

SERVICE MANUAL

Ver. 3

MODEL PMA-2000AE

INTEGRATED AMPLIFIER

注意

サービスをおこなう前に、このサービスマニュアルを必ずお読みください。本機は、火災、感電、けがなどに対する安全性を確保するために、さまざまな配慮をおこなっており、また法的には「電気用品安全法」にもとづき、所定の許可を得て製造されております。従ってサービスをおこなう際は、これらの安全性が維持されるよう、このサービスマニュアルに記載されている注意事項を必ずお守りください。

- For purposes of improvement, specifications and design are subject to change without notice.

- 本機の仕様は性能改良のため、予告なく変更することがあります。
- 補修用性能部品の保有期間は、製造打切後 8年です。

- Please use this service manual with referring to the operating instructions without fail.

- 修理の際は、必ず取扱説明書を参照の上、作業を行ってください。

- Some illustrations using in this service manual are slightly different from the actual set.

- 本文中に使用しているイラストは、説明の都合上現物と多少異なる場合があります。

DENON

TOKYO, JAPAN

Denon Brand Company, D&M Holdings Inc.

SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

CAUTION Please heed the points listed below during servicing and inspection.

◎ Heed the cautions!

Spots requiring particular attention when servicing, such as the cabinet, parts, chassis, etc., have cautions indicated on labels or seals. Be sure to heed these cautions and the cautions indicated in the handling instructions.

◎ Caution concerning electric shock!

- (1) An AC voltage is impressed on this set, so touching internal metal parts when the set is energized could cause electric shock. Take care to avoid electric shock, by for example using an isolating transformer and gloves when servicing while the set is energized, unplugging the power cord when replacing parts, etc.
- (2) There are high voltage parts inside. Handle with extra care when the set is energized.

◎ Caution concerning disassembly and assembly!

Though great care is taken when manufacturing parts from sheet metal, there may in some rare cases be burrs on the edges of parts which could cause injury if fingers are moved across them. Use gloves to protect your hands.

◎ Only use designated parts!

The set's parts have specific safety properties (fire resistance, voltage resistance, etc.). For replacement parts, be sure to use parts which have the same properties. In particular, for the important safety parts that are marked  on wiring diagrams and parts lists, be sure to use the designated parts.

◎ Be sure to mount parts and arrange the wires as they were originally!

For safety reasons, some parts use tape, tubes or other insulating materials, and some parts are mounted away from the surface of printed circuit boards. Care is also taken with the positions of the wires inside and clamps are used to keep wires away from heating and high voltage parts, so be sure to set everything back as it was originally.

◎ Inspect for safety after servicing!

Check that all screws, parts and wires removed or disconnected for servicing have been put back in their original positions, inspect that no parts around the area that has been serviced have been negatively affected, conduct an insulation check on the external metal connectors and between the blades of the power plug, and otherwise check that safety is ensured.

(Insulation check procedure)

Unplug the power cord from the power outlet, disconnect the antenna, plugs, etc., and turn the power switch on. Using a 500V insulation resistance tester, check that the insulation resistance between the terminals of the power plug and the externally exposed metal parts (antenna terminal, headphones terminal, microphone terminal, input terminal, etc.) is 1MΩ or greater. If it is less, the set must be inspected and repaired.

CAUTION Concerning important safety parts

Many of the electric and structural parts used in the set have special safety properties. In most cases these properties are difficult to distinguish by sight, and using replacement parts with higher ratings (rated power and withstand voltage) does not necessarily guarantee that safety performance will be preserved. Parts with safety properties are indicated as shown below on the wiring diagrams and parts lists in this service manual. Be sure to replace them with parts with the designated part number.

- (1) Schematic diagrams ... Indicated by the  mark.
- (2) Parts lists ... Indicated by the  mark.

Using parts other than the designated parts could result in electric shock, fires or other dangerous situations.

注意 サービス、点検時にはつぎのことにご注意願います。

◎ 注意事項をお守りください！

サービスのとき特に注意を必要とする個所についてはキャビネット、部品、シャーシなどにラベルや捺印で注意事項を表示しています。これらの注意書きおよび取扱説明書などの注意事項を必ずお守りください。

◎ 感電に注意！

- (1) このセットは、交流電圧が印加されていますので通電時に内部金属部に触れると感電することがあります。従って通電サービス時には、絶縁トランスの使用や手袋の着用、部品交換には、電源プラグを抜くなどして感電にご注意ください。
- (2) 内部には高電圧の部分がありますので、通電時の取扱には十分ご注意ください。

◎ 分解、組み立て作業時のご注意！

板金部品の端面の『バリ』は、部品製造時に充分管理をしておりますが、板金端面は鋭利となっている箇所がありますので、部品端面に触れたまま指を動かすとまれに怪我をする場合がありますので十分注意して作業して下さい。手の保護のために手袋を着用して下さい。

◎ 指定部品の使用！

セットの部品は難燃性や耐電圧など安全上の特性を持ったものとなっています。従って交換部品は、使用されていたものと同じ特性の部品を使用してください。特に配線図、部品表に  印で指定されている安全上重要な部品は必ず指定のものをご使用ください。

◎ 部品の取付けや配線の引きまわしは、元どおりに！

安全上、テープやチューブなどの絶縁材料を使用したり、プリント基板から浮かして取付けた部品があります。また内部配線は引きまわしやクランプによって発熱部品や高圧部品に接近しないように配慮されていますので、これらは必ず元どおりにしてください。

◎ サービス後は安全点検を！

サービスのために取り外したねじ、部品、配線などが元どおりになっているか、またサービスした個所の周辺を劣化させてしまったところがないかなどを点検し、外部金属端子部と、電源プラグの刃の間の絶縁チェックをおこなうなど、安全性が確保されていることを確認してください。

(絶縁チェックの方法)

電源コンセントから電源プラグを抜き、アンテナやプラグなどを外し、電源スイッチを入れます。500V 絶縁抵抗計を用いて、電源プラグのそれぞれの端子と外部露出金属部 [アンテナ端子、ヘッドホン端子マイク端子、入力端子など] との間で、絶縁抵抗値が 1 MΩ 以上であること、この値以下のときはセットの点検修理が必要です。

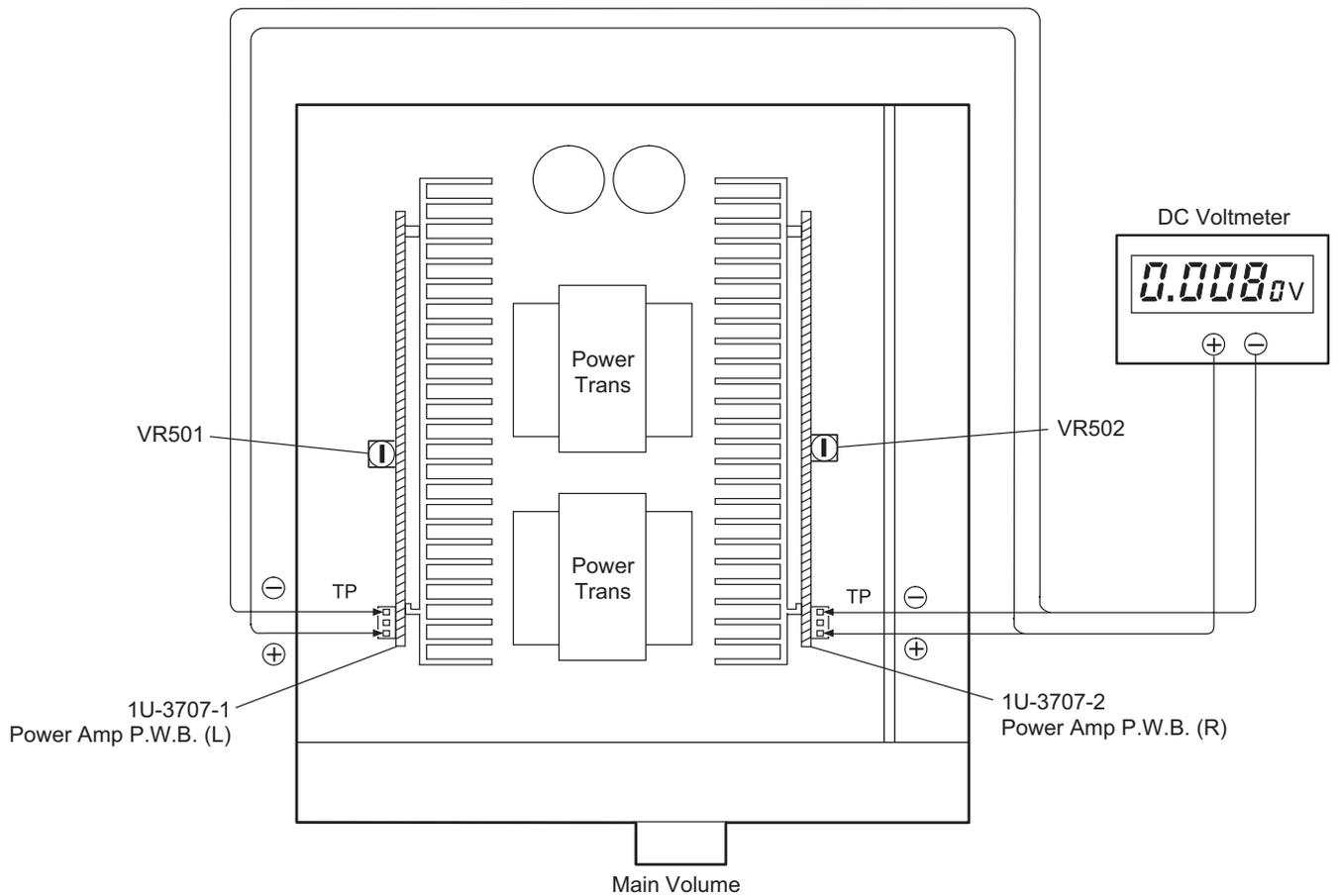
注意 安全上重要な部品について

本機に使用している多くの電気部品、および機構部品は安全上、特別な特性を持っています。この特性はほとんどの場合、外観では判別つきにくく、またもとの部品より高い定格（定格電力、耐圧）を持ったものを使用しても安全性が維持されることは、限りません。安全上の特性を持った部品は、このサービスマニュアルの配線図、部品表に同じように表示していますので必ず指定されている部品番号のものを使用願います。

- (1) 配線図...  マークで表示しています。
- (2) 部品表...  マークで表示しています。

指定された部品と異なるものを使用した場合には、感電、火災などの危険を生じる恐れがあります。

IDLING ADJUSTMENT



IDLING CURRENT

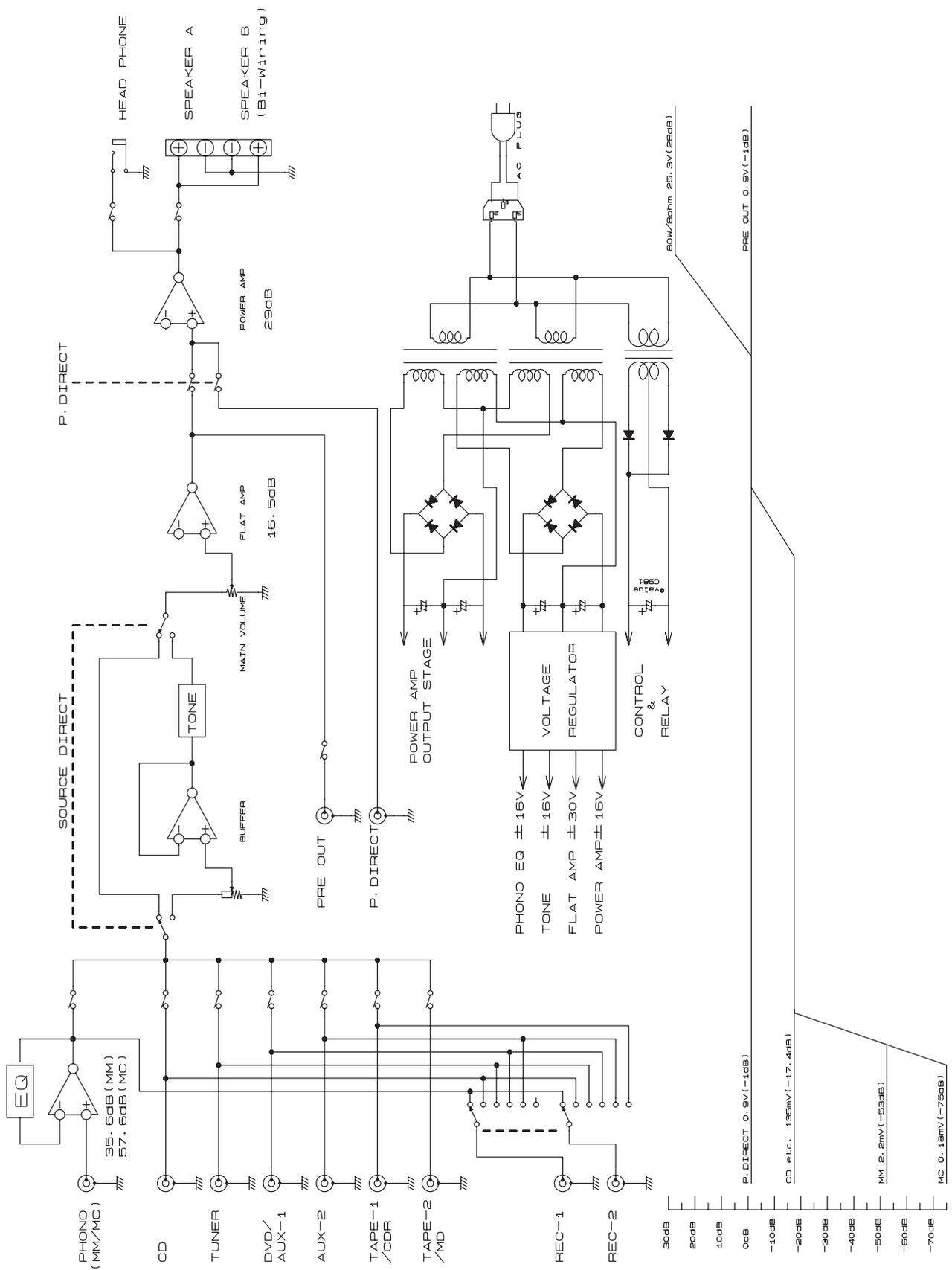
Setup

1. Lay the unit at an ordinary position away from a direct current from an air condition or fan. Do the adjustment at a temperature between 15°C (59°F) and 30°C (86°F).
2. Set control as follows.
 - POWER SWITCH → OFF ().
 - VOLUME CONTROL → Fully counterclockwise in the minimum position ().
(Main Volume and Semifixed resistors [VR501, VR502])
 - SPEAKER Terminals → Open: do not connect the speakers, dummy load etc.

Adjustment

1. Remove top cover. And then connect DC Voltmeter to test points of 1U-3707-1 (Lch) and 1U-3707-2 (Rch) Power Amp Printing Wiring Board.
2. Connect power cord to AC wall outlet, and turn POWER switch "ON" (). Within 10 seconds turn VR501 (Lch) and VR502 (Rch) clockwise so that the DC Voltmeter reads 12 ±5mV.
3. Then after 2 minutes warmup adjust VR501 and VR502 so that the DC Voltmeter reads 12±5mV.
4. And after 10 minutes warmup adjust VR501 and VR502 so that the DC Voltmeter reads 12±5mV.

