

# EMX860<sup>ST</sup>

POWERED MIXER

## SERVICE MANUAL



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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 :** This 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 principal-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.

### LITHIUM BATTERY HANDLING

This product uses a lithium battery for memory back-up.

**WARNING :** Lithium batteries are dangerous because they can be exploded by improper handling. Observe the following precautions when handling or replacing lithium batteries.

- Leave lithium battery replacement to qualified service personnel.
- Always replace with batteries of the same type.
- When installing on the PC board by soldering, solder using the connection terminals provided on the battery cells.
- Never solder directly to the cells. Perform the soldering as quickly as possible.
- Never reverse the battery polarities when installing.
- Do not short the batteries.
- Do not attempt to recharge these batteries.
- Do not disassemble the batteries.
- Never heat batteries or throw them into fire.

#### ADVARSEL!

Lithiumbatteri-Eksplosionsfare ved fejlagtig handling. Udskiftning ma kun ske med batteri af samme fabrikat og type. lever det brugte batteri tilbage til leverandren.

#### VAROITUS

Explosionsfara vid felaktigt batteribyte.

Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparatillverkaren.

Kassera anvant batteri enligt fabrikantens instruktion.

#### VAROITUS

Paristo voi rajahtaa, jos se on virheellisesti asennettu.

Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.

Havita kaytetty paristo valmistajan ohjeiden mukaisesti.

The following information complies with Dutch official Gazette 1995. 45; ESSENTIALS OF ORDER ON THE COLLECTION OF BATTERIES.

- Please refer to the disassembly procedure for the removal of Back-up Battery.
- Leest u voor het verwijderen van de backup batterij deze beschrijving.

### WARNING: CHEMICAL CONTENT NOTICE!


The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (Where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

**DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHATSOEVER EVER!**

Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

## WARNING

Components having special characteristics are marked  and must be replaced with parts having specification equal to those originally installed.

## SPECIFICATIONS

### ● General specifications

Maximum output power	MAIN STEREO: 135 W+135 W/8Ω @0.5% THD at 1 kHz, 200 W+200 W/4Ω @0.5% THD at 1 kHz MAIN BRIDGE: 400 W/8Ω @0.5% THD at 1 kHz MONITOR: 135 W/8Ω @0.5% THD at 1 kHz, 200 W/4Ω @0.5% THD at 1 kHz	
Frequency response	20 Hz–20 kHz +1 dB, –3 dB @1 W output into 8Ω (POWER AMP OUT) 20 Hz–20 kHz +1 dB, –3 dB @+4 dB output into 10 kΩ (MAIN OUT, MONITOR OUT, EFFECT OUT)	
Total harmonic distortion	Less than 0.5% @20 Hz–20 kHz, 100 W output into 4Ω (POWER AMP OUT) Less than 0.3% @20 Hz–20 kHz, +14 dB output into 10 kΩ (MAIN OUT, MONITOR OUT, EFFECT OUT)	
Hum & noise (Average, Rs=150Ω) (with 20 Hz–20 kHz BPF)	–125 dB equivalent input noise, –68 dB residual output noise (POWER AMP OUT)	
	–95 dB residual output noise (MAIN OUT, MONITOR OUT, EFFECT OUT)	
	–80 dB (MAIN OUT)	Master level control: nominal level, All channel level controls: minimum
	–75 dB (MONITOR OUT)	Master level control: nominal level, All channel level controls: minimum
	–71 dB (MAIN OUT)	Master level control: nominal level, 1 channel level control: nominal level
	–84 dB (EFFECT OUT)	Master level control: nominal level, All channel level controls: minimum
Maximum voltage gain (PAD: OFF)	86 dB CH IN (Lo-Z) to POWER AMP OUT (CH1–6)	
	66 dB CH IN (Lo-Z) to MAIN OUT, MONITOR OUT (CH1–6)	
	72 dB CH IN (Lo-Z) to EFFECT OUT (CH1–6)	
	48 dB CH IN (Lo-Z) to REC OUT (CH1–6)	
	56 dB CH IN (Hi-Z) to MAIN OUT, MONITOR OUT (CH1–6)	
	26 dB AUX IN to MAIN OUT	
Crosstalk at 1 kHz	24 dB TAPE IN to MAIN OUT	
	66 dB MIC IN to MAIN OUT (CH7–8)	
	26 dB LINE IN to MAIN OUT (CH7–8)	
	–65 dB adjacent input, –65 dB input to output	
Input channel equalization	±15 dB Maximum	
	HIGH	10 kHz shelving
	MID	2.5 kHz peaking
	LOW	100 Hz shelving
	* Turn over/roll-off frequency of shelving: 3 dB below maximum variable level.	
Meters	5 POINTS LED METER (MAIN OUT L/R, MONITOR OUT)	
Graphic equalizer	7 bands (125, 250, 500, 1k, 2k, 4k, 8k Hz) ±12 dB Maximum (MAIN OUT, MONITOR OUT)	
Internal digital effect	3 types (Vocal, L Hall, S Hall)	
Phantom power	+48 V is supplied to electrically balanced inputs for powering condenser microphones via 6.8 kΩ current limiting/isolation resistors.	
Limiter	Comp. : THD ≥ 0.5% (MAIN, MONITOR)	
LIMIT indicators	Turns on. : THD ≥ 0.5% (MAIN, MONITOR)	
Foot switch	DIGITAL EFFECT MUTE : on/off	
Optional accessories	FC5 Foot switch	
Power requirement	USA and Canada	120 V AC 60 Hz
	Europe	230 V AC 50 Hz
	Other	240 V AC 50 Hz
Power consumption	300 W	
Dimensions (WxHxD)	497x324x275 mm	
Weight	17 kg	

### ● Input specifications

Input connectors	PAD	Actual load impedance	Nominal impedance	Input level			Connector type
				Sensitivity*1	Nominal level	Max. before clipping	
CH INPUT (Lo-Z) (CH1–6)	OFF	3 kΩ	50–600Ω Mics	–62 dB (616 μV)	–50 dB (2.45 mV)	–20 dB (77.5 mV)	XLR-3-31 type
	ON			–32 dB (19.5 mV)	–20 dB (77.5 mV)	+10 dB (2.45 V)	
CH INPUT (Hi-Z) (CH1–6)	OFF	10 kΩ	50–600Ω Mics	–52 dB (1.95 mV)	–40 dB (7.75 mV)	–10 dB (245 mV)	Phone jack (TRS)*2
	ON			–22 dB (61.6 mV)	–10 dB (245 mV)	+20 dB (7.75 V)	
MIC INPUT (CH7, 8)		3 kΩ	50–600Ω Mics	–62 dB (616 μV)	–50 dB (2.45 mV)	–20 dB (77.5 mV)	XLR-3-31 type*2
LINE INPUT (CH7, 8) (L, R)		10 kΩ	600Ω Line	–22 dB (61.6 mV)	–10 dB (245 mV)	+20 dB (7.75 V)	Phone jack
TAPE IN (L, R)		10 kΩ	600Ω Line	–22 dBV (79.4 mV)	–10 dBV (316 mV)	+17.8 dBV (7 V)	Phono jack
AUX IN (L, R)		10 kΩ	600Ω Line	–22 dB (61.6 mV)	–10 dB (245 mV)	+20 dB (7.75 V)	Phone jack*3

\*1. Sensitivity is the lowest level that can produce an output of +4 db (1.23 V) or the nominal output level when the unit is set at maximum gain.

\*2. Balanced.

\*3. Unbalanced.

• 0 dB=0.775 Vrms, 0 dBV=1 Vrms.

### ● Output specifications

Output connectors	Actual source impedance	Nominal impedance	Output level		Connector type
			Nominal	Max. before clipping	
MAIN AMP OUT (L, R) (A, B)	0.1Ω	4/8Ω Speaker	37.7 W/4Ω	(200 W/4Ω)	Phone jack
MAIN BTL OUT	0.1Ω	8Ω Speaker	75.4 W/8Ω	(400 W/8Ω)	Phone jack
MONITOR AMP OUT (A, B)	0.1Ω	8Ω Speaker	37.7 W/4Ω	(200 W/4Ω)	Phone jack
MAIN OUT (L, R)	600Ω	10 kΩ Lines	+4 dB (1.23 V)	+20 dB (7.75 V)	Phone jack
MONITOR OUT	600Ω	10 kΩ Lines	+4 dB (1.23 V)	+20 dB (7.75 V)	Phone jack
EFFECT OUT	600Ω	10 kΩ Lines	+4 dB (1.23 V)	+20 dB (7.75 V)	Phone jack
REC OUT (1, 2)	600Ω	10 kΩ Lines	–10 dBV (316 mV)	+10 dBV (3.16 V)	Phono jack

• All output jacks are unbalanced.

• 0 dB=0.775 Vrms, 0 dBV=1 Vrms.

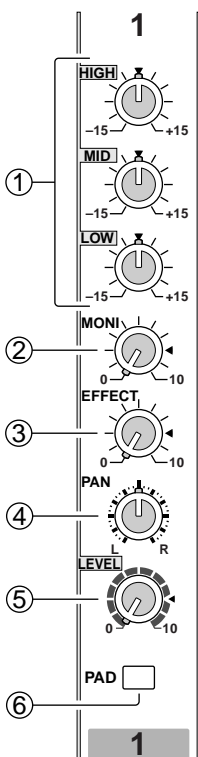
Specifications are subject to change without prior notice.





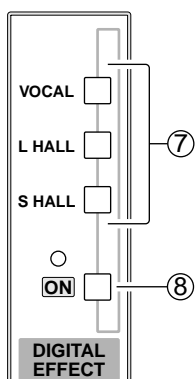
# ■ PANEL LAYOUT

## • Channel section



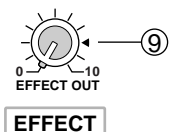
- ① Equalizer controls (HIGH, MID, LOW)
- ② Monitor controls (MONI)
- ③ Effect control (EFFECT)
- ④ PAN control (BAL/PAN control for CH7/8)
- ⑤ Level control (LEVEL)
- ⑥ Pad switch (PAD) (1-6 only)

## • DIGITAL EFFECT section



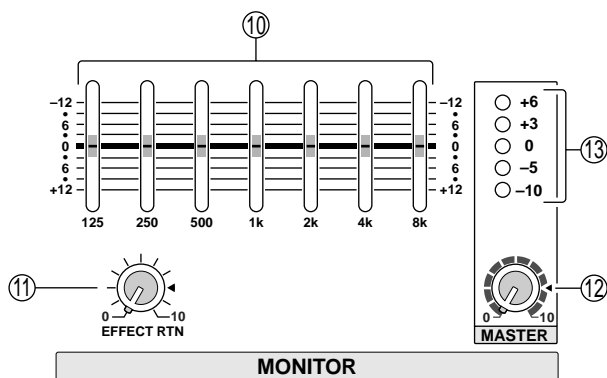
- ⑦ Effect select switch
- ⑧ DIGITAL EFFECT ON switch

## • EFFECT section



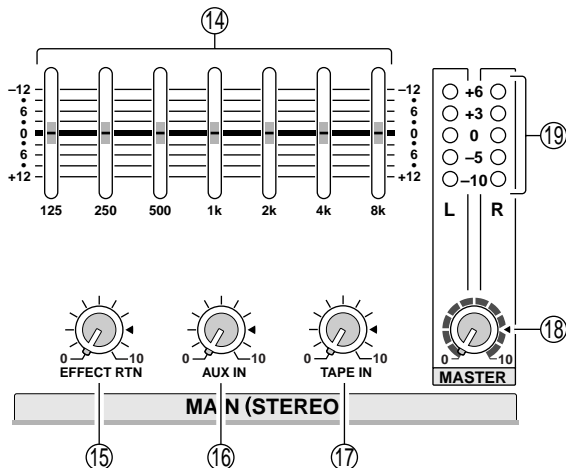
- ⑨ EFFECT OUT control

• MONITOR section



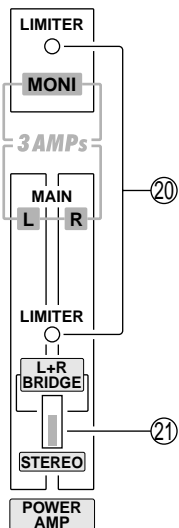
- ⑩ Graphic equalizer
- ⑪ EFFECT RTN control
- ⑫ MASTER control
- ⑬ Peak level indicator

• MAIN section



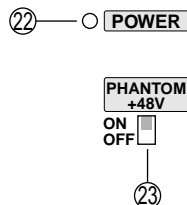
- ⑭ Graphic equalizer
- ⑮ EFFECT RTN control
- ⑯ AUX IN control
- ⑰ TAPE IN
- ⑱ MASTER control
- ⑲ Peak level indicator

• POWER AMP section



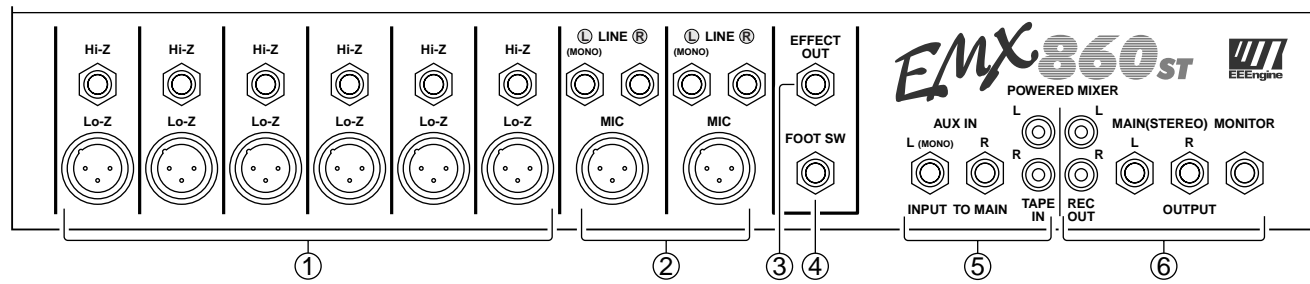
- ⑳ LIMITER indicator
- ㉑ Stereo/Bridge select switch

• POWER indicator & PHANTOM switch



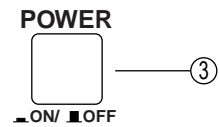
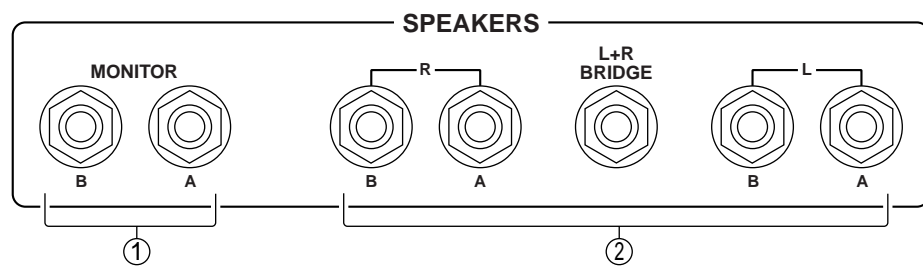
- ㉒ POWER indicator
- ㉓ PHANTOM +48 V switch

• Input/output panel



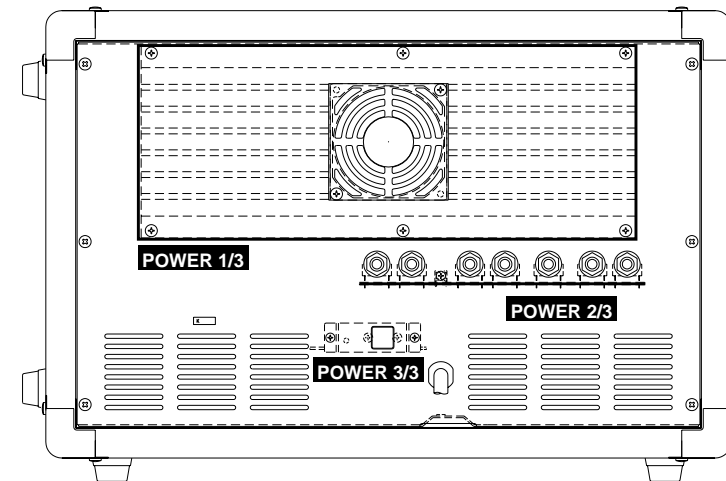
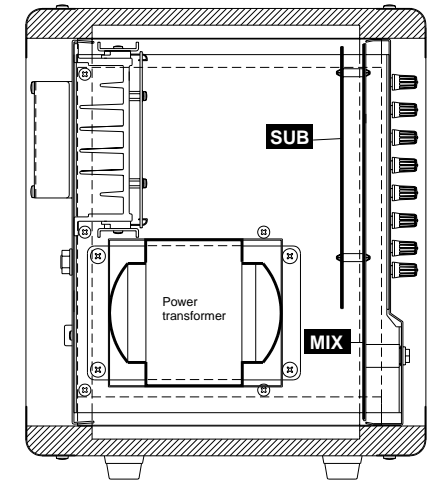
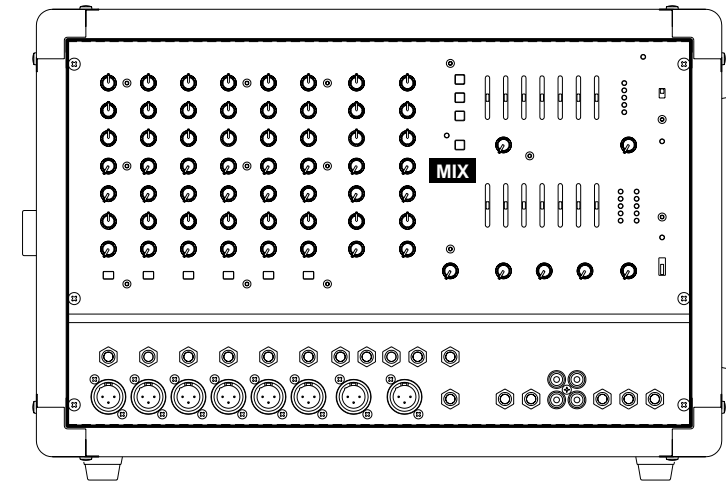
- ① Channel input jacks (Hi-Z, Lo-Z) 1-6
- ② Channel input jacks (MIC/LINE) 7-8
- ③ Effect output jack (EFFECT OUT)
- ④ Foot switch jack (FOOT SW)
- ⑤ AUX IN/TAPE IN jacks
- ⑥ REC OUT/MONITOR/MAIN (STEREO) jacks

• Rear panel

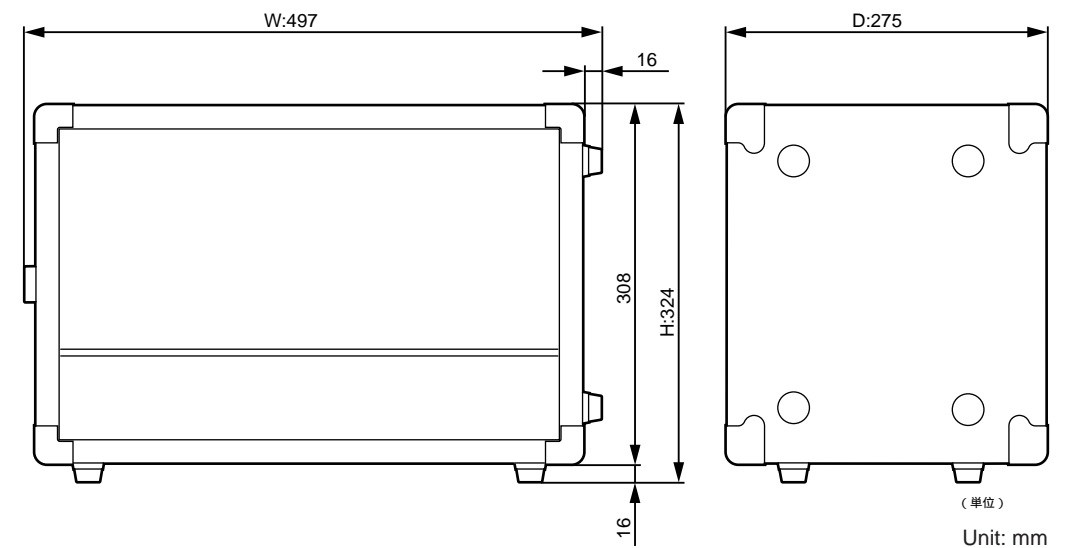


- ① SPEAKERS MONITOR jacks
- ② SPEAKERS L/R/L+R BRIDGE jacks
- ③ Power switch

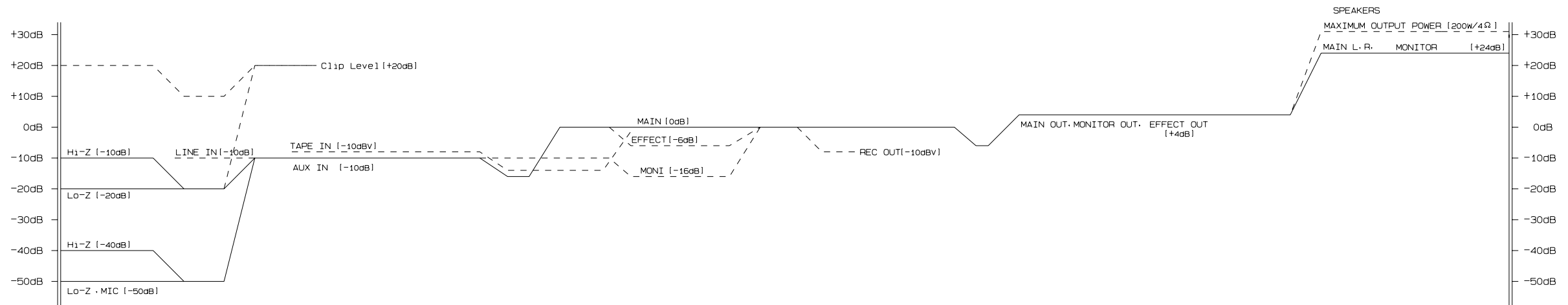
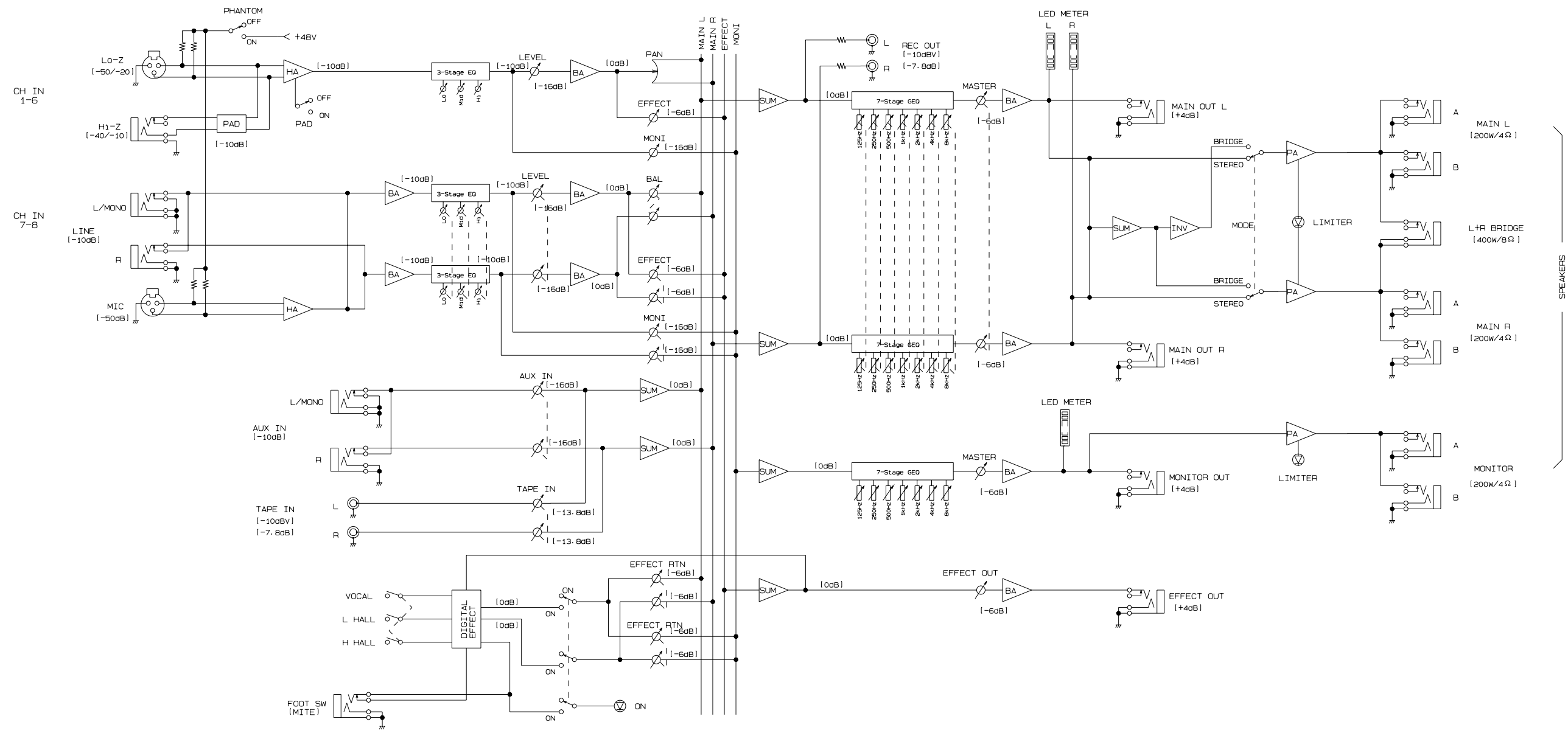
■ CIRCUIT BOARD LAYOUT



