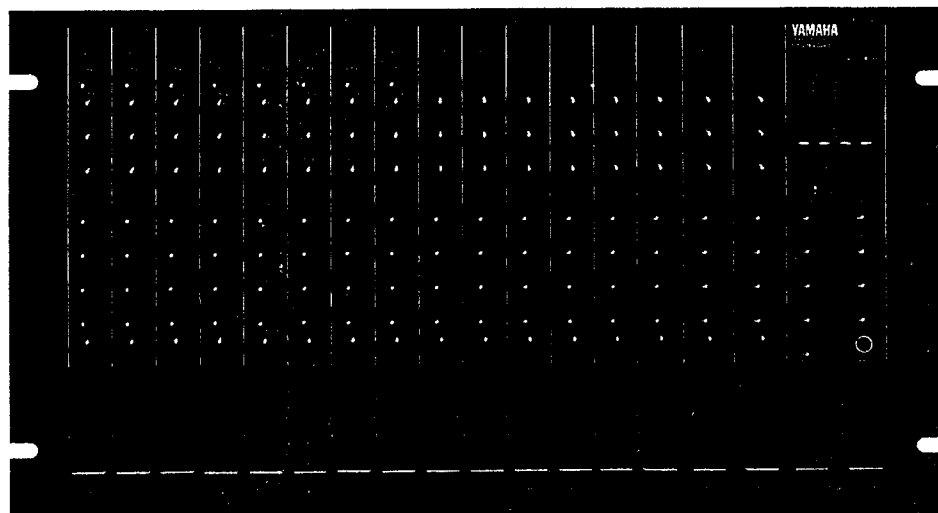


MIXER

MV1602

SERVICE MANUAL



MV1602

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IMPORTANT NOTICE

This manual has been provided for the use of authorized Yamaha Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically Yamaha Products, are already known and understood by the users, and have therefore not been restated.

WARNING: Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all Yamaha product owners that all service required should be performed by an authorized Yamaha Retailer or the appointed service representative.

IMPORTANT: The presentation or sale of this manual to any individual or firm does not constitute authorization, certification, recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of Yamaha are continually striving to improve Yamaha products. Modifications are, therefore, inevitable and changes in specification are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING: Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

IMPORTANT: Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

■ SPECIFICATIONS

Frequency Response

+1, -3 dB, 20 Hz — 20 kHz, 600 ohms, +4 dB

Total Harmonic Distortion

Less than 0.1%, 20 Hz — 20 kHz, 600 ohms, +14 dB

Hum & Noise* (20 Hz — 20 kHz, $R_s = 150$ ohms, Input gain = Max., Input pad = 0 dB, Input sensitivity = -60 dB)

- 123dB Equivalent input noise.
- 90 dB (STEREO) Residual output noise.
- 86 dB (AUX 1—4) Residual output noise.
- 74 dB (78 dB S/N) at STEREO OUT, Master fader nominal, all channel faders minimum.
- 59 dB (63 dB S/N) at STEREO OUT, Master fader nominal, one channel (1 — 8) fader nominal.
- 69 dB (73 dB S/N) at AUX SEND, Master level control nominal, all channel mix level control minimum.
- 59 dB (63 dB S/N) at AUX SEND, Master level control nominal, one channel (1 — 8) mix level control nominal.

Maximum Voltage Gain

- 76 dB CH1 — 8 IN to STEREO OUT
- 36 dB CH9 — 16 IN to STEREO OUT
- 76 dB CH1 — 8 IN to AUX SEND 1, 2
- 82 dB CH1 — 8 IN to AUX SEND 3, 4
- 12 dB AUX RETURN 1, 2 to STEREO OUT
- 16 dB SUB IN to STEREO OUT, AUX SEND 1—4

Crosstalk

- 60 dB at 1 kHz, adjacent channel inputs.
- 60 dB at 1 kHz, input to output.

Input Channel Gain Control (CH1 — 8)

40 dB (-60 — -20 dB) variation in gain stop to stop.

Input Channel Pad Switch (CH1 — 16)

0/20 dB of attenuation.

Input Channel Equalization (CH1 — 16)

- 15 dB maximum boost or cut
- HIGH: 10 kHz (shelving)
- MIDDLE: 2 kHz (peaking)
- LOW: 100 Hz (shelving)

Meters (0 VU = + 4 dB or 1.23 Vrms Output level 4LED Bargraph Meters)

- #1: STEREO L
- #2: STEREO R
- #3: AUX 1/3
- #4: AUX 2/4

Clip Indicators

- CLIP (red) lights (CH 1— 8) when pre-EQ signal is 3 dB below clipping.
- CLIP (red) lights (Bargraph Meter) when post-Master fader signal is 3 dB below clipping.

Power Requirement

- U.S. & Canadian Models: 120 V AC, 60 Hz
- General Model: 220/240 V AC, 50/60 Hz

Power Consumption

- U.S. & Canadian Models: 40 watts
- General Model: 36 watts

Dimensions (W x H x D)

- 480 x 265.3 x 213 mm
- (18-7/8" x 10-7/16" x 8-3/8")

Weight

- U.S. & Canadian Models: 7.9 kg (17 lbs. 7 oz)
- General Model: 7.8 kg (17 lbs. 3 oz)

- * Measured with a -6 dB/octave LPF @ 12.7 kHz.
- 0 dB = 0.775 Vrms

INPUT CHARACTERISTICS

Input terminals	PAD SW	Gain Trim	Actual Load Impedance	For Use With Nominal	Input Level			Connector In Mixer
					Sensitivity*	Nominal	Maximum before clip	
CH 1 - 8 Input	OFF (0 dB)	-60dB	10 kohms	50-600 ohms Mics & 600 ohms Lines	-72dB (0.19mV)	-60dB (0.8mV)	-34dB (15.5mV)	Phone jack
		ON (20 dB)			-32dB (19.5mV)	-20dB (77.5mV)	+6dB (1.55V)	
	-20dB				-12dB (195mV)	0dB (775mV)	+26dB (15.5V)	
CH 9 - 14 Input	OFF (0 dB)	/	20 kohms	600 ohms Lines	-32dB (19.5mV)	-20dB (77.5mV)	+6dB (1.55V)	Phone jack
	ON (20 dB)				-12dB (195mV)	0dB (775mV)	+26dB (15.5V)	
CH 15, 16 Input (Stereo)	OFF (0 dB)	/	20 kohms	600 ohms Lines	-32dB (19.5mV)	-20dB (77.5mV)	+6dB (1.55V)	Phone jack
	ON (20 dB)				-12dB (195mV)	0dB (775mV)	+26dB (15.5V)	
AUX RTN 1, 2 (Stereo)			20 kohms	600 ohms Lines	-2dB (616mV)	+4dB (1.23V)	+26dB (15.5V)	Phone jack
					-20dB (77.5mV)	+6dB (1.55V)		
AUX RTN 3, 4 (Stereo)			20 kohms	600 ohms Lines	-2dB (616mV)	+4dB (1.23V)	+26dB (15.5V)	Phone jack
SUB IN STEREO (L, R) AUX (1 - 4)			20 kohms	600 ohms Lines	-12dB (195mV)	-6dB (388mV)	+20dB (7.75V)	Phone jack

OUTPUT CHARACTERISTICS

Output terminals	Actual Source Impedance	For Use With Nominal	Output Level		Connector In Mixer
			Nominal	Maximum before clip	
STEREO OUT (L, R)	150 ohms	600 ohms Lines	+4dB (1.23V)	+20dB (7.75V)	XLR-3-32 type
	600 ohms	10 kohms Lines	+4dB (1.23V)	+20dB (7.75V)	Phone jack
AUX SEND 1, 2	150 ohms	600 ohms Lines	+4dB (1.23V)	+20dB (7.75V)	Phone jack
			-20dB (77.5mV)	+6dB (1.55V)	
AUX SEND 3, 4	150 ohms	600 ohms Lines	+4dB (1.23V)	+20dB (7.75V)	Phone jack
SUB OUT STEREO (L, R) AUX (1 - 4)	600 ohms	10 kohms Lines	-6dB (388mV)	+20dB (7.75V)	Phone jack
PHONES OUT	68 ohms	8 ohms Phones	1 mW	20 mW	STEREO Phone jack
		14 ohms Phones	3 mW	130 mW	

- 0 dB = 0.775 V
- All Phone Jacks are unbalanced.
- XLR type connectors are balanced.
- * Sensitivity is the lowest level that will produce an output of 0 dB (0.775 V), or the nominal output level when the unit is set to maximum gain.

■ 総合仕様

全高調波歪率	0.1%以下 (20Hz~20KHz, @ +14dB/600Ω)
周波数特性	+1, -3dB 20Hz~20KHz (@ +4dB/600Ω)
ハム&ノイズ	(20Hz~20KHz, Rs=150Ω, Input Gain=Max, Input Pad=0dB)
入力換算ノイズ	-123dB
STEREO OUT	-90dB(残留ノイズ) -74dB(78dB S/N); MASTERフェーダー→ノミナル, 全CHフェーダー→最小 -59dB(63dB S/N); MASTERフェーダー→ノミナル, 1つのチャンネルフェーダー(CH1~8)→ノミナル
AUX SEND	-86dB(残留ノイズ) -69dB(73dB S/N); MASTER LEVELコントロール→ノミナル, 全CH LEVEL コントロール→最小 -59dB(63dB S/N); MASTER LEVELコントロール&CH1~8 LEVELコントロール→ノミナル
最大電圧利得	76dB CH IN(1~8) to STEREO OUT 36dB CH IN(9~16) to STEREO OUT 76dB CH IN(1~8) to AUX SEND 1,2 82dB CH IN(1~8) to AUX SEND 3,4 12dB AUX RETURN 1,2 to STEREO OUT 16dB SUB IN to STEREO OUT, AUX SEND 1-4

クロストーク(1KHz)	入力CH間 60dB 入力CH-出力CH間 60dB
ゲイン・コントロール	40dB(-60~-20dB)CH1~8
PADスイッチ	0/20dB
イコライザー特性	HIGH: ±15dB(10KHz シェルビングタイプ) MID : ±15dB(2KHz ピーキングタイプ) LOW : ±15dB(100Hz シェルビングタイプ)
バークラフ・メーター	STEREO OUT, AUX OUTの出力レベル表示
CLIPインジケータ	CH1~8 INPUT(赤) プリ・イコライザー・ポイントで、クリッピングの3dB手前で点灯 バークラフメーター(赤) ポスト・マスターフェーダー・ポイントでクリッピングの3dB手前で点灯
電源	AC100V(±15%)、50/60Hz
消費電力	32W
寸法(W×H×D)	480mm×265.3mm×213mm
重量	7.8kg

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入力仕様

入力端子	PAD	ゲイン	入力インピーダンス	ソースインピーダンス	感度** (最大ゲイン)	入力レベル		使用コネクタ
						規定レベル	最大ノンクリップレベル	
CH INPUT 1~8	0	-60	10kΩ	50~600Ω マイク 600Ωライン	-72dB(0.19mV)	-60dB(0.8mV)	-34dB(15.5mV)	ホーンジャック
	0	-20			-32dB(19.5mV)	-20dB(77.5mV)	+6dB(1.55V)	
	20				-12dB(195mV)	0dB(775mV)	+26dB(15.5V)	
CH INPUT 9~14	0		20kΩ	600Ωライン	-32dB(19.5mV)	-20dB(77.5mV)	+6dB(1.55V)	ホーンジャック
	20				-12dB(195mV)	0dB(775mV)	+26dB(15.5V)	
CH INPUT 15,16 (STEREO)	0		20kΩ	600Ωライン	-32dB(19.5mV)	-20dB(77.5mV)	+6dB(1.55V)	ホーンジャック
	20				-12dB(195mV)	0dB(775mV)	+26dB(15.5V)	
AUX RETURN 1,2 (STEREO)			20kΩ	600Ωライン	-2dB(616mV)	+4dB(1.23V)	+26dB(15.5V)	ホーンジャック
					-20dB(77.5mV)	+6dB(1.55V)		
AUX RETURN 3,4 (STEREO)			20kΩ	600Ωライン	-2dB(616mV)	+4dB(1.23V)	+26dB(15.5V)	ホーンジャック
SUB IN (L,R,AUX1~4)			20kΩ	600Ωライン	-12dB(195mV)	-6dB(388mV)	+20dB(7.75V)	ホーンジャック

出力仕様

出力端子	出力インピーダンス	負荷インピーダンス	出力レベル		使用コネクタ
			規定レベル	最大ノンクリップレベル	
STEREO OUT	150Ω	600Ωライン	+4dB(1.23V)	+20dB(7.75V)	XLR-3-32タイプ ホーンジャック
	600Ω	10kΩライン	+4dB(1.23V)	+20dB(7.75V)	
AUX SEND 1,2	150Ω	600Ωライン	+4dB(1.23V)	+20dB(7.75V)	ホーンジャック
			-20dB(77.5mV)	+6dB(1.55V)	
AUX SEND 3,4	150Ω	600Ωライン	+4dB(1.23V)	+20dB(7.75V)	ホーンジャック
SUB OUT (L,R,AUX1~4)	600Ω	10kΩライン	-6dB(388mV)	+20dB(7.75V)	ホーンジャック
PHONES OUT	68Ω	8Ωヘッドホーン	1mW	20mW	ステレオ ホーンジャック
		14Ωヘッドホーン	3mW	130mW	

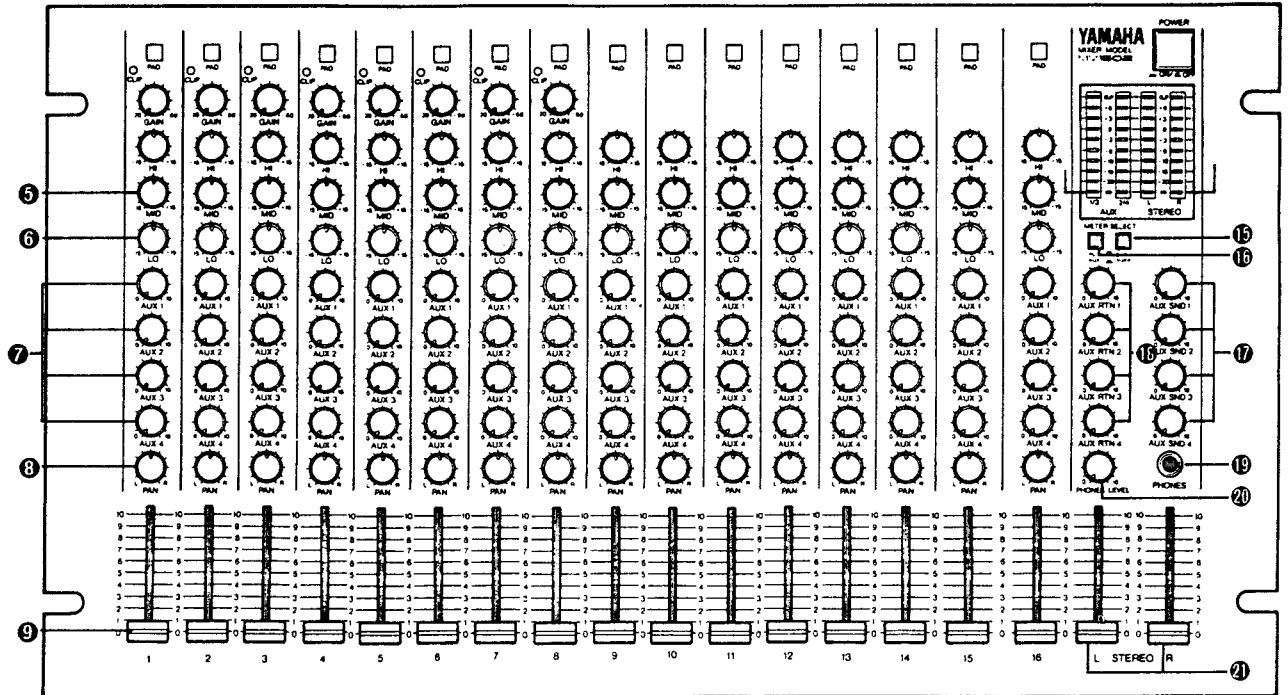
** 感度は、規定のレベル(+4dB=1.23V)を得るために必要な入力レベルです。(全てのフェーダーとレベル・コントロールを最大に位置した状態です。)

● 0dB=0.775Vr.m.s.

● XLR-3-32タイプコネクタは平衡(バランス)、ホーンジャックは、不平衡(アンバランス)です。

■ PANEL LAYOUT (パネルレイアウト)

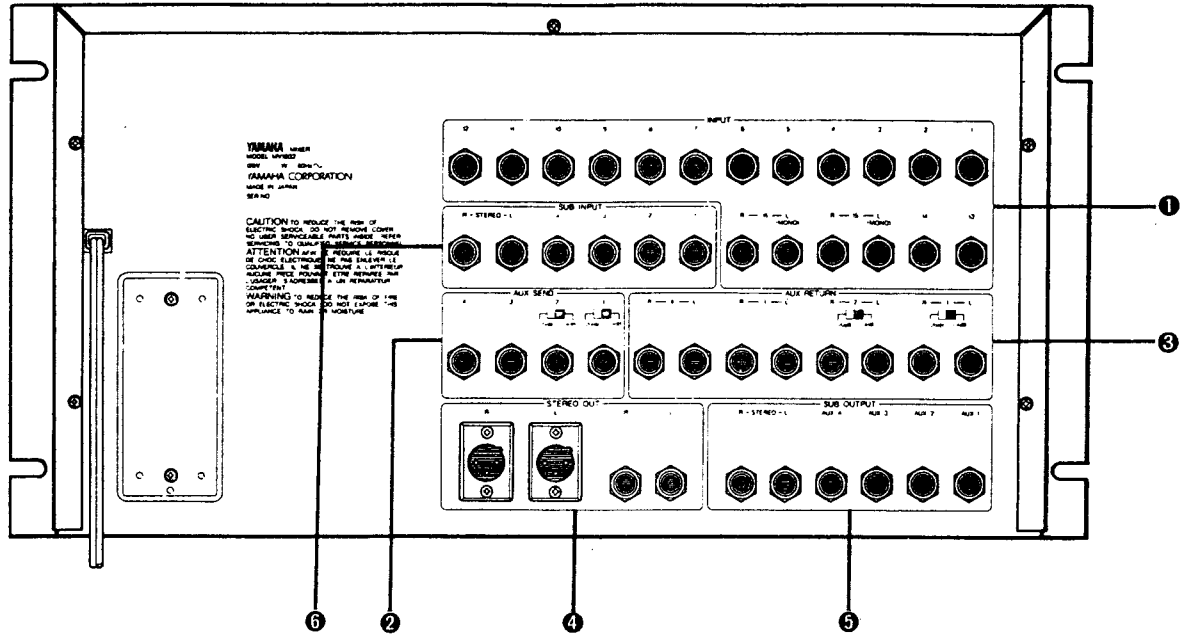
● Front Panel (フロントパネル)



