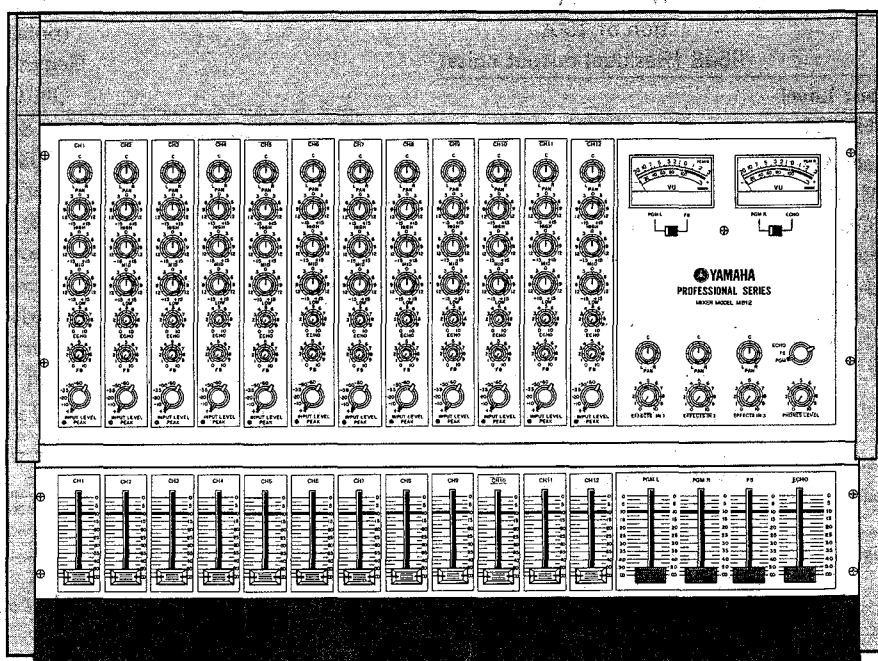


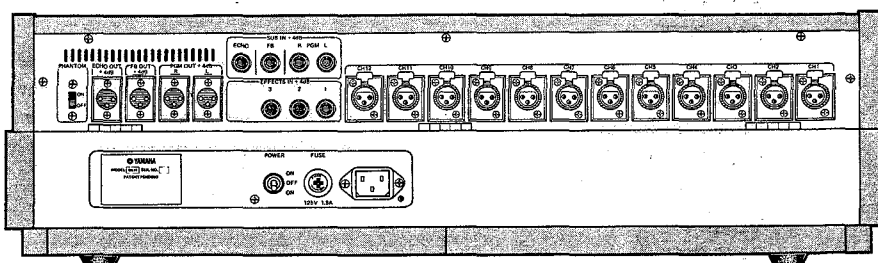
M508/M512

SERVICE MANUAL

FRONT PANEL



REAR PANEL



M512
US & CANADIAN MODELS

CONTENTS

SPECIFICATIONS	1	ECHO SUB IN AND HEADPHONE PRE AMP	
HOW TO OPEN FRONT PANEL	2	CIRCUITS	9
HOW TO REMOVE METER SUB-ASS'Y	2	LINE AMP CIRCUIT	10
CHECK SPECIFICATIONS	3	METER CIRCUIT	10
LEVEL DIAGRAM	5	POWER SUPPLY AND HEADPHONE	
BLOCK DIAGRAM	6	MAIN AMP CIRCUITS	11
INPUT CIRCUIT	7	WIRING	12
EFFECTS IN AND SUB IN CIRCUIT	8	PARTS LIST	

006439

SPECIFICATIONS

Frequency Response	20 ~ 20kHz $\begin{matrix} +1 \\ -3 \end{matrix}$ dB (600Ω, +4dB)
	50 ~ 10kHz $\begin{matrix} 0 \\ -0.5 \end{matrix}$ dB (600Ω, 4dB)
Total Harmonic Distortion	Less than 0.5% 600Ω, +10dB 20 ~ 20kHz Less than 0.1% 600Ω, +20dB 70 ~ 20kHz
*Hum & Noise	-127dB Equivalent Input Noise, input termination of 150Ω -95dB (Residual output noise)
Maximum Output Level PGM, FB, ECHO OUT	+24dB
Maximum Voltage Gain	
INPUT → PGM OUT	84dB
INPUT → FB OUT	84dB
INPUT → ECHO OUT	94dB
SUB IN → each output	10dB
EFFECTS IN → PGM OUT	20dB
Equalizer	
LOW	± 15dB (100Hz, shelving)
MID	± 15dB (2kHz, Peaking)
HIGH	± 15dB (10kHz, shelving)
Separation	Less than -60dB (1kHz)
INPUT Controls	CH Fader
M508	INPUT LEVEL Switch
(CH1 ~ 8)	(+4/-10/-20/-35/-50/-60)
M512	LOW-EQ
(CH1 ~ 12)	MID-EQ
	HIGH-EQ
	PAN POT
	FB
	ECHO
	PEAK Indicator (LED is turned on at 3dB below clipping)
EFFECTS IN (1 ~ 3)	Volume PAN POT
OUTPUT Controls	PGM Master Faders (L, R) FB Master Fader ECHO Master Fader PHONES LEVEL Volume Headphone Select Switch (PGM, FB, ECHO)

METER	VU x 2 L (PGM L/FB) R (PGM R/ECHO) PEAK Indicator LED is turned on at 10dB below clipping
PHANTOM Power Supply	U.S. & Canadian models 40V/DC General model 48V/DC
POWER Switch	U.S. & Canadian models ON/OFF/ON (polarity reversible type) General model ON/OFF
Power Requirements	U.S. & Canadian models 120V, 50/60Hz General model 110, 120, 220 or 240V selectable 50/60Hz
Power Consumption	U.S. model 60W Canadian model 70VA General model 70W
Dimensions (W x H x D)	M508 517 x 191 x 493 (20-3/8"x7-1/2"x19-1/2") M512 657 x 191 x 493 (25-7/8"x7-1/2"x19-1/2")
Weight	M508 15.4 kg (33.9 lbs) M512 19.8 kg (43.6 lbs)

- * Measured with -6dB/oct filter @ 12.47kHz equivalent to a 20kHz filter with infinite dB/oct attenuation.
- 0dB is referenced to 0.775V r.m.s.
- Specifications subject to change without notice.

INPUT CHARACTERISTICS

CONNECTION	INPUT LEVEL SWITCH	ACTUAL LOAD IMPEDANCE	FOR USE WITH NOMINAL	SENSITIVITY** (at MAX. GAIN)	INPUT LEVEL		*** CONNECTOR IN MIXER
					NOMINAL	MAX. BEFORE CLIP	
INPUTS M508 (CH1 ~ 8) M512 (CH1 ~ 12)	-60dB*	800Ω	50 ~ 250Ω	-80dB(0.08mV)	-60dB(0.78mV)	-30dB(24.5mV)	XLR-3-31
	-50dB	800Ω	MICROPHONES OR 600Ω	-70dB(0.25mV)	-50dB(2.5mV)	-20dB(78mV)	
	-35dB	800Ω		-55dB(1.4mV)	-35dB(14mV)	- 5dB(436mV)	
	-20dB	1kΩ	LINE LEVEL SOURCES	-40dB(7.8mV)	-20dB(78mV)	+10dB(2.45V)	
	-10dB	2kΩ		-30dB(24.5mV)	-10dB(245mV)	+20dB(7.75V)	
	+ 4dB	4kΩ		-16dB(123mV)	+ 4dB(1.23V)	+24dB(12.3V)	
EFFECTS IN (1 ~ 3)		10kΩ	600Ω LINES	-16dB(123mV)	+ 4dB(1.23V)	+24dB(12.3V)	PHONE JACK (TRS)
SUB IN PGM(L,R) FB ECHO		1kΩ	600Ω LINES	- 6dB(389mV)	+ 4dB(1.23V)	+24dB(12.3V)	PHONE JACK (TRS)

OUTPUT CHARACTERISTICS

CONNECTION	ACTUAL SOURCE IMPEDANCE	FOR USE WITH NOMINAL	OUTPUT LEVEL		CONNECTOR*** IN MIXER
			NOMINAL	MAX. BEFORE CLIP	
PGM (L,R) OUT FB OUT ECHO OUT	150Ω	600Ω LINES	+4dB(1.23V)	+24dB(12.3V)	XLR-3-32
PHONES	40Ω	8Ω PHONES 600Ω LINES	-6dB(389mV) +8dB(1.95V)	+ 4dB(1.23V) +18dB(6.16V)	STEREO PHONE JACK

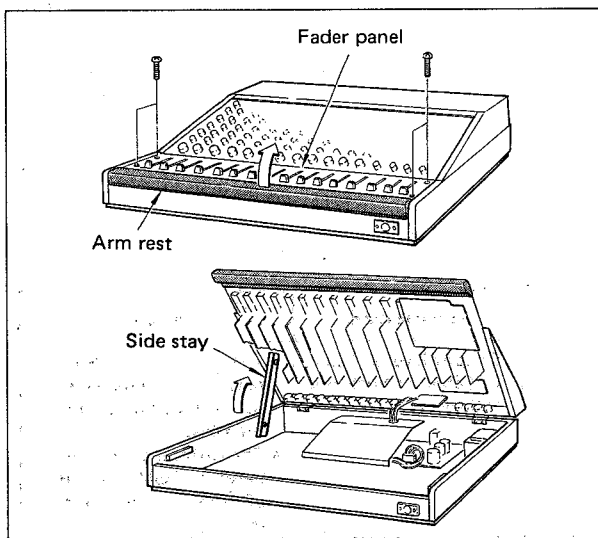
* 0dB is referenced to 0.775V r.m.s.

** All XLR connectors are floating (balanced channel inputs) and transformer-isolated. TRS phone jacks are unbalanced, with separate audio common and chassis ground connections (except headphone jacks, wired Tip = Left, Ring = Right, Sleeve = Common).

*** Sensitivity is the level required to produce a nominal output of +4dB(1.23V) or the specified nominal output level if other than +4dB.

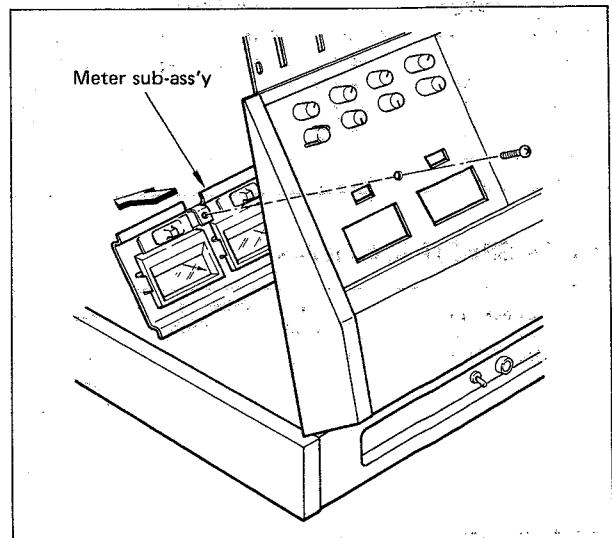
■ HOW TO OPEN FRONT PANEL

1. Undo 4 screws at both ends of the fader panel.
2. Open the panel by pulling the arm rest.
3. Set the side stay.



■ HOW TO REMOVE METER SUB-ASS'Y

1. Open the front panel.
2. Undo the screw located between the meter function switches, and the meter sub-ass'y can be removed.



■ CHECK SPECIFICATIONS

- Use an oscilloscope and AC/dB meter with an input impedance of over 500kΩ for measurement.
- Use an oscillator with an output impedance of 10Ω or less.
- Measure outputs with 600Ω load resistance connected.
- Set the controls to the positions as given in Table 1 unless otherwise specified.
- Connect an oscillator as shown in Fig. 1 for measurement.

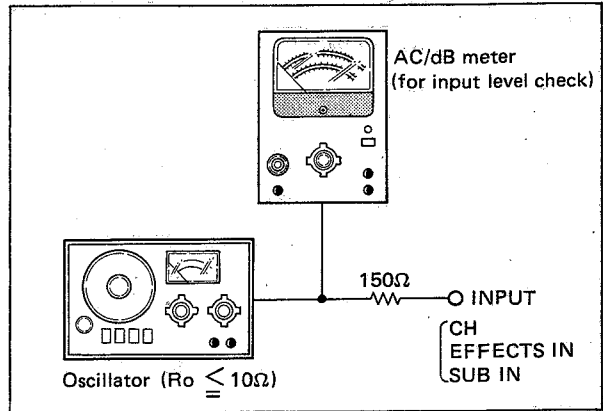


Fig. 1

Table 1 Set position of control & switch

CONTROL & SWITCH		SET POSITION
CH INPUT	FADER	Only measurement channel: max. All others: min.
	EQ (LOW,MID,HIGH)	center (0)
	FB, ECHO	Only measurement channel: max. All others: min.
	INPUT LEVEL	-60
	PAN	center (C)
EFFECTS IN	Volume	Only measurement: max. All others: min.
	PAN	center (C)
PHONES	Headphone Select Switch	FB
	PHONES LEVEL	Only measurement: max. All others: min.
MASTER FADER		max.
METER Switch		(L) PGM L, (R) PGM R

Table 3 Equalizer response

	LOW	MID	HIGH	100Hz	2kHz	10kHz
max.	center (0)	max.	max.	+12 ± 2	-	+12 ± 2
min.	center (0)	min.	min.	-12 ± 2	-	-12 ± 2
center (0)	max.	center (0)	center (0)	-	+15 ± 2	-
center (0)	min.	center (0)	center (0)	-	-15 ± 2	-

(UNIT: dB)

