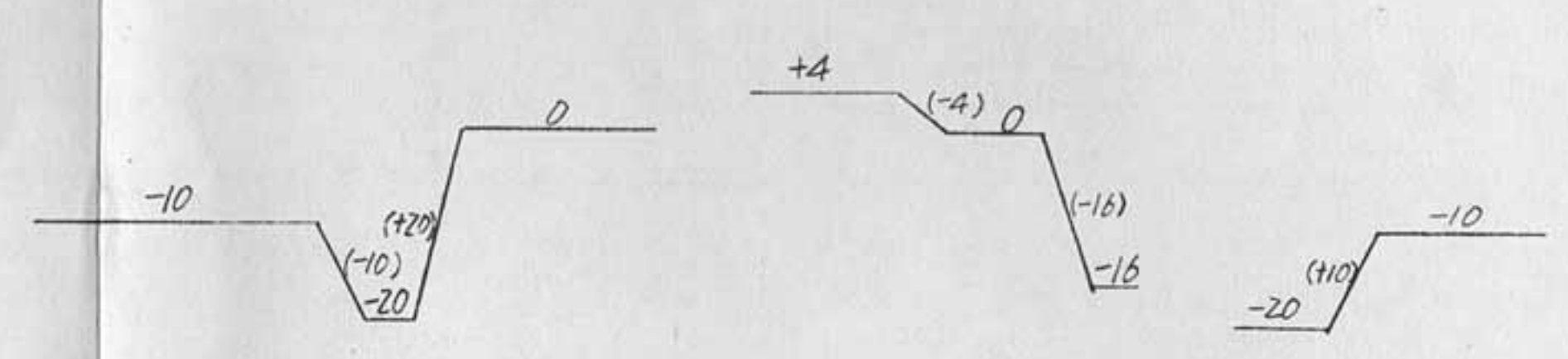
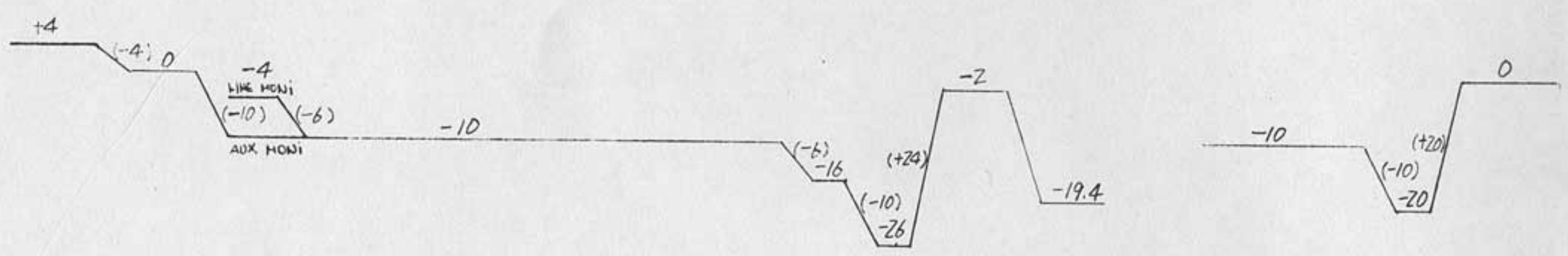
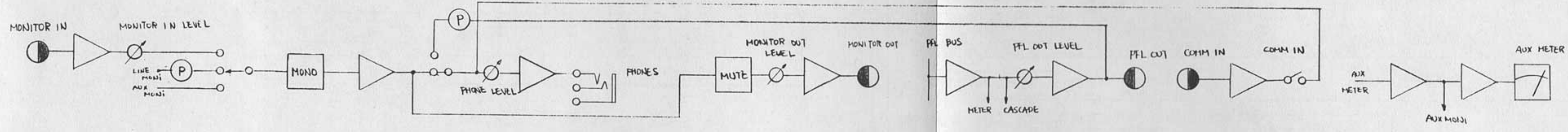
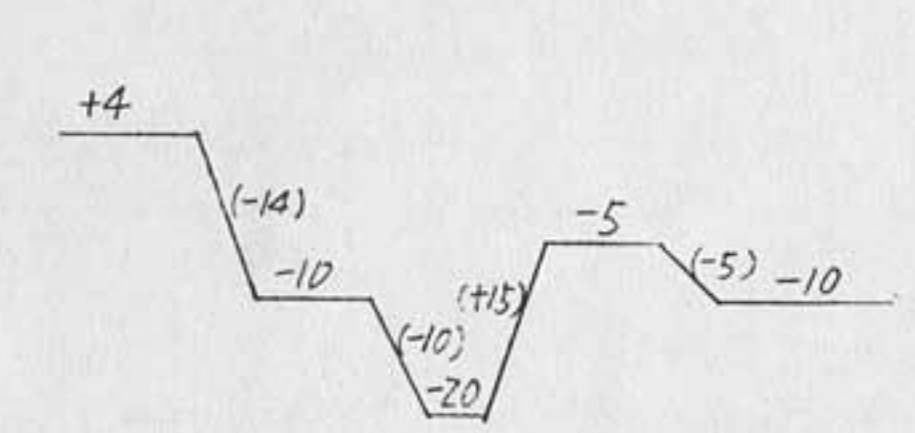
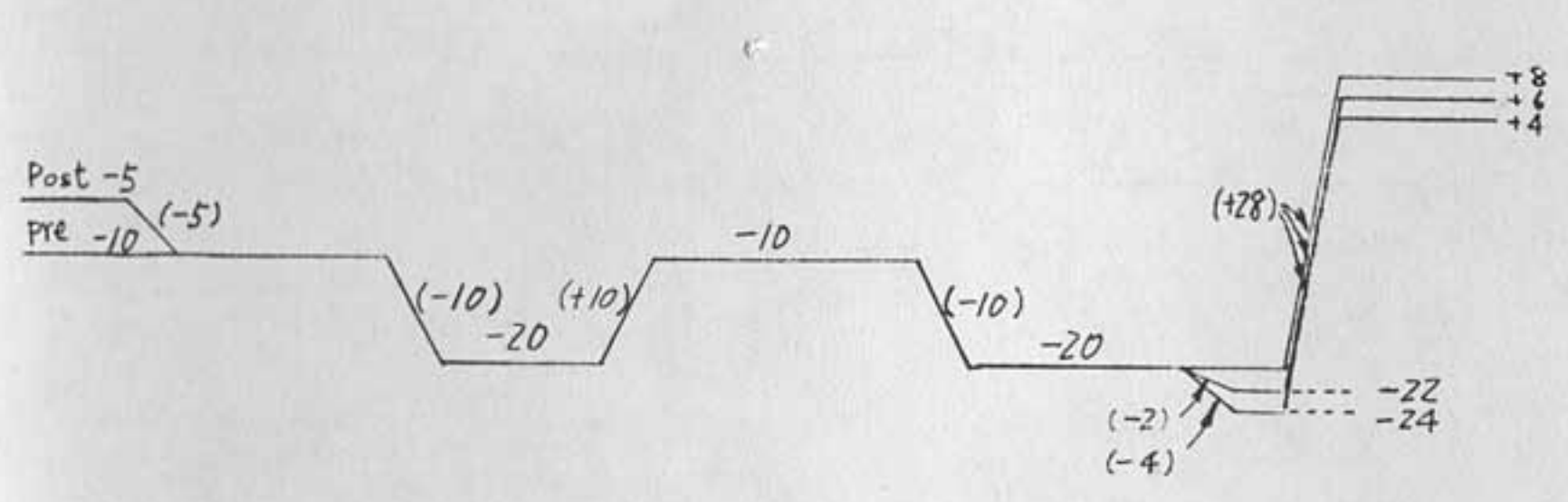
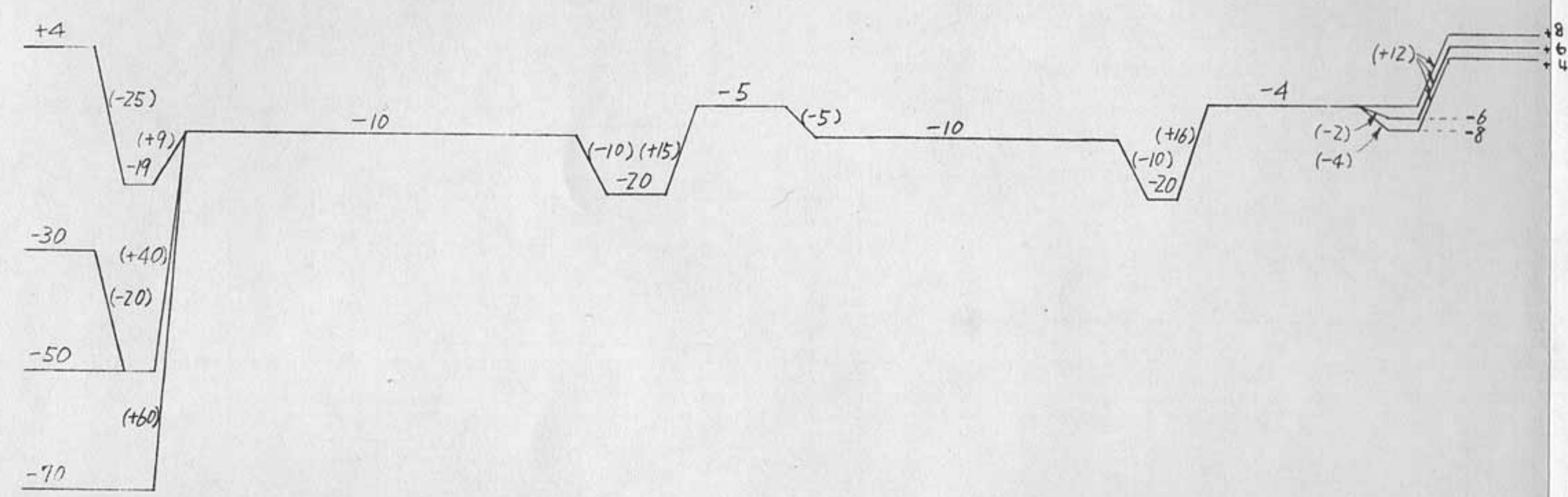
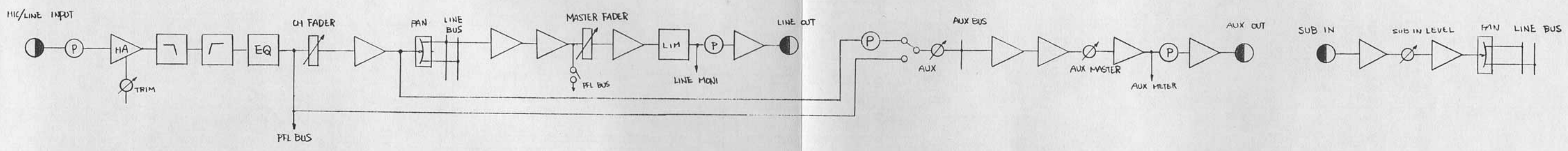