- ① 20dB Pad Switch
- ② CLIP Indicator
- ③ GAIN Control
- ④ HI Equalizer
- ⑤ MID Equalizer
- ⑥ LO Equalizer
- ⑦ AUX1, AUX2, AUX3 & AUX4 Controls
- ⑧ PAN Control
- ⑨ Channel Fader
- ⑩ POWER Switch
- ⑪ STEREO L&R CLIP Indicators
- ⑫ AUX 1/3&2/4 CLIP Indicators
- ⑬ STEREO L&R Lever Meters
- ⑭ AUX 1/3&2/4 Level Meters
- ⑮ AUX 1/3 METER SELECT Switch
- ⑯ AUX 2/4 METER SELECT Switch
- ⑰ AUX SND 1, 2, 3 & 4 Controls
- ⑱ AUX RTN 1, 2, 3 & 4 Controls
- ⑲ PHONES Jack
- ⑳ PHONES LEVEL Control
- ㉑ STEREO L&R Master Faders

- ① PADスイッチ
- ② CLIPインジケーター
- ③ GAINコントロール
- ④ HIイコライザー
- ⑤ MIDイコライザー
- ⑥ LOイコライザー
- ⑦ AUX1～AUX4コントロール
- ⑧ PANコントロール
- ⑨ チャンネルフェーダー
- ⑩ POWERスイッチ
- ⑪ STEREO OUTクリップインジケーター
- ⑫ AUX SENDクリップインジケーター
- ⑬ STEREOレベルメーター
- ⑭ AUXレベルメーター
- ⑮ メーターセレクトスイッチAUX1/3
- ⑯ メーターセレクトスイッチAUX2/4
- ⑰ AUX SENDコントロール
- ⑱ AUX RTNコントロール
- ⑲ PHONESジャック
- ⑳ PHONES LEVELコントロール
- ㉑ STEREOマスターフェーダー-L, R

● Rear Panel (リアパネル)

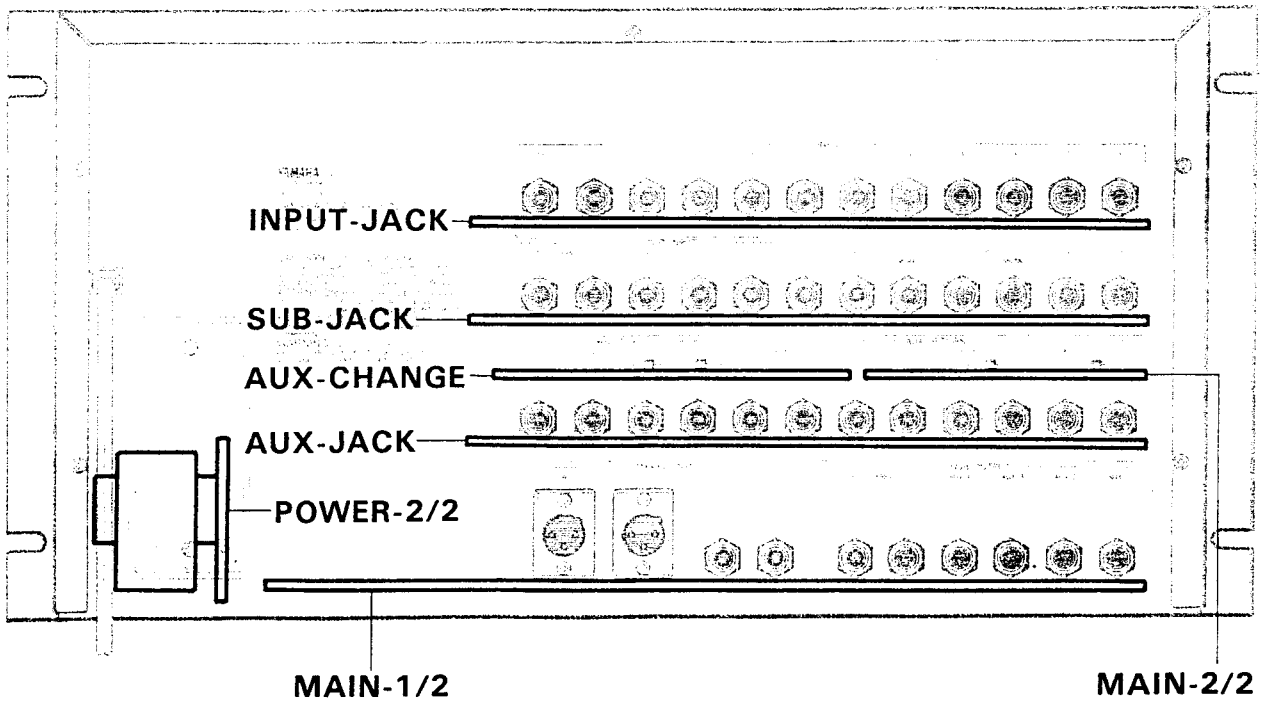
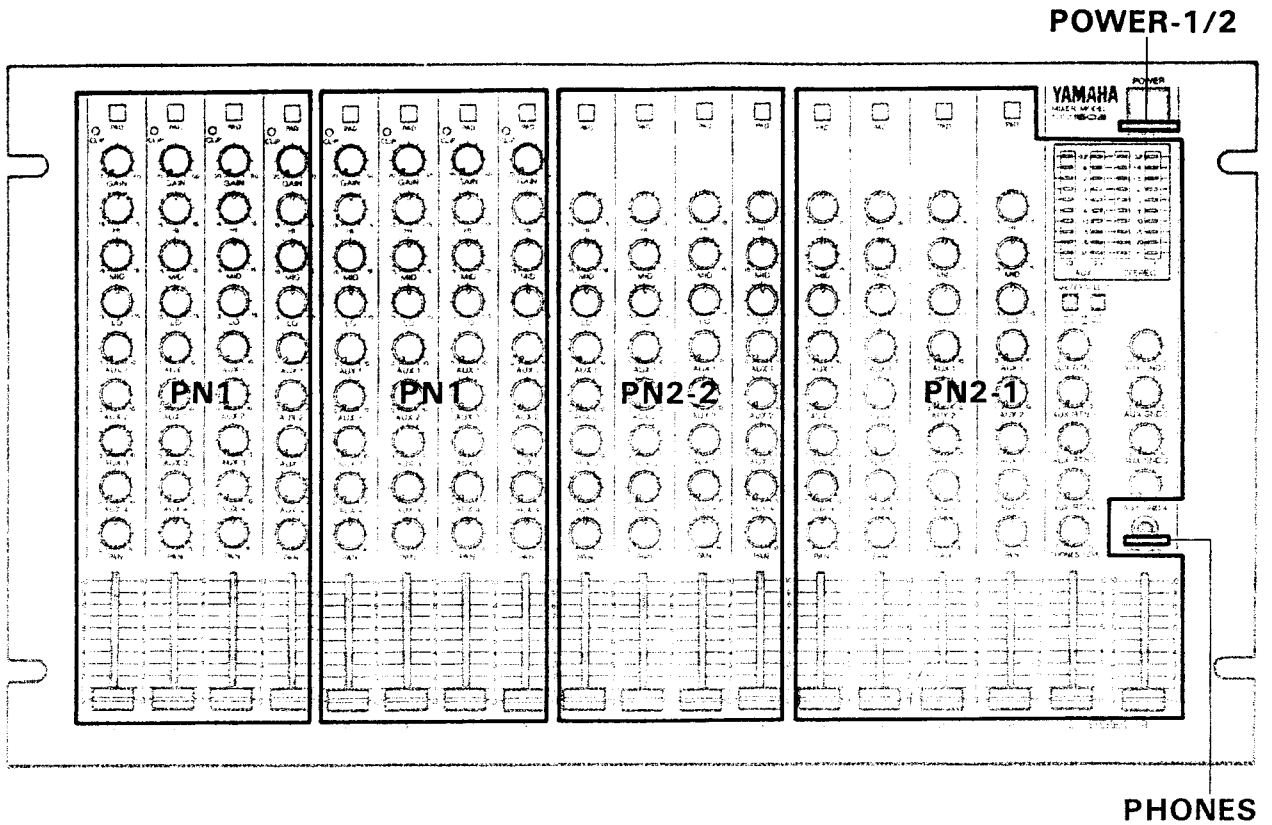


- ① INPUT JACKS 1-16
- ② AUX SEND 1, 2, 3 & 4 JACKS
- ③ AUX RETURN 1, 2, 3 & 4 (L&R) JACKS
- ④ STEREO OUT L&R JACKS / CONNECTORS
- ⑤ SUB OUTPUT JACKS
- ⑥ SUB INPUT JACKS

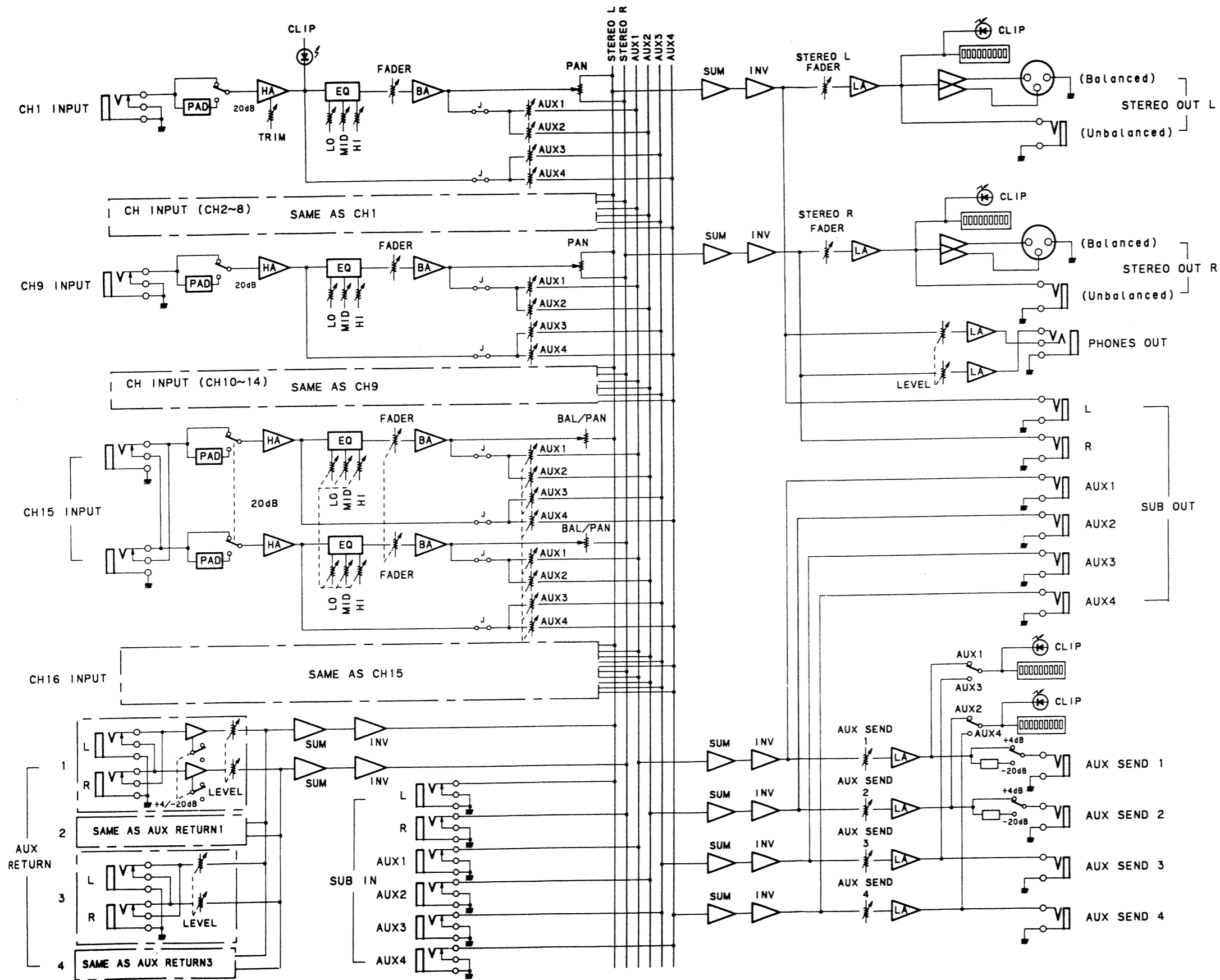
- ① INPUT ジャック1-16
- ② AUX SEND ジャック1-4
- ③ AUX RETURN ジャック1-4
- ④ STEREO OUT ジャック/コネクター
- ⑤ SUB OUTPUT ジャック
- ⑥ SUB INPUT ジャック

■ **CIRCUIT BOARD LAYOUT (ユニットレイアウト)**

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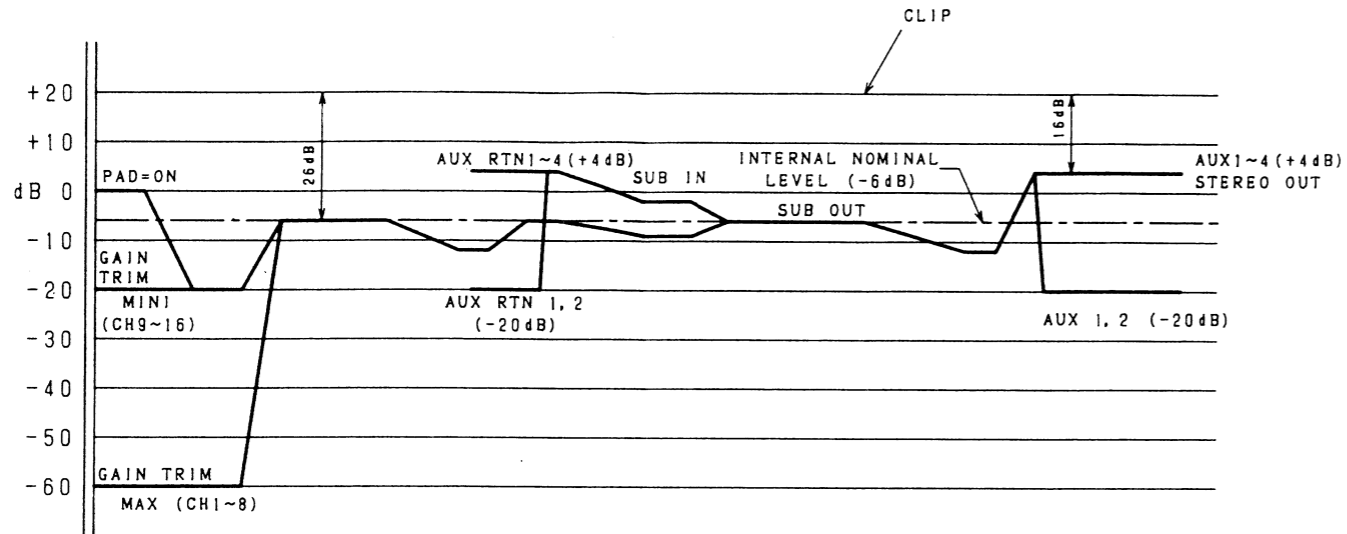
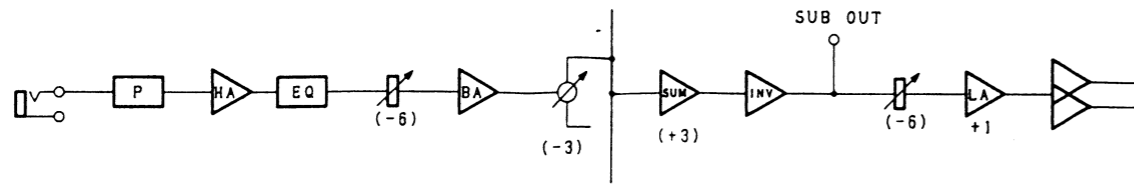


■ BLOCK DIAGRAM (ブロックダイアグラム)

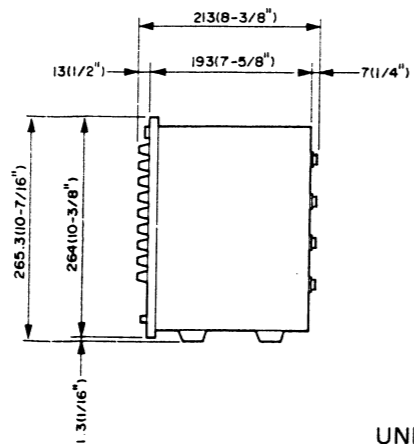
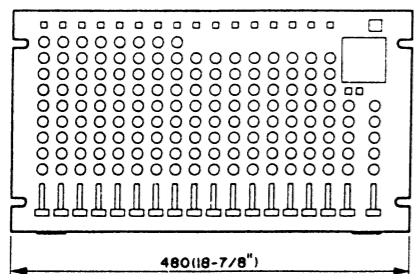
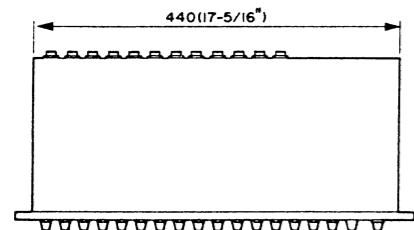


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LEVEL DIAGRAM (レベルダイアグラム)



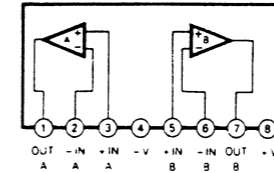
DIMENSIONS (寸法図)



UNIT(単位) = mm(10ch)

IC BLOCK DIAGRAM (ICブロックダイアグラム)

- NJM2043LE (IX804530)
 - NJM4558LD (IX804550)
 - NJM4556L (IX804540)
- Dual Operational Amplifier



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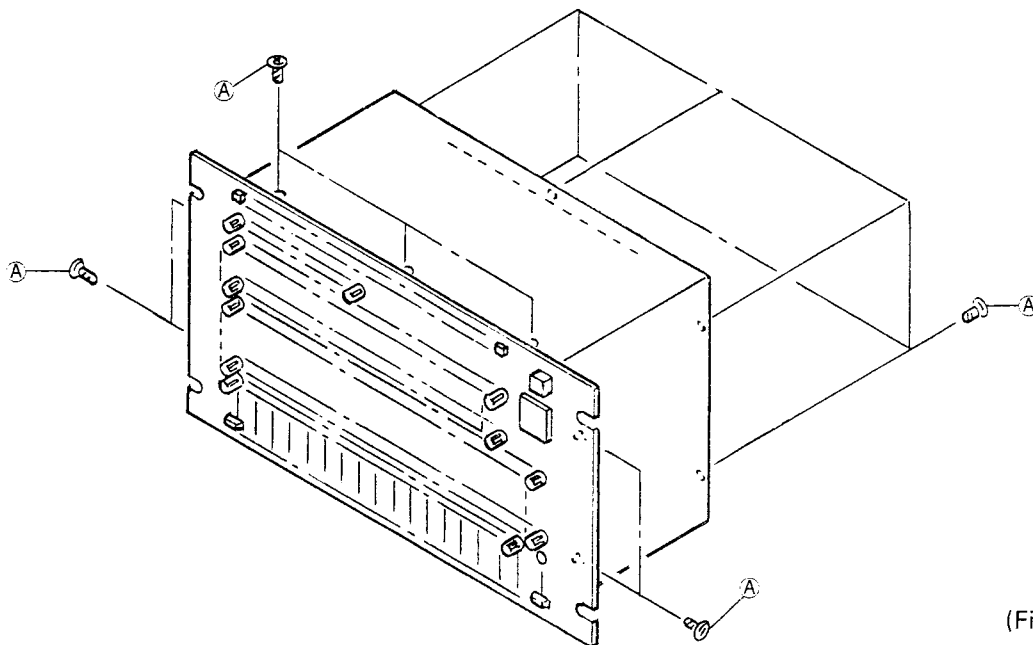
■ DISASSEMBLY PROCEDURE (分解手順)

1. Top Cover

1-1. Remove the twelve (12) screws **A** (bind head tapping screw 3.0x8), the Top cover can be removed. (Fig. 1)

1. トップカバーの外し方

1-1. ネジ**A**(バインドタッピングネジ3×8)12本を外し、トップカバーを外します。(Fig.1)



(Fig. 1)

2. Panel Assembly

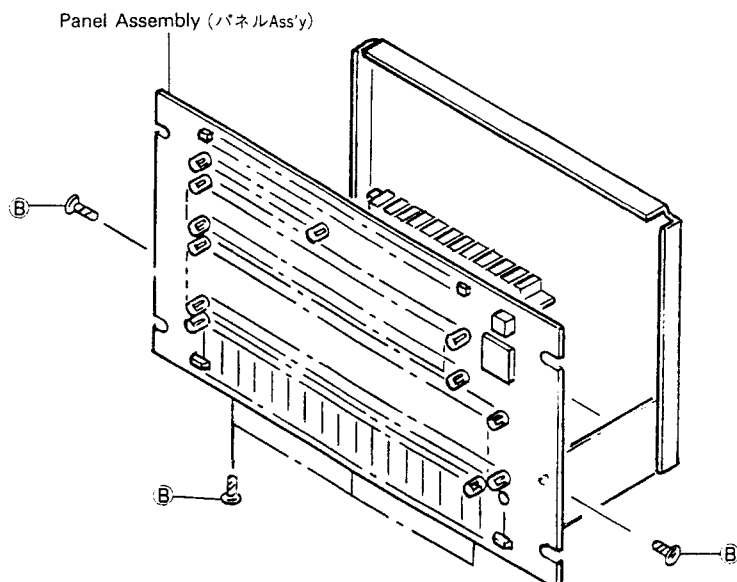
2-1. Remove the Top cover. (see procedure 1.)