BLOCK/LEVEL DIAGRAM

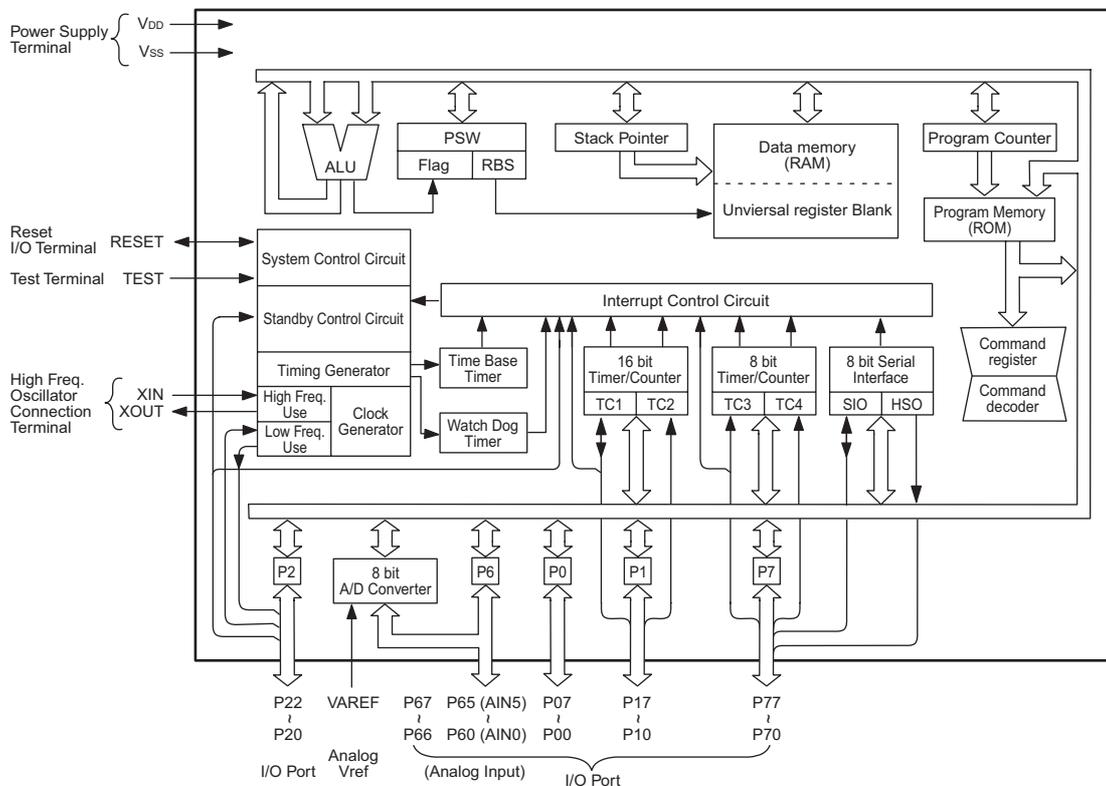
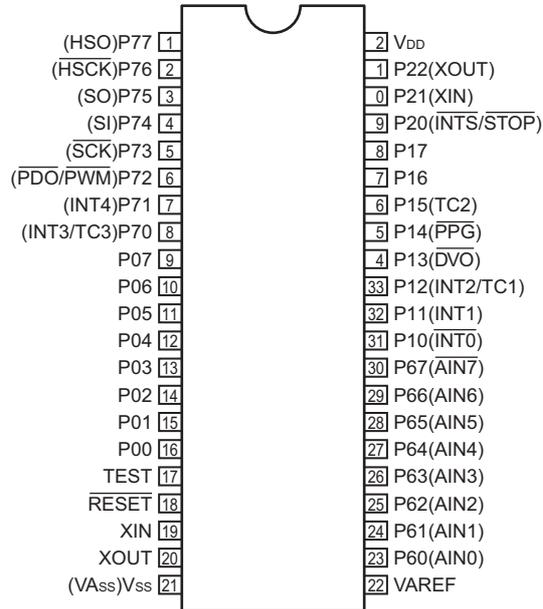


SEMICONDUCTORS / 半導体一覧表

Only major semiconductors are shown, general semiconductors etc. are omitted to list.
 主な半導体を記載しています。汎用の半導体は記載を省略しています。

IC's

TMP87CC46N-4C08 (IC901)

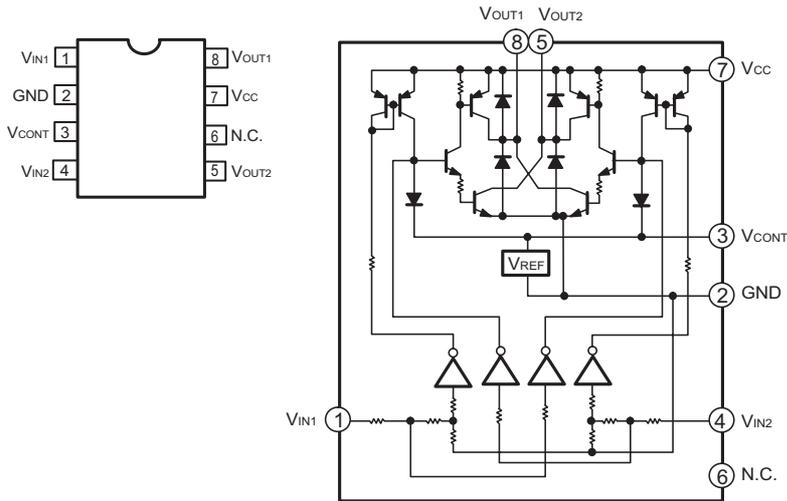


TMP87CC46N-4C08 (IC901) Terminal Function

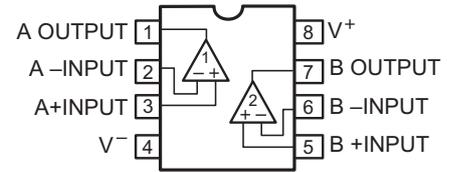
Pin No.	Port Name		I/O	Type	Function
1	P77	AC RELAY	O	C	AC POWER RELAY DRIVE
2	P76		O	C	
3	P75	(SO)	O	C	
4	P74	(SI)	O	C	
5	P73	(SCK)	O	C	
6	P72	MUTE LED	O	C	MUTE/STAND-BY LED DRIVE
7	P71	(INT4)	O	C	MOTOR VOLUME UP
8	P70	(INT3)	I	C	REMOTE CONTROL SIGNAL INPUT
9	P07	TAPE-2	O	C	TAPE-2 LED, ARELAY DRIVE
10	P06	TAPE-1	O	C	TAPE-1 LED, ARELAY DRIVE
11	P05		O	C	
12	P04	AUX-2	O	C	AUX-2 LED, ARELAY DRIVE
13	P03	AUX-1	O	C	DVD/AUX-1 LED, ARELAY DRIVE
14	P02	TUNER	O	C	TUNER LED, ARELAY DRIVE
15	P01	CD	O	C	CD LED, ARELAY DRIVE
16	P00	PHONE	O	C	PHONE LED, ARELAY DRIVE
17	TEST				to VSS
18	RESET				RESET
19	XIN				X'tal
20	XOUT				X'tal
21	Vss	(VAss)			GND
22	VAREF				to VDD
23	P60	MODE	I	C	MODE SETTING INPUT
24	P61		I	C	
25	P62		I	C	
26	P63	FUNCTION	I	C	FUNCTION SELECTOR SW INPUT
27	P64		I	C	
28	P65	MUTE	O	C	MUTING SIGNAL INPUT
29	P66		O	C	
30	P67		O	C	
31	P10	(INT0)	I	C	PROTECTOR INPUT
32	P11	(INT1)	I	C	POWER OFF
33	P12	(INT2)	O	C	MOTOR VOLUME DOWN
34	P13		O	C	
35	P14		O	C	
36	P15		O	C	
37	P16		O	C	
38	P17	P.DIRECT	O	C	P.DIRECT RELAY DRIVE
39	P20	STOP	O	C	STOP MODE CANCEL
40	P21	P.DIRECT	I	C	P.DIRECT SW INPUT
41	P22		O	C	
42	VDD				+5V

NOTE: Pin No. : Terminal number of microcomputer.
Port Name : The name entered on the data sheet of microcomputer.
I/O : Input or output of port.
 "I" = Input port
 "O" = Output port
Type : Composition of port in case of output port.
 "C" = CMOS output
Function : Function and logical level explanation of signals to be interface.

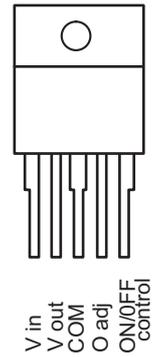
LB1639 (IC902)



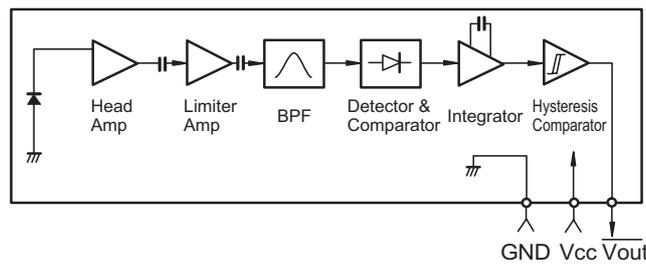
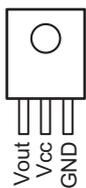
**BA4558 (IC701)
NJM2082D (IC201)**



PQ1CG41H2FZ (IC903)



**GP1U271XK (Remote Control Sensor)
(IC904)**



TRANSISTORS

- 2SA933S (S)
- 2SA988 (E/F)
- 2SA1358 (O/Y)
- 2SA1546 (L)
- 2SC1740S (S)
- 2SC1841 (E/F)
- 2SC3421 (O/Y)
- 2SC4001 (M/L)



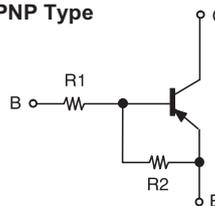
- 2SA1837 (Y)
- 2SA1488A (Y)/(G)
- 2SC3851A (Y)/(G)
- 2SC4793 (Y)



DTA114ES



PNP Type

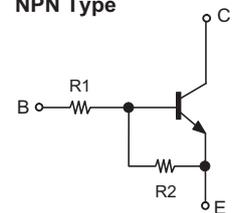


	R1	R2
DTA114ES	10kohm	10kohm

- DTC114ES
- DTC143ES
- DTC143ZS
- DTC144WS

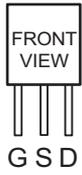


NPN Type

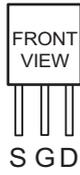


	R1	R2
DTC114ES	10kohm	10kohm
DTC143ES	4.7kohm	4.7kohm
DTC143ZS	4.7kohm	47kohm
DTC144WS	47kohm	22kohm

2SJ78



2SK373 (Y)



2SK184C (GR/BL)
2SK369 (BL/GR)-C

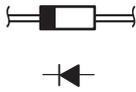


2SK2967

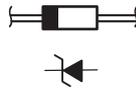


DIODES (LED included)

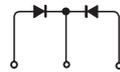
11EQS06
31DQ06
1SS270A



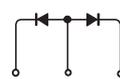
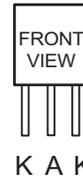
HZS4C-1
HZS5C-1
HZS9A-1
HZS12A-1
HZS22-1
HZS30-1
MTZJ3.3A
MTZJ7.5A
MTZJ7.5C
MTZJ18A



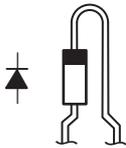
FCH20A15



FRH20A15

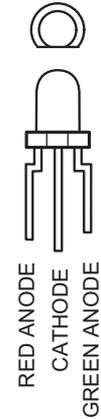


1SR35-200A



SML1216W (Red/Green)

TOP VIEW



SEL2915A (Orange)

TOP VIEW

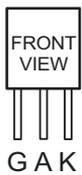


SLR-342MG (Green)



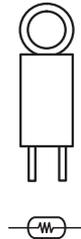
THYRISTOR

SF0R3G42

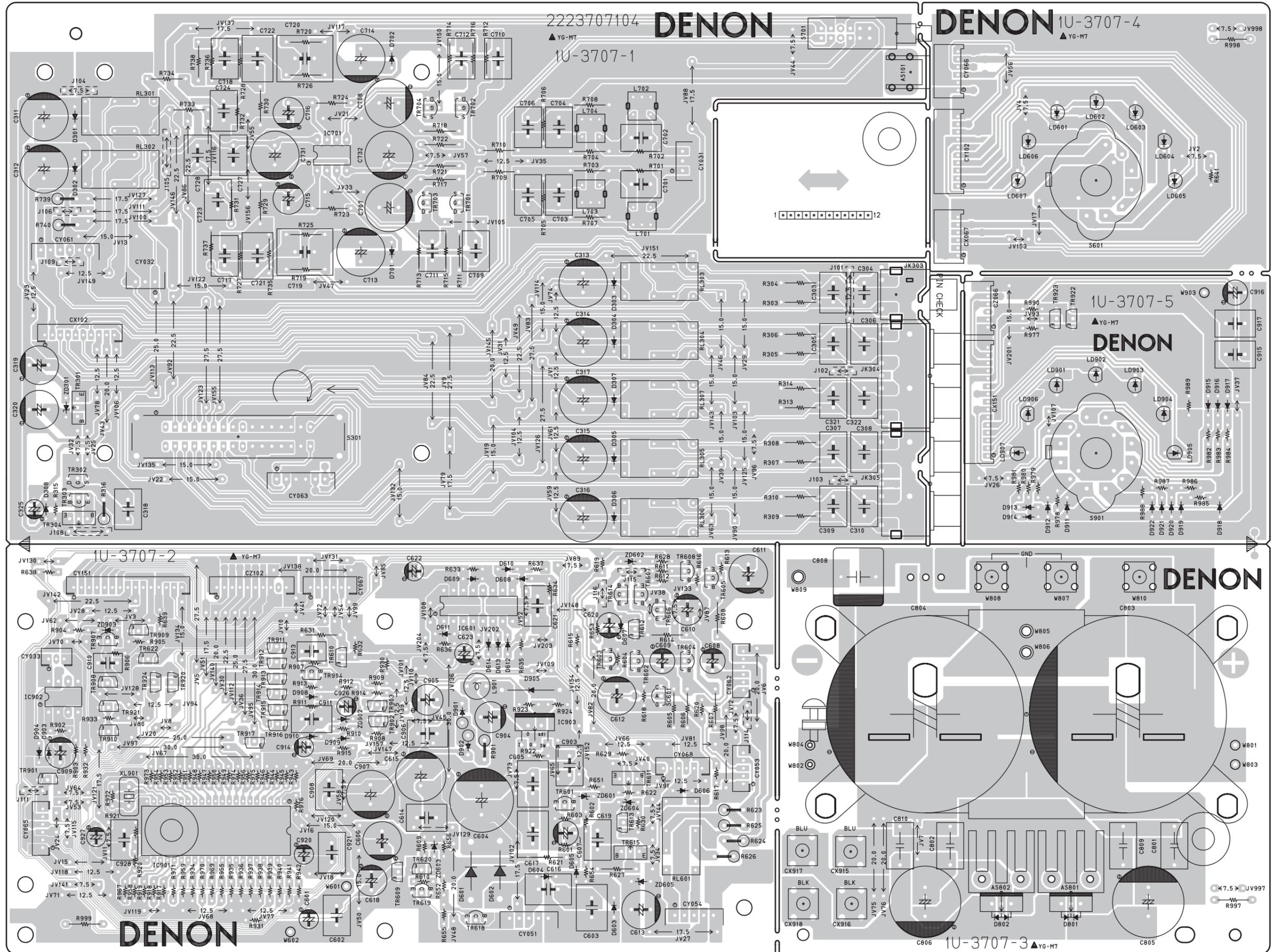


THERMISTOR

PTH9M04BD222TS2F333



1U-3707 INPUT/CONTROL P.W.B. UNIT



NOTE FOR PARTS LIST

- Part indicated with the mark "nsp" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
 - When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
 - Ordering part without stating its part number can not be supplied.
 - Part indicated with the mark "★" is not illustrated in the exploded view.
 - Not including General-purpose Carbon Film Resistor in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)
 - Not including General-purpose Carbon Chip Resistor in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)
- WARNING:**
Parts marked with this symbol \triangle have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

● Resistors

Ex.: RN 14K 2E 182 G FR

Type	Shape and performance	Power	Resistance	Allowable error	Others
RD : Carbon	2B : 1/8W	F : ±1%	P : Pulse-resistant type		
RC : Composition	2E : 1/4W	G : ±2%	NL : Low noise type		
RS : Metal oxide film	2H : 1/2W	J : ±5%	NB : Non-burning type		
RW : Winding	3A : 1W	K : ±10%	FR : Fuse-resistor		
RN : Metal film	3D : 2W	M : ±20%	F : Lead wire forming		
RK : Metal mixture	3F : 3W				
	3H : 5W				

* Resistance

1 8 2 ⇒ 1800 ohm = 1.8 kohm
Indicates number of zeros after effective number.
2-digit effective number.