■ DIMENSIONS



# BLOCK & LEVEL DIAGRAM



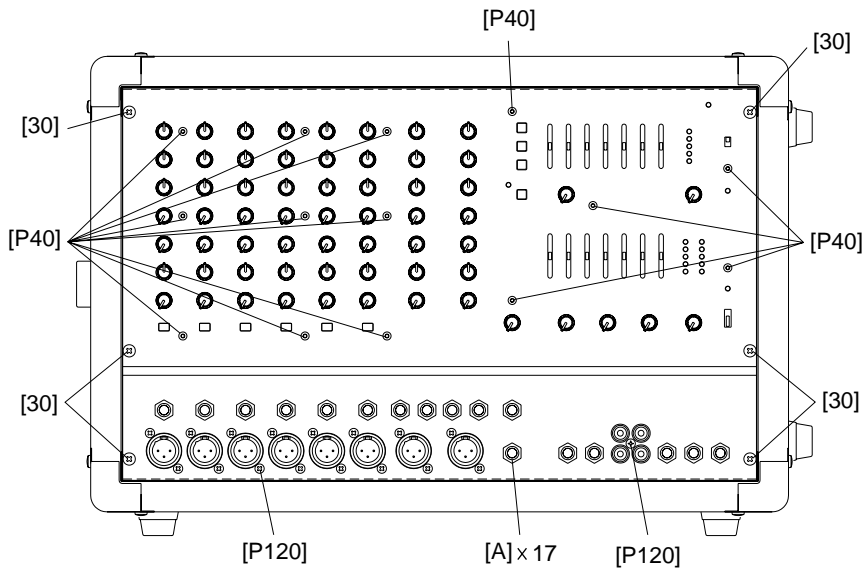
## ■ DISASSEMBLY PROCEDURE

### 1. MIX Circuit Board

- 1-1 Remove the six (6) screws marked [30]. The panel assembly can then be removed. (Fig. 1)
- 1-2 Remove the sixty-three (63) knobs, the seventeen (17) hexagonal nuts marked [A] and the seventeen (17) screws marked [P120]. (Fig. 1)
- 1-3 Remove the fourteen (14) screws marked [P40]. The MIX circuit board can then be removed. (Fig. 1)

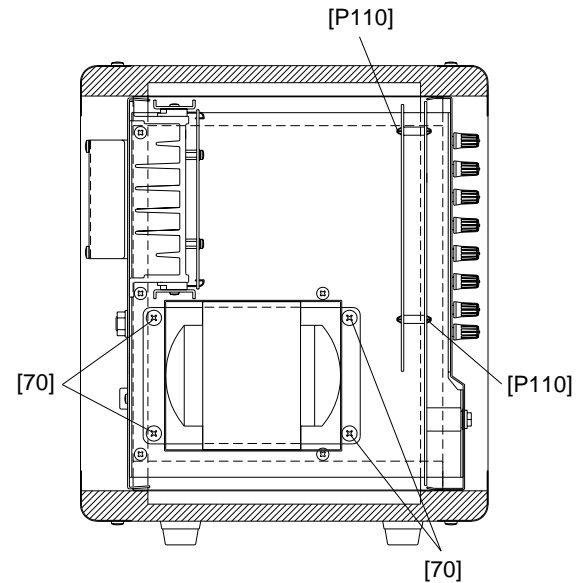
### 2. SUB Circuit Board

- 2-1 Remove the panel assembly. (See Procedure 1.)
- 2-2 Remove the SUB circuit board from the spacer port marked [P110]. (Fig. 2)



- [30]: Bonding B-Tyte Screw 4.0X8 MFZN2BL (VR779900)
- [P40]: Hexagonal Socket Screw-P 3X25 MFZNBL (V3289800)
- [P120]: Bonding Tapping Screw-P 3.0X8 MFZN2BL (VN413300)

Fig.1



- [70]: Bind Head Screw SP 5.0X10 MFZN2BL (VU688100)

Fig.2

**3. PWR 1/3, 2/3, 3/3 Circuit Boards**

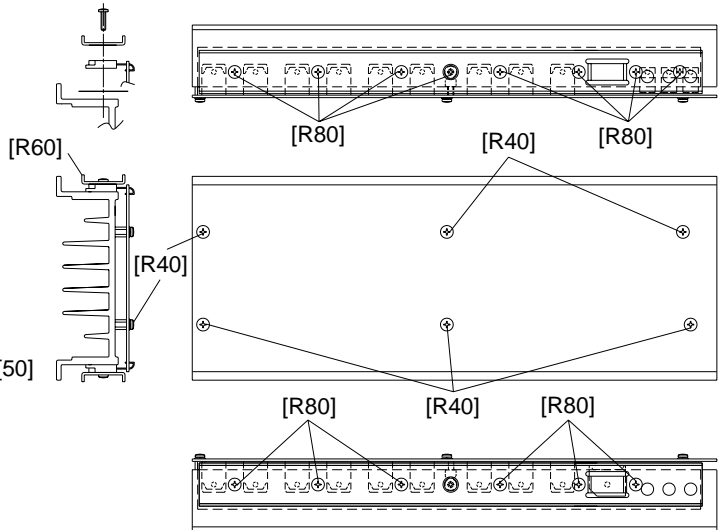
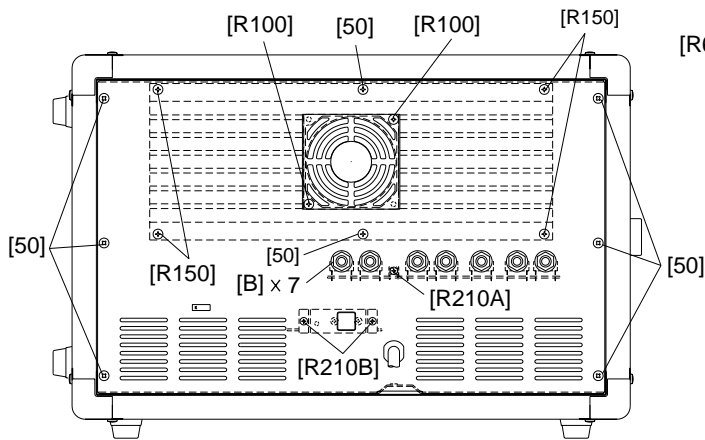
- 3-1 Remove the panel assembly. (See Procedure 1.)
- 3-2 Remove the two (2) connectors from the power transformer and the six (6) screws marked [50]. The rear assembly can then be removed. (Fig. 3)
- 3-3 Remove the six (6) screws marked [R150]. The radiating plate with the PWR 1/3 circuit board can then be removed. (Fig. 3)  
Remove the fourteen (14) screws marked [R80], the six (6) screws marked [R40] and the TR holder marked [R60]. The PWR 1/3 circuit board can then be removed. (Fig. 4)
- 3-4 Remove the seven (7) hexagonal nuts marked [B] and the screw marked [R210A]. The PWR 2/3 circuit board can then be removed.
- 3-5 Remove two (2) screws marked [R210B]. The PWR 3/3 circuit board can then be removed. (Fig. 3)

**4. Motor fan**

- 4-1 Remove the panel assembly. (See Procedure 1-1.)
- 4-2 Remove the rear assembly. (See Procedure 3-2.)
- 4-3 Remove the PWS 1/3 circuit board. (See Procedure 3-3.)
- 4-4 Remove the two (2) screws marked [R100]. The motor fan can then be removed.

**5. Power transformer**

- 5-1 Remove the panel assembly. (See Procedure 1-1.)
- 5-2 Remove the rear assembly. (See Procedure 3-2.)
- 5-3 Remove the four (4) screws marked [70]. The power transformer can then be removed. (Fig. 2)



- [50]: Bonding B-Tyte Screw 4.0X8 MFZN2BL (VR779900)
- [R100]: Bind Head Screw 3.0X30 ZMC2BL (VT520200)
- [R150]: Bind Head Tapping Screw-B 4.0X8 MFZN2BL (EG340190)
- [R210]: Bonding Tapping Screw-B 3.0X8 MFZN2BL (VN413300)

- [R40]: Bind Head Screw SP 3.0X8 MFZN2Y (EG330290)
- [R80]: Bind Head Tapping Screw-B 3.0X12 MFZN2BL (VQ074600)

Fig.3

Fig.4

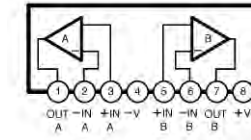
## LSI PIN DISCRPTION

### YSS234 (XN299A00) Digital Sound Processor

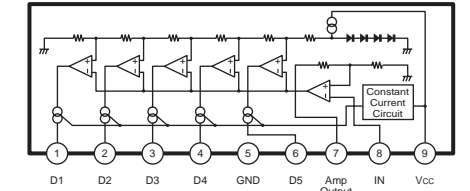
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	MD4	I/O	External RAM interface data	33	AVDD	-	DC A+5Vs bus
2	MD3	I/O		34	VDD	-	DC D+5V
3	MD0	I/O		35	TST0	-	DC D+5V
4	MD1	I/O		36	TST1	-	DC D+5V
5	MD2	I/O		37	DOEN	-	DC D+5V
6	MCKO	O	Master clock output	38	SDO1	O	N.C.
7	XO	O	Crystal oscillator connection	39	SDO0	O	N.C.
8	XI	I	Crystal oscillator connection	40	WC	O	N.C.
9	ER0	I	Eary refrection preset select	41	BCO	O	N.C.
10	ER1	I		42	MA0	O	External RAM interface address
11	ER2	I		43	MA1	O	
12	REV0	I	44	MA2	O		
13	REV1	I	45	MA3	O		
14	REV2	I	46	MA4	O		
15	MUTEN	I	DC D+5V	47	MA5	O	
16	ICN	I	Initial clear	48	MA6	O	
17	PRG	I	DC D+5V	49	MA7	O	
18	MODE	I	Preset mode (H=DC +5V)	50	MA12	O	
19	VSS	-	Ground	51	MA14	O	
20	AVSS	-	Ground	52	VSS	-	Ground
21	CVA	-	N.C.	53	MA10	O	External RAM bus interface address
22	AORL	O	N.C.	54	MA011	O	
23	AORR	O	N.C.	55	MA09	O	
24	CHL	I	Sample hold capacitor connection	56	MA8	O	DC D+5V
25	AIL	I	Lch ADC input	57	MA13	O	
26	VDD	-	DC D+5V	58	VDD	-	
27	AIR	I	Rch ADC input	59	WEN	I	Write enable
28	CHR	I	Sample hold capacitor connection	60	OEN	I	Output enable
29	AOFL	O	Lch DAC output	61	CEN	I	Chip select
30	AOFR	O	Rch DAC output	62	MD7	I/O	External RAM interface data
31	AVDD	-	DC A+5V	63	MD6	I/O	
32	CVB	I	Rch midpoint voltage	64	MD5	I/O	

## IC BLOCK DIAGRAM

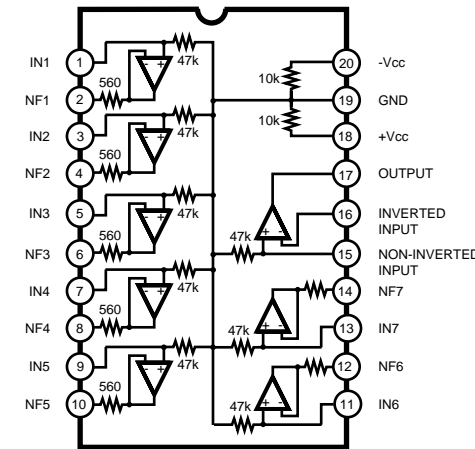
- **NJM2068L-D** (XM356A00)  
**NJM4558L** (XM922A00)  
Dual Operational Amplifier



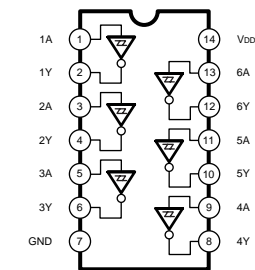
- **BA6137** (XA534A00)  
LED Driver



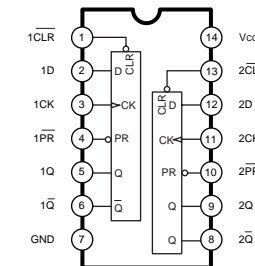
- **M5229P** (XG203A00)  
7 SEGMENTS GRAPHIC EQUALIZER



- **TC74HC14AP** (IR001400)  
Hex Inverter



- **TC74HC74AP** (IR007400)  
Dual D-Type Flip-Flop



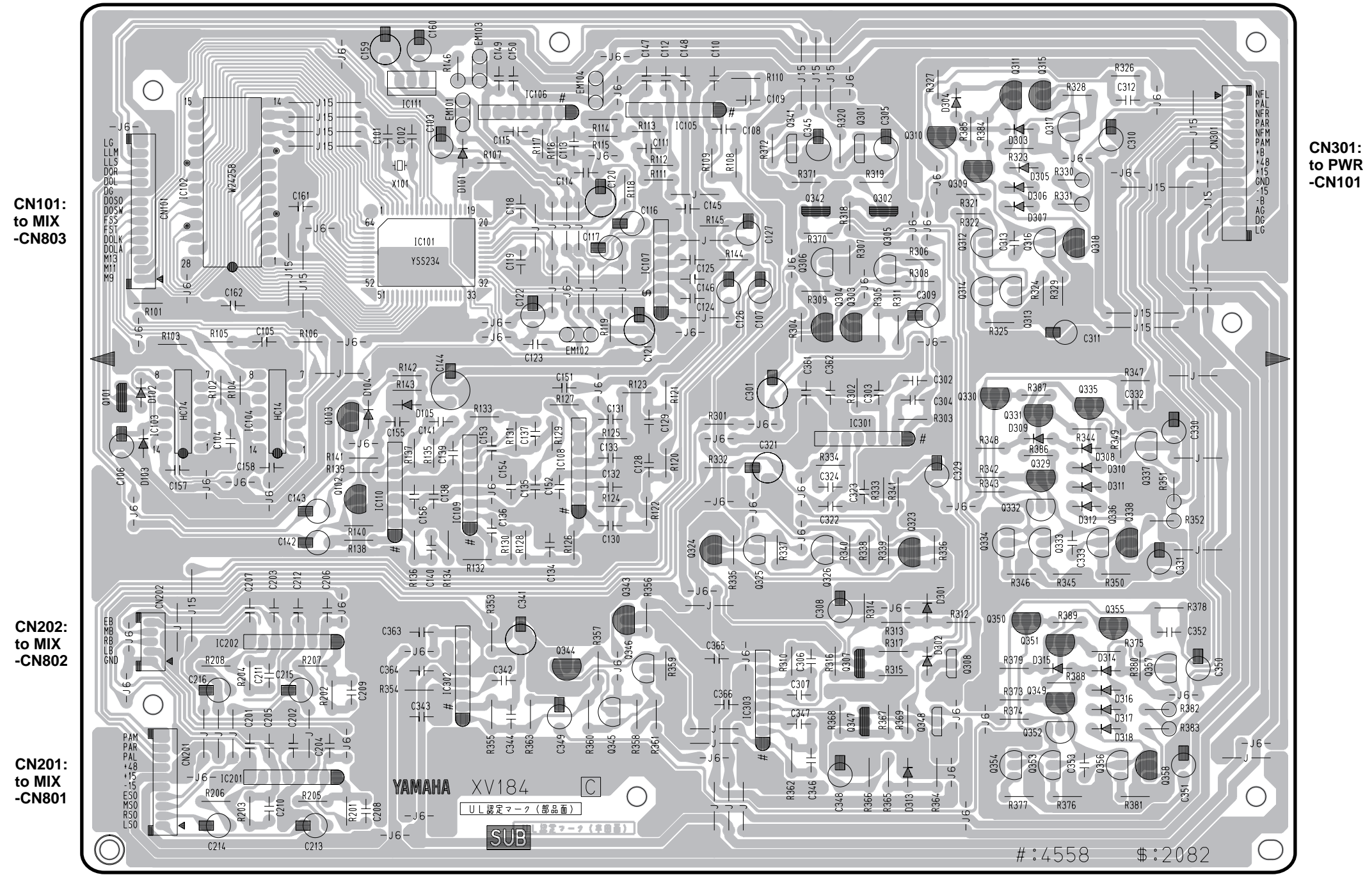
INPUTS			OUTPUTS	
PR	CLR	CK	D	Q
L	H	X	X	H
H	L	X	X	L
L	L	X	X	H
H	H	t	H	H
H	H	t	L	L
H	H	L	X	Q <sub>0</sub>







• SUB Circuit Board



CN101:  
to MIX  
-CN803

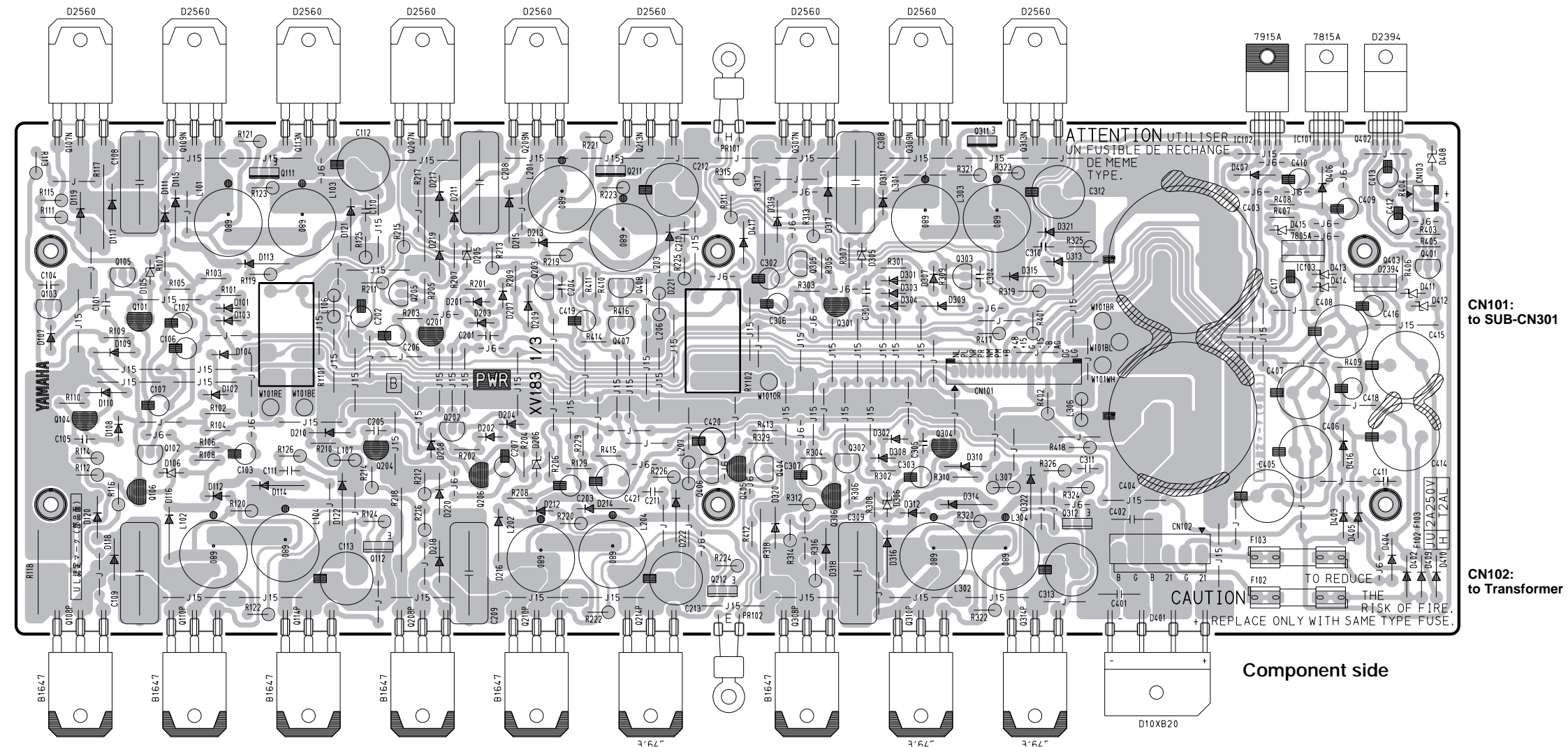
CN202:  
to MIX  
-CN802

CN201:  
to MIX  
-CN801

CN301:  
to PWR  
-CN101

Component side

• PWR 1/3 Circuit Board

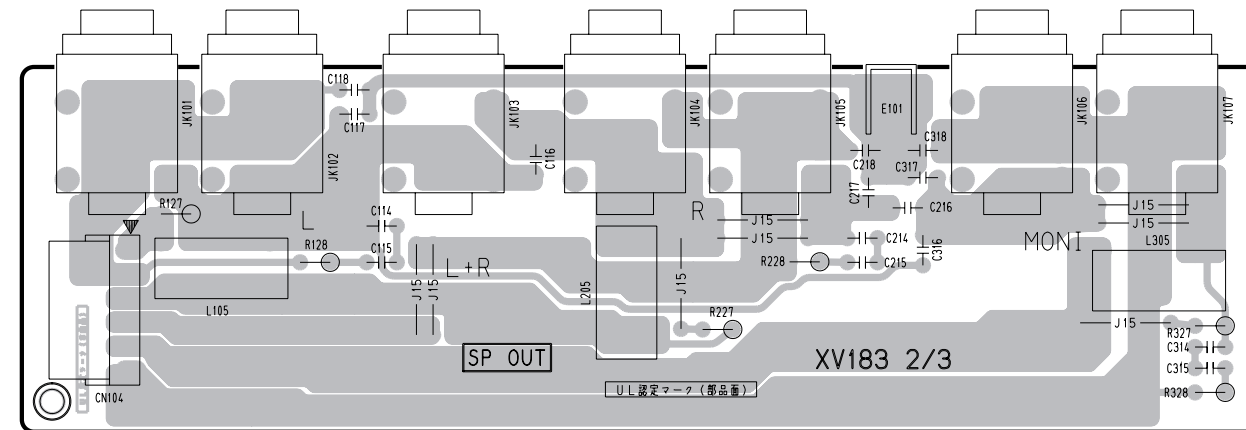


CN101:  
to SUB-CN301

CN102:  
to Transformer

Component side

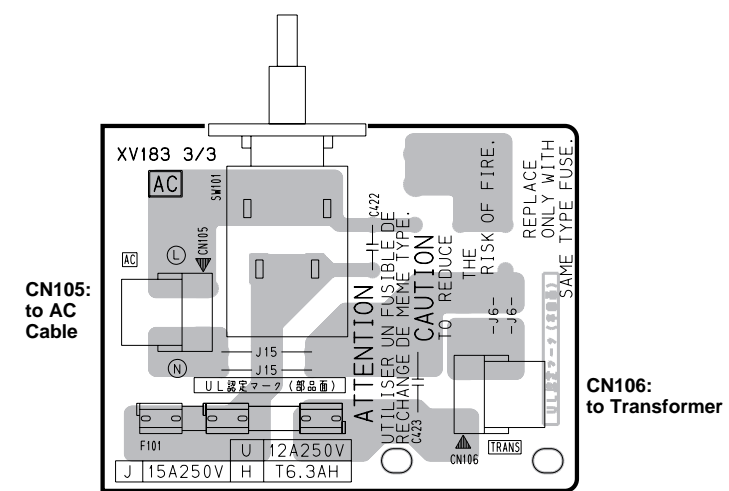
• PWR 2/3 Circuit Board



CN104 : to PWR 1/3  
-W101RE-1  
-W101BL-2  
-W101BE-3  
-W101WH-4  
-W101OR-5  
-W101BR-6

Component side

• PWR 3/3 Circuit Board



CN105:  
to AC  
Cable

CN106:  
to Transformer

Component side

# INSPECTIONS

## 1. Measuring Instruments

Low Frequency Oscillator:	Balance Output, Output Impedance = 150 ohms
Oscilloscope:	Input Impedance $\geq$ 100 kohms
Level Meter:	Input Impedance $\geq$ 100 kohms

Note: Use a balance input measuring instrument

## 2. Mixer Part

### 2-1 Setting Conditions

Setting conditions are as follows unless otherwise specified.