2-2. After the five (5) screws **B** (bind head tapping screw 3.0 x 8) have been removed, the Panel assembly can be removed. (Fig. 2)

2. パネルAss'yの外し方

2-1. トップカバーを外します。(1項参照)

2-2. ネジ**B**(バインドタッピングネジ3×8)5本を外し、パネルAss'yを外します。(Fig.2)



(Fig. 2)

3. PN1 and PN2-2 Circuit Boards

- 3-1. Remove the Top cover. (see procedure 1.)
- 3-2. Remove the Panel assembly. (see procedure 2.)
- 3-3. Pull out the knobs on the Front panel.
- 3-4. Remove the four (4) screws ㉔ (flat head tapping screw 3.0x8), and then take out the sub-chassis (S) and PN1 circuit board of the Front panel. (Fig. 3)
- 3-5. Remove the two (2) screws ㉕ (bind head tapping screw 3.0x8). To remove the PN1 circuit board, lift it up while pressing the tip of spacers using pliers. (Fig. 3)
- 3-6. You can remove the PN2-2 circuit board in the same manner as step 3-5.

4. PN2-1, PHONES and POWER-1/2 Circuit Boards

- 4-1. Remove the Top cover. (see procedure 1.)
- 4-2. Remove the Panel assembly. (see procedure 2.)
- 4-3. Pull out the knobs on the Front panel.
- 4-4. Remove the four (4) screws ㉔ (flat head tapping screw 3.0x8), and then take out the sub-chassis (L) and PN2-1 circuit board of the Front panel. (Fig. 3)
- 4-5. After the five (5) screws ㉕ (bind head tapping screw 3.0x8) have been removed, the PN2-1 circuit board can be removed. (Fig. 3)
- 4-6. To remove the PHONES circuit board, remove the hexagonal nut. (Fig. 3)
- 4-7. Pull out the POWER switch knob. The POWER- 1/2 circuit board can be removed by removing the two (2) screws ㉔ (bind head tapping screw 3.0x8). (Fig. 3)

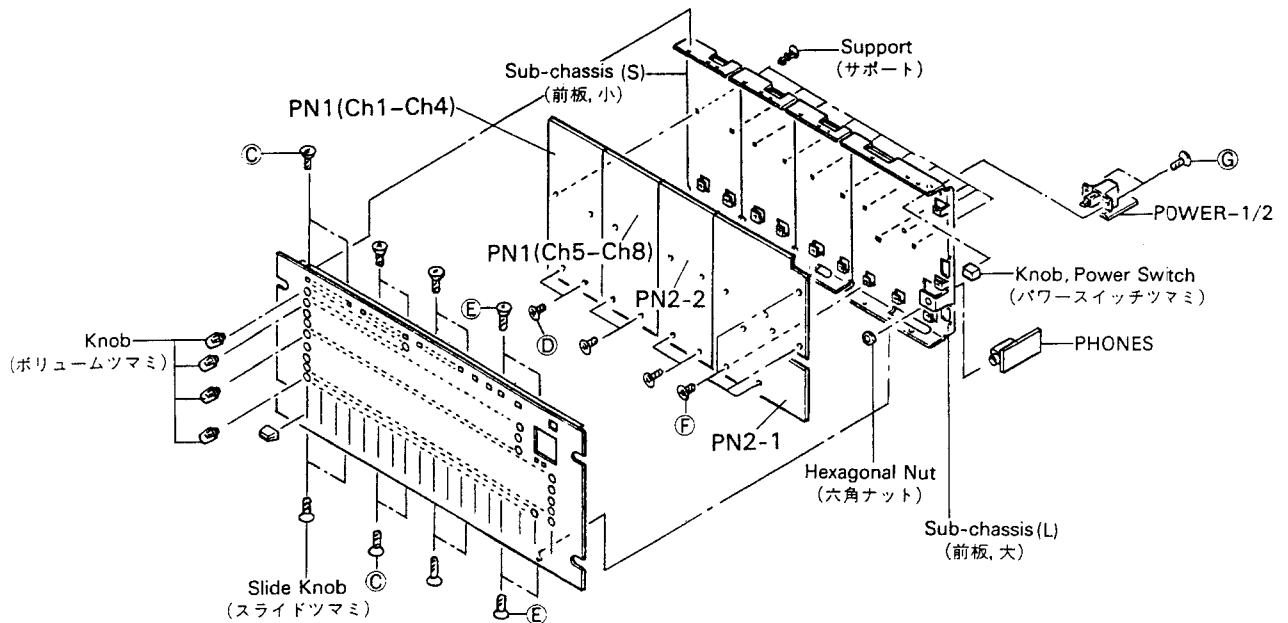
3. PN1シートとPN2-2シートの外し方。

- 3-1. トップカバーを外します。(1項参照)
- 3-2. パネルAss'yを外します。(2項参照)
- 3-3. ツマミを外します。
- 3-4. ネジ㉔(皿タッピングネジ3×8)4本を外し、フロントパネルから前板(小)とPN1シート(Ch1-Ch4)を外します。
- 3-5. ネジ㉕(バインドタッピングネジ3×8)2本とサポート2個を外し、PN1シート(Ch1-Ch4)を外します。(Fig.3)
- 3-6. PN1シート(Ch5-Ch8)とPN2-2シートも、PN1シート(Ch1-Ch4)同様に外す事ができます。

(Fig. 3)

4. PN2-1シート、PHONESシートとPOWER-1/2シートの外し方

- 4-1. トップカバーを外します。(1項参照)
- 4-2. パネルAss'yを外します。(2項参照)
- 4-3. ツマミを外します。
- 4-4. ネジ㉔(皿タッピングネジ3×8)4本を外し、フロントパネルから前板(大)とPN2-1シートを外します。(Fig. 3)
- 4-5. PN2-1シートの外し方
ネジ㉕(バインドタッピングネジ3×8)5本とサポート5個を外し、MAIN-1/2シート、MAIN-2/2シートとAUX-JACKシートのコネクターを外すと、PN2-1シートを外すことができます。(Fig. 3)
- 4-6. PHONESシートの外し方
六角ナットを外し、PHONESシートを外します。(Fig. 3)
- 4-7. POWER-1/2シートの外し方
パワースイッチつまミを外し、ネジ㉔(バインドタッピングネジ3×8)2本を外し、POWERシートを外します。(Fig. 3)



(Fig. 3)

5. INPUT-JACK Circuit Board

- 5-1. Remove the Top cover. (see procedure 1.)
- 5-2. Remove the twelve (12) hexagonal nuts and screw ④ (bind head tapping screw 3.0x8), the INPUT-JACK circuit board can be removed. (Fig. 4)

5. INPUT-JACKシートの外し方

- 5-1. トップカバーを外します。(1項参照)
- 5-2. 六角ナット12個とネジ④(バインドタッピングネジ 3×8) 1本を外し、INPUT-JACKシートを外します。(Fig. 4)

6. SUB-JACK Circuit Board

- 6-1. Remove the Top cover. (see procedure 1.)
- 6-2. Remove the twelve (12) hexagonal nuts and screw ① (bind head tapping screw 3.0x8), the SUB-JACK circuit board can be removed. (Fig. 4)

6. SUB-JACKシートの外し方

- 6-1. トップカバーを外します。(1項参照)
- 6-2. 六角ナット12個とネジ①(バインドタッピングネジ 3×8) 1本を外し、SUB-JACKシートを外します。(Fig. 4)

7. AUX-CHANGE Circuit Board

- 7-1. Remove the Top cover. (see procedure 1.)
- 7-2. After the two (2) screws ① (bind head tapping screw 3.0x8) have been removed, the AUX-CHANGE circuit board can be removed. (Fig. 4)

7. AUX-CHANGEシートの外し方

- 7-1. トップカバーを外します。(1項参照)
- 7-2. ネジ①(バインドタッピングネジ3×8) 2本を外し、AUX-CHANGEシートを外します。(Fig. 4)

8. AUX-JACK Circuit Board

- 8-1. Remove the Top cover. (see procedure 1.)
- 8-2. To remove the SUB-JACK circuit board, remove the twelve (12) hexagonal nuts and screws ⑤ (bind head tapping screw 3.0x8). (Fig. 4)

8. AUX-JACKシートの外し方

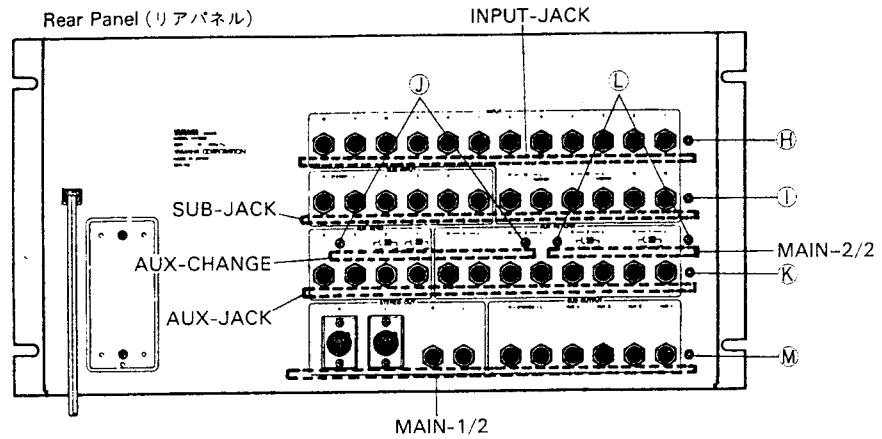
- 8-1. トップカバーを外します。(1項参照)
- 8-2. 六角ナット12個とネジ⑤(バインドタッピングネジ 3×8) 1本を外し、AUX-JACKシートを外します。(Fig. 4)

9. MAIN-2/2 Circuit Board

- 9-1. Remove the Top cover. (see procedure 1.)
- 9-2. After the two (2) screws ① (bind head tapping screw 3.0x8) have been removed, the MAIN-2/2 circuit board can be removed. (Fig. 4)

9. MAIN-2/2シートの外し方

- 9-1. トップカバーを外します。(1項参照)
- 9-2. ネジ①(バインドタッピングネジ3×8)2本を外し、MAIN-2/2シートを外します。(Fig. 4)



(Fig. 4)

10. MAIN-1/2 Circuit Board

- 10-1. Remove the Top cover. (see procedure 1.)
- 10-2. Remove the screw ③ (bind head tapping screw 3.0x8) and eight (8) hexagonal nuts. (Fig. 4 and Fig. 5)
- 10-3. Lift up the MAIN-1/2 circuit board while pressing the tip of spacers using pliers.

10. MAIN-1/2シートの外し方

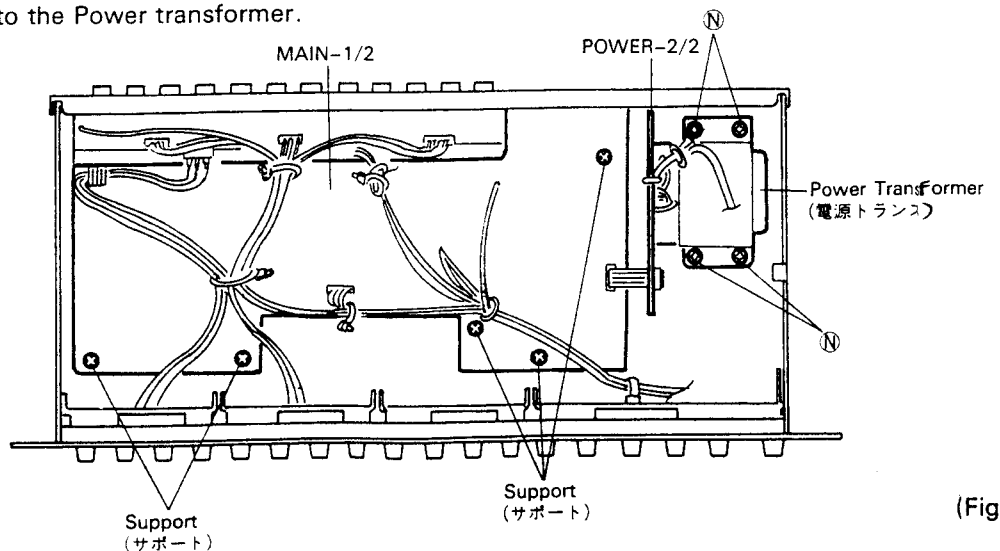
- 10-1. トップカバーを外します。(1項参照)
- 10-2. ネジ③(バインドタッピングネジ3×8)1本、六角ナット8個とサポート5個を外し、MAIN-1/2シートを外します。(Fig. 4, Fig. 5)

11. Power Transformer (POWER-2/2 Circuit Board)

- 11-1. Remove the Top cover. (see procedure 1.)
- 11-2. Remove the four (4) screws ④ (bind head screw 3.0x6), the Power transformer can be removed. (Fig. 5)
- * The POWER-2/2 circuit board is attached to the Power transformer.

11. 電源トランス(POWER-2/2シート)の外し方

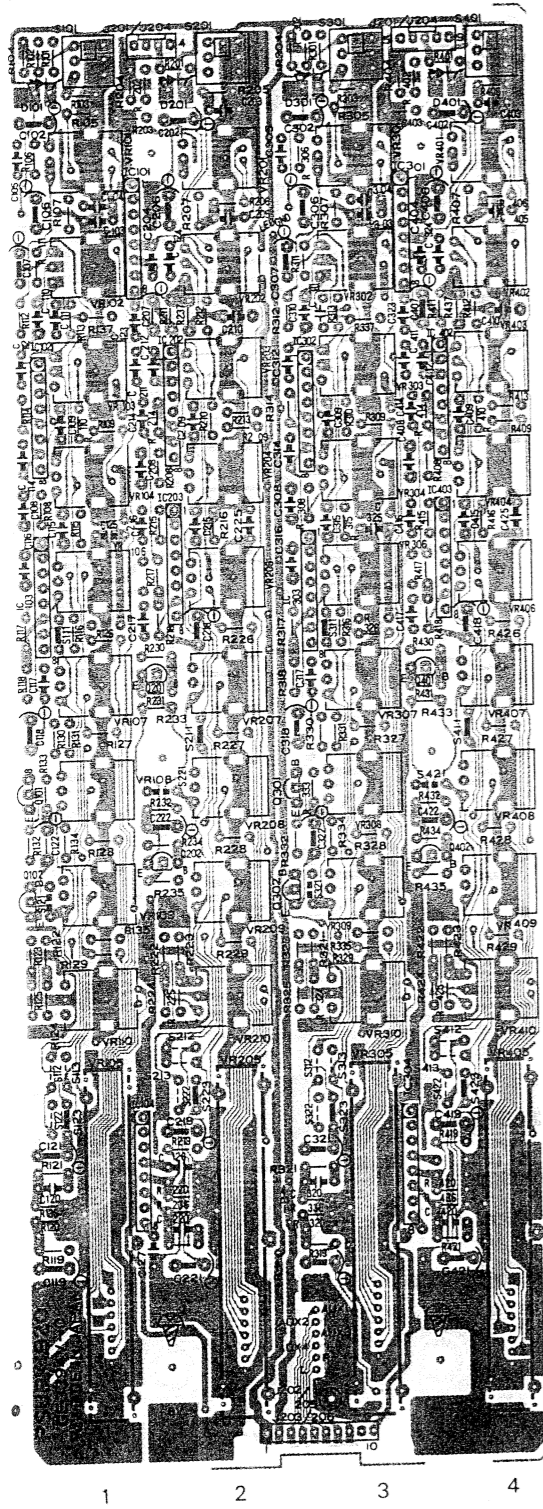
- 11-1. トップカバーを外します。(1項参照)
- 11-2. ネジ④(バインド小ネジ3×6)4本を外し、電源トランスを外します。(Fig. 5)
- (POWER-2/2シートは電源トランスに取付けられています。)



(Fig. 5)

