

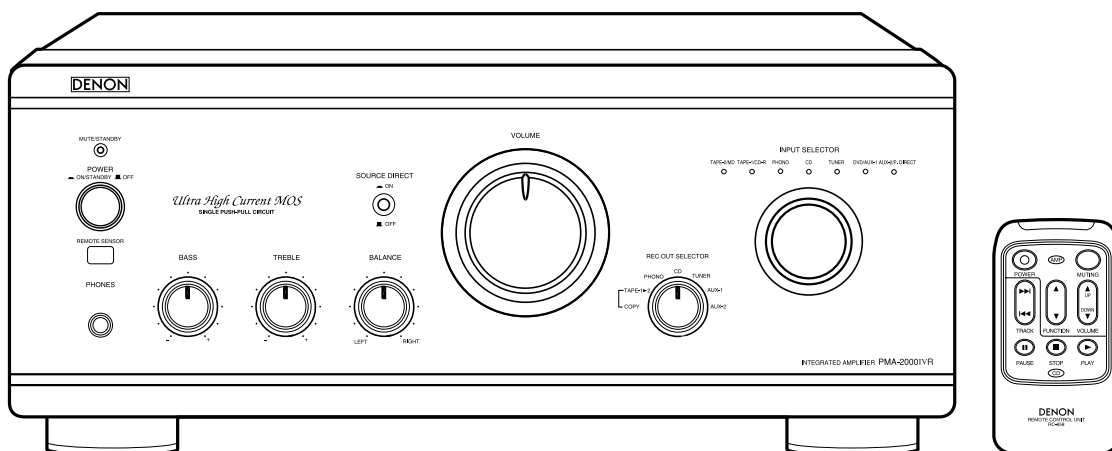
DENON

Hi-Fi Integrated Stereo Amplifier

SERVICE MANUAL

MODEL PMA-2000IVR

INTEGRATED STEREO AMPLIFIER



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

DENON, Ltd.

16-11, YUSHIMA 3-CHOME, BUNKYOU-KU, TOKYO 113-0034 JAPAN
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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.

SPECIFICATIONS

• POWER AMPLIFIER SECTION

Rated Output Power:

Both channel driven
(8 Ω /ohms Load) 80 W + 80 W

20 Hz to 20kHz, T.H.D. 0.07 %
(4 Ω /ohms Load) 160 W + 160 W

DIN, 1 kHz, T.H.D. 0.7 %
Total Harmonic Distortion: 0.01 %

(-3 dB at rated output, 8 Ω /ohms) (1kHz)

Input Sensitivity/Input Impedance:

P. DIRECT: 0.9 V/47 k Ω /kohms
Amplification factor: 29 dB

• PRE AMPLIFIER SECTION

PHONO EQUALIZER

Rated Output: 150 mV

(Rec out Terminal)

Input Sensitivity/Input Impedance:

The value in parentheses () refers to the input impedance when SOURCE DIRECT is ON.

PHONO: MM: 2.5 mV/47 k Ω /ohms

MC: 200 μ V/100 Ω /ohms

CD, TUNER, DVD/AUX-1, AUX-2,
TAPE-1/CD-R, TAPE-2/MD: 135 mV/47 k Ω /ohms
(135 mV/12 k Ω /ohms)

RIAA Deviation:

PHONO: 20 HZ ~ 20 kHz \pm 0.5 dB

Maximum Input: PHONO

MM: 130 mV/1 kHz

MC: 10mV/1 kHz

Rated Output: PRE PUT: 0.9 V
(Input CD 135 mV)

• OVERALL CHARACTERISTICS

SN Ratio (IHF A Network):

(input terminals short-circuited) PHONO MM: 89 dB (at 5 mV input)

(input terminals short-circuited) MC: 74 dB (at 0.5 mV input)

SOURCE-DIRECT: ON CD, TUNER, DVD/AUX-1, AUX-2, TAPE-1/CD-R, TAPE-2/MD: 108 dB

Tone Control Adjustable Range:

BASS: 100 Hz \pm 8 dB

TREBLE: 10 kHz \pm 8 dB

• OTHERS

Power Supply: AC 230 V, 50 Hz (Asia)
AC220 V, 50 Hz (China)

AC Outlets:

Switched \times 2: 100 W (Total) } Except for China model

Unswitched \times 1: 100 W

Power Consumption: 310 W (IEC)

Dimensions: 434 (W) \times 180 (H) \times 478 (D) mm (17-3/32" \times 7-5/64" \times 18-13/16")

Net Mass: 24.0 kg (52 lbs 14.6 oz)

• REMOTE CONTROL UNIT (RC-858)

Remote control system: Infrared pulse system

Power supply: 3 V DC, Two size R03 ("AAA") dry cell batteries

External dimensions: 56 (W) \times 105 (H) \times 19 (D) mm (2-3/16" \times 4-1/8" \times 23/32")

Mass: 70 g (Approx. 2.47 oz) (including batteries)

* Maximum dimensions include controls, jacks, and covers.

(W) = width, (H) = height, (D) = depth

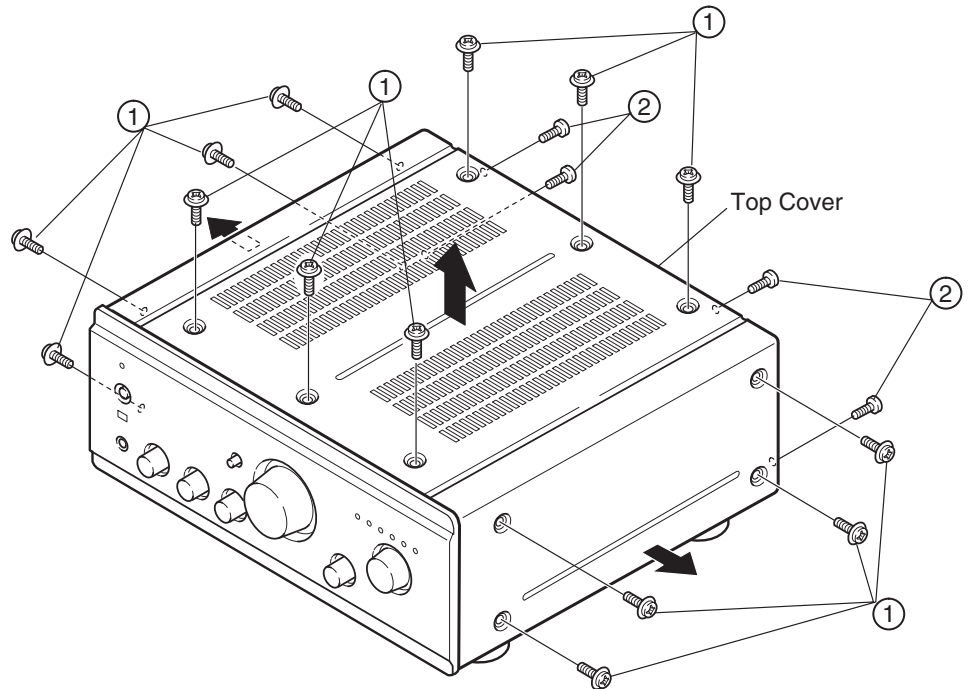
* For improvement purposes, specifications and functions are subject to change without advanced notice.

DISASSEMBLY

(Do reverse manner when assembling.)

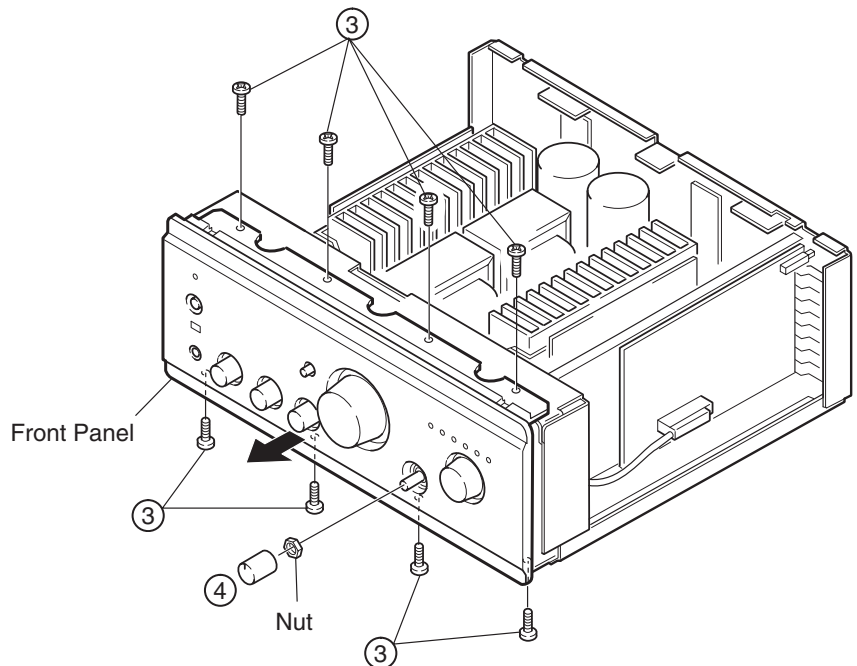
Top Cover

Remove 14 screws (1), 4 screws (2) and detach the Top Cover in the arrow direction.



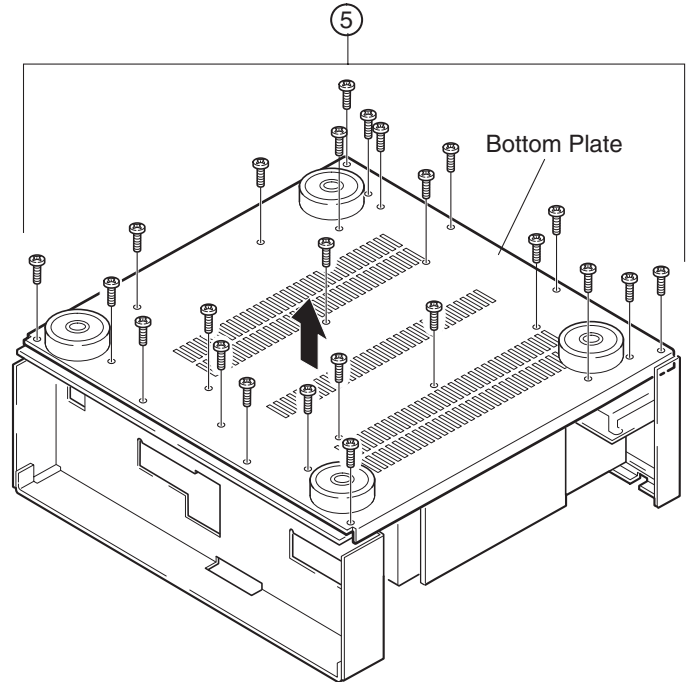
Front Panel

1. Remove 8 screws (3).
2. Pull out the knob (4) and remove the nut, then detach the panel in the arrow direction.



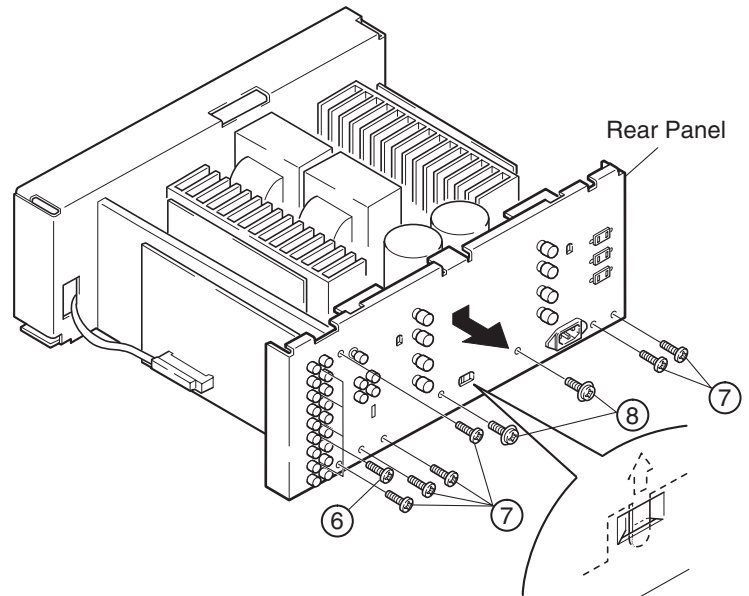
Bottom Plate

Remove 24 screws (5) and detach it in the arrow direction.



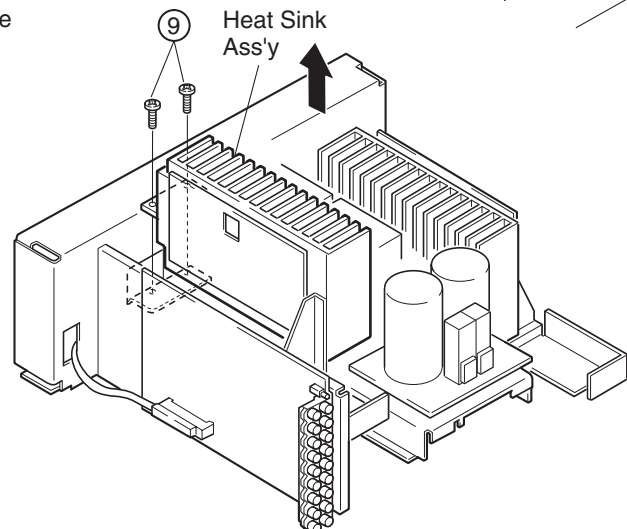
Rear Panel

1. Remove 5 screws (6), 6 screws (7) and 2 screws (8).
2. Detach the Rear Panel in the arrow direction.

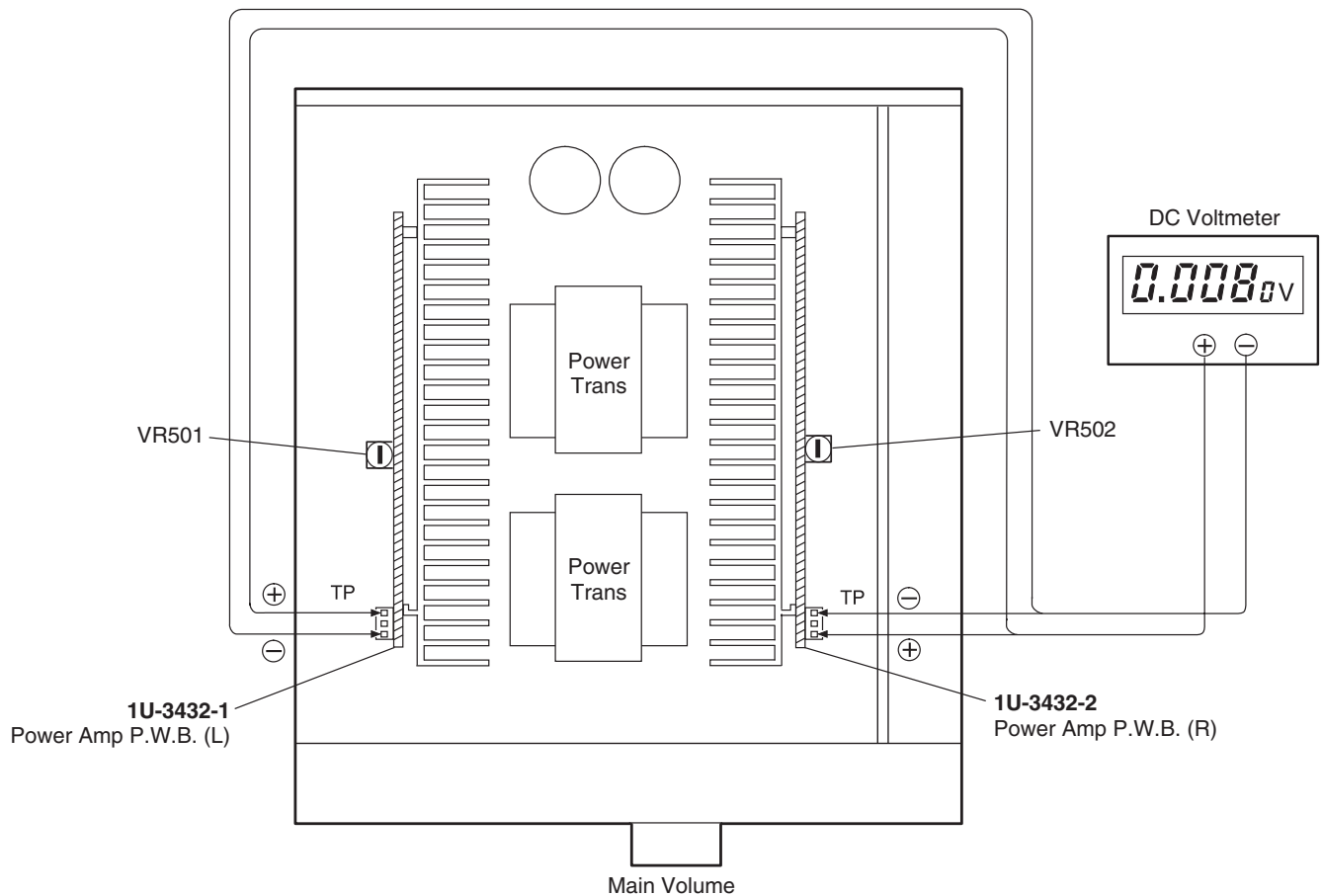


Heat Sink Ass'y

Remove 2 screws (9) and detach the Heat Sink Ass'y in the arrow direction.