Units: ohm

1 R 2 ⇒ 1.2 ohm
1-digit effective number.
2-digit effective number, decimal point indicated by R.

Units: ohm

● Capacitors

Ex.: CE 04W 1H 2R2 M BP

Type	Shape and performance	Dielectric strength	Capacity	Allowable error	Others
CE : Aluminum foil electrolytic	0J : 6.3V	F : ±1%	HS : High stability type		
CA : Aluminum solid electrolytic	1A : 10V	G : ±2%	BP : Non-polar type		
CS : Tantalum electrolytic	1C : 16V	J : ±5%	HR : Ripple-resistant type		
CQ : Film	1E : 25V	K : ±10%	DL : For change and discharge		
CK : Ceramic	1V : 35V	M : ±20%	HF : For assuring high frequency		
CC : Ceramic	1H : 50V	Z : +80%	U : UL part		
CP : Oil	2A : 100V	-20%	C : CSA part		
CM : Mica	2B : 125V	P : +100%	W : UL-CSA type		
CF : Metallized	2C : 160V	-0%	F : Lead wire forming		
CH : Metallized	2D : 200V	C : ±0.25pF			
	2E : 250V	D : ±0.5pF			
	2H : 500V	= : Others			
	2J : 630V				

* Capacity (electrolyte only)

2 2 2 ⇒ 2200μF
Indicates number of zeros after effective number.
2-digit effective number.

Units: μF.

2 R 2 ⇒ 2.2μF
1-digit effective number.
2-digit effective number, decimal point indicated by R.

Units: μF.

* Capacity (except electrolyte)

2 2 2 ⇒ 2200pF=0.0022μF
(More than 2) — Indicates number of zeros after effective number.
2-digit effective number.

Units: pF.

2 2 1 ⇒ 220pF
(0 or 1) — Indicates number of zeros after effective number.
2-digit effective number.

Units: pF.

When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

部品表について

- nsp 印の部品は常時在庫していませんので供給に長時間を要することがあります。
場合によっては、供給をお断りすることがあります。
- 部品を発注する際は特に数字の " 1 " と英字の " I " との区別をはっきり記入してください。
- 部品番号を表示していない部品は供給できません。
- \triangle 印の部品は安全上重要な部品です。交換するときは、安全および性能維持のため必ず指定の部品をご使用ください。
- ★印のついている部品は分解図中には記載していません。
- 汎用カーボン抵抗器は記載していません。定数は回路図を参照願います。
- 汎用カーボンチップ抵抗器は記載していません。定数は回路図を参照願います。
- 部品表の抵抗器、コンデンサの品名記号の読み方は表を参照してください。

● 抵抗器

例) RN 14K 2E 182 G FR

RN	14K	2E	182	G	FR
種類	形状特性	電力	抵抗値	許容差	その他
RD : カーボン	2B : 1/8 W	F : ±1%	P : 耐パルス形		
RC : 固定体	2E : 1/4 W	G : ±2%	NL : 低雑音形		
RS : 金属系皮膜	2H : 1/2 W	J : ±5%	NB : 不燃形		
RW : 巻線	3A : 1 W	K : ±10%	FR : ヒューズ抵抗		
RN : 金属皮膜	3D : 2 W	M : ±20%	F : リード線成形		
RK : 金属混合体	3F : 3 W				
	3H : 5 W				

* 抵抗値

18 2 ⇒ 1800Ω=1.8kΩ
有効数字につづく0の数を表わす。
2桁の有効数字を表わす。

1R 2 ⇒ 1.2Ω
1桁の有効数字を表わす。
2桁の有効数字で小数点はRで表わす。
単位はΩ

● コンデンサ

例) CE 04W 1H 2R2 M BP

CE	04W	1H	2R2	M	BP
種類	形状特性	耐圧	容量	許容差	その他
CE : アルミ箔電解	0J : 6.3 V	F : ±1%	HS : 高安定形		
CA : アルミ固体電解	1A : 10 V	G : ±2%	BP : 無極性形		
CS : タンタル電解	1C : 16 V	J : ±5%	HR : 耐リップル形		
CQ : フィルム	1E : 25 V	K : ±10%	DL : 充放電対策用		
CK : セラミック	1V : 35 V	M : ±20%	HF : 高周波保証用		
CC : セラミック	1H : 50 V	Z : +80%	U : UL 部品		
CP : オイル	2A : 100V	-20%	C : CSA 部品		
CM : マイカ	2B : 125V	P : +100%	W : UL-CSA 部品		
CF : メタライズド	2C : 160V	-0%	F : リード線成形		
CH : メタライズド	2D : 200V	C : ±0.25pF			
	2E : 250V	D : ±0.5pF			
	2H : 500V	= : その他			
	2J : 630V				

* 容量値

● 電解コンデンサの場合

22 2 ⇒ 2200μF
有効数字につづく0の数を表わす。
2桁の有効数字を表わす。
単位はμF

2R 2 ⇒ 2.2μF
1桁の有効数字を表わす。
2桁の有効数字で小数点はRで表わす。
単位はμF

● 電解コンデンサ以外の場合

22 2 ⇒ 2200pF=0.0022μF
有効数字につづく0の数を表わす。
(0の数が2以上の場合)
2桁の有効数字を表わす。
単位はpF

22 1 ⇒ 220pF
有効数字につづく0の数を表わす。
(0の数が0または1の場合)
2桁の有効数字を表わす。
単位はpF

● 耐圧を交流で表示する場合は、耐圧表示の次に「AC」を表示します。

PARTS LIST OF P.W.B. UNIT ASS'Y

* 本表に記載されている部品は、補修用部品のため製品に使用している部品とは一部、形状、寸法などが異なる場合があります。

* The parts listed below are for maintenance only, might differ from the parts used in the unit in appearances or dimensions.

* "nsp" 印の部品は常時在庫していませんので供給に長時間を要することがあります。場合によっては、供給をお断りする場合があります。

* Part indicated with the mark "nsp" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.

1U-3707B INPUT/CONTROL P.W.B. UNIT

Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
SEMICONDUCTORS GROUP						
IC701		00D 263 0322 004	BA4558			
IC901		00D 262 2581 109	TMP87CH46N			*
IC902		00D 263 0476 002	LB1639			*
IC903		00D 263 1237 004	PQ1CG41H2FZ			
TR301		00D 273 0323 000	2SC3421 O/Y			
TR302		00D 275 0042 905	2SK373(Y)TPE2			
TR601-606		00D 273 0303 910	2SC1740S(S)-T			
TR607		00D 271 0192 905	2SA933S(S)TP			
TR608		00D 273 0303 910	2SC1740S(S)-T			
TR610		00D 269 0020 906	DTC114ES(10K-10K)T			
TR611		00D 271 0195 009	2SA1358 O/Y			
TR612		00D 269 0112 908	DTC144WS (47K-22K) T			
TR613		00D 269 0020 906	DTC114ES(10K-10K)T			
TR614		00D 273 0303 910	2SC1740S(S)-T			
TR615		00D 273 0323 000	2SC3421 O/Y			
TR618,619		00D 273 0303 910	2SC1740S(S)-T			
TR620		00D 269 0018 905	DTC143ES(4.7K-4.7K)T			
TR622		00D 269 0020 906	DTC114ES(10K-10K)T			
TR701-704		00D 275 0038 045	2SK369 (BL)/(GR)-C			
TR901		00D 269 0020 906	DTC114ES(10K-10K)T			
TR902		00D 269 0046 906	DTA114ES(10K-10K)T			
TR903		00D 269 0020 906	DTC114ES(10K-10K)T			
TR904		00D 273 0303 910	2SC1740S(S)-T			
TR907		00D 273 0303 910	2SC1740S(S)-T			
TR908		00D 269 0020 906	DTC114ES(10K-10K)T			
TR909,910		00D 269 0046 906	DTA114ES(10K-10K)T			
TR911-917		00D 269 0160 905	DTC143ZSATP			
TR920		00D 269 0160 905	DTC143ZSATP			
TR921-923		00D 269 0046 906	DTA114ES(10K-10K)T			
TR924		00D 269 0020 906	DTC114ES(10K-10K)T			
D301-307		00D 276 0432 903	1SS270A TE (TAPE)			
D601,602		00D 276 0713 703	31DQ06-FC6			
D603,604		00D 276 0715 905	11EQS06(TAPE)			
D606,607		00D 276 0432 903	1SS270A TE (TAPE)			
D701,702		00D 276 0432 903	1SS270A TE (TAPE)			
D801		00D 276 0706 008	FCH20A15			
D802		00D 276 0707 007	FRH20A15			
D901,902		00D 276 0704 903	1SR35-400A(T93X)			
D903,904		00D 276 0432 903	1SS270A TE (TAPE)			
D905		00D 276 0753 006	RK33 LF-C4			
D908-922		00D 276 0432 903	1SS270A TE (TAPE)			
ZD301		00D 276 0473 904	HZS12A-1TD			
ZD601		00D 276 0635 904	MTZJ7.5CT77			
ZD602		00D 276 0644 911	MTZJ7.5A T77			
ZD603		00D 276 0480 900	HZS22-1TD			
ZD604		00D 276 0460 904	HZS5C-1TD			
ZD605		00D 276 0473 904	HZS12A-1TD			
ZD902		00D 276 0634 905	MTZJ3.3AT77			
ZD903		00D 276 0644 911	MTZJ7.5A T77			
ZD904		00D 276 0460 904	HZS 5C-1TD			
LD901-907		00D 393 9658 902	SEL2915A-TP8			
SC601		00D 279 0038 908	SF0R3G42 (TPE2)			

Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
RESISTORS GROUP						
R303-310		00D 241 2473 980	RD14B2E334JT(AMRS)			
R313,314		00D 241 2473 980	RD14B2E334JT(AMRS)			
R605,606		00D 241 2471 995	RD14B2E513JT(AMRS)			
R607,608		00D 241 2471 966	RD14B2E393JT(AMRS)			
R614		00D 241 2470 983	RD14B2E183JT(AMRS)			
R623-626		00D 244 2052 960	RS14B3A221JNBST(S)			
R627		00D 241 2468 966	RD14B2E222JT(AMRS)			
R701-704		00D 241 2467 909	RD14B2E471JT(AMRS)			
R705,706		00D 241 2465 943	RD14B2E101JT(AMRS)			
R707,708		00D 241 2471 982	RD14B2E473JT(AMRS)			
R709,710		00D 241 2463 903	RD14B2E100JT(AMRS)			
R711-714		00D 241 2468 995	RD14B2E302JT(AMRS)			
R715,716		00D 241 2466 913	RD14B2E201JT(AMRS)			
R717,718		00D 241 2468 953	RD14B2E202JT(AMRS)			
R719,720		00D 241 2465 927	RD14B2E820JT(AMRS)			
R721,722		00D 241 2467 967	RD14B2E821JT(AMRS)			
R723,724		00D 241 2475 975	RD14B2E225JT(AMRS)			
R725,726		00D 241 2471 982	RD14B2E473JT(AMRS)			
R727,728		00D 241 2469 923	RD14B2E392JT(AMRS)			
R729,730		00D 241 2463 987	RD14B2E220JT(AMRS)			
R731,732		00D 241 2466 926	RD14B2E221JT(AMRS)			
R733,734		00D 241 2467 909	RD14B2E471JT(AMRS)			
R735,736		00D 241 2474 950	RD14B2E624JT(AMRS)			
R737,738		00D 241 2479 997	RD14B2E6R8JT(AMRS)			
R739,740		00D 241 2387 940	RD14B2E4R7JNBST			
R901		00D 241 2387 940	RD14B2E4R7JNBST			
R997-999		00D 241 2475 975	RD14B2E225JT(AMRS)			
CAPACITORS GROUP						
C301-310		00D 255 4251 976	CQ93P2A101JT(NH2)			
C311-317		00D 254 4558 702	CE04W1H101MC(RFS)			
C319		00D 254 4557 952	CE04W1H470MT(RFS)			
C320		00D 255 4256 955	CQ93P2A103JT(NH2)			
C321,322		00D 255 4251 976	CQ93P2A101JT(NH2)			
C603		00D 255 4257 938	CQ93P2A223JT(NH2)			
C604		00D 254 4576 700	CE04W1V222MC(RE3)			
C605		00D 255 4257 938	CQ93P2A223JT(NH2)			
C607		00D 254 4696 910	CE04W1HR22MT(R2A)			
C608,609		00D 254 4557 907	CE04W1H010MT(RFS)			
C610		00D 254 4701 902	CE04W0J331MT(R2A)			
C611		00D 254 4579 707	CE04W1H221MC(RE3)			
C612		00D 254 4557 952	CE04W1H470MT(RFS)			
C613		00D 254 4557 949	CE04W1H220MT(RFS)			
C614		00D 255 4256 955	CQ93P2A103JT(NH2)			
C615		00D 254 4558 702	CE04W1H101MC(RFS)			
C616,617		00D 255 4257 938	CQ93P2A223JT(NH2)			
C619		00D 255 4252 975	CQ93P2A271JT(NH2)			
C620		00D 254 4557 910	CE04W1H2R2MT(RFS)			
C701,702		00D 255 4250 993	CQ93P2A470JT(NH2)			
C703,704		00D 255 4252 917	CQ93P2A151JT(NH2)			
C705,706		00D 255 4254 915	CQ93P2A102JT(NH2)			
C707,708		00D 254 4558 702	CE04W1H101MC(RFS)			
C709,710		00D 255 4251 976	CQ93P2A101JT(NH2)			
C711,712		00D 255 4255 930	CQ93P2A332JT(NH2)			
C713,714		00D 254 4558 702	CE04W1H101MC(RFS)			
C715,716		00D 254 4557 936	CE04W1H100MT(RFS)			
C717,718		00D 255 4254 931	CQ93P2A122JT(NH2)			
C719,720		00D 255 4259 716	CQ93P2A683JFC(NH2)			
C721,722		00D 255 4257 912	CQ93P2A183JT(NH2)			
C723,724		00D 255 4254 915	CQ93P2A102JT(NH2)			
C727,728		00D 255 4256 955	CQ93P2A103JT(NH2)			
C731,732		00D 254 4558 702	CE04W1H101MC(RFS)			
C805,806		00D 254 4562 727	CE04W2A221MC(RFS)			
C808		00D 256 1054 001	CF93B1H105K(GSG))			
C903		00D 255 4254 915	CQ93P2A102JT(NH2)			

Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
C904		00D 254 4638 907	CE04W1C471MT H15(LXZ			
C905		00D 254 4699 904	CE04W1E101MT(R2A)			
C906		00D 255 4256 955	CQ93P2A103JT(NH2)			
C907		00D 254 4578 724	CE04W1C332MC(RE3)			
C908		00D 255 4256 955	CQ93P2A103JT(NH2)			
C909		00D 254 4699 904	CE04W1E101MT(R2A)			
C910		00D 256 1058 971	CF93A1H104JT (JL)			
C911		00D 255 4256 955	CQ93P2A103JT(NH2)			
C913		00D 256 1058 971	CF93A1H104JT (JL)			
C914		00D 254 4696 910	CE04W1HR22MT(R2A)			
C915		00D 255 4256 955	CQ93P2A103JT(NH2)			
C920		00D 254 4696 981	CE04W1H100MT(R2A)			
C921		00D 255 4256 955	CQ93P2A103JT(NH2)			
C926		00D 254 4696 952	CE04W1H2R2MT(R2A)			
C927		00D 254 4696 981	CE04W1H100MT(R2A)			
C928		00D 255 4256 955	CQ93P2A103JT(NH2)			
C929,930		00D 254 4696 994	CE04W1H220MT(R2A)			
OTHERS PARTS GROUP						
AS101	nsp	00D 205 1034 023	M3 SCREW TERMINAL			
CX102	nsp	00D 205 0375 000	10P CON.BASE(KR-PH)			
CX151	nsp	00D 205 0480 050	15P KR CON BASE(L)			
CX915-918	nsp	00D 205 0864 003	M3 SCREW TERMINAL			
CY031	nsp	00D 205 0233 032	3P EH CONNECTOR BASE			
CY032	nsp	00D 205 0278 039	3P EH CON BASE (BK)			
CY033	nsp	00D 205 0343 032	3P CONN.BASE(KR-PH)			
CY051	nsp	00D 205 0276 057	5P EH CON BASE(BU)			
CY053	nsp	00D 205 0343 058	5P CONN.BASE(KR-PH)			
CY054	nsp	00D 205 0296 053	5P EH CON.BASE(YW)			
CY061	nsp	00D 205 0233 061	6P EH CONNECTOR BASE			
CY062	nsp	00D 205 0321 067	6P CONNE.BASE (RED)			
CY063	nsp	00D 205 0277 069	6P EH CON BASE (RD)			
CY065	nsp	00D 205 0343 061	6P CONN.BASE(KR-PH)			
CY068	nsp	00D 205 0543 065	6P CON.BASE(YEL)			
CY151	nsp	00D 205 0375 055	15P CONN.BASE(KR-PH)			
CZ066	nsp	00D 205 0685 062	6P KR CON BASE(BLK)L			
CZ102	nsp	00D 205 0375 000	10P CON.BASE(KR-PH)			
JK303		00D 204 8531 018	2P PIN JACK (C-GND)			
JK304,305		00D 204 8530 019	4P PIN JACK			
L701-704		00D 235 9003 002	FTZ CHOKE COIL			
L901		00D 235 0189 006	INDUCTOR 150UHLHLZ06			
RL301-307		00D 214 0127 003	RELAY(RY-12W)			
RL601		00D 214 0127 003	RELAY(RY-12W)			
S301		00D 212 4331 006	SLIDE SW(4-6) REMOTE			
S701		00D 212 4728 004	1P PUSH SWITCH			
S901		00D 212 0407 002	ROTALY SW.(SRRM-12)			
W602	nsp	00D 203 0629 019	1P CONTACT ASS			
W807,808	nsp	00D 205 0864 003	M3 SCREW TERMINAL			
W809	nsp	00D 203 0760 004	1P SIN CON. ASS'Y			
W810	nsp	00D 205 0864 003	M3 SCREW TERMINAL			
XL901		00D 399 0990 900	CSTLS4M19G56-A0			
	nsp	-	VINYL WIRE			
		00D 471 3304 028	3X8 CBS-B			
		-	RADIATOR			

1U-3708B POWER AMP P.W.B. UNIT

Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
SEMICONDUCTORS GROUP						
IC201 IC904		00D 263 0743 007 00D 499 0307 000	NJM2082DD GP1UA271XK			
TR501-504 TR505-508 TR509-512 TR513,514 TR515		00D 275 0055 015 00D 273 0235 923 00D 271 0304 007 00D 273 0453 006 00D 273 0323 000	2SK184C (GR)/(BL) 2SC1841-T(E/F) 2SA1546(M/L) 2SC4001(M/L) 2SC3421 O/Y			
TR515 TR516 TR516 TR517,518 TR519,520		00D 415 0309 055 00D 273 0323 000 00D 415 0309 055 00D 273 0442 004 00D 271 0272 003	P.V.C TUBE(L=07) 2SC3421 O/Y P.V.C TUBE(L=07) 2SC4793 (Y) 2SA1837-Y			
TR525,526 TR527,528		00D 273 0235 923 00D 271 0131 924	2SC1841-T(E/F) 2SA988-T(E/F)			
D101 D501,502		00D 276 0432 903 00D 276 0432 903	1SS270A TE (TAPE) 1SS270A TE (TAPE)			
D505-508 D513-516 D608,609		00D 276 0432 903 00D 276 0432 903 00D 276 0432 903	1SS270A TE (TAPE) 1SS270A TE (TAPE) 1SS270A TE (TAPE)			
ZD509,510		00D 276 0467 907	HZS9A-1TD			
ZD511,512 ZD611		00D 276 0457 904 00D 276 0460 904	HZS4C-1TD HZS5C-1TD			
LD608		00D 393 9645 009	SML1216W(D)			
PT501,502		00D 279 0034 041	PTH9M04BD222TS2F333			
RESISTORS GROUP						
R227,228		00D 241 2376 964	RD14B2E470JNBST			
R233,234 R301,302 R471,472 R473,474 R479,480		00D 241 2469 910 00D 241 2473 980 00D 241 2465 943 00D 241 2475 904 00D 241 2467 909	RD14B2E362JT(AMRS) RD14B2E334JT(AMRS) RD14B2E101JT(AMRS) RD14B2E105JT(AMRS) RD14B2E471JT(AMRS)			
R501,502 R503-506 R507,508 R509,510 R511,512		00D 241 2445 743 00D 241 2469 949 00D 241 2466 926 00D 241 2450 796 00D 241 2468 911	RD05A2H332JF(RMG) RD14B2E472JT(AMRS) RD14B2E221JT(AMRS) RD05A2H105JF(RMG) RD14B2E132JT(AMRS)			
R513,514 R515,516 R517,518 R519-522 R523-526		00D 241 2447 741 00D 241 2444 760 00D 241 2446 001 00D 241 2315 983 00D 244 2068 006	RD05A2H333JF(RMG) RD05A2H122JF(RMG) RD05A2H822J(RMG) RD14B2E331GFRST RS14B3A101JNBS RSFSV			
R529,530 R531,532 R533,534 R535,536 R537-540		00D 244 2058 087 00D 244 2068 048 00D 241 2469 965 00D 241 2467 983 00D 241 2371 930	RS14B3A820JNBS(RFSV) RS14B3A153JNBS RSFSV RD14B2E562JT(AMRS) RD14B2E102JT(AMRS) RD14B2E161GFRST			
R541,542 R543,544 R545,546 R547,548 R549,550		00D 241 2475 904 00D 241 2469 907 00D 244 2068 035 00D 244 2068 019 00D 244 2068 035	RD14B2E105JT(AMRS) RD14B2E332JT(AMRS) RS14B3A391JNBS RSFSV RS14B3A201JNBS RSFSV RS14B3A391JNBS RSFSV			
R553-556 R557,558 R559,560 R565,566 R567,568		00D 244 2068 006 00D 244 2067 010 00D 241 2380 963 00D 244 2058 074 00D 241 2470 967	RS14B3A101JNBS RSFSV RS14B3D0R1JNBF RSFKL RD14B2E222JNBST RS14B3A220JNBS RSFSV RD14B2E153JT(AMRS)			

Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
R571,572 R573,574 R575,576 R585,586 R593,594		00D 241 2447 796 00D 241 2470 925 00D 241 2471 940 00D 244 2067 007 00D 244 2067 010	RD05A2H513JF(RMG) RD14B2E103JT(AMRS) RD14B2E333JT(AMRS) RS14B3D100JNBF RSFKL RS14B3D0R1JNBF RSFKL			
VR201 VR202 VR203 VR351		00D 211 0798 103 00D 211 0834 012 00D 211 0834 009 00D 211 0873 002	V14V20FW104K V14V20FA103K V14V20FA303K V1820V30FB303			
VR501,502		00D 211 8005 021	V06QB472			
CAPACITORS GROUP						
△ C101,102		00D 253 8026 703	CK45E2EAC472MC			
C103		00D 254 4558 702	CE04W1H101MC(RFS)			
C203,204		00D 255 4251 918	CQ93P2A560JT(NH2)			
C205,206		00D 254 4696 981	CE04W1H100MT(R2A)			
C207,208		00D 254 4699 904	CE04W1E101MT(R2A)			
C209,210		00D 256 1058 913	CF93A1H333JT (JL)			
C211,212		00D 254 4696 910	CE04W1HR22MT(R2A)			
C213,214		00D 254 4696 907	CE04W1H0R1MT(R2A)			
C215,216		00D 254 4696 936	CE04W1HR47MT(R2A)			
C217,218		00D 255 4250 977	CQ93P2A390JT(NH2)			
C351		00D 256 1054 001	CF93B1H105K(GSG))			
C355		00D 255 4256 955	CQ93P2A103JT(NH2)			
C471,472		00D 255 4251 976	CQ93P2A101JT(NH2)			
C477,478		00D 255 4251 976	CQ93P2A101JT(NH2)			
C501,502		00D 255 4251 976	CQ93P2A101JT(NH2)			
C503,504		00D 255 4255 972	CQ93P2A472JT(NH2)			
C505,506		00D 254 4557 936	CE04W1H100MT(RFS)			
C507,508		00D 255 4250 993	CQ93P2A470JT(NH2)			
C509,510		00D 255 4250 922	CQ93P2A150JT(NH2)			
C515,516		00D 255 6188 005	CQ09S2B103J(PPSC)			
C517,518		00D 255 4252 975	CQ93P2A271JT(NH2)			
C519,520		00D 255 4251 976	CQ93P2A101JT(NH2)			
C521-524		00D 254 4558 715	CE04W1H221MC(RFS)			
C527,528		00D 255 4251 976	CQ93P2A101JT(NH2)			
C529-534		00D 255 4256 955	CQ93P2A103JT(NH2)			
C537-540		00D 254 4558 715	CE04W1H221MC(RFS)			
C541,542		00D 256 8036 006	CF93B2E104K(WAG)			
C545-548		00D 254 4562 714	CE04W2A101MC(RFS)			
C561,562		00D 254 4557 936	CE04W1H100MT(RFS)			
C631		00D 254 4696 949	CE04W1H010MT(R2A)			
C725		00D 256 1054 001	CF93B1H105K(GSG))			
C912		00D 255 4256 955	CQ93P2A103JT(NH2)			
OTHERS PARTS GROUP						
CN521-524	nsp	00D 205 1230 063	6P PIN HEADER(6035)			
CW101 CW931,932	nsp	00D 204 2315 010 00D 203 5179 001	10P EH-EH CON.CORD 3P DB-DG CORD			
CX011-016	nsp	00D 205 0864 003	M3 SCREW TERMINAL			
CX021	nsp	00D 205 0348 024	2P WRAPPING TERMINAL			
CX022	nsp	00D 205 0581 001	2P VH CONNECTOR BASE			
CX023,024	nsp	00D 205 0348 024	2P WRAPPING TERMINAL			
CX031	nsp	00D 205 0233 032	3P EH CONNECTOR BASE			
CX032	nsp	00D 205 0278 039	3P EH CON BASE (BK)			
CX033	nsp	00D 205 0343 032	3P CONN.BASE(KR-PH)			
CX051	nsp	00D 205 0276 057	5P EH CON BASE(BU)			
CX053	nsp	00D 205 0343 058	5P CONN.BASE(KR-PH)			
CX054	nsp	00D 205 1376 053	5P EH SIDE BASE (YW)			
CX055	nsp	00D 205 0233 058	5P EH CONNECTOR BASE			
CX056	nsp	00D 205 0277 056	5P EH CON BASE(RD)			
CX062	nsp	00D 205 0321 067	6P CONNE.BASE (RED)			

	Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
	CX063	nsp	00D 205 0277 069	6P EH CON BASE (RD)			
	CX064	nsp	00D 205 0276 060	6P EH CON BASE (BU)			
	CX065	nsp	00D 205 0279 067	6P PH SID CONN BASE			
	CX066	nsp	00D 205 0323 065	6P CONNE.BASE (BLK)			
	CX081	nsp	00D 205 0234 086	8P EH SID CONN BASE			
	CX101	nsp	00D 205 0275 003	10P EH CON. BASE			
	CX911-914	nsp	00D 205 0864 003	M3 SCREW TERMINAL			
	CY022	nsp	00D 205 0581 001	2P VH CONNECTOR BASE			
	CY061	nsp	00D 205 0233 061	6P EH CONNECTOR BASE			
	CZ057	nsp	00D 205 0278 055	5P EH CON BASE(BK)			
	CZ081	nsp	00D 204 2311 001	8P EH-SCN CONN.CORD			
⚠	F101		00D 206 1015 087	FUSE (4.0A)			
	FF101	nsp	00D 202 0040 909	FUSE CLIP(TAPE)			
	FH101	nsp	00D 202 0040 909	FUSE CLIP(TAPE)			
	JK301		00D 204 8548 001	4P PIN JACK(18MM)			
	JK306,307		00D 204 8530 019	4P PIN JACK			
	JK501		00D 204 8480 004	HEAD PHONE JACK(SW)			
	RL101		00D 214 0229 008	RELAY FTR-H2 TV-8			
	RL501,502		00D 214 0195 006	RELAY FTR-F1			
⚠	S101		00D 212 1176 002	POWER SWITCH (TV-5)			
	S201		00D 212 1163 002	1P PUSH SW.(2-6)			
	S602		00D 212 1163 002	1P PUSH SW.(2-6)			
	ST201-203	nsp	-	STYLE PIN			
⚠	T101		00D 233 6553 009	POWER TRANS MINI E2			
	TP501,502	nsp	00D 205 0154 030	3P NH CONNECTOR BASE			
	W809	nsp	00D 203 0760 017	1P CON. ASS'Y			
		nsp	00D 513 3777 001	FUSE LABEL(4A)	for F101		
		nsp	00D 415 0467 007	PVC TUBE(L=28)	for PT501,502		
		nsp	00D 415 0866 006	CONDENSER COVER	for C101,102		