● Equalizer Response

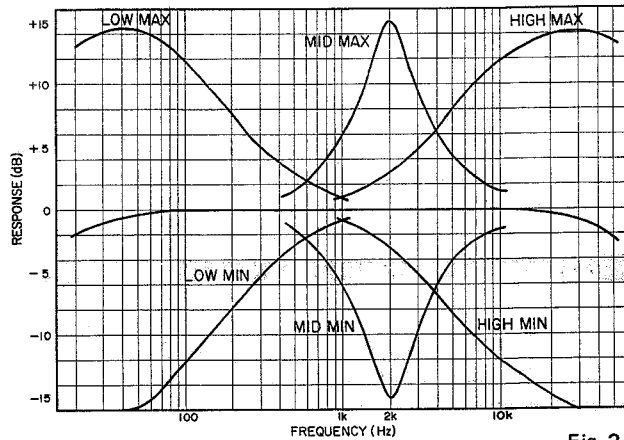


Fig. 2

Table 2 Level variation by switching INPUT LEVEL switch

INPUT LEVEL switch	INPUT LEVEL	OUTPUT			
		PGM L	PGM R	FB	ECHO
-60	-80	+4 ± 2	+4 ± 2	+4 ± 2	+14 ± 2
-50	-80	-6 ± 2	-	-	-
-35	-80	-21 ± 2	-	-	-
-20	-40	+4 ± 2	-	-	-
-10	-40	-6 ± 2	-	-	-
+4	-40	-20 ± 2	-	-	-

(UNIT: dB)

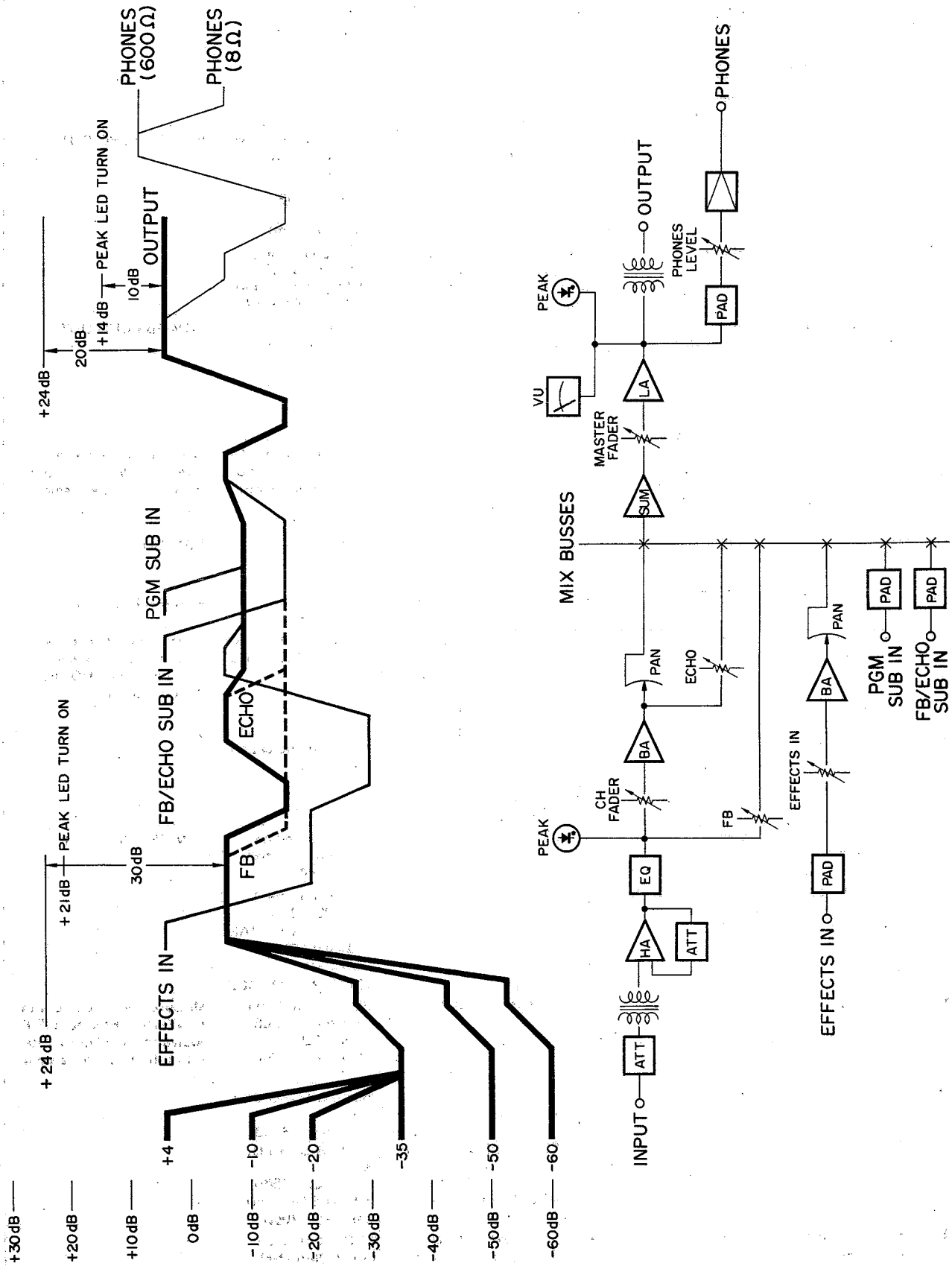
CHECK SPECIFICATIONS

	Check item	Set position of control & switch	Measurement conditions	Specifications	Remarks
1	Gain (INPUT)	Table 1	Apply a 1kHz sine wave signal to each INPUT connector.	Output level as listed in Table 2 Check the following:	<ul style="list-style-type: none"> ● The difference in level between the channels for each output is less than 2dB. ● The difference in level between PGM L and R of each channel is less than 2dB.

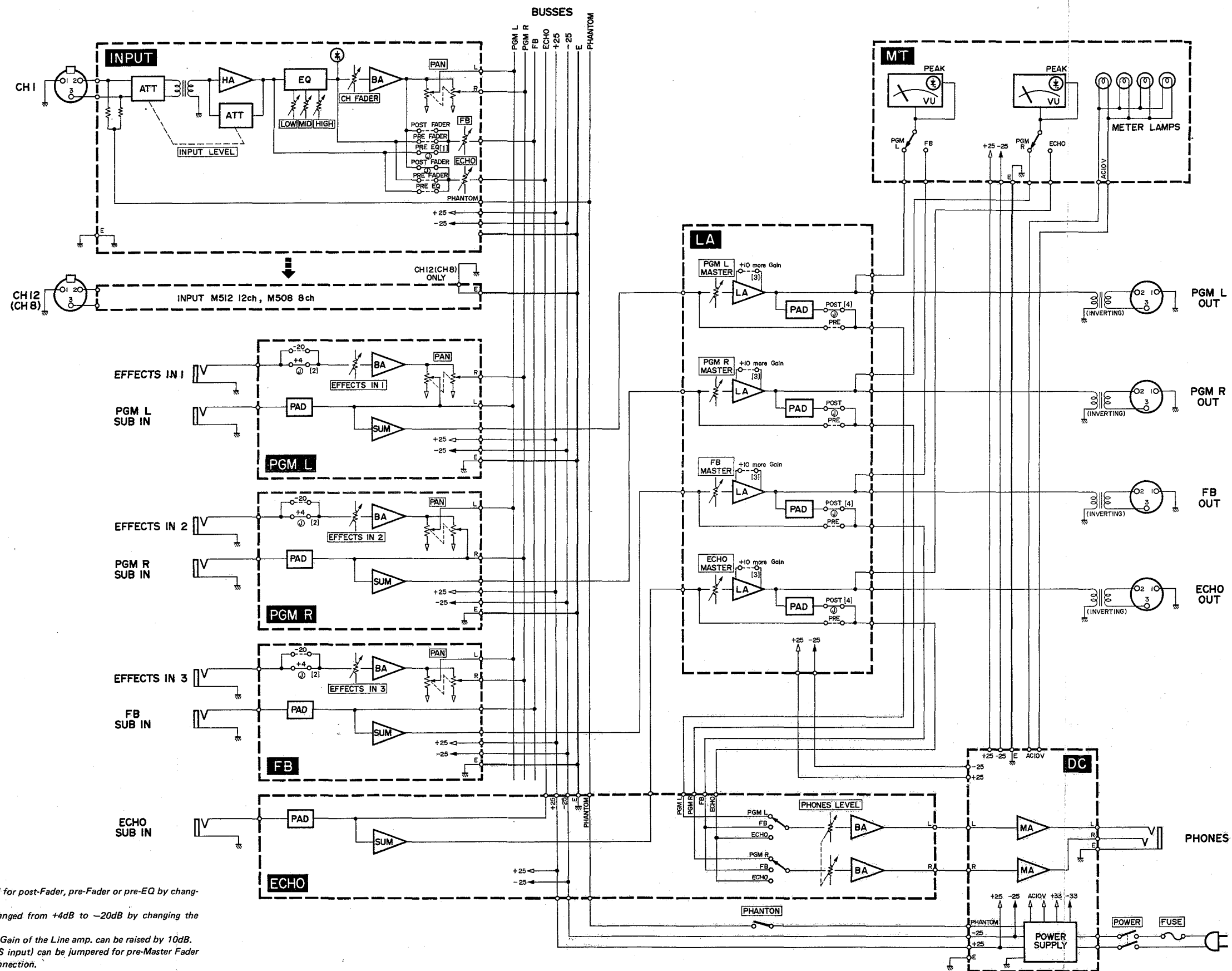
	Check item	Set position of control & switch	Measurement conditions	Specifications	Remarks
2	Distortion	Table 1 CH FADER FB, ECHO MASTER FADER to the position away from Max. by -10dB	Apply a sine wave signal to each INPUT connector so that the output level becomes +10dB.	T.H.D.: less than 0.2%	
3	Frequency response	Table 1	Apply a -80dB, 20 ~ 20kHz sine wave signal to each INPUT connector.	Frequency response with 1kHz output level as a standard: 20Hz $+1$ -3 dB 20kHz $+1$ -3 dB	PGM-FB-ECHO OUT
4	Equalizer response	Table 1	Apply a -80dB sine wave signal to each INPUT connector and vary EQ of each channel.	PGM L OUT level listed in Table 3, with a 1kHz output level as a standard.	
5	Maximum output power	Table 1 CH FADER FB, ECHO MASTER FADER to the position away from Max. by -10dB	Apply a 1kHz sine wave signal to the CH1 INPUT connector.	+24dB output with T.H.D. less than 1%	PGM-FB-ECHO OUT
6	Separation	Table 1 Set PAN of the measurement channel to the extreme left.	Apply a 1kHz sine wave signal to each INPUT connector so that the output level becomes +7dB.	Leakage level of PGM R: less than -53dB (Separation: 60dB)	Check for the same leakage level of PGM L OUT with PAN set to the extreme right.
7	Gain (EFFECTS IN)	Table 1	Apply a -6dB, 1kHz sine wave signal to EFFECTS IN jack.	Output level: +14 \pm 2dB	PGM OUT
8	Gain (SUB IN)	Table 1	Apply a -6dB, 1kHz sine wave signal to SUB IN jack.	Output level: +4 \pm 2dB	PGM-FB-ECHO OUT
9	PHONES output	Table 1	Apply a 1kHz sine wave signal to CH1 INPUT connector so that output level of PGM-FB-ECHO OUT becomes +4dB.	PHONES output level: +4 \pm 2dB (8 Ω load)	Check that the specified output level is obtained even when the PHONES switch is shifted.
10	VU meter	Table 1	Apply a 1kHz sine wave signal to CH1 INPUT connector so that output level of PGM-FB-ECHO OUT becomes +4dB.	VU meter indication: 0 \pm 1VU	
11	PEAK indicator lighting level	Table 1	Apply a sine wave signal to the INPUT connectors and increase its level gradually.	LED is turned on at the output level: +14 \pm 2dB	PGM-FB-ECHO OUT
12	PHANTOM power supply	PHANTOM switch ON	INPUT XLR connector 2 ~ 3 pin shorted Load resistance: 10k Ω 1W	XLR connector 1 ~ 2 pin: 29 \pm 3V (US & CANADIAN MODELS) 35 \pm 3V (GENERAL MODEL)	
13	Noise level	Table 1	Input termination of 150 Ω	PGM-FB OUT level: less than -42dB ECHO OUT level: less than -32dB	Measure the noise level with 12.47kHz, -6dB/oct L.P.F. equivalent to a 20kHz filter with infinite dB/oct attenuation.
14	Residual noise	Table 1	CH FADER, FB-ECHO controls: minimum	PGM-FB-ECHO OUT level: less than -53dB	
			MASTER FADER: minimum	PGM-FB-ECHO OUT level: less than -95dB	
			PHONES LEVEL control: minimum	PHONES OUT level: less than -70dB	
15	CH PEAK indicator lighting level	Table 1	Apply a sine wave signal to each INPUT connector and increase its level gradually.	LED is turned on at the input level: -33 \pm 2dB	