METHOD OF ADJUSTMENTS




IDLING CURRENT

● Setup

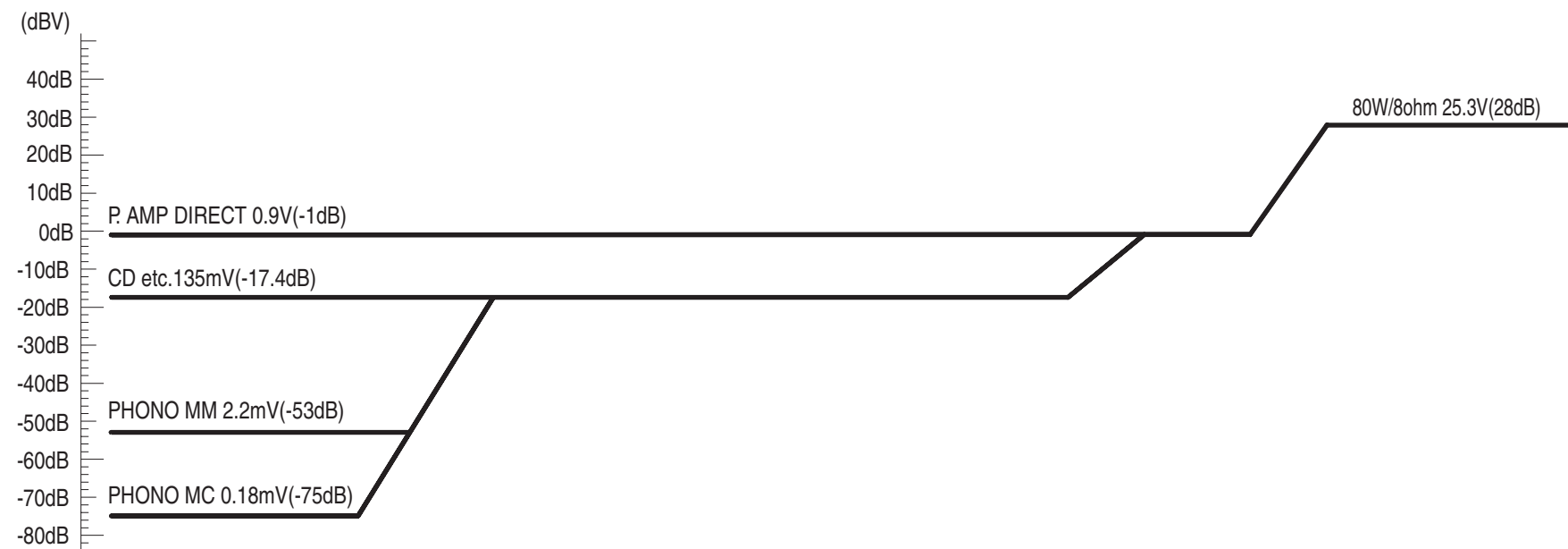
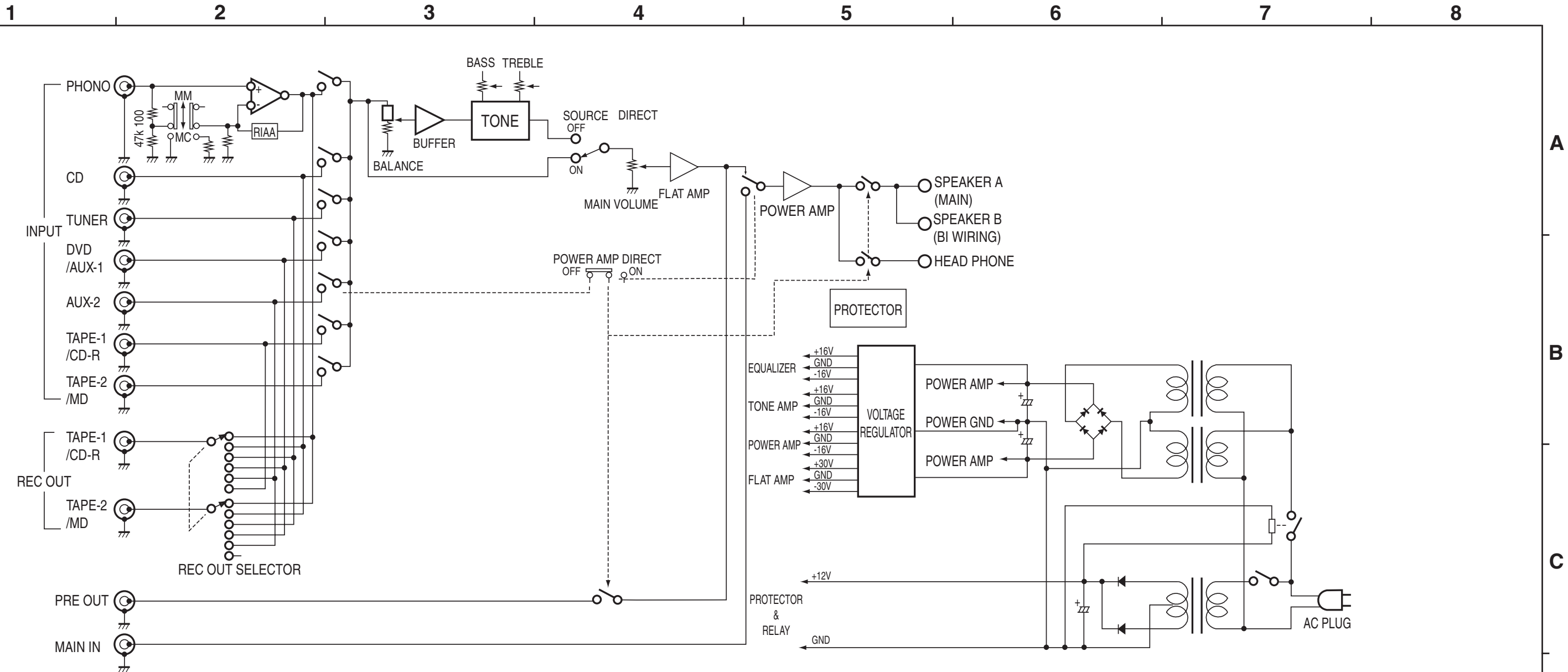
1. Lay the unit at an ordinary position away from a direct current from an air condition or fan. Do the adjustment at a temperature between 15°C (59°F) and 30°C (86°F).
2. Set control as follows.

POWER SWITCH	→ OFF ().
VOLUME CONTROL	→ Fully counterclockwise in the minimum position (). (Main Volume and Semifixed resistors [VR501, 502])
SPEAKER Terminals	→ Open: do not connect the speakers, dummy load etc.

● Adjustment

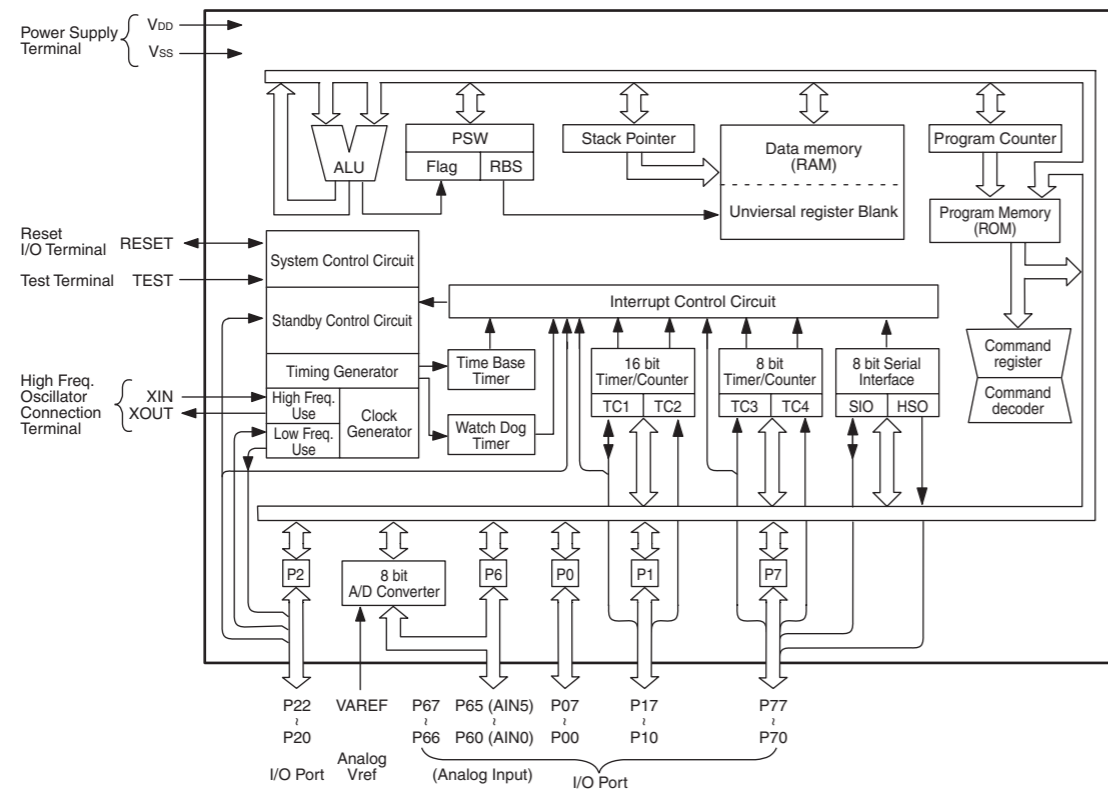
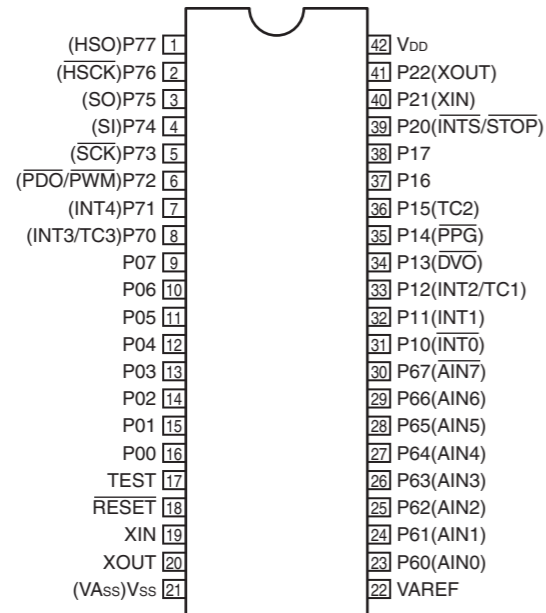
1. Remove top cover. And then connect DC Voltmeter to test points of 1U-3432-1 (Lch) and 1U-3432-2 (Rch) Power Amp Printing Wiring Board.
2. Connect power cord to AC wall outlet, and turn POWER switch "ON" (). Within 10 seconds turn VR501 (Lch) and VR502 (Rch) clockwise so that the DC Voltmeter reads 12 ±0.5mV.
3. Then after 2 minutes warmup adjust VR501 and VR502 so that the DC Voltmeter reads 12 ±0.5mV.
4. And after 10 minutes warmup adjust VR501 and VR502 so that the DC Voltmeter reads 12 ±0.5mV.

BLOCK/LEVEL DIAGRAM



SEMICONDUCTORS

● IC's TMP87CC46N-4C08 (IC901)



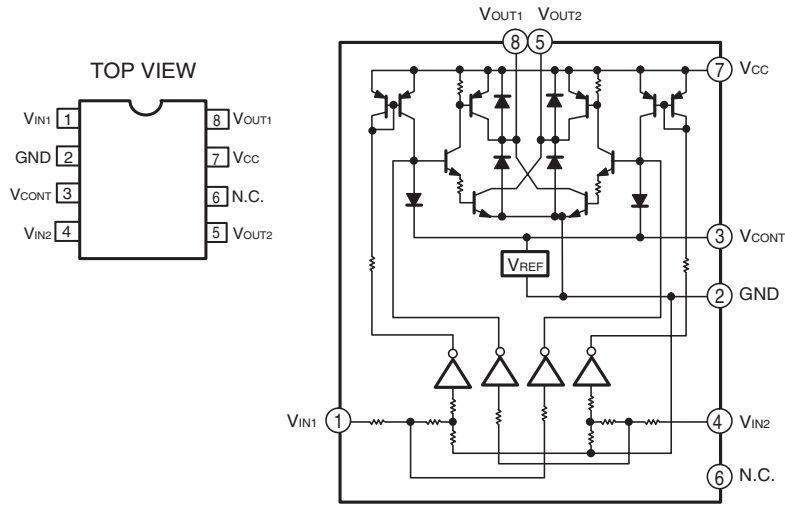
TMP87CC46N-4C08 (IC901) Terminal Function

Pin No.	Port Name	I/O	Type	Function
1	P77	O	C	AC POWER RELAY DRIVE
2	P76			
3	P75 (SO)	O	C	
4	P74 (SI)	O	C	
5	P73 (SCK)	O	C	
6	P72	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	O	C	TAPE-2 LED, ARELAY DRIVE
10	P06	O	C	TAPE-1 LED, ARELAY DRIVE
11	P05	O	C	
12	P04	O	C	AUX-2 LED, ARELAY DRIVE
13	P03	O	C	DVD/AUX-1 LED, ARELAY DRIVE
14	P02	O	C	TUNER LED, ARELAY DRIVE
15	P01	O	C	CD LED, ARELAY DRIVE
16	P00	O	C	PHONE LED, ARELAY DRIVE
17	TEST			to VSS
18	RESET			RESET
19	XIN			X'tal
20	XOUT			X'tal
21	V _{ss} (V _{Ass})			GND
22	VAREF			to VDD
23	P60	I	C	MODEL SETTING INPUT
24	P61	I	C	
25	P62	I	C	
26	P63	I	C	FUNCTION SELECTOR SW INPUT
27	P64	I	C	
28	P65	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	O	C	
39	P20 STOP	O	C	STOP MODE CANCEL
40	P21	O	C	
41	P22	O	C	
42	VDD			+5V

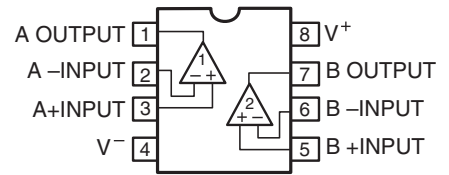
NOTE:

- 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)

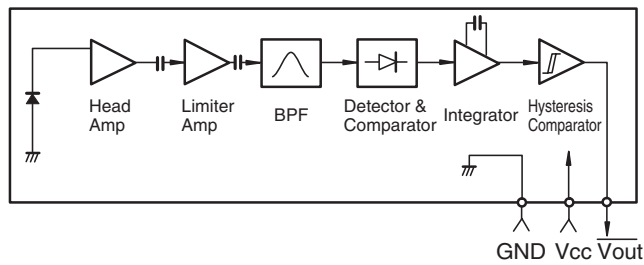
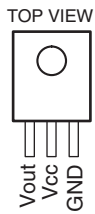


**BA4558 (IC701)
NJM2082D (IC201)**



● **OTHERS**

**GP1U27X (Remote Control Sensor)
(IC103)**



● **TRANSISTORS**

- 2SA933S (S)
- 2SA988 (E/F)
- 2SA1145 (O/Y)
- 2SA1546 (M/L)
- 2SB1328 (P)
- 2SC1740S (S)
- 2SC1841 (E/F)
- 2SC2705 (Y)
- 2SC3421 (O/Y)
- 2SC4001 (M/L)
- 2SD2004 (P)

- 2SA1837 (Y)
- 2SC4793 (Y)

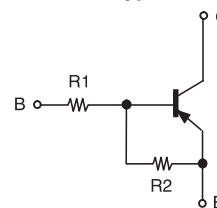
- DTA114ES
- DTC114ES
- DTC143ES
- DTC143ZS
- DTC144WS

DTA114ES

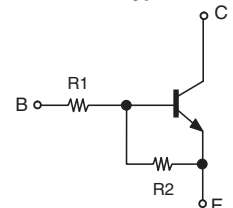
- DTC114ES
- DTC143ES
- DTC143ZS
- DTC144WS



PNP Type



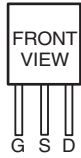
NPN Type



	R1	R2
DTA114ES	10kohm	10kohm

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

2SJ78
2SK215



2SK373 (Y)



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

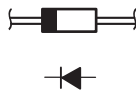


2SK2967

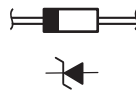


● DIODES (LED included)

11EQS06
31DQ06
1SS270A



HZS2B-1
HZS3B-2
HZS5C-1
HZS9B-1
HZS11A-1
HZS12A-1
HZS30-1
MTZJ3.3A
MTZJ7.5A
MTZJ7.5C
MTZJ18A

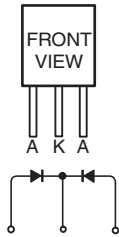


SLR-56VC (Red)

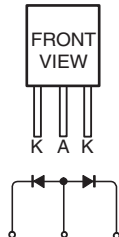
TOP VIEW



FCH20A15



FRH20A15

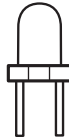


SEL2E10C (Blue)

TOP VIEW



SIDE VIEW



SLR-342MG (Green)