### 2-2 Input and Output Load

Input Signal:	1 kHz, sine wave ( $R_s = 150$ ohms)
Load:	All output terminals have a 10 k ohms load

### 2-3 Control Panel Setting

#### Channel Input (CH1-CH6) Section

EQ (HIGH, MID, LOW) level controls:	Center
MONITOR level control:	Maximum
EFFECT level control:	Maximum
PAN:	Center
LEVEL:	Maximum
PAD:	OFF

#### Stereo Channel Input (CH7-CH8) Section

EQ (HIGH, MID, LOW) level controls:	Center
MONITOR level control:	Maximum
EFFECT level control:	Maximum
PAN:	Center
LEVEL:	Maximum

#### EFFECT Section

DIGITAL EFFECT ON switch	OFF
EFFECT OUT level control	Maximum

#### MAIN Section

GRAPHIC EQUALIZER (7 band) Fader:	Center
EFFECT RTN level control:	Maximum
AUX IN:	Maximum
TAPE IN:	Maximum
MASTER (MAIN):	Maximum

#### MONITOR Section

GRAPHIC EQUALIZER (7 band) Fader:	Center
EFFECT RTN level control:	Maximum
MASTER (MAIN) level control:	Maximum

#### Others

PHANTOM +48V switch	OFF
POWER AMP switch	STEREO

## 2-4 Gain

Each output gain should be as shown in the table below.

Table 1: INPUT CH 1-CH 6

[Units: dBs]

Input Terminal	Input Level	MAIN OUT (L, R)	MONITOR OUT	EFFECT OUT	REC OUT (L, R)
Lo-Z	-62	$+1 \begin{smallmatrix} +2.5 \\ -2.0 \end{smallmatrix}$	$+4 \pm 2$	$+10 \begin{smallmatrix} +2.5 \\ -2.0 \end{smallmatrix}$	$-16.8 \begin{smallmatrix} +2.5 \\ -2.0 \end{smallmatrix}$
	-32 (PAD ON)				
Hi-Z	-52	$+1 \begin{smallmatrix} +2.5 \\ -2.0 \end{smallmatrix}$	-	-	-

Note: When the POWER AMP MODE switch is set to the BRIDGE side, confirm the gain

Table 2: INPUT CH7-CH8

[Units: dBs]

Input Terminal	Input Level	MAIN OUT	MONITOR OUT	EFFECT OUT
MIC	-62	$+1 \begin{smallmatrix} +2.5 \\ -2.0 \end{smallmatrix}$	$+7 \pm 2$	$+13 \begin{smallmatrix} +2.5 \\ -2.0 \end{smallmatrix}$
LINE L	-22	$+1 \begin{smallmatrix} +2.5 \\ -2.0 \end{smallmatrix}$	$+7 \pm 2$	$+13 \begin{smallmatrix} +2.5 \\ -2.0 \end{smallmatrix}$
LINE R	-22	$+1 \begin{smallmatrix} +2.5 \\ -2.0 \end{smallmatrix}$	$+1 \pm 2$	$+7 \begin{smallmatrix} +2.5 \\ -2.0 \end{smallmatrix}$

Table 3: AUX IN and TAPE IN

[Units: dBs]

Input Terminal	Input Level	MAIN OUTPUT
AUX IN	-22	$+4 \pm 2$
TAPE IN	-22	$+1.8 \pm 2$

## 2-5 Frequency Response

When the input signal frequency is set to 20 Hz and 20 kHz for the systems shown in Tables 1, 2 and 3, the each output terminal should fall within the range of +1 and -3 dB at 20 Hz and 20 kHz, using 1 kHz as the reference.

## 2-6 Equalizer Characteristics

When the input signals shown below are applied to the channel input in the states of 2-3 and the channel EQ (HIGH,MID, LOW) level controls are changed from center position (flat), the boost/cut range at the MAIN OUT should be as follows:

Table 4

[Units: dB]

EQ Controls	GAIN	Frequency	Response
LOW	Maximum	100 Hz	$+12 \pm 2$
	Minimum		$+12 \pm 2$
MID	Maximum	2.5 kHz	$+12 \pm 2$
	Minimum		$+12 \pm 2$
HIGH	Maximum	10 kHz	$+12 \pm 2$
	Minimum		$+12 \pm 2$

If the result of the equalizer is out of the specified range, change the input signal frequency so that the output signal is at the set level. Its frequency should then be within the range of 80 - 120% of the standard frequency.

## 2-7 Graphic Equalizer Characteristics

When the input signals shown below are applied to the channel input in the states of 2-3 and graphic equalizer level controls are changed from center position (flat), the boost/cut range at the MAIN OUT and the MONITOR OUT should be as follows:

Table 5

[Units: dB]

		Input signal frequency and Fader name						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Response	Maximum	$+12 \pm 2$						
	Minimum	$-12 \pm 2$						

If the result of the graphic equalizer is out of the specified range, change the input signal frequency so that the output signal is at the set level. Its frequency should then be within the range of 80 - 120% of the standard frequency.

## 2-8 Meter LED

When the MAIN OUT and MONITOR OUT output levels are as shown in the table below, the corresponding METER LED lights up.

Table 6 [Units: dBs]

LED Name	Lighting Level
+6	+10 ± 2
+3	+7 ± 2
0	+4±2
-5	-1 ± 2
-10	-6 ± 2.5

## 2-9 Distortion

Set each volume control of the INPUT section and MASTER section to nominal for the systems shown in Tables 1, 2 and 3. When each output except the REC OUT level reaches +14 dBs, the distortion ratio should be less than 0.1 % from 20 Hz to 20 kHz.

## 2-10 Maximum Output Level

In the states of 2-9, the maximum output levels of MAIN OUT, MONITOR OUT and EFFECT OUT should be +20 dBs with a distortion of less than 1%.

## 2-11 Equivalent Input Noise

The measurement CH level volume is assumed to be at maximum, and the other CH level volumes are assumed to be at minimum in the states of 2-3.

When the Lo-z and MIC input terminals are connected with a 150 ohms resistor, the MAIN OUT terminal noise level should be less than -61 dBs. If the noise level does not reach -61 dBs due to a gain variance, the converted noise level (= noise level minus the actual gain of the channel) should be less than -124 dBs. (Apply a DIN-AUDIO filter.)

## 2-12 Residual Noise

Set all the input level controls at minimum in the states of 2-3. When the MASTER and EFFECT OUT level controls in the MAIN and MONITOR section are changed to maximum or minimum, the residual noise should be as shown in the table below. (Apply a DIN-AUDIO filter.)

Table 7 [Unit: dBs]

MASTER VOLUME	MAIN OUTPUT	MONITOR OUT	EFFECT OUT
Maximum	-73	-68	-77
Minimum	-94	-94	-94

## 2-13 Phantom Power (+48 V)

Connect a load resistance of 10 K ohm (more than 1W) between pins 1 and 2 of both the Lo-z IN and the MIC IN input terminals, then short between pins 2 and 3 of the Lo-z IN and the MIC IN input terminal.

When the PHANTOM switch is turned on, +35 ± 3 V should be obtained between the load resistance.

## 2-14 Digital Effect

When the DIGITAL EFFECT ON switch is turned on, the ON LED lights up. When the DIGITAL EFFECT ON switch is turned off, the ON LED light goes out.

When the DIGITAL EFFECT ON switch is turned on while inputting a sine wave of -60 dB to the CH1 Lo-z IN at a minimum MONITOR level control setting, the signal level of the MONITOR OUT will be more than -25 dBs. Even if the SELECT switch is changed to VOCAL, L HALL and S HALL, confirm that the output level is even.

Confirm that the output sound from the vocals music source has a digital effect, and confirm that the effect is able to be turned on and off by the FOOT SW.

## 2-15 Stability

When a capacitor of 10 FP to 0.1 F is connected in parallel to the loading resistor at each SPEAKER OUT terminal, or when all VR and EQ control volumes are set to MAX, there should be no abnormality; for example, there should be no oscillation. Especially, do not oscillate if the FREQ LEVEL is at maximum.

### 3. Power Amplifier Part

#### 3-1 Setting Conditions

Setting conditions are as follows unless otherwise specified.

Input Terminal:	INPUT CH 8 LINE L
POWER AMP switch:	STEREO
Measuring Output Terminal:	(SPEAKERS) L-A, R-A, MONITOR-A
Output Load:	4 ohm (more than 200 W)
	Connect the resistor when inspecting the power amplifier section
INPUT CH 1- CH 7	
MONITOR level control:	Minimum
EFFECT level control:	Minimum
LEVEL level control:	Minimum

Note: Other control settings are the same as the mixer part in section 2-3.

#### 3-2 Power ON Muting

The muting relay should be released 2.5 +/- 1 seconds after the power switch is turned on.

#### 3-3 Speaker Terminal DC Voltage

When input terminals are grounded, confirm that each output terminal voltage is 0 +/- 100 mV.

#### 3-4 Gain

When applying a 1 kHz -26.0 dBs sine wave to an INPUT terminal, confirm that the SPEAKERS L+R terminal output levels are +17.0  $\pm$ 2.5 dBs and the SPEAKERS MONITOR terminal output levels is +23.0 dB  $\pm$ 2.5 dBs. The SPEAKERS L-B, R-B and MONITOR B output terminals should also be measured.

#### 3-5 Frequency Response

Apply a 20 Hz, 1 kHz and 20 kHz = 26 dB sine wave signal separately to the input; the output level should be between -3 and +1 dB at 20 Hz and 20 kHz, when 1 kHz is set as the reference. (0 dB)

#### 3-6 Harmonic Distortion

Apply a 1 kHz sine wave signal to the input; the three output levels should be 200 W/4 ohms (31.2 dBs/ch); the distortion ratio should be less than 0.5 %.

Apply a sine wave signal of 20 Hz, 1 kHz and 20 kHz separately to the input; the three output level should be 100 W /4 ohms (28.2 dBs/ch); the distortion ratio should be less than 0.5 %.

Do this inspection within 30 seconds.

#### 3-7 Residual Noise

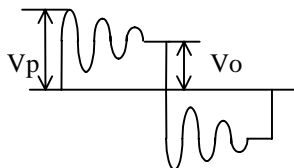
Set the MASTER level controls (MONITOR and MAIN) at minimum; the residual noise should be less than -68 dBs.

Notes: Apply a DIN-AUDIO filter.

#### 3-8 Stability

Apply a 10 kHz -26 dBs rectangular signal to the input and connect a capacitor (10 pF to 0.47 F) parallel to the 4 ohm load resistor, or connect an inductor (10 H to 0.47 H) serial to the 4 ohm load resistor. Confirm that the output signal is as illustrated below.

Overshoot:	$V_p/V_o \leq 1.8$
Ringing:	5 waves and less than 5 waves



Next, only connect a capacitor (10 pF to 0.47 $\mu$ F) to the SPEAKERS terminal as a load, and confirm that the output is as follows:

Overshoot:	$V_p/V_o \leq 2.5$
Ringing:	It should end within 7 waves; there is no oscillation.

### 3-9 Protection

Apply a 10 Hz sine wave signal to the input; increase the input signal so that the output signal is clipped. Confirm that the protection does not operate and that the speaker relay does not be open.

When applying a 1 Hz, 6 Vp-p (8.7 dBs) sine wave signal to the input, confirm that the protection operates within 2 seconds and that the speaker relay is turned off. When turning off the input signal, confirm that the protection stops the operation seconds and that the speaker relay automatically turns on within 5 seconds.

### 3-10 PC Limiter and Limiter

Apply a 1 kHz -20 dBs sine wave signal to the input and then connect a 1 ohm ( +/- 5% 100 W) resistor; confirm that the output signal is  $V_{p-p} \leq 20V$  and that the signal is not rectangular.

### 3-11 LIMITER Indicator

When applying a 1 kHz -10.8 dBs sine wave signal to the input, the LIMITER indicator should light up.

### 3-12 Efficiency

When adjusting for the output of L and R to become 10V (+2.2 dBs), confirm that the power consumption is 330 +/- 50W.

## 4. Main Bridge

### 4-1 Setting Conditions

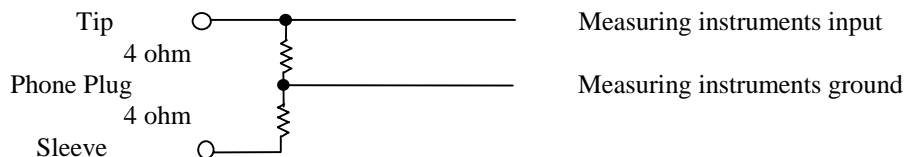
Input Terminal:	INPUT CH 8 LINE L
POWER AMP switch:	BRIDGE
Measuring Output Terminal:	SPEAKERS, L + R BRIDGE
Output Load:	8 ohm (more than 400 W)

INPUT CH 1- CH 7

MONITOR level control:	Minimum
EFFECT level control:	Minimum
LEVEL level control:	Minimum

Note: Other control settings are the same as the mixer part in section 2-3.

### 4-2 Connection



### 4-3 Gain

Apply a 1 kHz -26.0 dBs sine wave signal to the input; confirm that the output levels are +20.0 dBs  $\pm 2.5$  dB.

### 4-4 Frequency Response

Apply a sine wave signal to the input; the output level should be between -3 and +1 dB at 20 Hz and 20 kHz, when 1 kHz is set as the reference. (0 dB)

## 5. Power Supply Fluctuation

There should be no operational problems when the power supply fluctuation is within +/- 10% of the nominal voltage.













# EMX860<sup>ST</sup>

POWERED MIXER

# PARTS LIST

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### Notes : DESTINATION ABBREVIATIONS

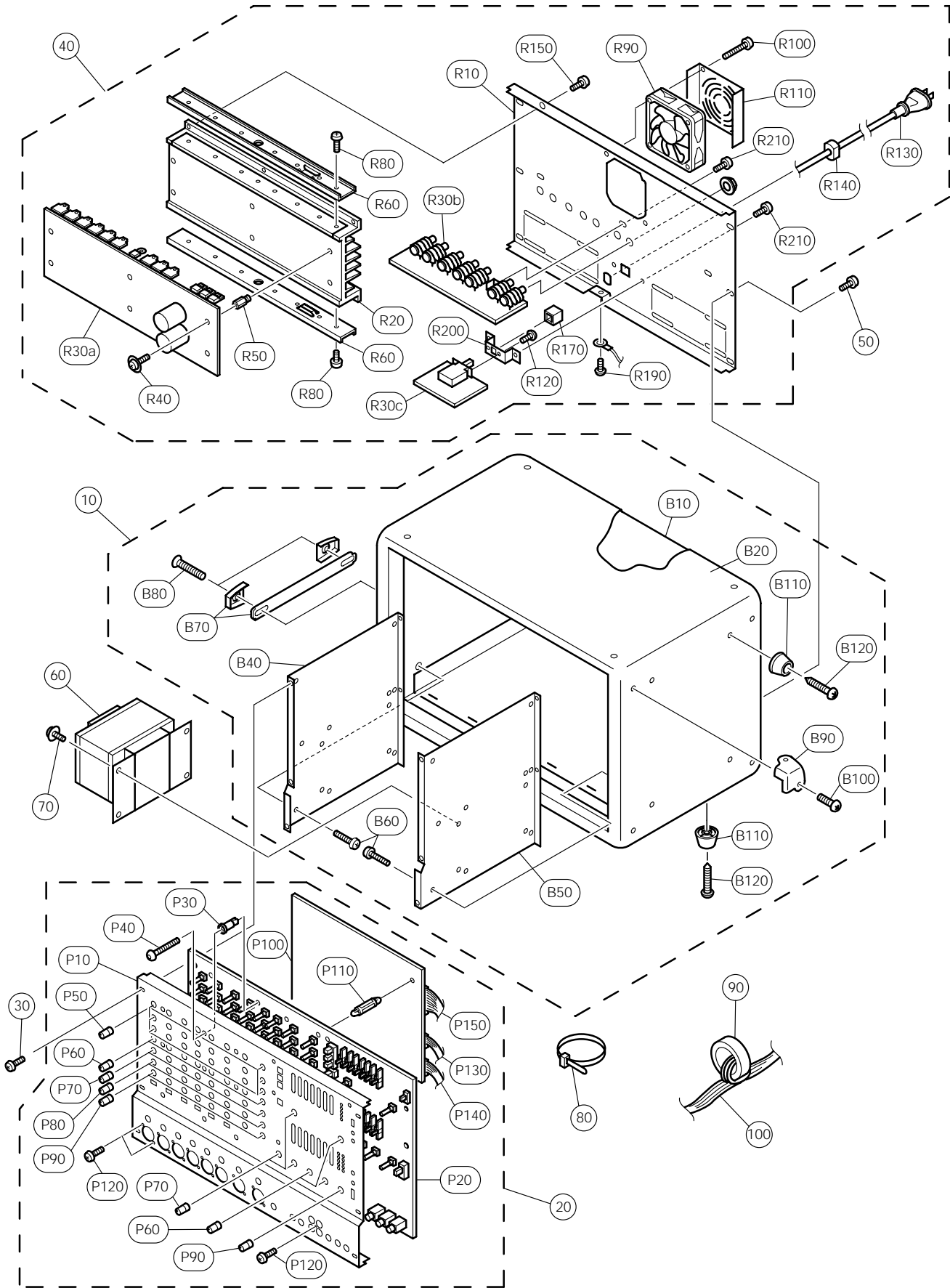
J : Japanese model	A : Australian model
U : U.S.A. model	E : European model
C : Canadian model	D : German model
X : General export model	B : British model
M : South African model	I : Indonesian model
H : North European model	O : Chinese model
V : General export model (110V)	H : General export model (220V)

### ■ WARNING

Components having special characteristics are marked  $\triangle$  and must be replaced with parts having specification equal to those originally installed.

- The numbers "QTY" show quantities for each unit.
- The parts with "--" in "PART NO." are not available as spare parts.
- This mark " } " in the REMARKS column means these parts are interchangeable.