LEVEL DIAGRAM

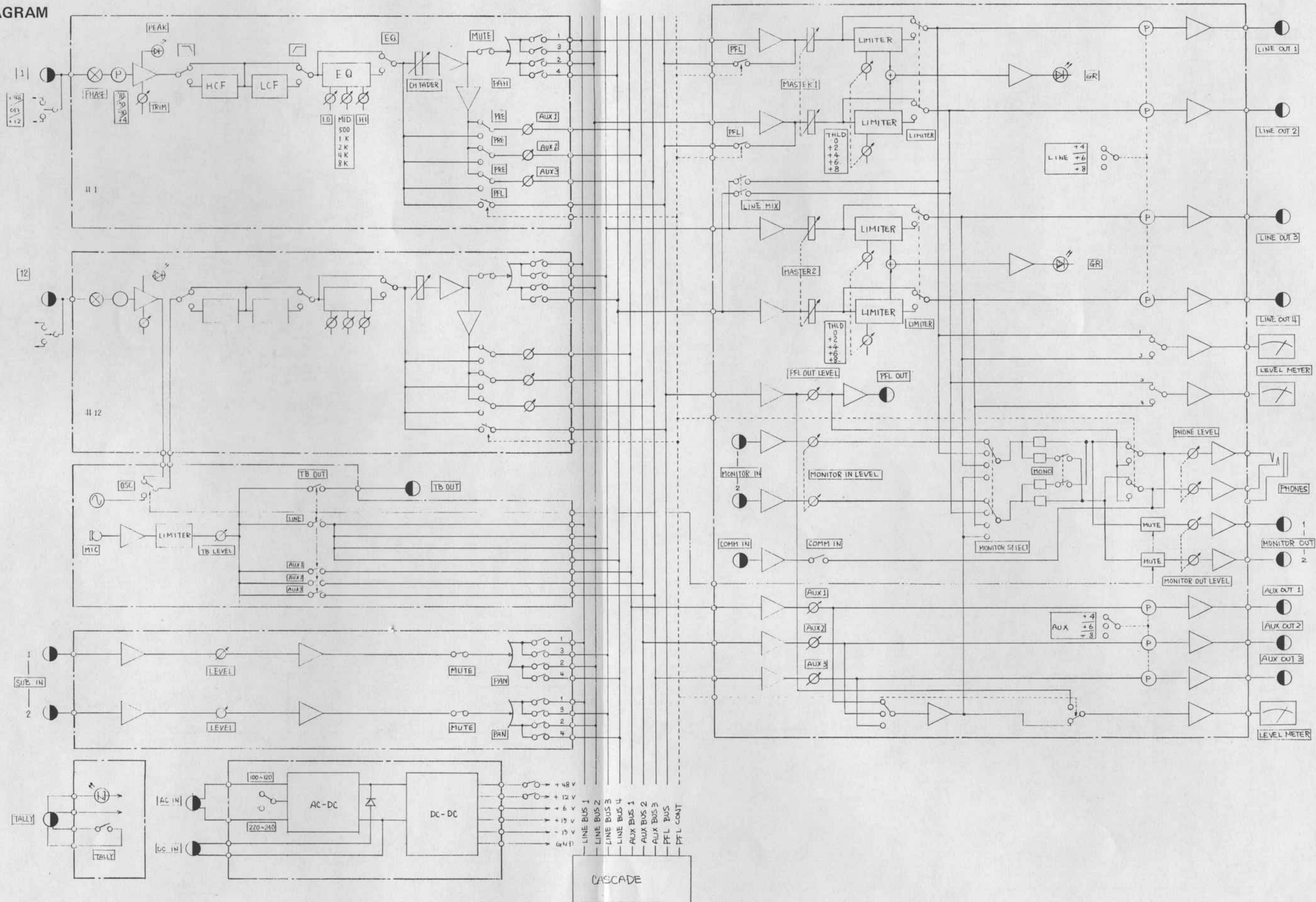
LEVEL DIAGRAM

SECTION 4
DIAGRAM

4-1. LEVEL DIAGRAM

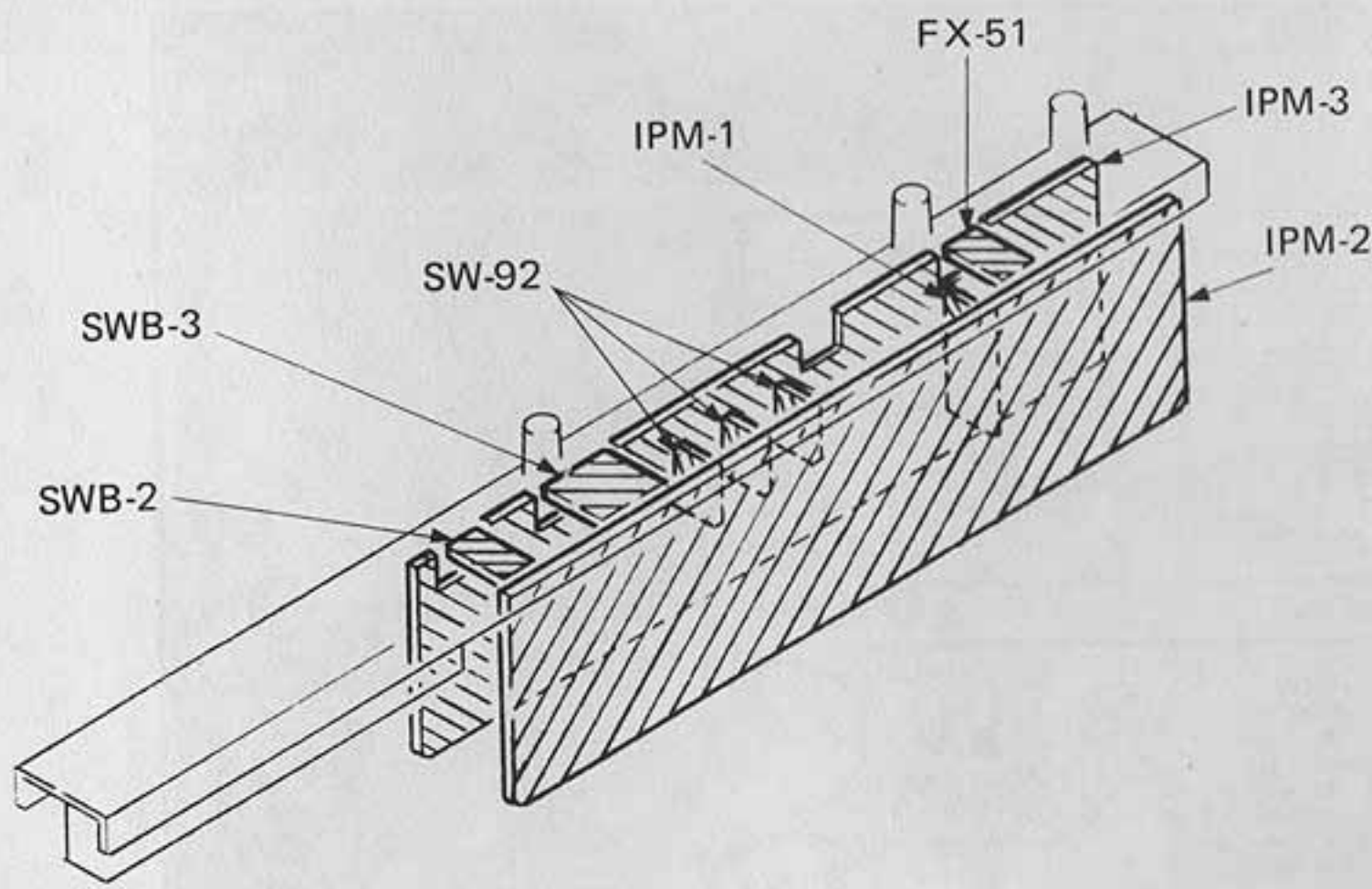


4-2. BLOCK DIAGRAM

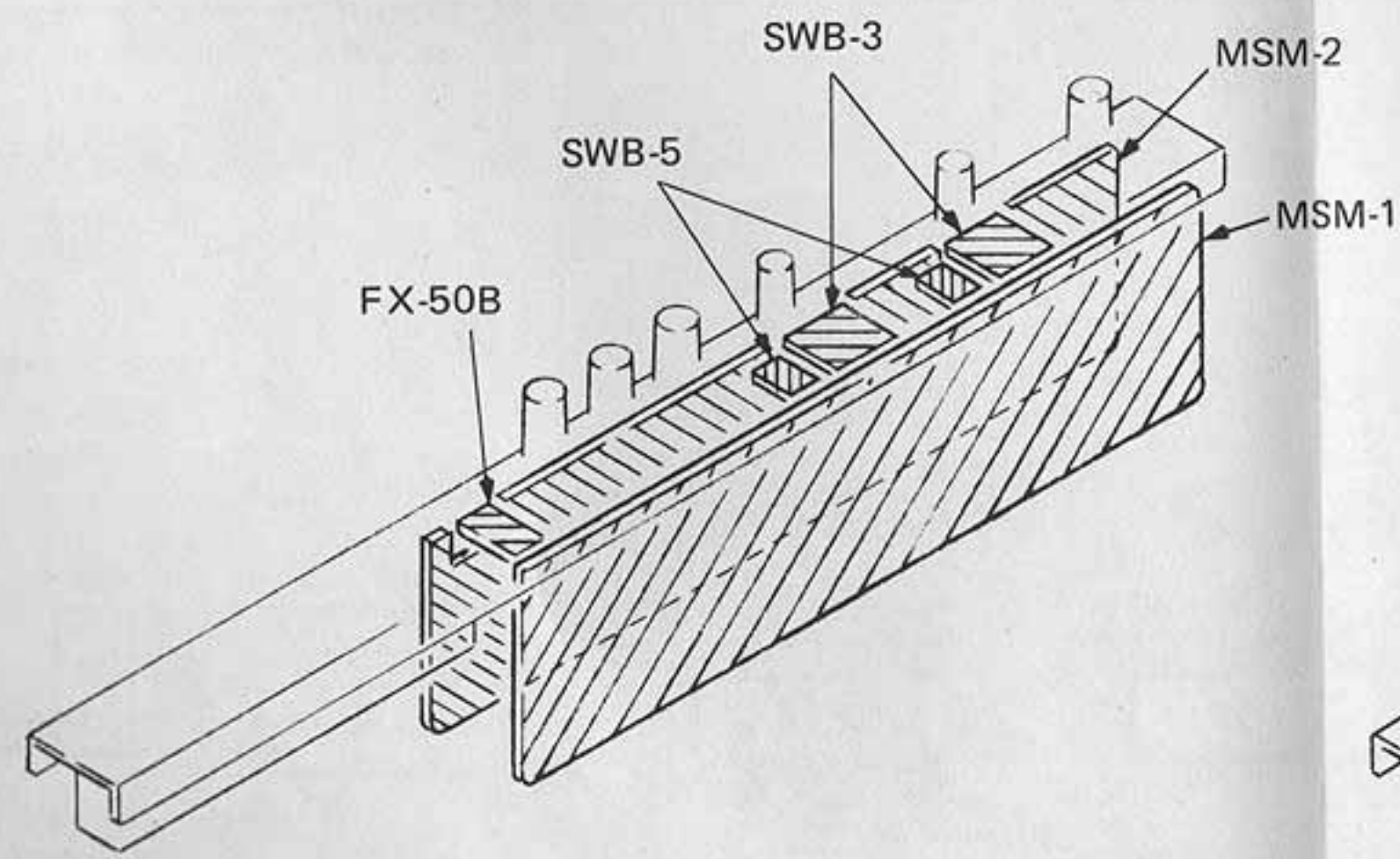


4-3. LOCATION OF THE PRINTED CIRCUIT BOARD

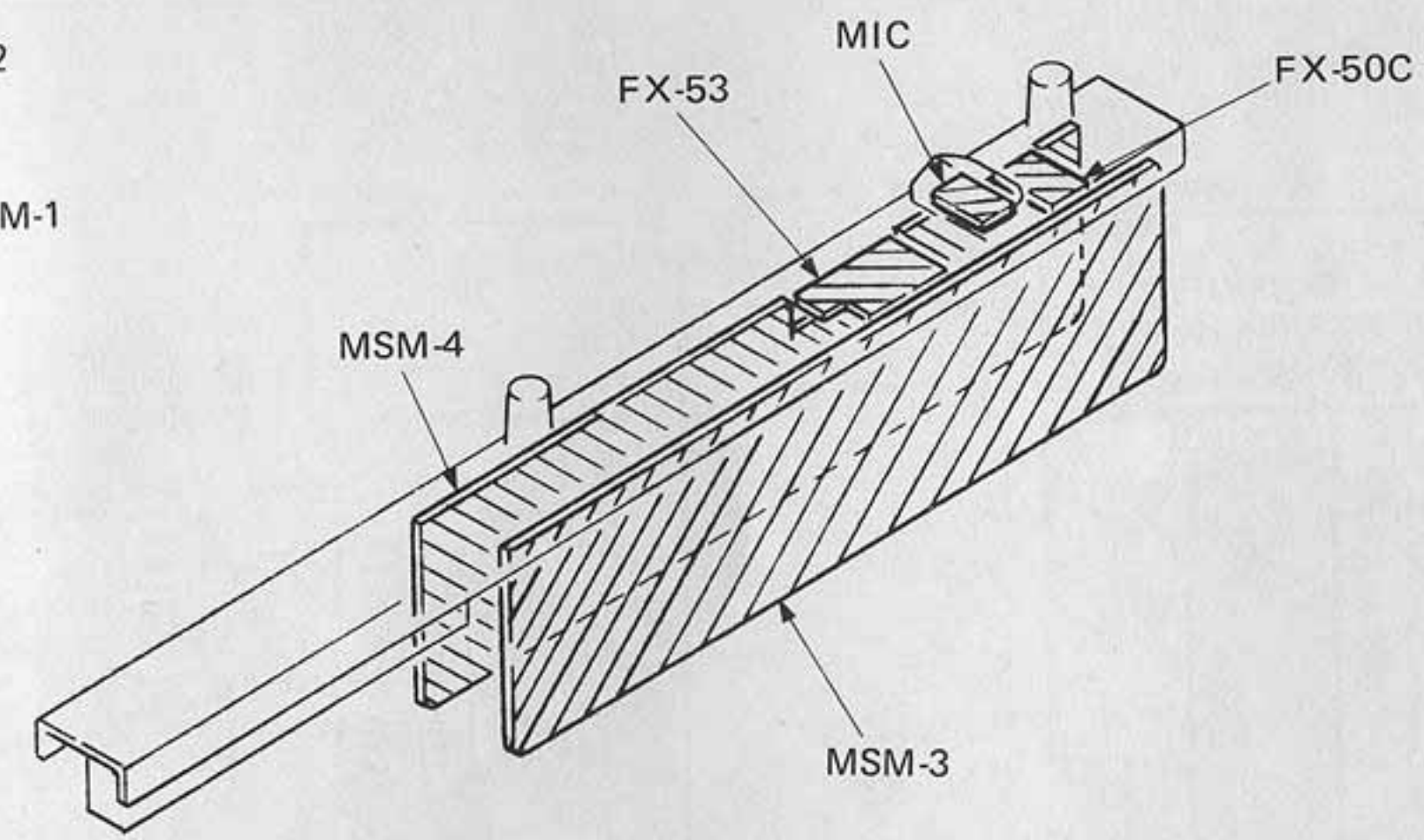
<INPUT MODULE>



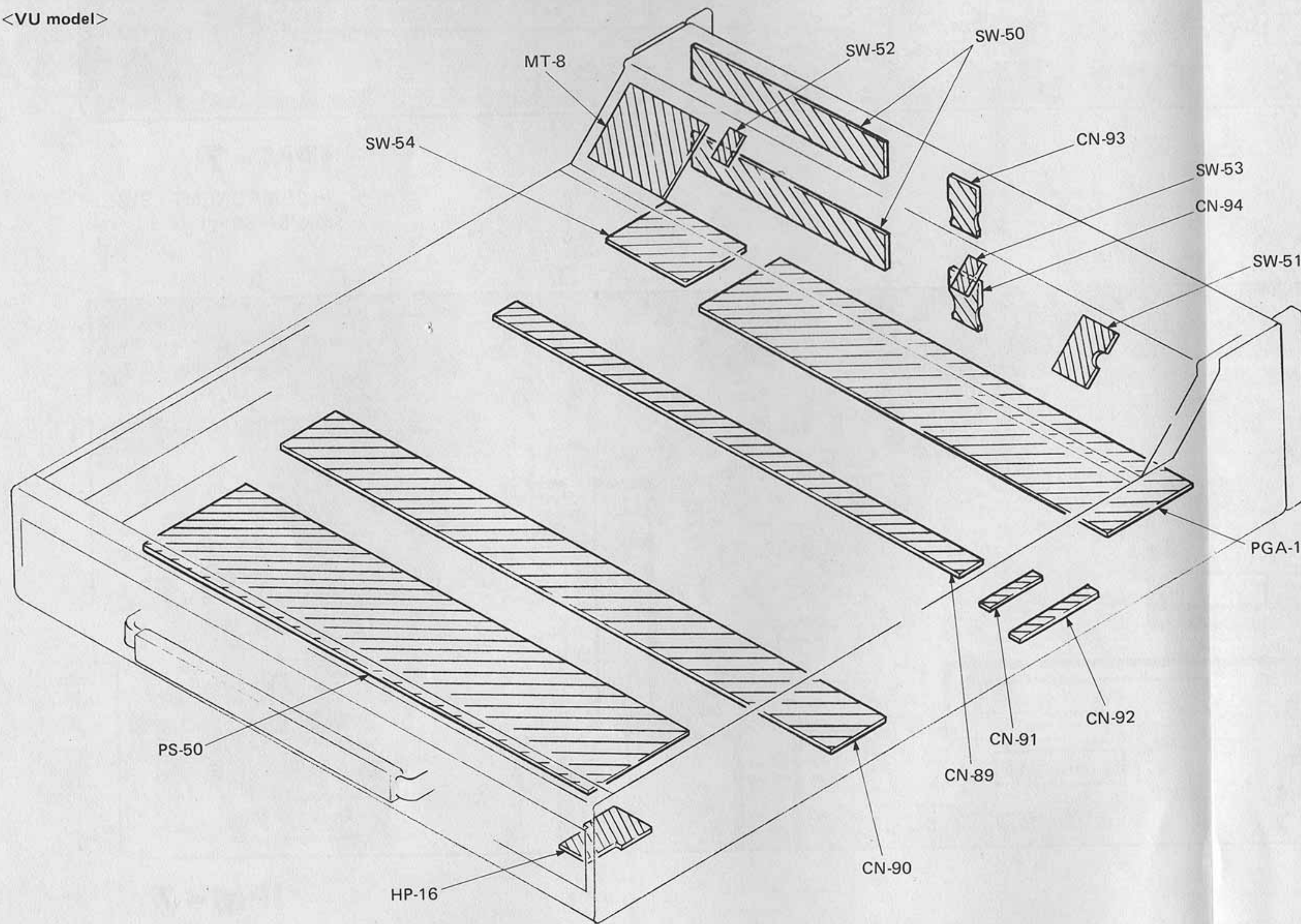
<MASTER 1 MODULE>



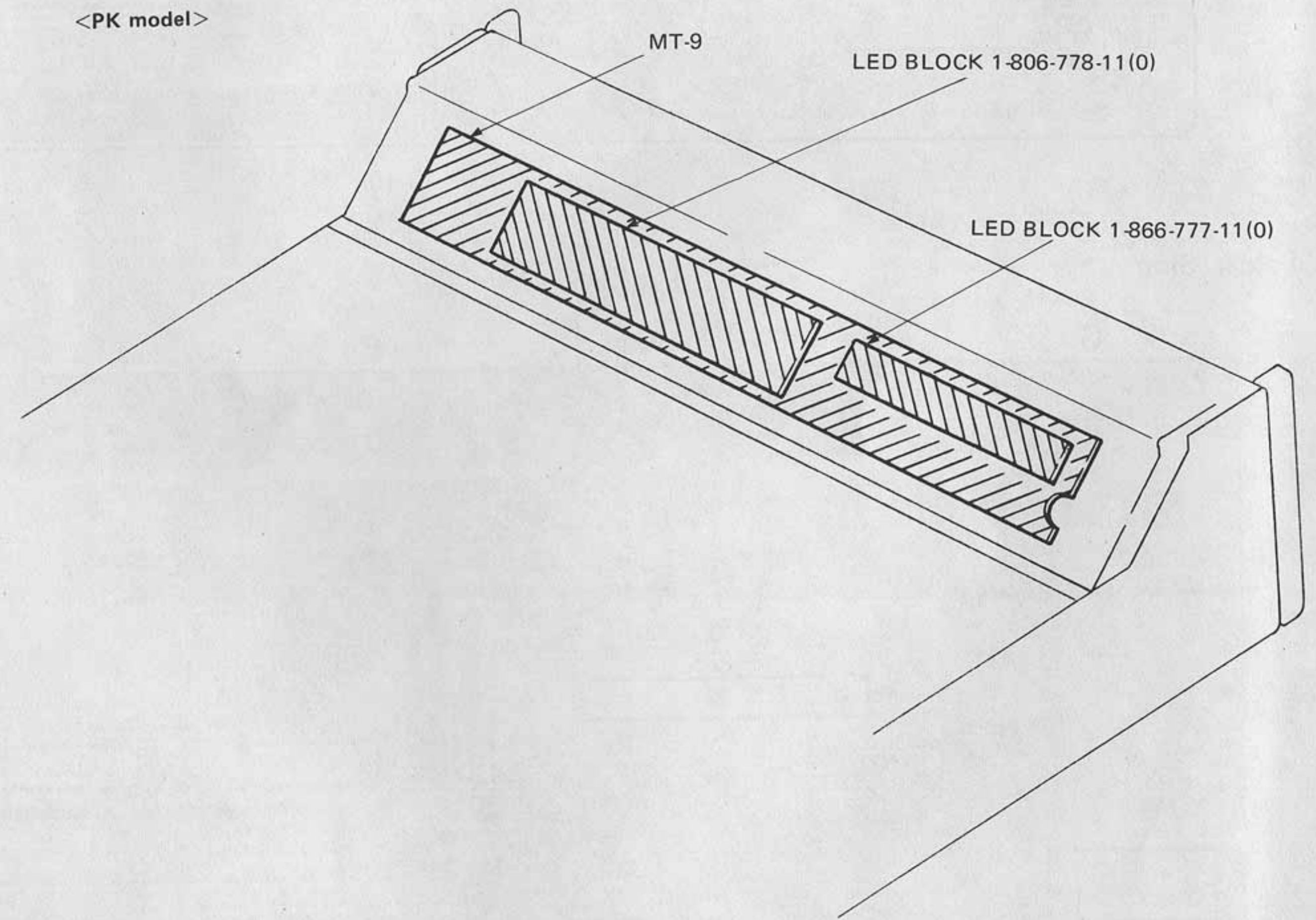
<MASTER 2 MODULE>



<VU model>

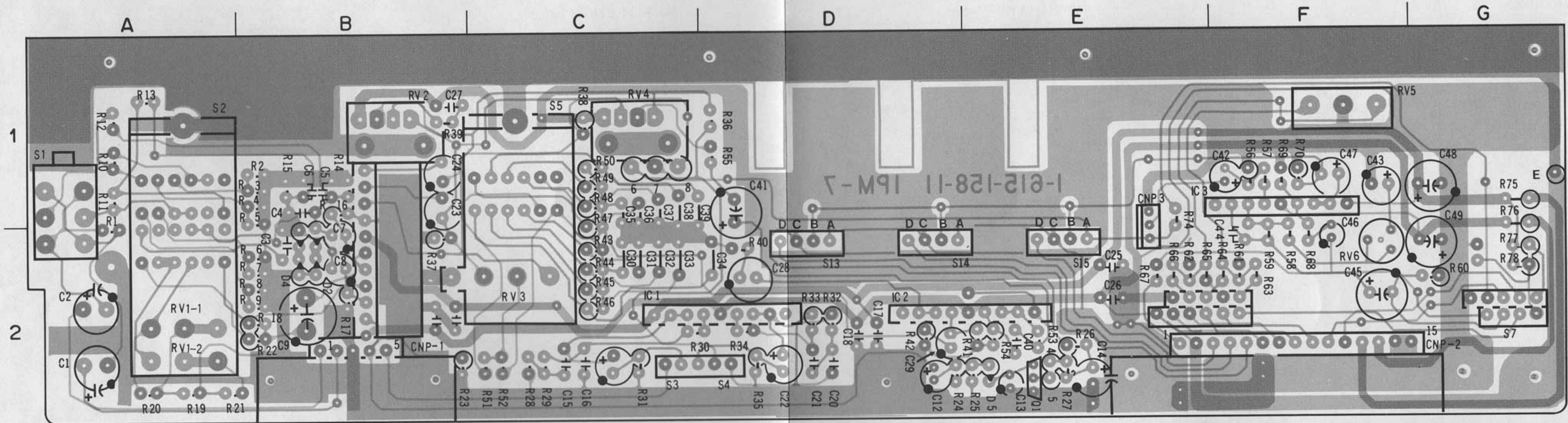


<PK model>



4-4. SCHEMATIC DIAGRAM AND BOARD LAYOUT

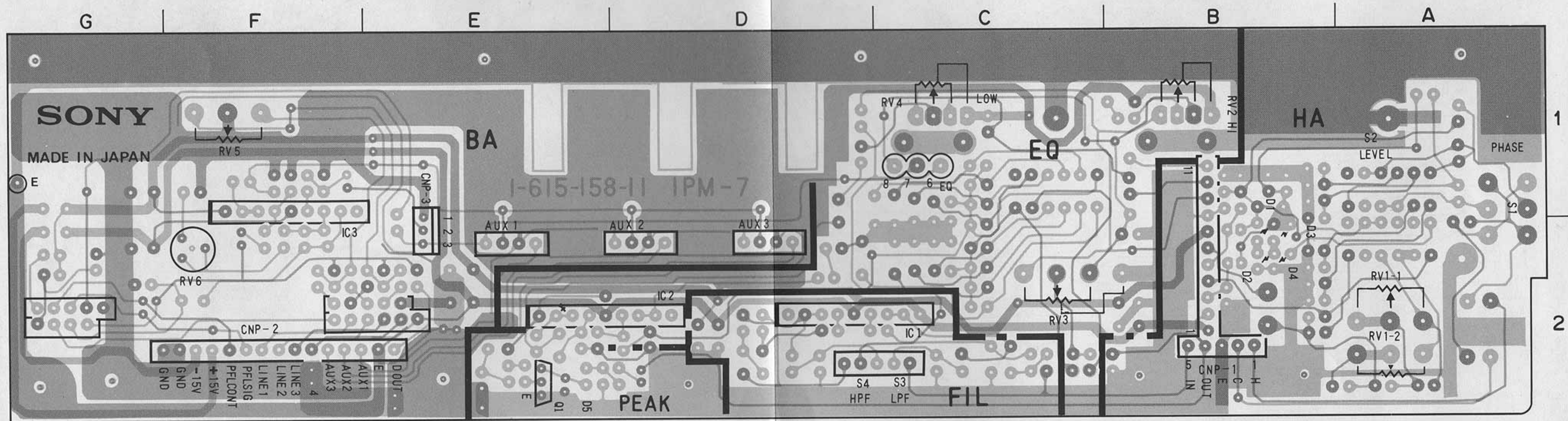
(INPUT MODULE)
IPM-7 BOARD (1-615-158-11)
Component Side



IPM-7

— COMPONENT SIDE —
1-615-158-11

Solder Side

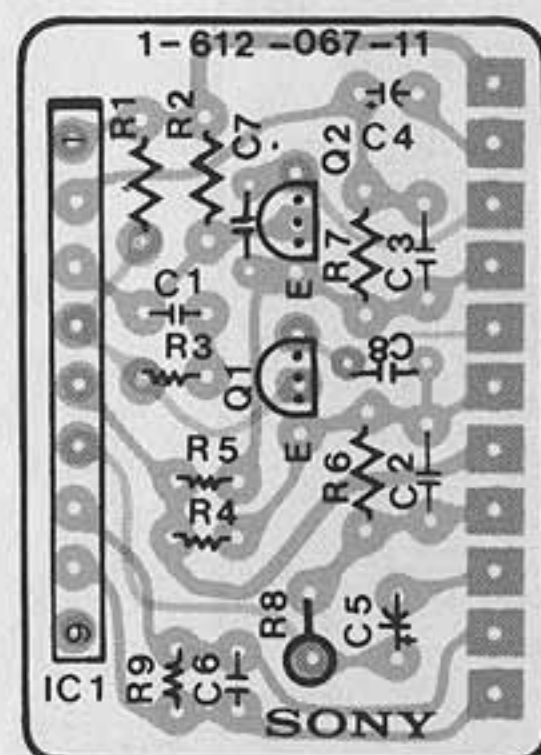


IPM-7

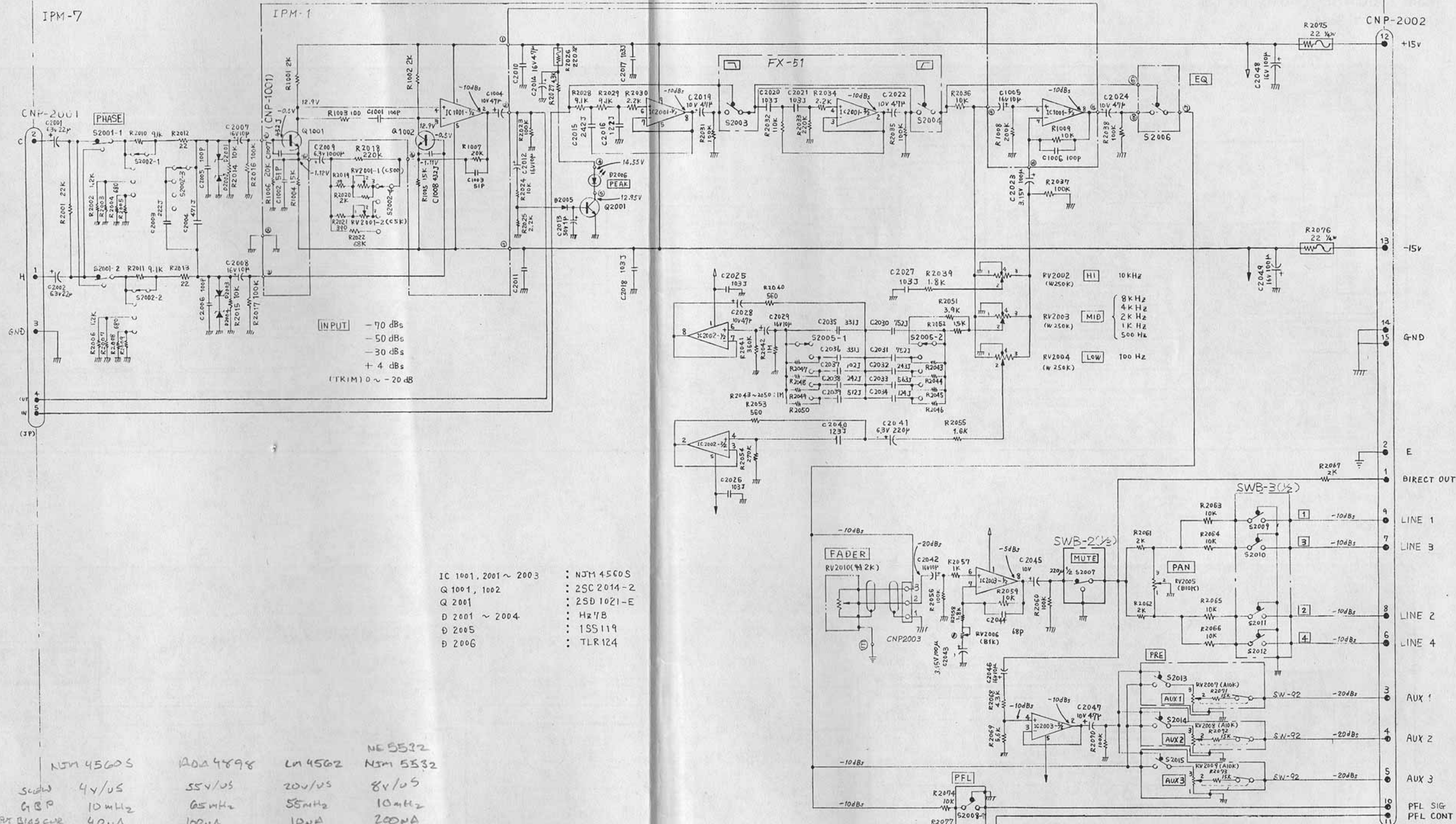
— SOLDER SIDE —
1-615-158-11

INPUT MODULE INPUT MODULE

(INPUT MODULE)
 IPM-1 BOARD
 IPM-7 BOARD
 FX-51 BOARD
 SW-92 BOARD
 SWB-2 BOARD
 SWB-3 BOARD



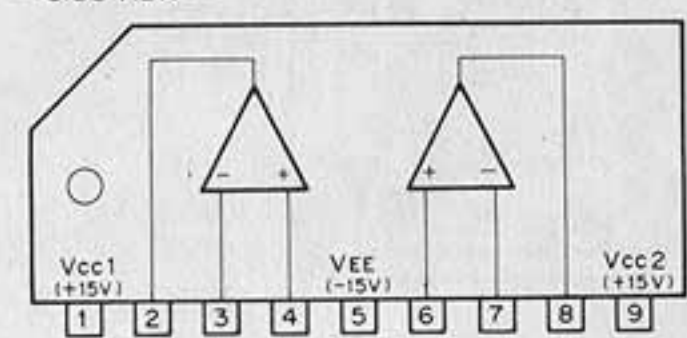
IPM-1
 -COMPONENT SIDE-
 1-612-067-11
 MX: P61VU, MX-P61PK