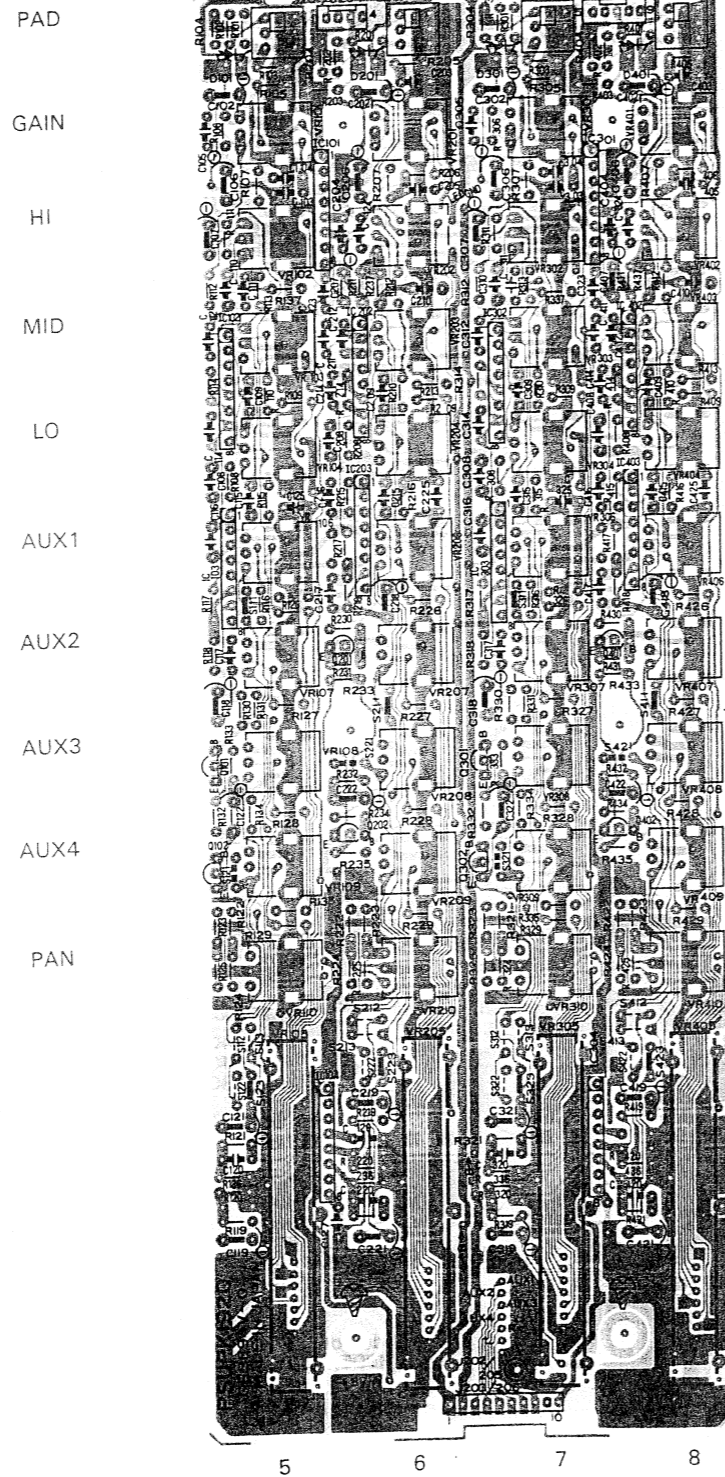
■ CIRCUIT BOARDS (シート基板図)

● PN1 Circuit Board
PN1



Components side (部品側)

PN1



Components side (部品側)

Notes)

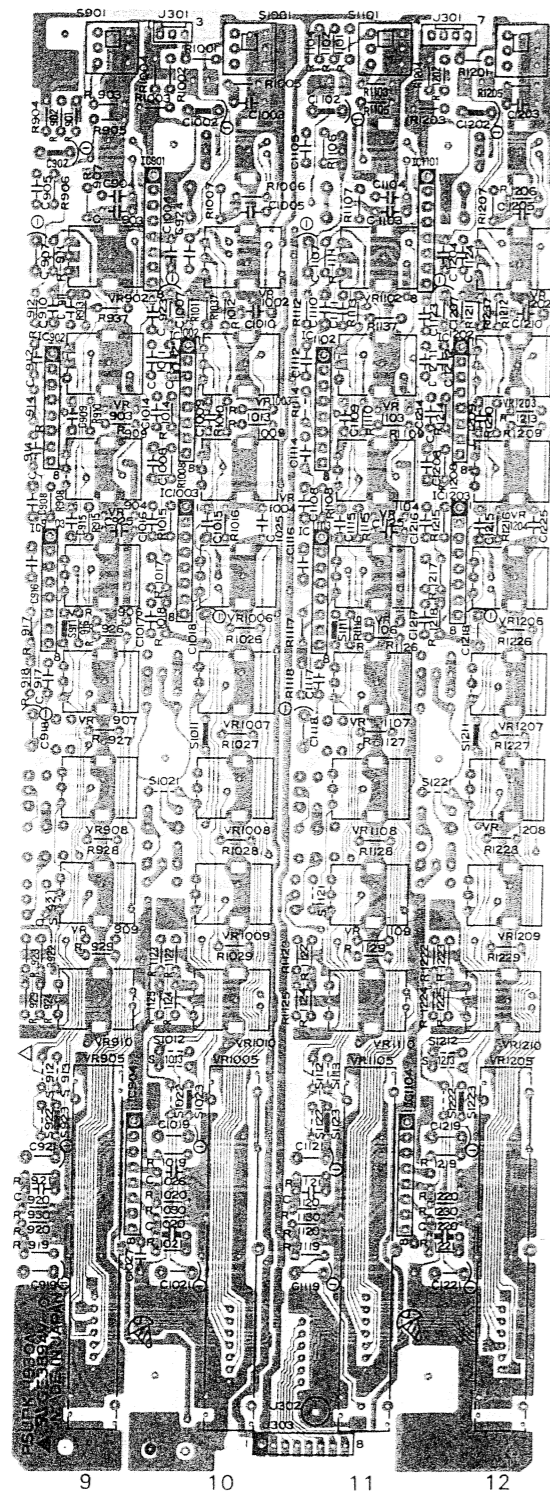
- * Circuit Board: PN1 PSXPK434 (NX807680)
- 1. IC
IC101, 301: NJM2043LE (IX804530) OP AMP.
IC102, 202, 302, 402, 103, 203, 303, 403, 104, 304: NJM4558LD (IX804550) OP AMP.
- 2. Transistor
Q101, 201, 301, 401: 2SC1740S-RTA (IX804440)
Q102, 202, 302, 402: 2SA933S-RTA (IX804420)
- 3. LED
D101, 201, 301, 401: LN273RP-LS (IX804500) CLIP
- 4. Variable Resistor
VR101, 201, 301, 401: EVUJ42F20A54 A50K (HX805070) GAIN
VR102, 202, 302, 402, 103, 203, 303, 403, 104, 204, 304, 404, VR106, 206, 306, 406, 107, 207, 307, 407, 108, 208, 308, 408, 109, 209, 309, 409: EVUJ41F20A14 A10K (HX805060) AUX
VR110, 210, 310, 410: EVUJ40F20G24 G20K (HX805080) PAN
- 5. Slide Pot.
VR105, 205, 305, 405: EWAPFDC15A14 A10K (HX805110) Fader
- 6. PAD Switch
S101, 201, 301, 401: ESB6440 (KX801950) PAD

MV1602

● PN2-2 Circuit Board

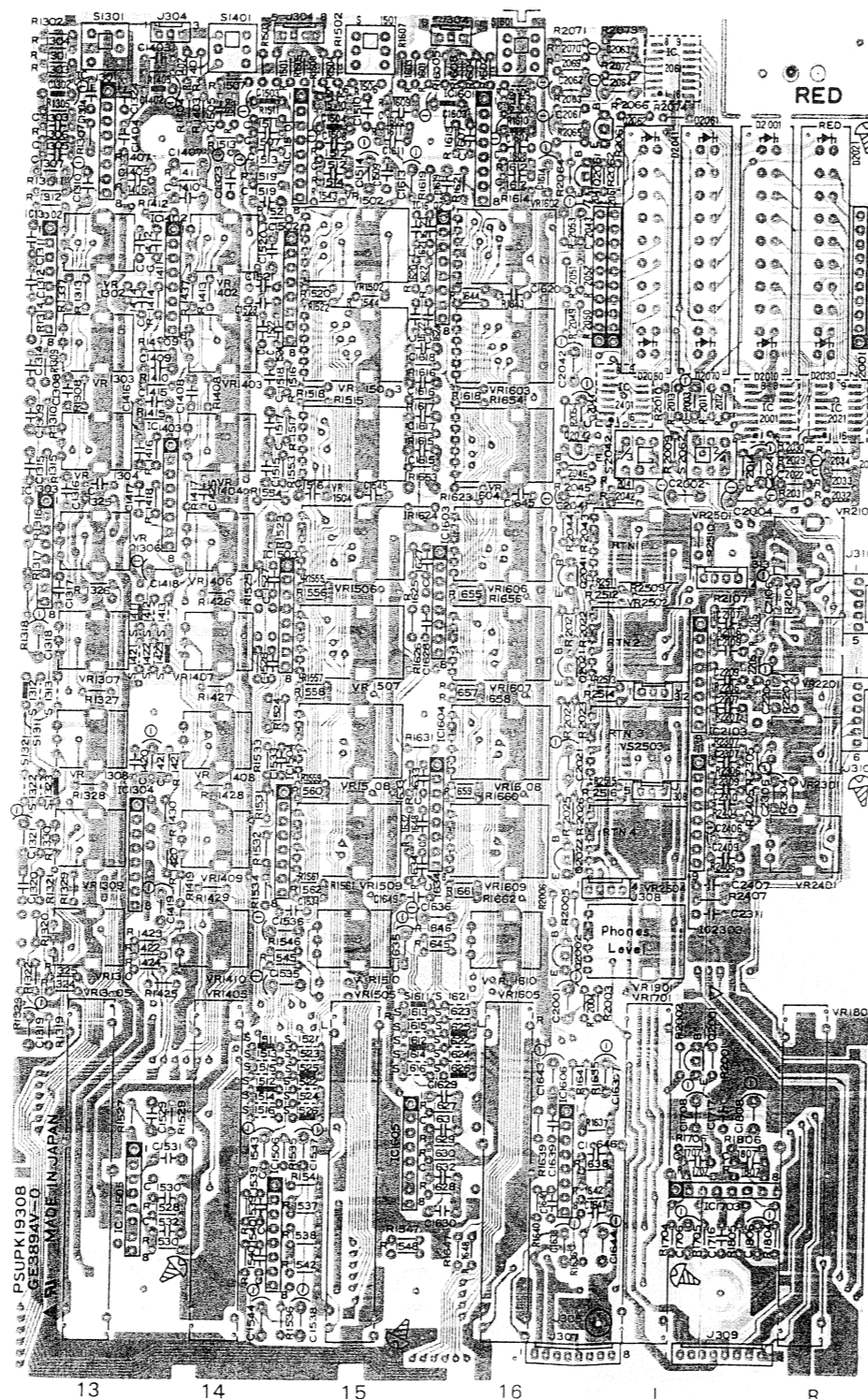
● PN2-1 Circuit Board

MV1602



Components side (部品側)

PAD
HI
MID
LO
AUX1
AUX2
AUX3
AUX4
PAN

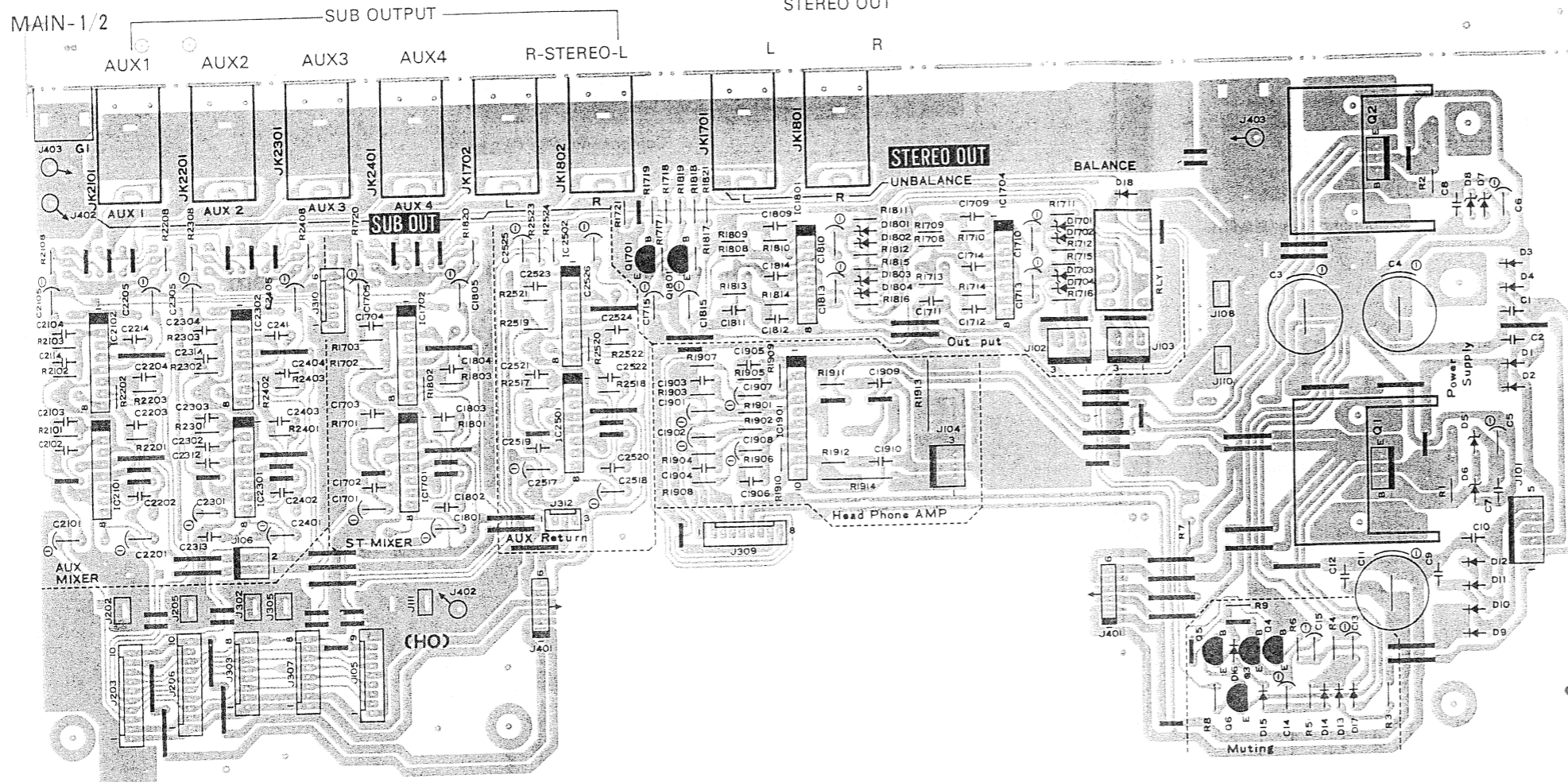


Components side (部品側)

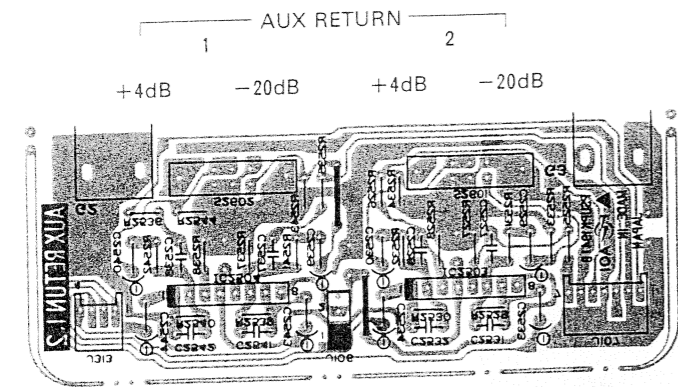
Notes)

- * Circuit Board: PN2-1 PSXPK435-1 (NX807690)
- * Circuit Board: PN2-2 PSXPK435-2 (NX807700)
- 1. IC
 - IC901, 1101, 1301, 1501, 1601: NJM2043LE (IX804530) OP AMP.
 - IC902, 903, 904, 1002, 1003, 1102, 1103, 1104, 1202, 1203, 1302, 1303, 1304, 1402, 1403, 1502, 1503, 1504, 1505, 1506, 1602, 1603, 1604, 1605, 1606, 1703: NJM4558LD (IX804550) OP AMP.
 - IC2001, 2021, 2041, 2061: LB1409M (IX804480) LED DRIVER
 - IC2103, 2303: NJM4556L (IX804540) OP AMP.
- 2. Transistor
 - Q2001, 2021, 2041, 2061: 2SC1740S-RTA (IX804440)
 - Q2002, 2022, 2042, 2062: 2SA933S-RTA (IX804420)
- 3. LED
 - D2001, 2021, 2041, 2061: LN224RP (IX804490) LEVEL Meter (CLIP)
 - D2005, 2006, 2007, 2008, 2009, 2010, 2025, 2026, 2027, 2028, 2029, 2030, 2045, 2046, 2047, 2048, 2049, 2050, 2065, 2066, 2067, 2068, 2069, 2070: LN324GP (IX804510) LEVEL Meter (-3, -6, -10, -15, -20, ∞)
 - D2002, 2003, 2004, 2022, 2023, 2024, 2042, 2043, 2044, 2062, 2063, 2064: LN424YP (IX804520) LEVEL Meter (+6, +3, 0)
- 4. Variable Resistor
 - VR902, 903, 904, 1002, 1003, 1004, 1102, 1103, 1104, 1202, 1203, 1204, 1302, 1303, 1304, 1402, 1403, 1404: EVUJ40F20G54 G50K (HX805090) EQ
 - VR906, 907, 908, 909, 1006, 1007, 1008, 1009, 1106, 1107, 1108, 1109, 1206, 1207, 1208, 1209, 1306, 1307, 1308, 1309, 1406, 1407, 1408, 1409, 2101, 2201, 2301, 2401: EVUJ41F20A14 A10K (HX805060) AUX
 - VR910, 1010, 1110, 1210, 1310, 1410, 1510, 1610: EVUJ40F20G24 G20K (HX805080) PAN
 - VR1502, 1503, 1504, 1602, 1603, 1604: EVJY81F20G54 G50Kx2 (HX805050) EQ (Ch. 15, 16)
 - VR1506, 1507, 1508, 1509, 1606, 1607, 1608, 1609: EVJY80F20A14 A10Kx2 (HX805030) AUX (Ch. 15, 16), HP
 - VR1901, 2501, 2502, 2503, 2504: EVJY80F20A24 A20Kx2 (HX805040) AUX RTN
- 5. Slide Pot.
 - VR905, 1005, 1105, 1205, 1305, 1405, 1701, 1801: EWAPFDC15A14 A10K (HX805110) Fader
 - VR1505, 1605: EWAPAMC15A14 A10Kx2 (HX805100) Fader (Ch. 15, 16)
- 6. PAD Switch
 - S901, 1001, 1101, 1201, 1301, 1401, 1501, 1601: ESB6440 (KX801950) PAD
- 7. Switch
 - S2042, 2062: ESB6439 (KX801940) AUX Sel.