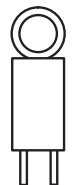
● THYRISTOR

SF0R3G42



● THERMISTOR

PTH9M04BD222TS2F333



PRINTED WIRING BOARDS

1U-3432 POWER AMP P.W.B. UNIT Ass'y

1

2

3

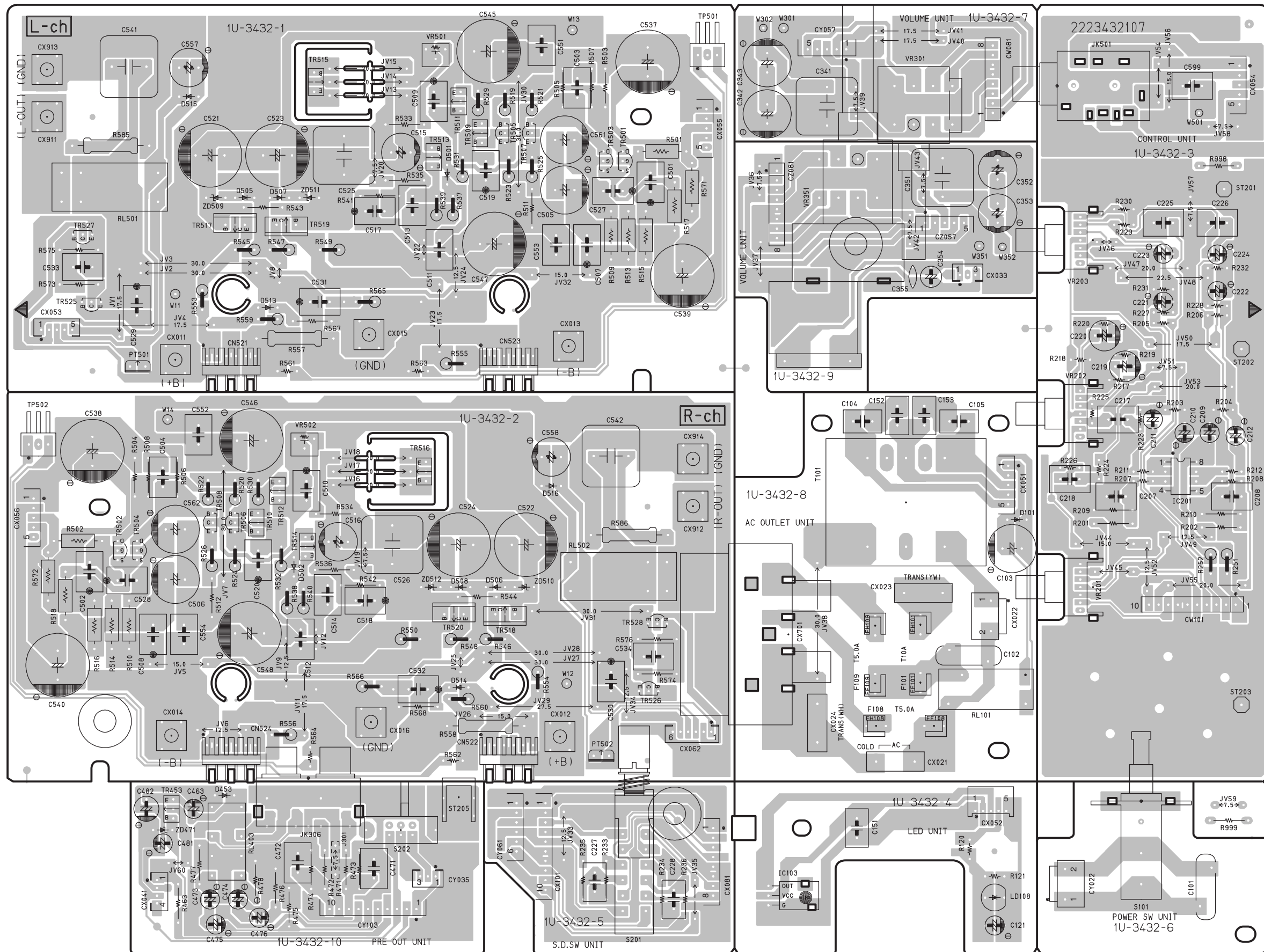
4

5

6

7

8



A

B

C

D

E

COMPONENT SIDE

1U-3130 INPUT P.W.B. UNIT Ass'y

1

2

3

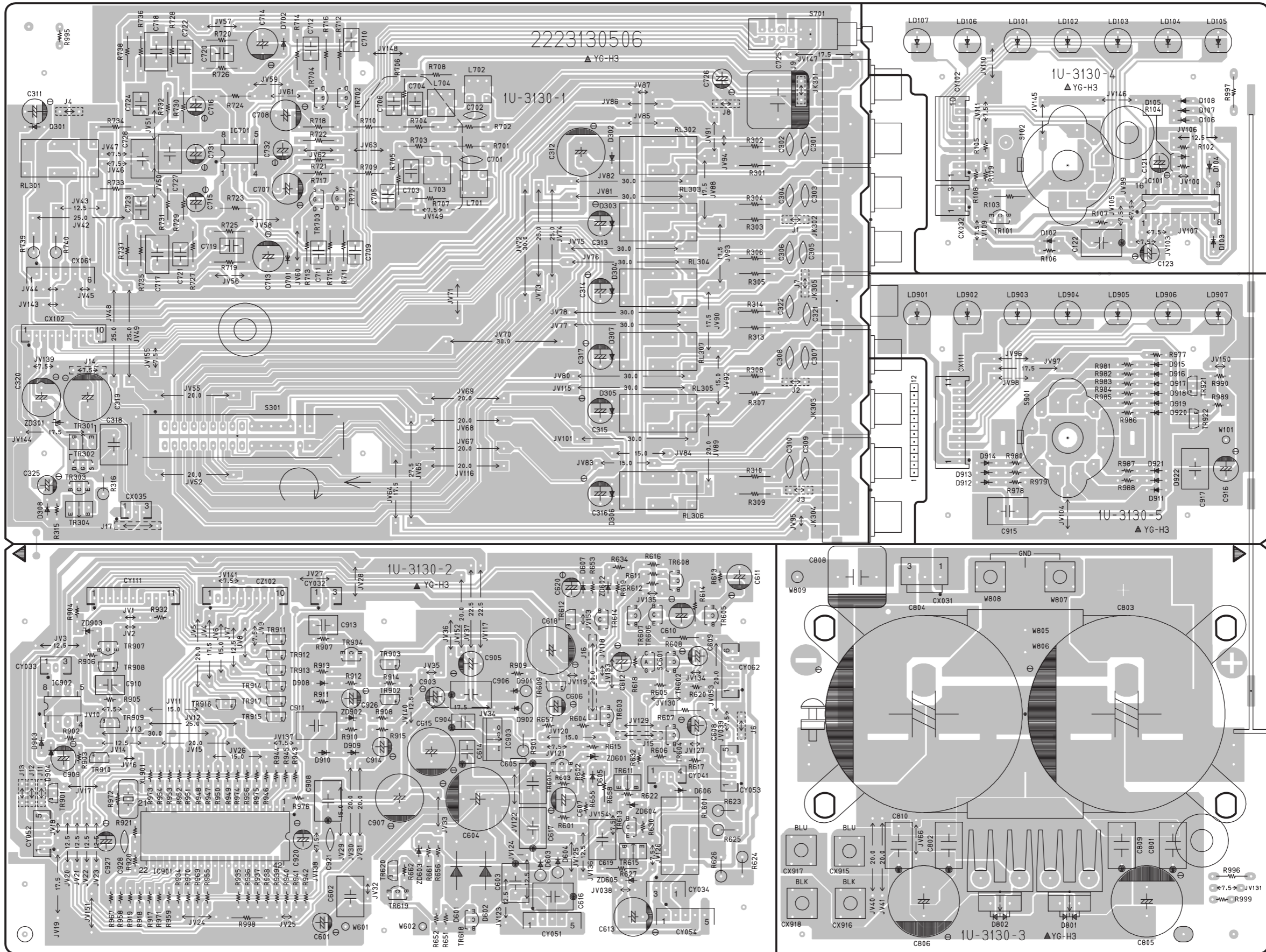
4

5

6

7

8



A

B

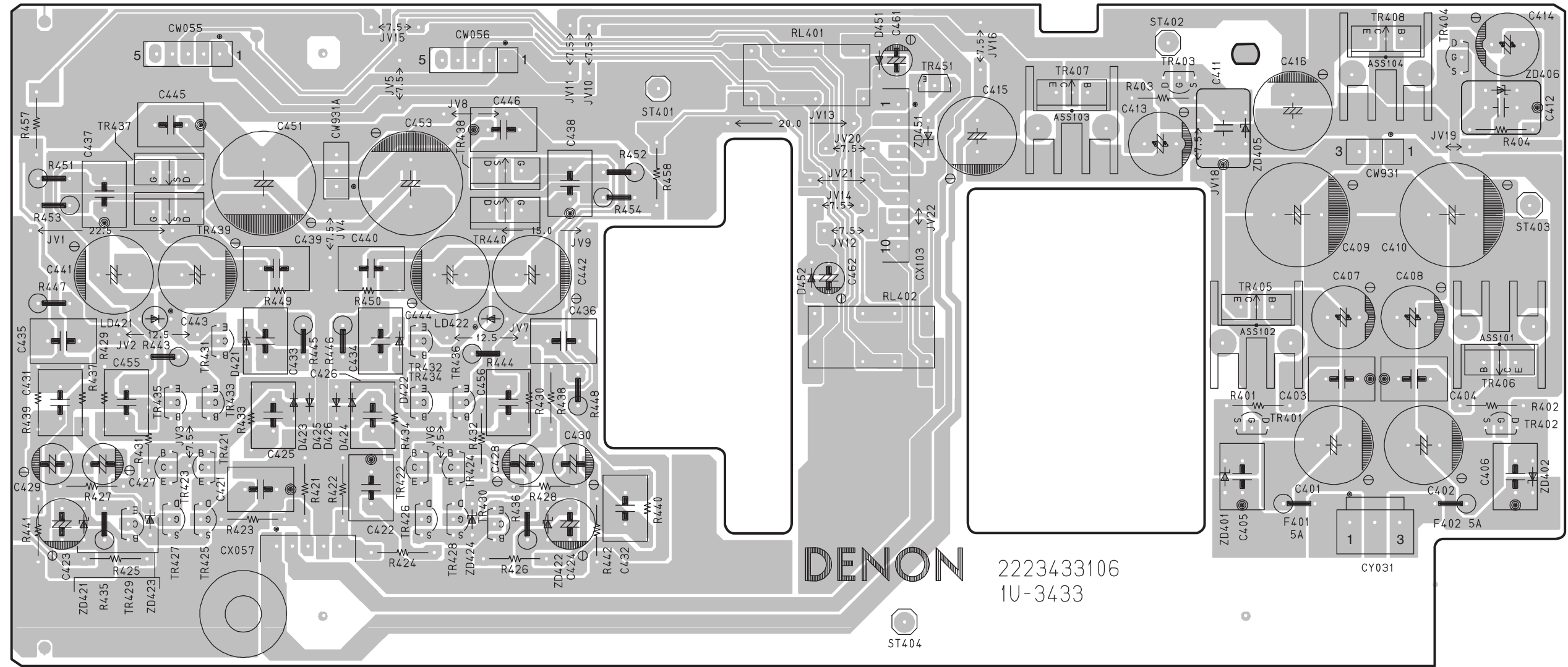
C

D

E

COMPONENT SIDE

1U-3433 FLAT AMP P.W.B. UNIT Ass'y



DENON 2223433106 1U-3433

COMPONENT SIDE

A
B
C
D
E

NOTE FOR PARTS LIST

- Part indicated with the mark "⊙" 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 Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:

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

● **Resistors**

Ex.: RN 14K 2E 182 G FR
 Type Shape Power Resist- Allowable Others
 and per- ance error

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
 ↑ ↑ ↑
 1-digit effective number. Indicates number of zeros after effective number.
 2-digit effective number.

• Units: ohm

1 R 2 ⇒ 1.2 ohm
 ↑ ↑ ↑
 1-digit effective number. Indicates number of zeros after effective number, decimal point indicated by R.
 2-digit effective number, decimal point indicated by R.

• Units: ohm

● **Capacitors**

Ex.: CE 04W 1H 2R2 M BP
 Type Shape Dielectric Capacity Allowable Others
 and per- strength error

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 charge 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
 ↑ ↑ ↑
 1-digit effective number. Indicates number of zeros after effective number.
 2-digit effective number.

• Units: µF.

2 R 2 ⇒ 2.2µF
 ↑ ↑ ↑
 1-digit effective number. Indicates number of zeros after effective number, decimal point indicated by R.
 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.

1U-3130H INPUT UNIT ASS'Y

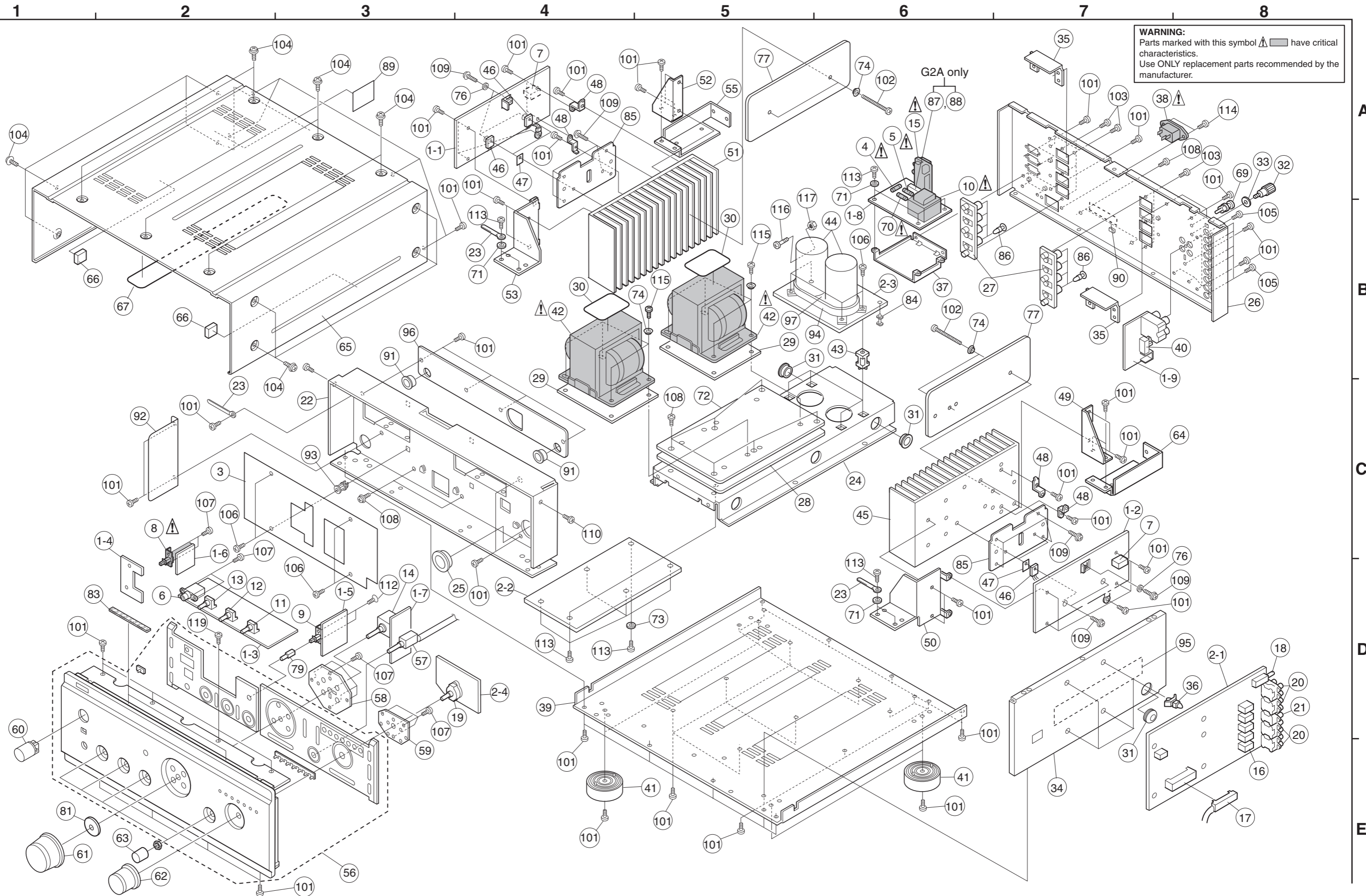
Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP				RESISTORS GROUP			
IC701	263 0322 004	IC BA4558		ZD603	276 0645 907	Zener diode MTZJ18A T77	
IC901	262 2581 002	IC TMP87CC46N-4C08		ZD604	276 0460 904	Zener diode HZS5C-1TD	
IC902	263 0476 002	IC LB1639		ZD605	276 0473 904	Zener diodeP HZS12A-1TD	
IC903	263 0648 005	IC MC7806CT		ZD902	276 0634 905	Zener diodeMTZJ3.3AT77	
TR301	274 0151 903	Transistor 2SD2004(P)T105		ZD903	276 0644 911	Zener diodeMTZJ7.5A T77	
TR302	275 0042 905	Transistor 2SK373(Y)TPE2		LD901-907	393 9557 906	LED SLR-56VCTE7	
TR601-606	273 0303 910	Transistor 2SC1740S(S)-T		SC601	279 0038 908	Thyristor SF0R3G42	
TR607	271 0192 905	Transistor 2SA933S(S)TP		CAPACITORS GROUP			
TR608	273 0303 910	Transistor 2SC1740S(S)-T		R301-310	241 2428 948	Carbon film 330 kohm 1/4W	RD14B2E334JT(PSNB)
TR611	272 0107 906	Transistor 2SB1328(P)T105		R313,314	241 2428 948	Carbon film 330 kohm 1/4W	RD14B2E334JT(PSNB)
TR612	269 0112 908	Transistor DTC144WS (47K-22K)T		R607,608	241 2426 924	Carbon film 39 kohm 1/4W	RD14B2E393JT(PSNB)
TR613	269 0020 906	Transistor DTC114ES(10K-10K)T		R614	241 2424 984	Carbon film 10 kohm 1/4W	RD14B2E103JT(PSNB)
TR614	273 0303 910	Transistor 2SC1740S(S)-T		R623-626	244 2052 960	Metal oxide 220 ohm 1W(NB)	RS14B3A221JNBST(S)
TR615	274 0151 903	Transistor 2SD2004(P)T105		R627	241 2423 927	Carbon film 2.2 kohm 1/4W	RD14B2E222JT(PSNB)
TR618,619	273 0303 910	Transistor 2SC1740S(S)-T		R705,706	241 2420 904	Carbon film 100 ohm 1/4W	RD14B2E101JT(PSNB)
TR620	269 0018 905	Transistor DTC143ES(4.7K-4.7K)T		R707,708	241 2426 940	Carbon film 47 kohm 1/4W	RD14B2E473JT(PSNB)
TR701-704	275 0038 045	Transistor 2SK369 (BL)/(GR)-C		R709,710	241 2417 962	Carbon film 10 ohm 1/4W	RD14B2E100JT(PSNB)
TR901	269 0020 906	Transistor DTC114ES(10K-10K)T		R711-714	241 2423 956	Carbon film 3 kohm 1/4W	RD14B2E302JT(PSNB)
TR902	269 0046 906	Transistor DTA114ES(10K-10K)T		R715,716	241 2420 975	Carbon film 200 ohm 1/4W	RD14B2E201JT(PSNB)
TR903	269 0020 906	Transistor DTC114ES(10K-10K)T		R717,718	241 2423 914	Carbon film 2 kohm 1/4W	RD14B2E202JT(PSNB)
TR904	273 0303 910	Transistor 2SC1740S(S)-T		R719,720	241 2419 986	Carbon film 82 ohm 1/4W	RD14B2E820JT(PSNB)
TR907	273 0303 910	Transistor 2SC1740S(S)-T		R721,722	241 2422 928	Carbon film 820 ohm 1/4W	RD14B2E821JT(PSNB)
TR908	269 0020 906	Transistor DTC114ES(10K-10K)T		R723,724	241 2327 913	Carbon film 2.2 Mohm 1/4W	RD14B2E225JT
TR909,910	269 0046 906	Transistor DTA114ES(10K-10K)T		R725,726	241 2426 940	Carbon film 47 kohm 1/4W	RD14B2E473JT(PSNB)
TR911-917	269 0160 905	Transistor DTC143ZSATP		R727,728	241 2423 985	Carbon film 3.9 kohm 1/4W	RD14B2E392JT(PSNB)
TR921,922	269 0046 906	Transistor DTA114ES (10K-10K)T		R729,730	241 2418 945	Carbon film 22 ohm 1/4W	RD14B2E220JT(PSNB)
D301-307	276 0432 903	Diode 1SS270A TE		R731,732	241 2420 988	Carbon film 220 ohm 1/4W	RD14B2E221JT(PSNB)
D601,602	276 0713 004	Diode V31DQ06		R733,734	241 2421 961	Carbon film 470 ohm 1/4W	RD14B2E471JT(PSNB)
D603,604	276 0715 002	Diode 11EQS06		R735,736	241 2429 918	Carbon film 620 kohm 1/4W	RD14B2E624JT(PSNB)
D606,607	276 0432 903	Diode 1SS270A TE		R737,738	241 2417 920	Carbon film 6.8 ohm 1/4W	RD14B2E6R8JT(PSNB)
D701,702	276 0432 903	Diode 1SS270A TE		R739,740	241 2313 985	Fusible resistor 4.7 ohm 1/4W	RD14B2E4R7JFRST
D801	276 0706 008	Diode FCH20A15		R901	241 2387 940	Carbon film 4.7 ohm 1/4W(NB)	RD14B2E4R7JNBST
D802	276 0707 007	Diode FRH20A15		R996-998	241 2417 962	Carbon film 10 ohm 1/4W	RD14B2E100JT(PSNB)
D901,902	276 0704 903	Diode FRH20A15		JV124	244 2050 904	Metal oxide 22 ohm 1W	G1C,G1H
D903,904	276 0432 903	Diode 1SS270A TE		JV124	244 2052 928	Metal oxide 47 ohm 1W	G2A
D908-922	276 0432 903	Diode 1SS270A TE		CAPACITORS GROUP			
ZD301	276 0473 904	Zener diode HZS12A-1TD		C311	254 4368 934	Electrolytic 100uF/25V	CE04W1E101MT(ASF)
ZD601	276 0635 904	Zener diodeMTZJ7.5CT77		C312	254 4558 702	Electrolytic 100uF/50V	CE04W1H101MC(RFS)
ZD602	276 0644 911	Zener diode MTZJ7.5A T77		C313-317	254 4256 949	Electrolytic 100uF/25V	CE04W1E101MT (SME)
				C319	254 4557 952	Electrolytic 47uF/50V	CE04W1H470MT(RFS)
				C320	255 4235 934	Polypropylene film 0.01uF/100V	CQ93P2A103JT(NH)