- IC 1001, 2001 ~ 2003 : NJM 4560S
- Q 1001, 1002 : 2SC 2014-2
- Q 2001 : 2SD 1021-E
- D 2001 ~ 2004 : HZ 7B
- D 2005 : 1SS 119
- D 2006 : TLR 124

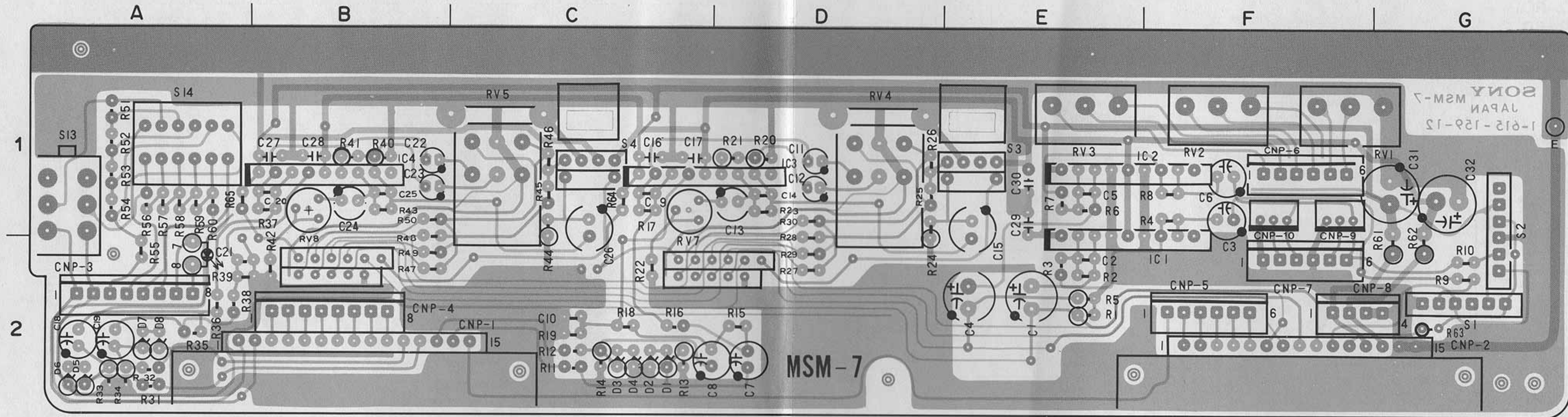
NJM 4560S	ADA 4898	LM 4562	NE 5532
SWD 4V/0.5	55V/0.5	20V/0.5	8V/0.5
GBP 10MHz	65MHz	55MHz	10MHz
INPUT BIAS CUR 40nA	100nA	10nA	200nA
INPUT OFFSET VOLT 500uV	20uV	100uV	500uV
SUPPLY 4.3mA	8.1uA	10nA	9uA
	5.29mA	4.28mA	1.15mA

NJM4560S (JRC)
 HIGH PERFORMANCE DUAL OPERATIONAL AMPLIFIER
 - SIDE VIEW -



IPM-1
IPM-7
FX-51
SW-92
SWB-2
SWB-3

(MASTER 1 MODULE)
MSM-7 BOARD (1-615-159-12)
Component Side

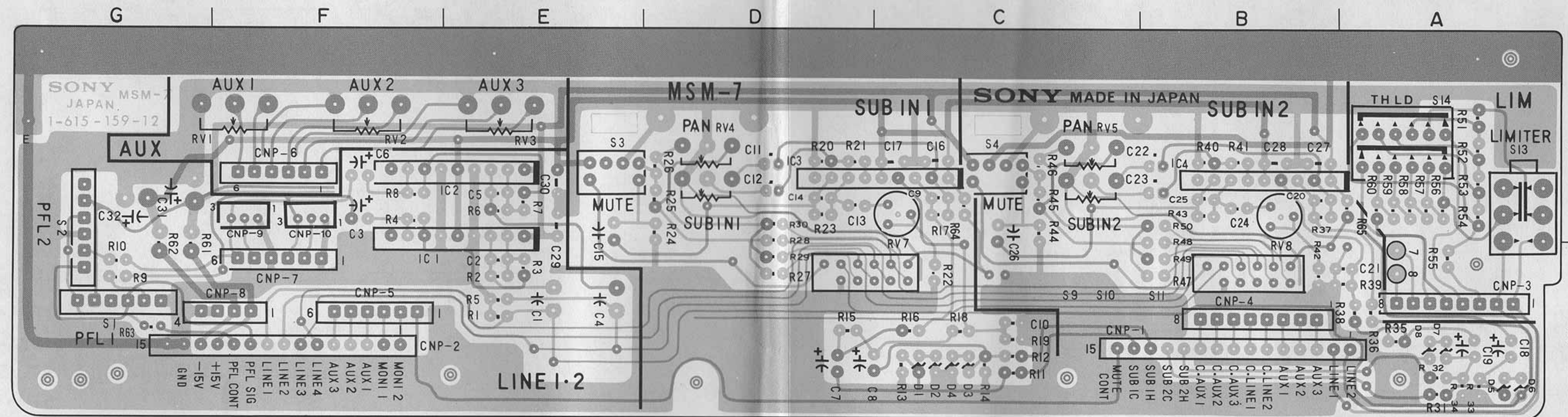


■ COMPONENT SIDE PATTERN
■ SOLDER SIDE PATTERN

MSM-7

- COMPONENT SIDE -
1-615-159-12

Solder Side



■ SOLDER SIDE PATTERN
■ COMPONENT SIDE PATTERN

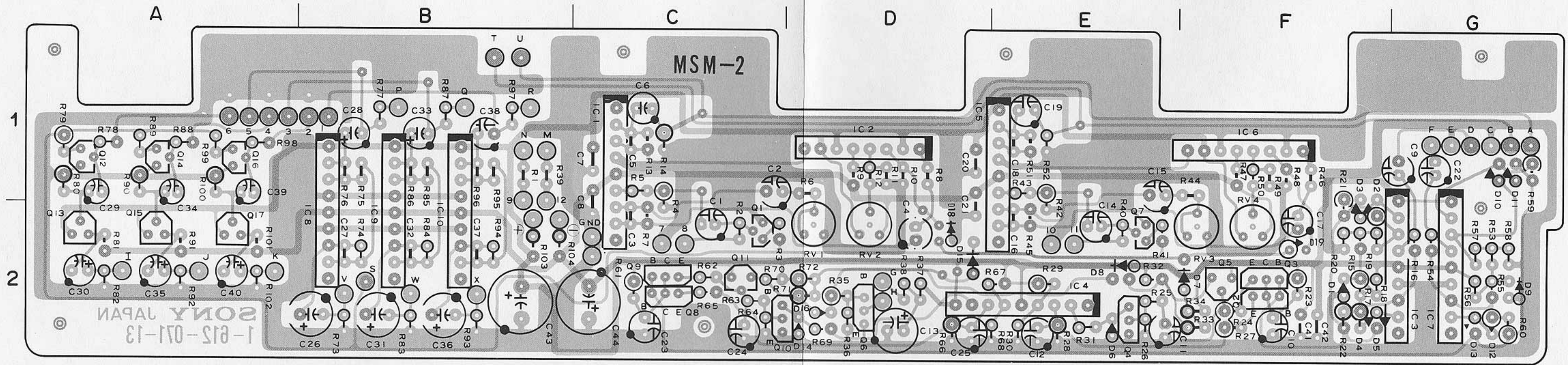
MSM-7

- SOLDER SIDE -
1-615-159-12

MSM-2

MSM-2

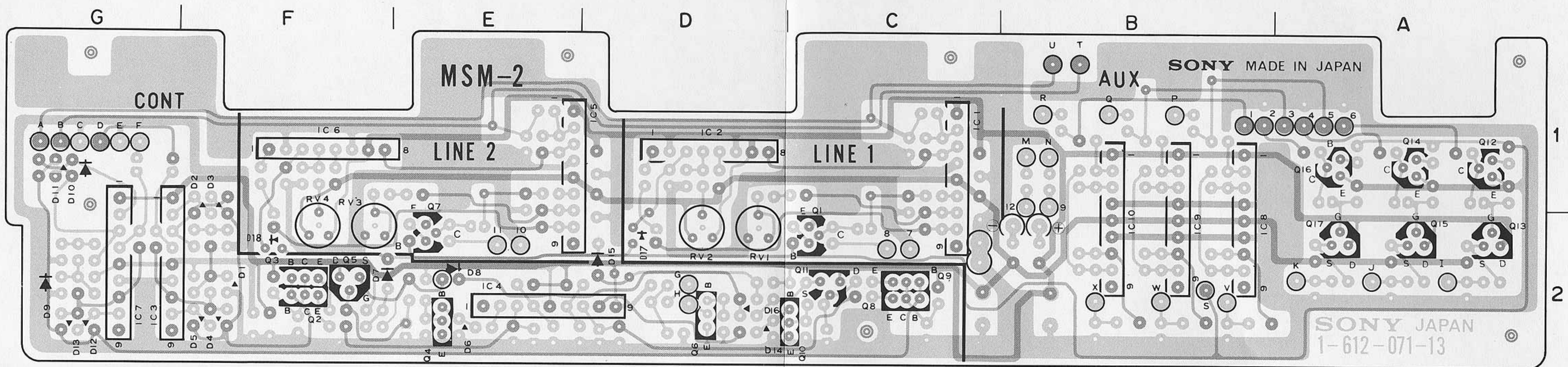
(MASTER 1 MODULE)
MSM-2 BOARD (1-612-071-13)
Component Side



■ COMPONENT SIDE PATTERN
 ■ SOLDER SIDE PATTERN

MSM-2
 - COMPONENT SIDE -
 1-612-071-13

Solder Side



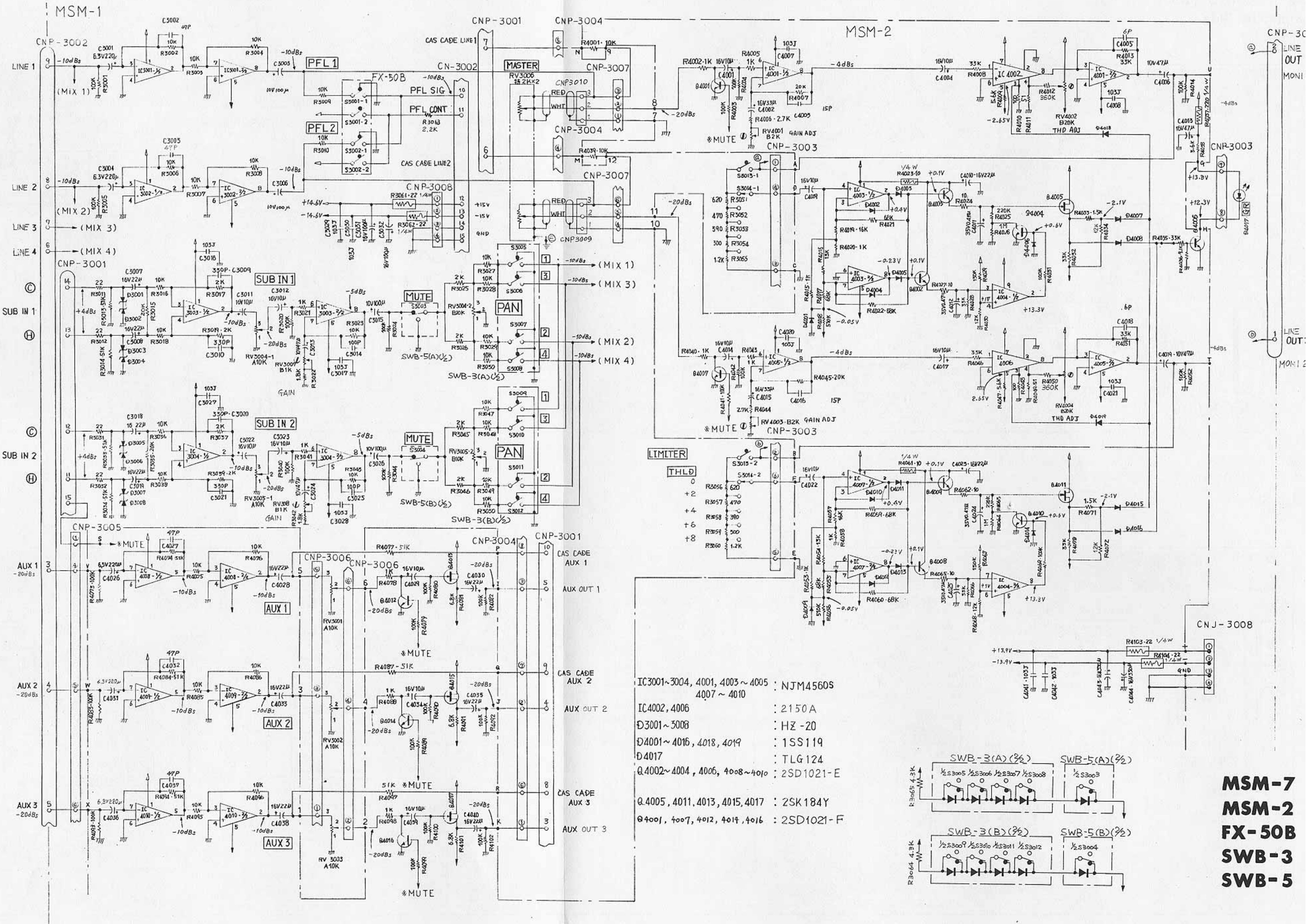
■ SOLDER SIDE PATTERN
 ■ COMPONENT SIDE PATTERN

MSM-2
 - SOLDER SIDE -
 1-612-071-13

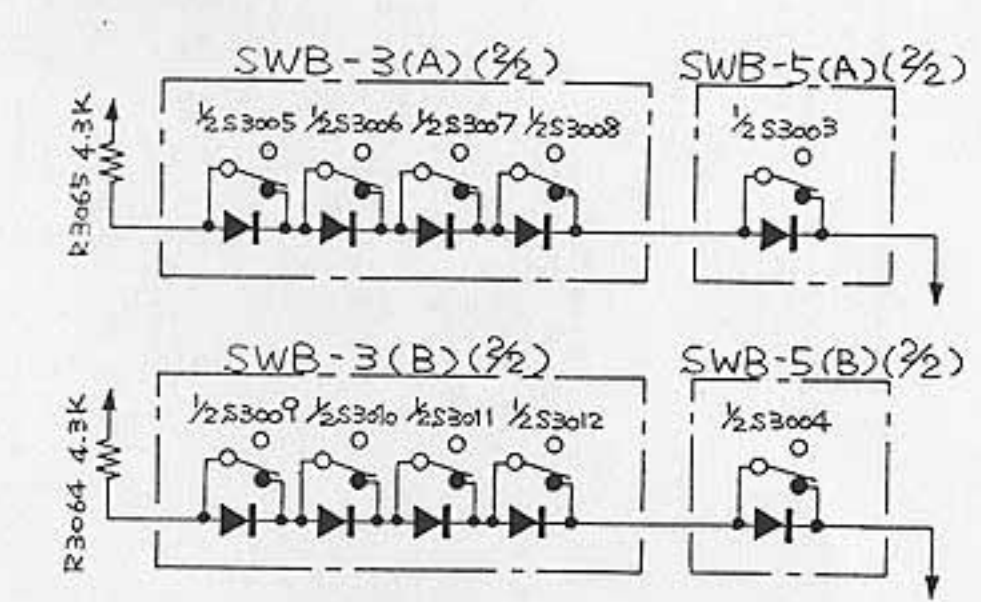
MASTER 1 MODULE

MASTER 1 MODULE

(MASTER 1 MODULE)
 MSM-7 BOARD
 MSM-2 BOARD
 FX-50B BOARD
 SWB-3 BOARD
 SWB-5 BOARD



- IC3001-3004, 4001, 4003~4005 : NJM45605
- 4007~4010 : 2150 A
- IC4002, 4006 : 2150 A
- D3001~3008 : HZ-20
- D4001~4016, 4018, 4019 : 1SS119
- D4017 : TLG124
- Q4002~4004, 4006, 4008~4010 : 2SD1021-E
- Q4005, 4011, 4013, 4015, 4017 : 2SK184Y
- Q4001, 4007, 4012, 4014, 4016 : 2SD1021-F



MSM-7
MSM-2
FX-50B
SWB-3
SWB-5

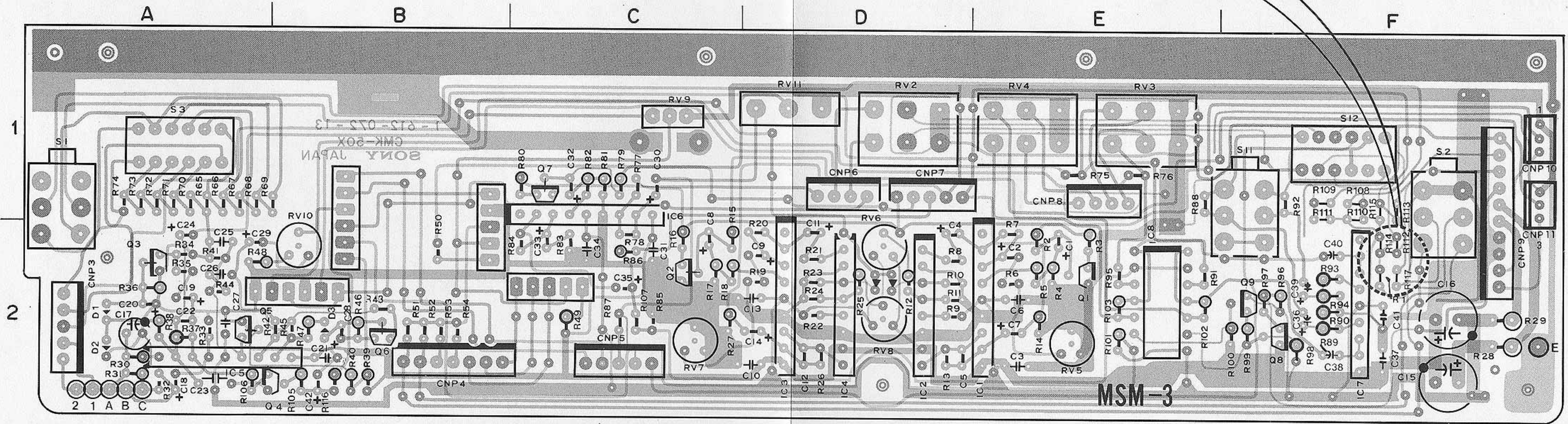
MSM-3

MSM-3

(MASTER 2 MODULE)
MSM-3 BOARD (1-612-072-13)
Component Side

New

Note: New
MX-P61VU: SERIAL No. 10151 and higher (J)
SERIAL No. 20146 and higher (U)
SERIAL No. 50075 and higher (AEP)
MX-P61PK: SERIAL No. 28028 and higher (U)
SERIAL No. 58118 and higher (AEP)

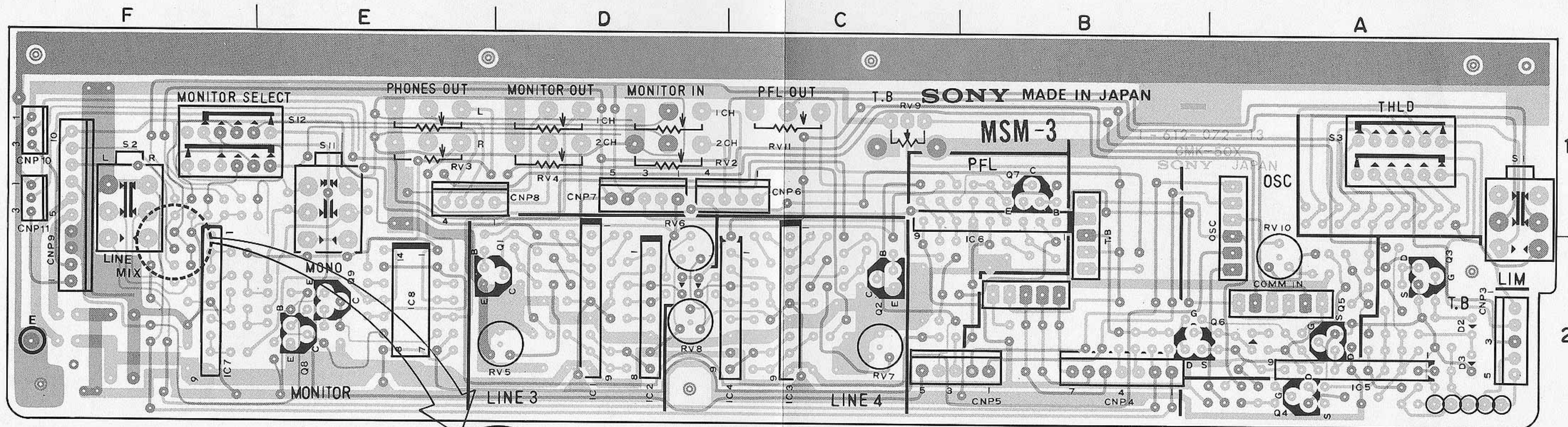


■ COMPONENT SIDE PATTERN
■ SOLDER SIDE PATTERN

Solder Side

MSM-3

— COMPONENT SIDE —
1-612-072-13



■ SOLDER SIDE PATTERN
■ COMPONENT SIDE PATTERN

4-19

Note: New
MX-P61VU: SERIAL No. 10151 and higher (J)
SERIAL No. 20146 and higher (U)
SERIAL No. 50075 and higher (AEP)
MX-P61PK: SERIAL No. 28028 and higher (U)
SERIAL No. 58118 and higher (AEP)