# OVERALL ASSEMBLY



REF NO.	PART NO.	DESCRIPTION	REMARKS	QTY	RANK
	--	OVERALL ASSEMBLY	EMX860ST		
	--	Overall Assembly	J (V290650)		
	--	Overall Assembly	U,V (V290660)		
	--	Overall Assembly	H,W (V290670)		
	--	Overall Assembly	B (V290680)		
	--	Overall Assembly	A (V290690)		
* 10	V2953900	Body Assembly			
20	--	Panel Assembly			
30	VR779900	Bonding B-Tyte Screw	4.0X8 MFZN2BL	6	01
40	--	Rear Assembly	J (V295310)		
40	--	Rear Assembly	U (V295320)		
40	--	Rear Assembly	H (V295330)		
40	--	Rear Assembly	B (V295340)		
40	--	Rear Assembly	A (V295350)		
50	VR779900	Bonding B-Tyte Screw	4.0X8 MFZN2BL	6	01
* 60	XV025A00	Power Transformer	E		
* 60	XV026A00	Power Transformer	UL CSA		
* 60	XV027A00	Power Transformer	CE		
* 60	XV028A00	Power Transformer	AS		
70	VU688100	Bind Head Screw	SP 5.0X10 MFZN2BL	4	01
80	VV104600	Cord Holder	CV-100	3	01
90	V3225000	Ferrite Core	HF57T25X12X15		03
100	--	Connector Assembly	2426&2426 15P 500L (V297030)		
* B10	V2953900	Body Assembly			
B20	--	Body	(V291470)		
B30	--	Carpet	(V297020)		
B40	--	Shield Sheet	(VV43470)	2	
B50	--	Side Plate	(V291490)		
B60	EG340330	Bind Head Screw	4.0X18 MFZN2BL	11	01
B70	VV085400	Handle	U		04
B80	VV435200	Oval Head Screw	5.0X35 MFZN2BL	2	01
B90	VV085500	Corner Protector		8	03
B100	03747270	Truss Head Tapping Screw-1	4.0X12 MFZN2BL	16	
B110	VV085600	Foot		8	01
B120	03747290	Truss Head Tapping Screw-1	4.0X20 MFZN2BL	8	01
	--	Panel Assembly	(V295300)		
* P10	V2907400	Front Panel			
* P20	V2952400	Circuit Board	MIX		
* P30	V3291600	PCB Support	NEW NIFCO	14	
* P40	V3289800	Hexagonal Socket Screw-P	3X25 MFZNBL	14	
P50	VU860200	Knob	MX-GREEN/D-GRAY	24	01
P60	VU859700	Knob	N-GRAY/D-GRAY	11	01
P70	VU860300	Knob	1-8ch(HIGH,MID,LOW) 1-8ch(MONI),TAPE IN MONITOR(MASTER), MAIN(STEREO)AUX IN MX-BLUE/D-GRAY 1-8ch(EFFECT), EFFECT(EFFECT OUT), MONITOR(EFFECT RTN)	11	01
P80	VU860400	Knob	RED/D-GRAY	8	01
P90	VV625800	Knob	ORANGE/D-GRAY	9	01
P90	VV625800	Knob	ORANGE/D-GRAY		
* P100	V2952500	Circuit Board	SUB		
* P110	V3224800	Spacer Port	KCA-14 PIN GOO	6	
P120	VN413300	Bonding Tapping Screw-B	3.0X8 MFZN2BL	17	01
P130	--	Connector Assembly	2426&2426 5P 100L (VZ01610)		
P140	--	Connector Assembly	2426&2426 10P 100 (V297050)		
P150	--	Connector Assembly	2426&2426 15P 120 (V322540)		
	--	Rear Assembly	J (V295310)		
	--	Rear Assembly	U (V295320)		
	--	Rear Assembly	H (V295330)		
	--	Rear Assembly	B (V295340)		
	--	Rear Assembly	A (V295350)		
* R10	V2907500	Rear Panel	J		
* R10	V2907700	Rear Panel	U		
* R10	V2907800	Rear Panel	H		
* R10	V2907900	Rear Panel	H,W,B		
R20	--	Heat Sink	A (V294800)		

\* : New Parts

RANK : Japan only

REF NO.	PART NO.	DESCRIPTION	REMARKS	QTY	RANK
* R30a	NX820610	Circuit Board	PWR J		
* R30a	NX820620	Circuit Board	PWR U		
* R30a	NX820630	Circuit Board	PWR H		
* R30b	NX820640	Circuit Board Assembly	SP OUT		
* R30c	NX820650	Circuit Board Assembly	AC		
* R30c	NX820660	Circuit Board Assembly	AC		
R40	EG330290	Bind Head Screw	SP 3.0X8 MFZN2Y	6	01
R50	VV086500	Support	H=7.4 B=5.5	6	01
R60	--	Angle	(V291510)	2	
* R70	V2954800	Insulation Sheet		2	
R80	VQ074600	Bind Head Tapping Screw-B	3.0X12 MFZN2BL	15	01
* R90	V2955500	Fan	3110KL05WB50L34		
R100	VT520200	Bind Head Screw	3.0X30 ZMC2BL	2	01
* R110	V2951400	Angle Bracket, Fan			
R120	VB659000	Bind Head Screw	3.0X8 MFZN2BL	2	01
* R130	V3277000	AC Cord	J VCTF 2X0.75 12A		
R130	VV205600	AC Cord	UC SJT 3X#18 10A		06
* R130	V3277100	AC Cord	E H05VV-F3X0.7510A		
R130	VV058300	AC Cord	BS H05VV-F3X0.75		08
R130	VV058200	AC Cord	E H05VV-F3X0.75 6A		06
R140	VV103100	Cord Strain Relief	SR-6P1		01
R150	EG340190	Bind Head Tapping Screw-B	4.0X8 MFZN2BL	6	01
R170	VU859000	Power Switch Knob	SR200		01
R190	EG340360	Bind Head Screw	4.0X8 MFZN2BL		01
R200	--	Switch Bracket	(V319280)		
R210	VN413300	Bonding Tapping Screw-B	3.0X8 MFZN2BL	3	01

\* : New Parts

RANK : Japan only

# ELECTRICAL PARTS

REF NO.	PART NO.	DESCRIPTION	REMARKS	QTY	RANK
*	V2952400	Circuit Board	MIX		
	NX820610	Circuit Board	PWR J		
	NX820620	Circuit Board	PWR U		
	NX820630	Circuit Board	PWR H		
	NX820640	Circuit Board Assembly	SP OUT		
	NX820650	Circuit Board Assembly	AC		
	NX820660	Circuit Board Assembly	AC		
	V2952500	Circuit Board	SUB		
*	V2952400	Circuit Board	MIX		
	--	Jumper Wire	0.6		01
	VU860700	Button	CD-GRAY/WHITE	VOCAL,L HALL,S HALL,ON	4 01
	VV307300	LED Spacer	SR200		19 01
	VZ968600	Button	CD-GRAY	PAD(1to6)	6 01
C101	UJ867470	Electrolytic Cap.	47.00 50.0V		01
C102	UJ867470	Electrolytic Cap.	47.00 50.0V		01
C103	VV488800	Electrolytic Cap.	10.00 50.0V		01
-106	VV488800	Electrolytic Cap.	10.00 50.0V		01
C107	UJ847100	Electrolytic Cap.	10.00 25.0V		01
-110	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C111	VZ353800	Ceramic Cap.-B	470P 50V K		01
-116	VZ353800	Ceramic Cap.-B	470P 50V K		01
C117	VV330700	Electrolytic Cap.	470.00 10.0V		01
C118	VV330700	Electrolytic Cap.	470.00 10.0V		01
C119	VZ353800	Ceramic Cap.-B	470P 50V K		01
C120	VZ353800	Ceramic Cap.-B	470P 50V K		01
C121	VZ353500	Ceramic Capacitor-SL	100P 50V J		01
-126	VZ353500	Ceramic Capacitor-SL	100P 50V J		01
C127	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C128	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C129	VV061800	Mylar Capacitor	0.015 50V J		01
C130	VV061400	Mylar Capacitor	0.01 50V J		01
C131	VV061800	Mylar Capacitor	0.015 50V J		01
C132	VV061400	Mylar Capacitor	0.01 50V J		01
C133	VV061500	Mylar Capacitor	0.012 50V J		01
C134	VV060800	Mylar Capacitor	3900P 50V J		01
C135	VV061500	Mylar Capacitor	0.012 50V J		01
C136	VV060800	Mylar Capacitor	3900P 50V J		01
C137	VZ352900	Ceramic Capacitor-SL	27P 50V J		01
C138	VZ353500	Ceramic Capacitor-SL	100P 50V J		01
C139	VZ352900	Ceramic Capacitor-SL	27P 50V J		01
C140	VZ353500	Ceramic Capacitor-SL	100P 50V J		01
C141	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C142	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C143	VZ353900	Ceramic Cap.-B	1000P 50V K		01
C144	VZ353900	Ceramic Cap.-B	1000P 50V K		01
C145	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C146	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C147	VZ353600	Ceramic Cap.-B	220P 50V K		01
C148	VZ353600	Ceramic Cap.-B	220P 50V K		01
C149	VZ353400	Ceramic Capacitor-SL	68P 50V J		01
C150	VZ353400	Ceramic Capacitor-SL	68P 50V J		01
C151	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C152	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C153	VZ354000	Ceramic Capacitor-F	0.01 50V Z		01
-158	VZ354000	Ceramic Capacitor-F	0.01 50V Z		01
C201	UJ867470	Electrolytic Cap.	47.00 50.0V		01
C202	UJ867470	Electrolytic Cap.	47.00 50.0V		01
C203	VV488800	Electrolytic Cap.	10.00 50.0V		01
-206	VV488800	Electrolytic Cap.	10.00 50.0V		01
C207	UJ847100	Electrolytic Cap.	10.00 25.0V		01
-210	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C211	VZ353800	Ceramic Cap.-B	470P 50V K		01
-216	VZ353800	Ceramic Cap.-B	470P 50V K		01
C217	VV330700	Electrolytic Cap.	470.00 10.0V		01
C218	VV330700	Electrolytic Cap.	470.00 10.0V		01
C219	VZ353800	Ceramic Cap.-B	470P 50V K		01
C220	VZ353800	Ceramic Cap.-B	470P 50V K		01
C221	VZ353500	Ceramic Capacitor-SL	100P 50V J		01

\*: New Parts

RANK : Japan only

REF NO.	PART NO.	DESCRIPTION	REMARKS	QTY	RANK
-226	VZ353500	Ceramic Capacitor-SL	100P 50V J		01
* C227	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C228	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C229	VV061800	Mylar Capacitor	0.015 50V J		01
C230	VV061400	Mylar Capacitor	0.01 50V J		01
C231	VV061800	Mylar Capacitor	0.015 50V J		01
C232	VV061400	Mylar Capacitor	0.01 50V J		01
* C233	VV061500	Mylar Capacitor	0.012 50V J		01
* C234	VV060800	Mylar Capacitor	3900P 50V J		01
C235	VV061500	Mylar Capacitor	0.012 50V J		01
* C236	VV060800	Mylar Capacitor	3900P 50V J		01
C237	VZ352900	Ceramic Capacitor-SL	27P 50V J		01
C238	VZ353500	Ceramic Capacitor-SL	100P 50V J		01
C239	VZ352900	Ceramic Capacitor-SL	27P 50V J		01
C240	VZ353500	Ceramic Capacitor-SL	100P 50V J		01
C241	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C242	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C243	VZ353900	Ceramic Cap.-B	1000P 50V K		01
C244	VZ353900	Ceramic Cap.-B	1000P 50V K		01
C245	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C246	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C247	VZ353600	Ceramic Cap.-B	220P 50V K		01
C248	VZ353600	Ceramic Cap.-B	220P 50V K		01
C249	VZ353400	Ceramic Capacitor-SL	68P 50V J		01
C250	VZ353400	Ceramic Capacitor-SL	68P 50V J		01
C251	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C252	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C253	VZ354000	Ceramic Capacitor-F	0.01 50V Z		01
-258	VZ354000	Ceramic Capacitor-F	0.01 50V Z		01
C301	UJ867470	Electrolytic Cap.	47.00 50.0V		01
C302	UJ867470	Electrolytic Cap.	47.00 50.0V		01
C303	VV488800	Electrolytic Cap.	10.00 50.0V		01
-306	VV488800	Electrolytic Cap.	10.00 50.0V		01
C307	UJ847100	Electrolytic Cap.	10.00 25.0V		01
-310	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C311	VZ353800	Ceramic Cap.-B	470P 50V K		01
-316	VZ353800	Ceramic Cap.-B	470P 50V K		01
C317	VV330700	Electrolytic Cap.	470.00 10.0V		01
C318	VV330700	Electrolytic Cap.	470.00 10.0V		01
C319	VZ353800	Ceramic Cap.-B	470P 50V K		01
C320	VZ353800	Ceramic Cap.-B	470P 50V K		01
C321	VZ353500	Ceramic Capacitor-SL	100P 50V J		01
-326	VZ353500	Ceramic Capacitor-SL	100P 50V J		01
C327	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C328	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C329	VV061800	Mylar Capacitor	0.015 50V J		01
C330	VV061400	Mylar Capacitor	0.01 50V J		01
C331	VV061800	Mylar Capacitor	0.015 50V J		01
C332	VV061400	Mylar Capacitor	0.01 50V J		01
C333	VV061500	Mylar Capacitor	0.012 50V J		01
C334	VV060800	Mylar Capacitor	3900P 50V J		01
C335	VV061500	Mylar Capacitor	0.012 50V J		01
C336	VV060800	Mylar Capacitor	3900P 50V J		01
C337	VZ352900	Ceramic Capacitor-SL	27P 50V J		01
C338	VZ353500	Ceramic Capacitor-SL	100P 50V J		01
C339	VZ352900	Ceramic Capacitor-SL	27P 50V J		01
C340	VZ353500	Ceramic Capacitor-SL	100P 50V J		01
C341	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C342	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C343	VZ353900	Ceramic Cap.-B	1000P 50V K		01
C344	VZ353900	Ceramic Cap.-B	1000P 50V K		01
C345	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C346	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C347	VZ353600	Ceramic Cap.-B	220P 50V K		01
C348	VZ353600	Ceramic Cap.-B	220P 50V K		01
C349	VZ353400	Ceramic Capacitor-SL	68P 50V J		01
C350	VZ353400	Ceramic Capacitor-SL	68P 50V J		01
C351	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C352	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C353	VZ354000	Ceramic Capacitor-F	0.01 50V Z		01

\*: New Parts

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REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
-358	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C401	UJ867470	Electrolytic Cap.	47.00 50.0V			01
C402	VV488800	Electrolytic Cap.	10.00 50.0V			01
C403	VV488800	Electrolytic Cap.	10.00 50.0V			01
C404	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C405	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C406	VZ353800	Ceramic Cap.-B	470P 50V K			01
-408	VZ353800	Ceramic Cap.-B	470P 50V K			01
C409	VV330700	Electrolytic Cap.	470.00 10.0V			01
C410	VZ353800	Ceramic Cap.-B	470P 50V K			01
C411	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
-413	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C414	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C415	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C416	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C417	VZ353400	Ceramic Capacitor-SL	68P 50V J			01
C418	VZ353400	Ceramic Capacitor-SL	68P 50V J			01
C419	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C420	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C421	VV061400	Mylar Capacitor	0.01 50V J			01
C422	VV061500	Mylar Capacitor	0.012 50V J			01
C423	VV061800	Mylar Capacitor	0.015 50V J			01
C424	VV061400	Mylar Capacitor	0.01 50V J			01
C425	VV061500	Mylar Capacitor	0.012 50V J			01
C426	VV061800	Mylar Capacitor	0.015 50V J			01
C427	VV060800	Mylar Capacitor	3900P 50V J			01
C428	VV060800	Mylar Capacitor	3900P 50V J			01
C429	VZ352900	Ceramic Capacitor-SL	27P 50V J			01
C430	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C431	VZ352900	Ceramic Capacitor-SL	27P 50V J			01
C432	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C433	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C434	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C435	VZ353900	Ceramic Cap.-B	1000P 50V K			01
C436	VZ353900	Ceramic Cap.-B	1000P 50V K			01
C437	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C438	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C439	VZ353600	Ceramic Cap.-B	220P 50V K			01
C440	VZ353600	Ceramic Cap.-B	220P 50V K			01
C441	VZ353400	Ceramic Capacitor-SL	68P 50V J			01
C442	VZ353400	Ceramic Capacitor-SL	68P 50V J			01
C443	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C444	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C501	UJ867470	Electrolytic Cap.	47.00 50.0V			01
C502	VV488800	Electrolytic Cap.	10.00 50.0V			01
C503	VV488800	Electrolytic Cap.	10.00 50.0V			01
C504	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C505	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C506	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C507	VZ353800	Ceramic Cap.-B	470P 50V K			01
C508	VZ353800	Ceramic Cap.-B	470P 50V K			01
C509	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C510	VZ353800	Ceramic Cap.-B	470P 50V K			01
C511	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C512	VV330700	Electrolytic Cap.	470.00 10.0V			01
C513	VZ353800	Ceramic Cap.-B	470P 50V K			01
C514	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C515	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
-517	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C518	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C519	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C520	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C521	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C522	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C523	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C524	VZ353400	Ceramic Capacitor-SL	68P 50V J			01
C525	VZ353400	Ceramic Capacitor-SL	68P 50V J			01
C526	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C527	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C528	UJ847100	Electrolytic Cap.	10.00 25.0V			01

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REF NO.	PART NO.	DESCRIPTION	REMARKS	QTY	RANK
C529	VZ354000	Ceramic Capacitor-F	0.01 50V Z		01
C530	VZ354000	Ceramic Capacitor-F	0.01 50V Z		01
C531	VV061400	Mylar Capacitor	0.01 50V J		01
C532	VV061500	Mylar Capacitor	0.012 50V J		01
C533	VV061800	Mylar Capacitor	0.015 50V J		01
C534	VV061400	Mylar Capacitor	0.01 50V J		01
C535	VV061500	Mylar Capacitor	0.012 50V J		01
C536	VV061800	Mylar Capacitor	0.015 50V J		01
C537	VZ354000	Ceramic Capacitor-F	0.01 50V Z		01
C538	VV060800	Mylar Capacitor	3900P 50V J		01
C539	VV060800	Mylar Capacitor	3900P 50V J		01
C540	VZ352900	Ceramic Capacitor-SL	27P 50V J		01
C541	VZ353500	Ceramic Capacitor-SL	100P 50V J		01
C542	VZ352900	Ceramic Capacitor-SL	27P 50V J		01
C543	VZ353500	Ceramic Capacitor-SL	100P 50V J		01
C544	VZ354000	Ceramic Capacitor-F	0.01 50V Z		01
C545	VZ354000	Ceramic Capacitor-F	0.01 50V Z		01
C546	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C547	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C548	VZ354000	Ceramic Capacitor-F	0.01 50V Z		01
C549	VZ353900	Ceramic Cap.-B	1000P 50V K		01
C550	VZ353900	Ceramic Cap.-B	1000P 50V K		01
C551	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C552	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C553	VZ353600	Ceramic Cap.-B	220P 50V K		01
C554	VZ353600	Ceramic Cap.-B	220P 50V K		01
C555	VZ353400	Ceramic Capacitor-SL	68P 50V J		01
C556	VZ353400	Ceramic Capacitor-SL	68P 50V J		01
C557	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C558	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C601	VV064400	Monolithic Mylar Capacitor	0.82 50V J		03
C602	VV064100	Monolithic Mylar Capacitor	0.47 50V J		02
C603	VV321100	Monolithic Mylar Capacitor	0.22 50V J		01
C604	VV062800	Mylar Capacitor	0.1 50V J		01
C605	VV062400	Mylar Capacitor	0.047 50V J		01
C606	VV062100	Mylar Capacitor	0.027 50V J		01
C607	VV061500	Mylar Capacitor	0.012 50V J		01
C608	VV064400	Monolithic Mylar Capacitor	0.82 50V J		03
C609	VV064100	Monolithic Mylar Capacitor	0.47 50V J		02
C610	VV321100	Monolithic Mylar Capacitor	0.22 50V J		01
C611	VV062800	Mylar Capacitor	0.1 50V J		01
C612	VV062400	Mylar Capacitor	0.047 50V J		01
C613	VV062100	Mylar Capacitor	0.027 50V J		01
C614	VV061500	Mylar Capacitor	0.012 50V J		01
C615	VV062700	Mylar Capacitor	0.082 50V J		01
C616	VV062300	Mylar Capacitor	0.039 50V J		01
C617	VV061900	Mylar Capacitor	0.018 50V J		01
C618	VV061400	Mylar Capacitor	0.01 50V J		01
C619	VV060900	Mylar Capacitor	4700P 50V J		01
C620	VV060300	Mylar Capacitor	2200P 50V J		01
C621	VV060000	Mylar Capacitor	1200P 50V J		01
C622	VV062700	Mylar Capacitor	0.082 50V J		01
C623	VV062300	Mylar Capacitor	0.039 50V J		01
C624	VV061900	Mylar Capacitor	0.018 50V J		01
C625	VV061400	Mylar Capacitor	0.01 50V J		01
C626	VV060900	Mylar Capacitor	4700P 50V J		01
C627	VV060300	Mylar Capacitor	2200P 50V J		01
C628	VV060000	Mylar Capacitor	1200P 50V J		01
C629	VZ354000	Ceramic Capacitor-F	0.01 50V Z		01
C630	VZ354000	Ceramic Capacitor-F	0.01 50V Z		01
C631	VZ353800	Ceramic Cap.-B	470P 50V K		01
C632	VZ353800	Ceramic Cap.-B	470P 50V K		01
C633	VZ354000	Ceramic Capacitor-F	0.01 50V Z		01
C634	VZ354000	Ceramic Capacitor-F	0.01 50V Z		01
C635	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C636	UJ847470	Electrolytic Cap.	47.00 25.0V		01
C638	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C639	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C641	UJ847100	Electrolytic Cap.	10.00 25.0V		01
C642	VZ353500	Ceramic Capacitor-SL	100P 50V J		01

\* : New Parts

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REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
C643	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C644	VZ353200	Ceramic Capacitor-SL	47P 50V J			01
C645	VZ353200	Ceramic Capacitor-SL	47P 50V J			01
C646	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C647	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C648	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C649	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C650	VZ353600	Ceramic Cap.-B	220P 50V K			01
C651	VZ353600	Ceramic Cap.-B	220P 50V K			01
C652	VZ353400	Ceramic Capacitor-SL	68P 50V J			01
C653	VZ353400	Ceramic Capacitor-SL	68P 50V J			01
C654	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C655	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C656	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
-659	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C660	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C661	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C701	VV064400	Monolithic Mylar Capacitor	0.82 50V J			03
C702	VV064100	Monolithic Mylar Capacitor	0.47 50V J			02
C703	VV321100	Monolithic Mylar Capacitor	0.22 50V J			01
C704	VV062800	Mylar Capacitor	0.1 50V J			01
C705	VV062400	Mylar Capacitor	0.047 50V J			01
C706	VV062100	Mylar Capacitor	0.027 50V J			01
C707	VV061500	Mylar Capacitor	0.012 50V J			01
C708	VV062700	Mylar Capacitor	0.082 50V J			01
C709	VV062300	Mylar Capacitor	0.039 50V J			01
C710	VV061900	Mylar Capacitor	0.018 50V J			01
C711	VV061400	Mylar Capacitor	0.01 50V J			01
C712	VV060900	Mylar Capacitor	4700P 50V J			01
C713	VV060300	Mylar Capacitor	2200P 50V J			01
C714	VV060000	Mylar Capacitor	1200P 50V J			01
C715	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C716	VZ353800	Ceramic Cap.-B	470P 50V K			01
C717	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C718	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C719	VZ353900	Ceramic Cap.-B	1000P 50V K			01
C720	UJ847100	Electrolytic Cap.	10.00 25.0V			01
-722	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C723	VZ353600	Ceramic Cap.-B	220P 50V K			01
C724	VZ353600	Ceramic Cap.-B	220P 50V K			01
C725	VZ353400	Ceramic Capacitor-SL	68P 50V J			01
C726	VZ353400	Ceramic Capacitor-SL	68P 50V J			01
C727	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C728	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C729	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C730	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C801	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C802	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C803	VZ353600	Ceramic Cap.-B	220P 50V K			01
C804	VZ353600	Ceramic Cap.-B	220P 50V K			01
* C805	VZ352600	Ceramic Capacitor-SL	6P 50V J			01
* C806	VZ352600	Ceramic Capacitor-SL	6P 50V J			01
C807	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C808	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C809	VZ353900	Ceramic Cap.-B	1000P 50V K			01
C810	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C811	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C812	VZ353600	Ceramic Cap.-B	220P 50V K			01
CN801	VV067000	Connector Base Post	M2426XX 10P TE			01
CN802	VV066500	Connector Base Post	M2426XX 5P TE			01
CN803	VV067500	Connector Base Post	M2426XX 15P TE			01
EM801	VV056900	Noise Filter	ZJSR5101-223TA			01
IC101	XM356A00	IC	NJM2068L-D	OP AMP		02
IC102	XM922A00	IC	NJM4558L	} OP AMP		01
IC102	XQ212A00	IC	NJM4558L-D			03
IC103	XM922A00	IC	NJM4558L	} OP AMP		01
IC103	XQ212A00	IC	NJM4558L-D			03
IC201	XM356A00	IC	NJM2068L-D	OP AMP		02
IC202	XM922A00	IC	NJM4558L	} OP AMP		01
IC202	XQ212A00	IC	NJM4558L-D			03