* 0dB = 0.775V r.m.s

LEVEL DIAGRAM

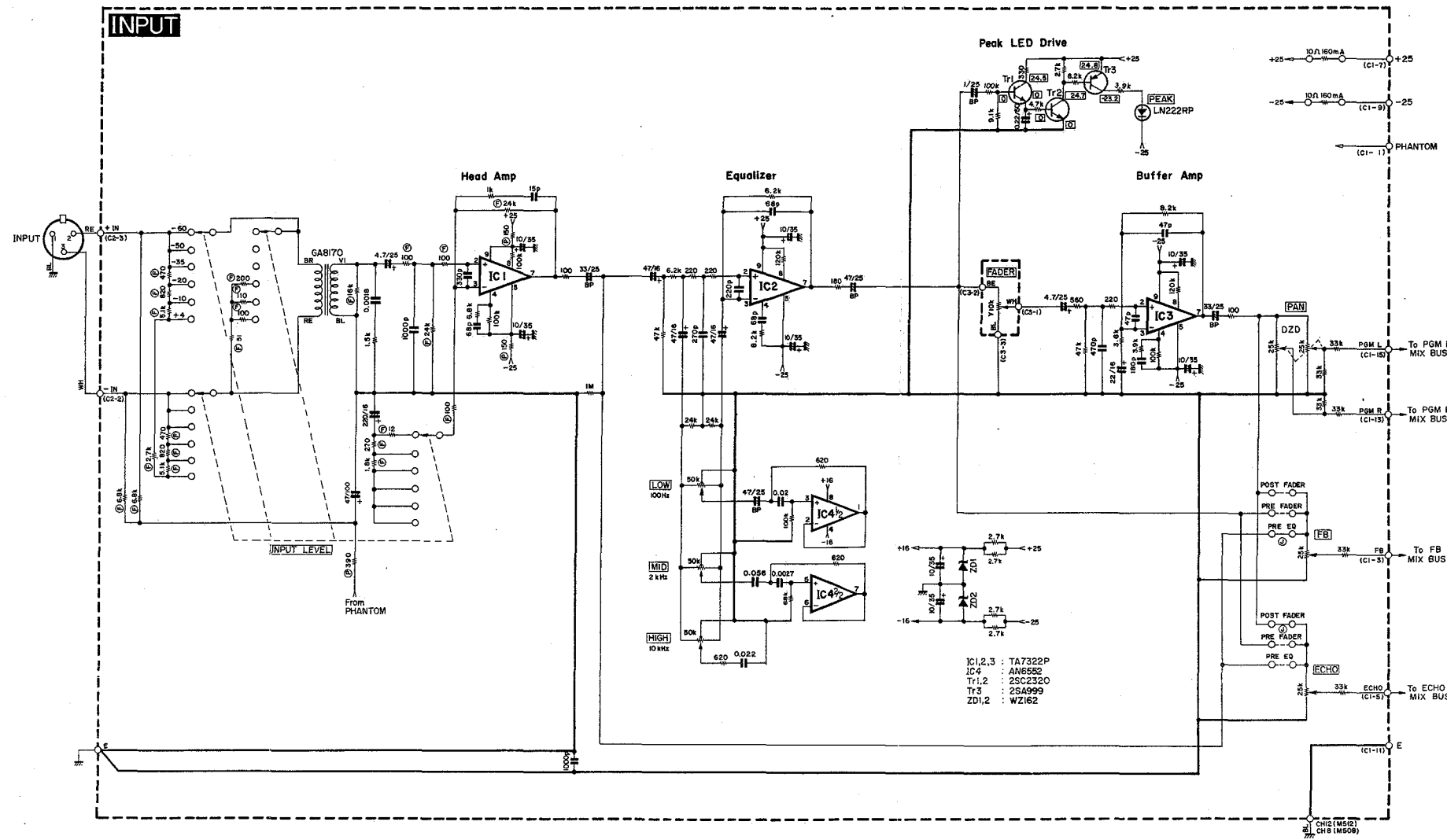


BLOCK DIAGRAM



- $\text{\textcircled{1}}$ Jumper lead on circuit board.
- [1] FB and ECHO can be jumpered for post-Fader, pre-Fader or pre-EQ by changing the jumper lead connection.
- [2] EFFECTS IN level can be changed from +4dB to -20dB by changing the jumper lead connection.
- [3] With a jumper lead connection, Gain of the Line amp. can be raised by 10dB.
- [4] The monitor position (PHONES input) can be jumpered for pre-Master Fader by changing the jumper lead connection.
- Each OUTPUT and INPUT are in phase but PHONES out is out of phase.

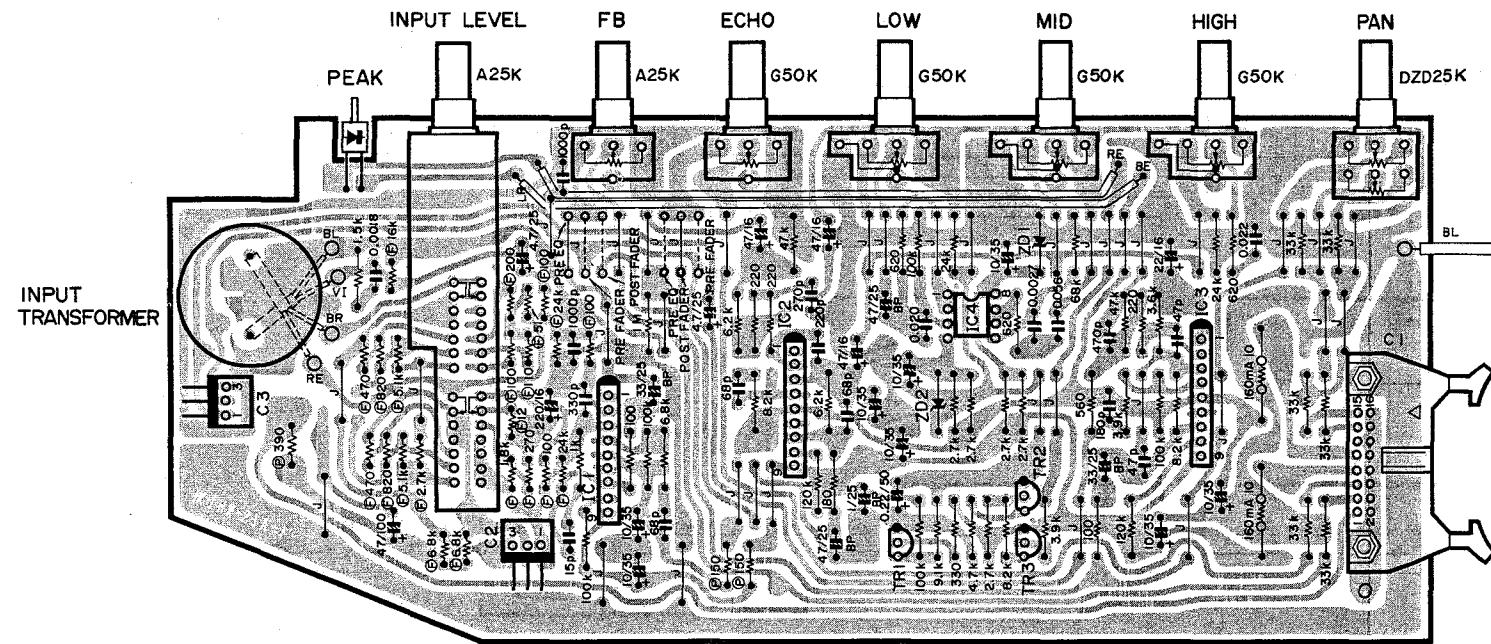
INPUT CIRCUIT
SCHEMATIC DIAGRAM



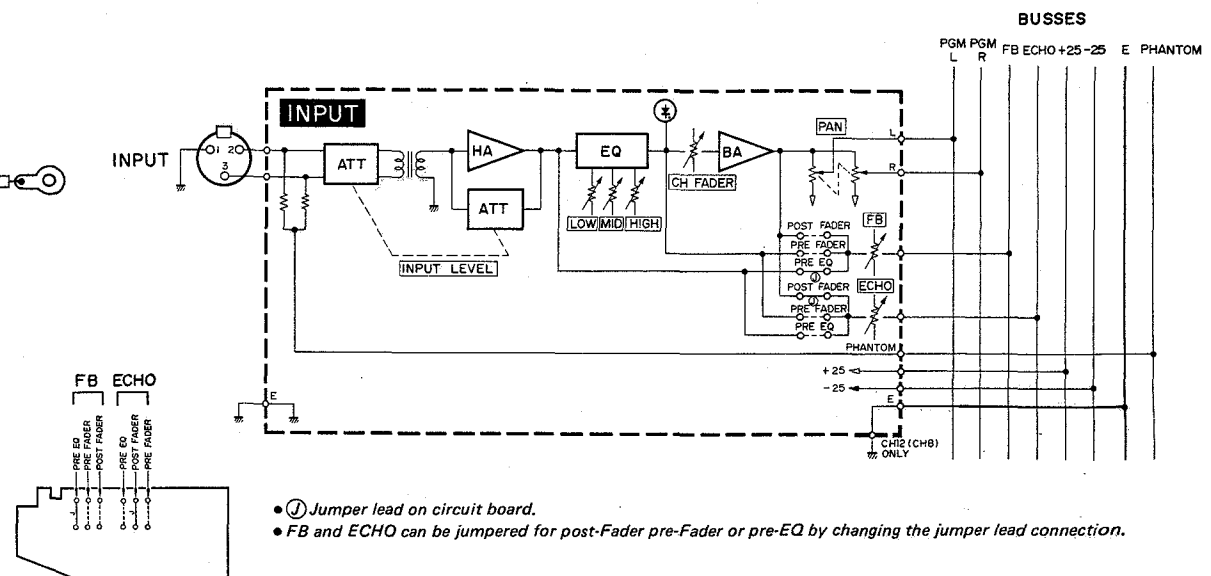
RESISTOR

(F)	Metal Film Resistor
(P)	Plate Resistor

INPUT C. BOARD NA80610

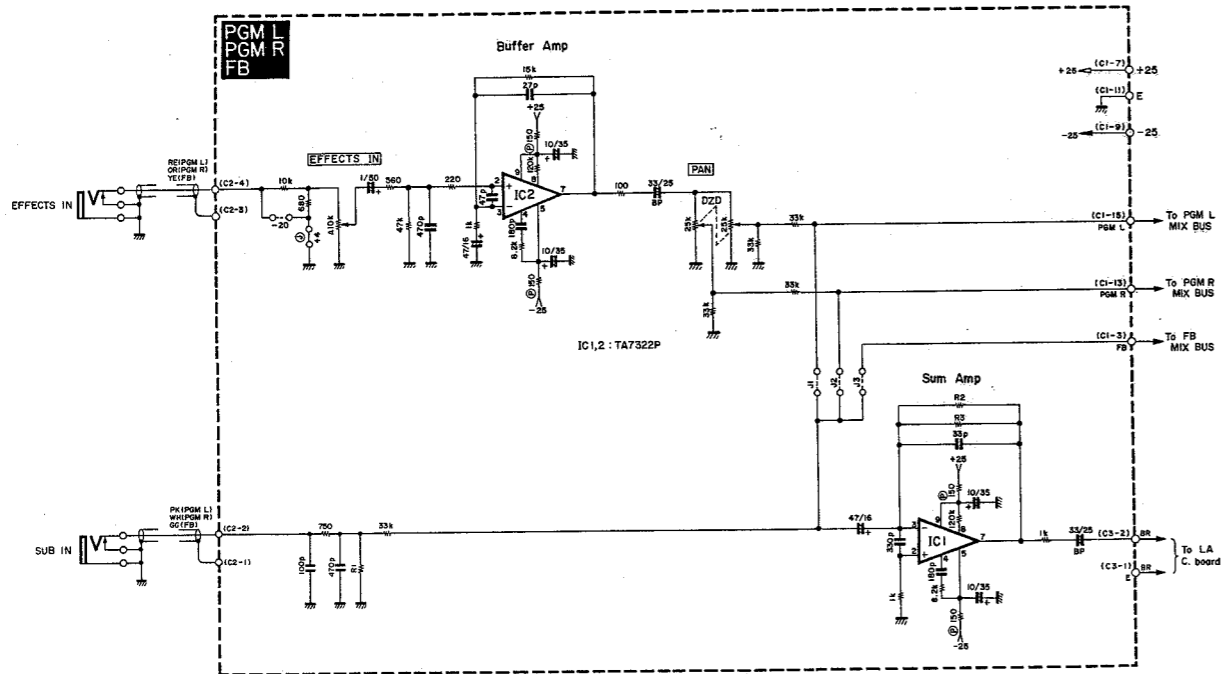


BLOCK DIAGRAM



- ① Jumper lead on circuit board.
- FB and ECHO can be jumpered for post-Fader pre-Fader or pre-EQ by changing the jumper lead connection.

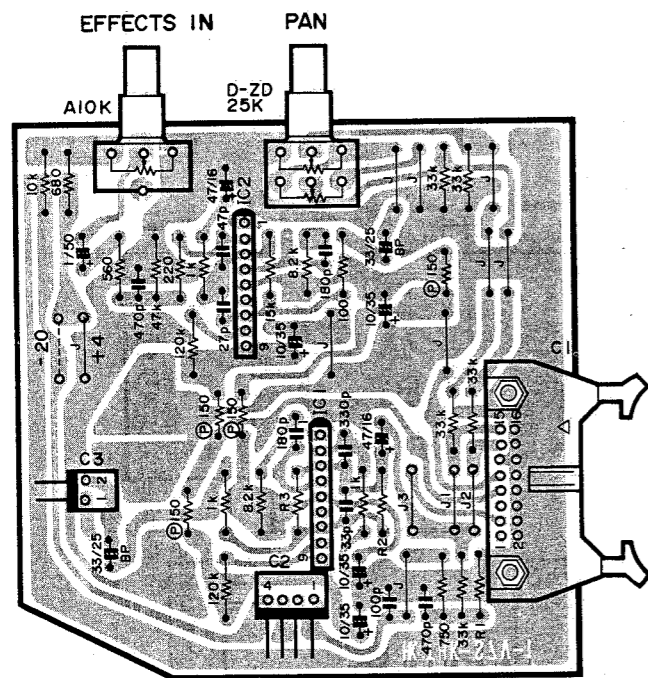
EFFECTS IN AND SUB IN CIRCUITS
SCHEMATIC DIAGRAM



• The point for connecting a jumper lead varies with each of the circuit boards, namey, PGM L, PGM R and FB.

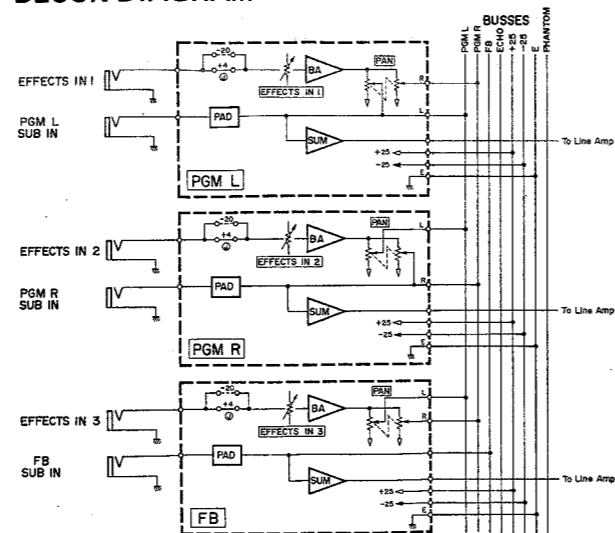
	R1	R2	R3	Jumper position
PGM L	240	68k	180k	J1
PGM R	240	68k	180k	J2
FB	100	130k	560k	J3

PGM (L) C. BOARD NA806010
PGM (R) C. BOARD NA806020
FB C. BOARD NA806030
(Parts Side)

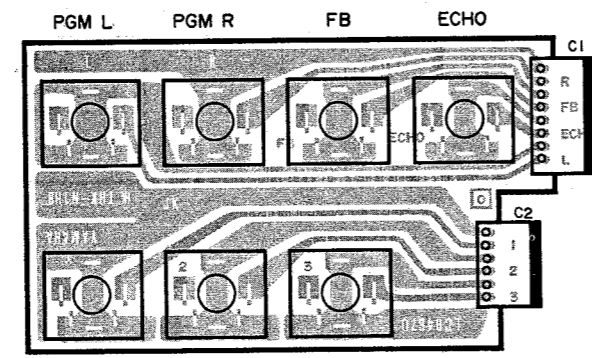


• Jumper lead on circuit board.
• EFFECTS IN level can be changed from +4dB to -20dB by changing the jumper lead connection.