4-20

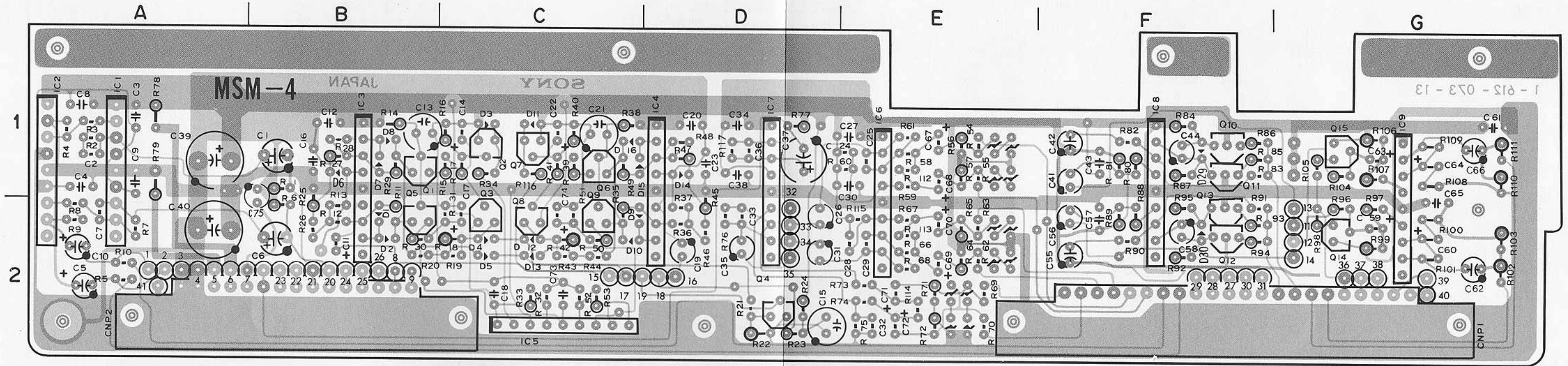
MSM-3

— SOLDER SIDE —
1-612-072-13

MSM-4

MSM-4

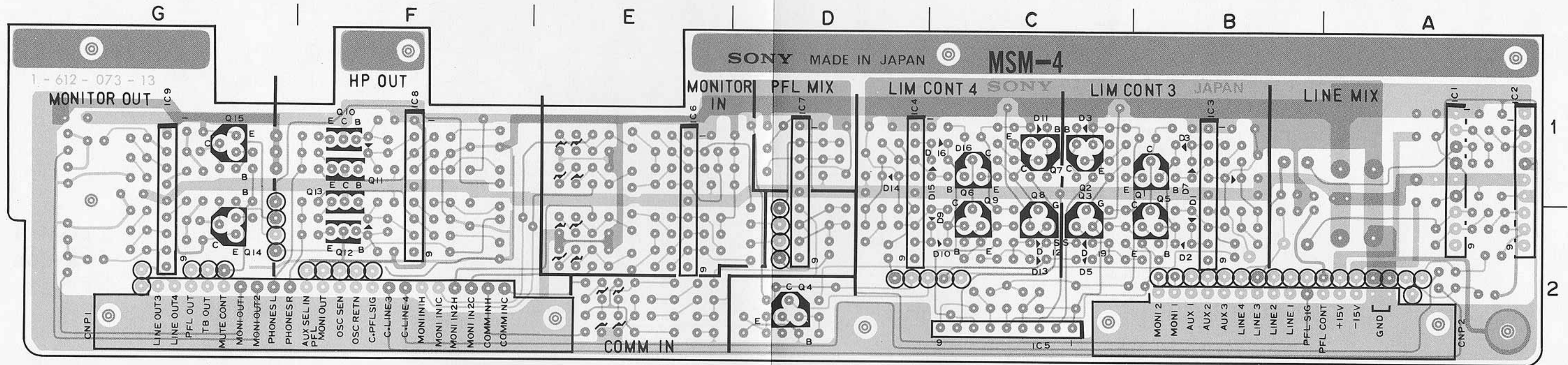
(MASTER 2 MODULE)
MSM-4 BOARD (1-612-073-13)
Component Side



■ COMPONENT SIDE PATTERN
■ SOLDER SIDE PATTERN

MSM-4
— COMPONENT SIDE —
1-612-073-13

Solder Side



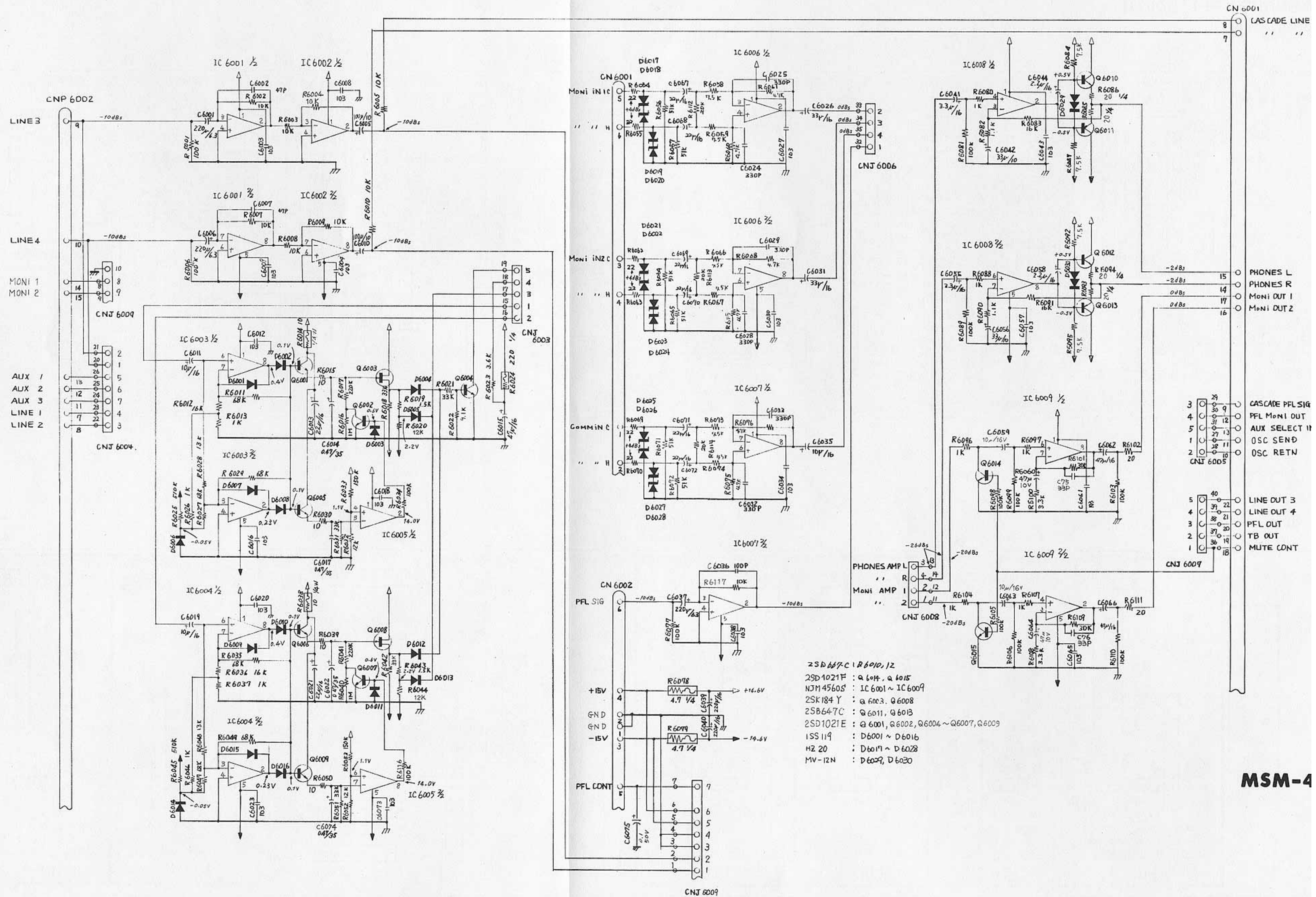
■ SOLDER SIDE PATTERN
■ COMPONENT SIDE PATTERN

MSM-4
— SOLDER SIDE —
1-612-073-13

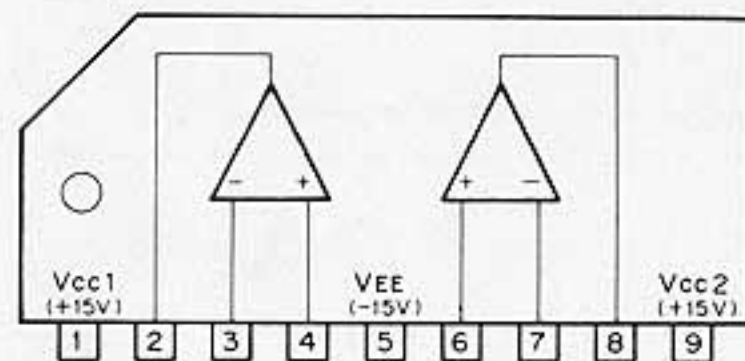
MASTER 2 MODULE (2/2)

MASTER 2 MODULE (2/2)

(MASTER 2 MODULE)
MSM-4 BOARD



NJM4560S (JRC)
HIGH PERFORMANCE DUAL OPERATIONAL AMPLIFIER
— SIDE VIEW —



MSM-4

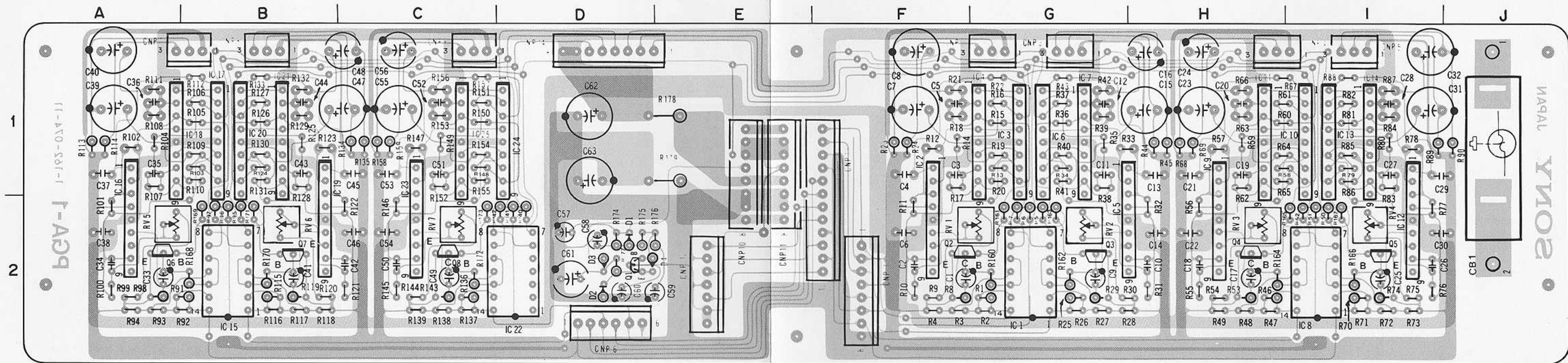
PGA-1

PGA-1

(PGA)

PGA-1 BOARD (1-612-074-11)

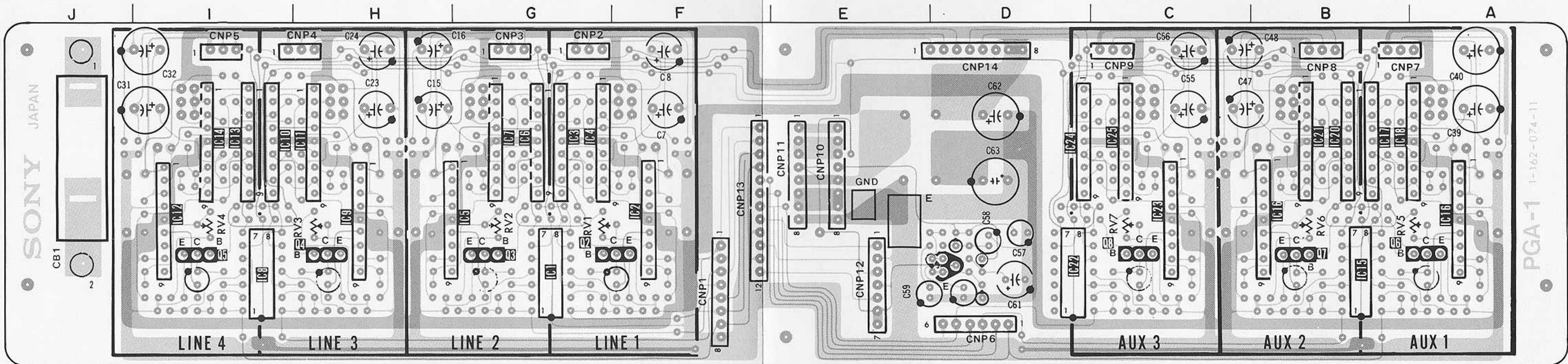
Component Side



■ COMPONENT SIDE PATTERN
 ■ SOLDER SIDE PATTERN

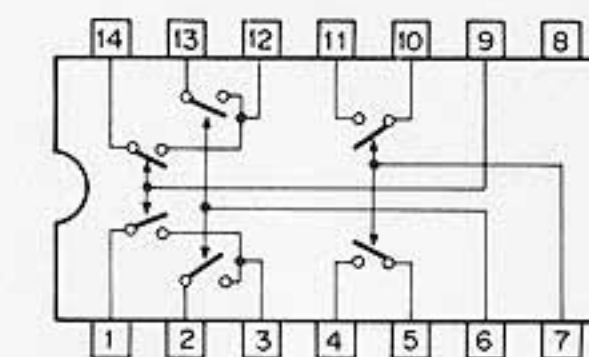
PGA-1
 - COMPONENT SIDE -
 1-612-074-11

Solder Side

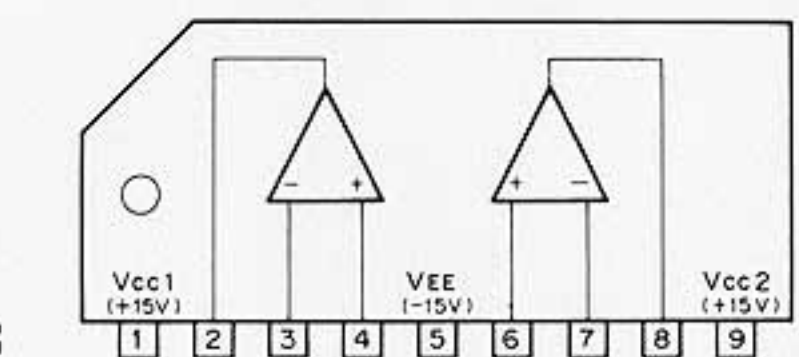


■ SOLDER SIDE PATTERN
 ■ COMPONENT SIDE PATTERN

CX770 (SONY)
 - TOP VIEW -

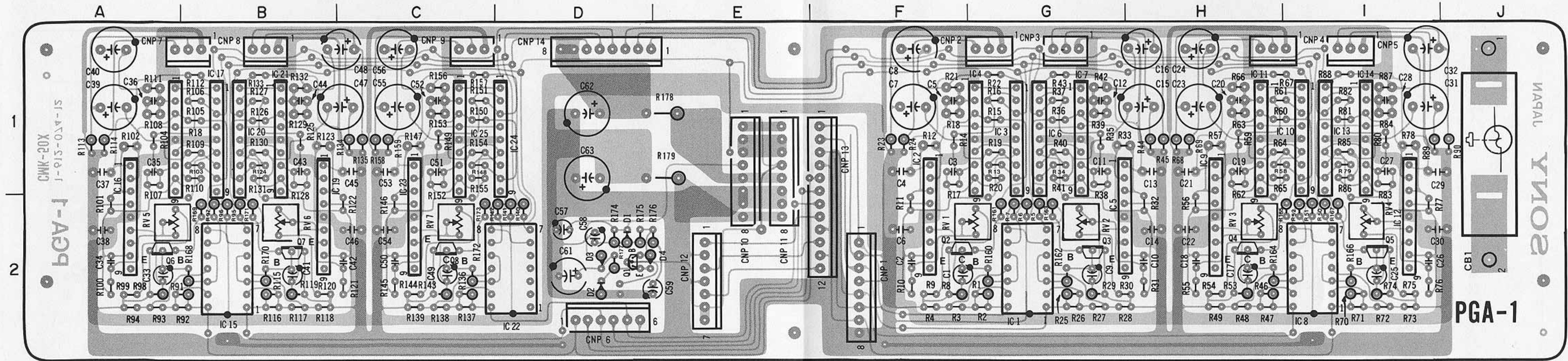


NJM4556S (JRC)
 NJM4560S (JRC)
 HIGH PERFORMANCE DUAL OPERATIONAL AMPLIFIER
 - SIDE VIEW -



PGA-1
 - SOLDER SIDE -
 1-612-074-11

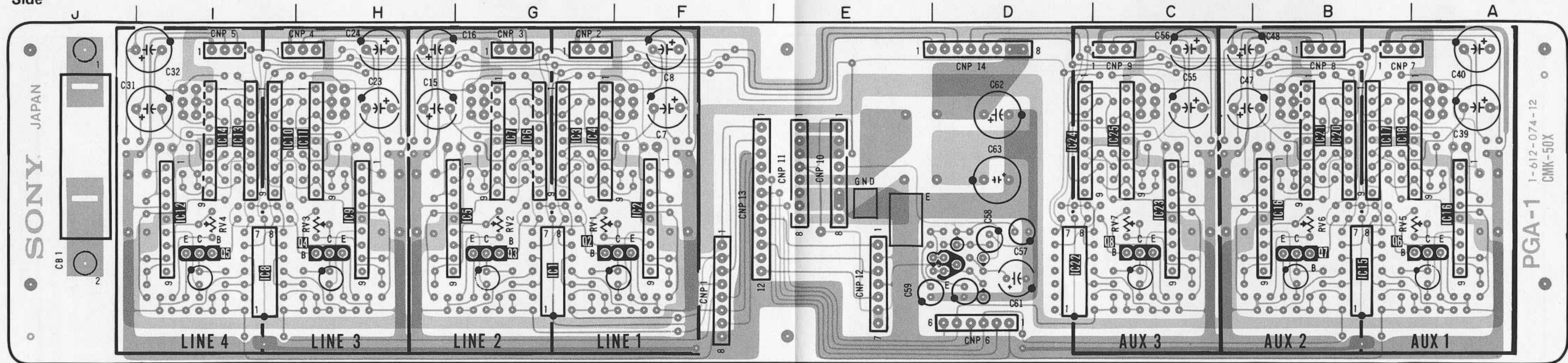
(PGA)
PGA-1 BOARD (1-612-074-12)
Component Side



- COMPONENT SIDE PATTERN
- SOLDER SIDE PATTERN

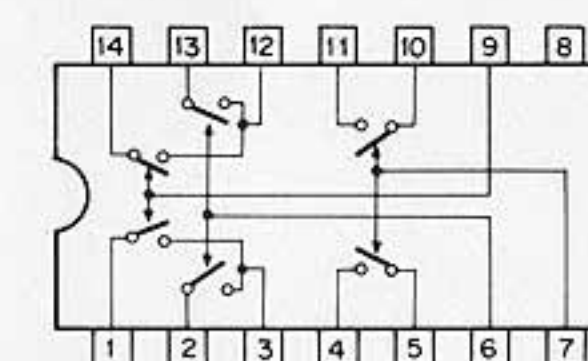
PGA-1
- COMPONENT SIDE -
1-612-074-12

Solder Side

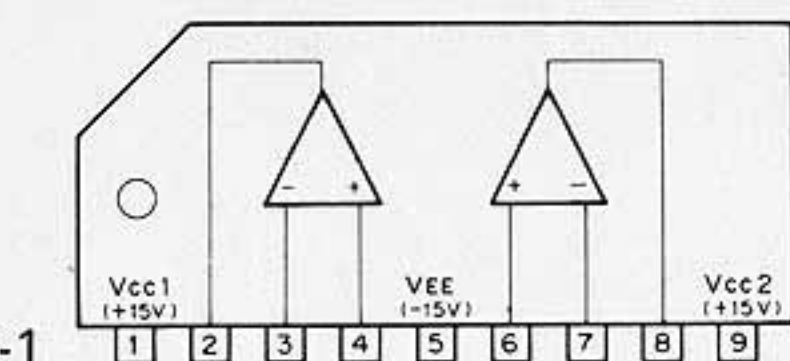


- SOLDER SIDE PATTERN
- COMPONENT SIDE PATTERN

CX770 (SONY)
- TOP VIEW -



NJM4556S (JRC)
NJM4560S (JRC)
HIGH PERFORMANCE DUAL OPERATIONAL AMPLIFIER
- SIDE VIEW -

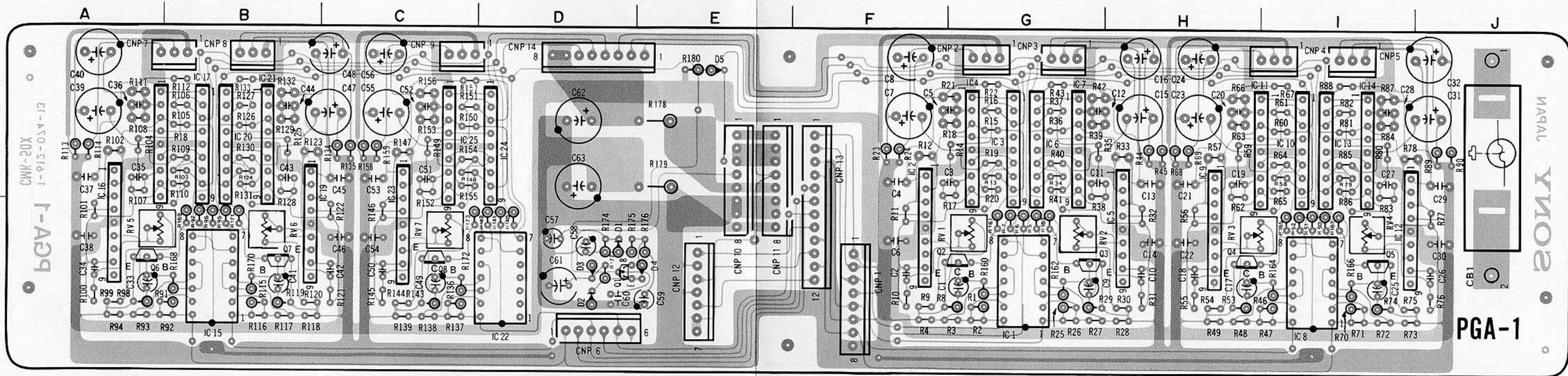


PGA-1
- SOLDER SIDE -
1-612-074-12

PGA-1

PGA-1

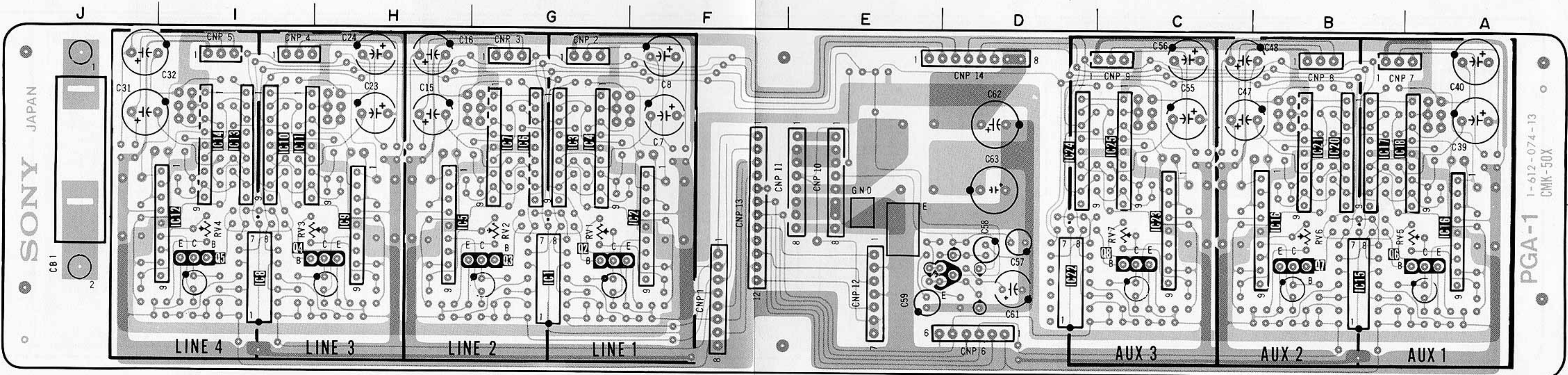
(PGA)
PGA-1 BOARD (1-612-074-13)
Component Side