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks	Q'ty	
C603	255 4257 938	Polypropylene film 0.022uF/100V	CQ93P2A223JT(NH2)	OTHER PARTS GROUP					
C604	254 4576 700	Electrolytic 2200uF/35V	CE04W1V222MC(RE3)	CX031	205 0653 036	3P VH Connector base		1	
C607	254 4260 919	Electrolytic 0.22uF/50V	CE04W1HR22MT (SME)	CX035	205 0343 032	3P Connector base (KR-PH)		1	
C608,609	254 4260 948	Electrolytic 1uF/50V	CE04W1H010MT (SME)	CX061	205 0233 061	6P EH Connector base		1	
C610	254 4480 906	Electrolytic 330uF/6.3V	CE04W0J331MT(ASF)	CX102	205 0375 000	10PConnector base (KR-PH)		1	
C611	254 4254 954	Electrolytic 220uF/16V	CE04W1C221MT (SME)	CX111	205 0279 012	11P PH SID Connector base		1	
C612	254 4260 977	Electrolytic 4.7uF/50V	CE04W1H4R7MT (SME)	CX915-918	205 0864 003	M3 Screw terminal		4	
C613	254 4313 921	Electrolytic 22uF/50V	CE04W1H220MT(ASF)	CY033	205 0343 032	3P Connector base (KR-PH)		1	
C615	254 4580 709	Electrolytic 220uF/50V	CE04W1H221MC(ROB)	CY041	205 0343 045	4P Connector base (KR-PH)		1	
C616	255 4257 938	Polypropylene film 0.022uF/100V	CQ93P2A223JT(NH2)	CY051	205 0277 056	5P EH Connector base (RD)		1	
C619	255 4235 921	Polypropylene film 270pF/100V	CQ93P2A271JT(NH)	CY052,053	205 0343 058	5P Connector base (KR-PH)		2	
C620	254 4313 950	Electrolytic 100uF/50V	CE04W1H101MT(ASF)	CY054	205 0233 058	5P EH Connector base		1	
C703,704	255 4237 961	Polypropylene film 150pF/100V	CQ93P2A151JT(NH)	CY062	205 0343 061	6P Connector base (KR-PH)		1	
C705,706	255 4232 937	Polypropylene film 1000pF/100V	CQ93P2A102JT(NH)	CY111	205 0375 013	11P Connector base (KR-PH)		1	
C707,708	254 4313 950	Electrolytic 100uF/50V	CE04W1H101MT(ASF)	CZ102	205 0375 000	10P Connector base(KR-PH)		1	
C711,712	255 4232 995	Polypropylene film 3300pF/100V	CQ93P2A332JT(NH)	JK301-304	204 8530 006	4P Pin jack		4	
C713,714	254 4313 950	Electrolytic 100uF/50V	CE04W1H101MT(ASF)	JK305	204 8531 005	2P Pin jack (C-GND)		1	
C715,716	254 4313 918	Electrolytic 10uF/50V	CE04W1H100MT(ASF)	RL301-307	214 0127 003	Relay (RY-12W)		7	
C717,718	255 4237 945	Polypropylene film 1200pF/100V	CQ93P2A122JT(NH)	RL601	214 0127 003	Relay (RY-12W)		1	
C719,720	255 4236 713	Polypropylene film 0.068uF/100V	CQ93P2A683JC(NH)	S301	212 4331 006	Slide switch (4-6) remote		1	
C721,722	255 4237 958	Polypropylene film 0.018uF/100V	CQ93P2A183JT(NH)	S701	212 4728 004	1P Push switch		1	
C723,724	255 4232 937	Polypropylene film 1000pF/100V	CQ93P2A102JT(NH)	S901	212 0407 002	Rotaly switch (SRRM-12)		1	
C731,732	254 4583 971	Electrolytic 47uF/50V	CE04W1H470MT(ROB)	W602	203 0629 019	1P contact ass'y		1	
C805,806	254 4563 001	Electrolytic 2.2uF/100V	CE04W2A2R2M(ARSAG2)	W807,808	205 0864 003	M3 Screw terminal		2	
C808	256 1054 001	Metalized 1uF/50V	CF93B1H105K(GSG)	W809	203 0616 006	1P SIN Cord ass'y		1	
C903	254 4368 934	Electrolytic 100uF/25V	CE04W1E101MT(ASF)	XL901	399 0107 900	Ceramic resonator CST4.19MGW-TF1		1	
C905	254 4368 934	Electrolytic 100uF/25V	CE04W1E101MT(ASF)		—	Vinyl wire		1	
C906	255 4235 934	Polypropylene film 0.01uF/100V	CQ93P2A103JT(NH)		—	Radiator		2	
C907	254 4406 702	Electrolytic 3300uF/16V	CE04W1C332MC(SMG)		471 3304 028	Screw 3X8 CBS-B		2	
C908	255 4235 934	Polypropylene film 0.01uF/100V	CQ93P2A103JT(NH)						
C909	254 4368 934	Electrolytic 100uF/25V	CE04W1E101MT(ASF)						
C910	256 1058 971	Metalized 0.1uF/50V	CF93A1H104JT (JL)						
C911	255 4235 934	Polypropylene film 0.01uF/100V	CQ93P2A103JT(NH)						
C913	256 1058 971	Metalized 0.1uF/50V	CF93A1H104JT (JL)						
C914	254 4260 919	Electrolytic 0.22uF/50V	CE04W1HR22MT (SME)						
C915	255 4235 934	Polypropylene film 0.01uF/100V	CQ93P2A103JT(NH)						
C920	254 4313 918	Electrolytic 10uF/50V	CE04W1H100MT(ASF)						
C926	254 4260 951	Electrolytic 2.2uF/50V	CE04W1H2R2MT (SME)						
C927	254 4313 918	Electrolytic 10uF/50V	CE04W1H100MT(ASF)						

1U-3433 FLAT AMP UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks	Q'ty
SEMICONDUCTORS GROUP								
TR401-404	275 0042 905	Transistor 2SK373(Y)TPE2		C413,414	254 4557 952	Electrolytic 47uF/50V	CE04W1H470MT(RFS)	
TR405	273 0442 004	Transistor 2SC4793 (Y)		C415,416	254 4558 702	Electrolytic 100uF/50V	CE04W1H101MC(RFS)	
TR406	271 0272 003	Transistor 2SA1837-Y		C421,422	255 4251 976	Polypropylene film 10pF/100V	CQ93P2A101JT(NH2)	
TR407	273 0442 004	Transistor 2SC4793 (Y)		C423,424	254 4557 936	Electrolytic 10uF/50V	CE04W1H100MT(RFS)	
TR408	271 0272 003	Transistor 2SA1837-Y		C425,426	255 4256 955	Polypropylene film 0.01uF/100V	CQ93P2A103JT(NH2)	
TR421-424	273 0281 919	Transistor 2SC2705 (Y)TPE6		C427-430	254 4557 923	Electrolytic 4.7uF/50V	CE04W1H4R7MT(RFS)	
TR425-428	275 0038 045	Transistor 2SK369 (BL)/(GR)-C		C431,432	255 4250 977	Polypropylene film 39pF/100V	CQ93P2A390JT(NH2)	
TR429-432	273 0281 919	Transistor 2SC2705 (Y)TPE6		C433-436	255 4255 972	Polypropylene film 4700pF/100V	CQ93P2A472JT(NH2)	
TR433-436	271 0168 900	Transistor 2SA1145 (O)/(Y)TPE6		C439,440	255 4256 955	Polypropylene film 0.01uF/100V	CQ93P2A103JT(NH2)	
TR437,438	275 0069 001	Transistor 2SK215		C441-444	254 4558 702	Electrolytic 100uF/50V	CE04W1H101MC(RFS)	
TR439,440	275 0068 002	Transistor 2SJ78		C451	254 4558 715	Electrolytic 220uF/50V	CE04W1H221MC(RFS)	
TR451	269 0020 906	Transistor DTC114ES(10K-10K)T		C453	254 4558 715	Electrolytic 220uF/50V	CE04W1H221MC(RFS)	
D421-426	276 0432 903	Diode 1SS270A TE		C455,456	255 4250 993	Polypropylene film 47pF/100V	CQ93P2A470JT(NH2)	
D451,452	276 0432 903	Diode 1SS270A TE		C461,462	254 4313 934	Electrolytic 47uF/50V	CE04W1H470MT(ASF)	
ZD401,402	276 0483 907	Zener diode HZS30-1TD		OTHER PARTS GROUP				
ZD405,406	276 0645 907	Zener diode MTZJ18A T77		CW055	203 8468 036	5P EH-SCN Connector cord		1
ZD421,422	276 0453 911	Zener diode HZS3B-2TD		CW056	203 8468 049	5P EH-SCN Connector cord		1
ZD423,424	276 0460 904	Zener diode HZS5C-1TD		CW931	203 5179 027	3P SCN-SCN Connector cord		1
ZD451	276 0460 904	Zener diode HZS5C-1TD		CX057	205 0278 055	5P EH Connector base (BK)		1
LD421,422	393 9540 900	LED SLR-342MGTF7MN		CX103	205 0502 006	10P EH Connector base (RD)		1
RESISTORS GROUP				CY031	205 0653 036	3P VH Connector base		1
R401-404	241 2422 944	Carbon film 1 kohm 1/4W	RD14B2E102JT(PSNB)	RL401,402	214 0127 003	Relay (RY-12W)		2
R421,422	241 2429 963	Carbon film 1 Mohm 1/4W	RD14B2E105JT(PSNB)	ST401-403	—	Style pin		3
R423,424	241 2420 988	Carbon film 220 ohm 1/4W	RD14B2E221JT(PSNB)		471 3304 028	Screw 3X8 CBS-B		4
R425,426	241 2426 908	Carbon film 33 kohm 1/4W	RD14B2E333JT(PSNB)		—	Radiator		4
R427,428	241 2426 940	Carbon film 47 kohm 1/4W	RD14B2E473JT(PSNB)					
R429-432	241 2422 944	Carbon film 1 kohm 1/4W	RD14B2E102JT(PSNB)					
R433,434	241 2421 929	Carbon film 330 ohm 1/4W	RD14B2E331JT(PSNB)					
R435,436	241 2422 902	Carbon film 680 ohm 1/4W	RD14B2E681JT(PSNB)					
R437,438	241 2429 963	Carbon film 1 Mohm 1/4W	RD14B2E105JT(PSNB)					
R439,440	241 2424 926	Carbon film 5.6 kohm 1/4W	RD14B2E562JT(PSNB)					
R441,442	241 2422 944	Carbon film 1 kohm 1/4W	RD14B2E102JT(PSNB)					
R443,444	241 2377 947	Carbon film 100 ohm 1/4W(NB)	RD14B2E101JNBST					
R445-448	241 2376 964	Carbon film 47 ohm 1/4W(NB)	RD14B2E470JNBST					
R449,450	241 2428 980	Carbon film 470 kohm 1/4W	RD14B2E474JT(PSNB)					
R451-454	244 2058 032	Metal oxide 47 ohm 1W(NB)	RS14B3A470JNBS(RSFSV)					
R457,458	241 2420 904	Carbon film 100 ohm 1/4W	RD14B2E101JT(PSNB)					
F401,402	241 2387 940	Carbon film 4.7 ohm 1/4W(NB)	RD14B2E4R7JT(NB)					
CAPACITORS GROUP								
C401,402	254 4562 701	Electrolytic 47uF/100V	CE04W2A470MC(ARS/2)					
C405,406	255 4256 955	Polypropylene film 0.01uF/100V	CQ93P2A103JT(NH2)					
C407,408	254 4557 952	Electrolytic 47uF/50V	CE04W1H470MT(RFS)					
C409,410	254 4558 728	Electrolytic 470uF/50V	CE04W1H471MC(RFS)					
C411,412	255 4239 707	Polypropylene film 0.047uF/100V	CQ93P2A473JC(NH)					

EXPLODED VIEW



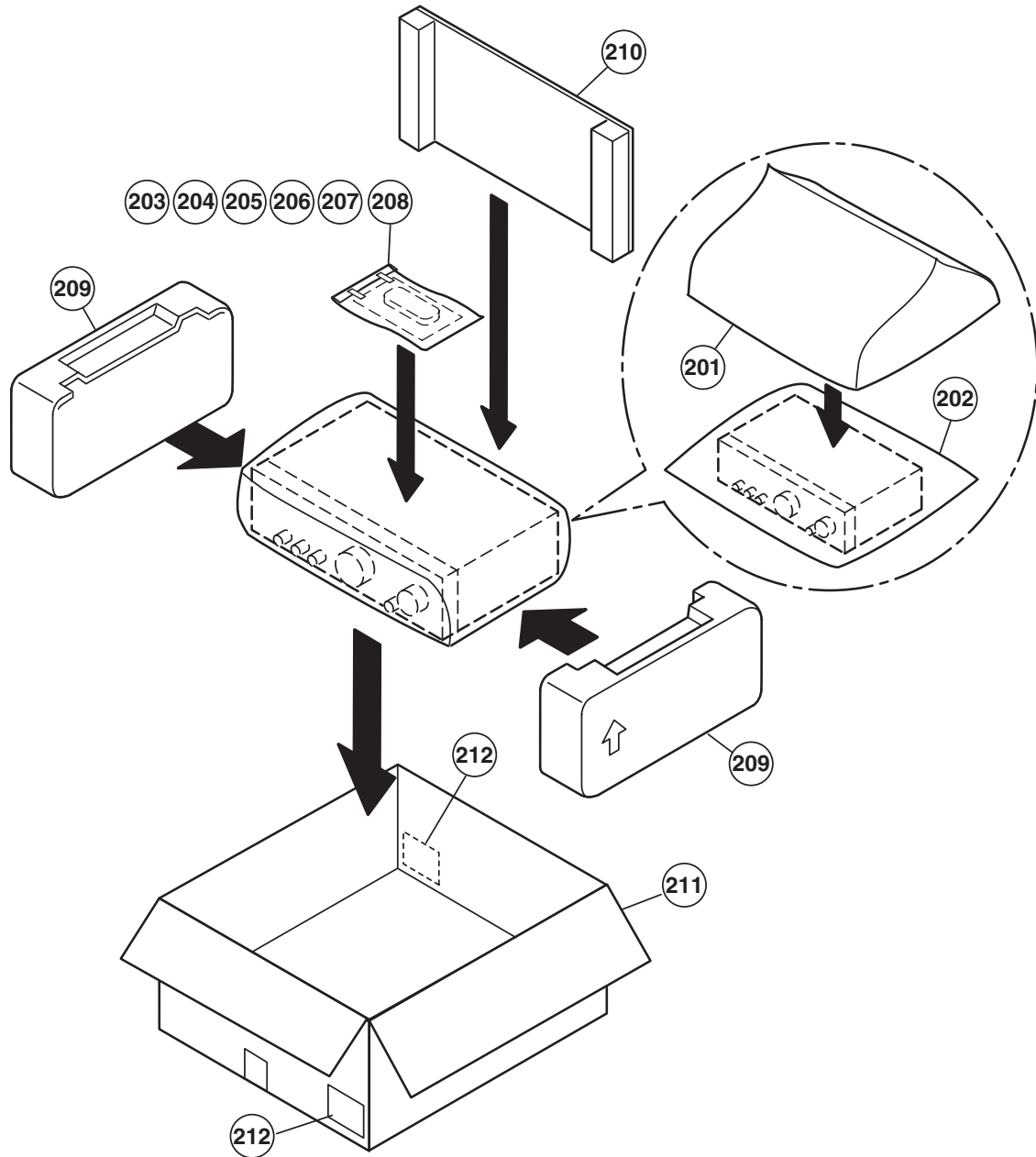
PARTS LIST OF EXPLODED VIEW

Note: The symbol in the column "Remarks" indicate the following destinations.
 G1C: China model G1H: Hong Kong model
 G2A: Singapore model KEU: U.S.A. model

Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty	
1	1U-3432B	Power amp P.W.B. unit Ass'y	G1C,G1H	1	34	414 0765 311	Shield plate		1	
	1U-3432A	Power amp P.W.B. unit Ass'y	G2A	1	35	412 4390 016	TC bracket		2	
	1-1	Power amp unit (L)			36	415 9016 019	P.C.B holder		4	
	1-2	Power amp unit (R)			37	412 4112 113	P.W.B bracket (A)		1	
	1-3	Control unit			△ 38	203 3970 008	AC inlet		1	
	1-4	P.LED unit			39	105 1197 644	Bottom cover		1	
	1-5	S.direct switch unit			40	212 1147 002	Slide switch	S202	1	
	1-6	P.switch unit			41	146 2088 106	Foot ass'y		4	
	1-7	Main VR. unit			146 2088 119	Foot ass'y	KEU	4		
	1-8	AC outlet unit			△ 42	233 6332 000	Power trans	G1C,G1H	2	
	1-9	Pre out unit			233 6330 002	Power trans	G2A	2		
	2	1U-3130H	Input P.W.B. unit Ass'y		2	233 0537 005	Power trans	KEU	2	
		2-1	Input unit			43	415 9032 006	P.C.B holder (T)		4
		2-2	Protector unit			44	254 6204 041	Electrolytic 12000uF/71V	CE62W==123M	2
		2-3	Power supply unit			45	417 0571 119	Power radiator (R)		1
		2-4	F. SW unit (R)			46	275 0105 004	Transistor 2SK2967	TR521-524	4
	3	1U-3433	Flat amp P.W.B. unit Ass'y		1	47	415 0234 007	Insulating sheet		4
	△ 4	206 1015 016	Fuse 1.25A (T)	F108,G2A	1	48	412 4127 014	P.W.B bracket (B)		4
		206 1046 027	Fuse 5A	KEU	1	49	412 4387 016	Radiator bracket (R)		1
△ 5	206 1015 016	Fuse 1.25A (T)	F109,G2A	1	50	412 4114 111	Radiator bracket (B)		1	
	206 1046 027	Fuse 5A	KEU	1	51	417 0571 106	Power radiator (L)		1	
6	204 8480 004	Head phone jack (SW)	JK501	1	52	412 4386 017	Radiator bracket (L)		1	
7	214 0195 006	Relay FTR-F1	RL501,502	2	53	412 4113 112	Radiator bracket (A)		1	
△ 8	212 1176 002	Power switch	S101	1	55	412 4388 015	Support bracket (L)		1	
9	212 1157 005	1P Push switch	S201	1	56	144 2510 296	Front panel ass'y		1	
△ 10	233 6257 007	Power trans, mini	G1C,G1H,G2A	1	144 2807 006	Front panel ass'y	KEU	1		
	233 6267 007	Power trans, mini	KEU	1	57	212 4799 004	Rotary remote switch	(REC OUT SELECTOR)	1	
11	211 0798 103	Variable resistor 100kohm	VR201 (BALANCE)	1	58	441 1780 216	Plate (M)		1	
12	211 0834 012	Variable resistor 10kohm	VR202 (TREBLE)	1	59	441 1781 202	Plate (F)		1	
13	211 0834 009	Variable resistor 30kohm	VR203 (BASS)	1	60	113 9303 101	Power knob ass'y		1	
14	211 0873 002	Variable resistor 30kohm	VR351 (VOLUME)	1	113 9303 114	Power knob ass'y	KEU	1		
△ 15	203 3975 003	AC outlet	G2A	1	61	112 0780 128	Knob (M) ass'y		1	
	203 3974 004	AC outlet	KEU	1	112 0780 115	Knob (M) ass'y	KEU	1		
16	214 0195 006	Relay FTR-F1	RL501,502	2	62	112 9125 108	Knob ass'y (F)		1	
17	212 4331 006	Slide switch (4-6) remote	S301	1	112 9125 137	Knob ass'y (F)	KEU	1		
18	212 4728 004	1P Push switch	S701 (MM/MC)	1	63	112 0787 008	Knob (MARU) ass'y		4	
19	212 0407 002	Rotary switch (SRRM-12)	S901 (INPUT SELECTOR)	1	112 0787 011	Knob (NARU) ass'y	KEU	4		
20	204 8530 006	4P Pin jack	JK301-304	4	64	412 4389 014	Support bracket (R)		1	
21	204 8531 005	2P Pin jack (C-GND)	JK305	1	65	102 0574 133	Top cover		1	
22	411 1341 515	Front chassis		1	102 0574 159	Top cover	KEU	1		
23	445 0048 016	Cord holder (L50)		1	66	461 9036 005	Spacer		2	
24	411 1346 248	Trans chassis		1	67	441 1795 007	Plate (T/C)		1	
25	462 0089 054	Bush		1	69	209 0325 007	Short pin		2	
26	105 1339 075	Back panel	G1C	1	△ 70	206 1015 087	Fuse (4.0A)	F101 G1C,G1H,G2A	1	
	105 1339 091	Back panel	G1H	1	206 1046 043	Fuse (10A)	KEU	1		
	105 1339 062	Back panel	G2A	1	71	415 9080 003	Teflon spacer		7	
	105 1411 003	Back panel	KEU	1	72	412 4141 045	Trans bracket		1	
27	205 1014 218	4P Terminal ass'y		2	73	475 3201 000	3 TWB		1	
28	412 4141 003	Trans bracket		1	74	415 0809 005	Washer		12	
29	415 9092 017	Teflon plate (PT)		2	76	475 1130 005	3 Washer		2	
30	513 3457 004	Trans label (D)		2	77	441 1890 203	Plate (RD)		2	
31	462 0089 025	Bush		3	79	113 9304 207	Push knob ass'y		1	
32	205 0071 016	Terminal ass'y		1	113 9304 210	Push knob ass'y	KEU	1		
33	477 0018 014	Washer (P-87) D10		2	81	415 9093 003	Teflon washer (VR)		1	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty
83	461 0501 005	Rubber sheet		2	SCREWS				
84	412 2814 015	Card spacer (L=14)		1	101	473 7002 021	Screw 3X8 CBTS (S)-B		6
85	417 0540 205	CU plate		2	102	471 3803 011	Screw 4X65 CBS		6
86	477 0096 007	Push rivet	G2A,G1C,G1H	8	103	473 7508 017	Screw 3X10 CBTS (P)-B		8
87	415 0680 017	Spacer	G2A	1	104	477 0263 018	3P.Swelling screw		11
88	461 0550 085	Rubber pad	G2A	1	477 0263 005	3P.Swelling screw	KEU	14	
89	415 0847 009	PVC sheet	G2A,G1C,G1H	1	105	477 0064 107	Fixing screw		10
90	513 1581 008	Serial No.sheet		1	106	473 7501 014	Screw 3X14 CBTS (P)-Z		14
91	462 0089 012	Bush		2	107	473 7500 015	Screw 3X8 CBTS (P)-Z		2
92	414 0958 005	Shield plate (A)		1	108	473 7007 000	Screw 4X8 CBTS (S)-B		16
93	443 9015 002	P.W. spacer		4	109	473 8007 038	Cup screw 3X14		2
94	412 4715 002	C. holder		1	110	473 7003 004	Screw 3X8 CFTS (S)-Z		13
95	441 1795 010	Plate (T/C)		1	111	470 0009 022	Screw 3X6 CPS (SW.W) ZNP		2
96	412 4917 017	Shield plate		1	112	473 7500 028	Screw 3X8 CFTS (P)-Z		8
97	415 0860 002	Spacer		1	113	473 8007 025	Cup screw 3X8		1
★ A	203 4930 021	3P VH-VH Connector cord	CN022	1	114	473 7003 017	Screw 3X8 CFTS (S)-B		1
★ B	203 5161 006	3P VH-VH Connector cord	CN031	1	115	473 7007 013	Screw 4X10 CBTS (S) ZNB		1
★ C	203 4872 037	3P KR-KR ribbonN 350	CN033	1	116	471 3409 017	Screw 4X16 CBS		1
★ D	203 4871 096	3P KR-KR ribbon 250	CN035	1	117	475 6008 006	4N		1
★ E	203 6386 039	4P KR-KR ribbon 350	CN041	1	118	473 8034 098	Screw 3X10 CBTS(B)-B		1
★ F	203 8356 009	5P EH-EH Connector cord	CN051	1	119	473 7002 005	Screw 3X6 CBTS(S)-Z		1
★ G	203 8499 005	5P PH-PH Connector cord	CN052	1					
★ H	203 8342 039	5P KR-KR ribbon 350	CN053	1					
★ I	203 8465 000	5P EH-EH Connector cord	CN054	1					
★ J	203 8439 036	5P EH-EH Connector cord	CN057	1					
★ K	204 0519 009	6P EH-EH Connector cord	CN061	1					
★ L	204 0379 032	6P KR-KR ribbon 350	CN062	1					
★ M	204 2554 004	10P KR-KR ribbon 550	CN102	1					
★ N	204 2921 006	10P EH-EH Connector cord	CN103	1					
★ O	204 6351 041	11P KR-KR ribbon 375	CN111	2					
★ P	001 0202 021	Vinyl wire	for AC inlet	1					
★ Q	001 0202 034	Vinyl wire	for AC inlet	1					
★ R	001 0166 086	Vinyl wire	for foil side	2					
★ S	001 0197 055	Vinyl wire	Red	18					
★ T	001 0197 068	Vinyl wire	Blue	1					
★	445 8004 007	Wire clamper		10					
★	203 5205 001	3P contact ass'y		2					
★	415 0767 011	UL tube (16) BK		1					
★	475 3201 000	3TWB (ZN)		1					
★	203 0530 014	1P contact ass'y		2					
★	415 0695 015	UL tube		2					
★	445 8004 007	Wire clamper		95					
★	445 0048 003	Cord holder (L76)		4					
★	415 0847 009	PVC sheet		14					
★	513 3815 002	Fuse caution label		1					
★	513 3816 001	Fuse caution label		1					

PACKING VIEW

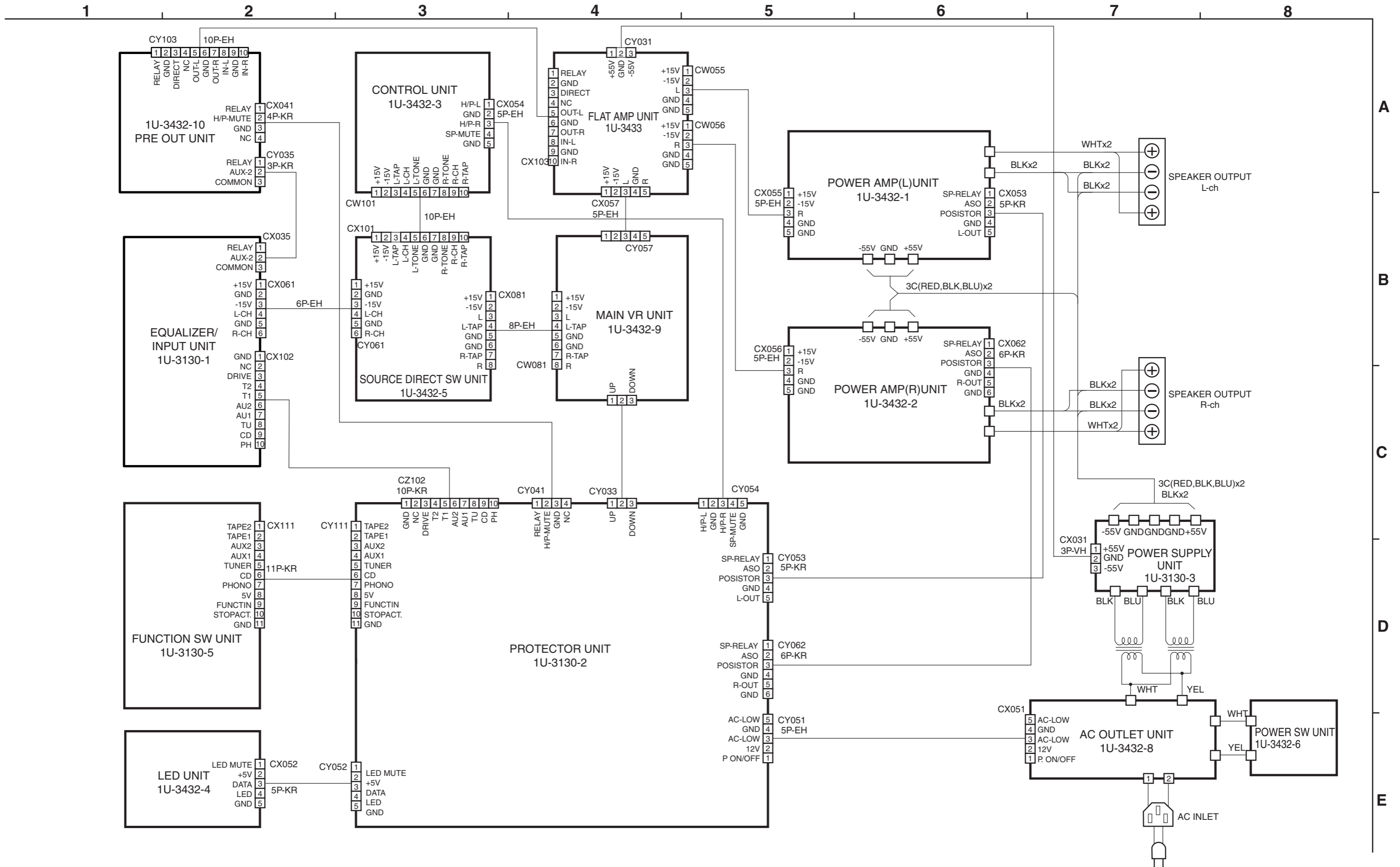


PARTS LIST OF PACKING & ACCESSORIES

Note: The symbol in the column "Remarks" indicate the following destinations.
 G1C: China model G1H: Hong Kong model
 G2A: Singapore model KEU: U.S.A. model

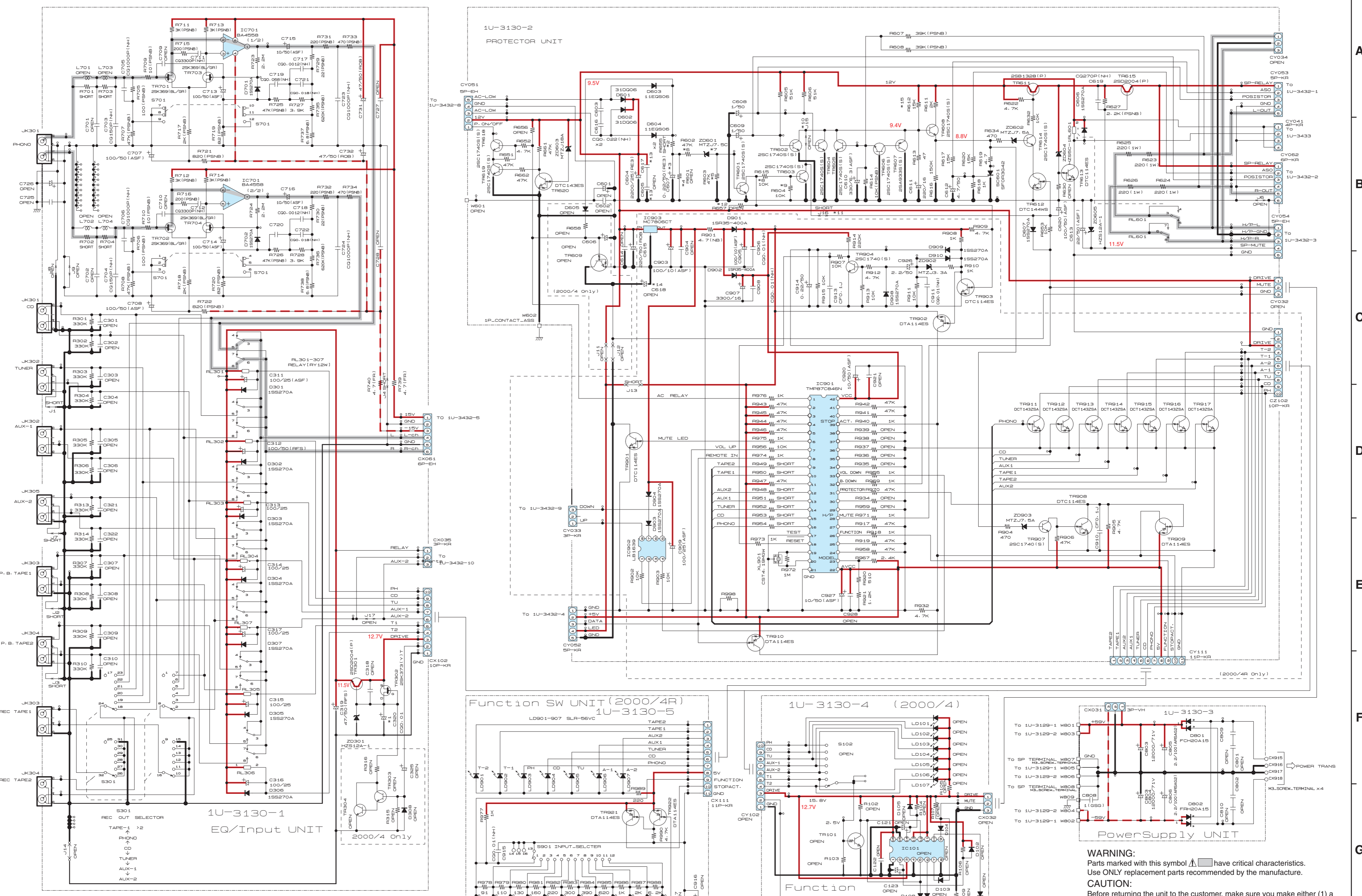
Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty
201	505 9102 019	Poly cover		1	207	511 3893 002	Instruction manual		1
202	504 9102 029	Stilen paper		1		511 3917 001	Instruction manual	KEU	1
203	505 8006 019	Envelope		1	208	515 0921 005	S.S.list (EX)		1
204	206 2189 006	AC cord	G1C	1	209	503 1221 109	Cushion ass'y		1
	206 2209 009	AC cord (BS3P)	G1H	1	210	502 0944 002	Cushion ass'y		1
	262 2210 001	AC cord	G2A	1	211	501 2019 068	Carton case		2
	262 2157 009	AC cord	KEU	1	212	—	Control card		1
205	399 0523 005	Remote control unit (RC-858)		1	★ 213	513 3540 018	Carton label	G1C	1
206	—	Battery (R03X2)		1	★ 215	513 9111 001	Color label (Gold)		1
					★ 216	515 0690 404	DEL warranty home	KEU	1