● MAIN Circuit Board



MAIN-2/2



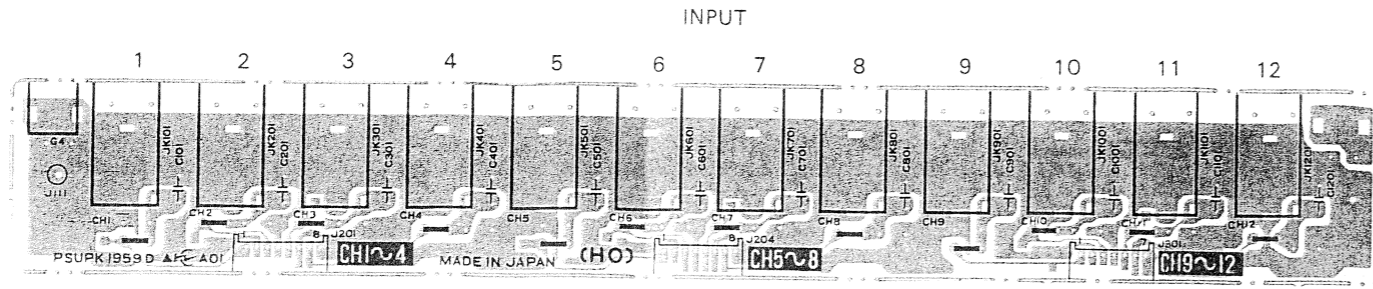
Components side (部品側)

Components side (部品側)

Notes)

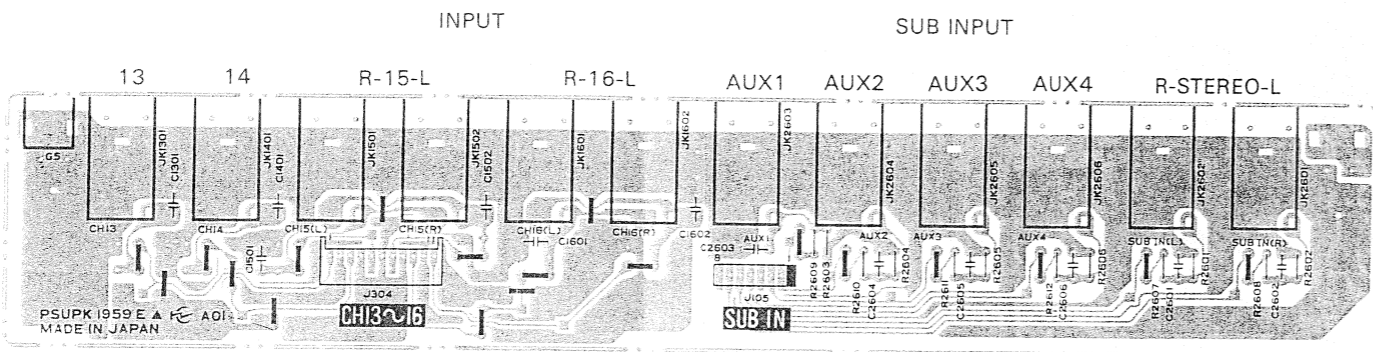
- * Circuit Board: MAIN PSXPK436 (NX807710)
- 1. IC
 - IC1701, 2101, 2301, 2501: NJM2043LE (IX804530) OP AMP.
 - IC1702, 2102, 2302, 2502, 2503, 2504: NJM4558LD (IX804550) OP AMP.
 - IC1704, 1801: NJM4556L (IX804540) OP AMP.
 - IC1901: LA6515 (IX804470) P AMP.
- 2. Transistor
 - Q1: 2SD2012 (IX803230)
 - Q2: 2SB1375 (IX804430)
 - Q1701, 1801: 2SD1915T-TA (IX802050)
- 3. Digital Transistor
 - Q3, 5: DTC114YSTP (IX607660)
 - Q4: DTA114TSTP (IX804450)
 - Q6: DTA114YSTP (IX804460)
- 4. Diode
 - D1~4, 9~12: RL1N4003-N02 (IX802730)
 - D13: ISS178TA (IX804410)
 - D14~18: SVD1SS119-04T (XX808790)
- 5. Zener Diode
 - D5~8: HZS7C2TD (IX804580)
 - D1701, 1702, 1703, 1704, 1801, 1802, 1803, 1804: HZS15-2TD (IX802780)
- 6. Jack
 - JK1701, 1702, 1801, 1802, 2101, 2201, 2301, 2401: PSJJK56 (LX802040) SUB OUT, STEREO OUT
- 7. Relay
 - RLY1: PSSYK12 (KX801970)
- 8. Slide Switch
 - S2601, 2602: PSSSK28 (KX802100) AUX RETURN -20dB / +4dB

● INPUT-JACK Circuit Board



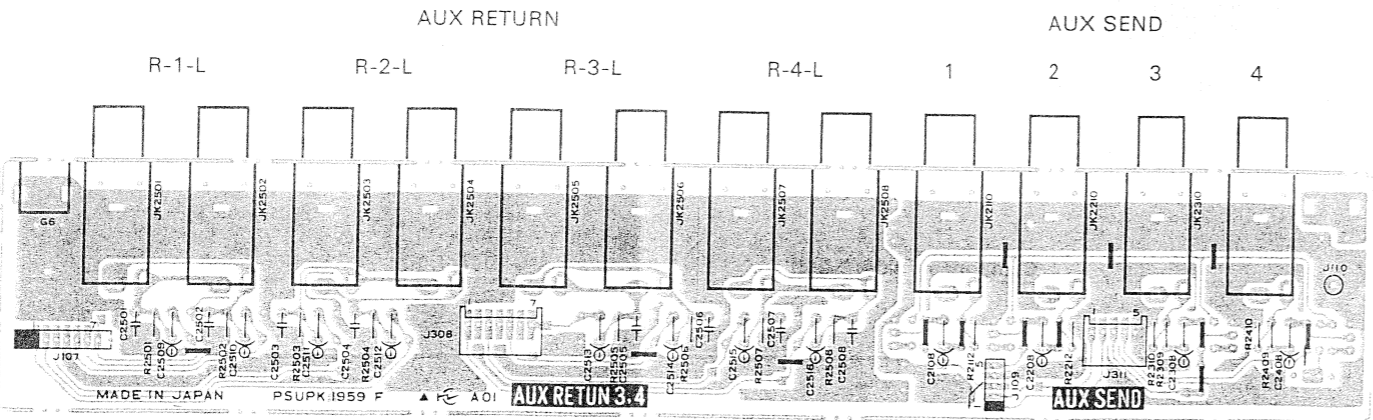
Components side (部品側)

● SUB-JACK Circuit Board



Components side (部品側)

● AUX-JACK Circuit Board



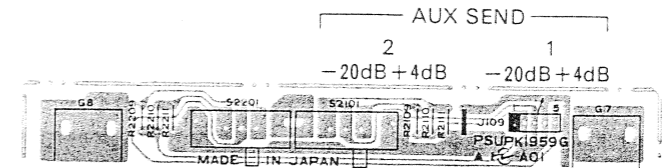
Components side (部品側)

Notes

- | | | |
|-------------------|--------------------------------------|--|
| * Circuit Board: | POWER PSXPK437-1 (NX807720) J | |
| Circuit Board: | POWER PSXPK438-1 (NX807780) U, C | |
| Circuit Board: | POWER PSXPK439-1 (NX807800) H, X, B | |
| Circuit Board: | PHONES PSIPK437-2 (NX807730) J | |
| Circuit Board: | PHONES PSIRK438-2 (NX807790) U, C | |
| Circuit Board: | PHONES PSIPK439-2 (NX807810) H, X, B | |
| Circuit Board: | INPUT-JACK PSOPK437-3 (NX807740) | |
| Circuit Board: | SUB-JACK PSOPK437-4 (NX807750) | |
| Circuit Board: | AUX-JACK PSOPK437-5 (NX807760) | |
| Circuit Board: | AUX-CHANGE PSOPK437-6 (NX807770) | |
| 1. IC (Regulator) | SVIICPF38 (IX804570) H, X, B | 4. Jack: |
| IC1, 2: | SVIICPF25 (IX804560) H, X, B | PSJJK56 (LX802040) INPUT, AUX SND, AUX RTN |
| IC3: | | 5. Phone Jack |
| 2. Power Switch: | SSH1071 (KX801980) | JK1901: |
| | | SJJ134B (LX800770) HEADPHONES |
| 3. Slide Switch | | 6. Voltage Selector: |
| S2101, 2201: | PSSSK27 (KX802130) AUX SEND | PSSRK26 (KX801960) H, X, B |

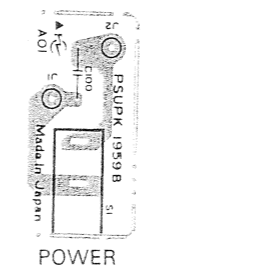
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● AUX-CHANGE Circuit Board



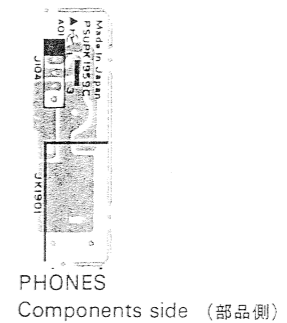
Components side (部品側)

● POWER-1/2 Circuit Board



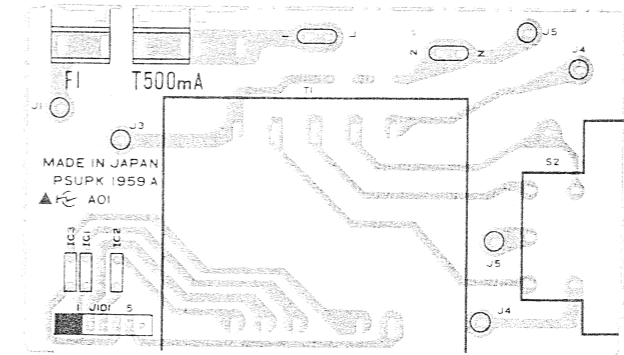
Components side (部品側)

● PHONES Circuit Board



Components side (部品側)

● POWER-2/2 Circuit Board



Components side (部品側)

FOR CANADIAN SPEC.
 (In accordance with CSA standard C22.2 No.1)
 Pour les spécifications du Canada
 (En conformité avec les Normes CSA C22.2 No.1)

*** Fuse replacement marking
 (Repere de remplacement de fusible) ***

250V/300mA Fast operation fuse
 (250V/300mA Fusible à régime fixe)

CAUTION: TO REDUCE THE RISK OF FIRE,
 REPLACE ONLY WITH SAME TYPE FUSE.
 ATTENTION: AFIN DE REDUIRE LE RISQUE DE FEU,
 REMPLACER UNIQUEMENT PAR UN FUSIBLE
 DE MEME TYPE.

MIXER

MV1602

MV1602

PARTS LIST

Notes DESTINATION ABBREVIATIONS

J : Japanese model	A : Australian model
U : U.S. model	E : European model
C : Canadian model	D : West German model
X : General model	B : British model
M : South African model	I : Indonesian model
H : North European model	

■ ELECTRICAL PARTS (電気部品)

MV1602

Ref. No.	Part No.	Description	部品名	Remarks	ランク	
	NX807680	Circuit Board, PN1	PSXPK434	PN1シート	MV1602	38
	NX807690	Circuit Board, PN2-1	PSXPK435-1	PN2-1シート		37
	NX807700	Circuit Board, PN2-2	PSXPK435-2	PN2-2シート		37
	NX807710	Circuit Board, MAIN	PSXPK438	MAINシート		29
	NX807720	Circuit Board, POWER	PSXPK437-1	POWERシート	J	11
	NX807780	Circuit Board, POWER	PSXPK438-1	POWERシート	U.C	17
	NX807800	Circuit Board, POWER	PSXPK439-1	POWERシート	H, X, B	17
	NX807730	Circuit Board, PHONES	PSIPK437-2	PHONESシート	J	05
	NX807790	Circuit Board, PHONES	PSIPK438-2	PHONESシート	U.C	21
	NX807810	Circuit Board, PHONES	PSIPK439-2	PHONESシート	H, X, B	20
	NX807740	Circuit Board, INPUT-JACK	PSOPK437-3	INPUT-JACKシート		12
	NX807750	Circuit Board, SUB-JACK	PSOPK437-4	SUB-JACKシート		12
	NX807760	Circuit Board, AUX-JACK	PSOPK437-5	AUX-JACKシート		14
	NX807770	Circuit Board, AUX-CHANGE	PSOPK437-6	AUX-CHANGEシート		10
	NX807680	Circuit Board, PN1	PSXPK434	PN1シート		38
	IX804530	IC	NJM2043LE	IC	OP AMP.	05
	IX804550	IC	NJM4558LD	IC	OP AMP.	03
	IX804440	Transistor	2SC1740S-RTA	トランジスタ		01
	IX804420	Transistor	2SA933S-RTA	トランジスタ		01
	IX804500	LED	LN273RP-LS	LED	CLIP	02
	HX805070	Variable Resistor, A50k	EVUJ42F20A54	可変抵抗器	GAIN	03
	HX805090	Variable Resistor, G50k	EVUJ40F20G54	可変抵抗器	EQ	03
	HX805080	Variable Resistor, G20k	EVUJ40F20G24	可変抵抗器	PAN	03
	HX805060	Variable Resistor, A10k	EVUJ41F20A14	可変抵抗器	AUX	03
	HX805110	Slide Pot., A10k	EWAPFDC15A14	スライドポリューム	Fader	04
	KX801950	PAD Switch	ESB6440	PADスイッチ	PAD	04
	CX808720	Spacer, LED	PSUDK27	LEDスペーサー		01
	NX807690	Circuit Board, PN2-1	PSXPK435-1	PN2-1シート		37
	NX807700	Circuit Board, PN2-2	PSXPK435-2	PN2-2シート		37
	IX804530	IC	NJM2043LE	IC	OP AMP.	05
	IX804550	IC	NJM4558LD	IC	OP AMP.	03
	IX804480	IC	LB1409W	IC	LED DRIVER	06
	IX804540	IC	NJM4556L	IC	OP AMP.	03
	IX804440	Transistor	2SC1740S-RTA	トランジスタ		01
	IX804420	Transistor	2SA933S-RTA	トランジスタ		01
	IX804490	LED	LN224RP	LED	CLIP	02
	IX804510	LED	LN324GP	LED	+G, +3.0	01
	IX804520	LED	LN424YP	LED	-3~∞	02
	HX805090	Variable Resistor, G50k	EVUJ40F20G54	可変抵抗器	EQ	03
	HX805080	Variable Resistor, G20k	EVUJ40F20G24	可変抵抗器	PAN	03
	HX805060	Variable Resistor, A10k	EVUJ41F20A14	可変抵抗器	AUX	03
	HX805050	Variable Resistor, G50kX2	EVJY81F20G54	可変抵抗器	EQ-Ch15-16	04
	HX805030	Variable Resistor, A10kX2	EVJY80F20A14	二連可変抵抗器	AUX-CH15-16, HP	04
	HX805040	Variable Resistor, A20kX2	EVJY80F20A24	二連可変抵抗器	AUX RTN	04
	HX805110	Slide Pot., A10k	EWAPFDC15A14	スライドポリューム	Fader	04
	HX805100	Slide Pot., A10kX2	EWAPANC15A14	スライドポリューム	Fader-Ch15-16	05
	KX801950	PAD Switch	ESB6440	PADスイッチ	PAD	04
	KX801940	Switch	ESB6439	スイッチ	AUX Sel.	04
	CX808740	Spacer, LED	PSUDK33	LEDスペーサー	LEVEL Meter	01
	NX807710	Circuit Board, MAIN	PSXPK438	MAINシート		29
	IX804530	IC	NJM2043LE	IC	OP AMP.	05
	IX804550	IC	NJM4558LD	IC	OP AMP.	03
	IX804540	IC	NJM4556L	IC	OP AMP.	03
	IX804470	IC	LA6515	IC	P AMP.	06
	IX803230	Transistor	2SD2012	トランジスタ		02
	IX804430	Transistor	2SB1375	トランジスタ		03
	IX802050	Transistor	2SD1915T-TA	トランジスタ		01
	IX804460	Digital Tansistor	DTA114YSTP	デジタルトランジスタ		01
	IX804450	Digital Tansistor	DTA114TSTP	デジタルトランジスタ		01
	IX807860	Digital Tansistor	DTC114YSTP	デジタルトランジスタ		03
	XX808790	Diode	SVD1SS119-04T	ダイオード		01
	IX804410	Diode	ISS178TA	ダイオード		01
	IX802730	Diode	RL1N4003-N02	ダイオード		01
	IX804580	Zener Diode	HZS7C2TD	ツェナーダイオード		01
	IX802780	Zener Diode	HZS15-2TD	ツェナーダイオード		01
	KX802100	Slide Switch	PSSSK28	スライドスイッチ	AUX RTN -20/+4	03
	LX802040	Jack	PSJK56	ジャック	SUB OUT, ST OUT	03
	KX801970	Relay	PSSYK12	リレー		07
	NX807720	Circuit Board, POWER	PSXPK437-1	POWERシート	J	11
	NX807780	Circuit Board, POWER	PSXPK438-1	POWERシート	U.C	17
	NX807800	Circuit Board, POWER	PSXPK439-1	POWERシート	H, X, B	17
	NX807730	Circuit Board, PHONES	PSIPK437-2	PHONESシート	J	05
	NX807790	Circuit Board, PHONES	PSIPK438-2	PHONESシート	U.C	21
	NX807810	Circuit Board, PHONES	PSIPK439-2	PHONESシート	H, X, B	20
	NX807740	Circuit Board, INPUT-JACK	PSOPK437-3	INPUT-JACKシート		12

* New Parts (新規部品)

Ref. No.	Part No.	Description	部品名	Remarks	ランク
	MX807750	Circuit Board, SUB-JACK	PSOPK437-4	SUB-JACKシート	12
	MX807760	Circuit Board, AUX-JACK	PSOPK437-5	AUX-JACKシート	14
	MX807770	Circuit Board, AUX-CHANGE	PSOPK437-6	AUX-CHANGEシート	10
	IX804570	IC, REGULATOR	SVIICPF38	IC	03
	IX804580	IC, REGULATOR	SVIICPF25	IC	03
	KX801980	Power Switch	SSH1071	パワースイッチ	POWER
	KX802130	Slide Switch	PSSSK27	スライドスイッチ	AUX SEND
	LX802040	Jack	PSJJK58	ジャック	INPUT, SND, RTN
	LX800770	Phone Jack	SJJ134B	ホンジャック	HEADPHONES
	KX801960	Voltage Selector	PSSRK28	電圧切替器	H, X, B
	CX808800	Fuse Holder	SJT389	ヒューズクリップ	J, U, C
	CX808790	Fuse Holder	SJT388	ヒューズクリップ	H, X, B
	KX802000	Fuse	XBA2E05NS5	ヒューズ	J
	KX802110	Fuse	XBA2F05NU100	ヒューズ	U, C
	KX802120	Fuse	XBA2C05TB0S	ヒューズ	H, X, B
	GX802130	Power Transformer	PSLTK5L28-W	電源トランス	J
	GX802140	Power Transformer	PSLTK5L29-W	電源トランス	U, C
	GX802150	Power Transformer	PSLTK5L30-W	電源トランス	H, X, B
	MX800770	AC Cord	PSJAK17	電源コード	J
	MX800790	AC Cord	PSJAK20	電源コード	U, C
	MX800780	AC Cord	PSJAK19	電源コード	H, X
	MX800800	AC Cord	SFDAB31G01	電源コード	B
	AX806450	Holder, Vol. Sel.	SMN1912-1	電源切替SW金具	H, X, B
	ED030166	Bind Head Screw	3.0X16 ZMC2Y	バインド小ネジ	H, X, B
	EV200036	Flat Washer	φ 3.0 ZMC2Y	平座金	H, X, B