■ COMPONENT SIDE PATTERN
■ SOLDER SIDE PATTERN

PGA-1
- COMPONENT SIDE -
1-612-074-13

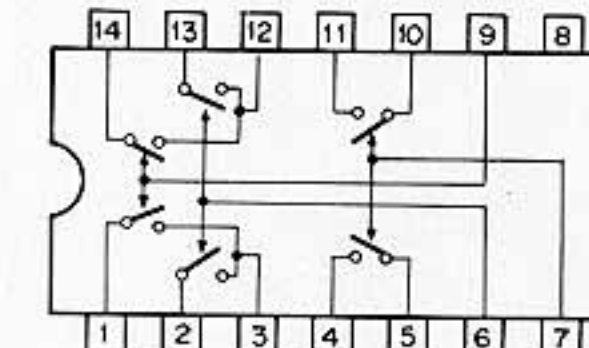
Solder Side



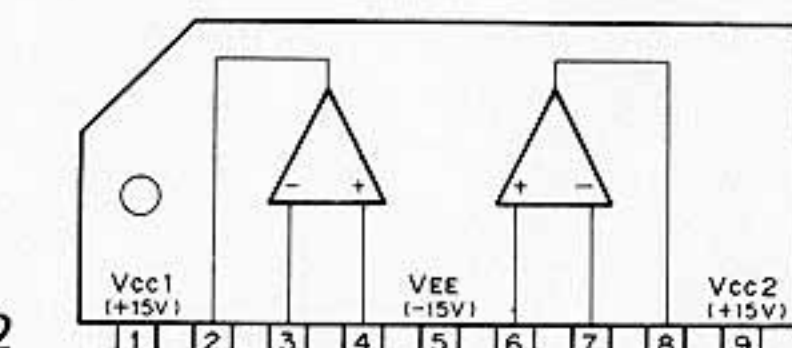
■ SOLDER SIDE PATTERN
■ COMPONENT SIDE PATTERN

PGA-1
- SOLDER SIDE -
1-612-074-13

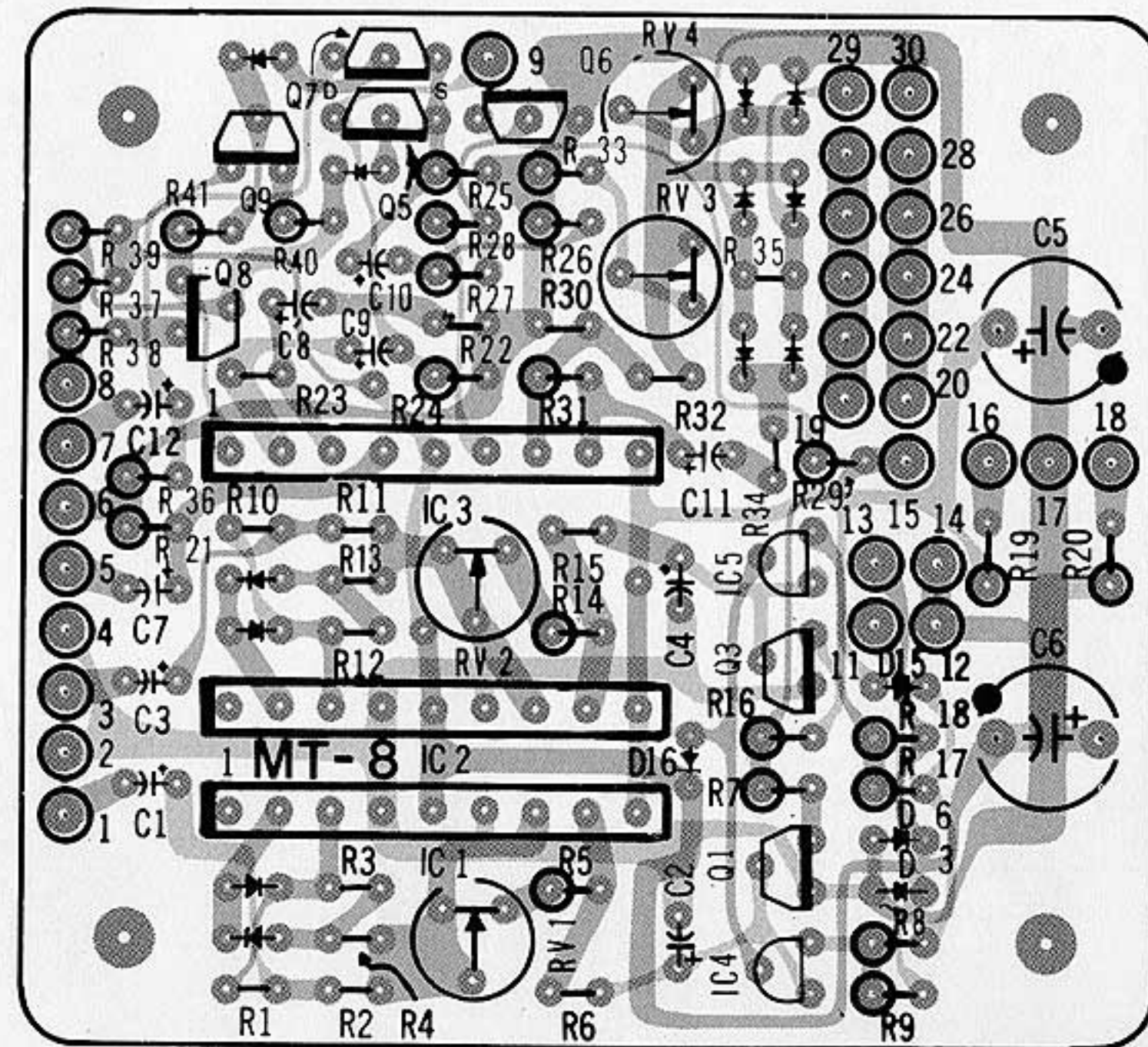
CX770 (SONY)
- TOP VIEW -



NJM4556S (JRC)
NJM4560S (JRC)
HIGH PERFORMANCE DUAL OPERATIONAL AMPLIFIER
- SIDE VIEW -



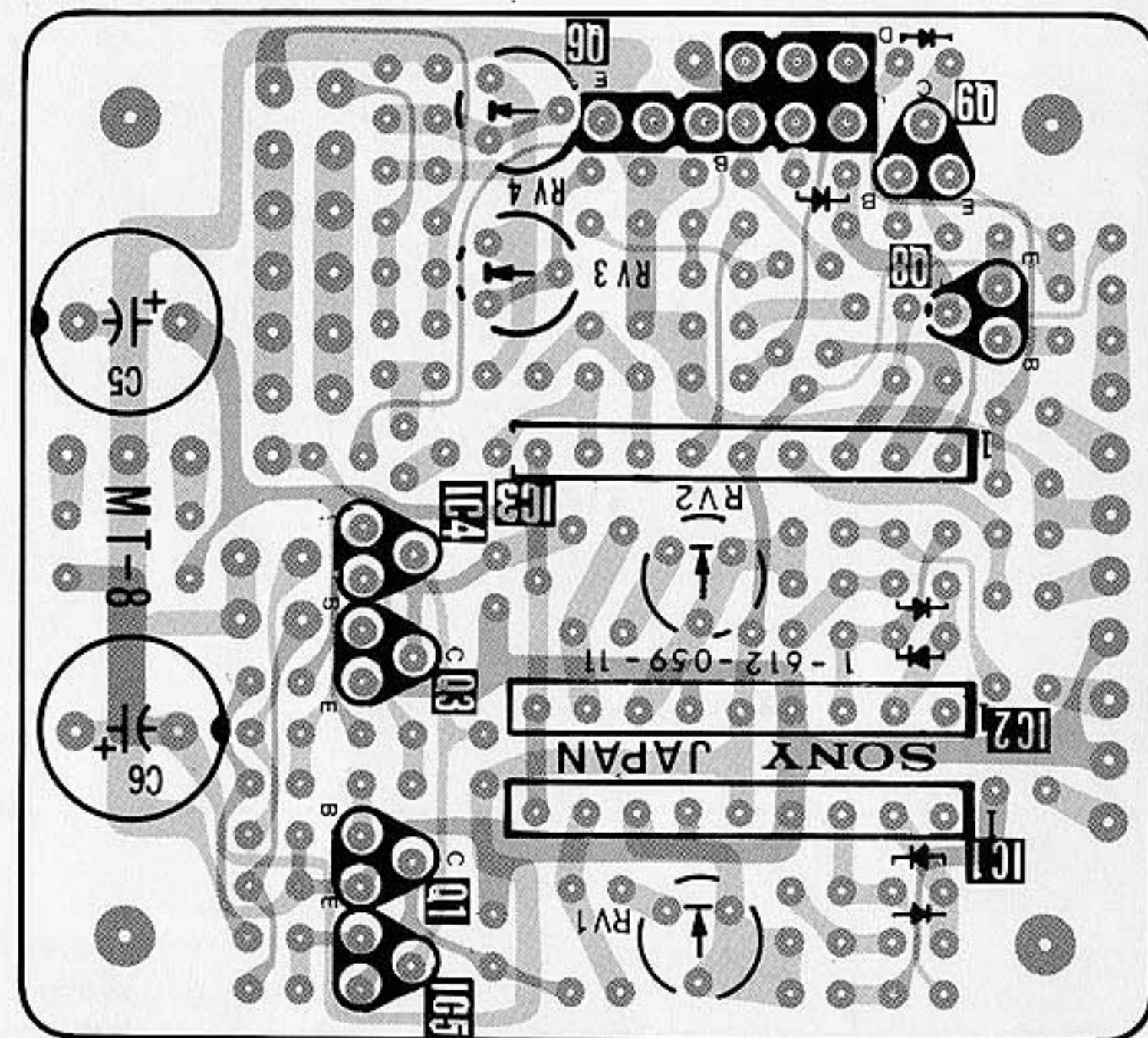
(VU METER)
MT-8 BOARD (1-612-059-11)
Component Side



■ COMPONENT SIDE PATTERN
■ SOLDER SIDE PATTERN

MT-8
-COMPONENT SIDE-
1-612-059-11

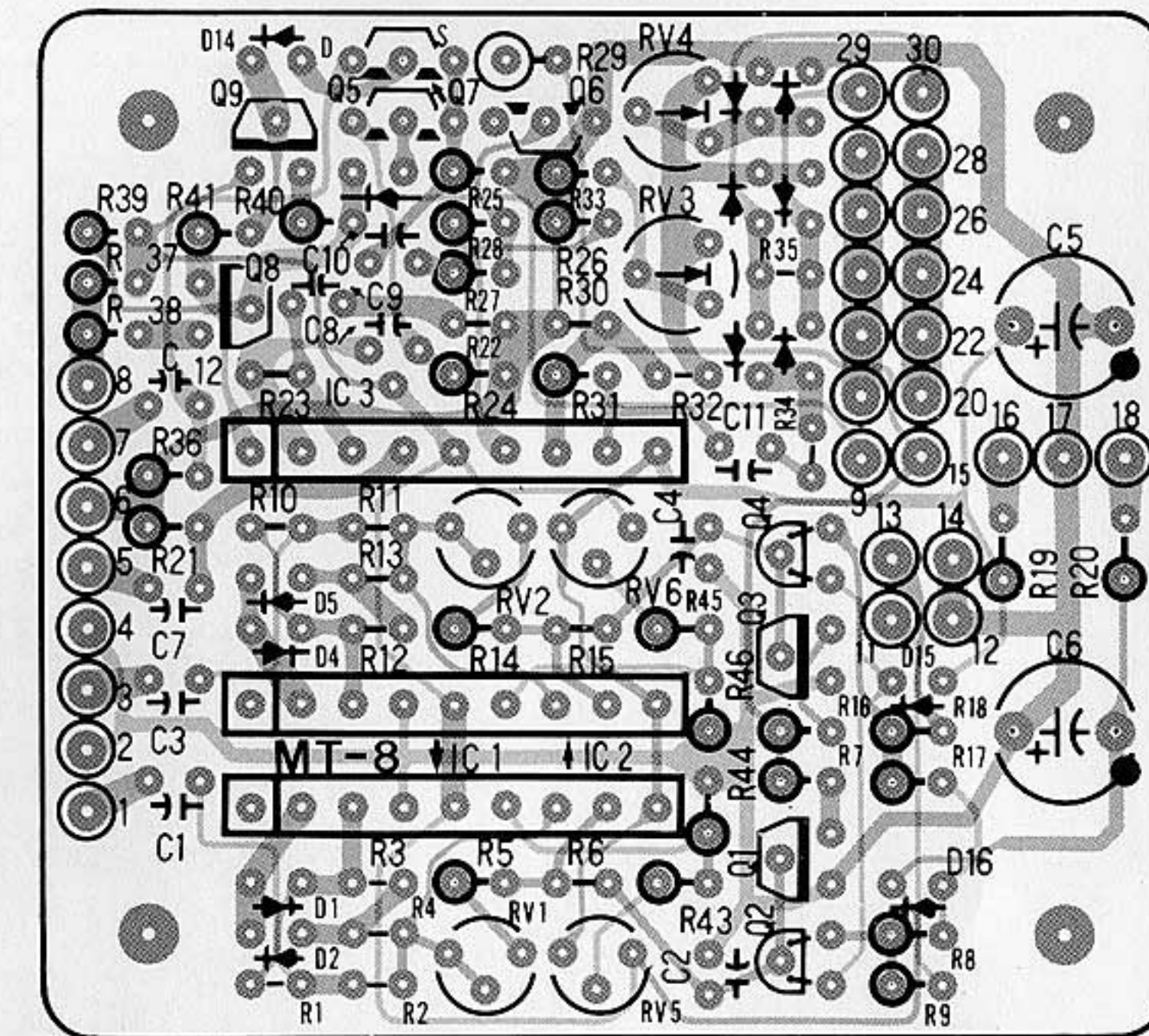
Solder Side



■ SOLDER SIDE PATTERN
■ COMPONENT SIDE PATTERN

MT-8
-SOLDER SIDE-
1-612-059-11

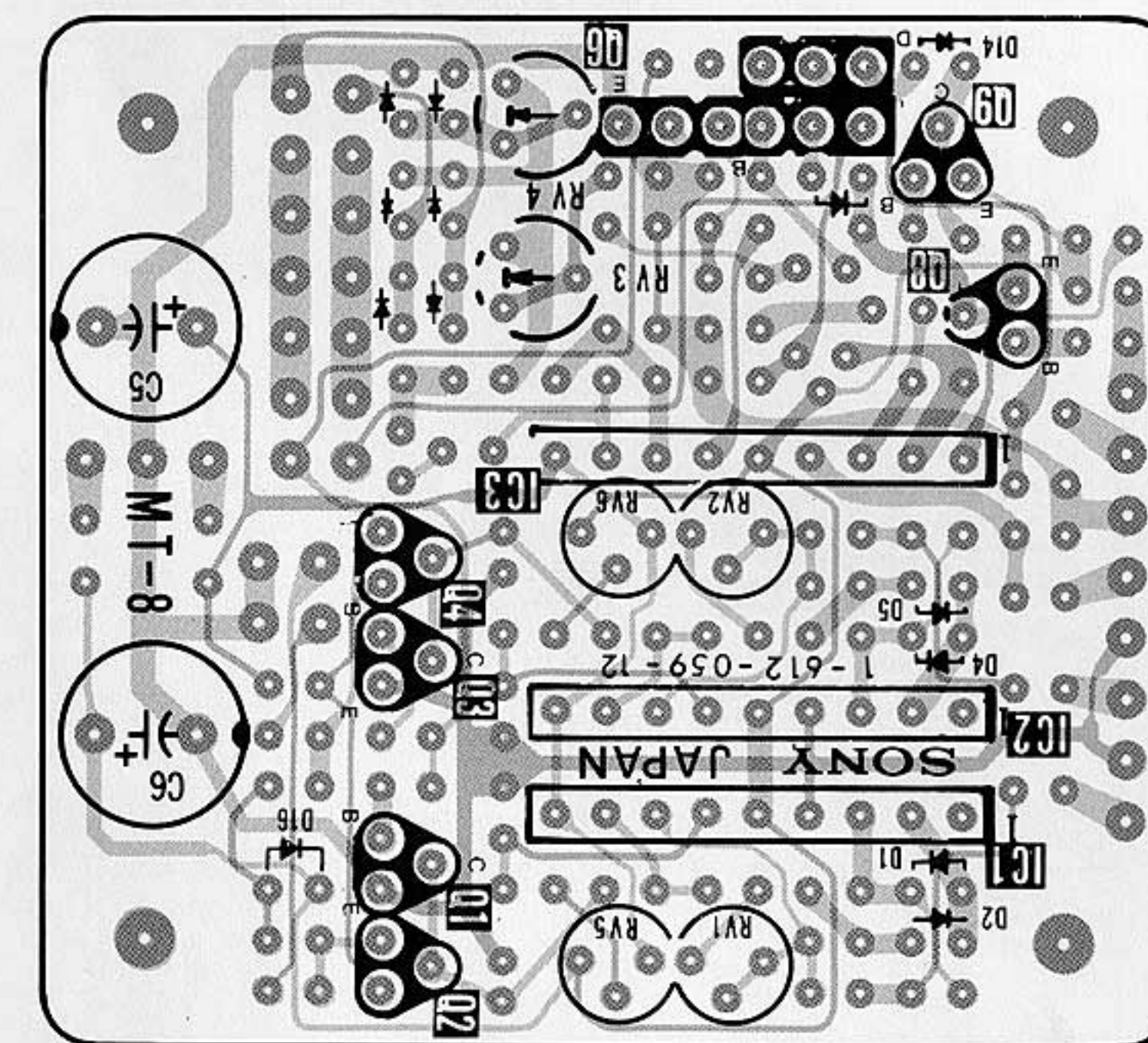
(VU METER)
MT-8 BOARD (1-612-059-12)
Component Side



■ COMPONENT SIDE PATTERN
■ SOLDER SIDE PATTERN

MT-8
-COMPONENT SIDE-
1-612-059-12

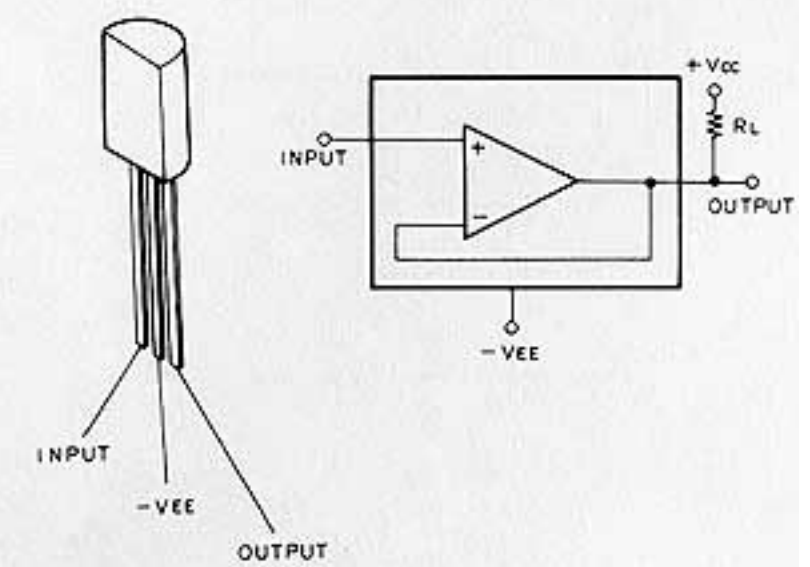
Solder Side



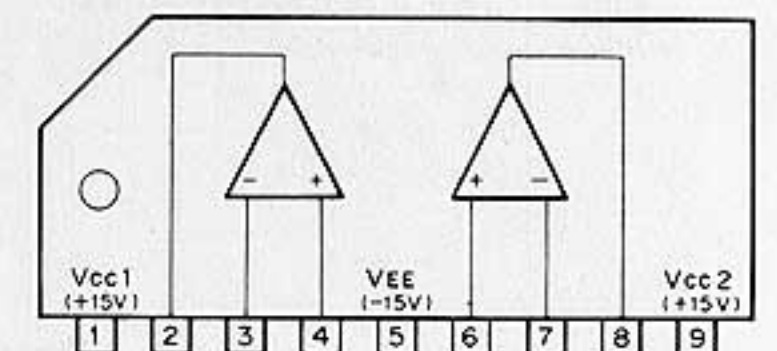
■ SOLDER SIDE PATTERN
■ COMPONENT SIDE PATTERN