\*: New Parts

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REF NO.	PART NO.	DESCRIPTION	REMARKS	QTY	RANK
IC203	XM922A00	IC	NJM4558L		01
IC203	XQ212A00	IC	NJM4558L-D	} OP AMP	03
IC301	XM356A00	IC	NJM2068L-D	OP AMP	02
IC302	XM922A00	IC	NJM4558L	} OP AMP	01
IC302	XQ212A00	IC	NJM4558L-D		03
IC303	XM922A00	IC	NJM4558L	} OP AMP	01
IC303	XQ212A00	IC	NJM4558L-D		03
IC401	XM356A00	IC	NJM2068L-D	OP AMP	02
IC402	XM922A00	IC	NJM4558L	} OP AMP	01
IC402	XQ212A00	IC	NJM4558L-D		03
IC403	XM922A00	IC	NJM4558L	} OP AMP	01
IC403	XQ212A00	IC	NJM4558L-D		03
IC404	XM356A00	IC	NJM2068L-D	OP AMP	02
IC501	XM356A00	IC	NJM2068L-D	OP AMP	02
IC502	XM922A00	IC	NJM4558L	} OP AMP	01
IC502	XQ212A00	IC	NJM4558L-D		03
IC503	XM922A00	IC	NJM4558L	} OP AMP	01
IC503	XQ212A00	IC	NJM4558L-D		03
IC601	XG203A00	IC	M5229P	G.EQUALIZER	04
IC602	XG203A00	IC	M5229P	G.EQUALIZER	04
IC603	XA534A00	IC	BA6137	LED DRIVER	03
IC604	XA534A00	IC	BA6137	LED DRIVER	03
IC605	XM356A00	IC	NJM2068L-D	OP AMP	02
IC606	XM356A00	IC	NJM2068L-D	OP AMP	02
IC701	XG203A00	IC	M5229P	G.EQUALIZER	04
IC702	XA534A00	IC	BA6137	LED DRIVER	03
IC703	XM356A00	IC	NJM2068L-D	OP AMP	02
IC704	XM356A00	IC	NJM2068L-D	OP AMP	02
JK101	VU805200	XLM Connector	XLR NC3FAV1-0	1ch(Lo-Z)	04
JK102	VU805200	XLM Connector	XLR NC3FAV1-0	2ch(Lo-Z)	04
JK103	V2954500	Phone Jack	LJ-0695-4R-A	1ch(Hi-Z)	
JK104	V2954500	Phone Jack	LJ-0695-4R-A	2ch(Hi-Z)	
JK201	VU805200	XLM Connector	XLR NC3FAV1-0	3ch(Lo-Z)	04
JK202	VU805200	XLM Connector	XLR NC3FAV1-0	4ch(Lo-Z)	04
JK203	V2954500	Phone Jack	LJ-0695-4R-A	3ch(Hi-Z)	
JK204	V2954500	Phone Jack	LJ-0695-4R-A	4ch(Hi-Z)	
JK301	VU805200	XLM Connector	XLR NC3FAV1-0	5ch(Lo-Z)	04
JK302	VU805200	XLM Connector	XLR NC3FAV1-0	6ch(Lo-Z)	04
JK303	V2954500	Phone Jack	LJ-0695-4R-A	5ch(Hi-Z)	
JK304	V2954500	Phone Jack	LJ-0695-4R-A	6ch(Hi-Z)	
JK401	VU805200	XLM Connector	XLR NC3FAV1-0	7ch(MIC)	04
JK402	V2954500	Phone Jack	LJ-0695-4R-A	7ch(LINE-L(MONO))	
JK403	V2954500	Phone Jack	LJ-0695-4R-A	7ch(LINE-R)	
JK501	VU805200	XLM Connector	XLR NC3FAV1-0	8ch(MIC)	04
JK502	V2954500	Phone Jack	LJ-0695-4R-A	8ch(LINE-L(MONO))	
JK503	V2954500	Phone Jack	LJ-0695-4R-A	8ch(LINE-R)	
JK601	V2954500	Phone Jack	LJ-0695-4R-A	OUTPUT(MAIN(STEREO)-L)	
JK602	V2954500	Phone Jack	LJ-0695-4R-A	OUTPUT(MAIN(STEREO)-R)	
JK701	V2954500	Phone Jack	LJ-0695-4R-A	OUTPUT(MONITOR)	
JK702	V2954500	Phone Jack	LJ-0695-4R-A	EFFECT OUT	
JK801	V2954500	Phone Jack	LJ-0695-4R-A	AUX IN-L(MONO)	
JK802	V2954500	Phone Jack	LJ-0695-4R-A	AUX IN-R	
JK803	VZ358700	Pin Jack	PIN JK040057DN	TAPE IN(L,R),REC OUT(L,R)	02
JK804	V2954500	Phone Jack	LJ-0695-4R-A	FOOT SW	
LD601	VV938100	LED	LT331-41-C13 YE	MASTER(STEREO)	01
-603	VV938100	LED	LT331-41-C13 YE	(MASTER-L,+6,+3,0)	01
LD604	VV621000	LED	LT321-41-C13 GR	MASTER(STEREO)	01
				(MASTER-L -5)	01
LD605	VV621000	LED	LT321-41-C13 GR	MASTER(STEREO)	01
				(MASTER-L -10)	01
LD606	VV938100	LED	LT331-41-C13 YE	MASTER(STEREO)	01
-608	VV938100	LED	LT331-41-C13 YE	(MASTER-R,+6,+3,0)	01
LD609	VV621000	LED	LT321-41-C13 GR	MASTER(STEREO)	01
				(MASTER-R -5)	01
LD610	VV621000	LED	LT321-41-C13 GR	MASTER(STEREO)	01
				(MASTER-L -10)	01
LD701	VV938100	LED	LT331-41-C13 YE	MONITOR(MASTER +6,+3,0)	01
-703	VV938100	LED	LT331-41-C13 YE		01
LD704	VV621000	LED	LT321-41-C13 GR	MONITOR(MASTER -5)	01
LD705	VV621000	LED	LT321-41-C13 GR	MONITOR(MASTER -10)	01

\* : New Parts

RANK : Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
LD801	VV620800	LED	LT311G-41-C13 RE	POWER AMP(LIMITER)		01
LD802	VV620800	LED	LT311G-41-C13 RE	MONI(LIMITER)		01
LD803	VV621000	LED	LT321-41-C13 GR	POWER		01
LD804	VV620800	LED	LT311G-41-C13 RE	DIGITAL EFFECT(ON)		01
Q101	IC224030	Transistor	2SC2240 GR,BL			01
-104	IC224030	Transistor	2SC2240 GR,BL			01
Q201	IC224030	Transistor	2SC2240 GR,BL			01
-204	IC224030	Transistor	2SC2240 GR,BL			01
Q301	IC224030	Transistor	2SC2240 GR,BL			01
-304	IC224030	Transistor	2SC2240 GR,BL			01
Q401	IC224030	Transistor	2SC2240 GR,BL			01
Q402	IC224030	Transistor	2SC2240 GR,BL			01
Q501	IC224030	Transistor	2SC2240 GR,BL			01
Q502	IC224030	Transistor	2SC2240 GR,BL			01
R101	HF458100	Carbon Resistor	100.0K 1/4 J			01
-104	HF458100	Carbon Resistor	100.0K 1/4 J			01
R105	VV065300	Metal Film Resistor	6.8K 1/4 F			01
R106	VV312400	Metal Film Resistor	3.9K 1/4 F			01
R107	VV065300	Metal Film Resistor	6.8K 1/4 F			01
R108	VV312400	Metal Film Resistor	3.9K 1/4 F			01
R109	HF458100	Carbon Resistor	100.0K 1/4 J			01
R110	HF458100	Carbon Resistor	100.0K 1/4 J			01
R111	VV058400	Flame Proof C. Resistor	390.0 1/4 J			01
R112	VV065300	Metal Film Resistor	6.8K 1/4 F			01
R113	VV058400	Flame Proof C. Resistor	390.0 1/4 J			01
R114	VV065300	Metal Film Resistor	6.8K 1/4 F			01
R115	VV312400	Metal Film Resistor	3.9K 1/4 F			01
R116	VV312400	Metal Film Resistor	3.9K 1/4 F			01
R117	HF456470	Carbon Resistor	4.7K 1/4 J			01
R118	HF456470	Carbon Resistor	4.7K 1/4 J			01
R119	HF454100	Carbon Resistor	10.0 1/4 J			01
-122	HF454100	Carbon Resistor	10.0 1/4 J			01
R123	VV066100	Metal Film Resistor	47K 1/4 F			01
-126	VV066100	Metal Film Resistor	47K 1/4 F			01
R127	HF454100	Carbon Resistor	10.0 1/4 J			01
R128	HF454100	Carbon Resistor	10.0 1/4 J			01
R129	VV065100	Metal Film Resistor	2.2K 1/4 F			01
R130	VV065400	Metal Film Resistor	8.2K 1/4 F			01
R131	VV065100	Metal Film Resistor	2.2K 1/4 F			01
R132	VV065400	Metal Film Resistor	8.2K 1/4 F			01
R133	HF456820	Carbon Resistor	8.2K 1/4 J			01
R134	HF456820	Carbon Resistor	8.2K 1/4 J			01
R135	HF455150	Carbon Resistor	150.0 1/4 J			01
R136	HF455150	Carbon Resistor	150.0 1/4 J			01
R137	VV065100	Metal Film Resistor	2.2K 1/4 F			01
R138	VV065400	Metal Film Resistor	8.2K 1/4 F			01
R139	VV065100	Metal Film Resistor	2.2K 1/4 F			01
R140	VV065400	Metal Film Resistor	8.2K 1/4 F			01
R141	HF454100	Carbon Resistor	10.0 1/4 J			01
R142	HF454100	Carbon Resistor	10.0 1/4 J			01
R143	HF457100	Carbon Resistor	10.0K 1/4 J			01
-146	HF457100	Carbon Resistor	10.0K 1/4 J			01
R147	HF457100	Carbon Resistor	10.0K 1/4 J			01
R148	HF455680	Carbon Resistor	680.0 1/4 J			01
R149	HF456270	Carbon Resistor	2.7K 1/4 J			01
R150	HF457100	Carbon Resistor	10.0K 1/4 J			01
R151	HF455680	Carbon Resistor	680.0 1/4 J			01
R152	HF456270	Carbon Resistor	2.7K 1/4 J			01
R153	HF457100	Carbon Resistor	10.0K 1/4 J			01
R154	HF457100	Carbon Resistor	10.0K 1/4 J			01
R155	HF456270	Carbon Resistor	2.7K 1/4 J			01
R156	HF456270	Carbon Resistor	2.7K 1/4 J			01
R157	HF457100	Carbon Resistor	10.0K 1/4 J			01
R158	HF455680	Carbon Resistor	680.0 1/4 J			01
R159	HF456270	Carbon Resistor	2.7K 1/4 J			01
R160	HF457100	Carbon Resistor	10.0K 1/4 J			01
R161	HF455680	Carbon Resistor	680.0 1/4 J			01
R162	HF456270	Carbon Resistor	2.7K 1/4 J			01
R163	HF454100	Carbon Resistor	10.0 1/4 J			01
R164	HF454100	Carbon Resistor	10.0 1/4 J			01

\*: New Parts

RANK : Japan only

REF NO.	PART NO.	DESCRIPTION	REMARKS	QTY	RANK
R165	HF457180	Carbon Resistor	18.0K 1/4 J		01
R166	HF457180	Carbon Resistor	18.0K 1/4 J		01
R167	HF455220	Carbon Resistor	220.0 1/4 J		01
R168	HF455220	Carbon Resistor	220.0 1/4 J		01
R169	HF456180	Carbon Resistor	1.8K 1/4 J		01
R170	HF456180	Carbon Resistor	1.8K 1/4 J		01
R171	HF457100	Carbon Resistor	10.0K 1/4 J		01
R172	HF457100	Carbon Resistor	10.0K 1/4 J		01
R173	HF454100	Carbon Resistor	10.0 1/4 J		01
R174	HF454100	Carbon Resistor	10.0 1/4 J		01
R175	HF457180	Carbon Resistor	18.0K 1/4 J		01
-182	HF457180	Carbon Resistor	18.0K 1/4 J		01
R201	HF458100	Carbon Resistor	100.0K 1/4 J		01
-204	HF458100	Carbon Resistor	100.0K 1/4 J		01
R205	VV065300	Metal Film Resistor	6.8K 1/4 F		01
R206	VV312400	Metal Film Resistor	3.9K 1/4 F		01
R207	VV065300	Metal Film Resistor	6.8K 1/4 F		01
R208	VV312400	Metal Film Resistor	3.9K 1/4 F		01
R209	HF458100	Carbon Resistor	100.0K 1/4 J		01
R210	HF458100	Carbon Resistor	100.0K 1/4 J		01
R211	VV058400	Flame Proof C. Resistor	390.0 1/4 J		01
R212	VV065300	Metal Film Resistor	6.8K 1/4 F		01
R213	VV058400	Flame Proof C. Resistor	390.0 1/4 J		01
R214	VV065300	Metal Film Resistor	6.8K 1/4 F		01
R215	VV312400	Metal Film Resistor	3.9K 1/4 F		01
R216	VV312400	Metal Film Resistor	3.9K 1/4 F		01
R217	HF456470	Carbon Resistor	4.7K 1/4 J		01
R218	HF456470	Carbon Resistor	4.7K 1/4 J		01
R219	HF454100	Carbon Resistor	10.0 1/4 J		01
-222	HF454100	Carbon Resistor	10.0 1/4 J		01
R223	VV066100	Metal Film Resistor	47K 1/4 F		01
-226	VV066100	Metal Film Resistor	47K 1/4 F		01
R227	HF454100	Carbon Resistor	10.0 1/4 J		01
R228	HF454100	Carbon Resistor	10.0 1/4 J		01
R229	VV065100	Metal Film Resistor	2.2K 1/4 F		01
R230	VV065400	Metal Film Resistor	8.2K 1/4 F		01
R231	VV065100	Metal Film Resistor	2.2K 1/4 F		01
R232	VV065400	Metal Film Resistor	8.2K 1/4 F		01
R233	HF456820	Carbon Resistor	8.2K 1/4 J		01
R234	HF456820	Carbon Resistor	8.2K 1/4 J		01
R235	HF455150	Carbon Resistor	150.0 1/4 J		01
R236	HF455150	Carbon Resistor	150.0 1/4 J		01
R237	VV065100	Metal Film Resistor	2.2K 1/4 F		01
R238	VV065400	Metal Film Resistor	8.2K 1/4 F		01
R239	VV065100	Metal Film Resistor	2.2K 1/4 F		01
R240	VV065400	Metal Film Resistor	8.2K 1/4 F		01
R241	HF454100	Carbon Resistor	10.0 1/4 J		01
R242	HF454100	Carbon Resistor	10.0 1/4 J		01
R243	HF457100	Carbon Resistor	10.0K 1/4 J		01
-247	HF457100	Carbon Resistor	10.0K 1/4 J		01
R248	HF455680	Carbon Resistor	680.0 1/4 J		01
R249	HF456270	Carbon Resistor	2.7K 1/4 J		01
R250	HF457100	Carbon Resistor	10.0K 1/4 J		01
R251	HF455680	Carbon Resistor	680.0 1/4 J		01
R252	HF456270	Carbon Resistor	2.7K 1/4 J		01
R253	HF457100	Carbon Resistor	10.0K 1/4 J		01
R254	HF457100	Carbon Resistor	10.0K 1/4 J		01
R255	HF456270	Carbon Resistor	2.7K 1/4 J		01
R256	HF456270	Carbon Resistor	2.7K 1/4 J		01
R257	HF457100	Carbon Resistor	10.0K 1/4 J		01
R258	HF455680	Carbon Resistor	680.0 1/4 J		01
R259	HF456270	Carbon Resistor	2.7K 1/4 J		01
R260	HF457100	Carbon Resistor	10.0K 1/4 J		01
R261	HF455680	Carbon Resistor	680.0 1/4 J		01
R262	HF456270	Carbon Resistor	2.7K 1/4 J		01
R263	HF454100	Carbon Resistor	10.0 1/4 J		01
R264	HF454100	Carbon Resistor	10.0 1/4 J		01
R265	HF457180	Carbon Resistor	18.0K 1/4 J		01
R266	HF457180	Carbon Resistor	18.0K 1/4 J		01
R267	HF455220	Carbon Resistor	220.0 1/4 J		01

\*: New Parts

RANK : Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
R268	HF455220	Carbon Resistor	220.0 1/4 J			01
R269	HF456180	Carbon Resistor	1.8K 1/4 J			01
R270	HF456180	Carbon Resistor	1.8K 1/4 J			01
R271	HF457100	Carbon Resistor	10.0K 1/4 J			01
R272	HF457100	Carbon Resistor	10.0K 1/4 J			01
R273	HF454100	Carbon Resistor	10.0 1/4 J			01
R274	HF454100	Carbon Resistor	10.0 1/4 J			01
R275	HF457180	Carbon Resistor	18.0K 1/4 J			01
-282	HF457180	Carbon Resistor	18.0K 1/4 J			01
R301	HF458100	Carbon Resistor	100.0K 1/4 J			01
-304	HF458100	Carbon Resistor	100.0K 1/4 J			01
R305	VV065300	Metal Film Resistor	6.8K 1/4 F			01
R306	VV312400	Metal Film Resistor	3.9K 1/4 F			01
R307	VV065300	Metal Film Resistor	6.8K 1/4 F			01
R308	VV312400	Metal Film Resistor	3.9K 1/4 F			01
R309	HF458100	Carbon Resistor	100.0K 1/4 J			01
R310	HF458100	Carbon Resistor	100.0K 1/4 J			01
R311	VV058400	Flame Proof C. Resistor	390.0 1/4 J			01
R312	VV065300	Metal Film Resistor	6.8K 1/4 F			01
R313	VV058400	Flame Proof C. Resistor	390.0 1/4 J			01
R314	VV065300	Metal Film Resistor	6.8K 1/4 F			01
R315	VV312400	Metal Film Resistor	3.9K 1/4 F			01
R316	VV312400	Metal Film Resistor	3.9K 1/4 F			01
R317	HF456470	Carbon Resistor	4.7K 1/4 J			01
R318	HF456470	Carbon Resistor	4.7K 1/4 J			01
R319	HF454100	Carbon Resistor	10.0 1/4 J			01
-322	HF454100	Carbon Resistor	10.0 1/4 J			01
R323	VV066100	Metal Film Resistor	47K 1/4 F			01
-326	VV066100	Metal Film Resistor	47K 1/4 F			01
R327	HF454100	Carbon Resistor	10.0 1/4 J			01
R328	HF454100	Carbon Resistor	10.0 1/4 J			01
R329	VV065100	Metal Film Resistor	2.2K 1/4 F			01
R330	VV065400	Metal Film Resistor	8.2K 1/4 F			01
R331	VV065100	Metal Film Resistor	2.2K 1/4 F			01
R332	VV065400	Metal Film Resistor	8.2K 1/4 F			01
R333	HF456820	Carbon Resistor	8.2K 1/4 J			01
R334	HF456820	Carbon Resistor	8.2K 1/4 J			01
R335	HF455150	Carbon Resistor	150.0 1/4 J			01
R336	HF455150	Carbon Resistor	150.0 1/4 J			01
R337	VV065100	Metal Film Resistor	2.2K 1/4 F			01
R338	VV065400	Metal Film Resistor	8.2K 1/4 F			01
R339	VV065100	Metal Film Resistor	2.2K 1/4 F			01
R340	VV065400	Metal Film Resistor	8.2K 1/4 F			01
R341	HF454100	Carbon Resistor	10.0 1/4 J			01
R342	HF454100	Carbon Resistor	10.0 1/4 J			01
R343	HF457100	Carbon Resistor	10.0K 1/4 J			01
-347	HF457100	Carbon Resistor	10.0K 1/4 J			01
R348	HF455680	Carbon Resistor	680.0 1/4 J			01
R349	HF456270	Carbon Resistor	2.7K 1/4 J			01
R350	HF457100	Carbon Resistor	10.0K 1/4 J			01
R351	HF455680	Carbon Resistor	680.0 1/4 J			01
R352	HF456270	Carbon Resistor	2.7K 1/4 J			01
R353	HF457100	Carbon Resistor	10.0K 1/4 J			01
R354	HF457100	Carbon Resistor	10.0K 1/4 J			01
R355	HF456270	Carbon Resistor	2.7K 1/4 J			01
R356	HF456270	Carbon Resistor	2.7K 1/4 J			01
R357	HF457100	Carbon Resistor	10.0K 1/4 J			01
R358	HF455680	Carbon Resistor	680.0 1/4 J			01
R359	HF456270	Carbon Resistor	2.7K 1/4 J			01
R360	HF457100	Carbon Resistor	10.0K 1/4 J			01
R361	HF455680	Carbon Resistor	680.0 1/4 J			01
R362	HF456270	Carbon Resistor	2.7K 1/4 J			01
R363	HF454100	Carbon Resistor	10.0 1/4 J			01
R364	HF454100	Carbon Resistor	10.0 1/4 J			01
R365	HF457180	Carbon Resistor	18.0K 1/4 J			01
R366	HF457180	Carbon Resistor	18.0K 1/4 J			01
R367	HF455220	Carbon Resistor	220.0 1/4 J			01
R368	HF455220	Carbon Resistor	220.0 1/4 J			01
R369	HF456180	Carbon Resistor	1.8K 1/4 J			01
R370	HF456180	Carbon Resistor	1.8K 1/4 J			01

\*: New Parts

RANK : Japan only

REF NO.	PART NO.	DESCRIPTION	REMARKS	QTY	RANK
R371	HF457100	Carbon Resistor	10.0K 1/4 J		01
R372	HF457100	Carbon Resistor	10.0K 1/4 J		01
R373	HF454100	Carbon Resistor	10.0 1/4 J		01
R374	HF454100	Carbon Resistor	10.0 1/4 J		01
R375	HF457180	Carbon Resistor	18.0K 1/4 J		01
-382	HF457180	Carbon Resistor	18.0K 1/4 J		01
R401	HF458100	Carbon Resistor	100.0K 1/4 J		01
R402	VV065300	Metal Film Resistor	6.8K 1/4 F		01
R403	HF458100	Carbon Resistor	100.0K 1/4 J		01
R404	HF458100	Carbon Resistor	100.0K 1/4 J		01
R405	VV058400	Flame Proof C. Resistor	390.0 1/4 J		01
R406	VV065300	Metal Film Resistor	6.8K 1/4 F		01
R407	HF456470	Carbon Resistor	4.7K 1/4 J		01
R408	HF454100	Carbon Resistor	10.0 1/4 J		01
R409	HF454100	Carbon Resistor	10.0 1/4 J		01
R410	VV066100	Metal Film Resistor	47K 1/4 F		01
R411	VV066100	Metal Film Resistor	47K 1/4 F		01
R412	HF454100	Carbon Resistor	10.0 1/4 J		01
R413	VV065100	Metal Film Resistor	2.2K 1/4 F		01
R414	VV065400	Metal Film Resistor	8.2K 1/4 F		01
R415	HF455150	Carbon Resistor	150.0 1/4 J		01
R416	VV065100	Metal Film Resistor	2.2K 1/4 F		01
R417	VV065400	Metal Film Resistor	8.2K 1/4 F		01
R418	HF454100	Carbon Resistor	10.0 1/4 J		01
R419	HF457100	Carbon Resistor	10.0K 1/4 J		01
R420	HF457100	Carbon Resistor	10.0K 1/4 J		01
R421	HF457180	Carbon Resistor	18.0K 1/4 J		01
-424	HF457180	Carbon Resistor	18.0K 1/4 J		01
R425	HF458100	Carbon Resistor	100.0K 1/4 J		01
R426	HF458100	Carbon Resistor	100.0K 1/4 J		01
R427	HF456820	Carbon Resistor	8.2K 1/4 J		01
R428	HF456820	Carbon Resistor	8.2K 1/4 J		01
R429	HF457100	Carbon Resistor	10.0K 1/4 J		01
-431	HF457100	Carbon Resistor	10.0K 1/4 J		01
R432	HF455680	Carbon Resistor	680.0 1/4 J		01
R433	HF456270	Carbon Resistor	2.7K 1/4 J		01
R434	HF457100	Carbon Resistor	10.0K 1/4 J		01
R435	HF455680	Carbon Resistor	680.0 1/4 J		01
R436	HF456270	Carbon Resistor	2.7K 1/4 J		01
R437	HF457100	Carbon Resistor	10.0K 1/4 J		01
-439	HF457100	Carbon Resistor	10.0K 1/4 J		01
R440	HF455680	Carbon Resistor	680.0 1/4 J		01
R441	HF456270	Carbon Resistor	2.7K 1/4 J		01
R442	HF456270	Carbon Resistor	2.7K 1/4 J		01
R443	HF457100	Carbon Resistor	10.0K 1/4 J		01
R444	HF455680	Carbon Resistor	680.0 1/4 J		01
R445	HF456270	Carbon Resistor	2.7K 1/4 J		01
R446	HF456270	Carbon Resistor	2.7K 1/4 J		01
R447	HF454100	Carbon Resistor	10.0 1/4 J		01
R448	HF454100	Carbon Resistor	10.0 1/4 J		01
R449	HF457180	Carbon Resistor	18.0K 1/4 J		01
R450	HF457180	Carbon Resistor	18.0K 1/4 J		01
R451	HF455220	Carbon Resistor	220.0 1/4 J		01
R452	HF455220	Carbon Resistor	220.0 1/4 J		01
R453	HF456180	Carbon Resistor	1.8K 1/4 J		01
R454	HF456180	Carbon Resistor	1.8K 1/4 J		01
R455	HF457100	Carbon Resistor	10.0K 1/4 J		01
R456	HF457100	Carbon Resistor	10.0K 1/4 J		01
R457	HF454100	Carbon Resistor	10.0 1/4 J		01
R458	HF454100	Carbon Resistor	10.0 1/4 J		01
R459	HF457180	Carbon Resistor	18.0K 1/4 J		01
R460	HF457180	Carbon Resistor	18.0K 1/4 J		01
R461	HF457270	Carbon Resistor	27.0K 1/4 J		01
R462	HF457270	Carbon Resistor	27.0K 1/4 J		01
R463	HF457270	Carbon Resistor	27.0K 1/4 J		01
R464	HF457270	Carbon Resistor	27.0K 1/4 J		01
R501	HF458100	Carbon Resistor	100.0K 1/4 J		01
R502	VV065300	Metal Film Resistor	6.8K 1/4 F		01
R503	HF458100	Carbon Resistor	100.0K 1/4 J		01
R504	HF458100	Carbon Resistor	100.0K 1/4 J		01