BLOCK DIAGRAM

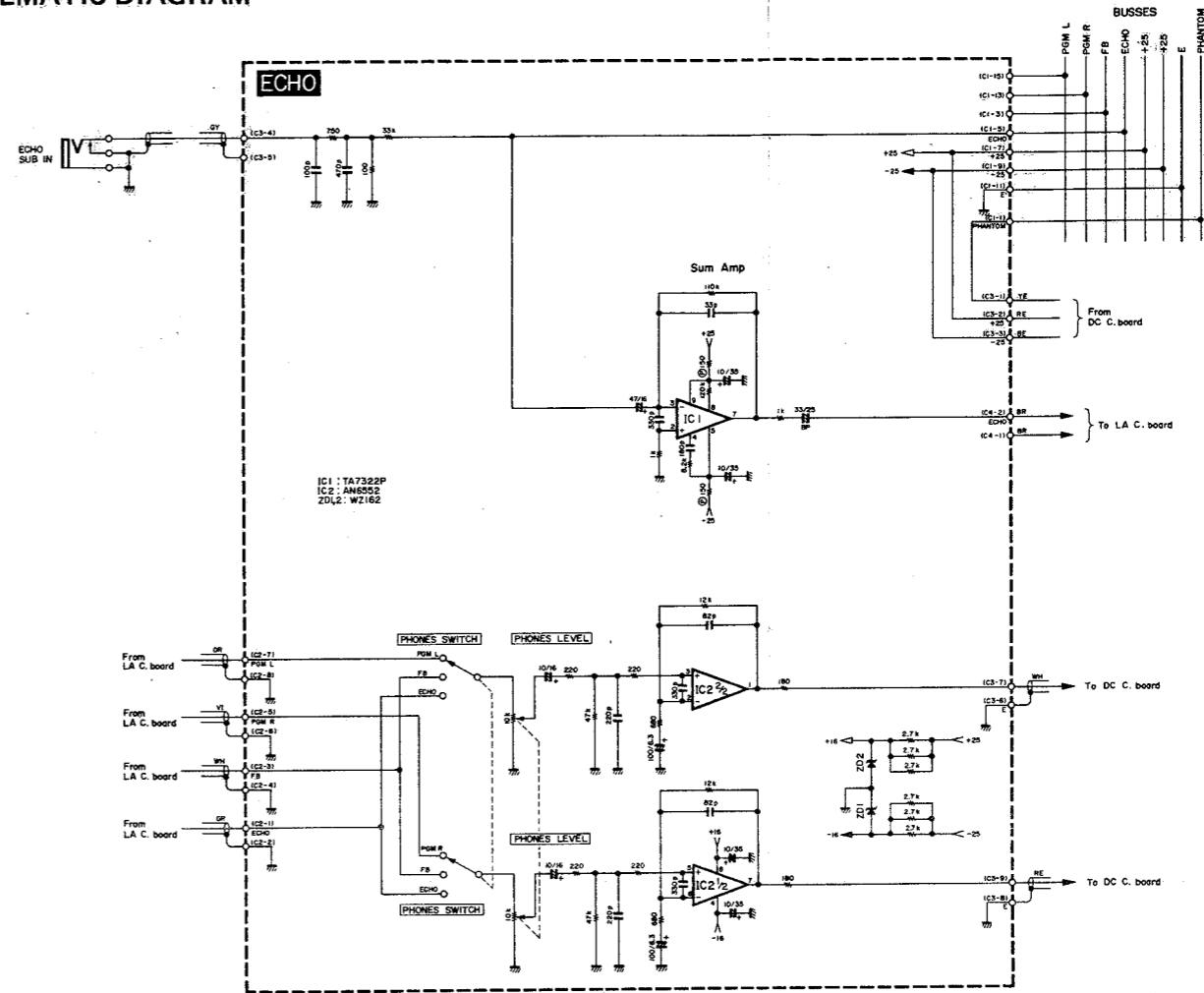


JK C. Board NA80606
(Pattern Side)

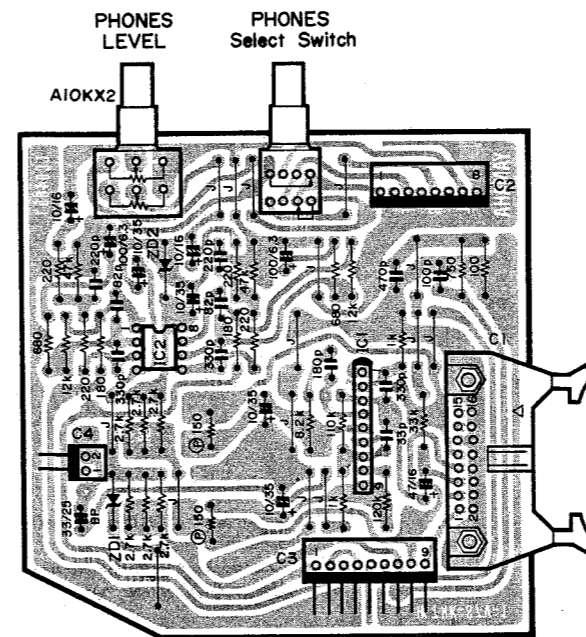


EFFECTS IN1 EFFECTS IN2 EFFECTS IN3

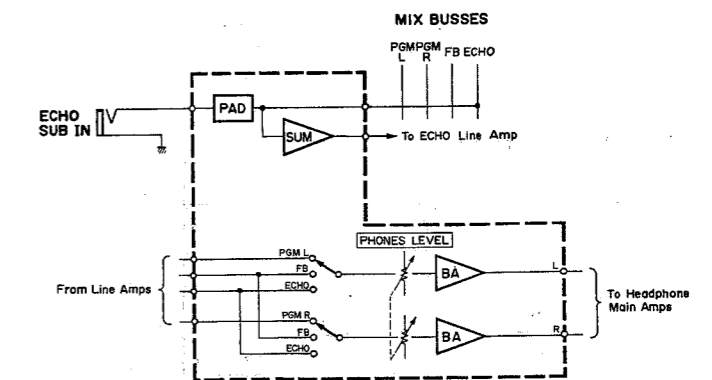
ECHO SUB IN AND HEADPHONE PRE AMP CIRCUITS
SCHEMATIC DIAGRAM



ECHO C. BOARD NA80604
(Parts Side)

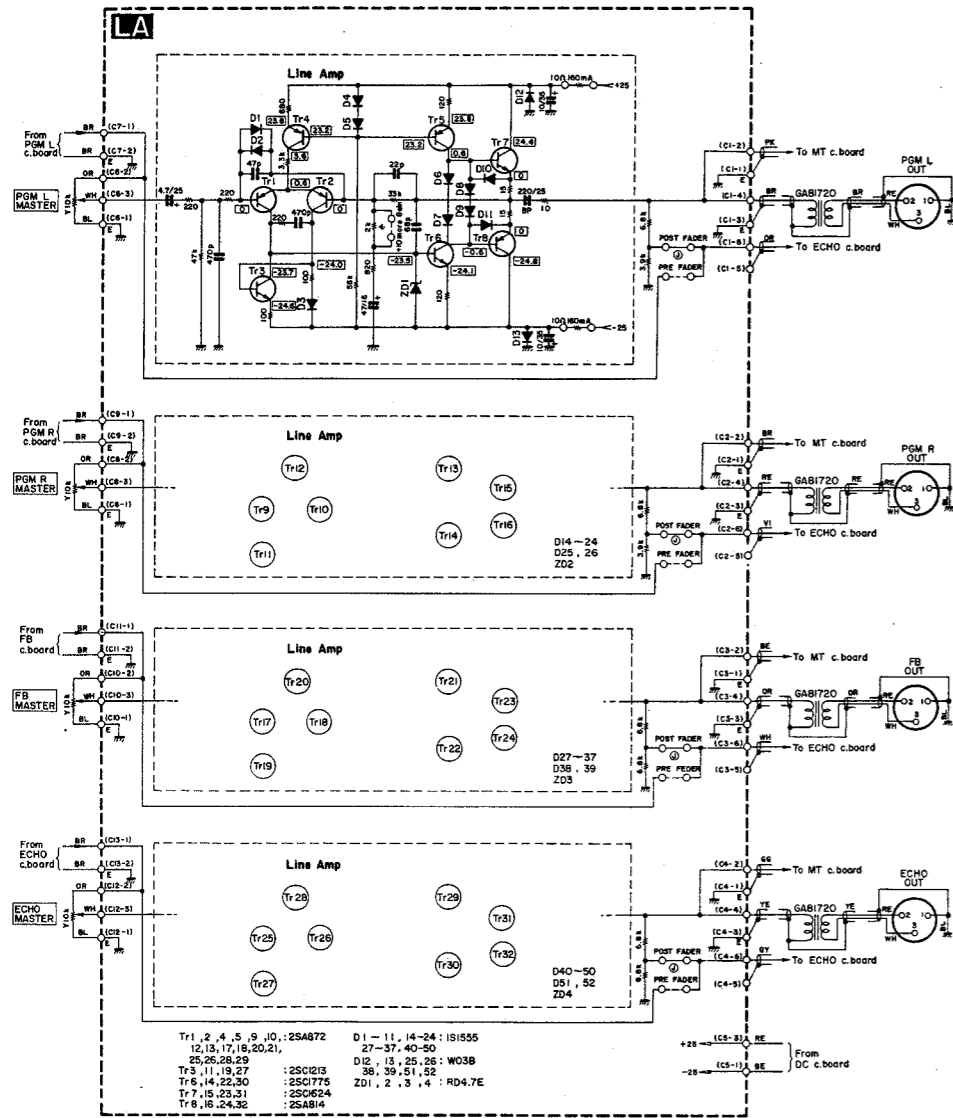


BLOCK DIAGRAM

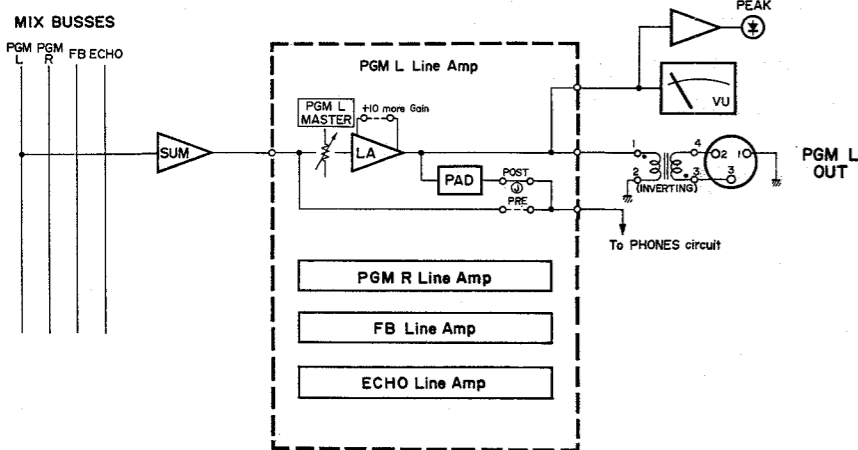


LINE AMP CIRCUIT

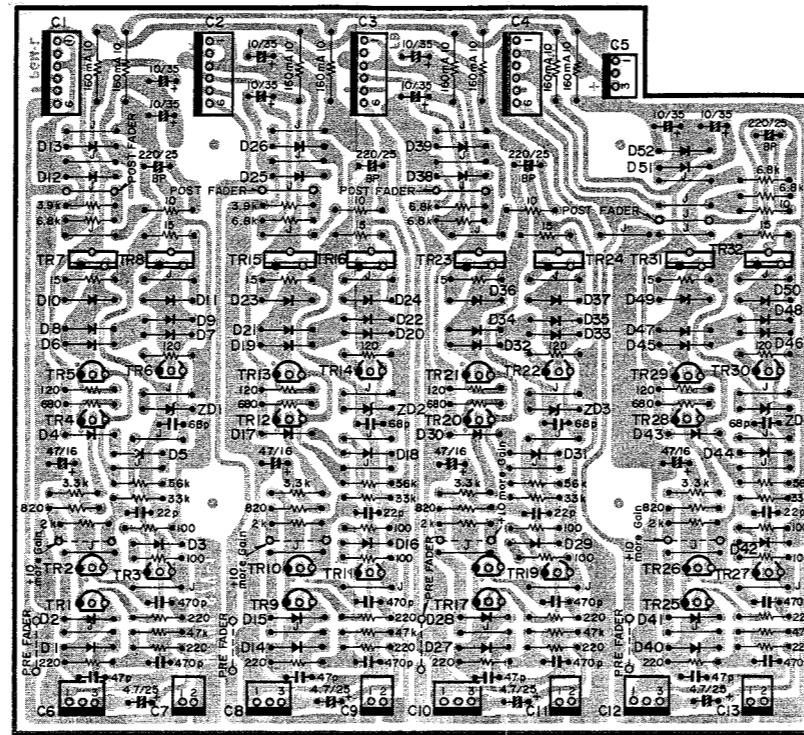
SCHEMATIC DIAGRAM



BLOCK DIAGRAM

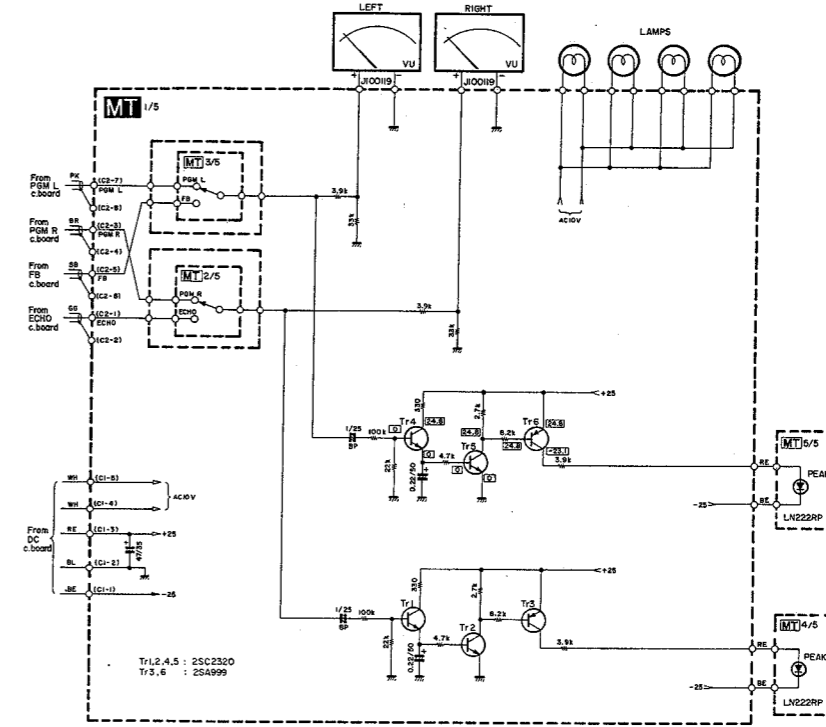


LA C. BOARD NA80611
(Parts Side)