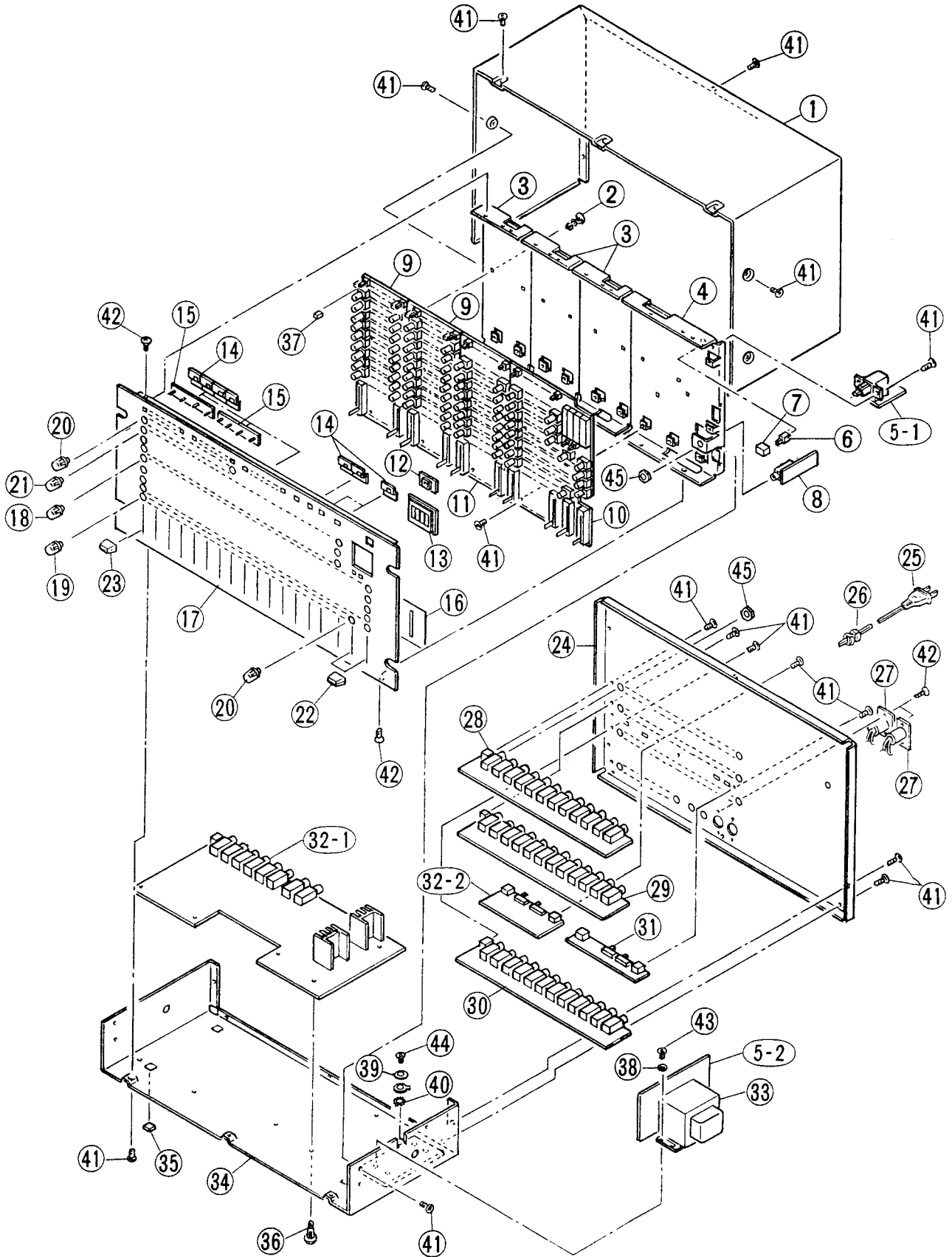
* New Parts (新規部品)

ランク : Japan only

MV1602

■ OVERALL ASSEMBLY (総組立)

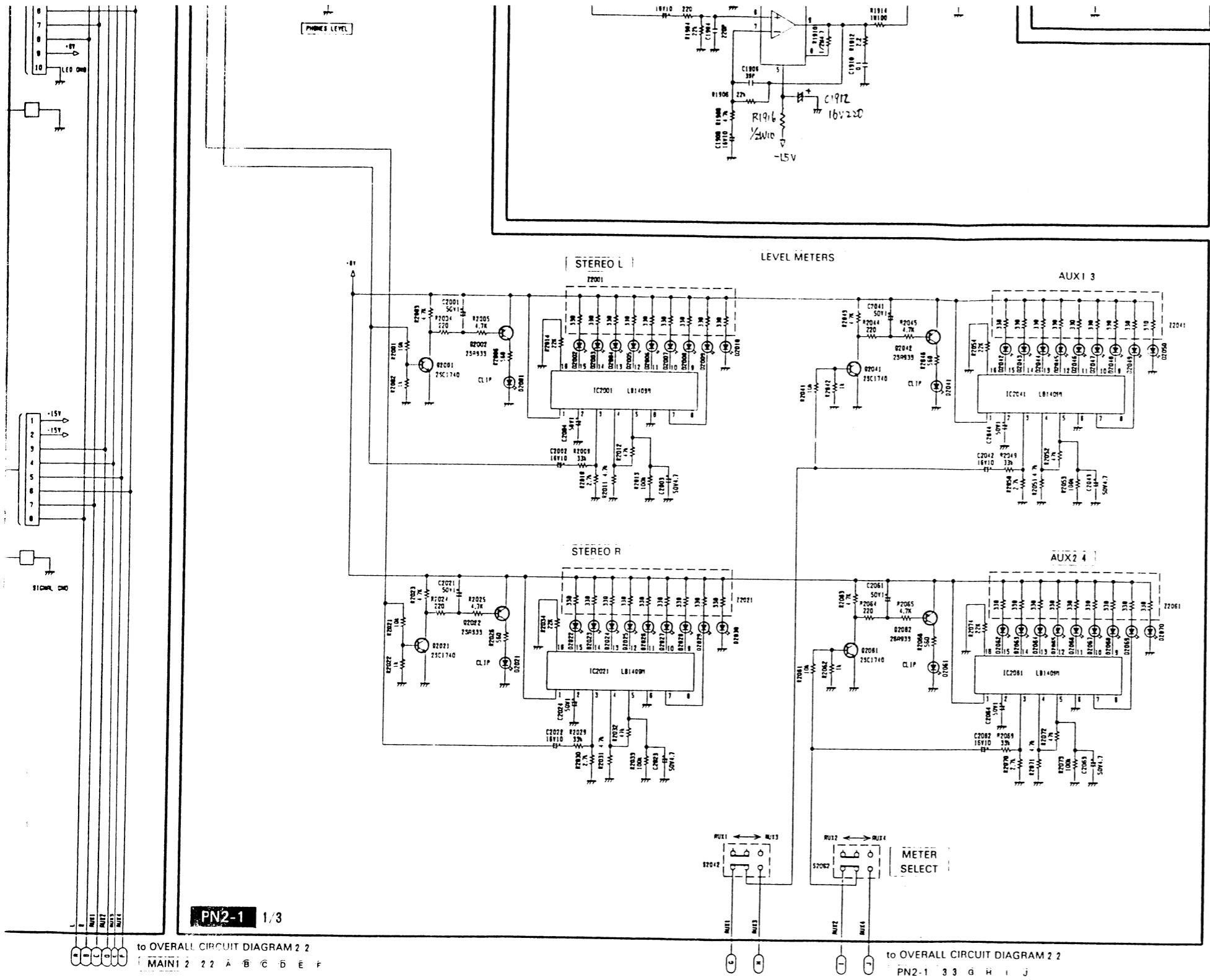
MV1602



Ref. No.	Part No.	Description		部品名	Remarks	ランク
1	CX808710	Top Cover	PSKCK270	トップカバー	MV1602	11
2	CX808690	Support	PSHRK965	サポート		01
3	CX808750	Sub-chassis (S)	PSUFK52	前板 (小)		06
4	CX808760	Sub-chassis (L)	PSUFK53	前板 (大)		07
5	NX807720	Circuit Board, POWER	PSXPK437-1	POWERシート	J	11
5	NX807780	Circuit Board, POWER	PSXPK438-1	POWERシート	U, C	17
5	NX807800	Circuit Board, POWER	PSXPK439-1	POWERシート	H, X, B	17
5-1		Circuit Board	POWER-1/2	POWER-1/2シート		
5-2		Circuit Board	POWER-2/2	POWER-2/2シート		
6	CX808770	Rod, Power Switch	SUB181	ツマミ運動棒		01
7	CX808510	Knob, Power Switch	PSBCK45	パワースイッチツマミ		01
8	NX807730	Circuit Board, PHONES	PSIPK437-2	PHONESシート	J	05
8	NX807790	Circuit Board, PHONES	PSIPK438-2	PHONESシート	U, C	21
8	NX807810	Circuit Board, PHONES	PSIPK439-2	PHONESシート	H, X, B	20
9	NX807680	Circuit Board, PN1	PSXPK434	PN1シート		38
9-1		Circuit Board	PN1-1/2	PN1-1/2シート		
9-2		Circuit Board	PN1-2/2	PN1-2/2シート		
10	NX807690	Circuit Board, PN2-1	PSXPK435-1	PN2-1シート		37
11	NX807700	Circuit Board, PN2-2	PSXPK435-2	PN2-2シート		37
12	CX808650	Escutcheon, PSW	PSGXK140	パワーSWツマミ座		01
13	CX808630	Cover	PSGUK39A	化粧板		05
14	CX808730	Escutcheon, SW	PSUDK32	スイッチSWはめ座		01
15	CX808590	LED Lens	PSGLK21	LED導光板		01
16	CX808660	Escutcheon, VR	PSGXK148	ボリューム飾り		07
17	CX808640	Front Panel	PSGWK550A	フロントパネル		23
18	CX808550	Knob, Blue	PSBNK53A	ボリュームツマミ		02
19	CX808560	Knob, Red	PSBNK53B	ボリュームツマミ		03
20	CX808570	Knob, Gray	PSBNK53C	ボリュームツマミ		03
21	CX808580	Knob, Green	PSBNK53D	ボリュームツマミ		03
22	CX808530	Slide Knob, Red	PSBDK30B	スライドツマミ		03
23	CX808540	Slide Knob, Gray	PSBDK30C	スライドツマミ		03
24	CX808620	Back Board	PSGPK560A	後面板	J	10
24	CX808600	Back Board	PSGPK560-1A	後面板	U, C	10
24	CX808610	Back Board	PSGPK560-2A	後面板	H, X, B	10
25	NX800770	AC Cord	PSJAK17	電源コード	J	05
25	NX800790	AC Cord	PSJAK20	電源コード	U, C	09
25	NX800780	AC Cord	PSJAK19	電源コード	H, X	06
25	NX800800	AC Cord	SFDAB31G01	電源コード	B	07
26	CX808700	Cord Strain Relief	PSHRK966	ブッシング	J	01
26	CX808670	Cord Strain Relief	PSHRK956	ブッシング	U, C	03
26	CX808780	Cord Strain Relief	SHR127	ブッシング	H, X	01
26	NX800420	Cord Strain Relief	SHR129	ブッシング	B	01
27	LX802050	XLB-32 Connector	SJSK9-1	キャノン端子		07
28	NX807740	Circuit Board, INPUT-JACK	PSOPK437-3	INPUT-JACKシート		12
29	NX807750	Circuit Board, SUB-JACK	PSOPK437-4	SUB-JACKシート		12
30	NX807760	Circuit Board, AUX-JACK	PSOPK437-5	AUX-JACKシート		14
31	NX807770	Circuit Board, AUX-CHANGE	PSOPK437-6	AUX-CHANGEシート		10
32	NX807710	Circuit Board, MAIN	PSXPK436	MAINシート		29
32-1		Circuit Board	MAIN-1/2	MAIN-1/2シート		
32-2		Circuit Board	MAIN-2/2	MAIN-2/2シート		
33	GX802130	Power Transformer	PSLTK5L28-W	電源トランス	J	14
33	GX802140	Power Transformer	PSLTK5L29-W	電源トランス	U, C	14
33	GX802150	Power Transformer	PSLTK5L30-W	電源トランス	H, X, B	14
34	AX806440	Chassis	PSKUK300	シャーシ		08
35	CX805360	Foot	SKL293	セット足		01
36	CX808680	Support	PSHRK961	サポート		02
37	CX808520	Knob, PAD	PSBCK92	PADツマミ		01
38	EV200036	Flat Washer	φ 3.0 ZMC2Y	平座金		01
39	EV200046	Flat Washer	φ 4.0 ZMC2Y	平座金	H, X, B	01
40	EV420046	Toothed Lock Washer	φ 4.0 B ZMC2Y	歯付座金 外歯形	H, X, B	01
41	E1330086	Bind Head Tapping Screw	3.0X8 FCM3BL	ヘッドタッピングネジ		01
42	E0130086	Flat Head Tapping Screw	3.0X8 FNM3-3G	皿タッピングネジ		01
43	ED030066	Bind Head Screw	3.0X6 ZMC2Y	バインド小ネジ		01
44	ED040106	Bind Head Screw	4.0X10 ZMC2Y	バインド小ネジ	H, X, B	01
45	ET400040	Hexagonal Nut	φ 12 FCM3BL	六角ナット		01

*New Parts (新規部品)

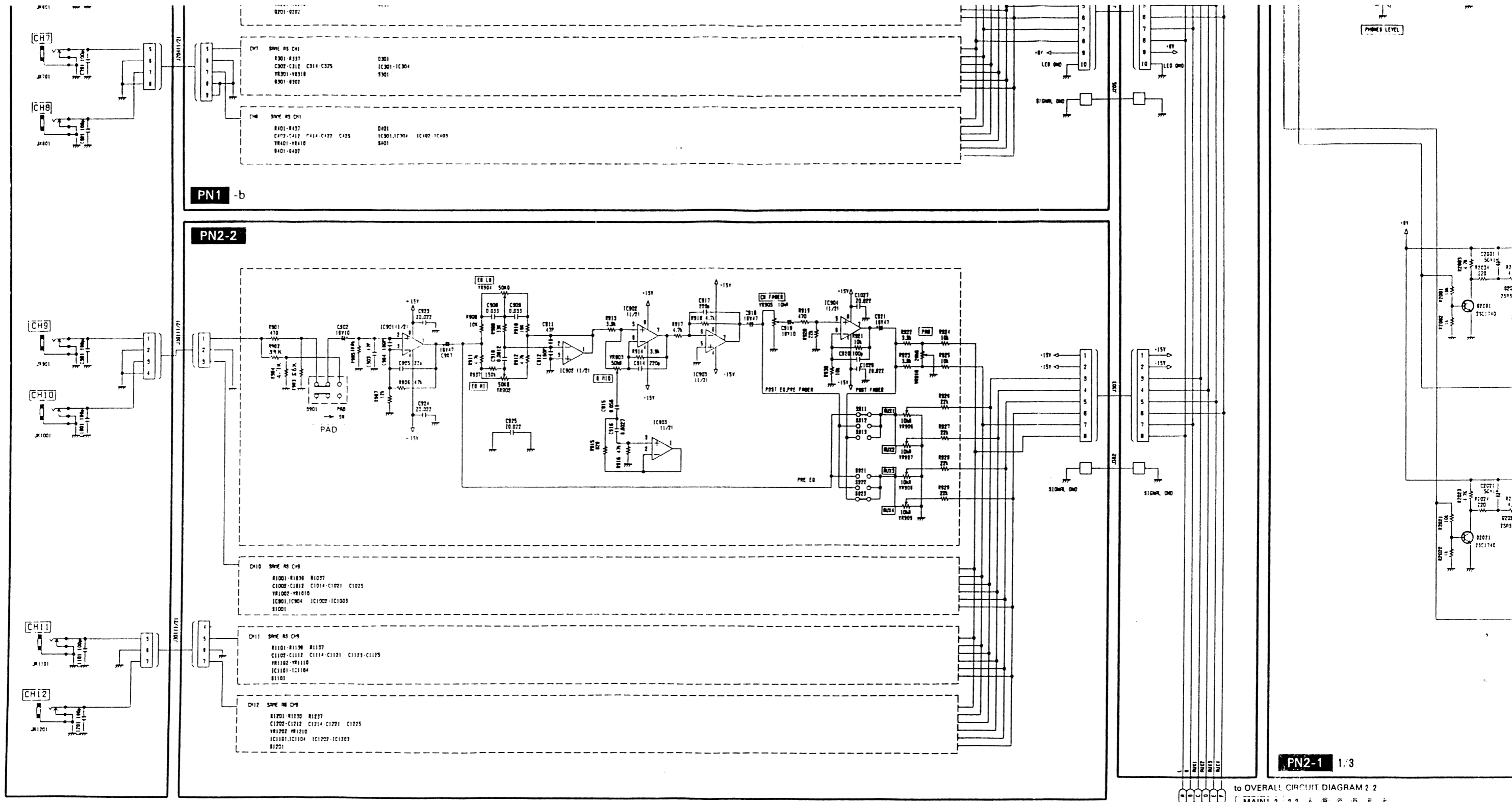
ランク : Japan only



- VR1901, 2501, 2502, 2503, 2504: EVJY80F20A24 A20Kx2 (HX805040) AUX RTN
- 5. Slide Pot.
VR905, 1005, 1105, 1205, 1305, 1405, 1701, 1801, VR1505, 1605: EWAPFDC15A14 A10K (HX805110) Fader
EWAPAMC15A14 A10Kx2 (HX805100) Fader (Ch. 15, 16)
- 6. PAD Switch
S901, 1001, 1101, 1201, 1301, 1401, 1501, 1601: ESB6440 (KX801950) PAD
- 7. Switch
S2042, 2062: ESB6439 (KX801940) AUX Sel.