1U-3709B FLAT AMP P.W.B. UNIT

Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
SEMICONDUCTORS GROUP						
TR421-424		00D 273 0281 919	2SC2705 (Y)TPE6			
TR425-428		00D 275 0038 045	2SK369 (BL)/(GR)-C			
TR429-432		00D 273 0281 919	2SC2705 (Y)TPE6			
TR433-436		00D 271 0168 900	2SA1145 (O)/(Y)TPE6			
TR437,438		00D 275 0069 001	2SK215			
TR439,440		00D 275 0068 002	2SJ78			
TR451,452		00D 269 0074 907	DTC114TS (10K) T			
TR453		00D 273 0323 000	2SC3421 O/Y			
TR454		00D 275 0042 905	2SK373(Y)TPE2			
TR821-824		00D 275 0042 905	2SK373(Y)TPE2			
TR825		00D 273 0442 004	2SC4793 (Y)			
TR826		00D 271 0272 003	2SA1837-Y			
TR827		00D 273 0442 004	2SC4793 (Y)			
TR828		00D 271 0272 003	2SA1837-Y			
D421-426		00D 276 0432 903	1SS270A TE (TAPE)			
D431-433		00D 276 0432 903	1SS270A TE (TAPE)			
D821		00D 276 0706 008	FCH20A15			
D822		00D 276 0707 007	FRH20A15			
ZD403		00D 276 0475 902	HZS12C-1TD			
ZD404,405		00D 276 0460 904	HZS5C-1TD			
ZD421,422		00D 276 0453 911	HZS3B-2TD			
ZD423,424		00D 276 0460 904	HZS5C-1TD			
ZD821,822		00D 276 0483 907	HZS30-1TD			
ZD825,826		00D 276 0645 907	MTZJ18A T77			
LD421,422		00D 393 9540 900	SLR-342MGTF7MN			
RESISTORS GROUP						
R421,422		00D 241 2475 904	RD14B2E105JT(AMRS)			
R423,424		00D 241 2466 926	RD14B2E221JT(AMRS)			
R425,426		00D 241 2471 940	RD14B2E333JT(AMRS)			
R427,428		00D 241 2471 982	RD14B2E473JT(AMRS)			
R429-432		00D 244 2058 003	RS14B3A102JNBS(RSFSV)			
R433,434		00D 241 2466 968	RD14B2E331JT(AMRS)			
R435,436		00D 241 2467 941	RD14B2E681JT(AMRS)			
R437,438		00D 241 2475 904	RD14B2E105JT(AMRS)			
R439,440		00D 241 2469 965	RD14B2E562JT(AMRS)			
R441,442		00D 241 2467 983	RD14B2E102JT(AMRS)			
R443,444		00D 244 2068 006	RS14B3A101JNBS RSFSV			
R445-448		00D 244 2058 032	RS14B3A470JNBS(RSFSV)			
R449,450		00D 241 2474 921	RD14B2E474JT(AMRS)			
R451-454		00D 244 2058 032	RS14B3A470JNBS(RSFSV)			
R457,458		00D 241 2465 943	RD14B2E101JT(AMRS)			
R475-478		00D 241 2472 965	RD14B2E104JT(AMRS)			
R821-824		00D 241 2467 983	RD14B2E102JT(AMRS)			
R898,899		00D 241 2475 904	RD14B2E105JT(AMRS)			
CAPACITORS GROUP						
C421,422		00D 255 4251 976	CQ93P2A101JT(NH2)			
C423,424		00D 254 4557 936	CE04W1H100MT(RFS)			
C425,426		00D 255 4256 955	CQ93P2A103JT(NH2)			
C427-430		00D 254 4557 923	CE04W1H4R7MT(RFS)			
C431,432		00D 255 4250 977	CQ93P2A390JT(NH2)			
C433-436		00D 255 4255 972	CQ93P2A472JT(NH2)			
C437,438		00D 255 6188 005	CQ09S2B103J(PPSC)			
C439,440		00D 255 4256 955	CQ93P2A103JT(NH2)			
C441-444		00D 254 4558 702	CE04W1H101MC(RFS)			
C451		00D 254 4515 716	CE04W1H102MC(RGO)			
C453		00D 254 4515 716	CE04W1H102MC(RGO)			

Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
C455,456 C462,463 C464 C465 C466		00D 255 4250 993 00D 254 4557 952 00D 254 4664 719 00D 254 4557 952 00D 254 4664 719	CQ93P2A470JT(NH2) CE04W1H470MT(RFS) CE04W1J221MC(RFS#5) CE04W1H470MT(RFS) CE04W1J221MC(RFS#5)			
C473-476 C825-828 C829,830 C831,832 C833,834		00D 254 4557 952 00D 255 4256 955 00D 254 4557 952 00D 254 4515 716 00D 255 4258 775	CE04W1H470MT(RFS) CQ93P2A103JT(NH2) CE04W1H470MT(RFS) CE04W1H102MC(RGO) CQ93P2A473JFC(NH2)			
C835,836 C837,838 C841-844		00D 254 4557 952 00D 254 4558 744 00D 254 4515 716	CE04W1H470MT(RFS) CE04W1H102MC(RFS) CE04W1H102MC(RGO)			
OTHERS PARTS GROUP						
CX025,026 CX052 CX057 CX068	nsp nsp nsp nsp	00D 205 0453 003 00D 205 0653 052 00D 205 0278 055 00D 205 0543 065	2P VH CONN. BASE (L) 5P VH CONNECTOR BASE 5P EH CON BASE(BK) 6P CON.BASE(YEL)			
CY052 CY055 CY056 CY064	nsp nsp nsp nsp	00D 205 0653 052 00D 205 0233 058 00D 205 0277 056 00D 205 0276 060	5P VH CONNECTOR BASE 5P EH CONNECTOR BASE 5P EH CON BASE(RD) 6P EH CON BASE (BU)			
⚠ F821,822 RL401-403		00D 206 1093 012 00D 214 0127 003	FUSE 25RF 3.15A F006 RELAY(RY-12W)			*
ST401 ST801 W811	nsp nsp nsp	00D 205 0452 017 00D 205 0452 017 00D 205 0864 003	STYLE PIN STYLE PIN M3 SCREW TERMINAL			
	nsp	00D 513 4099 021	FUSE LABEL			

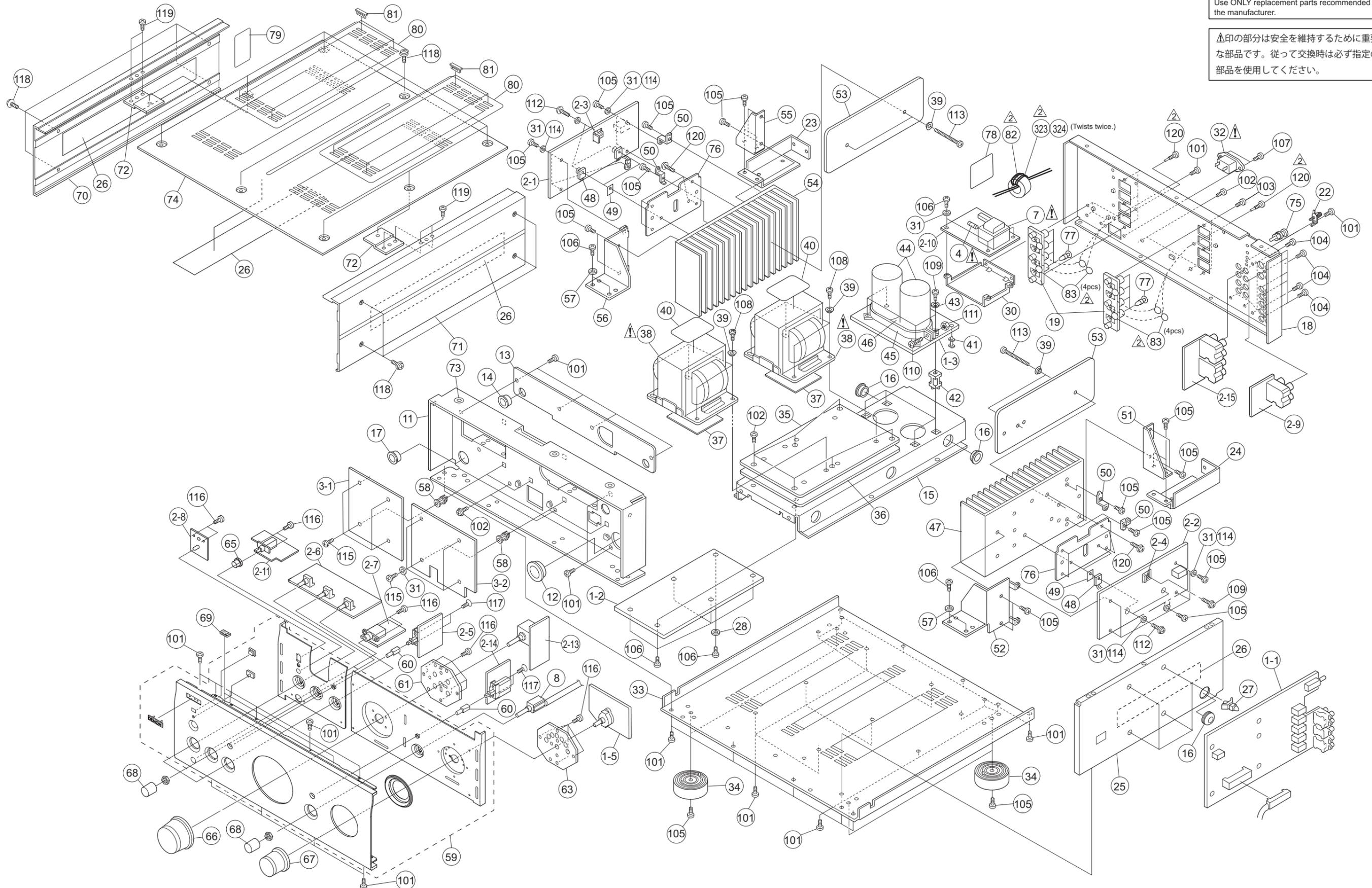
EXPLODED VIEW

E2 model

PMA-2000AE

WARNING:
Parts marked with this symbol  have critical characteristics.
Use **ONLY** replacement parts recommended by the manufacturer.

印の部分は安全を維持するために重要な部品です。従って交換時は必ず指定の部品を使用してください。



PARTS LIST OF EXPLODED VIEW

* 本表に記載されている部品は、補修用部品のため製品に使用している部品とは一部、形状、寸法などが異なる場合があります。

* The parts listed below are for maintenance only, might differ from the parts used in the unit in appearances or dimensions.

* "nsp" 印の部品は常時在庫していませんので供給に長時間を要することがあります。場合によっては、供給をお断りする場合があります。

* Part indicated with the mark "nsp" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.

Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
1	nsp	1U- 3707 B	INPUT/CONTROL UNIT ASS'Y		1	*
-1-1		-	INPUT UNIT			
-1-2		-	CONTROL UNIT			
-1-3		-	P.SUPPLY H UNIT			
-1-5		-	FUNCTION SW UNIT			
2	nsp	1U- 3708 B	POWER AMP UNIT ASS'Y		1	*
-2-1		-	POWER AMP L UNIT			
-2-2		-	POWER AMP R UNIT			
-2-3		-	MULTIPLIER L UNIT			
-2-4		-	MULTIPLIER R UNIT			
-2-5		-	S DIRECT SW UNIT			
-2-6		-	TONE UNIT			
-2-7		-	HEAD PHONE UNIT			
-2-8		-	LED UNIT			
-2-9		-	PH/CD TERMINAL UNIT			
-2-10		-	AC OUTLET UNIT			
-2-11		-	POWER SW UNIT			
-2-13		-	MAIN VOLUME UNIT			
-2-14		-	P.DIRECT SW UNIT			
-2-15		-	REC OUT UNIT			
3	nsp	1U- 3709 B	FLAT AMP UNIT ASS'Y		1	*
-3-1		-	P.SUPPLY L UNIT			
-3-2		-	FLAT AMP UNIT			
4		00D 206 1015 087	FUSE 4.0A	F-101	1	
7		00D 233 6553 009	POWER TRANS MINI E2	T-101	1	
8		00D 212 4799 004	ROTARY REMOTE SWITCH		1	
11	nsp	00D 411 2086 002	FRONT CHASSIS		1	*
12	nsp	00D 462 0089 054	BUSH		1	
13	nsp	00D 412 5253 000	SHIELD PLATE		1	*
14	nsp	00D 462 0089 012	BUSH		1	
15	nsp	00D 411 1346 248	TRANS CHASSIS		1	
16	nsp	00D 462 0089 025	BUSH		3	
17	nsp	00D 462 0089 038	BUSH		1	
18	nsp	00D 105 1650 136	BACK PANEL		1	*
19		00D 205 1014 221	4P TERMINAL ASSY		2	*
★ 20	nsp	00D 415 0390 022	UL TUBE		2	
★ 21	nsp	00D 445 8004 007	WIRE CLAMPER		29	
22	nsp	00D 205 1116 006	TERMINAL ASS		1	
23	nsp	00D 412 4388 015	SUPPORT BRACKET(L)		1	
24	nsp	00D 412 4389 014	SUPPORT BRACKET(R)		1	
25	nsp	00D 414 0765 311	SHIELD PLATE		1	
26	nsp	00D 441 1795 010	PLATE (T/C)		4	
27	nsp	00D 415 9016 019	P•C•B HOLDER		4	
28	nsp	00D 475 3201 000	3 TWB ZN		1	
30	nsp	00D 412 4112 113	PWB BRACKET (A)		1	
31	nsp	00D 415 0947 006	BUSH		14	
32		00D 203 3970 008	AC INLET		1	
33	nsp	00D 105 1197 741	BOTTOM COVER		1	
34		00D 146 2088 119	FOOT ASS'Y		4	
35	nsp	00D 412 4141 045	TRANS BRACKET		1	
36	nsp	00D 412 4141 003	TRANS BRACKET		1	
37	nsp	00D 415 0877 037	DAMP SHEET(A)		2	
38		00D 233 6519 001	POWER TRANS		2	*
39	nsp	00D 415 0809 005	WASHER		12	
40	nsp	00D 513 4091 003	TRANS LABEL(E)		2	*
41	nsp	00D 412 2814 015	CARD SPACER (L=14)		1	
42	nsp	00D 415 9032 006	P.C.B HOLDER (T)		4	