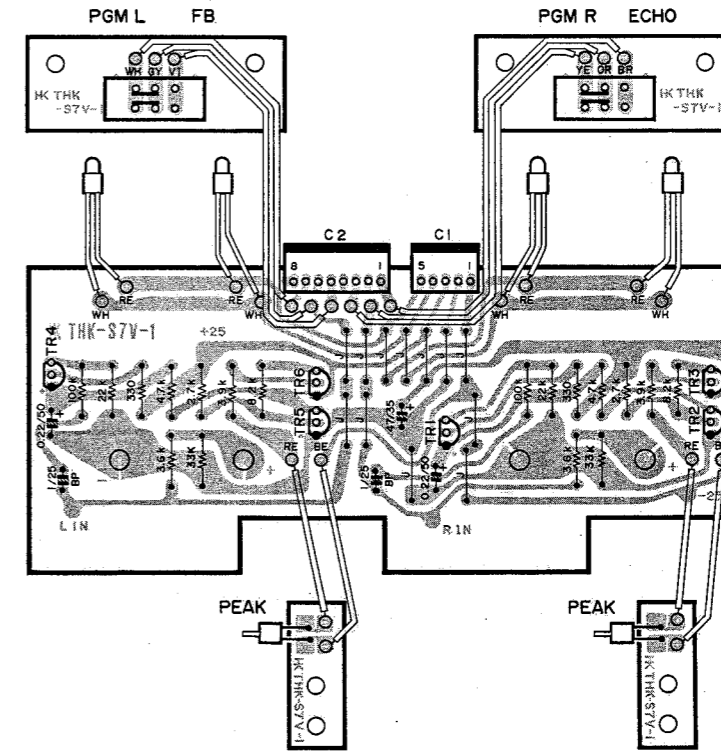


METER CIRCUIT

SCHEMATIC DIAGRAM



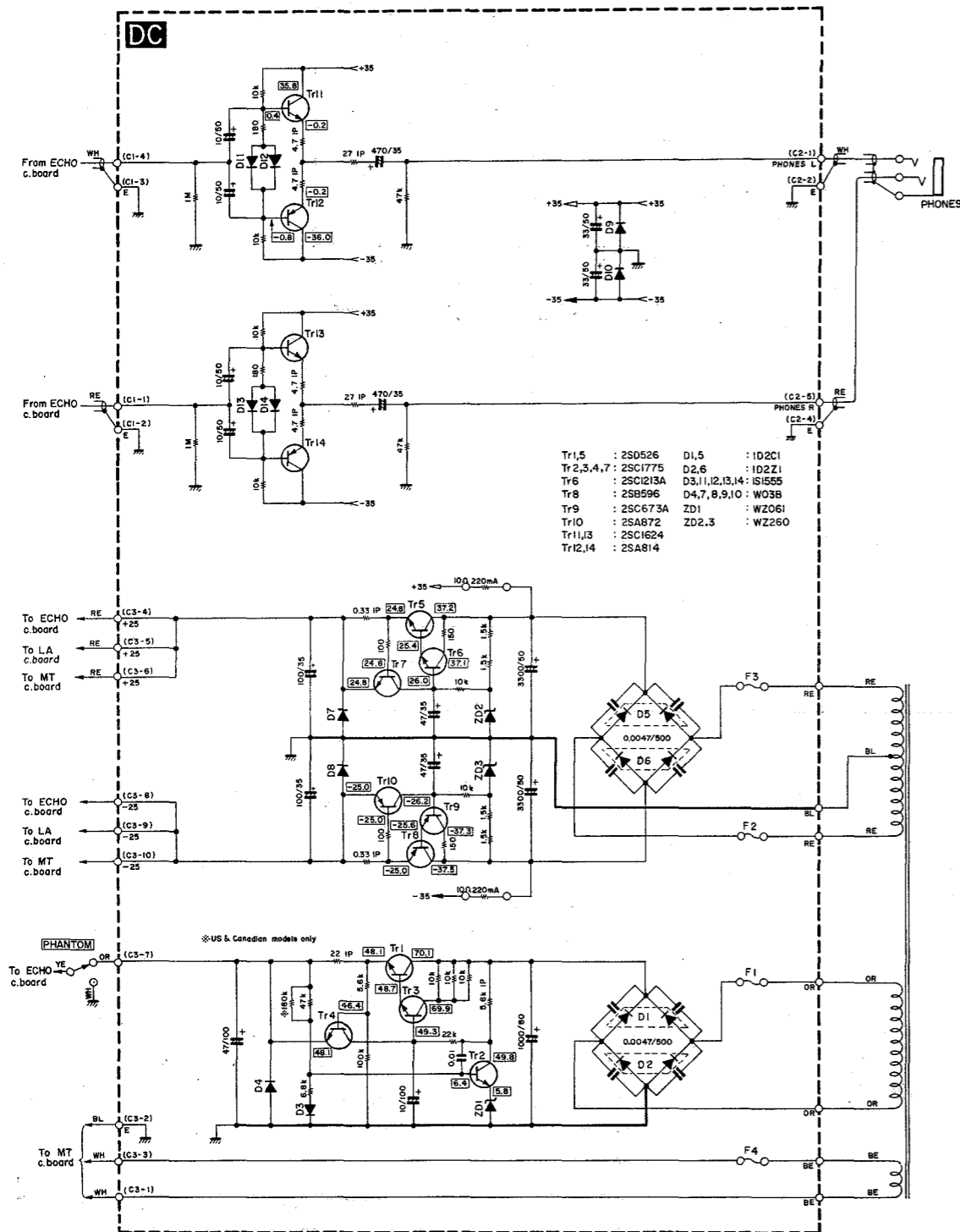
MT C. BOARD NA80605
(Pattern Side)



- With a jumper lead connection, Gain of the Line amp. can be raised by 10dB.
- Jumper lead on circuit board.
- The monitor position (PHONES input) can be jumpered for pre-Master Fader by changing the jumper lead connection.

POWER SUPPLY AND HEADPHONE MAIN AMP CIRCUITS

SCHEMATIC DIAGRAM

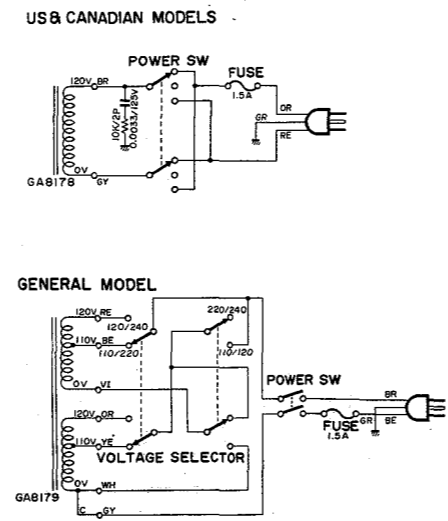
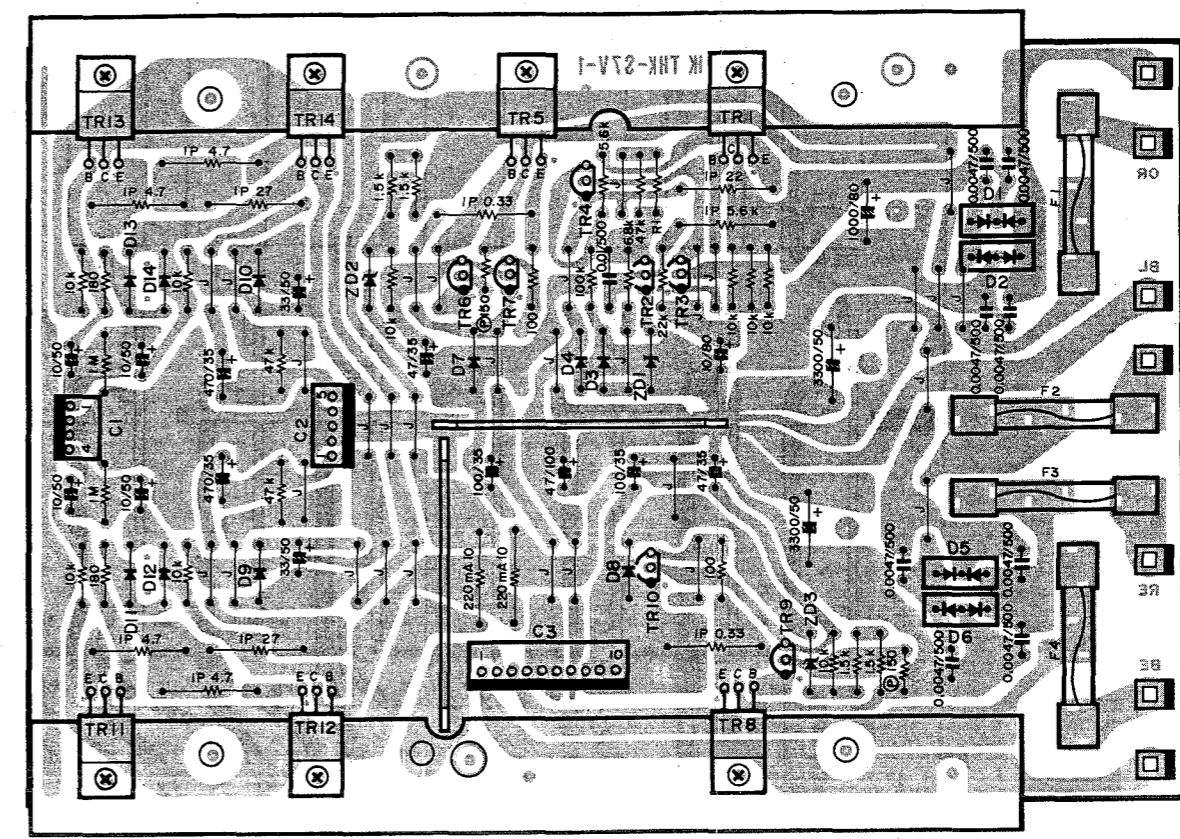


- Tr1,5 : 2S0526 D1,5 : 102C1
- Tr2,3,4,7 : 2SC1775 D2,6 : 102Z1
- Tr6 : 2SC1213A D3,11,12,13,14 : IS155
- Tr8 : 2S8596 D4,7,8,9,10 : W038
- Tr9 : 2SC673A ZD1 : WZ061
- Tr10 : 2SA872 ZD2,3 : WZ260
- Tr11,13 : 2SC1624
- Tr12,14 : 2SA814

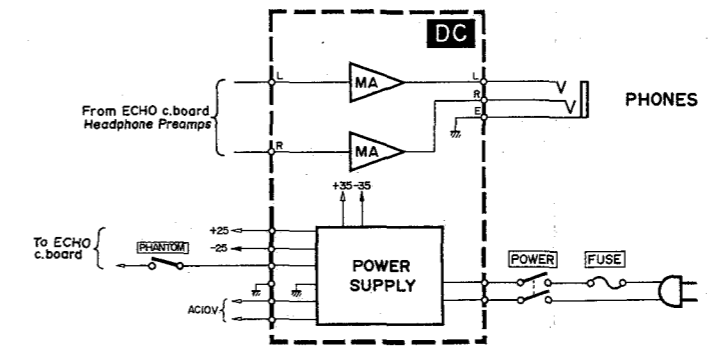
FUSE

	F1	F2, 3	F4
US & CANADIAN MODELS	UL 0.5A 250V KB00115	UL 1A 250V KB00106	UL 0.5A 250V KB00115
GENERAL MODEL	Mini T500mA 250V KB00071	Mini T1.6A 250V KB00074	Mini T500mA 250V KB00071