\* : New Parts

RANK : Japan only



REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
R505	VV058400	Flame Proof C. Resistor	390.0 1/4 J			01
R506	VV065300	Metal Film Resistor	6.8K 1/4 F			01
R507	HF456470	Carbon Resistor	4.7K 1/4 J			01
R508	HF454100	Carbon Resistor	10.0 1/4 J			01
R509	HF454100	Carbon Resistor	10.0 1/4 J			01
R510	VV066100	Metal Film Resistor	47K 1/4 F			01
R511	VV066100	Metal Film Resistor	47K 1/4 F			01
R512	HF454100	Carbon Resistor	10.0 1/4 J			01
R513	VV065100	Metal Film Resistor	2.2K 1/4 F			01
R514	VV065400	Metal Film Resistor	8.2K 1/4 F			01
R515	HF455150	Carbon Resistor	150.0 1/4 J			01
R516	VV065100	Metal Film Resistor	2.2K 1/4 F			01
R517	VV065400	Metal Film Resistor	8.2K 1/4 F			01
R518	HF454100	Carbon Resistor	10.0 1/4 J			01
R519	HF457100	Carbon Resistor	10.0K 1/4 J			01
R520	HF457100	Carbon Resistor	10.0K 1/4 J			01
R521	HF457180	Carbon Resistor	18.0K 1/4 J			01
-524	HF457180	Carbon Resistor	18.0K 1/4 J			01
R525	HF458100	Carbon Resistor	100.0K 1/4 J			01
R526	HF458100	Carbon Resistor	100.0K 1/4 J			01
R527	HF456820	Carbon Resistor	8.2K 1/4 J			01
R528	HF456820	Carbon Resistor	8.2K 1/4 J			01
R529	HF457100	Carbon Resistor	10.0K 1/4 J			01
-531	HF457100	Carbon Resistor	10.0K 1/4 J			01
R532	HF455680	Carbon Resistor	680.0 1/4 J			01
R533	HF456270	Carbon Resistor	2.7K 1/4 J			01
R534	HF457100	Carbon Resistor	10.0K 1/4 J			01
R535	HF455680	Carbon Resistor	680.0 1/4 J			01
R536	HF456270	Carbon Resistor	2.7K 1/4 J			01
R537	HF457100	Carbon Resistor	10.0K 1/4 J			01
-539	HF457100	Carbon Resistor	10.0K 1/4 J			01
R540	HF455680	Carbon Resistor	680.0 1/4 J			01
R541	HF456270	Carbon Resistor	2.7K 1/4 J			01
R542	HF456270	Carbon Resistor	2.7K 1/4 J			01
R543	HF457100	Carbon Resistor	10.0K 1/4 J			01
R544	HF455680	Carbon Resistor	680.0 1/4 J			01
R545	HF456270	Carbon Resistor	2.7K 1/4 J			01
R546	HF456270	Carbon Resistor	2.7K 1/4 J			01
R547	HF454100	Carbon Resistor	10.0 1/4 J			01
R548	HF454100	Carbon Resistor	10.0 1/4 J			01
R549	HF457180	Carbon Resistor	18.0K 1/4 J			01
R550	HF457180	Carbon Resistor	18.0K 1/4 J			01
R551	HF455220	Carbon Resistor	220.0 1/4 J			01
R552	HF455220	Carbon Resistor	220.0 1/4 J			01
R553	HF456180	Carbon Resistor	1.8K 1/4 J			01
R554	HF456180	Carbon Resistor	1.8K 1/4 J			01
R555	HF457100	Carbon Resistor	10.0K 1/4 J			01
R556	HF457100	Carbon Resistor	10.0K 1/4 J			01
R557	HF454100	Carbon Resistor	10.0 1/4 J			01
R558	HF454100	Carbon Resistor	10.0 1/4 J			01
R559	HF457180	Carbon Resistor	18.0K 1/4 J			01
R560	HF457180	Carbon Resistor	18.0K 1/4 J			01
R561	HF457270	Carbon Resistor	27.0K 1/4 J			01
R562	HF457270	Carbon Resistor	27.0K 1/4 J			01
R563	HF457270	Carbon Resistor	27.0K 1/4 J			01
R564	HF457270	Carbon Resistor	27.0K 1/4 J			01
R601	HF456330	Carbon Resistor	3.3K 1/4 J			01
-604	HF456330	Carbon Resistor	3.3K 1/4 J			01
R605	HF458100	Carbon Resistor	100.0K 1/4 J			01
R606	HF458100	Carbon Resistor	100.0K 1/4 J			01
R607	HF456470	Carbon Resistor	4.7K 1/4 J			01
R608	HF456470	Carbon Resistor	4.7K 1/4 J			01
R609	HF457100	Carbon Resistor	10.0K 1/4 J			01
R610	HF457100	Carbon Resistor	10.0K 1/4 J			01
R611	HF455750	Carbon Resistor	750.0 1/4 J			01
R612	HF455680	Carbon Resistor	680.0 1/4 J			01
-614	HF455680	Carbon Resistor	680.0 1/4 J			01
R615	HF455750	Carbon Resistor	750.0 1/4 J			01
R616	HF455680	Carbon Resistor	680.0 1/4 J			01
-618	HF455680	Carbon Resistor	680.0 1/4 J			01

\*: New Parts

RANK : Japan only

REF NO.	PART NO.	DESCRIPTION	REMARKS	QTY	RANK
R619	HF457100	Carbon Resistor	10.0K 1/4 J		01
R620	HF457100	Carbon Resistor	10.0K 1/4 J		01
R621	HF457180	Carbon Resistor	18.0K 1/4 J		01
R622	HF457180	Carbon Resistor	18.0K 1/4 J		01
R623	HF457130	Carbon Resistor	13.0K 1/4 J		01
R624	HF457100	Carbon Resistor	10.0K 1/4 J		01
R625	HF457100	Carbon Resistor	10.0K 1/4 J		01
R626	HF457180	Carbon Resistor	18.0K 1/4 J		01
R627	HF457180	Carbon Resistor	18.0K 1/4 J		01
R628	HF454100	Carbon Resistor	10.0 1/4 J		01
R629	HF455220	Carbon Resistor	220.0 1/4 J		01
R630	HF455220	Carbon Resistor	220.0 1/4 J		01
R631	HF458100	Carbon Resistor	100.0K 1/4 J		01
R632	HF458100	Carbon Resistor	100.0K 1/4 J		01
R633	HF454100	Carbon Resistor	10.0 1/4 J		01
R634	HF456430	Carbon Resistor	4.3K 1/4 J		01
R635	HF456430	Carbon Resistor	4.3K 1/4 J		01
R636	HF457100	Carbon Resistor	10.0K 1/4 J		01
R637	HF457100	Carbon Resistor	10.0K 1/4 J		01
R638	HF454100	Carbon Resistor	10.0 1/4 J		01
R639	HF454100	Carbon Resistor	10.0 1/4 J		01
R640	HF455560	Carbon Resistor	560.0 1/4 J		01
R641	HF455560	Carbon Resistor	560.0 1/4 J		01
R642	HF458100	Carbon Resistor	100.0K 1/4 J		01
R643	HF458100	Carbon Resistor	100.0K 1/4 J		01
R644	HF455560	Carbon Resistor	560.0 1/4 J		01
R645	HF455560	Carbon Resistor	560.0 1/4 J		01
R701	HF456330	Carbon Resistor	3.3K 1/4 J		01
R702	HF456330	Carbon Resistor	3.3K 1/4 J		01
R703	HF458100	Carbon Resistor	100.0K 1/4 J		01
R704	HF456470	Carbon Resistor	4.7K 1/4 J		01
R705	HF457100	Carbon Resistor	10.0K 1/4 J		01
R706	HF455750	Carbon Resistor	750.0 1/4 J		01
R707	HF455680	Carbon Resistor	680.0 1/4 J		01
-709	HF455680	Carbon Resistor	680.0 1/4 J		01
R710	HF457100	Carbon Resistor	10.0K 1/4 J		01
R711	HF457180	Carbon Resistor	18.0K 1/4 J		01
R712	HF457180	Carbon Resistor	18.0K 1/4 J		01
R713	HF455220	Carbon Resistor	220.0 1/4 J		01
R714	HF455220	Carbon Resistor	220.0 1/4 J		01
R715	HF456430	Carbon Resistor	4.3K 1/4 J		01
R716	HF456430	Carbon Resistor	4.3K 1/4 J		01
R717	HF457100	Carbon Resistor	10.0K 1/4 J		01
R718	HF457100	Carbon Resistor	10.0K 1/4 J		01
R719	HF455560	Carbon Resistor	560.0 1/4 J		01
R720	HF454100	Carbon Resistor	10.0 1/4 J		01
R721	HF455560	Carbon Resistor	560.0 1/4 J		01
R722	HF458100	Carbon Resistor	100.0K 1/4 J		01
R723	HF458100	Carbon Resistor	100.0K 1/4 J		01
R724	HF455560	Carbon Resistor	560.0 1/4 J		01
R725	HF455560	Carbon Resistor	560.0 1/4 J		01
R801	HF457180	Carbon Resistor	18.0K 1/4 J		01
R802	HF457180	Carbon Resistor	18.0K 1/4 J		01
R803	HF457100	Carbon Resistor	10.0K 1/4 J		01
R804	HF457100	Carbon Resistor	10.0K 1/4 J		01
R805	HF458100	Carbon Resistor	100.0K 1/4 J		01
R806	HF458100	Carbon Resistor	100.0K 1/4 J		01
R807	HF456150	Carbon Resistor	1.5K 1/4 J		01
R808	HF456150	Carbon Resistor	1.5K 1/4 J		01
R809	HF457180	Carbon Resistor	18.0K 1/4 J		01
R810	HF457180	Carbon Resistor	18.0K 1/4 J		01
R811	HF457240	Carbon Resistor	24.0K 1/4 J		01
R812	HF457240	Carbon Resistor	24.0K 1/4 J		01
R813	HF456120	Carbon Resistor	1.2K 1/4 J		01
R814	HF456120	Carbon Resistor	1.2K 1/4 J		01
R815	HF458130	Carbon Resistor	130.0K 1/4 J		01
R816	HF458130	Carbon Resistor	130.0K 1/4 J		01
R817	HF454100	Carbon Resistor	10.0 1/4 J		01
R818	HF454100	Carbon Resistor	10.0 1/4 J		01
R819	HF456270	Carbon Resistor	2.7K 1/4 J		01

\* : New Parts

RANK : Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
R820	HF457120	Carbon Resistor	12.0K 1/4 J			01
R821	HF457120	Carbon Resistor	12.0K 1/4 J			01
SW101	VZ587700	Push Switch	2-2	1ch(PAD)		01
SW102	VZ587700	Push Switch	2-2	2ch(PAD)		01
SW201	VZ587700	Push Switch	2-2	3ch(PAD)		01
SW202	VZ587700	Push Switch	2-2	4ch(PAD)		01
SW301	VZ587700	Push Switch	2-2	5ch(PAD)		01
SW302	VZ587700	Push Switch	2-2	6ch(PAD)		01
* SW601	V3483200	Slide Switch	SS001-P022BQB-PA6	POWER AMP (STEREO-L+R BRIDGE)		
SW801	VU804900	Push Switch	SPEA31MC16-YL	DIGITAL EFFECT (VOCAL,L-HALL,H-HALL)		05
* SW802	V3147300	Push Switch	SPEA12MC03-YL	DIGITAL EFFECT(ON)		05
SW803	VV051500	Slide Switch	SSSU012NB1-YL	PHANTOM +45V(ON/OFF)		02
* VR101	V3161000	Rotary Variable Resistor	B 50.0K RK09D113	1ch&2ch(LOW,MID,HIGH)		
* -106	V3161000	Rotary Variable Resistor	B 50.0K RK09D113			
VR107	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	1ch(LEVEL)		04
VR108	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	2ch(LEVEL)		04
VR109	VZ610800	Rotary Variable Resistor	AC 20K RK12L123	1ch(PAN)		
VR110	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	1ch(EFFECT)		04
VR111	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	1ch(MONI)		04
VR112	VZ610800	Rotary Variable Resistor	AC 20K RK12L123	2ch(PAN)		
VR113	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	2ch(EFFECT)		04
VR114	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	2ch(MONI)		04
* VR201	V3161000	Rotary Variable Resistor	B 50.0K RK09D113	3ch&4ch(LOW,MID,HIGH)		
* -206	V3161000	Rotary Variable Resistor	B 50.0K RK09D113			
VR207	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	3ch(LEVEL)		04
VR208	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	4ch(LEVEL)		04
VR209	VZ610800	Rotary Variable Resistor	AC 20K RK12L123	3ch(PAN)		
VR210	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	3ch(EFFECT)		04
VR211	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	3ch(MONI)		04
VR212	VZ610800	Rotary Variable Resistor	AC 20K RK12L123	4ch(PAN)		
VR213	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	4ch(EFFECT)		04
VR214	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	4ch(MONI)		04
* VR301	V3161000	Rotary Variable Resistor	B 50.0K RK09D113	5ch&6ch(LOW,MID,HIGH)		
* -306	V3161000	Rotary Variable Resistor	B 50.0K RK09D113			
VR307	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	5ch(LEVEL)		04
VR308	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	6ch(LEVEL)		04
VR309	VZ610800	Rotary Variable Resistor	AC 20K RK12L123	5ch(PAN)		
VR310	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	5ch(EFFECT)		04
VR311	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	5ch(MONI)		04
VR312	VZ610800	Rotary Variable Resistor	AC 20K RK12L123	6ch(PAN)		
VR313	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	6ch(EFFECT)		04
VR314	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	6ch(MONI)		04
* VR401	VZ611100	Rotary Variable Resistor	B 50K RK12L123	7ch(LOW,MID,HIGH)		
* -403	VZ611100	Rotary Variable Resistor	B 50K RK12L123			
VR404	VZ610900	Rotary Variable Resistor	A 20K RK12L12C	7ch(LEVEL)		
VR405	VZ610800	Rotary Variable Resistor	AC 20K RK12L123	7ch(PAN)		
VR406	VZ610900	Rotary Variable Resistor	A 20K RK12L12C	7ch(EFFECT)		
VR407	VZ610900	Rotary Variable Resistor	A 20K RK12L12C	7ch(MONI)		
* VR501	VZ611100	Rotary Variable Resistor	B 50K RK12L123	8ch(LOW,MID,HIGH)		
* -503	VZ611100	Rotary Variable Resistor	B 50K RK12L123			
VR504	VZ610900	Rotary Variable Resistor	A 20K RK12L12C	8ch(LEVEL)		
VR505	VZ610800	Rotary Variable Resistor	AC 20K RK12L123	8ch(PAN)		
VR506	VZ610900	Rotary Variable Resistor	A 20K RK12L12C	8ch(EFFECT)		
VR507	VZ610900	Rotary Variable Resistor	A 20K RK12L12C	8ch(MONI)		
VR601	VU804300	Slide Variable Resistor	W 20.0K RS20H12	MAIN(STEREO) 125,250,1K,		03
-607	VU804300	Slide Variable Resistor	W 20.0K RS20H12	2K,4K,8K		03
VR608	VZ610900	Rotary Variable Resistor	A 20K RK12L12C	MAIN(STEREO)(MASTER)		
VR701	VV044600	Slide Variable Resistor	RS20H11KD017-YL	MONITOR 125,250,1K,2K,4K,		03
-707	VV044600	Slide Variable Resistor	RS20H11KD017-YL	8K		03
VR708	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	MONITOR(MASTER)		04
VR709	VU804600	Rotary Variable Resistor	A 20.0K RK09K113	EFFECT OUT		04
VR801	VZ610900	Rotary Variable Resistor	A 20K RK12L12C	MAIN(AUX IN,TAPE IN,		
-804	VZ610900	Rotary Variable Resistor	A 20K RK12L12C	EFFECT) MONITOR(EFFECT RTN)		
* NX820610		Circuit Board	PWR J	J (XV183B0)		
* NX820620		Circuit Board	PWR U	U,V (XV183B0)		
* NX820630		Circuit Board	PWR H	H,W,B,A (XV183B0)		

\*: New Parts

RANK : Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
*	NX820640	Circuit Board Assembly	SP OUT	(XV183B0)		
*	NX820650	Circuit Board Assembly	AC	(XV183B0)		
*	NX820660	Circuit Board Assembly	AC	(XV183B0)		
*	V3225000	Ferrite Core	FR25/15/12-D40			
	VV319600	Fuse Holder	CQ-05CT			01
	--	Jumper Wire	0.6	(VV29140)		01
C101	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C102	UJ866470	Electrolytic Cap.	4.70 50.0V			01
C103	UJ866470	Electrolytic Cap.	4.70 50.0V			01
C104	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C105	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C106	UJ896470	Electrolytic Cap.	4.7 100.0V			01
C107	UJ896470	Electrolytic Cap.	4.7 100.0V			01
C108	VV082200	Mylar Capacitor	3.3 100V M			03
C109	VV082200	Mylar Capacitor	3.3 100V M			03
C110	VZ354300	Ceramic Capacitor-E	0.0022 500 M			01
C111	VZ354300	Ceramic Capacitor-E	0.0022 500 M			01
C112	UJ698100	Electrolytic Cap.	100.00 100.0V			01
C113	UJ698100	Electrolytic Cap.	100.00 100.0V			01
C114	VZ354600	Monolithic Ceramic Cap.	0.10 50V Z			01
C115	VZ354600	Monolithic Ceramic Cap.	0.10 50V Z			01
* C116	V3280500	Ceramic Capacitor	100P 500V B			01
* C117	V3280500	Ceramic Capacitor	100P 500V B			01
C118	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C201	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C202	UJ866470	Electrolytic Cap.	4.70 50.0V			01
C203	UJ866470	Electrolytic Cap.	4.70 50.0V			01
C204	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C205	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C206	UJ896470	Electrolytic Cap.	4.7 100.0V			01
C207	UJ896470	Electrolytic Cap.	4.7 100.0V			01
C208	VV082200	Mylar Capacitor	3.3 100V M			03
C209	VV082200	Mylar Capacitor	3.3 100V M			03
C210	VZ354300	Ceramic Capacitor-E	0.0022 500 M			01
C211	VZ354300	Ceramic Capacitor-E	0.0022 500 M			01
C212	UJ698100	Electrolytic Cap.	100.00 100.0V			01
C213	UJ698100	Electrolytic Cap.	100.00 100.0V			01
C214	VZ354600	Monolithic Ceramic Cap.	0.1 50V Z			01
C215	VZ354600	Monolithic Ceramic Cap.	0.1 50V Z			01
C216	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
-218	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C301	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C302	UJ866470	Electrolytic Cap.	4.70 50.0V			01
C303	UJ866470	Electrolytic Cap.	4.70 50.0V			01
C304	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C305	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C306	UJ896470	Electrolytic Cap.	4.7 100.0V			01
C307	UJ896470	Electrolytic Cap.	4.7 100.0V			01
C308	VV082200	Mylar Capacitor	3.3 100V M			03
C309	VV082200	Mylar Capacitor	3.3 100V M			03
C310	VZ354300	Ceramic Capacitor-E	0.0022 500 M			01
C311	VZ354300	Ceramic Capacitor-E	0.0022 500 M			01
C312	UJ698100	Electrolytic Cap.	100.00 100.0V			01
C313	UJ698100	Electrolytic Cap.	100.00 100.0V			01
C314	VZ354600	Monolithic Ceramic Cap.	0.1 50V Z			01
C315	VZ354600	Monolithic Ceramic Cap.	0.1 50V Z			01
C316	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
-318	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C401	VV082300	Mylar Capacitor	0.1 250V M			01
C402	VV082300	Mylar Capacitor	0.1 250V M			01
C403	VV082100	Electrolytic Cap.	6800 80V			08
C404	VV082100	Electrolytic Cap.	6800 80V			08
C405	UJ659100	Electrolytic Cap.	1000 35.0V			02
-408	UJ659100	Electrolytic Cap.	1000 35.0V			02
C409	UJ866470	Electrolytic Cap.	4.7 50.0V			01
C410	UJ866470	Electrolytic Cap.	4.7 50.0V			01
C411	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C412	UJ866100	Electrolytic Cap.	1.00 50.0V			01
C413	UJ866100	Electrolytic Cap.	1.00 50.0V			01
C414	UJ698330	Electrolytic Cap.	330.00 100.0V			02