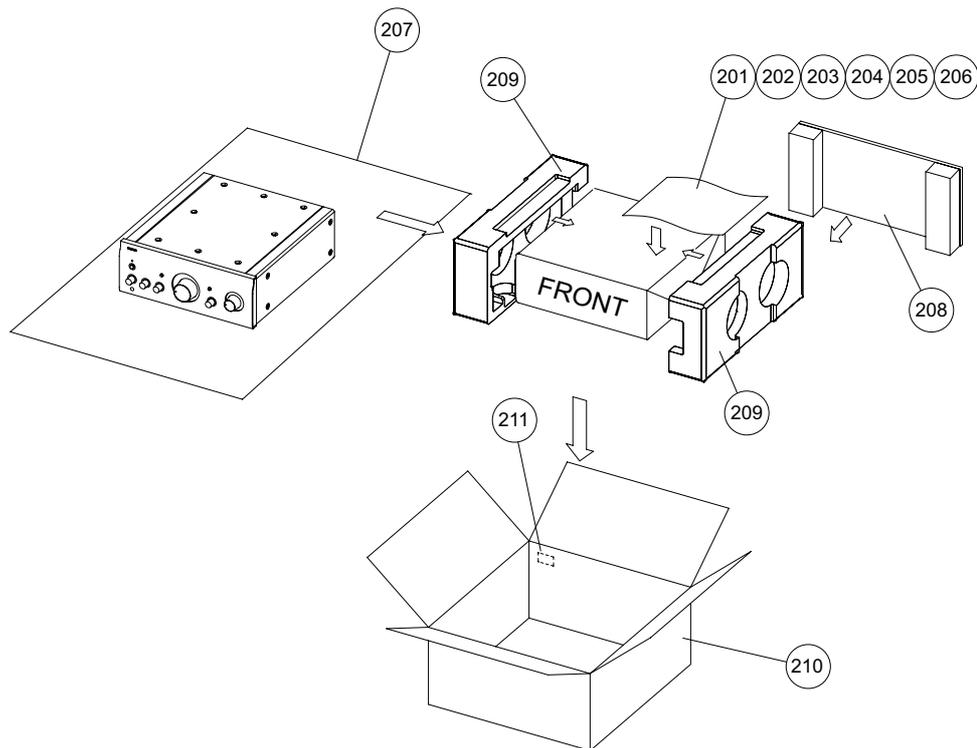
Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
43	nsp	00D 415 9080 003	TEFLON SPACER		8	
44		00D 254 6204 054	CE62W==123M	C803 C804	2	
45	nsp	00D 412 4715 002	C. HOLDER		1	
46	nsp	00D 415 0860 002	SPACER		1	
47	nsp	00D 417 0571 119	POWER RADIATOR (R)		1	
48		00D 275 0105 004	2SK2967	TR521 TR522	4	
49	nsp	00D 415 0234 007	INSULATING SHEET		4	
50	nsp	00D 412 4127 014	PWB BRACKET(B)		4	
51	nsp	00D 412 4387 016	RADIATOR BRACKET(R)		1	
52	nsp	00D 412 4114 111	RADIATOR BRACKET(B)		1	
53	nsp	00D 441 1890 203	PLATE(RD)		2	
54	nsp	00D 417 0571 106	POWER RADIATOR (L)		1	
55	nsp	00D 412 4386 017	RADIATOR BRACKET(L)		1	
56	nsp	00D 412 4113 112	RADIATOR BRACKET(A)		1	
58	nsp	00D 443 9015 002	P.W. SPACER		8	
59		00D 144 2962 019	FRONT PANEL ASSY		1	*
60		00D 113 9304 223	PUSH KNOB ASSY		2	*
61	nsp	00D 441 1780 203	PLATE (M)		1	
★ 62	nsp	00D 445 0048 016	CORD HOLDER (L50)		1	
63	nsp	00D 441 2004 001	PLATE(F)		1	
★ 64	nsp	00D 445 0048 003	CORD HOLDER (L76)		1	
65		00D 113 9303 130	POWER KNOB ASS'Y		1	
66		00D 112 0780 131	KNOB(M) ASSY		1	*
67		00D 112 0966 007	KNOB(F) ASSY		1	*
68		00D 112 0796 125	KNOB(MARU) ASSY		4	*
69	nsp	00D 461 0867 008	ARM CUSHION		6	
70		00D 144 2959 006	SIDE COVER(L)		1	*
71		00D 144 2960 008	SIDE COVER(R)		1	*
72	nsp	00D 412 5254 009	SCREW BRACKET		2	*
73	nsp	00D 479 0021 007	SP WASHER		3	*
74		00D GEN 6962	TOP COVER SUB		1	*
75	nsp	00D 209 0325 007	SHORT PIN		2	
76	nsp	00D 417 0540 205	CU PLATE		2	
77	nsp	00D 477 0096 007	PUSH RIVET		8	
78	nsp	00D 415 0847 012	PVC SHEET		1	
79	nsp	00D 415 0847 009	PVC SHEET		1	
80	nsp	00D 414 0907 001	SAFETY COVER		2	
81	nsp	00D 449 0139 105	COVER HOLDER		8	
82		00D 342 0027 000	FERRITE CORE		1	
83		00D 255 4254 012	CQ93P2A102J(NH2)	C563-570	8	
SCREW						
101	nsp	00D 473 8034 027	3X8 CBTS(B)-B		48	
102	nsp	00D 473 7007 000	4X8 CBTS (S)-B		10	
103	nsp	00D 473 7508 017	3X10 CBTS (P)-B		8	
104		00D 477 0064 107	FIXING SCREW		7	
105	nsp	00D 473 7002 021	3X8 CBTS (S)-B		27	
106	nsp	00D 473 8007 025	3X8 CUP SCREW		12	
107	nsp	00D 473 7003 017	3X8 CFTS (S)-B		2	
108	nsp	00D 473 7007 071	4X12 CBTS (S) ZNB		8	
109	nsp	00D 473 7501 014	3X14 CBTS (P)-Z		12	
110	nsp	00D 471 3409 017	4X16 CBS		1	
111	nsp	00D 475 6008 006	4N		1	
112	nsp	00D 477 0153 018	3X16 CPTS(B) SW W		6	
113	nsp	00D 471 3803 011	4X65 CBS		4	
114	nsp	00D 475 1178 009	3W-B		8	
115	nsp	00D 470 0009 022	3X6 CPS(SW W) ZNP		18	
116	nsp	00D 473 7500 015	3X8 CBTS (P)-Z		14	
117	nsp	00D 473 7500 028	3X8 CFTS (P)-Z		4	
118		00D 471 9058 022	SPECIAL SCREW		16	
119	nsp	00D 473 7003 004	3X8 CFTS (S)-Z		4	
120		00D 477 0276 005	EARTH SCREW		2	
WIRE						
★ 301	nsp	00D 203 0530 014	1P CONTACT ASS			
★ 302	nsp	00D 203 0748 042	1P CON.ASSY	W-810		



Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
★ 303	nsp	00D 203 5335 023	3P EH-EH CON.CORD	CN032		
★ 304	nsp	00D 203 5281 009	3P EH-EH CORD	CN031		
★ 305	nsp	00D 203 4930 021	3P VH-VH CON CORD	CN022		
★ 306	nsp	00D 203 8313 039	5P EH-EH CON CORD	CN051		
★ 307	nsp	00D 203 8439 049	5P EH-EH CON CORD	CN055		
★ 308	nsp	00D 203 8439 052	5P EH-EH CON CORD	CN056		
★ 309	nsp	00D 203 8439 036	5P EH-EH CON CORD	CN057		
★ 310	nsp	00D 203 8465 013	5P EH-EH CON.CORD	CN054		
★ 311	nsp	00D 203 8342 039	5P KR-KR RIBBON 350	CN053		
★ 312	nsp	00D 203 8411 025	5P VH-VH CON CORD	CN052		
★ 313	nsp	00D 204 0519 012	6P EH-EH CON.CORD	CN061		
★ 314	nsp	00D 204 0493 015	6P EH-EH SHIELD	CN063		
★ 315	nsp	00D 204 0493 028	6P EH-EH SHIELD	CN064		
★ 316	nsp	00D 204 0379 029	6P KR-KR RIBBON 325	CN068		
★ 317	nsp	00D 204 0379 032	6P KR-KR RIBBON 350	CN062		
★ 318	nsp	00D 204 0379 032	6P KR-KR RIBBON 350	CN067		
★ 319	nsp	00D 204 0379 090	6P KR-KR RIBBON 500	CN065		
★ 320	nsp	00D 204 0378 017	6P KR-KR RIBBON 80	CN066		
★ 321	nsp	00D 204 2553 018	10P KR-KR RIBBON 300	CN102		
★ 322		-	UL TUBE(6.6)	W-811		
★ 323	nsp	00D 001 0193 075	VINYL WIRE	AC INLET		
★ 324	nsp	00D 001 0193 088	VINYL WIRE	AC INLET		
★ 325		-	VINYL WIRE			
★ 326		-	VINYL WIRE	RED		
★ 327		-	VINYL WIRE	BLUE		



PACKING VIEW



PARTS LIST OF PACKING & ACCESSORIES

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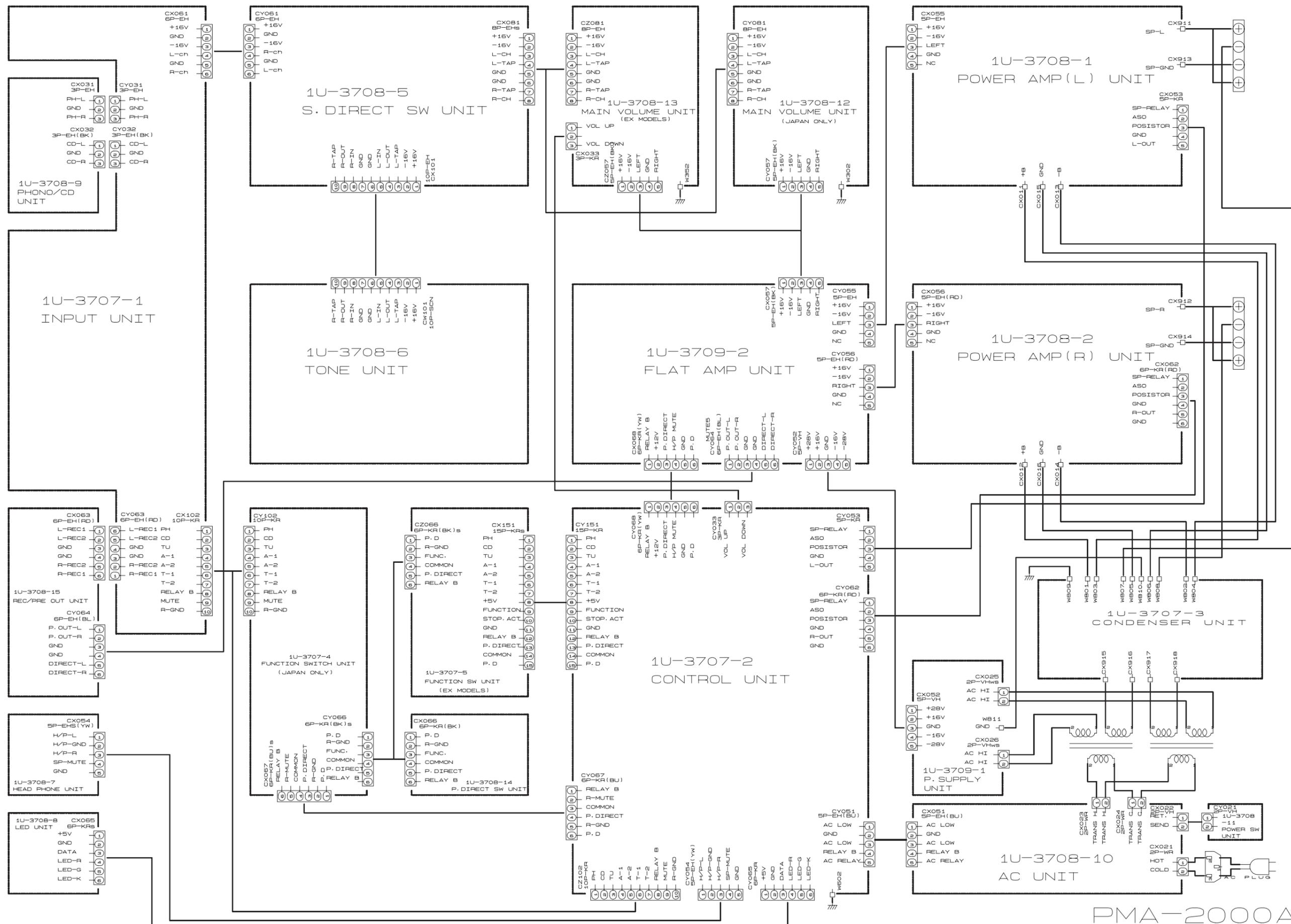
* The parts listed below are for maintenance only, might differ from the parts used in the unit in appearances or dimensions.

* "nsp" 印の部品は常時在庫していませんので供給に長時間を要することがあります。場合によっては、供給をお断りする場合があります。

* Part indicated with the mark "nsp" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.

	Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
⚠	201	nsp	00D 505 8006 019	ENVELOPE		1	
	202		00D 206 2215 006	AC CORD-E1/10A/INLET		1	
	203		00D 511 4369 001	INST MANUAL		1	*
	204	nsp	00D 515 0921 500	S.S.LIST(EX)		1	
	205		00D 399 0992 005	RC998		1	*
	206		-	BATTERY(R03X2)		1	
	207	nsp	00D 504 0192 106	CABINET SHEET		1	
	208	nsp	00D 502 0944 002	CUSHION ASS'Y		1	
	209	nsp	00D 503 1221 316	CUSHION ASSY		1	
	210	nsp	00D 501 2308 012	CARTON CASE		1	*
	211		-	BAR CODE LABEL ASS'Y		1	*
	212		-	CONT.CARD(L)SUB ASSY		1	*
	213	nsp	00D 513 9111 030	COLOR LABEL		2	

WIRING DIAGRAM



NOTE FOR SCHEMATIC DIAGRAM

配線図について

1. WARNING:

Parts marked with this symbol  have critical characteristics.

Use ONLY replacement parts recommended by the manufacturer.

2. CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

3. WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.

4. NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM
M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD.

p=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

5. NOTICE

GND of signal circuit is connected to GND of control circuit through chassis.

