(AB)
49	111-051A	SAREW BTS-3 3X6(AB)
50	110-168	SAREW PTSS-2 3X10(B)
51	131-081	NUT/WASHER

**PARTS LIST**

Symbol No.	Parts No.	Description
Diodes		
D1	076-027	RECTIFIER DIODE 1N4002
D2	076-027	RECTIFIER DIODE 1N4002
(PDM)D1	079-003	SILICON DIODE 1N4148
(PDM)D2	079-003	SILICON DIODE 1N4148
D3	076-027	RECTIFIER DIODE 1N4002
D4	076-027	RECTIFIER DIODE 1N4002
D5	076-027	RECTIFIER DIODE 1N4002
*D6	079-012	ZENER DIODE 1/2W 12V
*D7	079-003	SILICON DIODE 1N4148
D8	079-003	SILICON DIODE 1N4148
D9	079-003	SILICON DIODE 1N4148
D10	080-091	LIGHT EMITTING DIODE(RED)3.15φ
D11	080-091	LIGHT EMITTING DIODE(RED)3.15φ
D12	080-091	LIGHT EMITTING DIODE(RED)3.15φ
D13	080-091	LIGHT EMITTING DIODE(RED)3.15φ
D14	080-091	LIGHT EMITTING DIODE(RED)3.15φ
D15	080-091	LIGHT EMITTING DIODE(RED)3.15φ
D16	080-077	LIGHT EMITTING DIODE(GREEN)
D17	080-077	LIGHT EMITTING DIODE(GREEN)
D18	080-077	LIGHT EMITTING DIODE(GREEN)
D19	080-077	LIGHT EMITTING DIODE(GREEN)
D20	080-077	LIGHT EMITTING DIODE(GREEN)
D21	080-077	LIGHT EMITTING DIODE(GREEN)
D22	080-077	LIGHT EMITTING DIODE(GREEN)
D23	080-076	LIGHT EMITTING DIODE(YELLOW)
D24	080-076	LIGHT EMITTING DIODE(YELLOW)
D25	080-075	LIGHT EMITTING DIODE(RED)
D26	080-075	LIGHT EMITTING DIODE(RED)
D27	080-075	LIGHT EMITTING DIODE(RED)
D28	080-077	LIGHT EMITTING DIODE(GREEN)
D29	080-077	LIGHT EMITTING DIODE(GREEN)
D30	080-077	LIGHT EMITTING DIODE(GREEN)
D31	080-077	LIGHT EMITTING DIODE(GREEN)
D32	080-077	LIGHT EMITTING DIODE(GREEN)
D33	080-077	LIGHT EMITTING DIODE(GREEN)
D34	080-077	LIGHT EMITTING DIODE(GREEN)
D35	080-076	LIGHT EMITTING DIODE(YELLOW)
D36	080-076	LIGHT EMITTING DIODE(YELLOW)
D37	080-075	LIGHT EMITTING DIODE(RED)
D38	080-075	LIGHT EMITTING DIODE(RED)
D39	080-075	LIGHT EMITTING DIODE(RED)
*D40	080-088	LED 5φ (RED&GREEN)
*D41	080-091	LIGHT EMITTING DIODE(RED)3.15φ
*D42	079-003	SILICON DIODE 1N4148
*D43	079-003	SILICON DIODE 1N4148
Ics		
IC1	074-104	IC NJM4558L
(PDM)IC1	074-123	IC TC4077BP
IC2	074-104	IC NJM4558L
(PDM)IC2	074-121	IC M74LS122N
IC3	074-104	IC NJM4558L
(PDM)IC3	074-121	IC M74LS122N
(PDM)IC4	074-122	IC M74LS73N
(PDM)IC5	074-120	IC M74LS193N
(PDM)IC6	074-119	IC DM74LS00N

Symbol No.	Parts No.	Description
IC7	074-104	IC NJM4558L
(PDM)IC7	074-120	IC M74LS193N
IC8	074-104	IC NJM4558L
(PDM)IC8	074-125	IC SA82S129
IC9	074-104	IC NJM4558L
(PDM)IC9	074-124	IC SN74LS148N
IC10	074-104	IC NJM4558L
IC11	074-104	IC NJM4558L
IC12	074-111	IC LB1412
IC13	074-111	IC LB1412
IC14	074-104	IC NJM4558L
IC15	074-104	IC NJM4558L
IC16	074-113	IC NJM4556L
IC17	074-104	IC NJM4558L