MT-8
-SOLDER SIDE-
1-612-059-12

TLO68CLP
VOLTAGE FOLLOWER WITH JFET INPUT



NJM4560S (JRC)
HIGH PERFORMANCE DUAL OPERATIONAL AMPLIFIER
- SIDE VIEW -



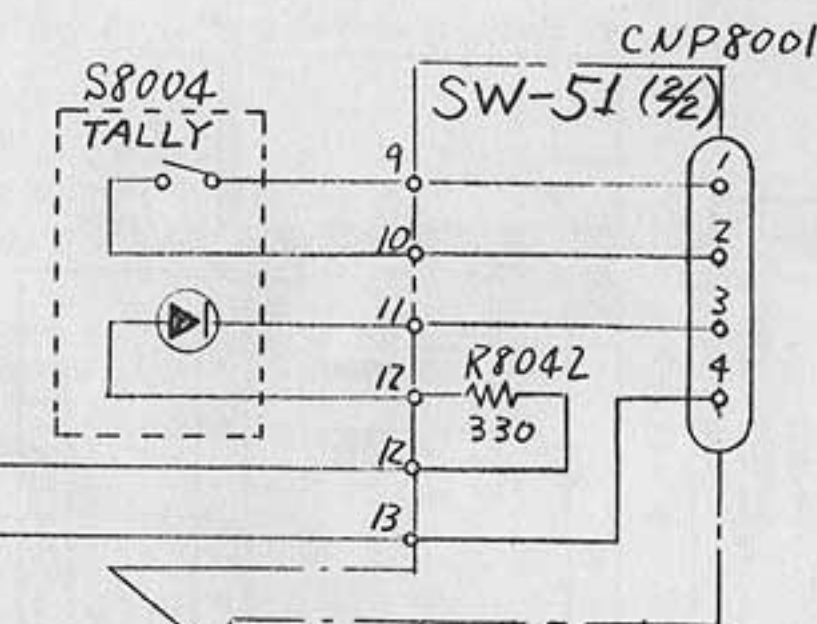
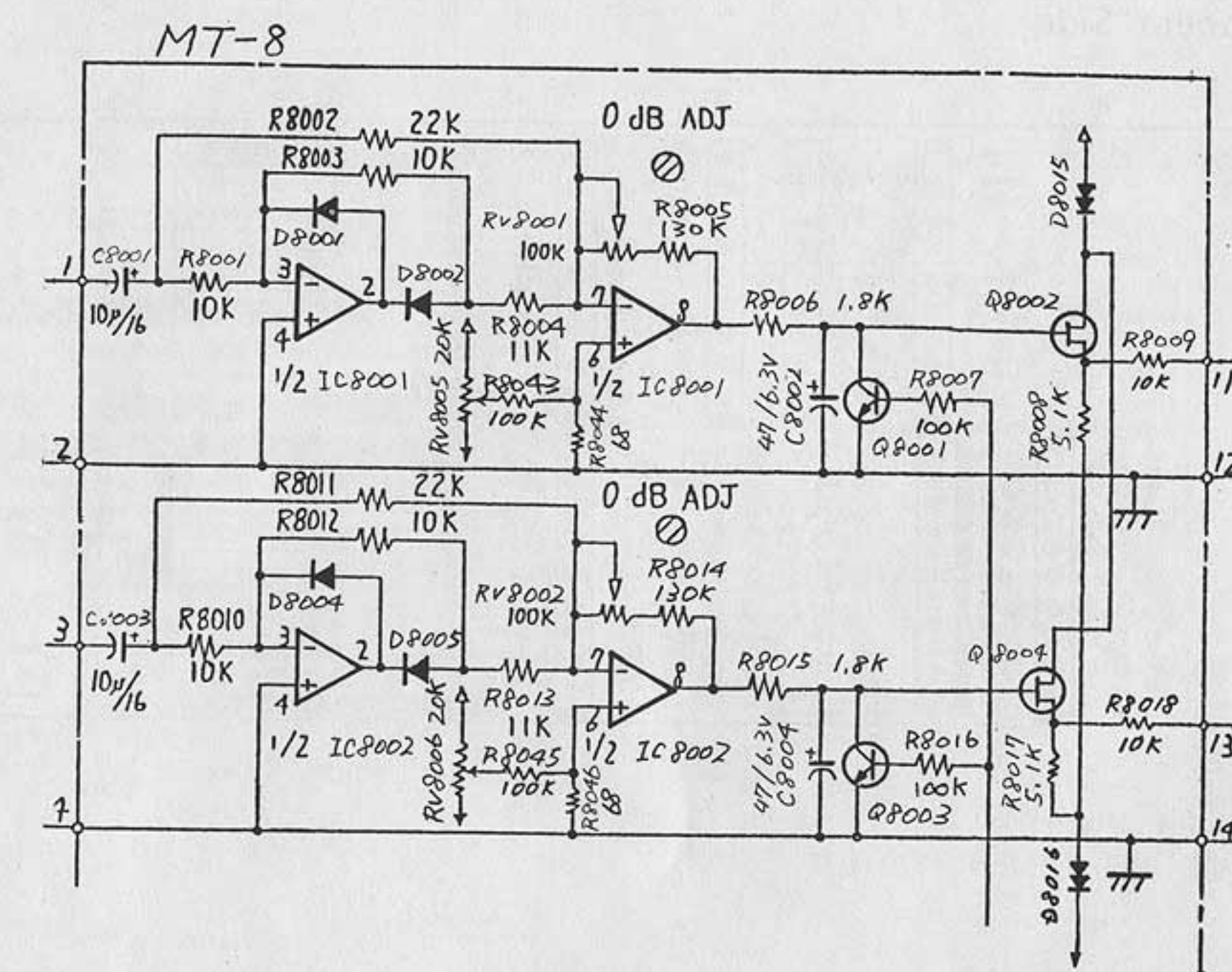
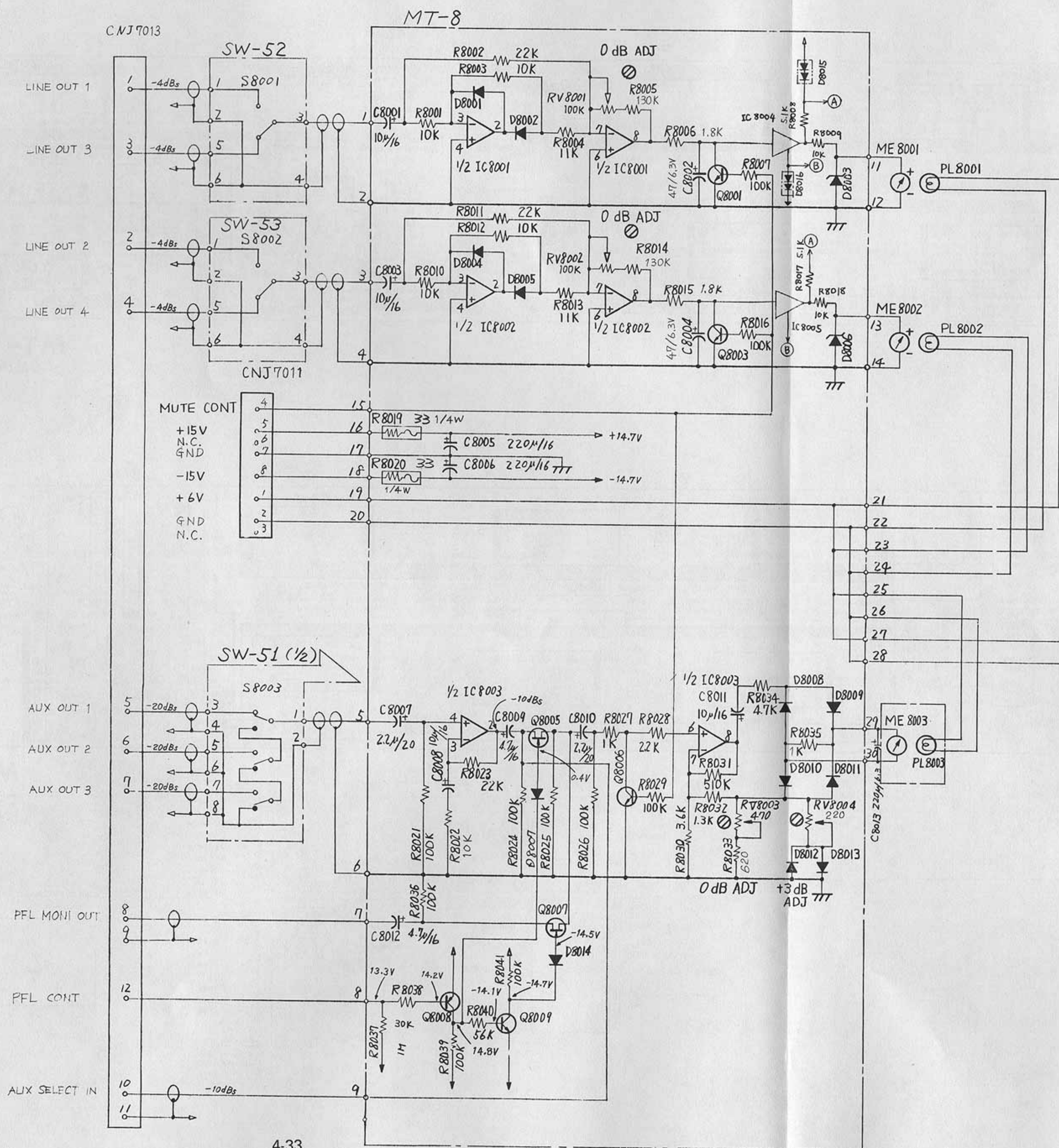
(VU METER)
 MT-8 BOARD
 SW-51 BOARD
 SW-52 BOARD
 SW-53 BOARD

VU METER

VU METER

Applicable Serial Nos.: #10041 to 10100 (J)
 #20081 to 20110 (U)
 #50011 to 50040 (AEP)

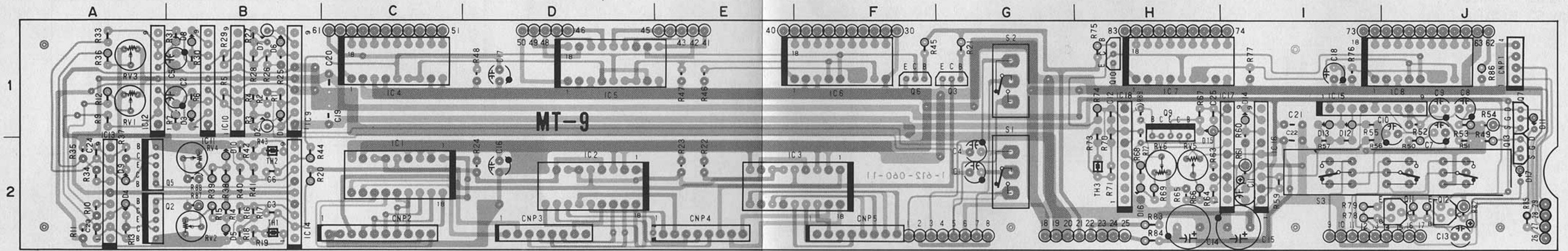
Applicable Serial Nos.: #10101 and higher (J)
 #20111 and higher (U)
 #50041 and higher (AEP)



Serial No. 10041 to 10100 (J) Serial No. 20081 to 20110 (U) Serial No. 50011 to 50040 (AEP)	Serial No. 10101 and higher (J) Serial No. 20111 and higher (U) Serial No. 50041 and higher (AEP)
IC 8004, 5 : TL068CLP	Q8002, 4 : 2SK184-Y
D8003, 6 : HZ6A3L	NOT USED
IC8001 to 8003 : NJM4560S Q8001, 3, 6, 9 : 2SD1021-F Q8008 : 2SB811-H Q8005, 7 : 2SK184-Y D8001, 2, 4, 5 : 1SS119 D8007 to 8014 : 1SS119 D8015, 16 : MV-12N	

MT-8
 SW-51
 SW-52
 SW-53

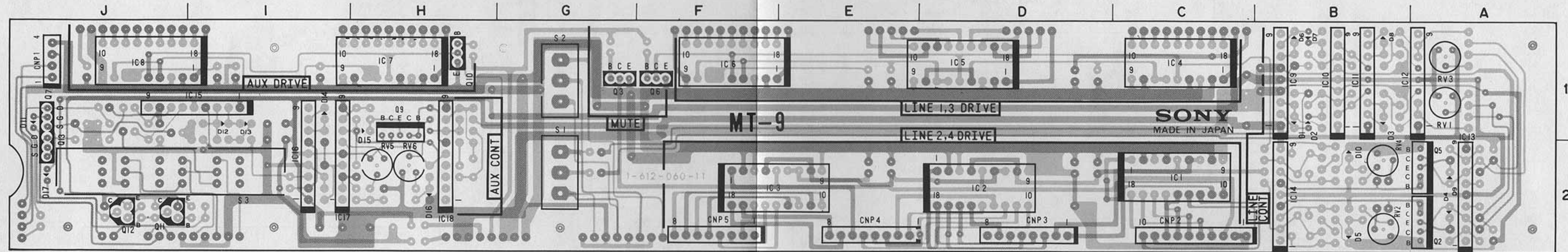
(PEAK PROGRAM METER)
MT-9 BOARD (1-612-060-11)
Component Side



■ COMPONENT SIDE PATTERN
■ SOLDER SIDE PATTERN

MT-9
-COMPONENT SIDE-
1-612-060-11

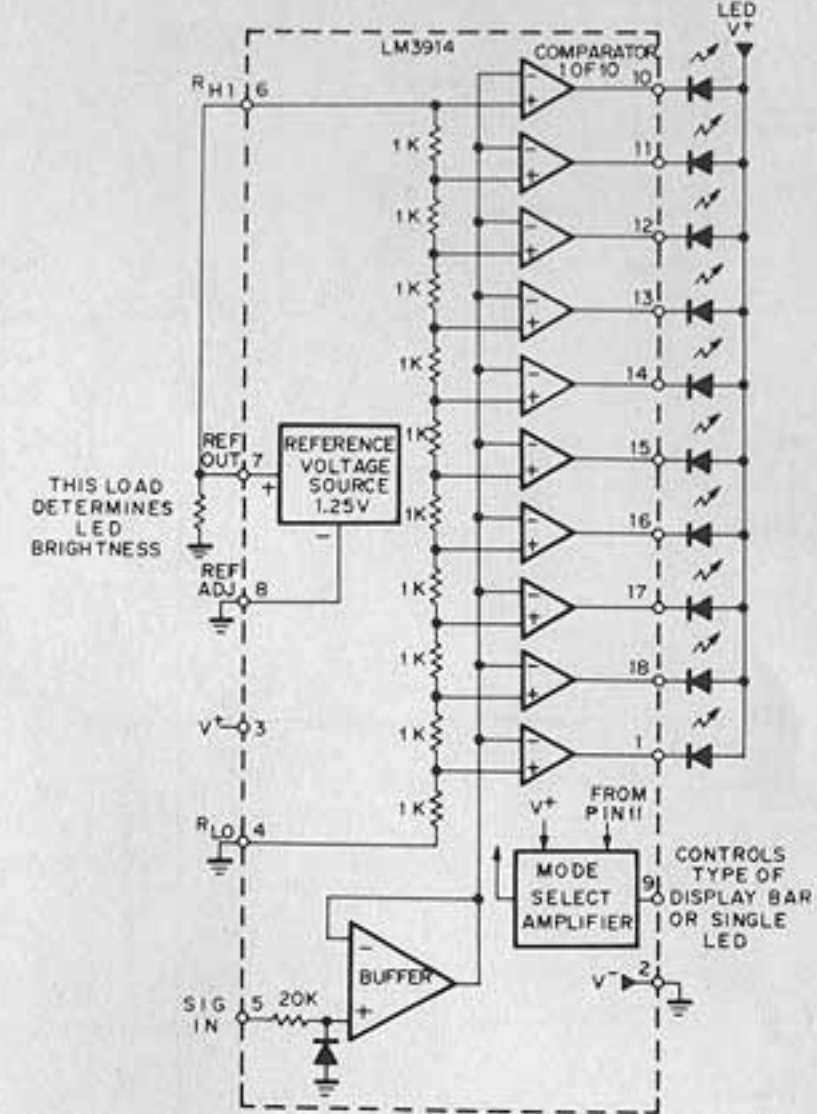
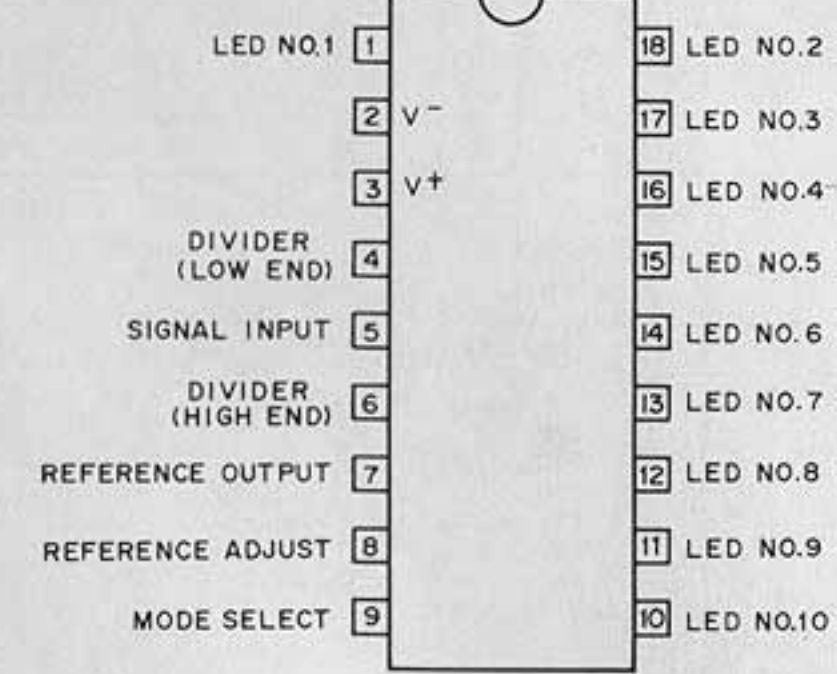
Solder Side