WIRING DIAGRAM

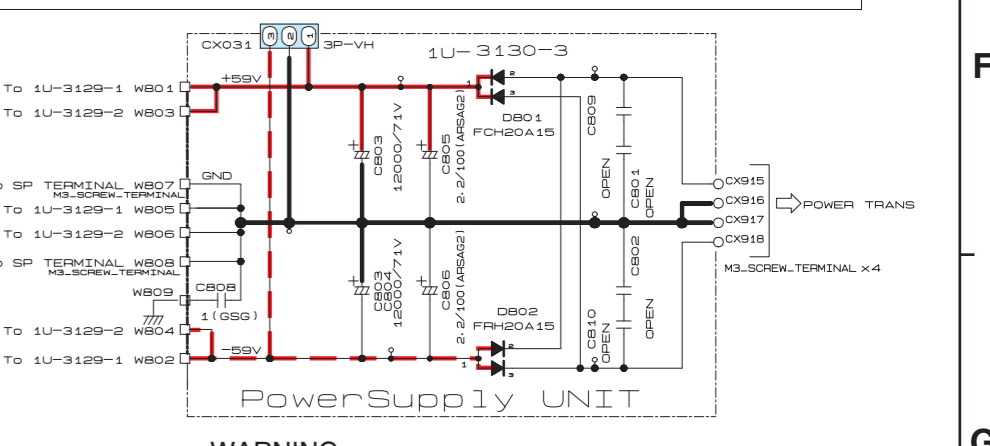
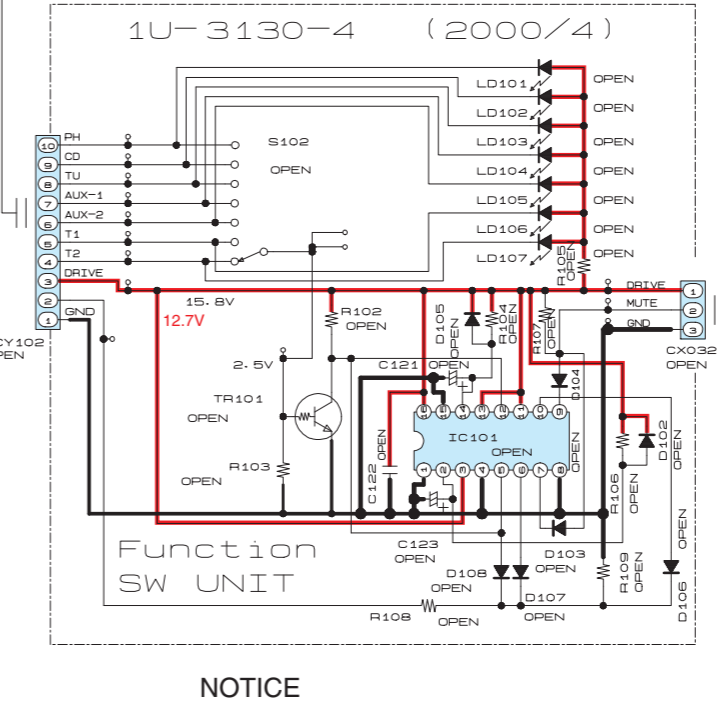
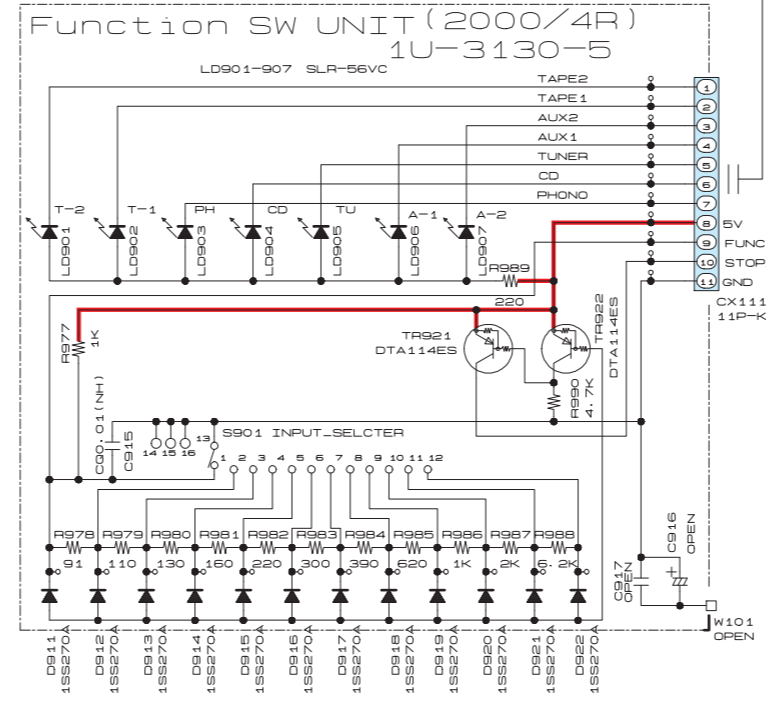


SCHEMATIC DIAGRAMS (1/3)

1 2 3 4 5 6 7 8 9 10 11



*1	C320	*2	R555	*3	C607	*4	R601	*5	R603	*6	R602	*7	ZD501	*8	R615	*9	R604	*10	J15	*11	J16	*12	R657	*13	C605-617	*14	C618
PMA2000/4R	47/50 (ASF)	10K	100/50 (ASF)	2.2K	200K	4.7K	SHORT	4.7K	47K	SHORT	OPEN	47K	OPEN	10/50 (RFS)													
PMA2000/4R	CG103 (NH)	SHORT	0.22/50	OPEN	47K	47K	MTZJ7.5C	10K	10K	OPEN	SHORT	OPEN	CG223 (NH)	OPEN													



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

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 milliamperes, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

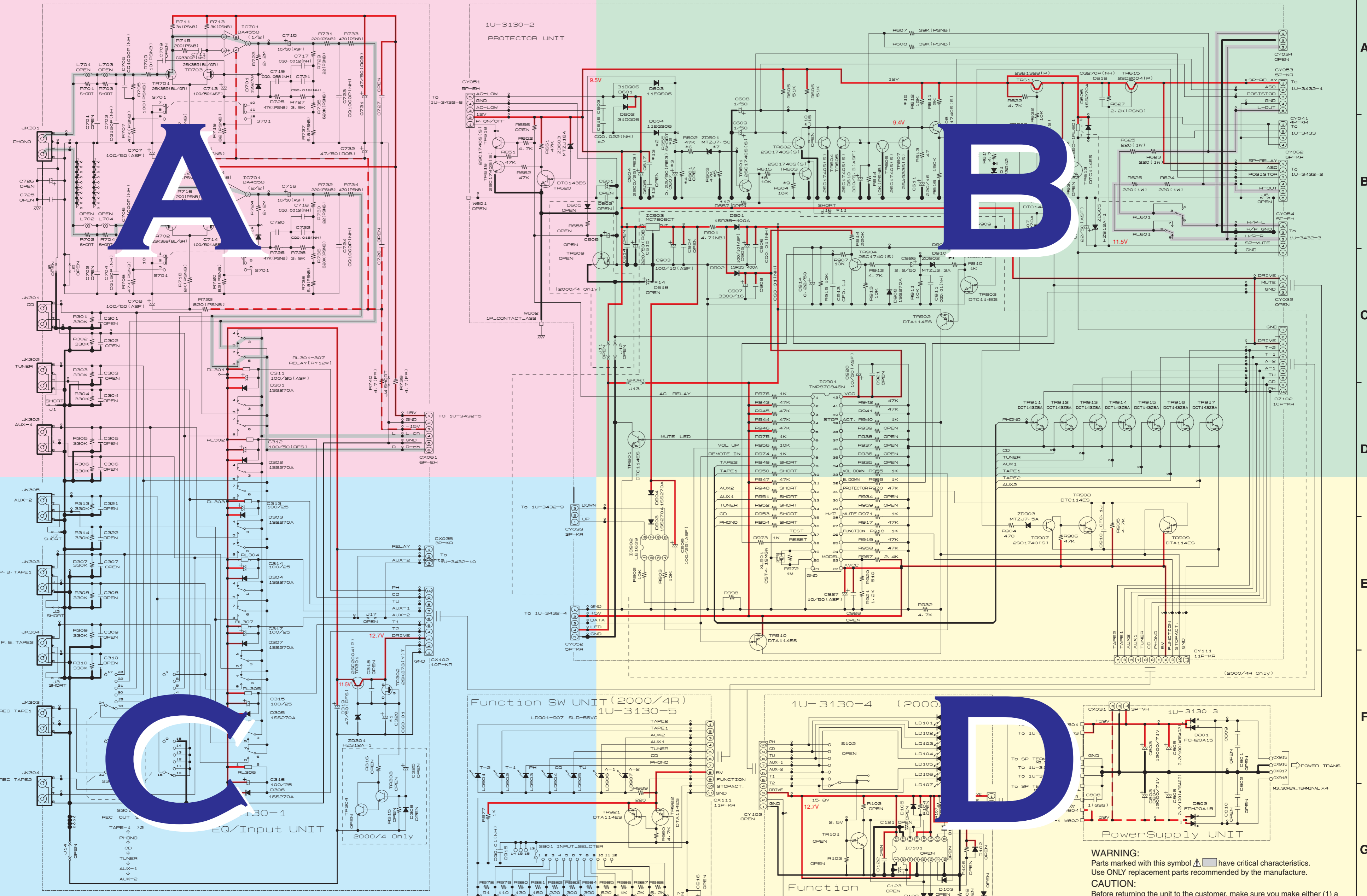
WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

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 MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

SCHEMATIC DIAGRAMS (1/3)
1U-3130 INPUT UNIT

SCHEMATIC DIAGRAMS (1/3)

1 2 3 4 5 6 7 8 9 10 11



*1	C320	*2	R555	*3	C607	*4	R501	*5	R503	*6	R502	*7	ZD501	*8	R515	*9	R504	*10	J15	*11	J15	*12	R557	*13	C605-617	*14	C618
PMA2000/4	47/50 (ASF)	10K	100/50 (ASF)	2.2K	200K	4.7K	SHORT	4.7K	47K	SHORT	OPEN	47K	OPEN	10/50 (RFS)													
PMA2000/4R	CQ103 (NH)	SHORT	0.22/50	OPEN	47K	47K	MTZJ7.5C	10K	10K	OPEN	SHORT	OPEN	CQ223 (NH)	OPEN													

— + B LINE
--- - B LINE
--- SIGNAL LINE

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
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 CONDITION.
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
 NOTICE.

WARNING:
 Parts marked with this symbol have critical characteristics.
 Use ONLY replacement parts recommended by the manufacture.
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 millamps, or if the resistance from chassis to either side
 of the power card is less than 460kohms, the unit is defective.
WARNING:
 DO NOT return the unit to the customer until the problem is located and
 corrected.

SCHEMATIC DIAGRAMS (1/3)
1U-3130 INPUT UNIT

SCHEMATIC DIAGRAMS (1/3)

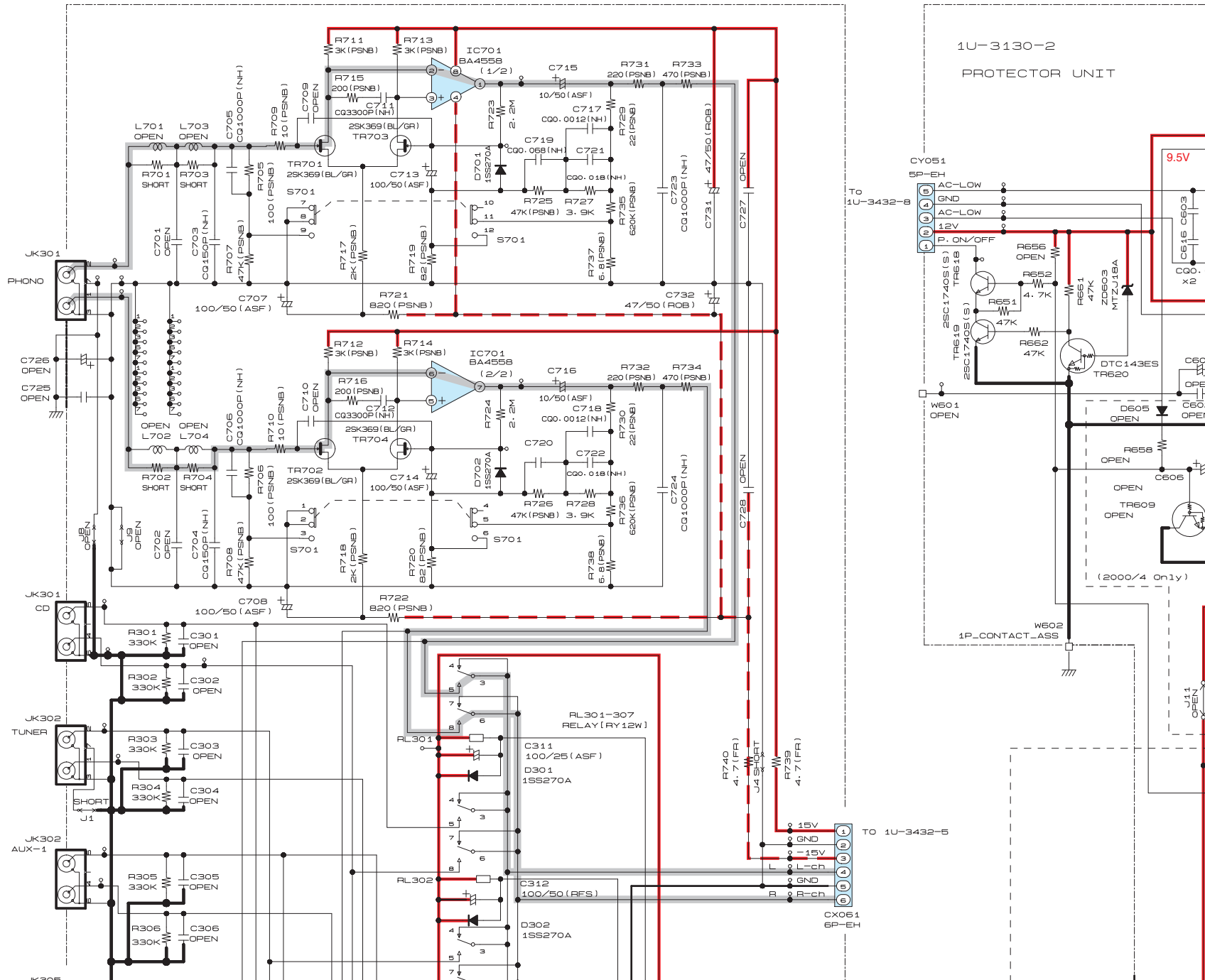
1

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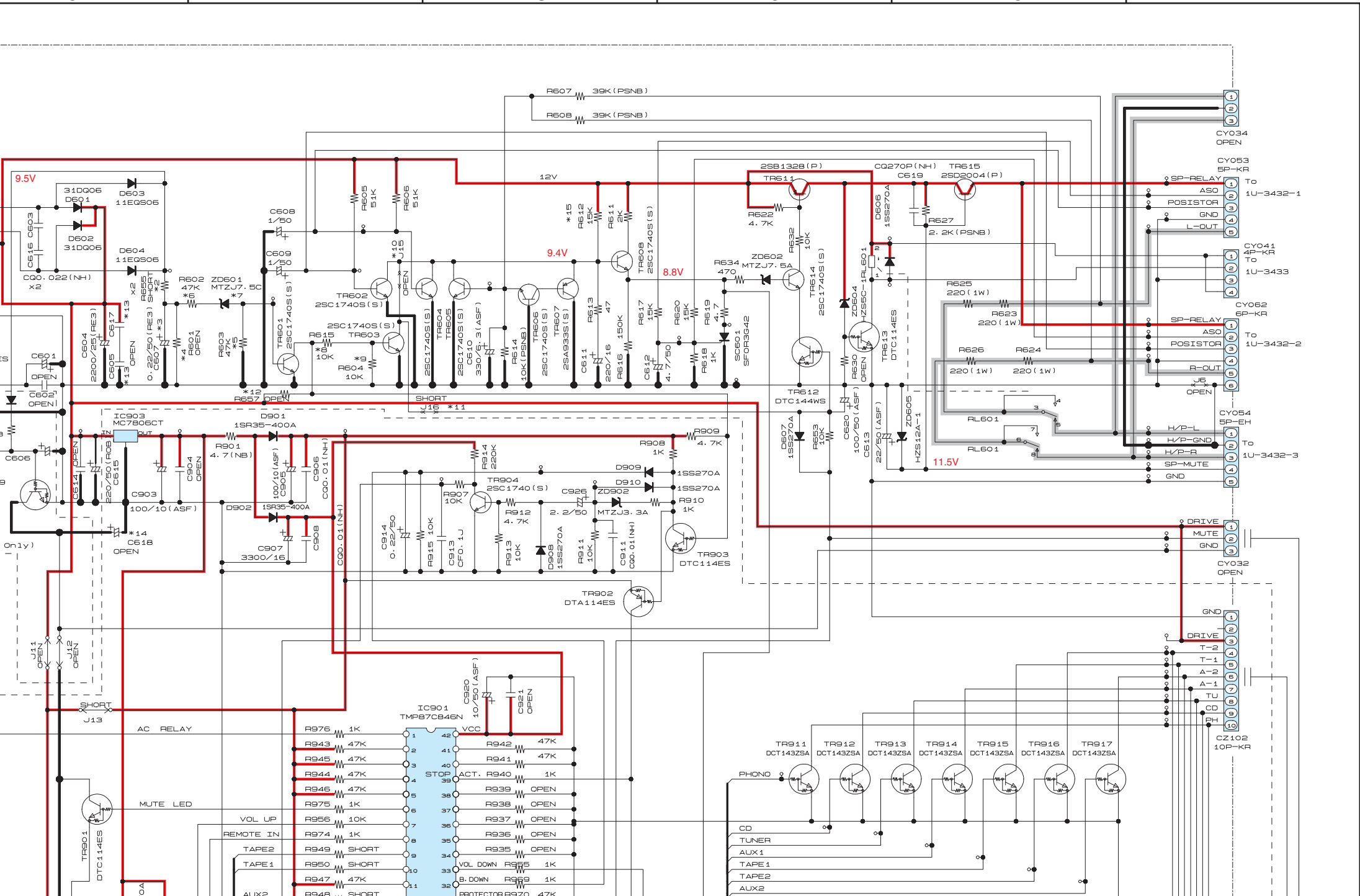
7