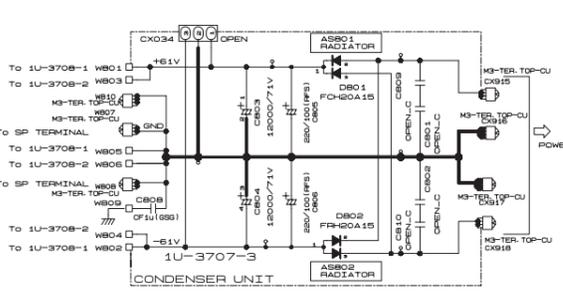
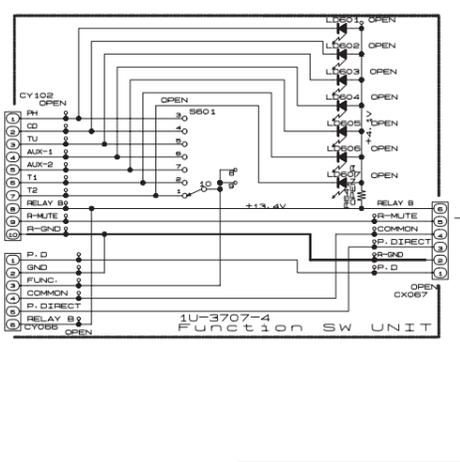
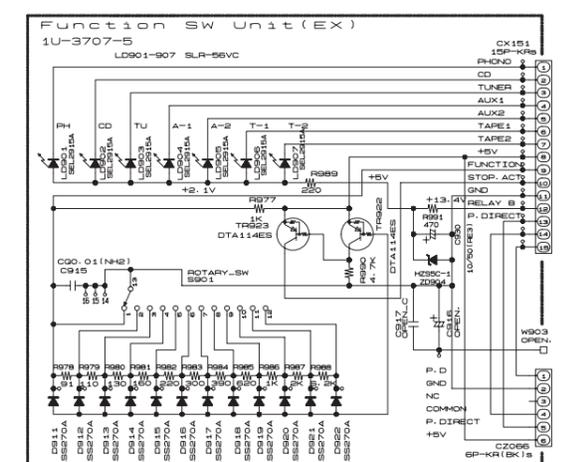
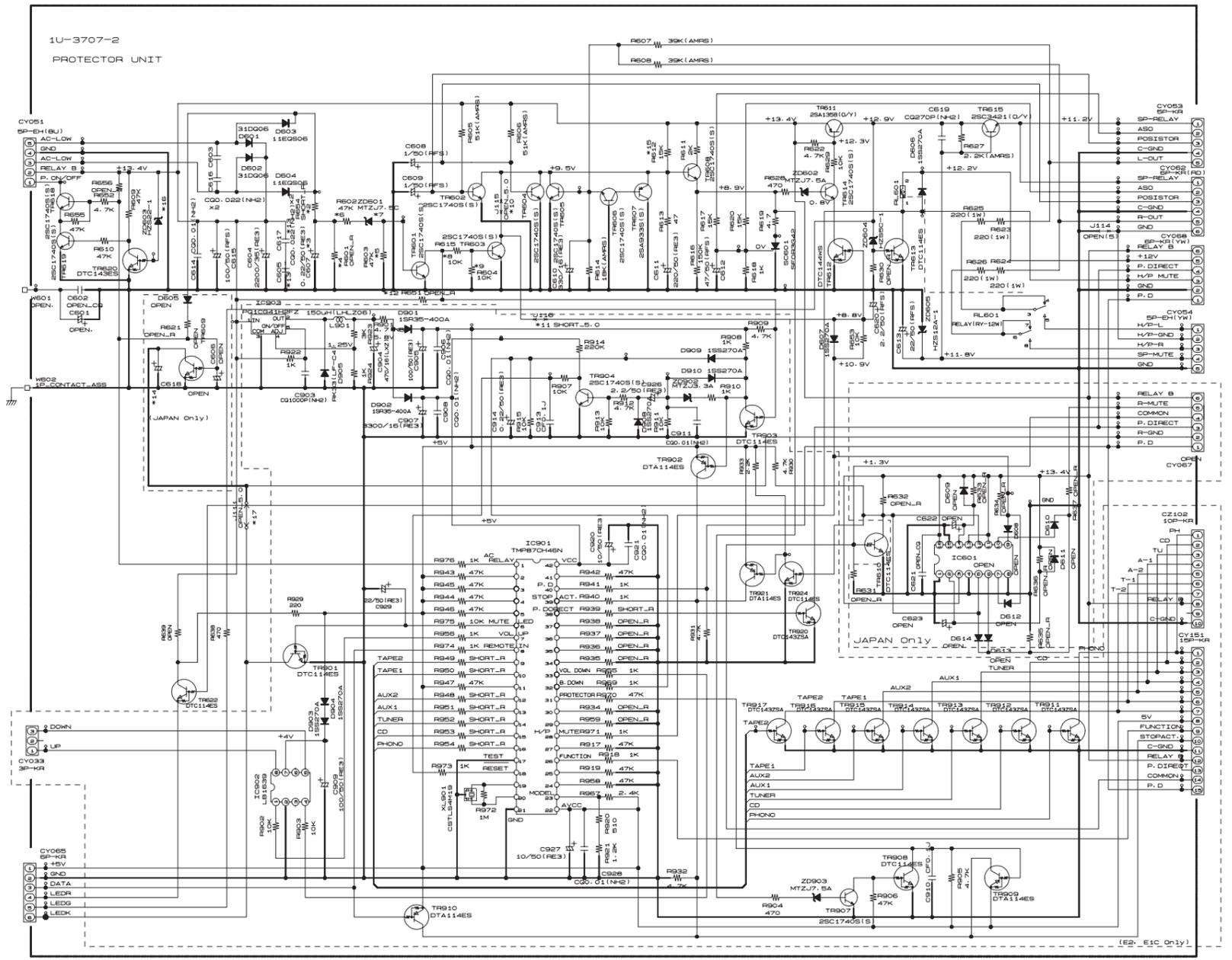
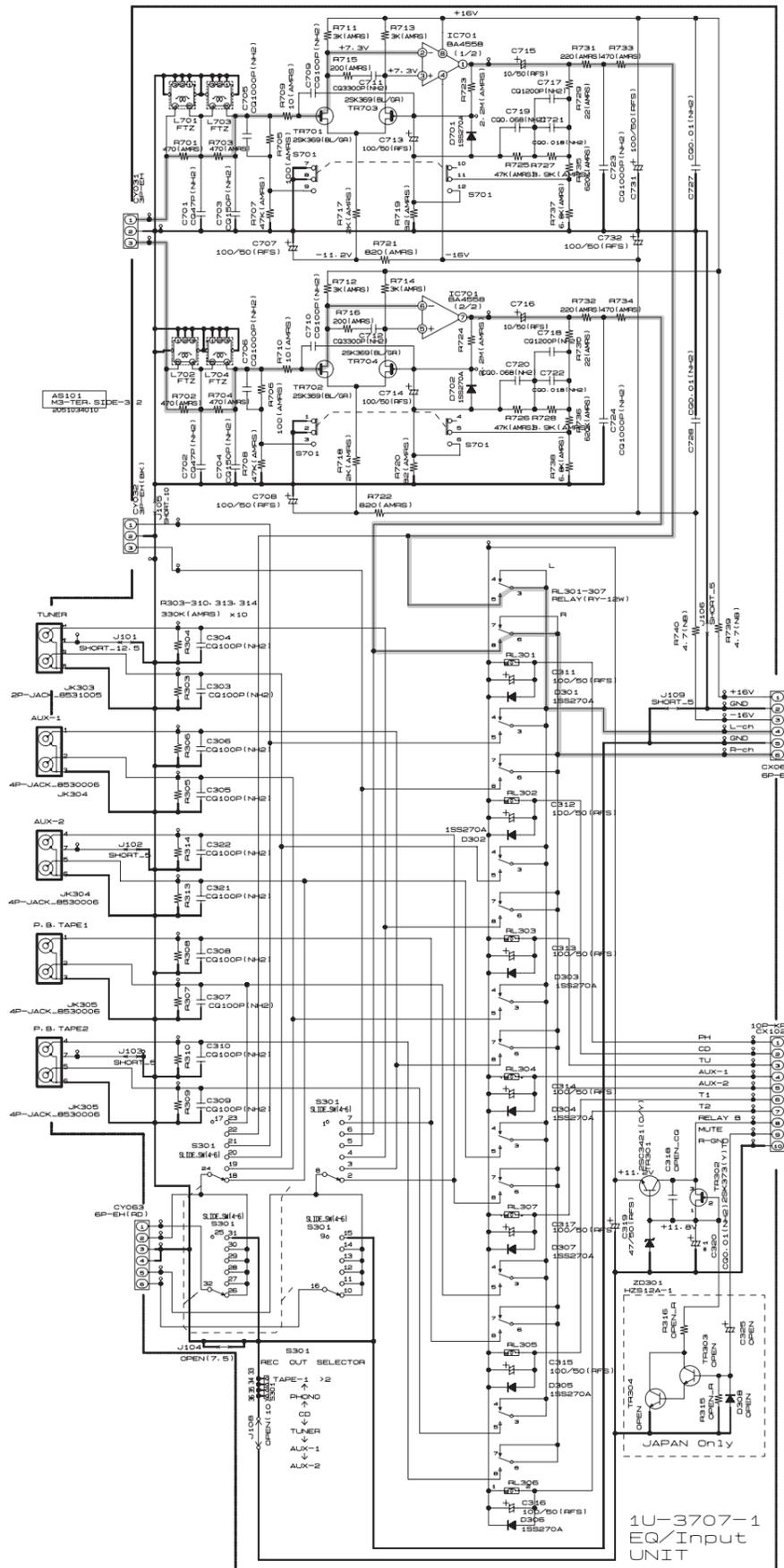
In observing signals detaching the INPUT P.W.B. or the CONTROL P.W.B. from the chassis, please connect the grounding point (Grounding side on INPUT P.W.B., W602 on CONTROL P.W.B.) to chassis.

 印の部品は安全を維持するために重要な部品です。従って交換時は必ず指定の部品を使用してください。

注)

1. 指定なき抵抗値は Ω 、k は $k\Omega$ 、M は $M\Omega$ を示す。
2. 指定なきコンデンサーの値は μF 、p は pF を示す。
3. 各部の電圧は無信号の値を示す。
4. この配線図は基本配線図です。改良等のため変更することがありますのでご了承ください。
5. このセットは信号系のグラウンドと制御系のグラウンドが別々にシャーシに接続されています。セットから基板を外して通電する場合には、入力基板の信号グラウンドとコントロール基板のシャーシグラウンド (W602) を必ずセットのシャーシに接続してください。

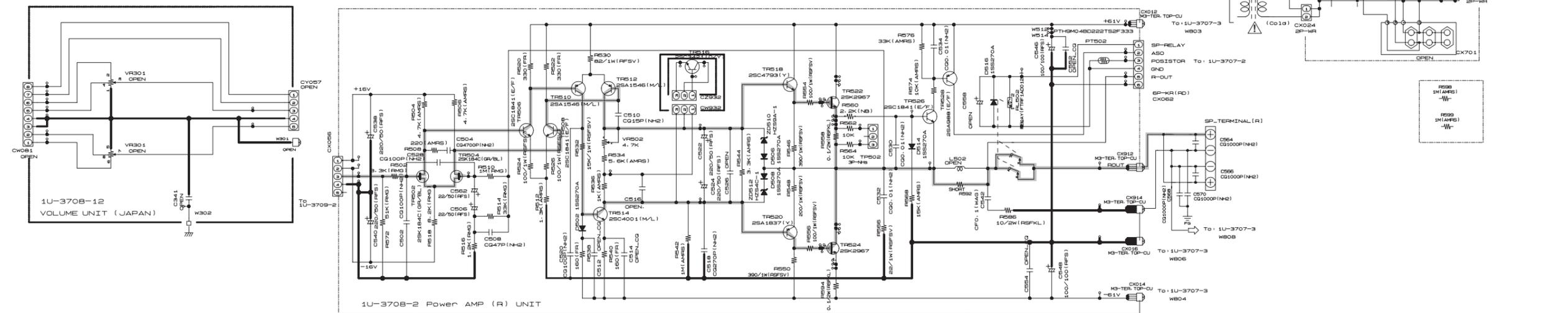
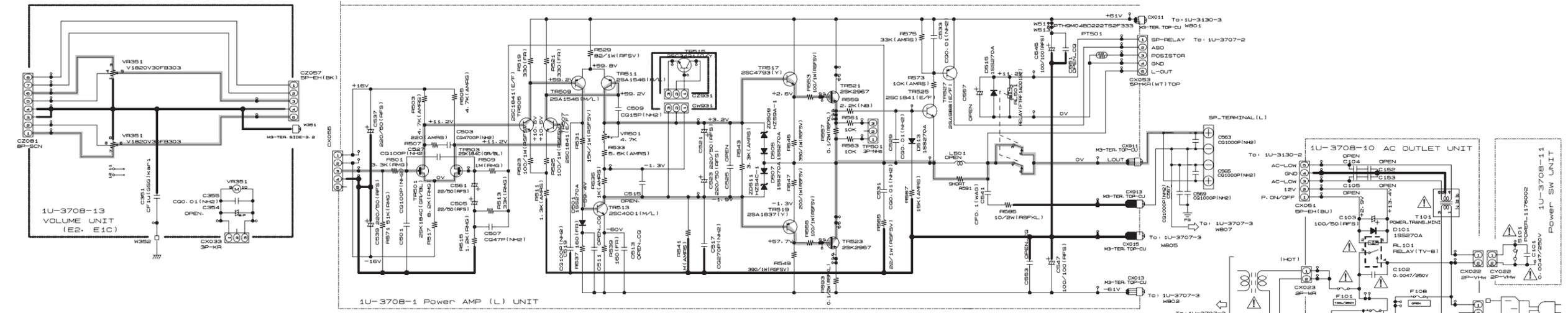
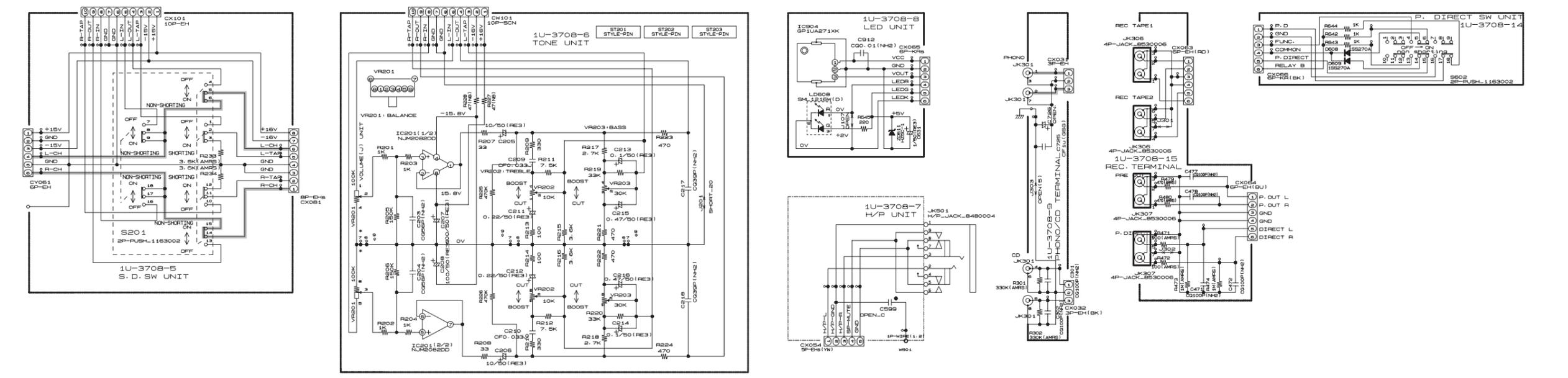
1 2 3 4 5 6 7 8 9 10 11



△ Addition of R701-704, C301-310, C321, C322, C701, C702, C709, C710 and L701-704.

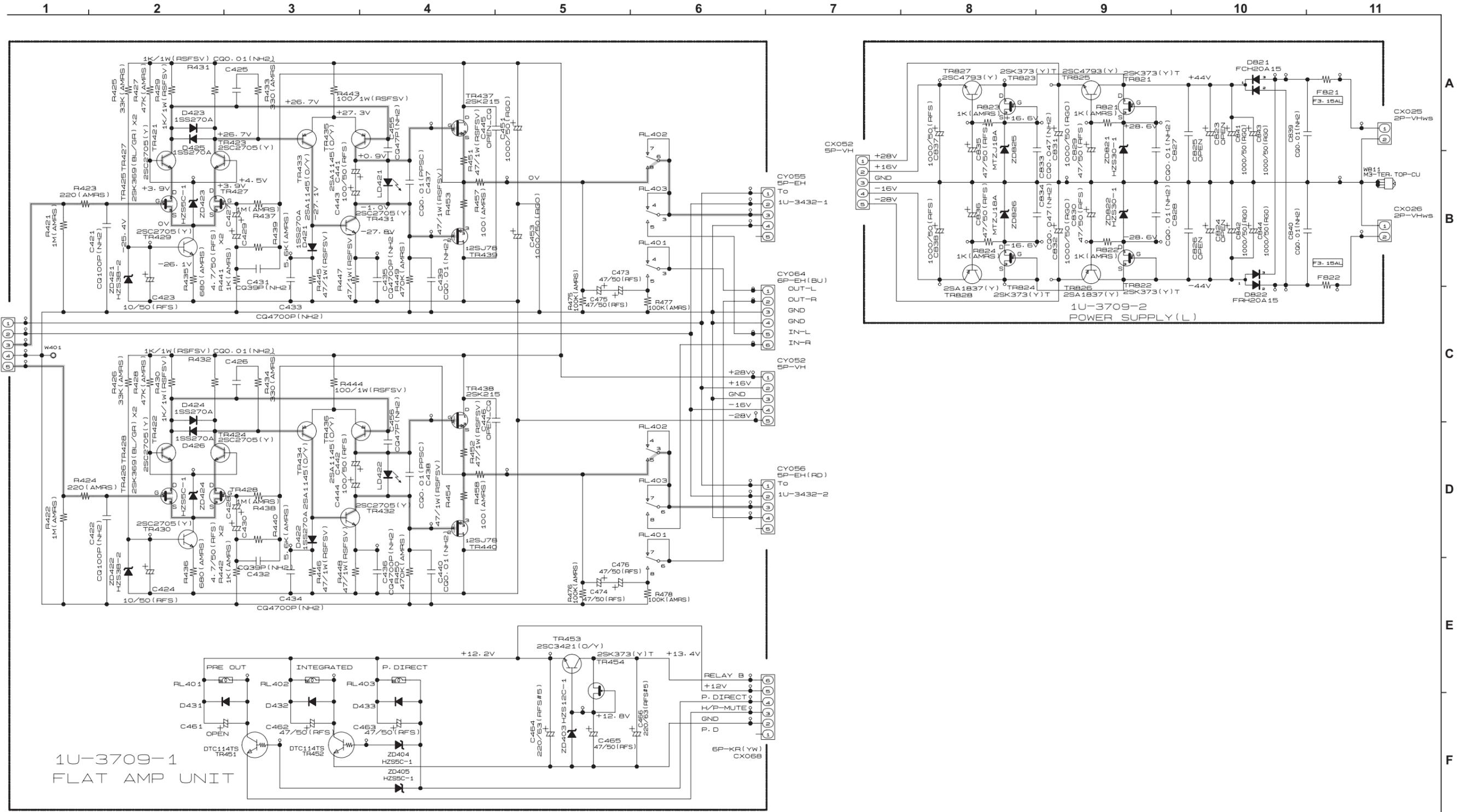
SCHEMATIC DIAGRAMS (1/3) 1U-3707 INPUT/CONTROL P.W.B. UNIT (For E2 model)

1 2 3 4 5 6 7 8 9 10 11



△ Addition of R479,R480,C477,C478 and C563-570.