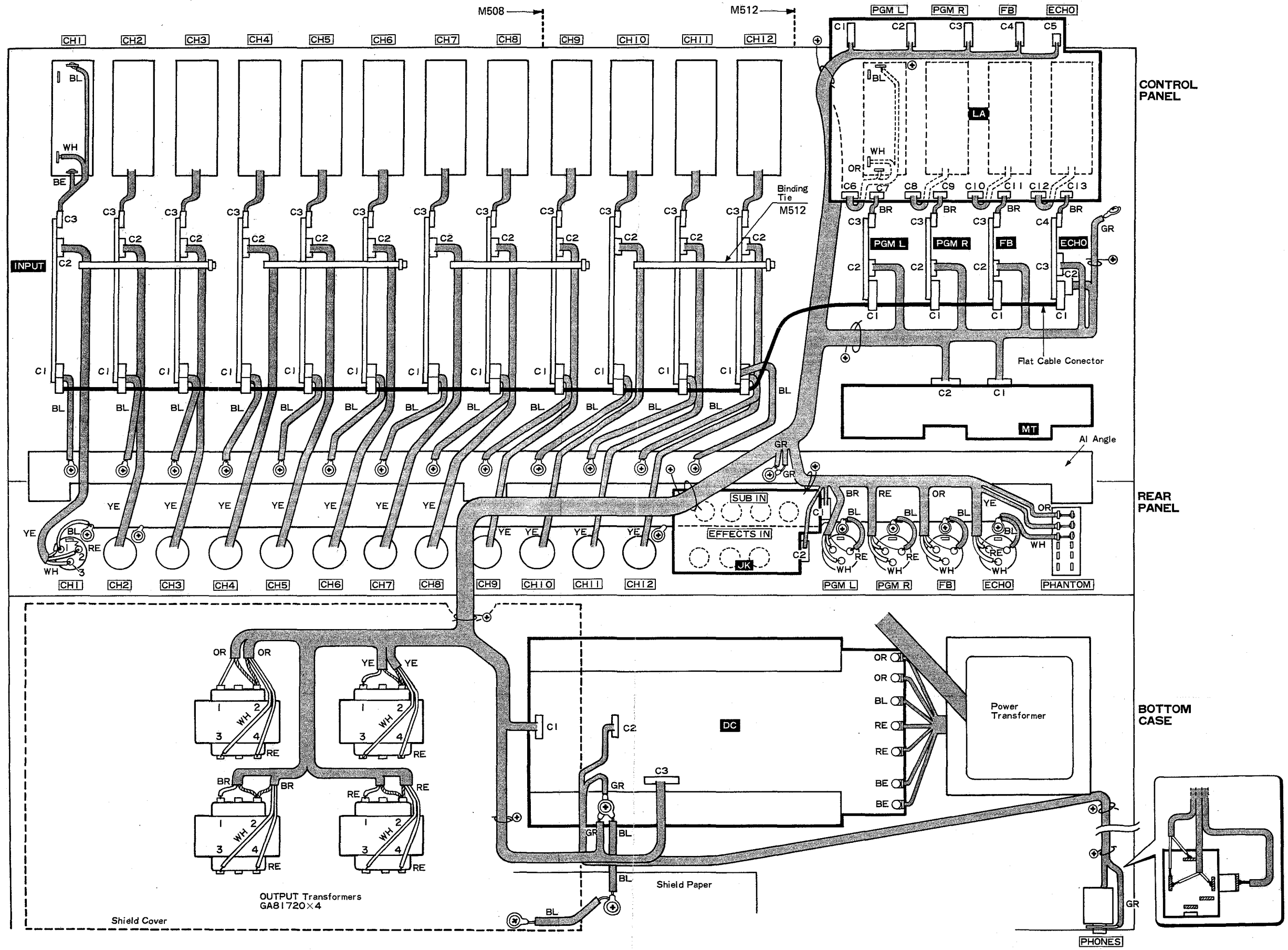
DC C. BOARD US & CANADIAN MODELS NA80608 (Parts Side) GENERAL MODEL NA80609



BLOCK DIAGRAM



WIRING



PARTS LIST

M508/M512

■ CONTENTS


EXPLODED VIEW (FRONT PANEL)	1
PARTS LIST (FRONT PANEL)	2
EXPLODED VIEW (BOTTOM)	3
PARTS LIST (BOTTOM)	4
EXPLODED VIEW (REAR PANEL)	5
PARTS LIST (REAR PANEL)	5
INPUT C. BOARD PARTS LIST	6
PGM (L,R), FB C. BOARD	6
ECHO C. BOARD	7
MT C. BOARD	7
LA C. BOARD	7
DC C. BOARD	8
JK C. BOARD	8

SINCE 1887



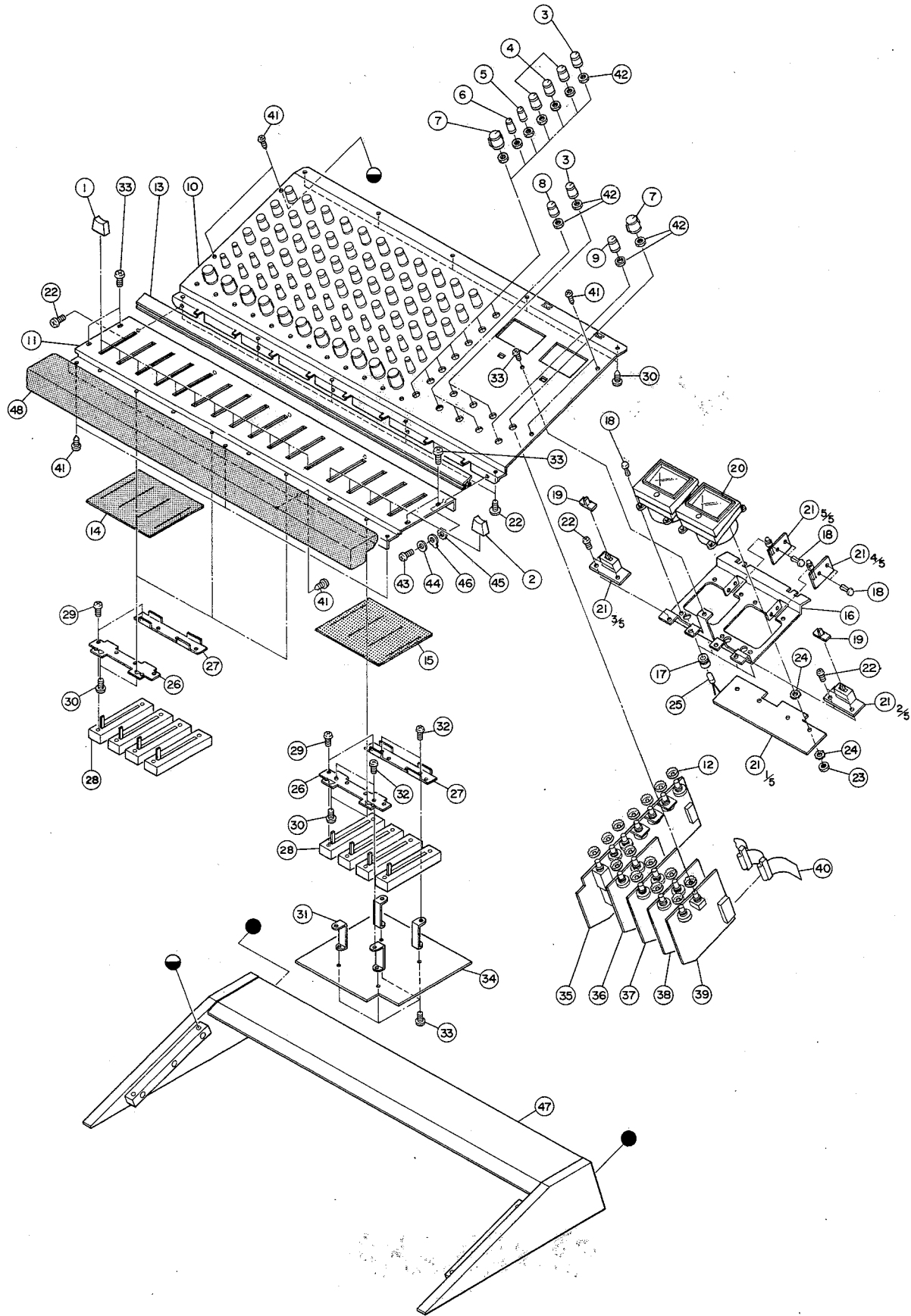
YAMAHA

NIPPON GAKKI CO., LTD. HAMAMATSU, JAPAN

'80 Jul. 2.5K Printed in Japan  

006439

EXPLODED VIEW(FRONT PANEL)