- PN2-1 1/3
- to OVERALL CIRCUIT DIAGRAM 2 2
MAIN 2 22 A B C D E F
- to OVERALL CIRCUIT DIAGRAM 2 2
PN2-1 33 G H I J
- 710) OP AMP.
 - OP AMP.
 - OP AMP.
 - OP AMP.
 - 4. Diode
D1 ~ 4, 9 ~ 12: RL1N4003-N02 (IX802730)
D13: ISS178TA (IX804410)
D14 ~ 18: SVD1SS119-04T (XX808790)
 - 5. Zener Diode
D5 ~ 8: HZS7C2TD (IX804580)
D1701, 1702, 1703, 1704, 1801, 1802, 1803, 1804: HZS15-2TD (IX802780)
 - 6. Jack
JK1701, 1702, 1801, 1802, 2101, 2201, 2301, 2401: PSJJK56 (LX802040) SUB OUT, STEREO OUT
 - 7. Relay
RLY1: PSSYK12 (KX801970)
 - 8. Slide Switch
S2601, 2602: PSSSK28 (KX802100) AUX RETURN -20dB +4dB

MV16(2)



PN1 -b

PN2-2

PN2-1 1/3

Notes)

- * Circuit Board: POWER PSXPK437-1 (NX807720) J
- Circuit Board: POWER PSXPK438-1 (NX807780) U, C
- Circuit Board: POWER PSXPK439-1 (NX807800) H, X, B
- Circuit Board: PHONES PSIPK437-2 (NX807730) J
- Circuit Board: PHONES PSIRK438-2 (NX807790) U, C
- Circuit Board: PHONES PSIPK439-2 (NX807810) H, X, B
- Circuit Board: INPUT-JACK PSOPK437-3 (NX807740)
- Circuit Board: SUB-JACK PSOPK437-4 (NX807750)
- Circuit Board: AUX-JACK PSOPK437-5 (NX807760)
- Circuit Board: AUX-CHANGE PSOPK437-6 (NX807770)
- 1. IC (Regulator)
IC1, 2: SVIICPF38 (IX804570) H, X, B
IC3: SVIICPF25 (IX804560) H, X, B
- 2. Power Switch: SSH1071 (KX801980)
- 3. Slide Switch
S2101, 2201: PSSSK27 (KX802130) AUX SEND

- 4. Jack: PSJJK56 (LX802040) INPUT, AUX, SND, AUX RTN
- 5. Phone Jack
JK1901: SJJ134B (LX800770) HEADPHONES
- 6. Voltage Selector: PSSRK26 (KX801960) H, X, B

Notes)

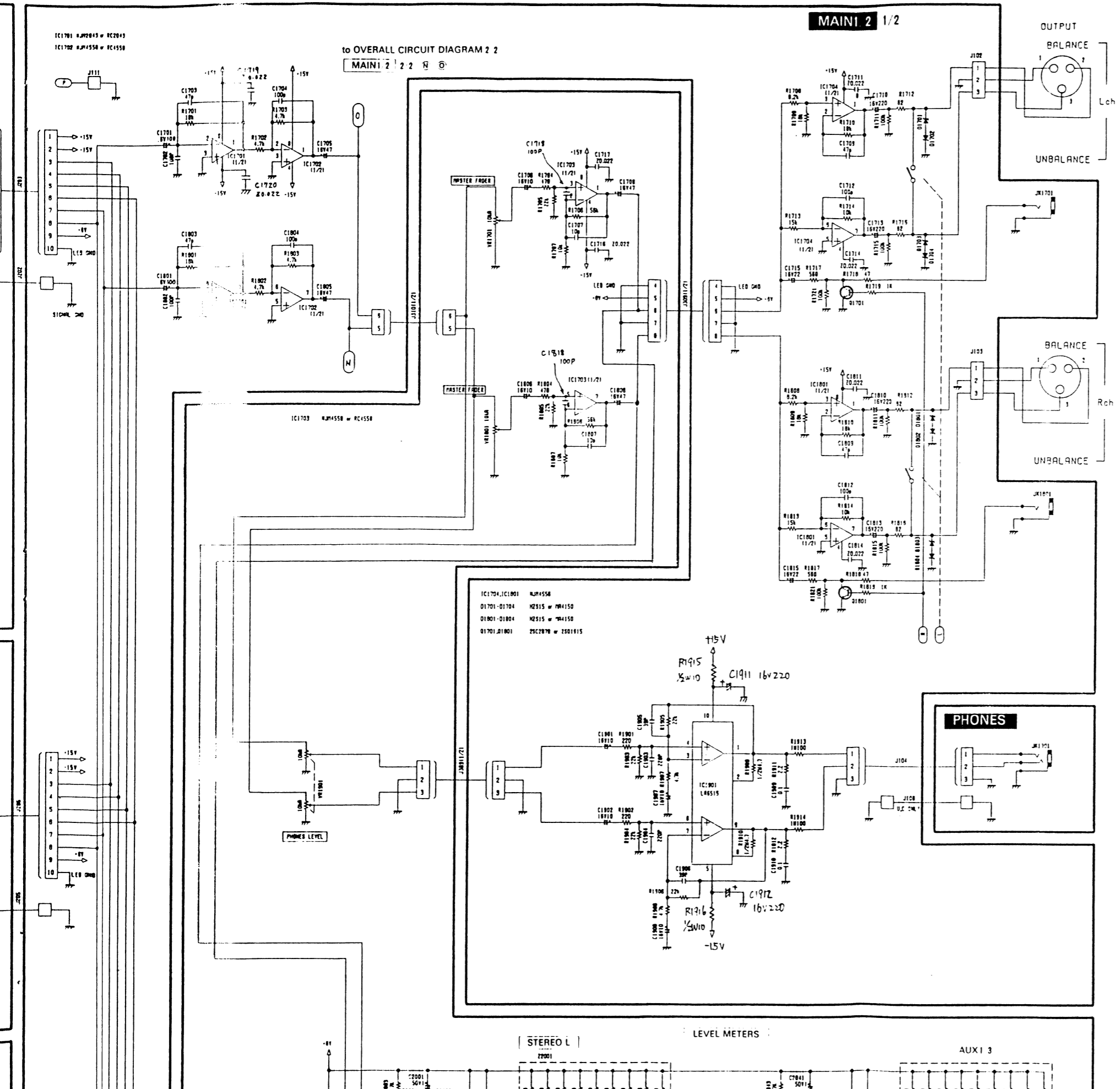
- * Circuit Board: MAIN PSXPK436 (NX807710)
- 1. IC
IC1701, 2101, 2301, 2501: NJM2043LE (IX804530) OP AMP.
IC1702, 2102, 2302, 2502, 2503, 2504: NJM4558LD (IX804550) OP AMP.
IC1704, 1801: LA6515 (IX804470) P AMP.
IC1901:
- 2. Transistor
Q1: 2SD2012 (IX803230)
Q2: 2SB1375 (IX804430)
Q1701, 1801: 2SD1915T-TA (IX802050)
- 3. Digital Transistor
Q3, 5: DTC114YSTP (IX607660)
Q4: DTA114TSTP (IX804450)
Q6: DTA114YSTP (IX804460)

- 4. Diode
D1~4, 9~12: RL1N4003-N02 (IX802730)
D13: ISS178TA (IX804410)
D14~18: SVD1SS119-04T (XX808790)
- 5. Zener Diode
D5~8: HZS7C2TD (IX804580)
D1701, 1702, 1703, 1704, 1801, 1802, 1803, 1804: HZS15-2TD (IX802780)
- 6. Jack
JK1701, 1702, 1801, 1802, 2101, 2201, 2301, 2401: PSJJK56 (LX802040) SUB OUT
- 7. Relay
RLY1: PSSYK12 (KX801970)

to OVERALL CIRCUIT DIAGRAM 2 2
MAIN1 2 2 2 A B C D E F

MV1602

A B C D E F G H



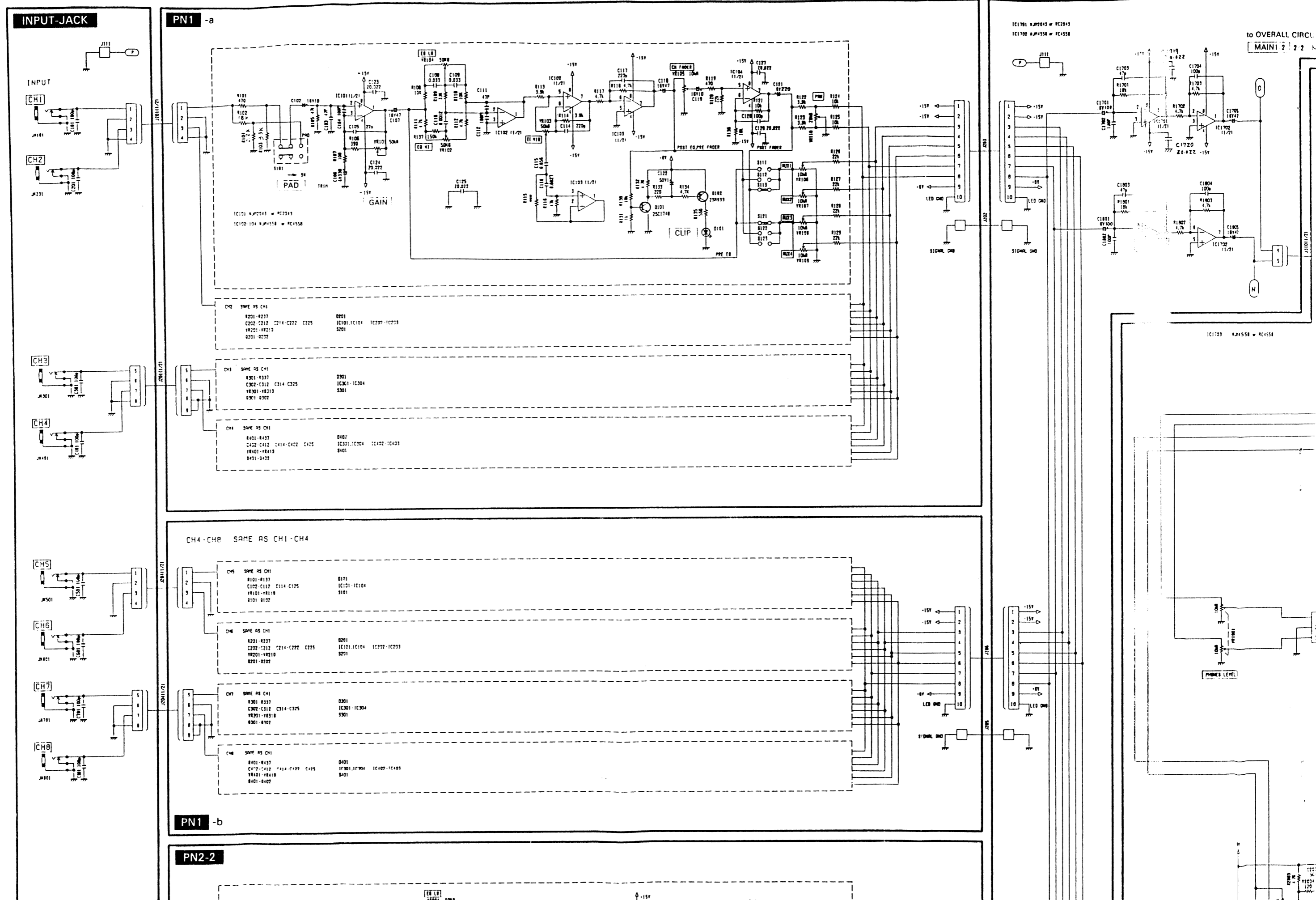
MAIN 2 1/2

to OVERALL CIRCUIT DIAGRAM 2 2
MAIN 2 1/2 2 2 ⑥

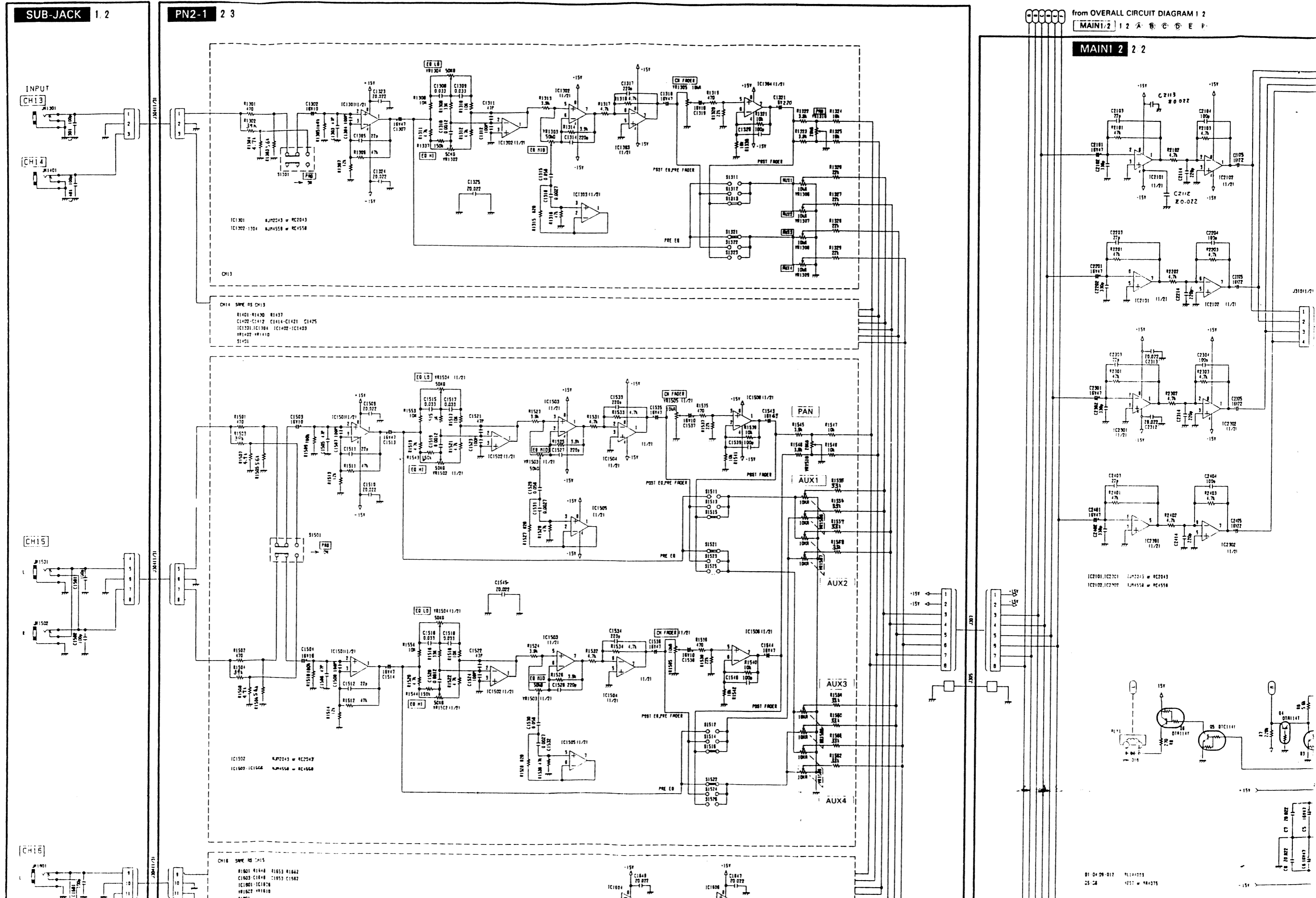
- Notes**
- * Circuit Board: PN2-1 PSXPK435-1 (NX807690)
 - * Circuit Board: PN2-2 PSXPK435-2 (NX807700)
1. IC
 - IC901, 1101, 1301, 1501, 1601: NJM2043LE (IX804530) OP AMP.
 - IC902, 903, 904, 1002, 1003, 1102, 1103, 1104, 1202, 1203, 1302, 1303, 1304, 1402, 1403, 1502, 1503, 1504, 1505, 1506, 1602, 1603, 1604, 1605, 1606, 1703: NJM4558LD (IX804550) OP AMP.
 - IC2001, 2021, 2041, 2061: LB1409M (IX804480) LED DRIVER
 - IC2103, 2303: NJM4556L (IX804540) OP AMP.
 2. Transistor
 - Q2001, 2021, 2041, 2061: 2SC1740S-RTA (IX804440)
 - Q2002, 2022, 2042, 2062: 2SA933S-RTA (IX804420)
 3. LED
 - D2001, 2021, 2041, 2061: LN224RP (IX804490) LEVEL Meter (CLIP)
 - D2005, 2006, 2007, 2008, 2009, 2010, 2025, 2026, 2027, 2028, 2029, 2030, 2045, 2046, 2047, 2048, 2049, 2050, 2065, 2066, 2067, 2068, 2069, 2070: LN324GP (IX804510) LEVEL Meter (-3, -6, -10, -15, -10, 00)
 - D2002, 2003, 2004, 2022, 2023, 2024, 2042, 2043, 2044, 2062, 2063, 2064: LN424YP (IX804520) LEVEL Meter (+6, +3, 0)
 4. Variable Resistor
 - VR902, 903, 904, 1002, 1003, 1004, 1102, 1103, 1104, 1202, 1203, 1204, 1302, 1303, 1304, 1402, 1403, 1404: EVUJ40F20G54 G50K (HX805090) EQ
 - VR906, 907, 908, 909, 1006, 1007, 1008, 1009, 1106, 1107, 1108, 1109, 1206, 1207, 1208, 1209, 1306, 1307, 1308, 1309, 1406, 1407, 1408, 1409, 2101, 2201, 2301, 2401: EVUJ41F20A14 A10K (HX805060) AUX
 - VR910, 1010, 1110, 1210, 1310, 1410, 1510, 1610: EVUJ40F20G24 G20K (HX805080) PAN
 - VR1502, 1503, 1504, 1602, 1603, 1604: EVJY81F20G54 G50Kx2 (HX805050) EQ (Ch. 15, 16)
 - VR1506, 1507, 1508, 1509, 1606, 1607, 1608, 1609: EVJY80F20A14 A10Kx2 (HX805030) AUX (Ch. 15, 16). IP
 - VR1901, 2501, 2502, 2503, 2504: EVJY80F20A24 A20Kx2 (HX805040) AUX RTN
 5. Slide Pot.
 - VR905, 1005, 1105, 1205, 1305, 1405, 1701, 1801: EWAPFDC15A14 A10K (HX805110) Fader
 - VR1505, 1605: EWAPAMC15A14 A10Kx2 (HX805100) Fader (Ch. 15, 16)
 6. PAD Switch
 - S901, 1001, 1101, 1201, 1301, 1401, 1501, 1601: ESB6440 (KX801950) PAD
 7. Switch
 - S2042, 2062: ESB6439 (KX801940) AUX Sel.