\* : New Parts

RANK : Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
C415	UJ698330	Electrolytic Cap.	330.00 100.0V			02
C416	UJ896470	Electrolytic Cap.	4.7 100.0V			01
C417	UJ896470	Electrolytic Cap.	4.7 100.0V			01
C418	UJ866470	Electrolytic Cap.	4.70 50.0V			01
C419	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C420	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C421	UJ828470	Electrolytic Cap.	470.00 10.0V			01
C422	VV314800	Capacitor	1000P 400V J.U.C.S			01
C423	VV520600	Capacitor	0.01 400V J.U.C.S			02
CN101	VV067500	Connector Base Post	M2426XX 15P TE			01
CN102	LB932060	Base Post Connector	VH- 6P TE			01
CN103	VV066200	Connector Base Post	M2426XX 2P TE			01
CN104	LB933060	Base Post Connector	VH- 6P SE			01
CN105	LB933030	Base Post Connector	VH- 3P SE			01
CN106	LB933030	Base Post Connector	VH- 3P SE			01
D101	VD631600	Diode	1SS133,176,HSS104			01
-104	VD631600	Diode	1SS133,176,HSS104			01
D105	VG437700	Zener Diode	MTZ J 5.6B 5.6V			01
D106	VG437700	Zener Diode	MTZ J 5.6B 5.6V			01
D107	VD631600	Diode	1SS133,176,HSS104			01
D108	VD631600	Diode	1SS133,176,HSS104			01
D109	IF005560	Diode	1SS82TD			01
D110	IF005560	Diode	1SS82TD			01
D111	VV306600	Diode	SFT14 26			01
D112	VV306600	Diode	SFT14 26			01
D113	VV082000	Diode	2A01			01
-116	VV082000	Diode	2A01			01
D117	VU801600	Diode	1N4004L 26			01
-120	VU801600	Diode	1N4004L 26			01
D121	VZ026700	Diode	RL 10Z LFB2			03
D122	VZ026700	Diode	RL 10Z LFB2			03
D201	VD631600	Diode	1SS133,176,HSS104			01
-204	VD631600	Diode	1SS133,176,HSS104			01
D205	VG437700	Zener Diode	MTZ J 5.6B 5.6V			01
D206	VG437700	Zener Diode	MTZ J 5.6B 5.6V			01
D207	VD631600	Diode	1SS133,176,HSS104			01
D208	VD631600	Diode	1SS133,176,HSS104			01
D209	IF005560	Diode	1SS82TD			01
D210	IF005560	Diode	1SS82TD			01
D211	VV306600	Diode	SFT14 26			01
D212	VV306600	Diode	SFT14 26			01
D213	VV082000	Diode	2A01			01
-216	VV082000	Diode	2A01			01
D217	VU801600	Diode	1N4004L 26			01
-220	VU801600	Diode	1N4004L 26			01
D221	VZ026700	Diode	RL 10Z LFB2			03
D222	VZ026700	Diode	RL 10Z LFB2			03
D301	VD631600	Diode	1SS133,176,HSS104			01
-304	VD631600	Diode	1SS133,176,HSS104			01
D305	VG437700	Zener Diode	MTZ J 5.6B 5.6V			01
D306	VG437700	Zener Diode	MTZ J 5.6B 5.6V			01
D307	VD631600	Diode	1SS133,176,HSS104			01
D308	VD631600	Diode	1SS133,176,HSS104			01
D309	IF005560	Diode	1SS82TD			01
D310	IF005560	Diode	1SS82TD			01
D311	VV306600	Diode	SFT14 26			01
D312	VV306600	Diode	SFT14 26			01
D313	VV082000	Diode	2A01			01
-316	VV082000	Diode	2A01			01
D317	VU801600	Diode	1N4004L 26			01
-320	VU801600	Diode	1N4004L 26			01
D321	VZ026700	Diode	RL 10Z LFB2			03
D322	VZ026700	Diode	RL 10Z LFB2			03
D401	V2954200	Diode Stack	D10XB20 10.0A 200V			01
D402	VU801600	Diode	1N4004L 26			01
-407	VU801600	Diode	1N4004L 26			01
D408	VG438900	Zener Diode	MTZ J 8.2B 8.2V			01
D409	VU801600	Diode	1N4004L 26			01
D410	VU801600	Diode	1N4004L 26			01
D411	VG440800	Zener Diode	MTZ J 15.0B 15.0V			01

\*: New Parts

RANK : Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
D412	VV335500	Zener Diode	MTZ J 43 43.0V			01
-414	VV335500	Zener Diode	MTZ J 43 43.0V			01
D415	VG438900	Zener Diode	MTZ J 8.2B 8.2V			01
D416	VU801600	Diode	1N4004L 26			01
D417	VU801600	Diode	1N4004L 26			01
E101	VV075700	Terminal Plate				01
F101	KB001380	Fuse	15.00A U	J		04
F101	KB001540	Fuse	12.00A UL	U,V		04
F101	KB003360	Fuse	6.30A S	H,W,B,A		02
F102	VV070600	Fuse	TDS 2A 250V J/U/C	J,U,V		01
F102	VV071500	Fuse	TSD 2A 250V SEMKO	H,W,B,A		01
F103	VV070600	Fuse	TDS 2A 250V J/U/C	J,U,V		01
F103	VV071500	Fuse	TSD 2A 250V SEMKO	H,W,B,A		01
IC101	XD853A00	IC	NJM7815FA	REGULATOR +15V		03
IC102	XD854A00	IC	NJM7915FA	REGULATOR -15V		03
IC103	XJ607A00	IC	NJM7805FA	REGULATOR +5V		02
JK101	VV089300	Phone Jack	H30280072N	SPEAKERS(L-B,A/L+R,BRIDGE		01
-107	VV089300	Phone Jack	H30280072N	R-A,B/MONITOR A,B)		01
L101	V0030700	Coil	LHL16NB680K			04
-104	V0030700	Coil	LHL16NB680K			04
L105	VR150900	Coil	RZ-001 21MM			02
L106	GE300670	Ferrite Bead	BL02RN2-R62T4			02
L107	GE300670	Ferrite Bead	BL02RN2-R62T4			02
L201	V0030700	Coil	LHL16NB680K			04
-204	V0030700	Coil	LHL16NB680K			04
L205	VR150900	Coil	RZ-001 21MM			02
L206	GE300670	Ferrite Bead	BL02RN2-R62T4			02
L207	GE300670	Ferrite Bead	BL02RN2-R62T4			02
L301	V0030700	Coil	LHL16NB680K			04
-304	V0030700	Coil	LHL16NB680K			04
L305	VR150900	Coil	RZ-001 21MM			02
L306	GE300670	Ferrite Bead	BL02RN2-R62T4			02
L307	GE300670	Ferrite Bead	BL02RN2-R62T4			02
PR101	VL964800	Positive Thermistor	PTH9M04BH222TS2			04
PR102	VL965100	Positive Thermistor	PTH9M04BE222TS2			04
Q101	VE198700	Transistor	2SA1145 O,Y			01
Q102	VE198800	Transistor	2SC2705 O,Y			01
Q103	V2797700	Transistor	2SC5395 E,F			01
Q104	V2797600	Transistor	2SA1993 E,F			01
Q105	VE198800	Transistor	2SC2705 O,Y			01
Q106	VE198700	Transistor	2SA1145 O,Y			01
* Q107N	V2954300	Pair Transistor	B1647/D2560	) Set		
* Q108P		Pair Transistor	B1647/D2560			
* Q109N	V2954300	Pair Transistor	B1647/D2560	) Set		
* Q110P		Pair Transistor	B1647/D2560			
Q111	VP872600	Transistor	2SA1708 S,T			01
Q112	VP872700	Transistor	2SC4488 S,T			01
* Q113N	V2954300	Pair Transistor	B1647/D2560	) Set		
* Q114P		Pair Transistor	B1647/D2560			
Q201	VE198700	Transistor	2SA1145 O,Y			01
Q202	VE198800	Transistor	2SC2705 O,Y			01
Q203	V2797700	Transistor	2SC5395 E,F			01
Q204	V2797600	Transistor	2SA1993 E,F			01
Q205	VE198800	Transistor	2SC2705 O,Y			01
Q206	VE198700	Transistor	2SA1145 O,Y			01
* Q207N	V2954300	Pair Transistor	B1647/D2560	) Set		
* Q208P		Pair Transistor	B1647/D2560			
* Q209N	V2954300	Pair Transistor	B1647/D2560	) Set		
* Q210P		Pair Transistor	B1647/D2560			
Q211	VP872600	Transistor	2SA1708 S,T			01
Q212	VP872700	Transistor	2SC4488 S,T			01
* Q213N	V2954300	Pair Transistor	B1647/D2560			
* Q214P		Pair Transistor	B1647/D2560			
Q301	VE198700	Transistor	2SA1145 O,Y			01
Q302	VE198800	Transistor	2SC2705 O,Y			01
Q303	V2797700	Transistor	2SC5395 E,F			01
Q304	V2797600	Transistor	2SA1993 E,F			01
Q305	VE198800	Transistor	2SC2705 O,Y			01
Q306	VE198700	Transistor	2SA1145 O,Y			01
* Q307N	V2954300	Pair Transistor	B1647/D2560	)		

\* : New Parts

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REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
* Q308P		Pair Transistor	B1647/D2560	) Set		
* Q309N	V2954300	Pair Transistor	B1647/D2560			
* Q310P		Pair Transistor	B1647/D2560	) Set		
Q311	VP872600	Transistor	2SA1708 S,T			
Q312	VP872700	Transistor	2SC4488 S,T			01
* Q313N	V2954300	Pair Transistor	B1647/D2560	) Set		
* Q314P		Pair Transistor	B1647/D2560			
Q401	V2797700	Transistor	2SC5395 E,F			01
Q402	VS883400	Transistor	2SD2394 E,F			02
Q403	VS883400	Transistor	2SD2394 E,F			02
Q404	V2797700	Transistor	2SC5395 E,F			01
Q405	V2797600	Transistor	2SA1993 E,F			01
Q406	V2797700	Transistor	2SC5395 E,F			01
-408	V2797700	Transistor	2SC5395 E,F			01
R101	HF455220	Carbon Resistor	220.0 1/4 J			01
R102	HF455220	Carbon Resistor	220.0 1/4 J			01
R103	HF457470	Carbon Resistor	47.0K 1/4 J			01
R104	HF457470	Carbon Resistor	47.0K 1/4 J			01
R105	HF457100	Carbon Resistor	10.0K 1/4 J			01
-108	HF457100	Carbon Resistor	10.0K 1/4 J			01
R109	HF457150	Carbon Resistor	15.0K 1/4 J			01
R110	HF457150	Carbon Resistor	15.0K 1/4 J			01
R111	VZ009300	Flame Proof C. Resistor	330.0 1/4 J			01
R112	VZ009300	Flame Proof C. Resistor	330.0 1/4 J			01
R113	VV313800	Flame Proof C. Resistor	220.0 1/4 J			01
-116	VV313800	Flame Proof C. Resistor	220.0 1/4 J			01
R117	VR412900	Metal Film Resistor	0.10 3W J			01
R118	VR412900	Metal Film Resistor	0.10 3W J			01
R119	VV557800	Flame Proof C. Resistor	1.0 1/4 J			01
-122	VV557800	Flame Proof C. Resistor	1.0 1/4 J			01
R123	VV313700	Flame Proof C. Resistor	47.0 1/4 J			01
R124	VV313700	Flame Proof C. Resistor	47.0 1/4 J			01
R125	VV276800	Flame Proof C. Resistor	100 1/4 J			01
R126	VV276800	Flame Proof C. Resistor	100 1/4 J			01
R127	VV058500	Flame Proof C. Resistor	10.0 1/4 J			01
R128	VV058500	Flame Proof C. Resistor	10.0 1/4 J			01
R129	HF458150	Carbon Resistor	150.0K 1/4 J			01
R201	HF455220	Carbon Resistor	220.0 1/4 J			01
R202	HF455220	Carbon Resistor	220.0 1/4 J			01
R203	HF457470	Carbon Resistor	47.0K 1/4 J			01
R204	HF457470	Carbon Resistor	47.0K 1/4 J			01
R205	HF457100	Carbon Resistor	10.0K 1/4 J			01
-208	HF457100	Carbon Resistor	10.0K 1/4 J			01
R209	HF457150	Carbon Resistor	15.0K 1/4 J			01
R210	HF457150	Carbon Resistor	15.0K 1/4 J			01
R211	VZ009300	Flame Proof C. Resistor	330.0 1/4 J			01
R212	VZ009300	Flame Proof C. Resistor	330.0 1/4 J			01
R213	VV313800	Flame Proof C. Resistor	220.0 1/4 J			01
-216	VV313800	Flame Proof C. Resistor	220.0 1/4 J			01
R217	VR412900	Metal Film Resistor	0.10 3W J			01
R218	VR412900	Metal Film Resistor	0.10 3W J			01
R219	VV557800	Flame Proof C. Resistor	1.0 1/4 J			01
-222	VV557800	Flame Proof C. Resistor	1.0 1/4 J			01
R223	VV313700	Flame Proof C. Resistor	47.0 1/4 J			01
R224	VV313700	Flame Proof C. Resistor	47.0 1/4 J			01
R225	VV276800	Flame Proof C. Resistor	100 1/4 J			01
R226	VV276800	Flame Proof C. Resistor	100 1/4 J			01
R227	VV058500	Flame Proof C. Resistor	10.0 1/4 J			01
R228	VV058500	Flame Proof C. Resistor	10.0 1/4 J			01
R229	HF458150	Carbon Resistor	150.0K 1/4 J			01
R301	HF455220	Carbon Resistor	220.0 1/4 J			01
R302	HF455220	Carbon Resistor	220.0 1/4 J			01
R303	HF457470	Carbon Resistor	47.0K 1/4 J			01
R304	HF457470	Carbon Resistor	47.0K 1/4 J			01
R305	HF457100	Carbon Resistor	10.0K 1/4 J			01
-308	HF457100	Carbon Resistor	10.0K 1/4 J			01
R309	HF457150	Carbon Resistor	15.0K 1/4 J			01
R310	HF457150	Carbon Resistor	15.0K 1/4 J			01
R311	VZ009300	Flame Proof C. Resistor	330.0 1/4 J			01
R312	VZ009300	Flame Proof C. Resistor	330.0 1/4 J			01

\*: New Parts

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REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
R313	VV313800	Flame Proof C. Resistor	220.0 1/4 J			01
-316	VV313800	Flame Proof C. Resistor	220.0 1/4 J			01
R317	VR412900	Metal Film Resistor	0.10 3W J			01
R318	VR412900	Metal Film Resistor	0.10 3W J			01
R319	VV557800	Flame Proof C. Resistor	1.0 1/4 J			01
-322	VV557800	Flame Proof C. Resistor	1.0 1/4 J			01
R323	VV313700	Flame Proof C. Resistor	47.0 1/4 J			01
R324	VV313700	Flame Proof C. Resistor	47.0 1/4 J			01
R325	VV276800	Flame Proof C. Resistor	100 1/4 J			01
R326	VV276800	Flame Proof C. Resistor	100 1/4 J			01
R327	VV058500	Flame Proof C. Resistor	10.0 1/4 J			01
R328	VV058500	Flame Proof C. Resistor	10.0 1/4 J			01
R329	HF458150	Carbon Resistor	150.0K 1/4 J			01
R401	VV313800	Flame Proof C. Resistor	220.0 1/4 J			01
R402	VV313800	Flame Proof C. Resistor	220.0 1/4 J			01
R403	HF457120	Carbon Resistor	12.0K 1/4 J			01
R404	HF456220	Carbon Resistor	2.2K 1/4 J			01
R405	HF455100	Carbon Resistor	100.0 1/4 J			01
R406	HF457100	Carbon Resistor	10.0K 1/4 J			01
R407	HF457220	Carbon Resistor	22.0K 1/4 J			01
R408	HF457150	Carbon Resistor	15.0K 1/4 J			01
R409	HF457120	Carbon Resistor	12.0K 1/4 J			01
R410	HF457100	Carbon Resistor	10.0K 1/4 J			01
R411	HF457100	Carbon Resistor	10.0K 1/4 J			01
R412	HF456220	Carbon Resistor	2.2K 1/4 J			01
R413	HF457560	Carbon Resistor	56.0K 1/4 J			01
R414	HF458100	Carbon Resistor	100.0K 1/4 J			01
R415	HF457100	Carbon Resistor	10.0K 1/4 J			01
R416	HF454100	Carbon Resistor	10.0 1/4 J			01
R417	VV276800	Flame Proof C. Resistor	100 1/4 J			01
R418	VV276800	Flame Proof C. Resistor	100 1/4 J			01
RY101	VV315400	Relay	DC OSA-SH-224DM3M			06
RY102	VV315400	Relay	DC OSA-SH-224DM3M			06
SW101	VY898100	Push Switch	SDDFA3107U-YL UCS	POWER ON/OFF		05
* W101	V2970100	Connector Assembly	B&C #18			
* V2952500	Circuit Board	SUB		(XV184C0)		
--	Jumper Wire	0.6		(VV29140)		01
C101	VZ353000	Ceramic Capacitor-SL	33P 50V J			01
C102	VZ353000	Ceramic Capacitor-SL	33P 50V J			01
C103	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C104	VZ353900	Ceramic Capacitor-SL	1000P 50V J			01
C105	VZ354600	Monolithic Ceramic Cap.	0.1 50V Z			01
C106	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C107	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C108	VV061200	Mylar Capacitor	6800P 50V J			01
C109	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C110	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C111	VV062100	Mylar Capacitor	0.027 50V J			01
C112	VV060100	Mylar Capacitor	1500P 50V J			08
C113	VV061400	Mylar Capacitor	0.01 50V J			01
C114	VV062100	Mylar Capacitor	0.027 50V J			01
C115	VV060100	Mylar Capacitor	1500P 50V J			08
C116	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C117	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C118	VV060600	Mylar Capacitor	3300P 50V J			01
C119	VV060600	Mylar Capacitor	3300P 50V J			01
C120	UJ838100	Electrolytic Cap.	100.00 16.0V			01
C121	UJ838100	Electrolytic Cap.	100.00 16.0V			01
C122	UJ866100	Electrolytic Cap.	1.00 50.0V			01
C123	VZ354600	Monolithic Ceramic Cap.	0.1 50V Z			01
C124	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C125	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C126	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C127	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C128	VV061400	Mylar Capacitor	0.01 50V J			01
C129	VV061400	Mylar Capacitor	0.01 50V J			01
C130	VV062100	Mylar Capacitor	0.027 50V J			01
C131	VV062100	Mylar Capacitor	0.027 50V J			01
C132	VV060100	Mylar Capacitor	1500P 50V J			08

\* : New Parts

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REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
C133	VV060100	Mylar Capacitor	1500P 50V J			08
C134	VV062800	Mylar Capacitor	0.1 50V J			01
C135	VV062800	Mylar Capacitor	0.1 50V J			01
C136	VZ354300	Ceramic Capacitor-E	0.0022 500 M			01
C137	VZ354300	Ceramic Capacitor-E	0.0022 500 M			01
C138	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C139	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C140	VV061200	Mylar Capacitor	6800P 50V J			01
C141	VV061200	Mylar Capacitor	6800P 50V J			01
C142	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C143	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C144	VY946300	Electrolytic Cap.	100.0 35.0V			01
C145	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
-156	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C157	VZ354600	Monolithic Ceramic Cap.	0.1 50V Z			01
C158	VZ354600	Monolithic Ceramic Cap.	0.1 50V Z			01
C159	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C160	UJ866100	Electrolytic Cap.	1.00 50.0V			01
C161	VZ354600	Monolithic Ceramic Cap.	0.1 50V Z			01
C162	VZ354600	Monolithic Ceramic Cap.	0.1 50V Z			01
C201	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C202	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C203	VZ353600	Ceramic Cap.-B	220P 50V K			01
-206	VZ353600	Ceramic Cap.-B	220P 50V K			01
C207	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C208	VZ353200	Ceramic Capacitor-SL	47P 50V J			01
C209	VZ352600	Ceramic Capacitor-SL	6P 50V J			01
C210	VZ353200	Ceramic Capacitor-SL	47P 50V J			01
C211	VZ352800	Ceramic Capacitor-SL	22P 50V J			01
C212	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C213	UJ847470	Electrolytic Cap.	47.00 25.0V			01
-215	UJ847470	Electrolytic Cap.	47.00 25.0V			01
C216	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C301	VV330700	Electrolytic Cap.	470.00 10.0V			01
C302	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C303	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C304	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C305	UJ866100	Electrolytic Cap.	1.00 50.0V			01
C306	VZ353900	Ceramic Cap.-B	1000P 50V K			01
C307	VZ353800	Ceramic Cap.-B	470P 50V K			01
C308	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C309	UJ828100	Electrolytic Cap.	100.00 10.0V			01
C310	UJ896470	Electrolytic Cap.	4.7 100.0V			01
C311	UJ896470	Electrolytic Cap.	4.7 100.0V			01
C312	FU450500	Mica Capacitor	5P 500V D			01
C313	FU451820	Mica Capacitor	82P 500V J			01
C321	VV330700	Electrolytic Cap.	470.00 10.0V			01
C322	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C323	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C324	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C329	UJ828100	Electrolytic Cap.	100.00 10.0V			01
C330	UJ896470	Electrolytic Cap.	4.7 100.0V			01
C331	UJ896470	Electrolytic Cap.	4.7 100.0V			01
C332	FU450500	Mica Capacitor	5P 500V D			01
C333	FU451820	Mica Capacitor	82P 500V J			01
C341	VV330700	Electrolytic Cap.	470.00 10.0V			01
C342	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C343	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
C344	VZ353500	Ceramic Capacitor-SL	100P 50V J			01
C345	UJ866100	Electrolytic Cap.	1.00 50.0V			01
C346	VZ353900	Ceramic Cap.-B	1000P 50V K			01
C347	VZ353800	Ceramic Cap.-B	470P 50V K			01
C348	UJ847100	Electrolytic Cap.	10.00 25.0V			01
C349	UJ828100	Electrolytic Cap.	100.00 10.0V			01
C350	UJ896470	Electrolytic Cap.	4.7 100.0V			01
C351	UJ896470	Electrolytic Cap.	4.7 100.0V			01
C352	FU450500	Mica Capacitor	5P 500V D			01
C353	FU451820	Mica Capacitor	82P 500V J			01
C361	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01
-366	VZ354000	Ceramic Capacitor-F	0.01 50V Z			01

\*: New Parts

RANK : Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
CN101	VV067500	Connector Base Post	M2426XX 15P TE			01
CN201	VV067000	Connector Base Post	M2426XX 10P TE			01
CN202	VV066500	Connector Base Post	M2426XX 5P TE			01
CN301	VV067500	Connector Base Post	M2426XX 15P TE			01
D101	VD631600	Diode	1SS133,176,HSS104			01
-105	VD631600	Diode	1SS133,176,HSS104			01
D301	VD631600	Diode	1SS133,176,HSS104			01
-318	VD631600	Diode	1SS133,176,HSS104			01
EM101	VV056900	Noise Filter	ZJSR5101-223TA			01
-104	VV056900	Noise Filter	ZJSR5101-223TA			01
IC101	XN299A00	IC	YSS234(SP3)	SP3		11
IC102	XU783A00	IC	W24258-70LL	SRAM 256K		05
IC103	IR007400	IC	TC74HC74AP	DFE		04
IC104	IR001400	IC	TC74HC14AP	INVERTER		02
IC105	XM922A00	IC	NJM4558L	OP AMP		01
IC105	XQ212A00	IC	NJM4558L-D			03
IC106	XM922A00	IC	NJM4558L	OP AMP		01
IC106	XQ212A00	IC	NJM4558L-D			03
IC107	XN796A00	IC	NJM2082L	OP AMP		02
IC108	XM922A00	IC	NJM4558L	OP AMP		01
-110	XM922A00	IC	NJM4558L	OP AMP		01
IC108	XQ212A00	IC	NJM4558L-D	OP AMP		03
-110	XQ212A00	IC	NJM4558L-D	OP AMP		03
IC111	XJ607A00	IC	NJM7805FA	REGULATOR +5V		02
IC201	XM356A00	IC	NJM2068L-D	OP AMP		02
IC202	XM356A00	IC	NJM2068L-D	OP AMP		02
IC301	XM922A00	IC	NJM4558L			01
-303	XM922A00	IC	NJM4558L	OP AMP		01
IC301	XQ212A00	IC	NJM4558L-D			03
-303	XQ212A00	IC	NJM4558L-D			03
Q101	VD678700	Digital Transistor	DTC114ES			01
Q102	IA101590	Transistor	2SA1015 O,Y			01
Q103	IA101590	Transistor	2SA1015 O,Y			01
Q301	VD678500	Digital Transistor	DTA114ES			01
Q302	VD678700	Digital Transistor	DTC114ES			01
Q303	IA101590	Transistor	2SA1015 O,Y			01
Q304	IA101590	Transistor	2SA1015 O,Y			01
* Q305	IC1815M0	Transistor	2SC1815 Y,GR			01
Q306	IC1815M0	Transistor	2SC1815 Y,GR			01
Q307	VD678700	Digital Transistor	DTC114ES			01
Q308	VD678500	Digital Transistor	DTA114ES			01
Q309	IA097030	Transistor	2SA970 GR,BL			01
-311	IA097030	Transistor	2SA970 GR,BL			01
Q312	IC224030	Transistor	2SC2240 GR,BL			01
Q313	IC1815M0	Transistor	2SC1815 Y,GR			01
Q314	IC1815M0	Transistor	2SC1815 Y,GR			01
Q315	IA097030	Transistor	2SA970 GR,BL			01
Q316	IC224030	Transistor	2SC2240 GR,BL			01
Q317	IC224030	Transistor	2SC2240 GR,BL			01
Q318	IA097030	Transistor	2SA970 GR,BL			01
Q323	IA101590	Transistor	2SA1015 O,Y			01
Q324	IA101590	Transistor	2SA1015 O,Y			01
Q325	IC1815M0	Transistor	2SC1815 Y,GR			01
Q326	IC1815M0	Transistor	2SC1815 Y,GR			01
Q329	IA097030	Transistor	2SA970 GR,BL			01
-331	IA097030	Transistor	2SA970 GR,BL			01
Q332	IC224030	Transistor	2SC2240 GR,BL			01
Q333	IC1815M0	Transistor	2SC1815 Y,GR			01
Q334	IC1815M0	Transistor	2SC1815 Y,GR			01
Q335	IA097030	Transistor	2SA970 GR,BL			01
Q336	IC224030	Transistor	2SC2240 GR,BL			01
Q337	IC224030	Transistor	2SC2240 GR,BL			01
Q338	IA097030	Transistor	2SA970 GR,BL			01
Q341	VD678500	Digital Transistor	DTA114ES			01
* Q342	VD678700	Digital Transistor	DTC114ES			01
Q343	IA101590	Transistor	2SA1015 O,Y			01
Q344	IA101590	Transistor	2SA1015 O,Y			01
Q345	IC1815M0	Transistor	2SC1815 Y,GR			01
Q346	IC1815M0	Transistor	2SC1815 Y,GR			01
Q347	VD678700	Digital Transistor	DTC114ES			01