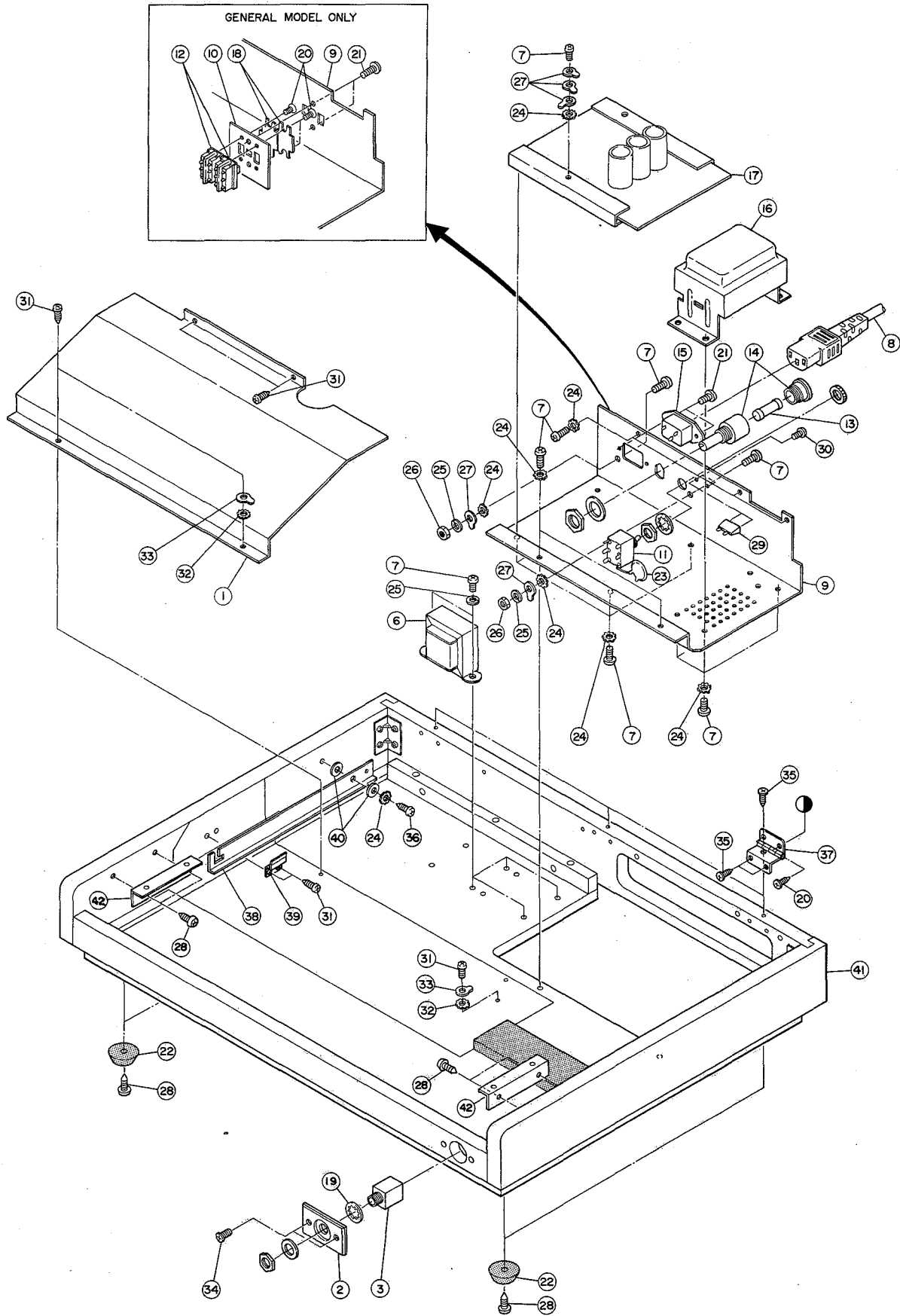


PARTS LIST

Ref No.	Part No.	Description	(部 品 名)	Remarks	Common model
1	30:54:00:CB:02:38:30	Knob CH. FADER (Black)	ツ マ ミ		PM1000
2	30:56:00:CB:81:22:60	" MA. FADER (Red)	"		EM200
※ 3	30:54:00:CB:81:59:10	" PAN (Orange)	"		
※ 4	30:54:00:CB:81:59:20	" EQ (Green)	"		
※ 5	30:54:00:CB:81:59:50	" ECHO (Blue)	"		
※ 6	30:54:00:CB:81:59:60	" FB (Ivory)	"		
※ 7	30:54:00:CB:81:59:70	" INPUT LEVEL (Black)	"		
※ 8	30:54:00:CB:81:59:30	" EFFECTS IN (Gray)	"		
※ 9	30:54:00:CB:81:59:40	" PHONES LEVEL (Ivory)	"		
※ 10	30:54:00:AA:81:35:10	C Panel	C パ ネ ル	(M512)	
※ "	30:54:00:AA:81:47:50	"	"	(M508)	
※ 11	30:54:00:AA:81:35:20	F Panel	F パ ネ ル	(M512)	
※ "	30:54:00:AA:81:47:40	"	"	(M508)	
※ 12	30:54:00:AA:80:49:50	Spacer	ス ペ ー サ ー		
※ 13	30:54:00:CB:81:59:80	Indication Chip	表 示 チ ッ プ	(M512)	
※ "	30:54:00:CB:81:69:10	"	"	(M508)	
※ 14	40:10:00:CB:81:59:90	Dust Proof Cover INPUT	防 塵 ク ロ ス		
※ 15	40:10:00:CB:81:60:00	" MASTER	"		
※ 16	30:54:00:AA:81:35:30	Meter Sub-Panel	メ ー タ ー サ ブ パ ネ ル		
※ 17	30:54:00:CB:06:86:20	Lamp Holder	ラ ン プ ホ ル ダ ー		PM400
※ 18	30:10:00:CB:06:88:80	Plastic Rivet	プ ラ ス チ ッ ク リ ベ ッ ト		
※ 19	30:54:00:CB:80:52:30	Knob	ツ マ ミ		
※ 20	40:10:00:Ji:00:11:90	VU Meter	V U 計		
※ 21	30:54:00:NA:80:60:50	MT C. Board #84682	M T シ ー ト		
※ 22	40:10:00:Ei:33:00:80	Bind Head Tapping Screw 3 x 8 FCM3-Bℓ	バ イ ン ド タ ッ ピ ン グ ネ ジ		
※ 23	40:10:00:EV:00:04:00	Hexagonal Nut M4 ZMC2-Y	六 角 ナ ッ ト		
※ 24	40:10:00:EV:42:30:40	Toothed Lock Washer B4S FCM3-Bℓ	歯 付 座 金		
※ 25	40:10:00:JB:00:02:30	Lamp (with lead) 12V 60mA	リ ー ド 付 ラ ン プ		
※ 26	30:54:00:AA:81:36:20	Fader Angle (Front)	フ ェ ー ダ ー ア ン グ ル		
※ 27	30:54:00:AA:81:36:30	" (Rear)	"		
※ 28	40:10:00:HQ:20:01:90	Slide Variable Resistor	ス ラ イ ド ボ リ ュ ー ム		
※ 29	40:10:00:ED:33:00:60	Bind Head Screw M3 x 6 FCM3-Bℓ	バ イ ン ド 小 ネ ジ		
※ 30	40:10:00:Ei:33:00:60	Bind Head Tapping Screw 3 x 6 FCM3-Bℓ	バ イ ン ド タ ッ ピ ン グ ネ ジ		
※ 31	30:54:00:AA:80:85:30	P.C. Board Holder	シ ー ト ホ ル ダ ー		E1010
※ 32	40:10:00:ED:34:00:80	Bind Head Screw M4 x 8 FCM3-Bℓ	バ イ ン ド 小 ネ ジ		
※ 33	40:10:00:ED:33:00:80	" 3 x 8 FCM3-Bℓ	"		
※ 34	30:54:00:NA:80:61:10	LA C. Board #84691	L A シ ー ト		
※ 35	30:54:00:NA:80:61:00	INPUT C. Board #85501	I N P U T シ ー ト		
※ 36	30:54:00:NA:80:60:10	PGM (L) C. Board #84642	P G M (L) シ ー ト		
※ 37	30:54:00:NA:80:60:20	PGM (R) C. Board #84642	P G M (R) シ ー ト		
※ 38	30:54:00:NA:80:60:30	FB C. Board #84642	F B シ ー ト		
※ 39	30:54:00:NA:80:60:40	ECHO C. Board #84651	E C H O シ ー ト		
※ 40	40:10:00:Mi:80:11:40	Flat Cable Connector	フ ラ ッ ト ケ ー ブ ル コ ネ ク タ	(M512)	
※ "	40:10:00:Mi:80:12:20	"	"	(M508)	
※ 41	40:10:00:Ei:33:01:00	Bind Head Tapping Screw 3 x 10 FCM3-Bℓ	バ イ ン ド タ ッ ピ ン グ ネ ジ		
※ 42	40:10:00:EK:30:70:10	Hexagonal Nut 7S FCM3-Bℓ	特 殊 六 角 ナ ッ ト		
※ 43	40:10:00:ED:34:01:00	Bind Head Screw 4 x 10 FCM3-Bℓ	バ イ ン ド 小 ネ ジ		
※ 44	40:10:00:EV:30:30:40	Spring Lock Washer 4S ZMC2-Bℓ	バ ネ 座 金		
※ 45	40:10:00:EV:42:30:40	Toothed Lock Washer B4S ZMC2-Bℓ	歯 付 座 金		
※ 46	40:10:00:LA:00:02:90	Ground Lug φ4	ア ー ス ラ グ		
※ 47	30:54:52:DA:80:50:60	Top Case	天 板 集 成	(M512)	
※ "	30:54:63:DA:80:56:30	"	"	(M508)	
※ 48	30:54:52:DA:80:50:50	Armrest	ア ー ム レ ス ト 集 成	(M512)	
※ "	30:54:63:DA:80:56:60	"	"	(M508)	

※ NEW PARTS

EXPLODED VIEW(BOTTOM)



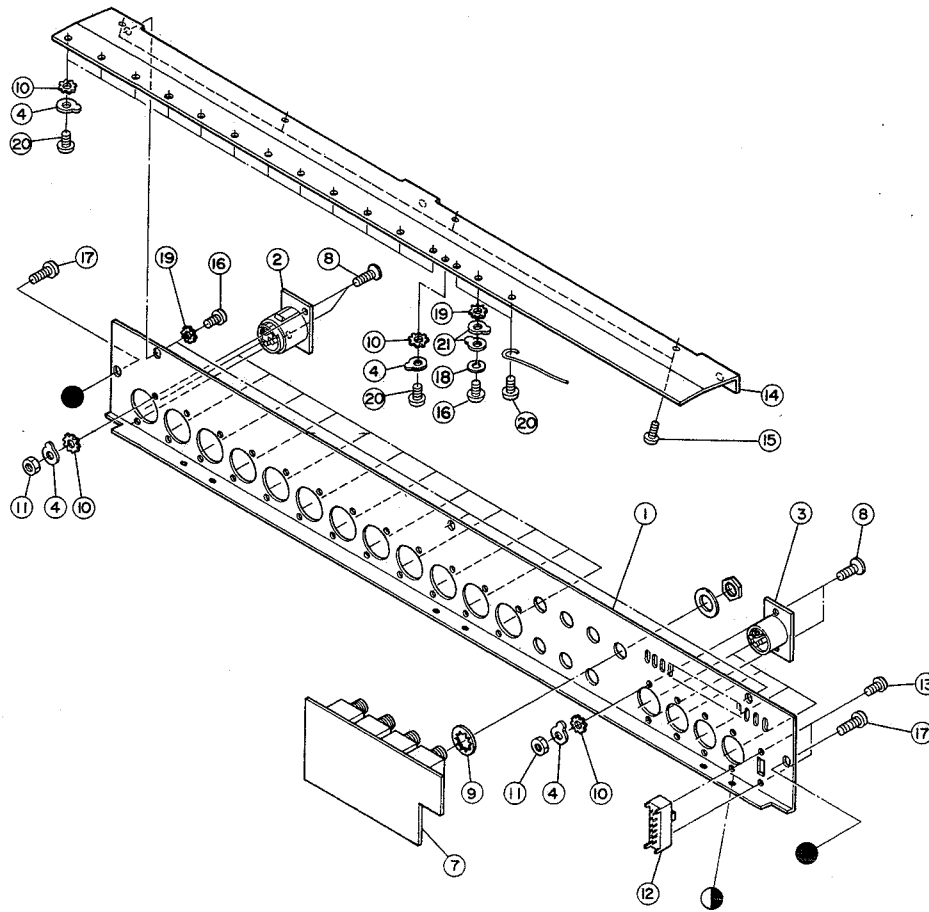
PARTS LIST

 U : US model G : General model
 C : Canadian model J : Japanese model

Ref No.	Part No.	Description	(部 品 名)	Remarks	Common model
※ 1	30:54:00:AA:81:35:00	Shield Cover	シールド板	(M512)	
※ "	30:54:00:AA:81:47:30	"	"	(M508)	
※ 2	30:54:00:CB:81:58:70	PHONES Panel	ヘッドホンパネル		
3	40:10:00:LB:20:15:40	Jack	ホーンジャック		
6	40:10:00:GA:81:72:00	OUTPUT Transformer	OUTPUTトランス		Q1027
7	40:10:00:ED:34:01:00	Bind Head Screw 4 x 10 FCM3-Bℓ	バインド小ネジ		
8	40:10:00:MG:00:05:60	Power Cord	電源コード	J	
	40:10:00:MG:00:05:80	"	"	U, C	
	40:10:00:MG:00:03:60	"	"	G	PM1000
※ 9	30:54:00:AA:81:35:60	Power Supply Chassis	電源シャーシ	J	
※ "	30:54:00:AA:81:35:70	"	"	U, C	
※ "	30:54:00:AA:81:35:90	"	"	G	
※ 10	30:54:00:AA:81:36:00	Slide Switch Sub-Panel	スライドスイッチサブパネル	G	
※ 11	40:10:00:KA:30:02:10	Toggle Switch	トグルスイッチ	J	
※ "	40:10:00:KA:30:03:50	"	"	U	
※ "	40:10:00:KA:30:04:40	"	"	C	
※ "	40:10:00:KA:30:03:70	"	"	G	
※ 12	40:10:00:KA:40:07:40	Slide Switch	スライドスイッチ	G	
13	40:10:00:KB:00:03:40	Fuse 1.5A 250V	ヒューズ	J	
	40:10:00:KB:00:20:10	" UL 1.5A 125V	"	U, C	
	40:10:00:KB:00:06:80	" T1.25A 250V	"	G	
14	40:10:00:LB:20:04:90	Fuse Holder	ヒューズホルダー	J, U, C	
	40:10:00:LB:20:05:90	"	"	G	
15	40:10:00:LB:30:05:60	Inlet 3P	3Pインレット		
※ 16	40:10:00:GA:81:77:00	Power Transformer	電源トランス	J	
※ "	40:10:00:GA:81:78:00	"	"	U, C	
※ "	40:10:00:GA:81:79:00	"	"	G	
※ 17	30:54:00:NA:80:60:70	DC C. Board #84662	DCシート	J	
※ "	30:54:00:NA:80:60:80	" #85470	"	U, C	
※ "	30:54:00:NA:80:60:90	" #84662	"	G	
※ 18	40:10:00:CB:81:60:60	Dial Plate	文字板	G	
19	40:10:00:EV:41:00:90	Toothed Lock Washer A9S ZMC2-Y	歯付座金		
20	40:10:00:EB:33:00:60	Flat Head Screw M3 x 6 FCM3-Bℓ	皿小ネジ		
21	40:10:00:Ei:33:00:80	Bind Head Tapping Screw 3 x 8 FCM3-Bℓ	バインドタッピングネジ		
22	30:54:00:CB:80:12:70	Leg	ゴム脚		
23	40:10:00:FZ:00:21:60	Ceramic Cap. 0.0033μF/AC125V	セラコン	J, U, C	
24	40:10:00:EV:42:30:40	Toothed Lock Washer B4S ZMC2-Bℓ	歯付座金		
25	40:10:00:EV:30:30:40	Spring Lock Washer 4S ZMC2-Bℓ	バネ座金		
26	40:10:00:EV:10:00:40	Hexagonal Nut 4S ZMC2-Y	六角ナット		
27	40:10:00:LA:00:02:90	Ground Lug φ4	アースラグ		
28	40:10:00:Ei:34:01:60	Bind Head Tapping Screw 4 x 16 FCM3-Bℓ	バインドタッピングネジ		
29	40:10:00:LA:00:07:60	Terminal	カラー端子板	J, U, C	
30	40:10:00:ED:33:00:50	Bind Head Screw 3 x 5 FCM3-Bℓ	バインド小ネジ	J, U, C	
31	40:10:00:Ei:33:01:00	Bind Head Tapping Screw 3 x 10 FCM3-Bℓ	バインドタッピングネジ		
32	40:10:00:EV:42:30:30	Toothed Lock Washer B3S ZMC2-Bℓ	歯付座金		
33	40:10:00:LA:00:02:80	Ground Lug φ3	アースラグ		
34	40:10:00:ER:33:11:30	Oval Head Wood Screw 3.1 x 13 FCM3-Bℓ	丸皿木ネジ		
35	40:10:00:EP:33:11:30	Flat Head Wood Screw 3.1 x 13 FCM3-Bℓ	皿木ネジ		
36	40:10:00:EQ:33:51:60	Round Head Wood Screw 3.5 x 16 FCM3-Bℓ	丸木ネジ		
37	30:54:00:AA:81:35:50	Hinge	蝶番		
38	30:54:00:AA:80:25:30	Stay (Left)	ステイ		PM700
39	30:54:00:AA:80:25:40	Stay Holder	ステイ押え金具		PM700
40	40:10:00:EV:20:30:40	Flat Washer 4S FCM3-Bℓ	平座金		
41	30:45:52:DA:80:50:30	Bottom Case	底枠集成	(M512)	
"	30:54:63:DA:80:56:40	"	"	(M508)	
42	30:54:00:AA:81:42:70	Angle	パネル受けアングル		

※ NEW PARTS

EXPLODED VIEW(REAR PANEL)



PARTS LIST

Ref No.	Part No.	Description	(部 品 名)	Remarks	Common model
* 1	30:54:00:AA:81:35:40	Rear Panel	リ ア パ ネ ル	(M512)	
* "	30:54:00:AA:81:47:60	"	"	(M508)	
2	40:10:00:LB:30:01:50	Cannon Socket XLR-3-31	キャノンソケット		
3	40:10:00:LB:30:01:60	" XLR-3-32	"		
4	40:10:00:LA:00:02:80	Ground Lug φ3	アースラグ		
* 7	30:54:00:NA:80:60:60	JK C. Board	J K シ ー ト		
8	40:10:00:EM:23:01:00	Oval Head Tapping Screw 3 x 10 FNM3-3g	丸皿タッピングネジ		
9	40:10:00:EV:41:00:90	Toothed Lock Washer A9S ZMC2-Y	歯付座金		
10	40:10:00:EV:42:30:30	" B3S ZMC2-B	"		
11	40:10:00:EK:30:70:10	Hexagonal Nut 3S ZMC2-Y	特殊六角ナット		
* 12	40:10:00:KA:40:07:50	Slide Switch	スライドスイッチ		
13	40:10:00:ED:32:60:40	Bind Head Screw 2.6 x 4 FCM3-B	バインド小ネジ		
14	30:54:00:BA:80:45:70	A L Angle	A L ア ン グ ル	(M512)	
"	30:54:00:BA:80:49:50	"	"	(M508)	
15	40:10:00:Ei:33:01:00	Bind Head Tapping Screw 3 x 10 FCM3-B	バインドタッピングネジ		
16	40:10:00:ED:34:00:80	Bind Head Screw 4 x 8 FCM3-B	バインド小ネジ		
17	40:10:00:Ei:34:01:20	Bind Head Tapping Screw 4 x 12 FCM3-B	バインドタッピングネジ		
18	40:10:00:EV:30:30:40	Spring Lock Washer 4S ZMC2-B	バネ座金		
19	40:10:00:EV:42:30:40	Toothed Lock Washer B4S ZMC2-B	歯付座金		
20	40:10:00:Ei:33:00:80	Bind Head Tapping Screw 3 x 8 FCM3-B	バインドタッピングネジ		
21	40:10:00:LA:00:02:90	Ground Lug	アースラグ		