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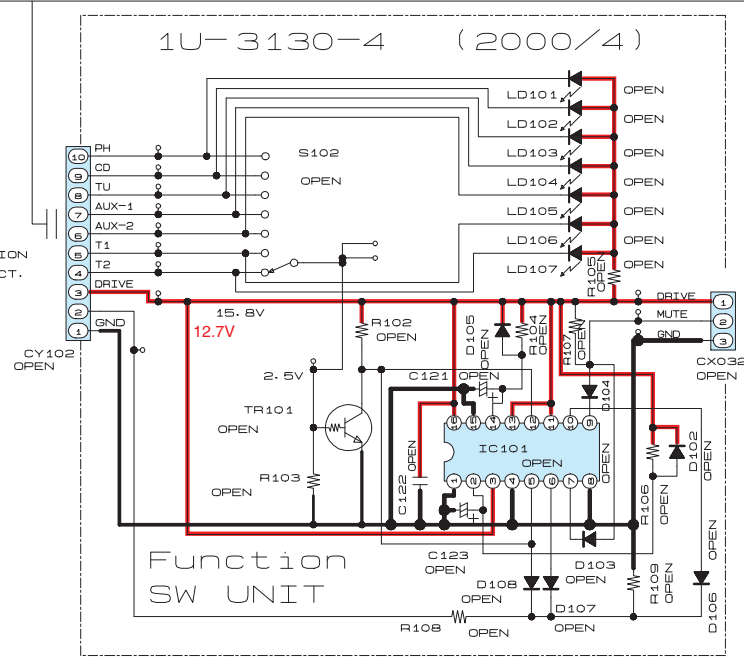
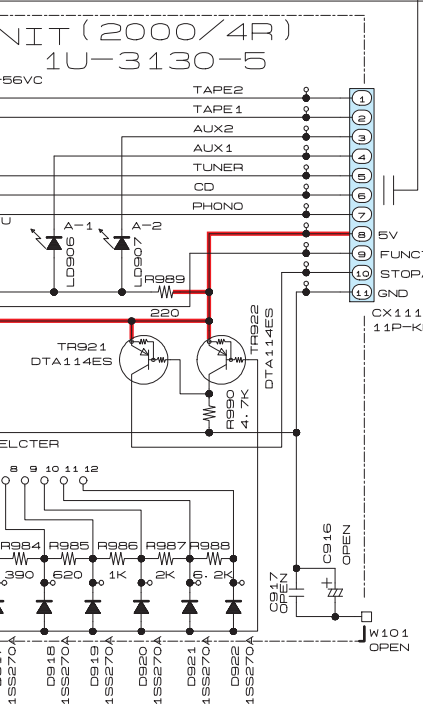
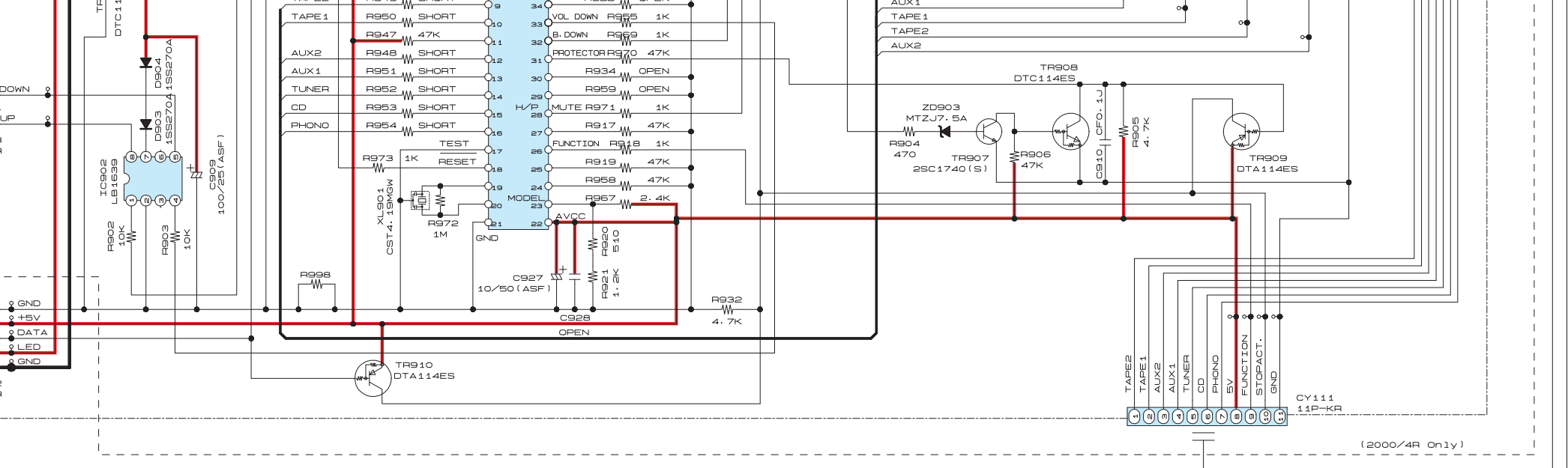


A

B

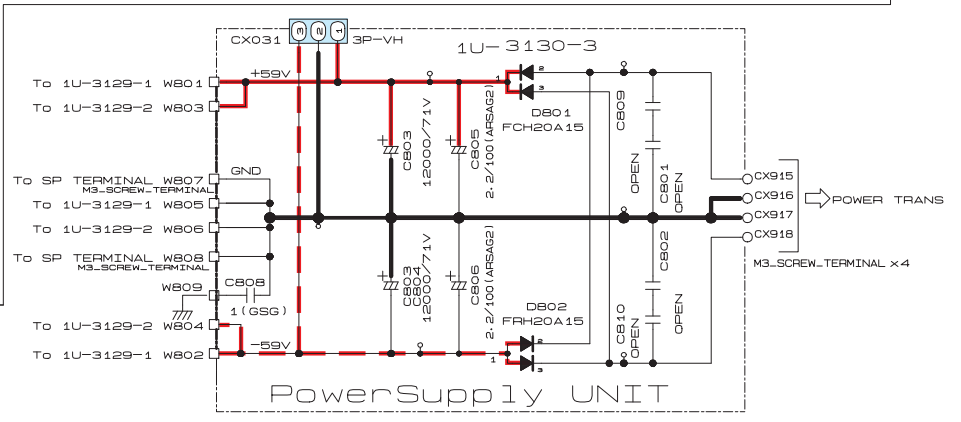
C

D



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 MO SIGNAL INPUT
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 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
 NOTICE.

— + B LINE
 - - - - - B LINE
 ——— SIGNAL LINE



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

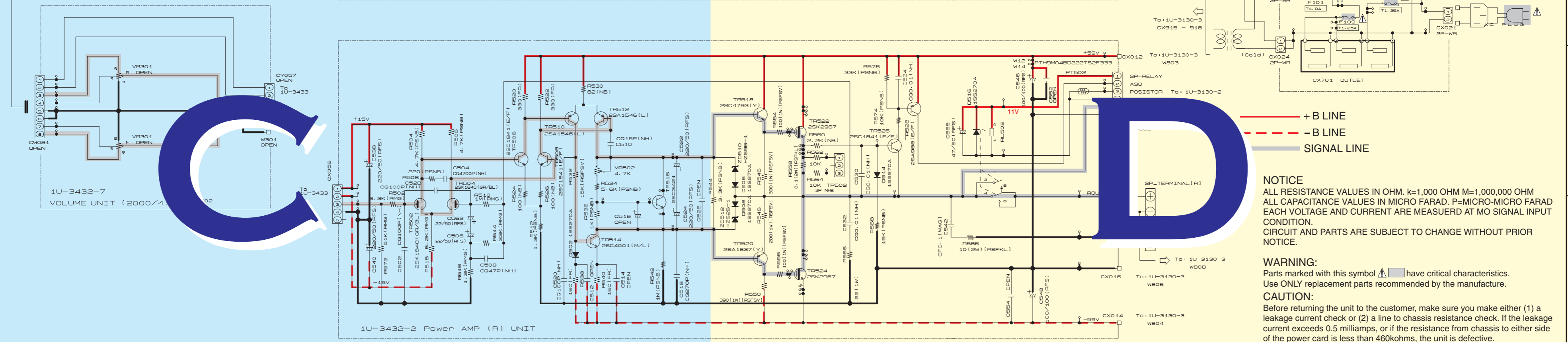
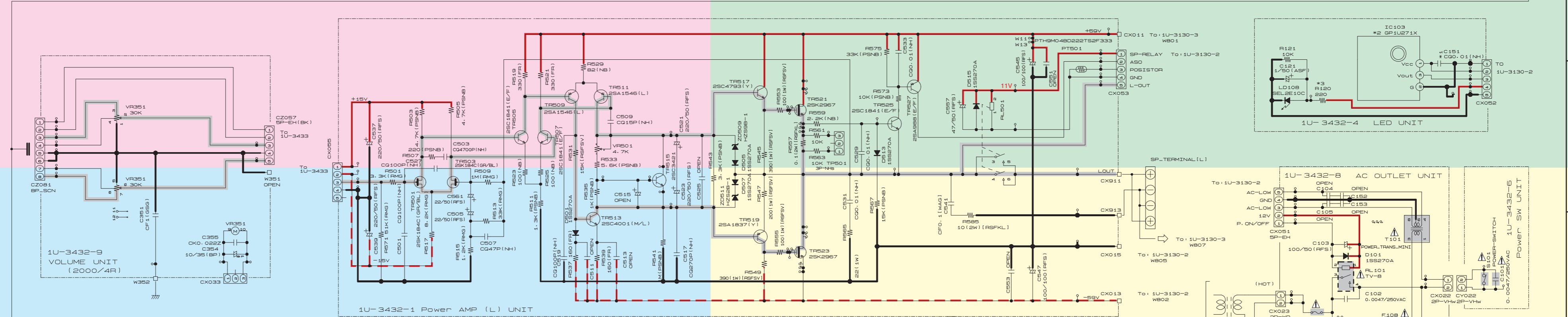
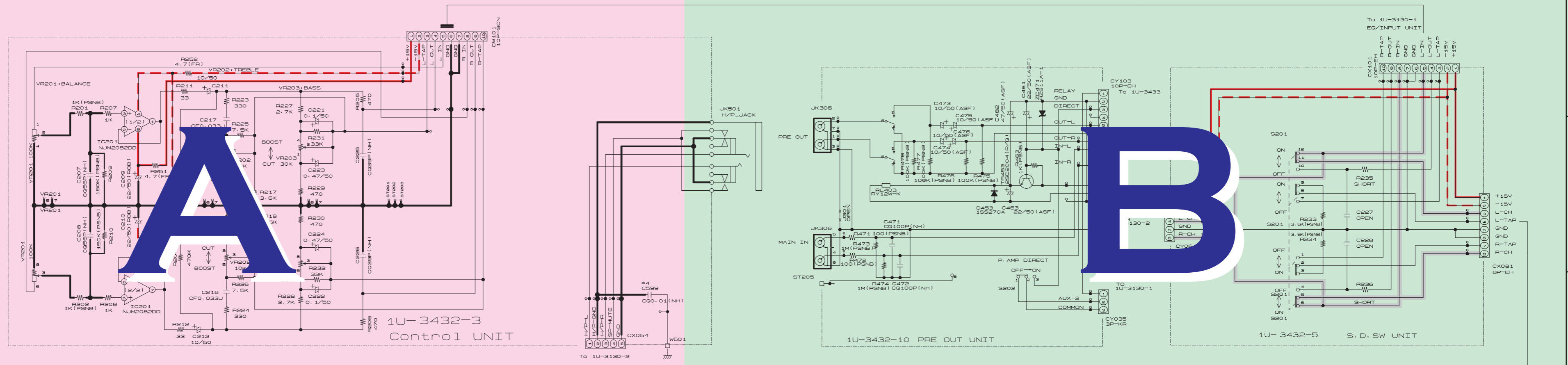
CAUTION:
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

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

SCHEMATIC DIAGRAMS (1/3)
1U-3130 INPUT UNIT

SCHEMATIC DIAGRAMS (2/3)

1 2 3 4 5 6 7 8 9 10 11



Legend:
 - + B LINE (Red solid line)
 - - B LINE (Red dashed line)
 - SIGNAL LINE (Black solid line)

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 MO SIGNAL INPUT
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 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
 NOTICE.

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

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 card is less than 460kohms, the unit is defective.

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

R997	R998	R999	*1	*2	*3	*4
1K (PSNB)	1K (PSNB)	1K (PSNB)	C151	IC103	R120	C599
			OPEN	OPEN	2.4K	OPEN
			CG103(NH)	GP1U271X	220	CG103(NH)

SCHEMATIC DIAGRAMS (2/3)
1U-3432 POWER AMP UNIT

SCHEMATIC DIAGRAMS (2/3)

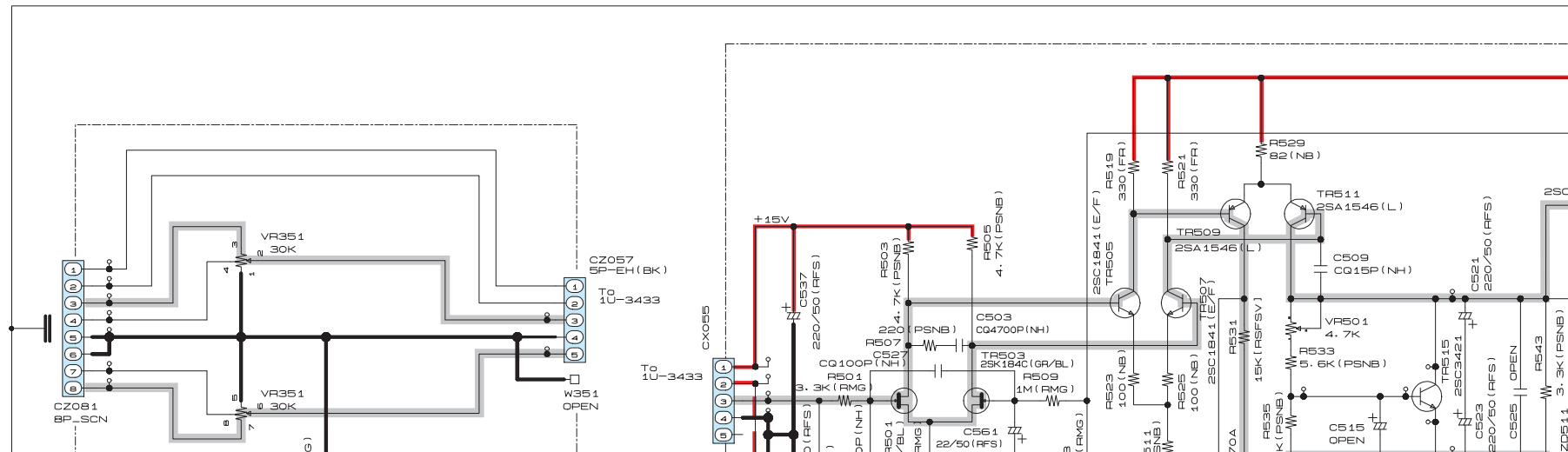
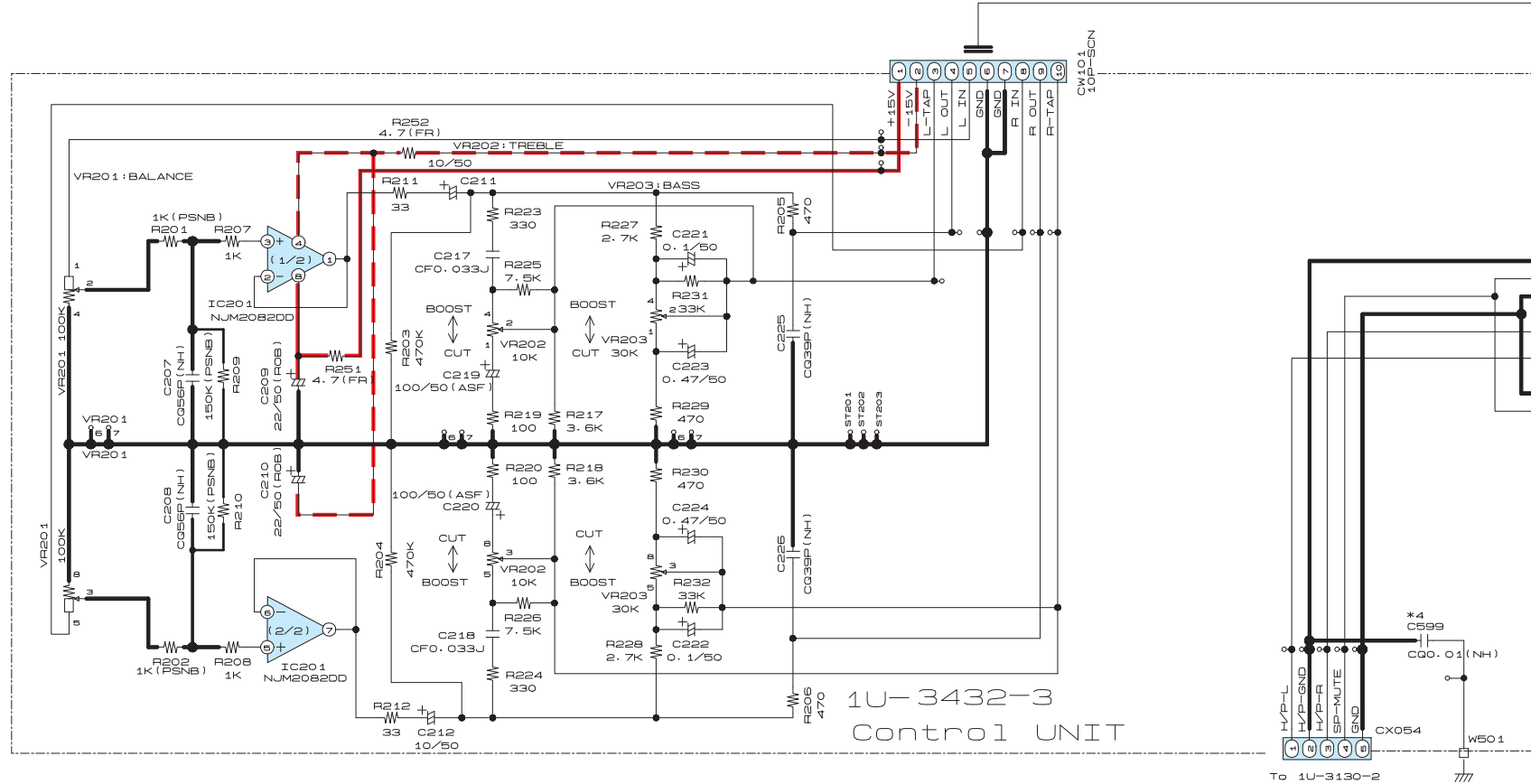
1