SIGNAL LINE
SCHEMATIC DIAGRAMS (2/3)
1U-3708 POWER AMP P.W.B. UNIT
(For E2 model)



SIGNAL LINE

SCHEMATIC DIAGRAMS (3/3)
1U-3709 FLAT AMP P.W.B. UNIT
(For E2/E1C model)

DOCUMENTS FOR WEEE

Details of Recycle Parts

* You have to remove the parts that marked "WEEE Mark ◆" when the recycling processing. (Europe model only)

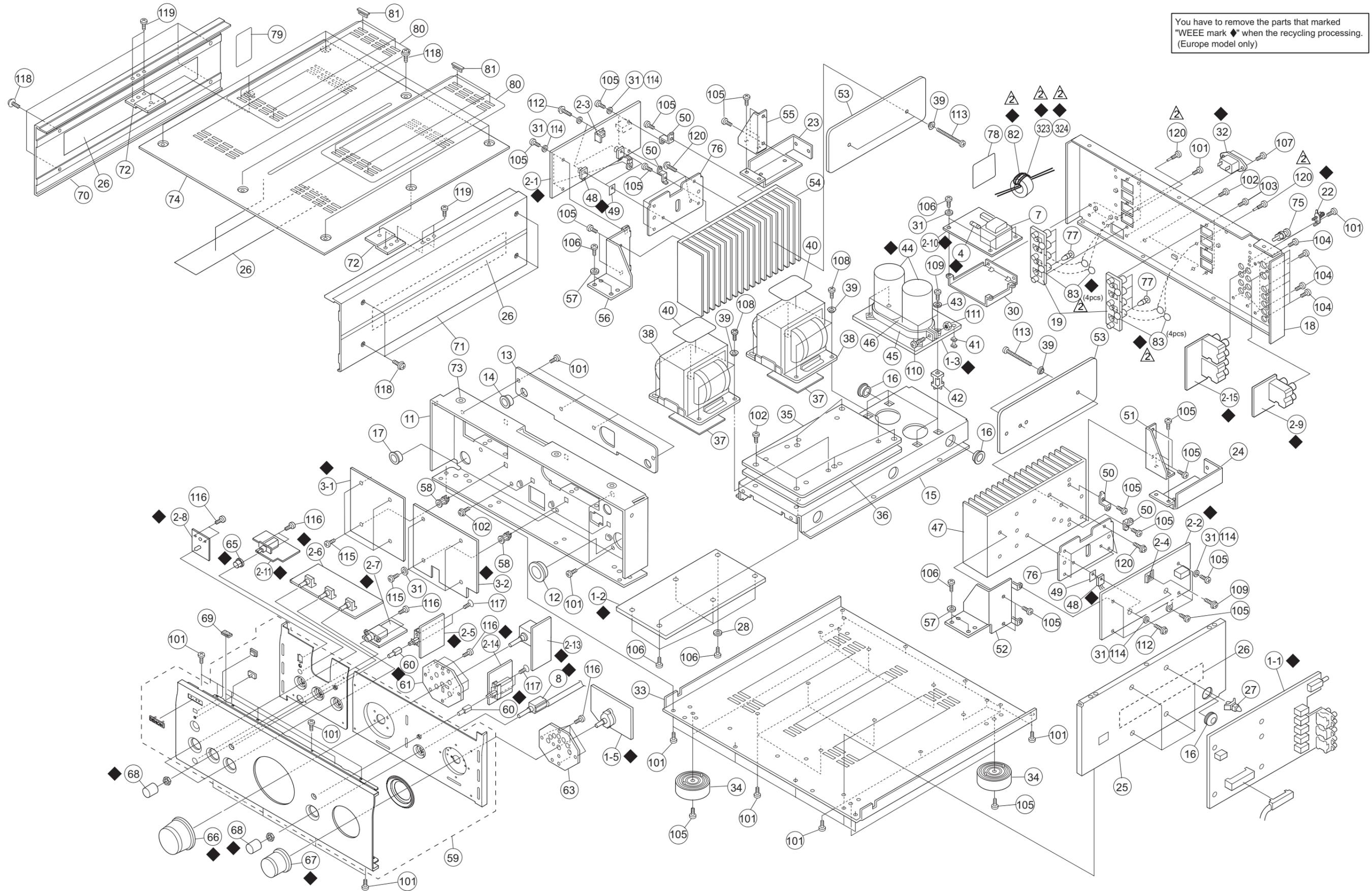
Ref. No.	WEEE Mark	Part Name	material	Q'ty
1-1	◆	INPUT UNIT	COMPLEX	1
1-2	◆	CONTROL UNIT	COMPLEX	1
1-3	◆	P.SUPPLY H UNIT	COMPLEX	1
1-5	◆	FUNCTION SW UNIT	COMPLEX	1
2-1	◆	POWER AMP L UNIT	COMPLEX	1
2-2	◆	POWER AMP R UNIT	COMPLEX	1
2-3	◆	MULTIPLIER L UNIT	COMPLEX	1
2-4	◆	MULTIPLIER R UNIT	COMPLEX	1
2-5	◆	S DIRECT SW UNIT	COMPLEX	1
2-6	◆	TONE UNIT	COMPLEX	1
2-7	◆	HEAD PHONE UNIT	COMPLEX	1
2-8	◆	LED UNIT	COMPLEX	1
2-9	◆	PH/CD TERMINAL UNIT	COMPLEX	1
2-10	◆	AC OUTLET UNIT	COMPLEX	1
2-11	◆	POWER SW UNIT	COMPLEX	1
2-13	◆	MAIN VOLUME UNIT	COMPLEX	1
2-14	◆	P.DIRECT SW UNIT	COMPLEX	1
2-15	◆	REC OUT UNIT	COMPLEX	1
3-1	◆	P.SUPPLY L UNIT	COMPLEX	1
3-2	◆	FLAT AMP UNIT	COMPLEX	1
4	◆	FUSE 4.0A	COMPLEX	1
7		POWER TRANS MINI E2	COMPLEX	1
8	◆	ROTARY REMOTE SWITCH	COMPLEX	1
11		FRONT CHASSIS	STEEL	1
12		BUSH	NYLON	1
13		SHIELD PLATE	STEEL	1
14		BUSH	NYLON	1
15		TRANS CHASSIS	STEEL	1
16		BUSH	NYLON	3
17		BUSH	NYLON	1
18		BACK PANEL	STEEL	1
19		4P TERMINAL ASSY	COMPLEX	2
22	◆	TERMINAL ASS	COMPLEX	1
23		SUPPORT BRACKET(L)	STEEL	1
24		SUPPORT BRACKET(R)	STEEL	1
25		SHIELD PLATE	STEEL	1
26		PLATE (T/C)	STEEL	4
27		P•C•B HOLDER	NYLON	4
28		3 TWB ZN	STEEL	1
30		PWB BRACKET (A)	STEEL	1
31		BUSH	TEFLON	14
32	◆	AC INLET	COMPLEX	1
33		BOTTOM COVER	STEEL	1
34		FOOT ASS'Y	ABS	4
35		TRANS BRACKET	STEEL	1
36		TRANS BRACKET	STEEL	1
37		DAMP SHEET(A)	PU	2
38		POWER TRANS	COMPLEX	2
39		WASHER	POM	12
40		TRANS LABEL(E)	TETRON	2
41		CARD SPACER (L=14)	NYLON	1
42		P.C.B HOLDER (T)	NYLON	4
43		TEFLON SPACER	TEFLON	8
44	◆	CE62W==123M	COMPLEX	2
45		C. HOLDER	Alminum	1
46		SPACER	ABS	1
47		POWER RADIATOR (R)	Alminum	1
48	◆	2SK2967	COMPLEX	4
49		INSULATING SHEET	Si	4
50		PWB BRACKET(B)	STEEL	4

Ref. No.	WEEE Mark	Part Name	material	Q'ty
51		RADIATOR BRACKET(R)	STEEL	1
52		RADIATOR BRACKET(B)	STEEL	1
53		PLATE(RD)	STEEL	2
54		POWER RADIATOR (L)	Alminum	1
55		RADIATOR BRACKET(L)	STEEL	1
56		RADIATOR BRACKET(A)	STEEL	1
58		P.W. SPACER	NYLON	8
59		FRONT PANEL ASSY	COMPLEX	1
60	◆	PUSH KNOB ASSY	COMPLEX	2
61		PLATE (M)	STEEL	1
62		CORD HOLDER (L50)	COMPLEX	1
63		PLATE(F)	STEEL	1
65	◆	POWER KNOB ASSY	COMPLEX	1
66	◆	KNOB(M) ASSY	COMPLEX	1
67	◆	KNOB(F) ASSY	COMPLEX	1
68	◆	KNOB(MARU) ASSY	COMPLEX	4
69		ARM CUSHION	CR	6
70		SIDE COVER(L)	Alminum	1
71		SIDE COVER(R)	Alminum	1
72		SCREW BRACKET	STEEL	2
73		SP WASHER	PVC	3
74		TOP COVER	COMPLEX	1
75		SHORT PIN	COMPLEX	2
76		CU PLATE	CU	2
77		PUSH RIVET	PA	8
78		PVC SHEET	PVC	1
79		PVC SHEET	PVC	1
80		SAFETY COVER	PC	2
81		COVER HOLDER	PC	8
82	◆	FERRITE CORE	COMPLEX	1
83	◆	CQ93P2A102J(NH2)	COMPLEX	8
323	◆	VINYL WIRE	COMPLEX	1
324	◆	VINYL WIRE	COMPLEX	1
SCREW				
101		3X8 CBTS(B)-B	STEEL	48
102		4X8 CBTS (S)-B	STEEL	10
103		3X10 CBTS (P)-B	STEEL	8
104		FIXING SCREW	STEEL	7
105		3X8 CBTS (S)-B	STEEL	27
106		3X8 CUP SCREW	STEEL	12
107		3X8 CFTS (S)-B	STEEL	2
108		4X12 CBTS (S) ZNB	STEEL	8
109		3X14 CBTS (P)-Z	STEEL	12
110		4X16 CBS	STEEL	1
111		4N	STEEL	1
112		3X16 CPTS(B) SW W	STEEL	6
113		4X65 CBS	STEEL	4
114		3W-B	STEEL	8
115		3X6 CPS(SW W) ZNP	STEEL	18
116		3X8 CBTS (P)-Z	STEEL	14
117		3X8 CFTS (P)-Z	STEEL	4
118		SPECIAL SCREW	STEEL	16
119		3X8 CFTS (S)-Z	STEEL	4
120		EARTH SCREW	STEEL	2



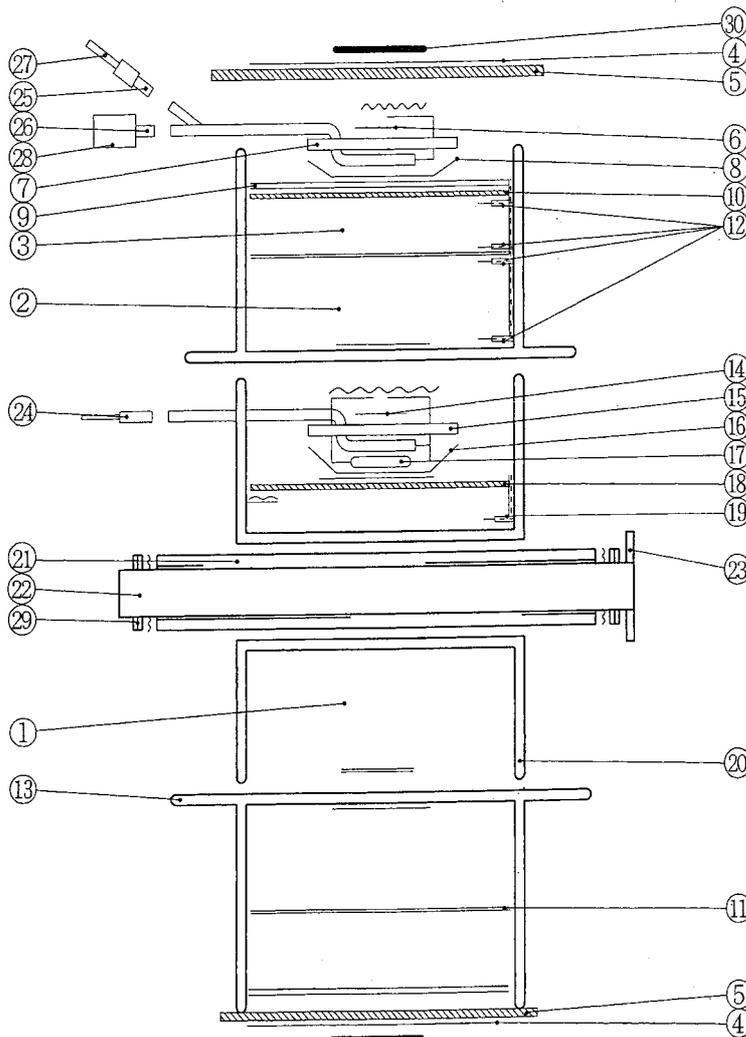
Exploded view

You have to remove the parts that marked "WEEE mark ♠" when the recycling processing. (Europe model only)



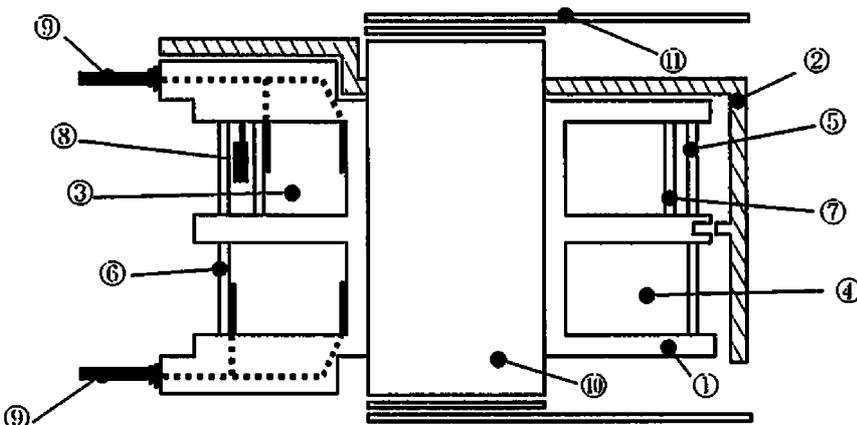
Details of Recycle parts for Power transformer

Part No.38 : POWER TRANS



No.	Material
1	COPPER
2	COPPER
3	COPPER
4	PET
5	PET
6	PET
7	PAPER
8	PET
9	PET
10	PET
11	PET
12	PET
13	PBT
14	PET
15	PAPER
16	PET
17	COMPLEX
18	PET
19	PET
20	PBT
21	STEEL
22	STEEL
23	STEEL
24	COMPLEX
25	COMPLEX
26	COMPLEX
27	COMPLEX
28	COMPLEX
29	STEEL
30	COPPER

Part No.7 : POWER TRANS



No.	Material
1	PBTP
2	PA
3	PA
4	COPPER WIRE
5	PET
6	PET
7	PET
8	COMPLEX
9	COPPER ALLOY
10	STEEL
11	STEEL