*NEW PARTS

■ PARTS LIST(ELECTRICITY)

Ref No.	Part No.	Description	(部 品 名)	Remarks	Common model
※	30:54:00:NA:80:61:00	INPUT C. Board #85501	INPUT シート		
	30:54:00:FA:15:32:70	Mylar Cap. 0.0027 μ F	マイラーコン		
※	40:10:00:FA:15:42:00	" 0.020 μ F	"		
	40:10:00:FA:15:42:20	" 0.022 μ F	"		
	40:10:00:FA:15:45:60	" 0.056 μ F	"		
	40:10:00:FA:15:31:80	" 0.0018 μ F	"		
	40:10:00:UK:34:73:30	Bipolar Electrolytic Cap. 33 μ F 25V	バイポーラケミコン		
※	40:10:00:UK:34:74:70	" 47 μ F 25V	"		
※	40:10:00:UK:34:61:00	" 1 μ F 25V	"		
	40:10:00:UL:14:64:70	Electrolytic Cap. (Low Noise) 47 μ F 50V	ケミコン(ローノイズ)		
※	40:10:00:GA:81:70:00	Input Transformer #81700	INPUTトランス		
	40:10:00:HU:07:41:20	Metal Film Resistor 12 Ω	金属被膜抵抗		
	40:10:00:HU:07:45:10	" 51 Ω	"		
	40:10:00:HU:07:52:70	" 270 Ω	"		
	40:10:00:HU:07:51:00	" 100 Ω	"		
	40:10:00:HU:07:51:10	" 110 Ω	"		
	40:10:00:HU:07:52:00	" 200 Ω	"		
	40:10:00:HU:07:54:70	" 470 Ω	"		
	40:10:00:HU:07:58:20	" 820 Ω	"		
	40:10:00:HU:07:61:80	" 1.8k Ω	"		
	40:10:00:HU:07:62:70	" 2.7k Ω	"		
	40:10:00:HU:07:65:10	" 5.1k Ω	"		
	40:10:00:HU:07:66:80	" 6.8k Ω	"		
	40:10:00:HU:07:71:60	" 16k Ω	"		
	40:10:00:HU:07:72:40	" 24k Ω	"		
※	40:10:00:HW:79:51:50	Fuse Resistor $\frac{1}{4}$ W 150 Ω	ヒューズ抵抗		
※	40:10:00:HW:79:53:90	" $\frac{1}{4}$ W 390 Ω	"		
	40:10:00:IC:23:20:10	Transistor 2SC2320 (E, F)	トランジスタ		
	40:10:00:IA:09:99:10	" 2SA999 (E, F)	"		
	40:10:00:IG:03:99:00	IC TA7322P	I C		
※	40:10:00:IG:04:06:00	" AN6552	"		
	40:10:00:IF:00:06:50	Zener Diode WZ162	ツェナーダイオード		
	40:10:00:IF:00:17:20	LED LN222RP	L E D		
※	40:10:00:HW:99:41:00	Fuse Resistor FN19100M	ヒューズ抵抗		
※	40:10:00:KA:50:15:10	Rotary Switch	ロータリースイッチ		
※	40:10:00:HS:31:10:20	Variable Resistor A25k Ω	可変抵抗器		
※	40:10:00:HS:31:10:40	" D-ZD 25k Ω	"		
※	40:10:00:HS:31:10:50	" G50k Ω	"		
※	40:10:00:LB:90:31:60	Flat Cable Connector 16P	フラットケーブルコネクタ		
	40:10:00:EV:10:02:60	Hexagonal Nut 2.6S ZMC2-Y	六角ナット		
	40:10:00:EV:10:00:30	" 3S ZMC2-Y	"		
	40:10:00:EB:32:61:20	Flat Head Screw 2.6 x 12 FCM3-B ℓ	皿小ネジ		
	40:10:00:EV:42:30:30	Toothed Lock Washer B3S ZMC2-B ℓ	歯付座金		
	40:10:00:LB:30:07:50	Connector 3P (S, E)	2.5 ピッチベースピン		
※	30:54:00:NA:80:60:10	PGM (L) C. Board #84642	PGM (L) シート		
※	30:54:00:NA:80:60:20	PGM (R) C. Board #84642	PGM (R) シート		
※	30:54:00:NA:80:60:30	FB C. Board #84642	FB シート		
※	40:10:00:UK:34:73:30	Bipolar Electrolytic Cap. 33 μ F 25V	バイポーラケミコン		
※	40:10:00:HW:79:51:50	Fuse Resistor $\frac{1}{4}$ W 150 Ω	ヒューズ抵抗		
※	40:10:00:HS:31:10:30	Variable Resistor A10k Ω	可変抵抗器		
※	40:10:00:HS:31:10:40	" D-ZD 25k Ω	"		
	40:10:00:IG:03:99:00	IC TA7322P	I C		

※ NEW PARTS

Ref No.	Part No.	Description	(部 品 名)	Remarks	Common model
※	40:10:00:LB 90:31:60	Flat Cable Connector 16P	フラットケーブルコネクタ		
	40:10:00:FV 10:02:60	Hexagonal Nut 2.6S ZMC2-Y	六角ナット		
	40:10:00:EB 32:61:20	Flat Head Screw 2.6 x 12 FCM3-B&	皿小ネジ		
	40:10:00:LB 20:14:10	Connector 2P (S, E)	2.5 ピッチベースピン		
	40:10:00:LB 40:05:90	" 4P (S, E)	"		
※	30:54:00:NA 80:60:40	ECHO C. Board #84651	ECHO シート		
※	40:10:00:UK 34:73:30	Bipolar Electrolytic Cap. 33 μ F 25V	バイポーラケミコン		
※	40:10:00:HS 31:10:60	Variable Resistor A10k Ω x 2	可変抵抗器		
※	40:10:00:HW 79:51:50	Fuse Resistor $\frac{1}{4}$ W 150 Ω	ヒューズ抵抗		
	40:10:00:iF 00:06:50	Zener Diode WZ162	ツェナーダイオード		
	40:10:00:iG 03:99:00	IC TA7322P	I C		
	40:10:00:iG 04:06:00	" AN6552	"		
※	40:10:00:KA 50:15:20	Rotary Switch	ロータリースイッチ		
※	40:10:00:LB 90:31:60	Flat Cable Connector 16P	フラットケーブルコネクタ		
	40:10:00:ED 32:61:20	Bind Head Screw 2.6 x 12 FCM3-B&	バインド小ネジ		
	40:10:00:EV 10:02:60	Hexagonal Nut 2.6S ZMC2-Y	六角ナット		
	40:10:00:LB 20:14:10	Connector 2P (S, E)	2.5 ピッチベースピン		
	40:10:00:LB 60:30:50	" 9P (S, E)	"		
	40:10:00:LB 60:24:90	" 8P (T, E)	"		
※	30:54:00:NA 80:60:50	MT C. Board #84682	M T シート		
※	40:10:00:UK 34:61:00	Bipolar Electrolytic Cap. 1 μ F 25V	バイポーラケミコン		
	40:10:00:iA 09:99:10	Transistor 2SA999 (E, F)	トランジスタ		
	40:10:00:iC 23:20:10	" 2SC2320 (E, F)	"		
	40:10:00:iF 00:17:20	LED LN222RP	L E D		
	40:10:00:JB 00:02:30	Lamp (with lead) 12V 60mA	リード付ランプ		
	40:10:00:KA 40:06:00	Switch	スイッチ		
	40:10:00:LB 50:03:70	Connector 5P (B, E)	2.5 ピッチベースピン		
	40:10:00:LB 60:30:10	" 8P (B, E)	"		
※	30:54:00:NA 80:61:10	LA C. Board #84691	L A シート		
※	40:10:00:UK 34:82:20	Bipolar Electrolytic Cap. 220 μ F 25V	バイポーラケミコン		
	40:10:00:HW 99:41:00	Fuse Resistor 160mA 10 Ω	ヒューズ抵抗		
	40:10:00:iA 08:14:00	Transistor 2SA814 (O, Y)	トランジスタ		
	40:10:00:iA 08:72:30	" 2SA872 (E)	"		
	40:10:00:iC 12:13:40	" 2SC1213A (D)	"		
	40:10:00:iC 16:24:00	" 2SC1624 (O, Y)	"		
	40:10:00:iC 17:75:00	" 2SC1775 (E)	"		
	40:10:00:iF 00:00:40	Diode 1S1555	ダイオード		
	40:10:00:iF 00:08:30	" RD4.7E	"		
※	40:10:00:iH 00:07:20	" W03B	"		
	30:54:00:CB 07:28:80	Bush	絶縁ブッシュ		
	40:10:00:EA 02:60:80	Bind Head Screw 2.6 x 8 ZMC2-Y	ナベ小ネジ		
	40:10:00:EV 30:00:30	Spring Lock Washer ϕ 3 ZMC2-Y	バネ座金		
※	30:54:00:BA 80:45:90	Heat Sink	放熱板		
	40:10:00:iL 00:02:70	Mica Base	マイカベース		
	40:10:00:Ei 03:00:80	Bind Head Tapping Screw 3 x 8 ZMC2-Y	バインドタッピングネジ		
	40:10:00:LB 20:13:90	Connector 2P (T, E)	2.5 ピッチベースピン		
	40:10:00:LB 30:07:30	" 3P (T, E)	"		
	40:10:00:LB 60:29:40	" 6P (T, E)	"		

※ NEW PARTS

Ref No.	Part No.	Description	(部 品 名)	Remarks	Common model
※	30:54:00:NA:80:60:70	DC C. Board #84662	D C シ ー ト	J	
※	30:54:00:NA:80:60:80	" #85472	"	U,C	
	30:54:00:NA:80:60:90	" #84662	"	G	
	40:10:00:FH:23:41:00	Ceramic Cap. 0.01 μ F 500V	セ ラ コ ン		
	40:10:00:FH:22:34:70	" 0.0047 μ F 500V	"		
	40:10:00:HL:31:34:70	Metal Oxide Film Resistor 1P 4.7 Ω	酸 化 金 属 被 膜 抵 抗		
	40:10:00:HL:31:42:70	" 1P 27 Ω	"		
	40:10:00:HL:31:65:60	" 1P 5.6k Ω	"		
	40:10:00:HL:31:23:30	" 1P 0.33 Ω	"		
	40:10:00:HL:31:42:20	" 1P 22 Ω	"		
	40:10:00:HW:80:41:00	Fuse Resistor 220mA 10 Ω	ヒ ュ ー ズ 抵 抗	J,G	
	40:10:00:HW:90:41:00	" FN10100K	"	U,C	
※	40:10:00:HW:79:51:50	" 1/4W 150 Ω	"		
	40:10:00:iA:08:14:00	Transistor 2SA814 (O, Y)	ト ラ ン ジ ス タ		
	40:10:00:iA:08:72:30	" 2SA872 (E)	"		
	40:10:00:iB:05:96:10	" 2SB596 (O, Y)	"		
	40:10:00:iC:16:24:00	" 2SC1624 (O, Y)	"		
	40:10:00:iC:17:75:00	" 2SC1775 (E)	"		
	40:10:00:iD:05:26:10	" 2SD526 (R, O)	"		
	40:10:00:iA:06:73:10	" 2SA673A (C, D)	"		
	40:10:00:iC:12:13:10	" 2SC1213A (C, D)	"		
	40:10:00:iF:00:00:40	Diode 1S1555	ダ イ オ ー ド		
	40:10:00:iF:00:03:20	" WZ061	"		
	40:10:00:iF:00:02:50	" WZ260	"		
	40:10:00:iH:00:07:20	" W03B	"		
	40:10:00:iH:00:02:80	" 1D2C1	"		
	40:10:00:iH:00:02:90	" 1D2Z1	"		
※	30:54:00:BA:80:46:00	Heat Sink	放 熱 板		
	30:54:00:CB:07:28:80	Bush	絶 縁 ブ ッ シ ュ		
	40:10:00:ED:02:60:80	Pan Head Screw 2.6 x 8 ZMC2-Y	ナ ベ 小 ネ ジ		
	40:10:00:EV:30:00:30	Spring Lock Washer ϕ 3 ZMC2-Y	バ ネ 座 金		
	40:10:00:EI:03:00:80	Bind Head Tapping Screw 3 x 8 ZMC2-Y	バ イ ン ド タ ッ ピ ン グ ネ ジ		
	40:10:00:iL:00:02:70	Mica Base	マ イ カ ベ ー ス		
	40:10:00:LB:40:05:70	Connector 4P (T, E)	2.5 ピ ッ チ ベ ー ス ピ ン		
	40:10:00:LB:50:02:50	" 5P (T, E)	"		
	40:10:00:LB:60:24:70	" 10P (T, E)	"		
	40:10:00:KB:00:03:10	Fuse 0.5A 250V	ヒ ュ ー ズ	J	
	40:10:00:KB:00:03:50	" 2A 250V	"	J	
	40:10:00:KB:00:11:50	" UL 0.5A 250V	"	U,C	
	40:10:00:KB:00:10:60	" UL 1A 250V	"	U,C	
	40:10:00:KB:00:07:10	" Mini T500mA 250V	"	G	
	40:10:00:KB:00:07:40	" Mini T1.6A 250V	"	G	
	40:10:00:LB:20:15:30	Fuse Holder Pin	ヒ ュ ー ズ 受 け 金 具		
	40:10:00:EV:42:30:30	Toothed Lock Washer B3S ZMC2-B ϕ	歯 付 座 金		
※	30:54:00:NA:80:60:60	JK C. Board #84670	J K シ ー ト		
※	40:10:00:LC:84:67:00	Print C. Board	プ リ ン ト 基 板		
	40:10:00:LB:20:15:40	Jack	ジ ャ ッ ク		
	40:10:00:LB:60:29:90	Connector 6P (B, E)	2.5 ピ ッ チ ベ ー ス ピ ン		
	40:10:00:LB:60:30:10	" 8P (B, E)	"		

※ NEW PARTS