\* : New Parts

RANK : Japan only

REF NO.	PART NO.	DESCRIPTION	REMARKS	QTY	RANK
Q348	VD678500	Digital Transistor	DTA114ES		01
Q349	IA097030	Transistor	2SA970 GR,BL		01
-351	IA097030	Transistor	2SA970 GR,BL		01
Q352	IC224030	Transistor	2SC2240 GR,BL		01
Q353	IC1815M0	Transistor	2SC1815 Y,GR		01
Q354	IC1815M0	Transistor	2SC1815 Y,GR		01
Q355	IA097030	Transistor	2SA970 GR,BL		01
Q356	IC224030	Transistor	2SC2240 GR,BL		01
Q357	IC224030	Transistor	2SC2240 GR,BL		01
Q358	IA097030	Transistor	2SA970 GR,BL		01
R101	HF455680	Carbon Resistor	680.0 1/4 J		01
R102	HF458240	Carbon Resistor	240.0K 1/4 J		01
R103	HF458240	Carbon Resistor	240.0K 1/4 J		01
R104	HF457100	Carbon Resistor	10.0K 1/4 J		01
R105	HF457470	Carbon Resistor	47.0K 1/4 J		01
R106	HF456330	Carbon Resistor	3.3K 1/4 J		01
R107	HF457100	Carbon Resistor	10.0K 1/4 J		01
R108	HF456390	Carbon Resistor	3.9K 1/4 J		01
R109	HF457100	Carbon Resistor	10.0K 1/4 J		01
R110	HF457100	Carbon Resistor	10.0K 1/4 J		01
R111	HF456220	Carbon Resistor	2.2K 1/4 J		01
R112	HF456220	Carbon Resistor	2.2K 1/4 J		01
R113	HF456470	Carbon Resistor	4.7K 1/4 J		01
R114	HF456100	Carbon Resistor	1.0K 1/4 J		01
R115	HF456220	Carbon Resistor	2.2K 1/4 J		01
-117	HF456220	Carbon Resistor	2.2K 1/4 J		01
R118	HF457470	Carbon Resistor	47.0K 1/4 J		01
R119	HF457470	Carbon Resistor	47.0K 1/4 J		01
R120	HF456220	Carbon Resistor	2.2K 1/4 J		01
R125	HF456220	Carbon Resistor	2.2K 1/4 J		01
R126	HF456220	Carbon Resistor	2.2K 1/4 J		01
R127	HF455100	Carbon Resistor	100.0 1/4 J		01
R128	HF455100	Carbon Resistor	100.0 1/4 J		01
R129	HF456220	Carbon Resistor	2.2K 1/4 J		01
R130	HF457100	Carbon Resistor	10.0K 1/4 J		01
-133	HF457100	Carbon Resistor	10.0K 1/4 J		01
R134	HF456390	Carbon Resistor	3.9K 1/4 J		01
R135	HF456390	Carbon Resistor	3.9K 1/4 J		01
R136	HF457100	Carbon Resistor	10.0K 1/4 J		01
R137	HF457100	Carbon Resistor	10.0K 1/4 J		01
R138	HF455470	Carbon Resistor	470.0 1/4 J		01
R139	HF455470	Carbon Resistor	470.0 1/4 J		01
R140	HF458100	Carbon Resistor	100.0K 1/4 J		01
R141	HF458100	Carbon Resistor	100.0K 1/4 J		01
R142	HF456470	Carbon Resistor	4.7K 1/4 J		01
R143	HF458470	Carbon Resistor	470.0K 1/4 J		01
R144	HF458100	Carbon Resistor	100.0K 1/4 J		01
R145	HF458100	Carbon Resistor	100.0K 1/4 J		01
R146	VV313700	Flame Proof C. Resistor	47.0 1/4 J		01
R201	HF457180	Carbon Resistor	18.0K 1/4 J		01
R202	HF458120	Carbon Resistor	120.0K 1/4 J		01
R203	HF457180	Carbon Resistor	18.0K 1/4 J		01
R204	HF457360	Carbon Resistor	36.0K 1/4 J		01
R205	HF454100	Carbon Resistor	10.0 1/4 J		01
-208	HF454100	Carbon Resistor	10.0 1/4 J		01
R301	VV066100	Metal Film Resistor	47K 1/4 F		01
R302	HF457150	Carbon Resistor	15.0K 1/4 J		01
R303	VZ009900	Metal Film Resistor	15K 1/4 F		01
R304	HF457220	Carbon Resistor	22.0K 1/4 J		01
R305	HF457330	Carbon Resistor	33.0K 1/4 J		01
R306	HF454680	Carbon Resistor	68.0 1/4 J		01
R307	HF454680	Carbon Resistor	68.0 1/4 J		01
R308	HF457330	Carbon Resistor	33.0K 1/4 J		01
R309	HF457220	Carbon Resistor	22.0K 1/4 J		01
R310	HF457270	Carbon Resistor	27.0K 1/4 J		01
R311	VV312800	Metal Film Resistor	680.0 1/4 F		01
R312	HF457220	Carbon Resistor	22.0K 1/4 J		01
R313	HF458390	Carbon Resistor	390.0K 1/4 J		01
R314	HF458390	Carbon Resistor	390.0K 1/4 J		01
R315	HF455330	Carbon Resistor	330.0 1/4 J		01

\*: New Parts

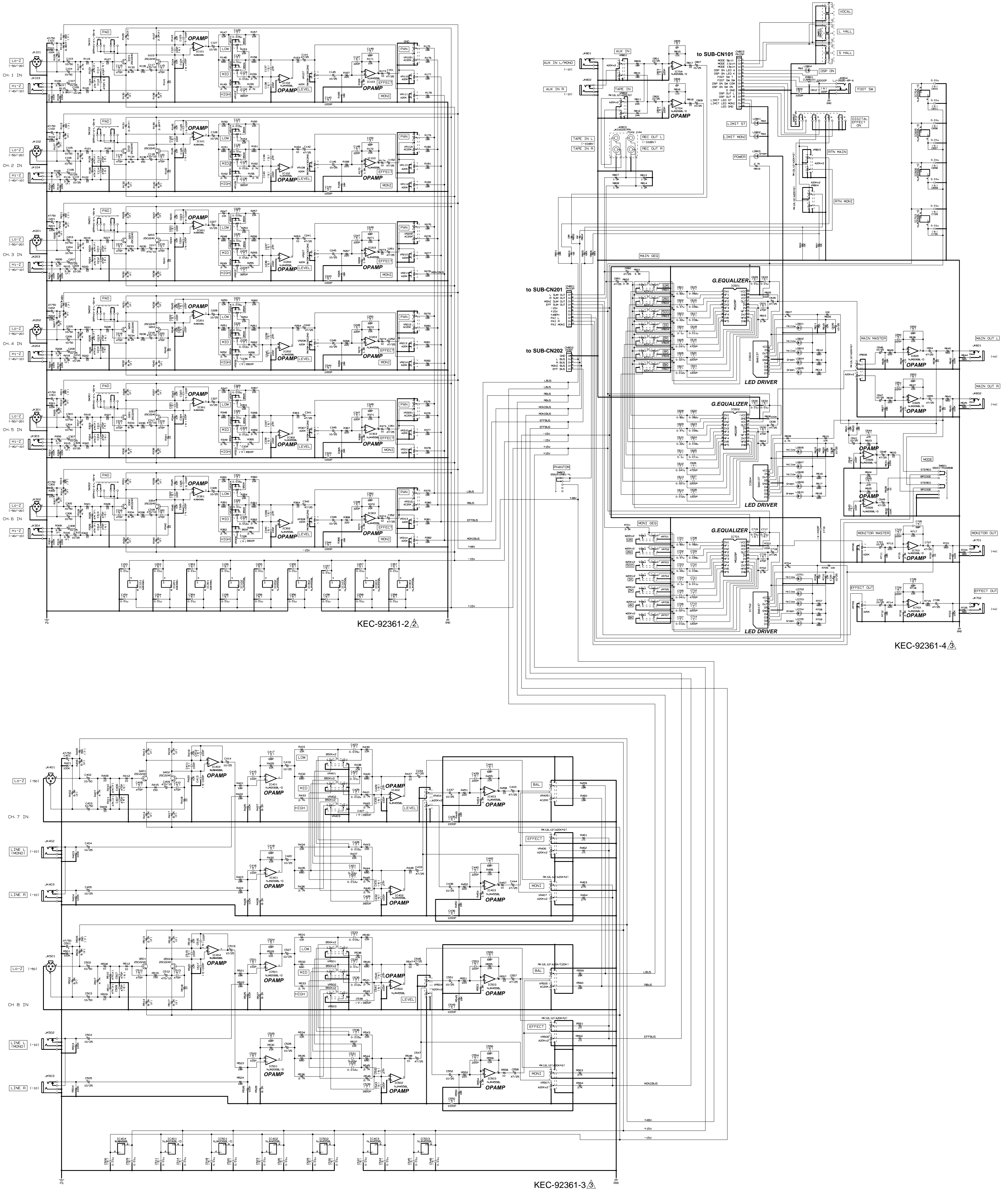
RANK : Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
R316	HF457470	Carbon Resistor	47.0K 1/4 J			01
R317	HF457820	Carbon Resistor	82.0K 1/4 J			01
R318	HF457820	Carbon Resistor	82.0K 1/4 J			01
R319	HF455220	Carbon Resistor	220.0 1/4 J			01
R320	HF456470	Carbon Resistor	4.7K 1/4 J			01
R321	HF457220	Carbon Resistor	22.0K 1/4 J			01
R322	HF458330	Carbon Resistor	330.0K 1/4 J			01
R323	HF455560	Carbon Resistor	560.0 1/4 J			01
-325	HF455560	Carbon Resistor	560.0 1/4 J			01
R326	VV312900	Metal Film Resistor	22K 1/4 F			01
R327	HF457560	Carbon Resistor	56.0K 1/4 J			01
R328	HF455560	Carbon Resistor	560.0 1/4 J			01
R329	HF455560	Carbon Resistor	560.0 1/4 J			01
R330	VV276800	Flame Proof C. Resistor	100 1/4 J			01
R331	VV276800	Flame Proof C. Resistor	100 1/4 J			01
R332	VV066100	Metal Film Resistor	47K 1/4 F			01
R333	HF457150	Carbon Resistor	15.0K 1/4 J			01
R334	VZ009900	Metal Film Resistor	15K 1/4 F			01
R335	HF457220	Carbon Resistor	22.0K 1/4 J			01
R336	HF457330	Carbon Resistor	33.0K 1/4 J			01
R337	HF454680	Carbon Resistor	68.0 1/4 J			01
R338	HF454680	Carbon Resistor	68.0 1/4 J			01
R339	HF457330	Carbon Resistor	33.0K 1/4 J			01
R340	HF457220	Carbon Resistor	22.0K 1/4 J			01
R341	VV312800	Metal Film Resistor	680.0 1/4 F			01
R342	HF457220	Carbon Resistor	22.0K 1/4 J			01
R343	HF458330	Carbon Resistor	330.0K 1/4 J			01
R344	HF455560	Carbon Resistor	560.0 1/4 J			01
-346	HF455560	Carbon Resistor	560.0 1/4 J			01
R347	VV312900	Metal Film Resistor	22K 1/4 F			01
R348	HF457560	Carbon Resistor	56.0K 1/4 J			01
R349	HF455560	Carbon Resistor	560.0 1/4 J			01
R350	HF455560	Carbon Resistor	560.0 1/4 J			01
R351	VV276800	Flame Proof C. Resistor	100 1/4 J			01
R352	VV276800	Flame Proof C. Resistor	100 1/4 J			01
R353	VV066100	Metal Film Resistor	47K 1/4 F			01
R354	HF457150	Carbon Resistor	15.0K 1/4 J			01
R355	VZ009900	Metal Film Resistor	15K 1/4 F			01
R356	HF457220	Carbon Resistor	22.0K 1/4 J			01
R357	HF457330	Carbon Resistor	33.0K 1/4 J			01
R358	HF454680	Carbon Resistor	68.0 1/4 J			01
R359	HF454680	Carbon Resistor	68.0 1/4 J			01
R360	HF457330	Carbon Resistor	33.0K 1/4 J			01
R361	HF457220	Carbon Resistor	22.0K 1/4 J			01
R362	HF457270	Carbon Resistor	27.0K 1/4 J			01
R363	VV312800	Metal Film Resistor	680.0 1/4 F			01
R364	HF457220	Carbon Resistor	22.0K 1/4 J			01
R365	HF458390	Carbon Resistor	390.0K 1/4 J			01
R366	HF458390	Carbon Resistor	390.0K 1/4 J			01
R367	HF455330	Carbon Resistor	330.0 1/4 J			01
R368	HF457470	Carbon Resistor	47.0K 1/4 J			01
R369	HF457820	Carbon Resistor	82.0K 1/4 J			01
R370	HF457820	Carbon Resistor	82.0K 1/4 J			01
R371	HF455220	Carbon Resistor	220.0 1/4 J			01
R372	HF456470	Carbon Resistor	4.7K 1/4 J			01
R373	HF457220	Carbon Resistor	22.0K 1/4 J			01
R374	HF458330	Carbon Resistor	330.0K 1/4 J			01
R375	HF455560	Carbon Resistor	560.0 1/4 J			01
-377	HF455560	Carbon Resistor	560.0 1/4 J			01
R378	VV312900	Metal Film Resistor	22K 1/4 F			01
R379	HF457560	Carbon Resistor	56.0K 1/4 J			01
R380	HF455560	Carbon Resistor	560.0 1/4 J			01
R381	HF455560	Carbon Resistor	560.0 1/4 J			01
R382	VV276800	Flame Proof C. Resistor	100 1/4 J			01
R383	VV276800	Flame Proof C. Resistor	100 1/4 J			01
R384	HF455330	Carbon Resistor	330.0 1/4 J			01
-389	HF455330	Carbon Resistor	330.0 1/4 J			01
X101	QU007700	Ceramic Resonator	12M CSA12.0MTZ			03
*	XV025A00	Power Transformer	E	J		

\* : New Parts

RANK : Japan only



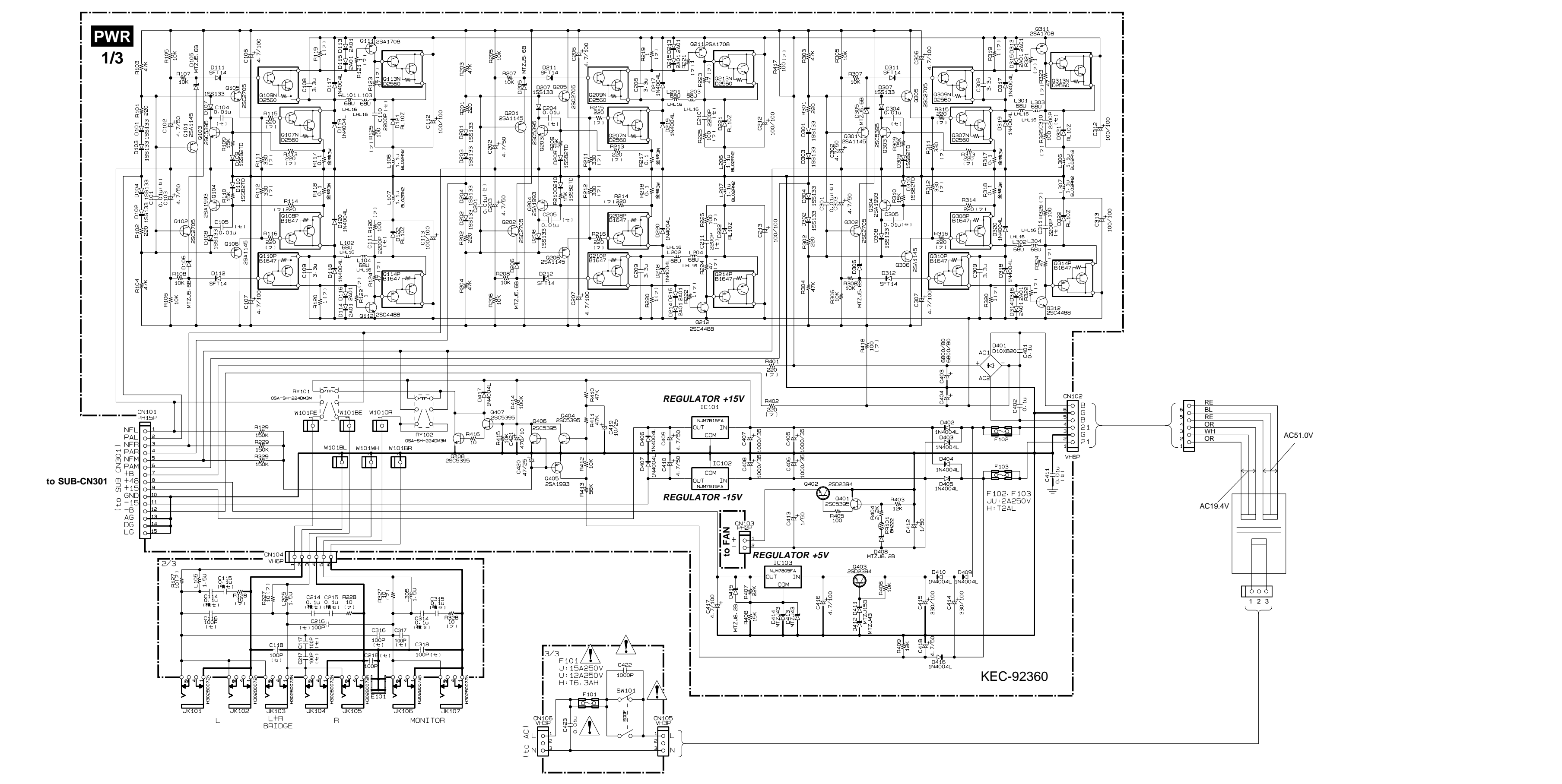
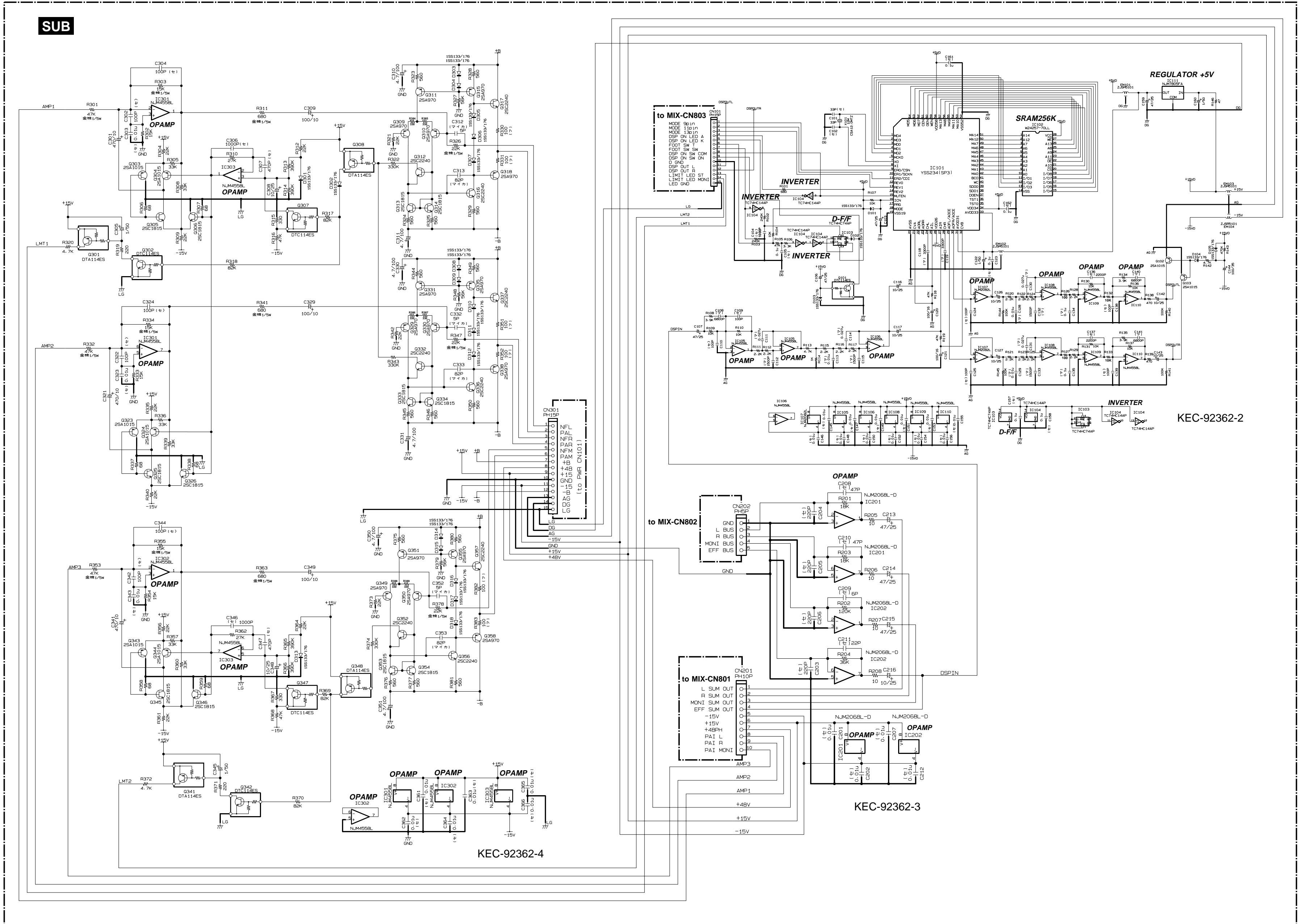


- (M) : Mylar Capacitor
- (C) : Ceramic Capacitor
- (F) : Flame Proof C. Resistor
- (F) : Metal Film Resistor

**WARNING**  
 Components having special characteristics are marked with a triangle symbol and must be replaced with parts having specification equal to those originally installed.

NOTE : See parts list for details of circuit board component parts.





- (マ) : Mylar Capacitor
- (セ) : Ceramic Capacitor
- (フ) : Flame Proof C. Resistor
- 金被、(F) : Metal Film Resistor
- (マイカ) : Mica Capacitor
- (積セ) : Monolithic Ceramic Cap.