Transistors

*TR1	076-096	FET 2SK363
*TR2	076-096	FET 2SK363
*TR3	076-096	FET 2SK363
TR4	076-002	SILICON TRANSISTOR 2SC945P
TR5	076-002	SILICON TRANSISTOR 2SC945P
TR6	076-104	SILICON TRANSISTOR 2SA1317
TR7	076-095	SILICON TRANSISTOR 2SC2878
TR8	076-095	SILICON TRANSISTOR 2SC2878
TR9	076-095	SILICON TRANSISTOR 2SC2878
TR10	076-095	SILICON TRANSISTOR 2SC2878
*TR11	076-107	FET 2SJ104
TR12	076-002	SILICON TRANSISTOR 2SC945P
(PDM)TR	076-002	SILICON TRANSISTOR 2SC945P

Electrical Parts

J2	092-071	PHONE JACK 6.3φ
VR1	072-091	SLIDE VR 45mm 10KAX2
VR2	072-091	SLIDE VR 45mm 10KAX2
VR3	072-091	SLIDE VR 45mm 10KAX2
VR4	071-135	ROTARY VR16φ 20mm 20KA
VR5	071-135	ROTARY VR16φ 20mm 20KA
VR6	071-102	ROTARY VR16φ 20mm 250KA
VR8	071-104	ROTARY VR16φ 20mm 20KWX2
VR9	071-104	ROTARY VR16φ 20mm 20KWX2
VR10	071-104	ROTARY VR16φ 20mm 20KWX2
VR11	071-136	ROTARY VR16φ 20mm 20KMNX2
VR12	071-184	ROTARY VR16φ 20mm 50KAX2
VR13	071-184	ROTARY VR16φ 20mm 50KAX2
VR14	072-092	SLIDE VR 30mm L=15mm 20KBX2
VR15	071-084	ROTARY VR16φ 20mm 50KAX2
*VR16	071-101	ROTARY VR16φ 20mm 10KB
*VR17	071-102	ROTARY VR16φ 20mm 250KA
S1	082-019	LEVER SWITCH 4P2C
S2	082-019	LEVER SWITCH 4P2C
S3	082-019	LEVER SWITCH 4P2C
S4	081-027	SLIDE SWITCH SSSF122NA1-CE

Symbol No.	Parts No.	Description
S5	082-022	LEVER SWITCH 4P3C
S6	083-031	ROTARY SWITCH 1-2-4 L=17mm
S7	083-031	ROTARY SWITCH 1-2-4 L=17mm
S8	082-020	LEVER SWITCH 2P2C
S9	083-092	4KEY PUSH SWITCH 2P2C
S10	083-092	4KEY PUSH SWITCH 2P2C
S11	083-092	4KEY PUSH SWITCH 2P2C
*S13	083-092	4KEY PUSH SWITCH 2P2C
*S14	083-092	4KEY PUSH SWITCH 2P2C
*S15	083-092	4KEY PUSH SWITCH 2P2C
*S16	083-092	4KEY PUSH SWITCH 2P2C
*S17	083-023	MICRO SWITCH 2P2C
*S18	083-029	ROTARY SWITCH 1-2-3 L=17mm
*S19	083-069	PUSH SWITCH 2P2C
CN1	092-026	3P CONNECTOR BASE B3B-XH-A
CN2	092-027	6P CONNECTOR BASE B6B-XH-A
CN3	092-027	6P CONNECTOR BASE B6B-XH-A
CN4	092-027	6P CONNECTOR BASE 6B-XH-A
CN5	092-027	6P CONNECTOR BASE B6B-XH-A
CN6	092-027	6P CONNECTOR BASE B6B-XH-A
CN7	092-030	2P CONNECTOR BASE B2B-XH-A
CN8	092-039	5P CONNECTOR BASE B5B-XH-A
CN9	092-026	3P CONNECTOR BASE B3B-XH-A
CN10	092-026	3P CONNECTOR BASE B3B-XH-A
	092-099	4P CONNECTOR BASE B4P-XH-90°
	092-045	3P CONNECTOR BASE B3P-XH-90°
	092-047	6P CONNECTOR BASE B6P-XH-90°
	092-098	7P CONNECTOR BASE B7P-XH-90°
(PDM)CN1	092-084	5P CONNECTOR BASE
(PDM)CN2	092-021	3P CONNECTOR BASE
(PDM)CN3	092-021	3P CONNECTOR BASE
(PDM)CN4	092-084	5P CONNECTOR BASE

Packing

101	157-742	OWNER'S MANUAL(PMX-1600)
101	157-743	OWNER'S MANUAL(PDM-4012)
102	155-861	GIFT BOX(PMX-1600)
102	155-862	GIFT BOX (PDM-4012)
103	153-136	POLYFORM (PMX-1600/PDM-4012)
104	156-070	WARRANTY CARD(RMX-1600)
104	156-071	WARRANTY CARD(PDM-4012)