■ SOLDER SIDE PATTERN
■ COMPONENT SIDE PATTERN

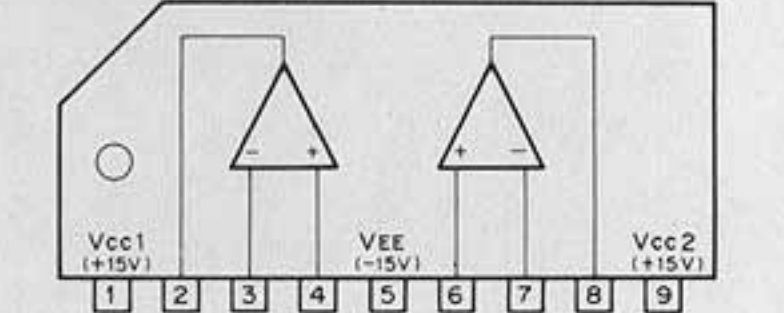
MT-9
-SOLDER SIDE-
1-612-060-11

LM3914
DOT/BAR DISPLAY DRIVER
- TOP VIEW -



4-36

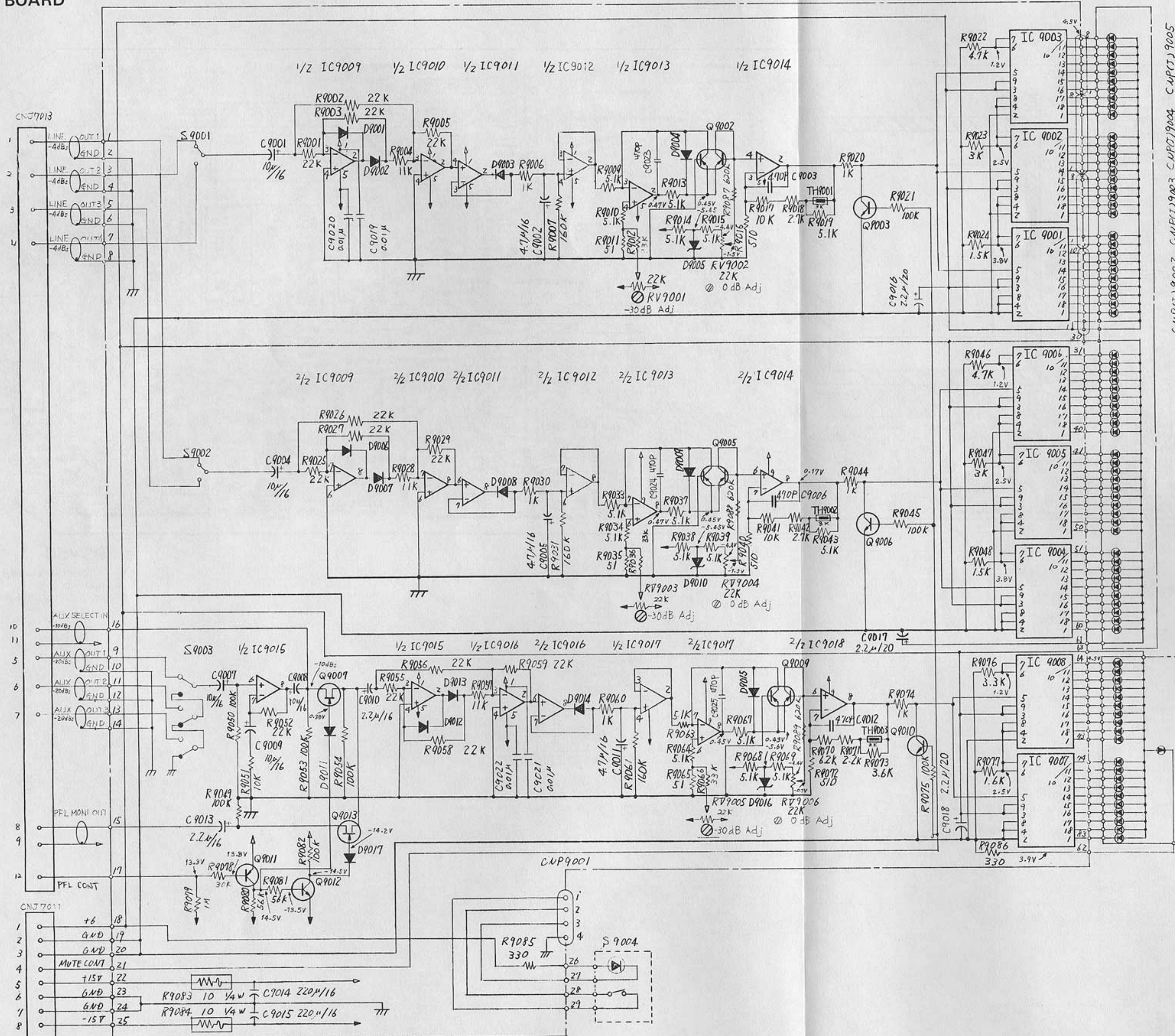
NJM4560S (JRC)
HIGH PERFORMANCE DUAL OPERATIONAL AMPLIFIER
- SIDE VIEW -



PEAK PROGRAM METER

PEAK PROGRAM METER

(PEAK PROGRAM METER)
MT-9 BOARD

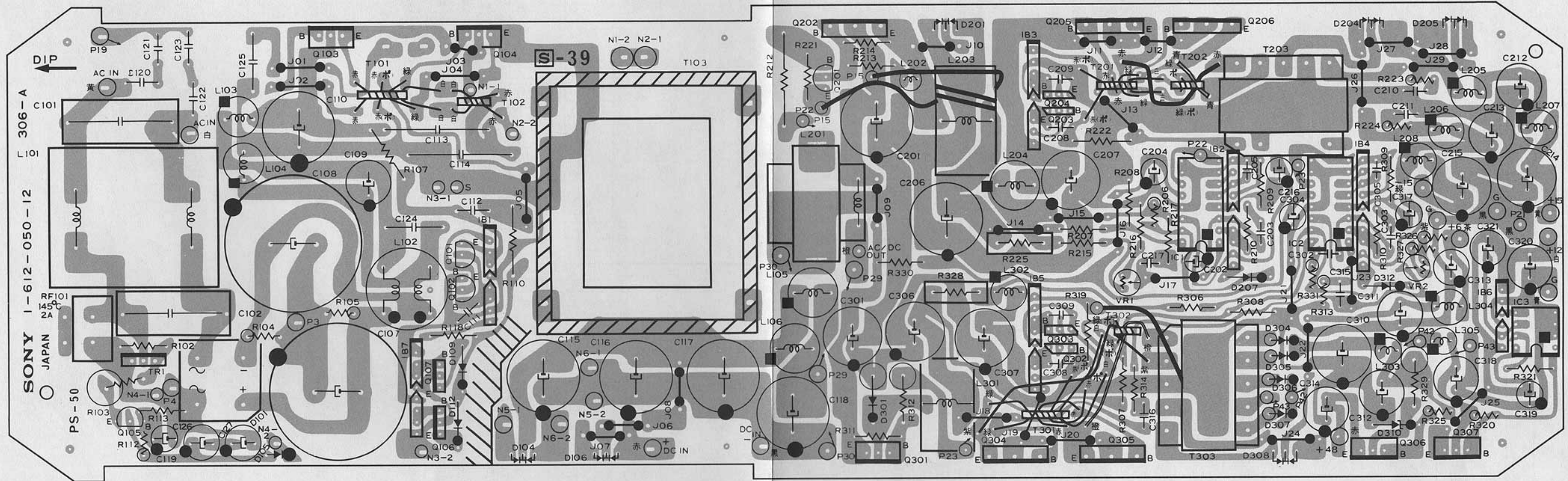


CNP19002 CNP19003 CNP19004 CNP19005

- IC9001~9008 : LM3914
- IC9009~9018 : NJM4560S
- R9002,5,9 : 2SA798-G
- R9011 : 2SB811
- R9003,6,10,12 : 2SD1021-F
- R9007,13 : ZSK184Y
- D9001,2,3,4 : 6,7,8,9,11,12 : 1SS119
- 13,14,15,17
- D9005,10,16 : HZ6AZL

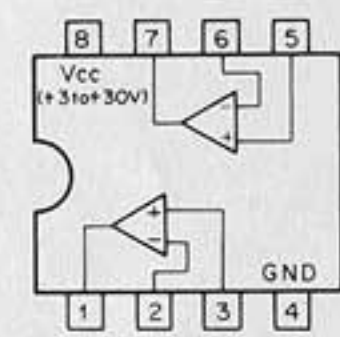
MT-9

PS-50 BOARD (1-612-050-12)
Component Side

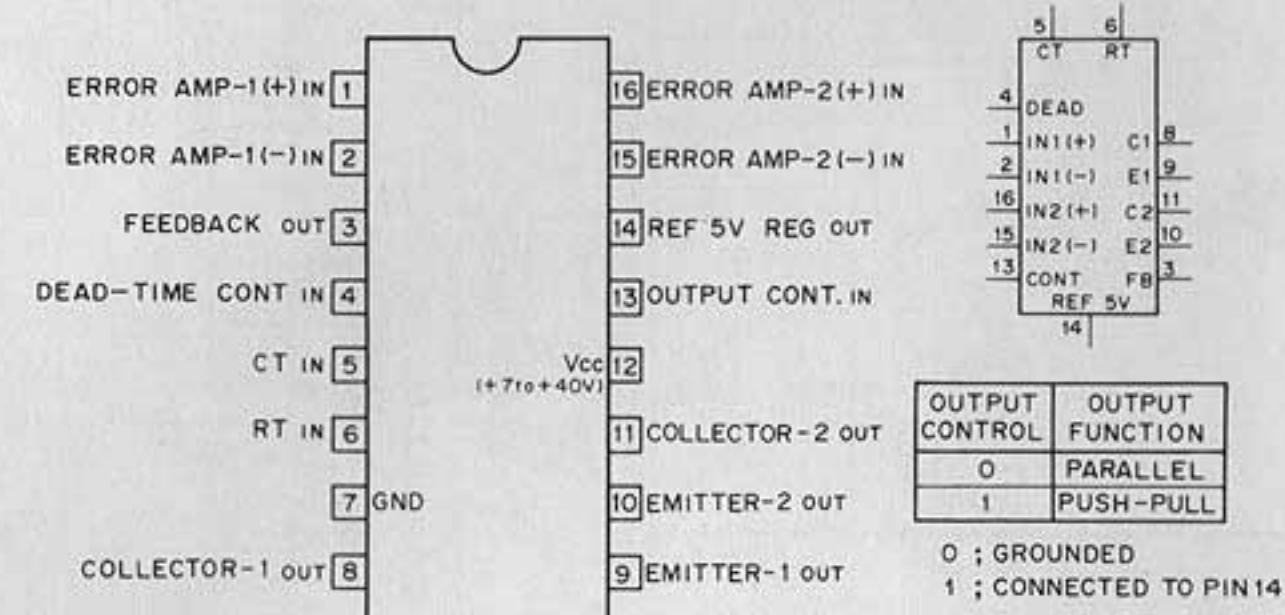


■ SOLDER SIDE PATTERN

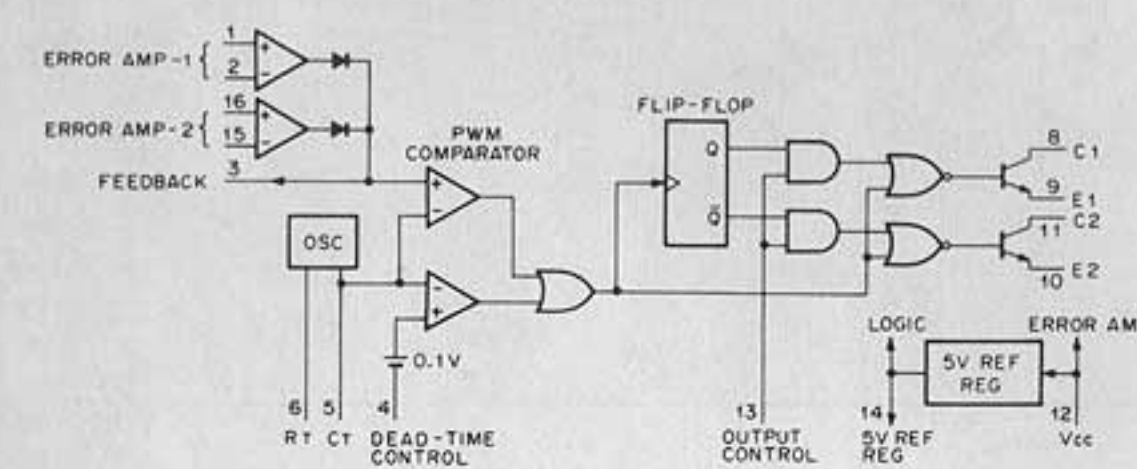
μPC358C (NEC)
DUAL OPERATIONAL AMPLIFIERS
— TOP VIEW —



MB3759 (FUJITSU)
PWM POWER CONTROL
— TOP VIEW —



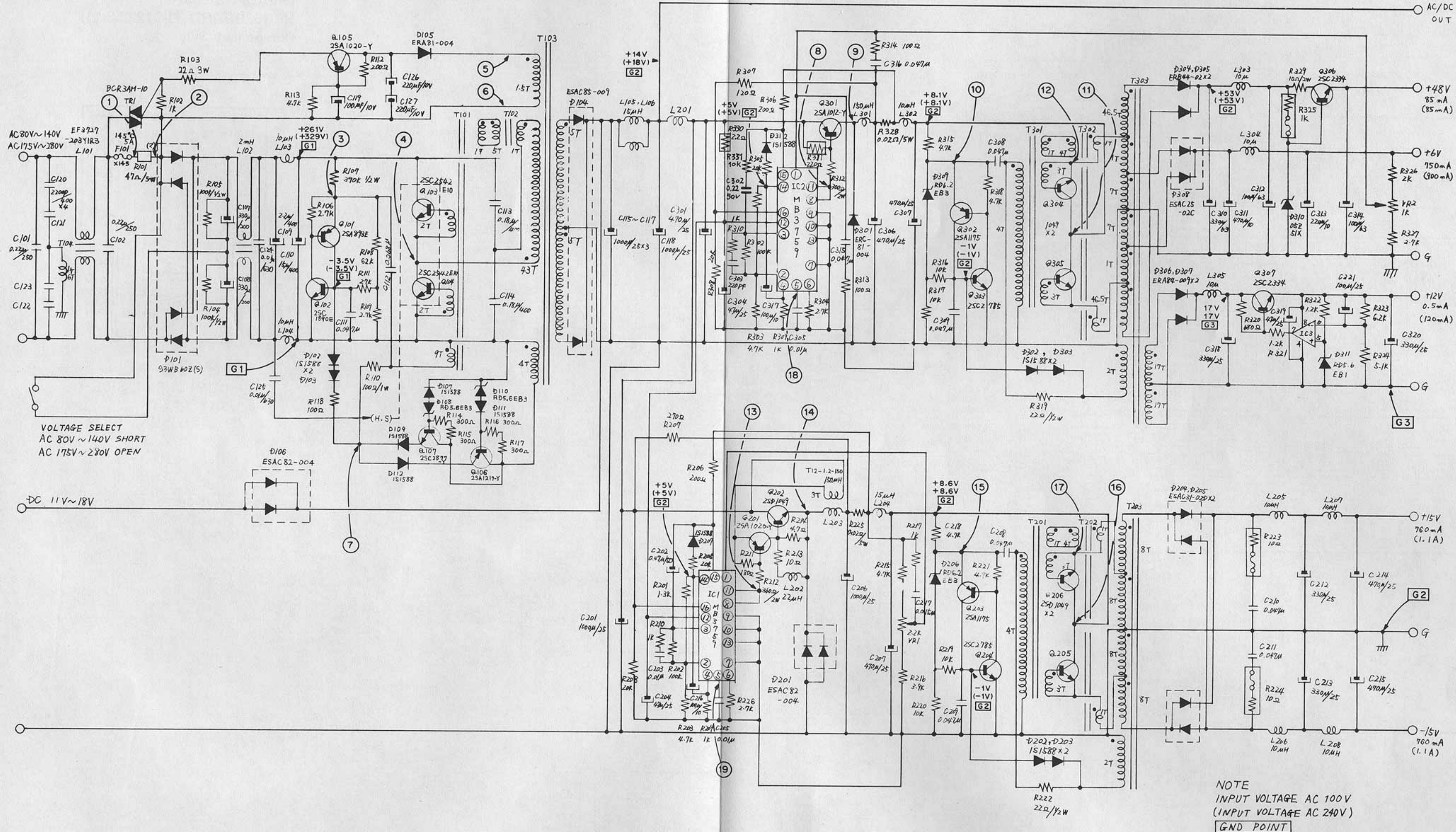
PS-50
— COMPONENT SIDE —
1-612-050-12
MX-61(VU), MX-P61(K)