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MV1602 OVERALL CIRCUIT DIAGRAM



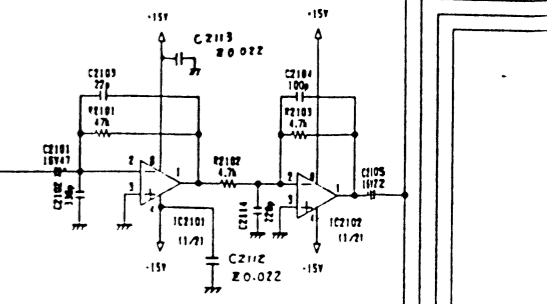
MV1602 OVERALL CIRCUIT DIAGRAM



from OVERALL CIRCUIT DIAGRAM 1 2

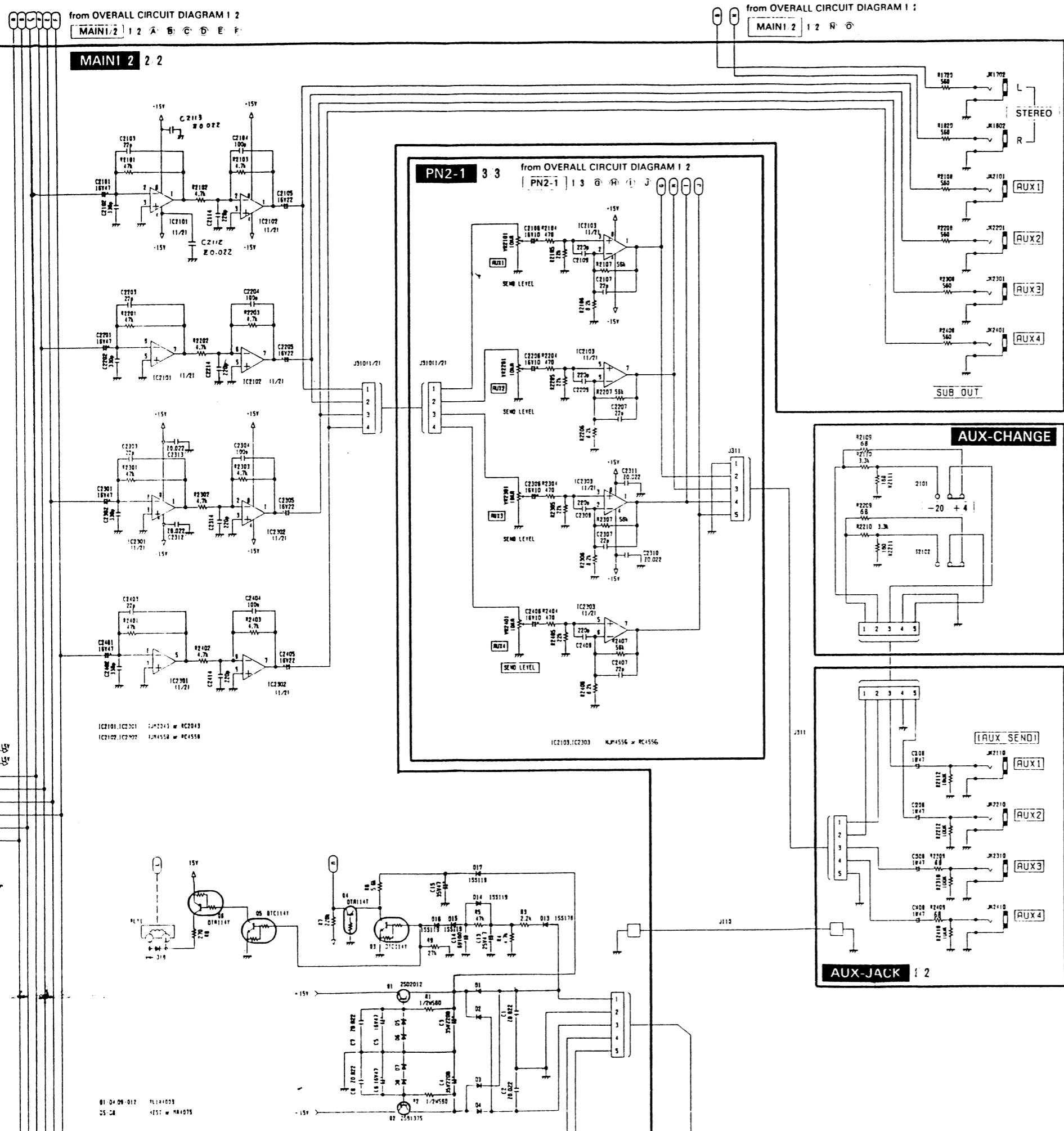
MAINI 2 1 2 A B C D E F

MAINI 2 2 2



IC1301, IC2301 NJM2243 = MC2043
IC1302, IC2302 NJM4558 = MC4558

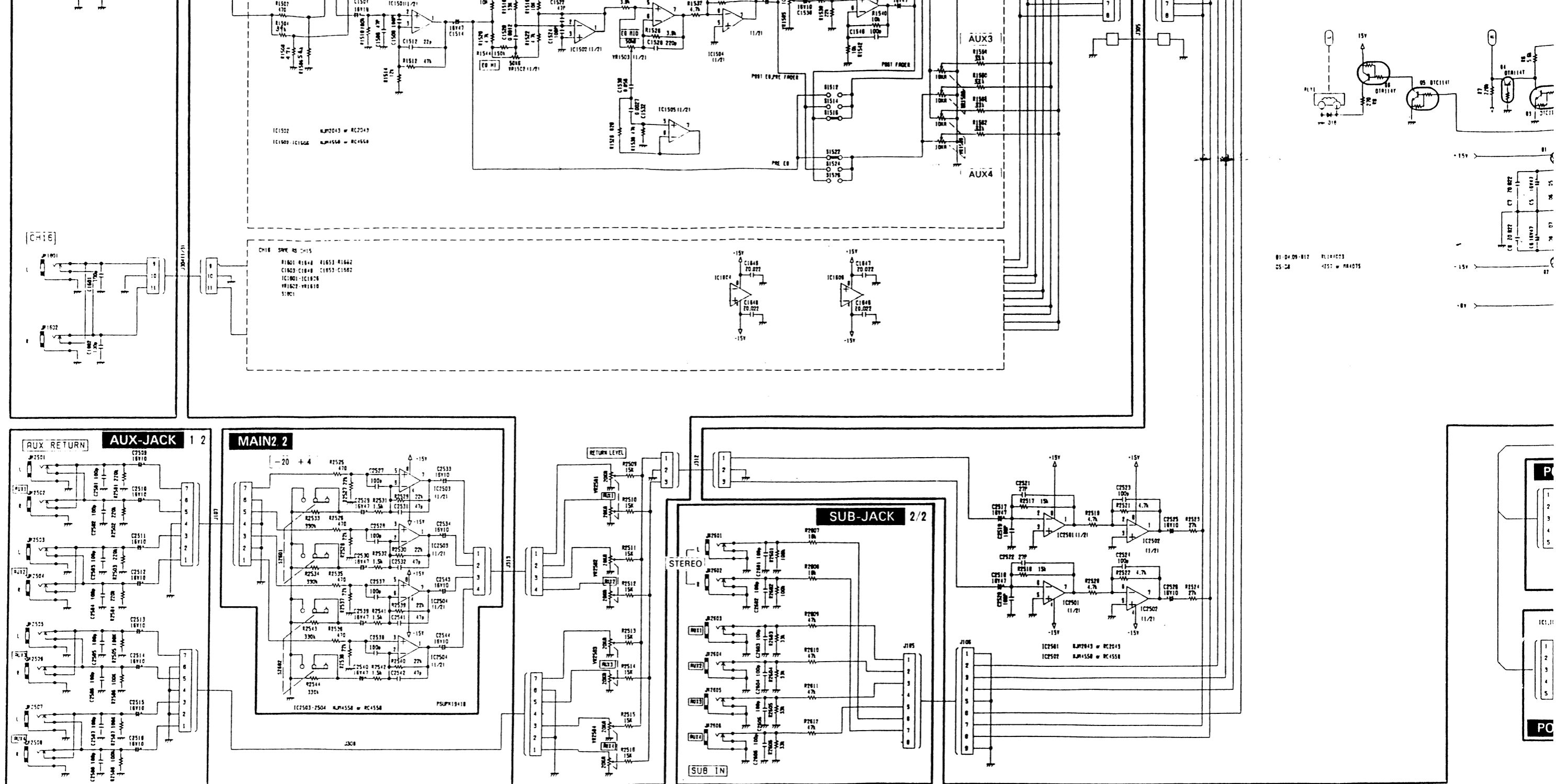
81-04-08-012 RL141058
25-24 -15V = NJM4558



Notes)

- * Circuit Board: PN2-1 PSXPK435-1 (NX807690)
- * Circuit Board: PN2-2 PSXPK435-2 (NX807700)
- 1. IC
 - IC901, 1101, 1301, 1501, 1601: NJM2043LE (IX804530) OP AMP.
 - IC902, 903, 904, 1002, 1003, 1102, 1103, 1104, 1202, 1203, 1302, 1303, 1304, 1402, 1403, 1502, 1503, 1504, 1505, 1506, 1602, 1603, 1604, 1605, 1606, 1703: NJM4558LD (IX804550) OP AMP.
 - IC2001, 2021, 2041, 2061: LB1409M (IX804480) LED DRIVER
 - IC2103, 2303: NJM4556L (IX804540) OP AMP.
- 2. Transistor
 - Q2001, 2021, 2041, 2061: 2SC1740S-RTA (IX804440)
 - Q2002, 2022, 2042, 2062: 2SA933S-RTA (IX804420)
- 3. LED
 - D2001, 2021, 2041, 2061: LN224RP (IX804490) LEVEL Meter (CLIP)
 - D2005, 2006, 2007, 2008, 2009, 2010, 2025, 2026, 2027, 2028, 2029, 2030, 2045, 2046, 2047, 2048, 2049, 2050, 2065, 2066, 2067, 2068, 2069, 2070: LN324GP (IX804510) LEVEL Meter (- 3, - 6, - 10, - 15, - 20, 00)
 - D2002, 2003, 2004, 2022, 2023, 2024, 2042, 2043, 2044, 2062, 2063, 2064: LN424YP (IX804520) LEVEL Meter (+ 6, + 3, 0)
- 4. Variable Resistor
 - VR902, 903, 904, 1002, 1003, 1004, 1102, 1103, 1104, 1202, 1203, 1204, 1302, 1303, 1304, 1402, 1403, 1404: EVUJ40F20G54 G50K (HX805090) EQ
 - VR906, 907, 908, 909, 1006, 1007, 1008, 1009, 1106, 1107, 1108, 1109, 1206, 1207, 1208, 1209, 1306, 1307, 1308, 1309, 1406, 1407, 1408, 1409, 2101, 2201, 2301, 2401: EVUJ41F20A14 A10K (HX805060) AUX
 - VR910, 1010, 1110, 1210, 1310, 1410, 1510, 1610: EVUJ40F20G24 G20K (HX805080) PAN
 - VR1502, 1503, 1504, 1602, 1603, 1604: EVJY81F20G54 G50Kx2 (HX805050) EQ (Ch. 15, 16)
 - VR1506, 1507, 1508, 1509, 1606, 1607, 1608, 1609: EVJY80F20A14 A10Kx2 (HX805030) AUX (Ch. 15, 16). HP
 - VR1901, 2501, 2502, 2503, 2504: EVJY80F20A24 A20Kx2 (HX805040) AUX RTN
- 5. Slide Pot.
 - VR905, 1005, 1105, 1205, 1305, 1405, 1701, 1801: EWAPFDC15A14 A10K (HX805110) Fader
 - VR1505, 1605: EWAPAMC15A14 A10Kx2 (HX805100) Fader (Ch. 15, 16)
- 6. PAD Switch
 - S901, 1001, 1101, 1201, 1301, 1401, 1501, 1601: ESB6440 (KX801950) PAD
- 7. Switch
 - S2042, 2062: ESB6439 (KX801940) AUX Sel.

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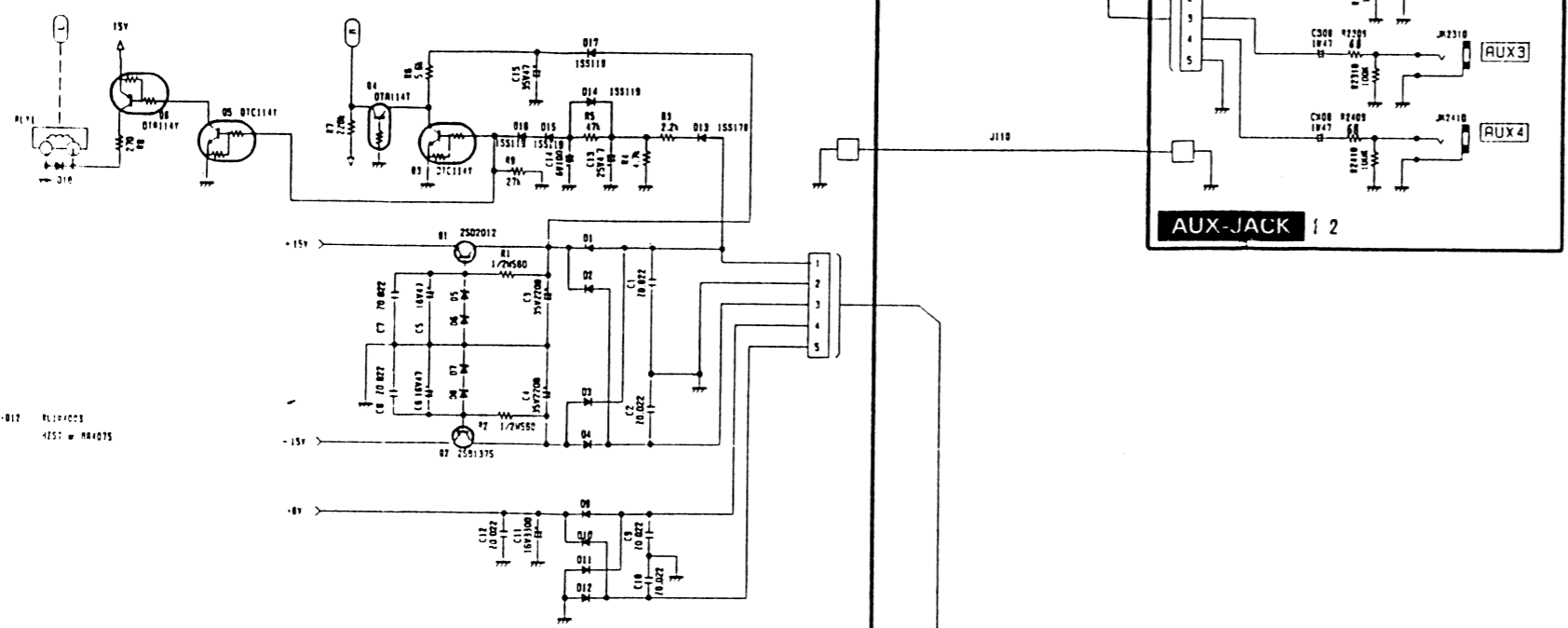
B1-D4-D9-B12 RL1N4003
 C5-C8 -15V -15V
 D5-D8 -15V

- Notes)
- * Circuit Board: POWER PSXPK437-1 (NX807720) J
 - Circuit Board: POWER PSXPK438-1 (NX807780) U. C
 - Circuit Board: POWER PSXPK439-1 (NX807800) H. X. B
 - Circuit Board: PHONES PSIPK437-2 (NX807730) J
 - Circuit Board: PHONES PSIRK438-2 (NX807790) U. C
 - Circuit Board: PHONES PSIPK439-2 (NX807810) H. X. B
 - Circuit Board: INPUT-JACK PSOPK437-3 (NX807740)
 - Circuit Board: SUB-JACK PSOPK437-4 (NX807750)
 - Circuit Board: AUX-JACK PSOPK437-5 (NX807760)
 - Circuit Board: AUX-CHANGE PSOPK437-6 (NX807770)
 - 1. IC (Regulator) SVIICPF38 (IX804570) H. X. B
 - IC1, 2: SVIICPF25 (IX804560) H. X. B
 - IC3:
 - 2. Power Switch: SSH1071 (KX801980)
 - 3. Slide Switch: PSSSK27 (KX802130) AUX SEND

- 4. Jack: PSJJK56 (LX802040) INPUT, AUX, SND, AUX RTN
- 5. Phone Jack: SJJ134B (LX800770) HEADPHONES
- 6. Voltage Selector: PSSRK26 (KX801960) H. X. B

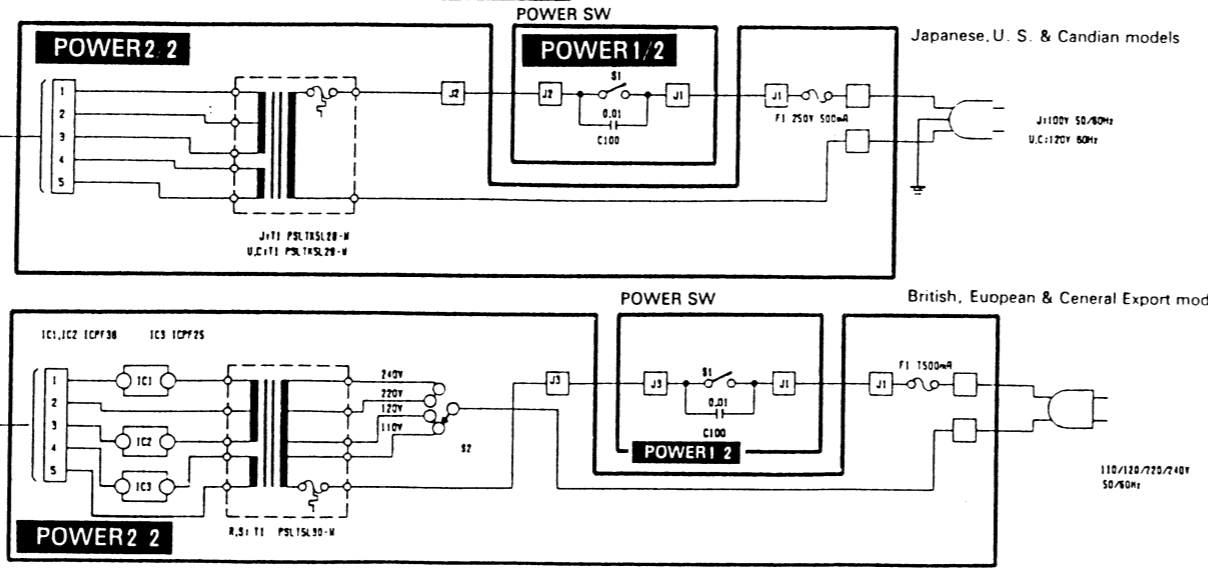
- Notes)
- * Circuit Board: MAIN PSXPK436 (NX807710)
 - 1. IC: IC1701, 2101, 2301, 2501: NJM2043LE (IX804530) OP AMP.
 - IC1702, 2102, 2302, 2502, 2503, 2504: NJM4558LD (IX804550) OP AMP.
 - IC1704, 1801: NJM4556L (IX804540) OP AMP.
 - IC1901: LA6515 (IX804470) P AMP.
 - 2. Transistor: Q1: 2SD2012 (IX803230)
 - Q2: 2SB1375 (IX804430)
 - Q1701, 1801: 2SD1915T-TA (IX802050)
 - 3. Digital Transistor: Q3, 5: DTC114YSTP (IX607660)
 - Q4: DTA114TSTP (IX804450)
 - Q6: DTA114YSTP (IX804460)

- 4. Diode: D1~4, 9~12: RL1N4003-N02 (IX802730)
- D13: ISS178TA (IX804410)
- D14~18: SVD1SS119-04T (XX808790)
- 5. Zener Diode: D5~8: HZS7C2TD (IX804580)
- D1701, 1702, 1703, 1704, 1801, 1802, 1803, 1804: HZS15-2TD (IX802780)
- 6. Jack: JK1701, 1702, 1801, 1802, 2101, 2201, 2301, 2401: PSJJK56 (LX802040) SUB OUT.
- 7. Relay: RLY1: PSSYK12 (KX801970)



01-04-09-017 RL1N4003
 05-04 1551 W RA4075

- 1500, 1600, 1607, 1608, 1609, EVJY80F20A14 A10Kx2 (HX805030) AUX (Ch. 15, 16), HP
- VR1901, 2501, 2502, 2503, 2504: EVJY80F20A24 A20Kx2 (HX805040) AUX RTN
- 5. Slide Pot. VR905, 1005, 1105, 1205, 1305, 1405, 1701, 1801: EWAPFDC15A14 A10K (HX805110) Fader
- VR1505, 1605: EWAPAMC15A14 A10Kx2 (HX805100) Fader (Ch. 15, 16)
- 6. PAD Switch S901, 1001, 1101, 1201, 1301, 1401, 1501, 1601: ESB6440 (KX801950) PAD
- 7. Switch S2042, 2062: ESB6439 (KX801940) AUX Sel.



MV1602

10)
 P AMP.
 P AMP.
 AMP.

- 4. Diode
 D1 ~ 4, 9 ~ 12: RL1N4003-N02 (IX802730)
 D13: ISS178TA (IX804410)
 D14 ~ 18: SVD1SS119-04T (XX808790)
- 5. Zener Diode
 D5 ~ 8: HZS7C2TD (IX804580)
 D1701, 1702, 1703, 1704, 1801, 1802, 1803, 1804: HZS15-2TD (IX802780)
- 6. Jack
 JK1701, 1702, 1801, 1802, 2101, 2201, 2301, 2401: PSJJK56 (LX802040) SUB OUT, STEREO OUT
- 7. Relay
 RLY1: PSSYK12 (KX801970)
- 8. Slide Switch
 S2601, 2602: PSSSK28 (KX802100) AUX RETURN - 20dB + 4dB

MV1602