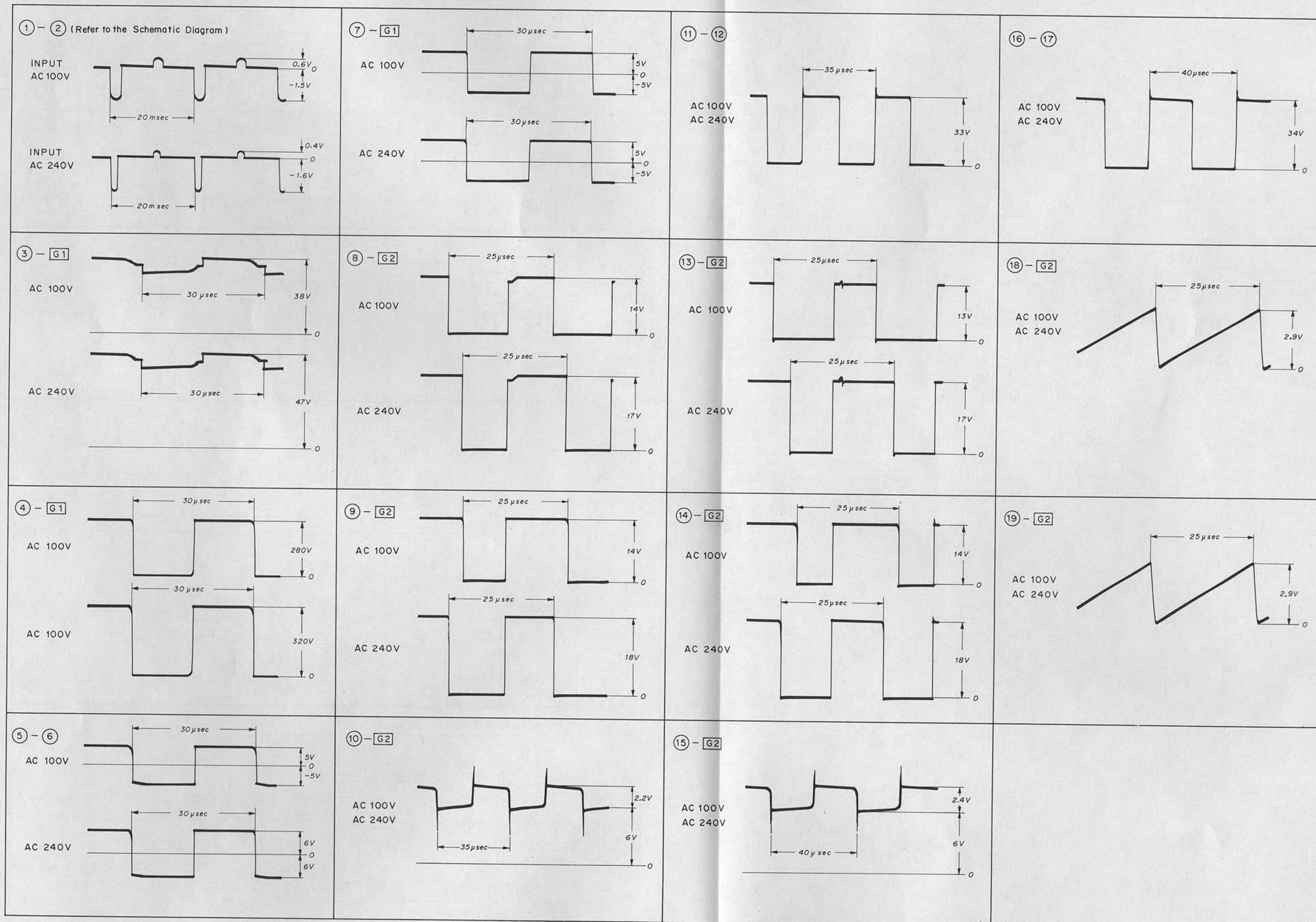


POWER SUPPLY

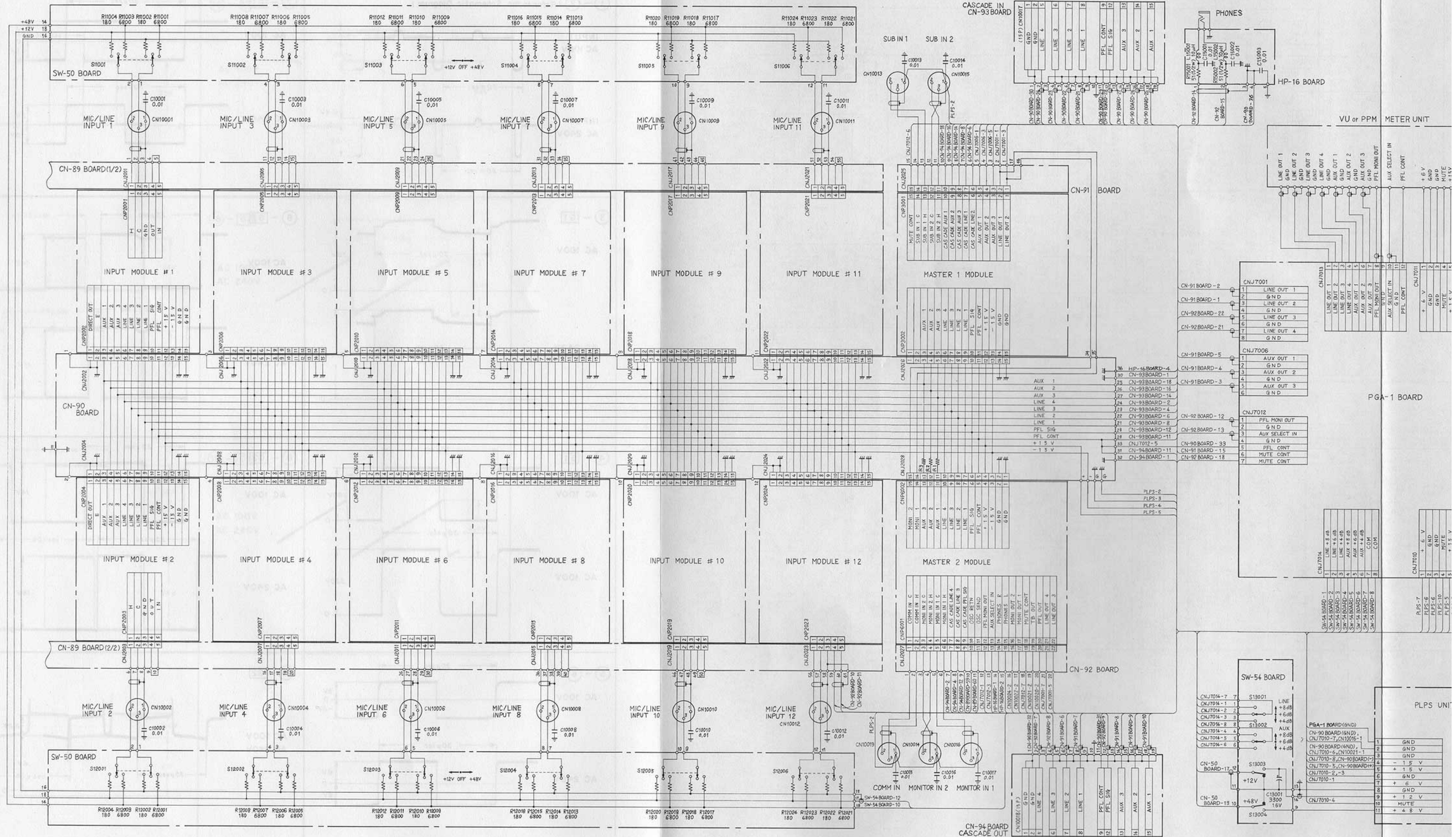
POWER SUPPLY

(POWER SUPPLY)
PS-50 BOARD



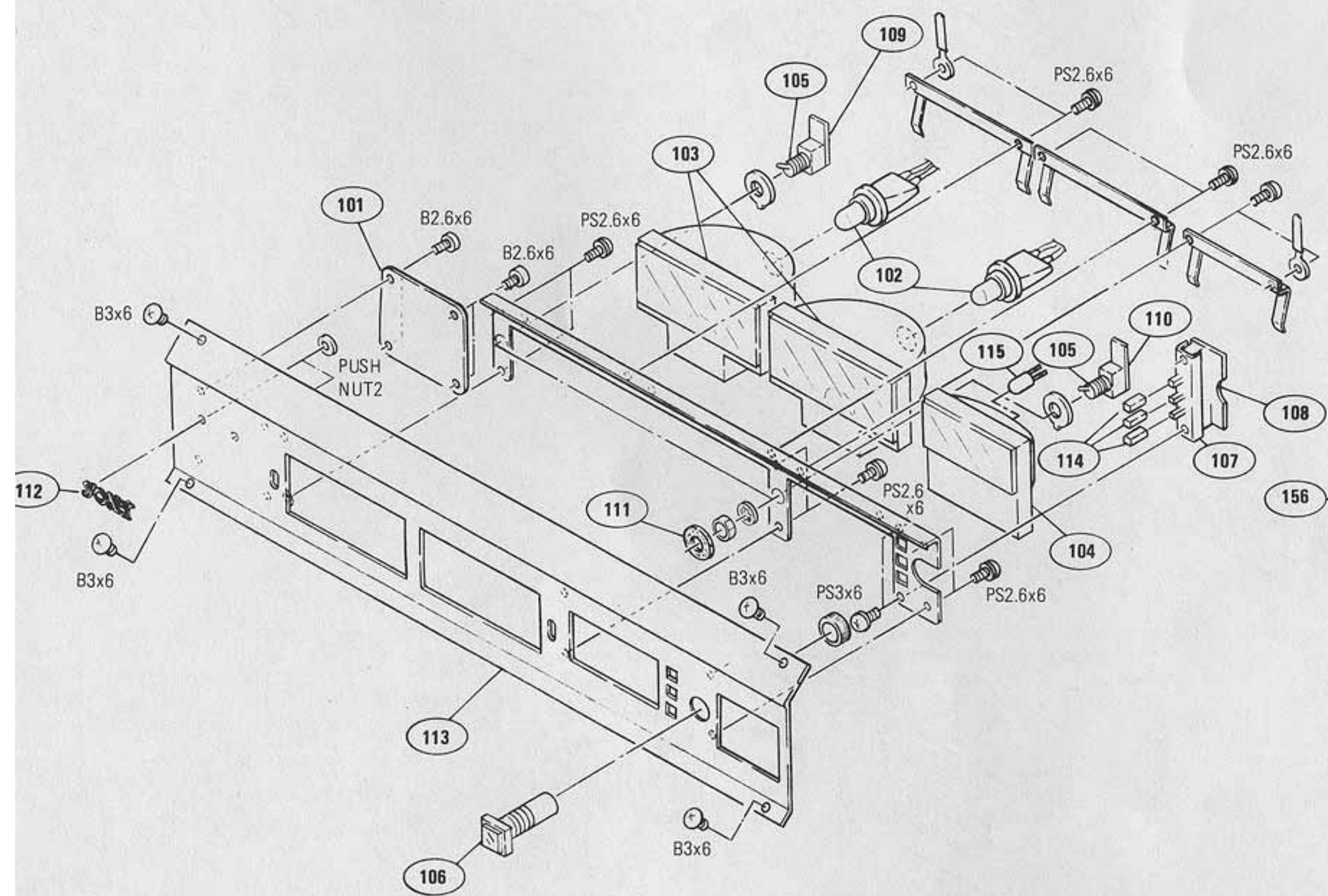


FRAME WIRING

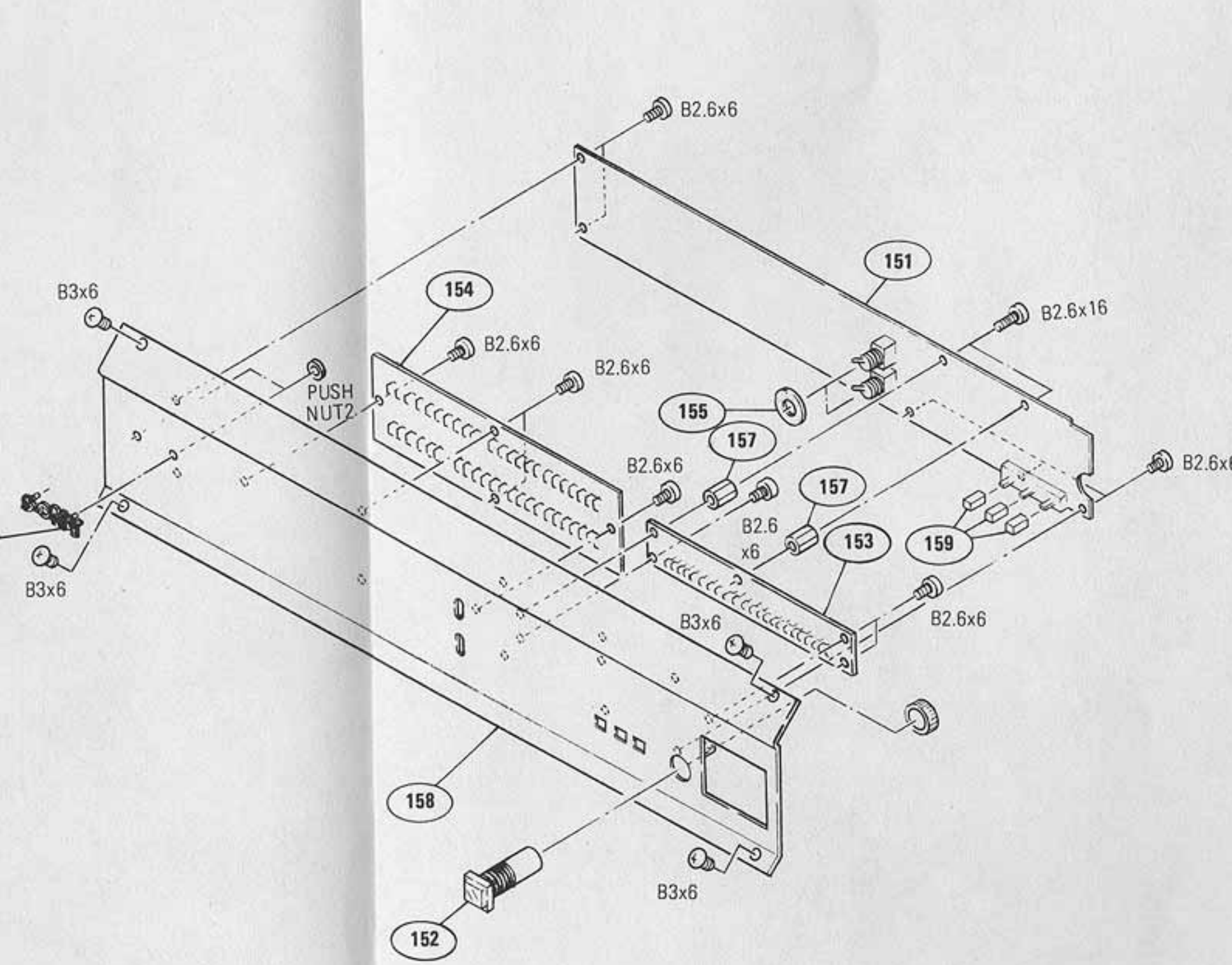


METER PANEL ASSEMBLY

<VU MODEL>



<PK MODEL>



METER PANEL ASSY - VU MODEL (MX-P61)

No.	Part No.	Description
101	A-4380-050-A	MOUNTED PCB,MT-8
102	1-518-555-11	LAMP,PILOT(LEAD TYPE)
103	1-520-468-11	METER,VU
104	1-520-469-11	METER,VU
105	1-554-774-11	SWITCH,TOGGLE
106	1-554-779-11	SWITCH,PUSH(WITH LED)(1 KEY)
107	1-554-780-11	SWITCH,PUSH(3 KEY)
108	1-612-053-11	PC BOARD,SW-51
109	1-612-054-11	PC BOARD,SW-52
110	1-612-055-11	PC BOARD,SW-53
111	2-300-629-00	PLATE,BRIND
112	4-836-828-00	EMBLEM,SONY
113	4-904-357-01	PANEL,VU METER
114	4-904-372-01	BUTTON,SWITCH(GRAY)
115	9-901-873-01	LAMP, METER

METER PANEL ASSY - PK MODEL (MX-P61)

No.	Part No.	Description
151	A-4380-051-A	MOUNTED PCB,MT-9
152	1-554-779-11	SWITCH,PUSH(WITH LED)(1 KEY)
153	1-806-777-11	DIODE(LED BLOCK)
154	1-806-778-11	DIODE(LED BLOCK)
155	2-300-629-00	PLATE,BLIND
156	4-836-828-00	EMBLEM,SONY
157	4-887-565-00	SPACER(2.65x9)
158	4-904-301-01	PANEL,LINEAR METER
159	4-904-372-01	BUTTON,SWITCH(GRAY)

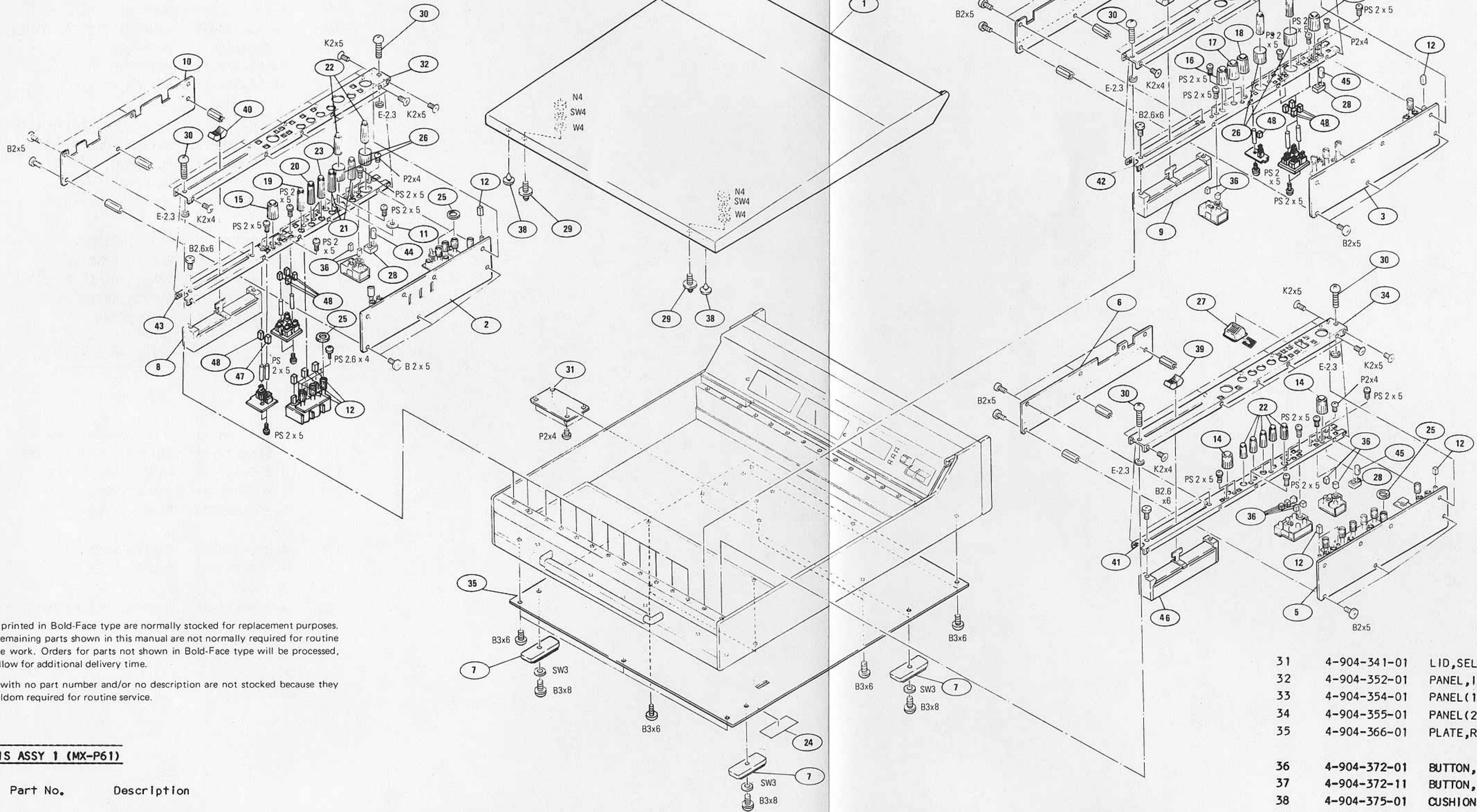
NOTE:

1. Parts printed in Bold-Face type are normally stocked for replacement purposes. The remaining parts shown in this manual are not normally required for routine service work. Orders for parts not shown in Bold-Face type will be processed but allow for additional delivery time.
2. Item with no part number and/or no description are not stocked because they are seldom required for routine service.

SECTION 5 SPARE PARTS

5-1. EXPLODED VIEW

CHASSIS ASSEMBLY (1)



NOTE:

1. Parts printed in Bold-Face type are normally stocked for replacement purposes. The remaining parts shown in this manual are not normally required for routine service work. Orders for parts not shown in Bold-Face type will be processed, but allow for additional delivery time.
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CHASSIS ASSY 1 (MX-P61)

No.	Part No.	Description
1	4-904-381-00	LID ASSY, UPPER
2	A-4382-151-A	COMPLETE PCB, IPM-2
3	A-4385-163-A	COMPLETE PCB, MSM-1
4	A-4385-165-A	COMPLETE PCB, MSM-2
5	A-4385-167-A	COMPLETE PCB, MSM-3
6	A-4385-169-A	COMPLETE PCB, MSM-4
7	X-4852-903-0	LEG ASSY
8	1-230-458-11	RES, VAR(SLIDE TYPE)
9	1-230-457-11	RES, VAR(SLIDE TYPE)
10	1-612-069-11	PC BOARD, IPM-3

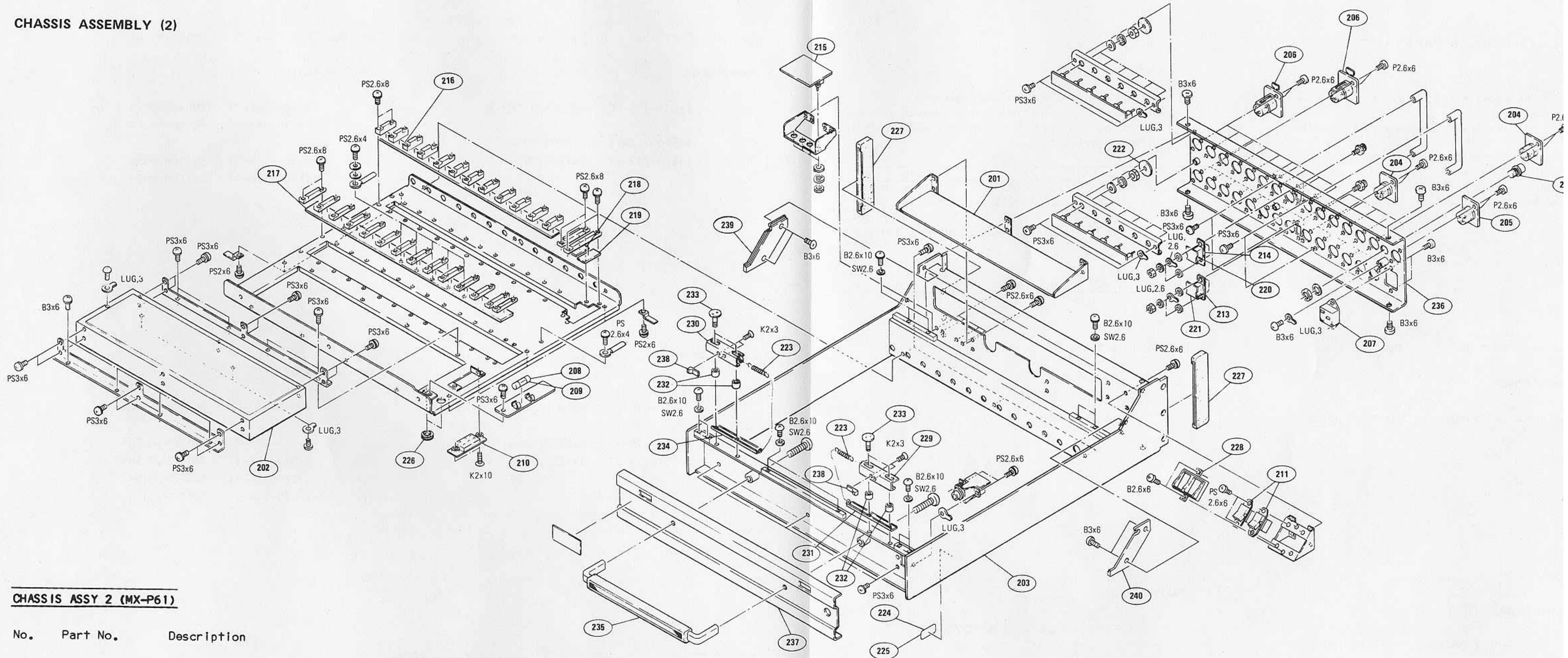
11	2-300-629-00	PLATE, BLIND
12	2-380-412-01	KNOB(SMALL), PUSH BUTTON(GRAY)
13	2-380-412-11	KNOB(SMALL), PUSH BUTTON(RED)
14	2-380-428-01	KNOB(LARGE), ROTARY(GRAY)
15	2-380-428-11	KNOB(LARGE), ROTARY(RED)
16	2-380-428-21	KNOB(LARGE), ROTARY(GREEN)
17	2-380-428-31	KNOB(LARGE), ROTARY(BLUE)
18	2-380-428-41	KNOB(LARGE), ROTARY(VIOLET)
19	2-380-429-01	KNOB(SMALL), ROTARY(GREEN)
20	2-380-429-11	KNOB(SMALL), ROTARY(BLUE)

21	2-380-429-21	KNOB(SMALL), ROTARY(YELLOW)
22	2-380-429-41	KNOB(SMALL), ROTARY(GRAY)
23	2-380-429-51	KNOB(SMALL), ROTARY(VIOLET)
24	2-701-689-01	LABEL, INDICATION (AE MODEL)
25	4-847-312-00	NUT(M7)
26	4-904-320-01	KNOB, SELECTOR
27	4-904-321-01	COVER, MICROPHONE
28	4-904-327-01	HOLDER, LED
29	4-904-337-01	PIN, LOCK
30	4-904-338-01	SCREW, PANEL

31	4-904-341-01	LID, SELECTION SWITCH
32	4-904-352-01	PANEL, INPUT
33	4-904-354-01	PANEL(1), MASTER
34	4-904-355-01	PANEL(2), MASTER
35	4-904-366-01	PLATE, REAR

36	4-904-372-01	BUTTON, SWITCH(GRAY)
37	4-904-372-11	BUTTON, SWITCH(RED)
38	4-904-375-01	CUSHION, RUBBER
39	4-904-377-11	KNOB, FADER(RED)
40	4-904-377-21	KNOB, FADER(GRAY)
41	4-904-378-01	BRACKET, MASTER(2)
42	4-904-379-01	BRACKET, MASTER(1)
43	4-904-380-01	BRACKET, INPUT
44	8-719-812-41	DIODE, TLR124(RED)
45	8-719-812-43	DIODE, TLG124A(GREEN)
46	1-230-456-11	RES, VAR(SLIDE TYPE)
47	4-906-507-01	BUTTON, SWITCH(GRAY)
48	4-906-507-11	BUTTON, SWITCH(CLEAR)

CHASSIS ASSEMBLY (2)



CHASSIS ASSY 2 (MX-P61)

No.	Part No.	Description
201	A-4385-161-A	COMPLETE PCB,PGA-1
202	A-4396-161-A	REGULATOR ASSY,SWITCH
203	A-4464-114-A	CABINET ASSY
204	1-509-176-31	CONNECTOR(RECEPTACLE) 3P
205	1-509-177-31	CONNECTOR(RECEPTACLE) 4P
206	1-509-184-31	CONNECTOR(RECEPTACLE) 3P
207	1-580-375-11	INLET 3P
208	1-532-299-11	FUSE,TIME-LAG 5A (AE MODEL)
209	1-532-704-11	FUSE 5A (U,CA,J MODEL)
210	1-552-535-00	SWITCH,VOLTAGE CHANGE

211	1-554-781-11	SWITCH,SEESAW(AC & DC POWER)
212	1-561-376-00	CONNECTOR(S) 4P
213	1-560-712-00	PLUG,CONNECTOR
214	1-562-452-11	CONNECTOR,D-SUB 15P
215	1-612-056-11	PC BOARD,SW-54
216	1-612-061-11	PC BOARD,CN-89
217	1-612-062-11	PC BOARD,CN-90
218	1-612-063-11	PC BOARD,CN-91
219	1-612-064-11	PC BOARD,CN-92
220	1-612-065-11	PC BOARD,CN-93
221	1-612-066-11	PC BOARD,CN-94
222	2-300-629-00	PLATE,BLIND
223	3-536-777-00	SPRING,TENSION
224	3-701-946-22	LABEL,FUSE (U,CA,J MODEL)
225	3-701-948-21	LABEL,FUSE (AE MODEL)

226	3-824-174-00	BUSHING,RUBBER
227	4-904-313-01	LEG,RUBBER,SIDE PLATE
228	4-904-314-01	ESCUTCHEON,SWITCH
229	4-904-332-01	SLIDER(RIGHT)
230	4-904-333-01	SLIDER(LEFT)
231	4-904-334-01	CHASSIS(RIGHT),SLIDER
232	4-904-335-01	RETAINER(1),SLIDER
233	4-904-336-01	RETAINER(2),SLIDER
234	4-904-339-01	CHASSIS(LEFT),SLIDER
235	4-904-346-01	HANDLE
236	4-904-353-01	BRACKET,CONNECTOR
237	4-904-358-01	PLATE,FRONT
238	4-904-370-01	BUTTON,LID LOCK
239	4-904-348-01	ESCUTCHEON (RIGHT),METER PANEL
240	4-904-349-01	ESCUTCHEON (LEFT),METER PANEL

NOTE:

- The shaded and -marked components are critical to safety. Replace only with same components as specified.
- Parts printed in Bold-Face type are normally stocked for replacement purpose. The remaining parts shown in this manual are not normally required for routine service work. Orders for parts not shown in Bold-Face type will be processed but allow for additional delivery time.
- Item with no part number and/or no description are not stocked because they are seldom required for routine service.