2

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6

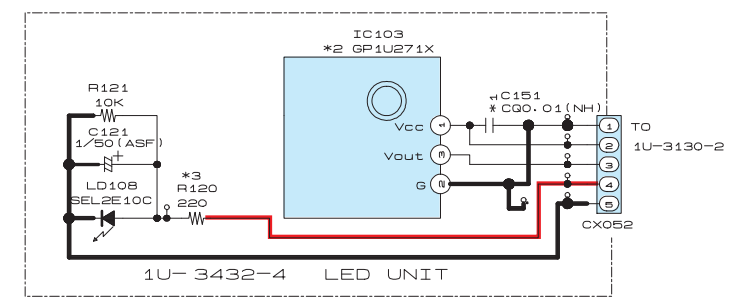
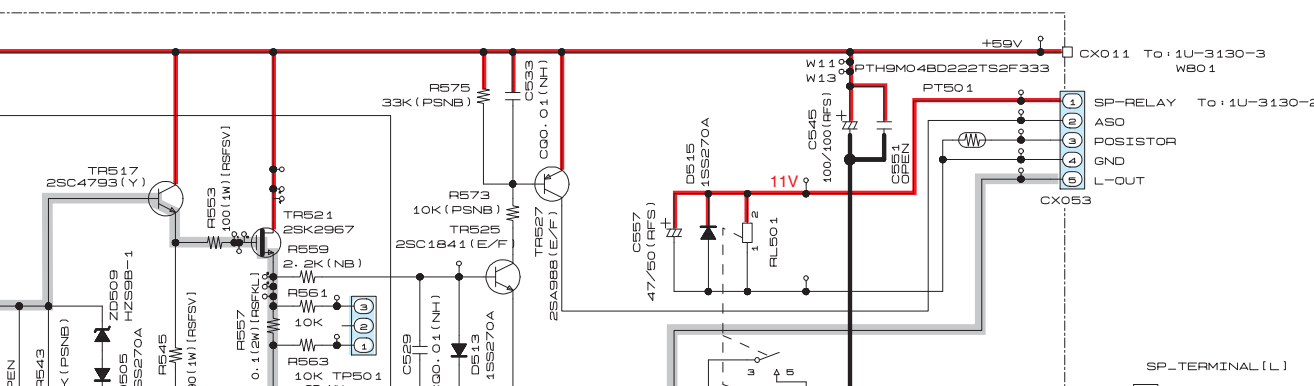
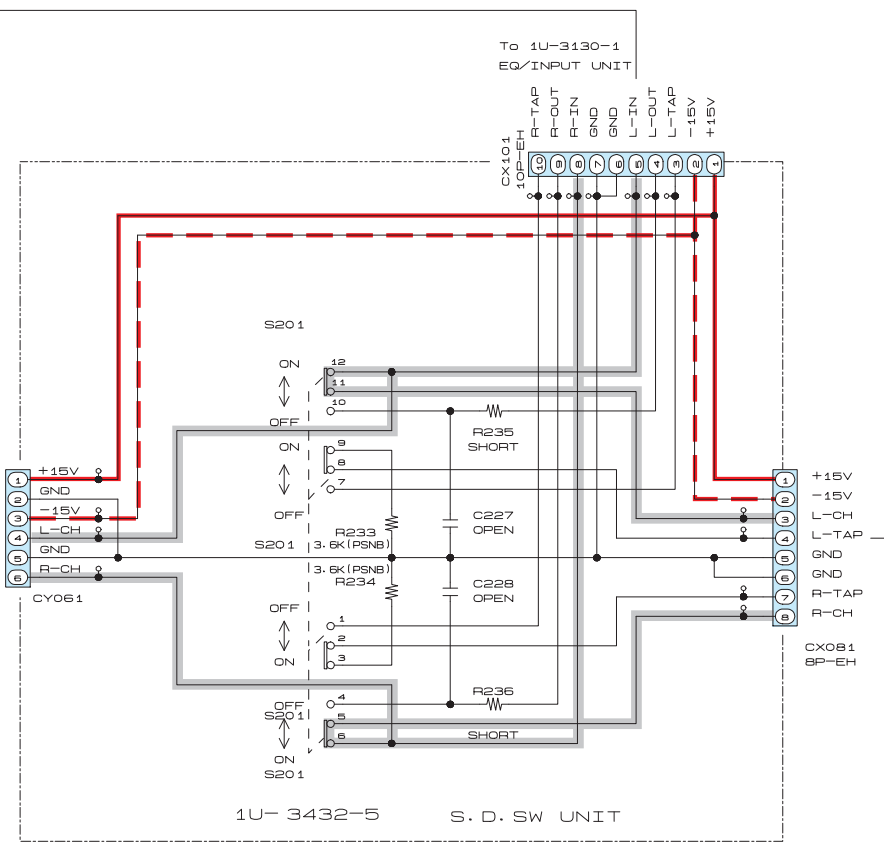
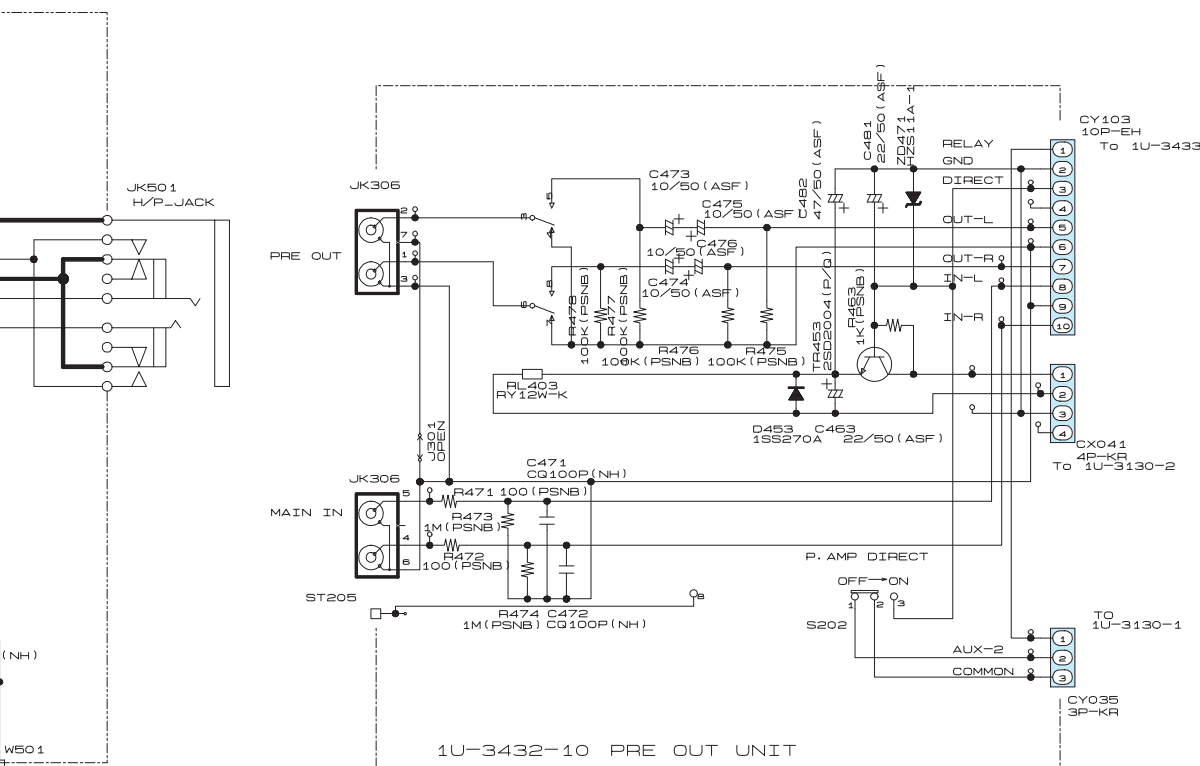
7

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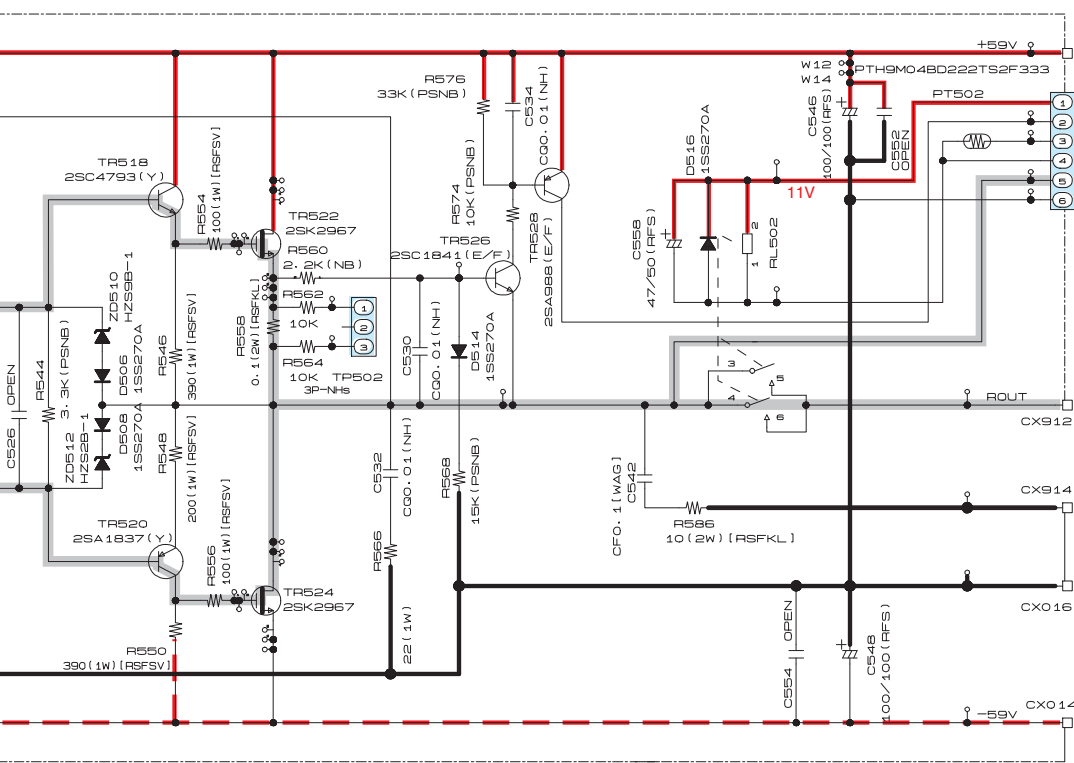
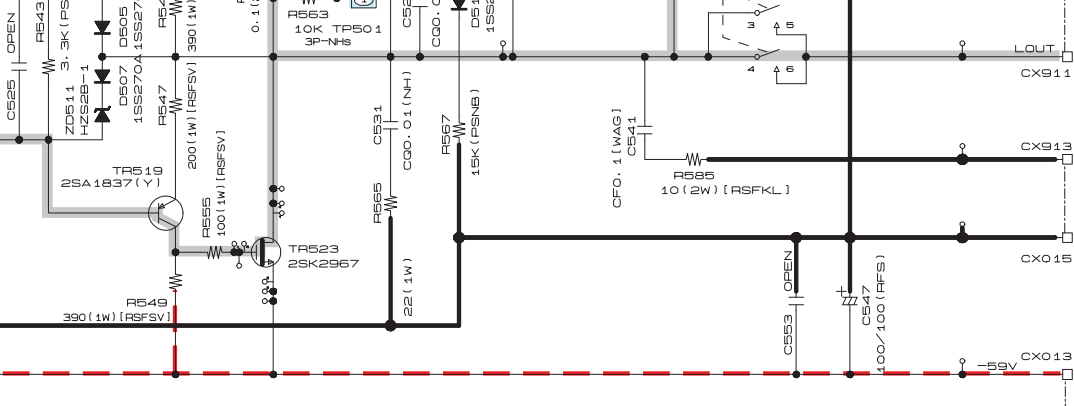


A

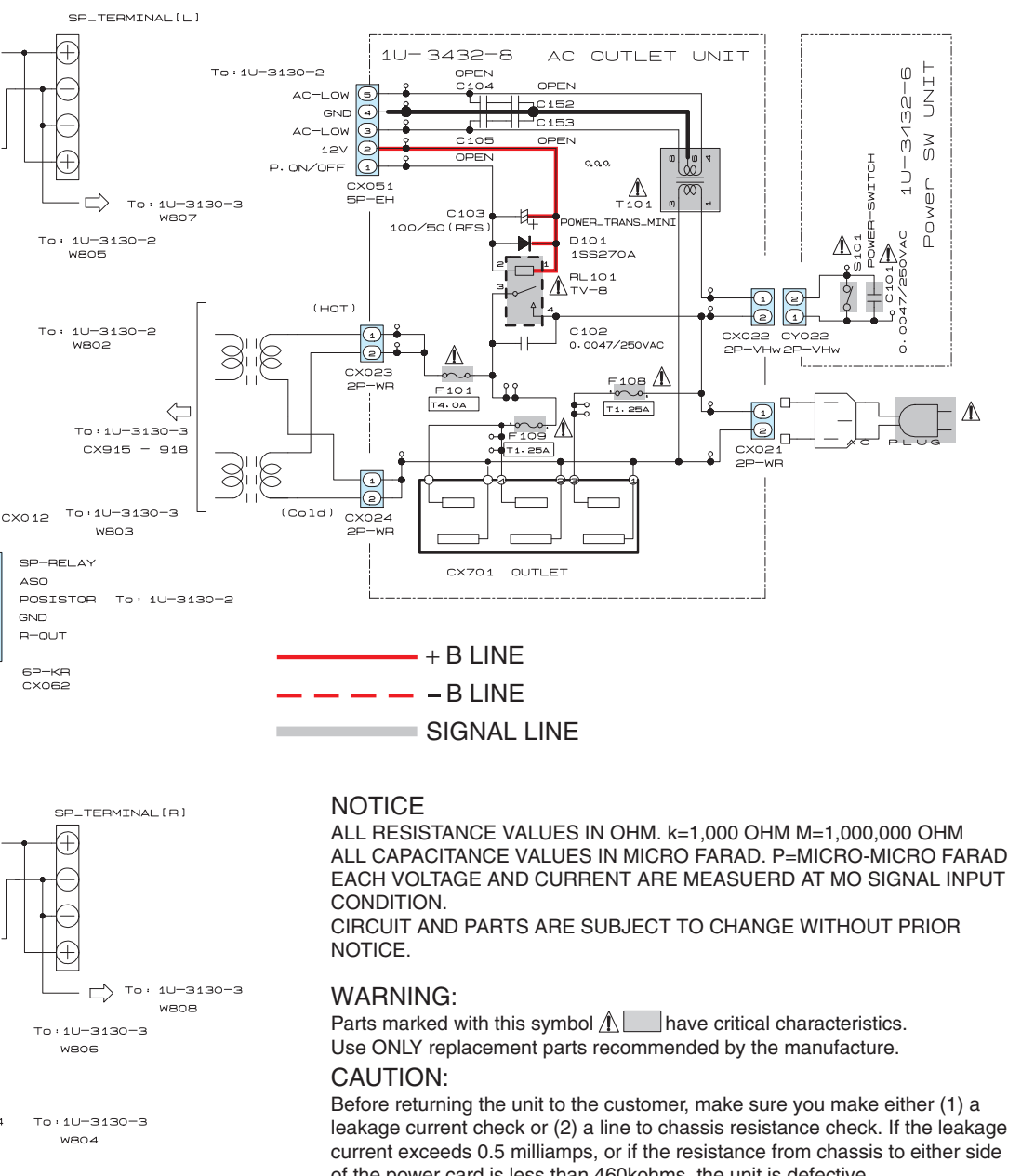
B

C

D



20	*4
4K	C599
0	OPEN
	CQ103(NH)



NOTICE
 ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
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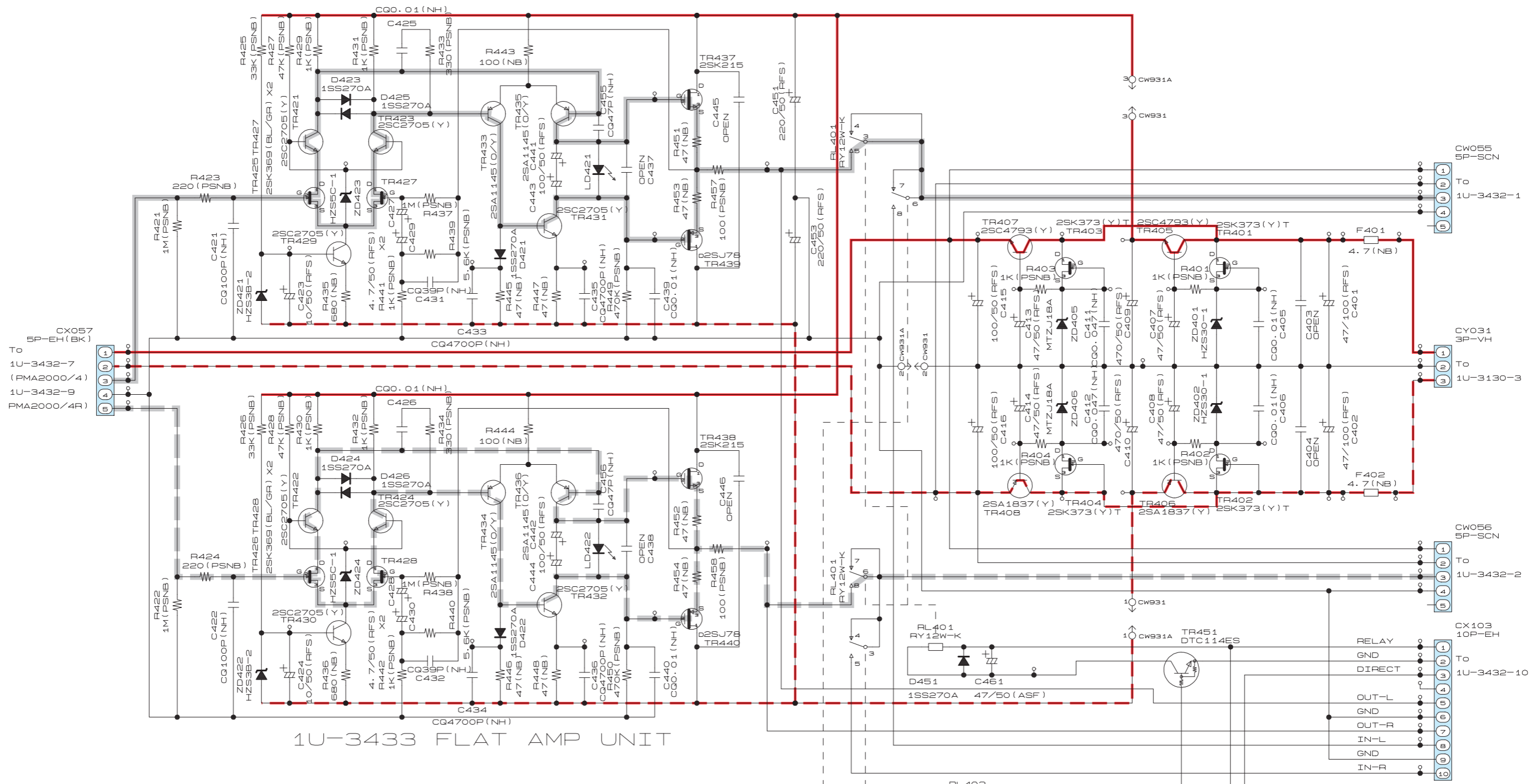
CAUTION:
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 leakage current check or (2) a line to chassis resistance check. If the leakage
 current exceeds 0.5 milliamps, or if the resistance from chassis to either side of
 the power card is less than 460kohms, the unit is defective.

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

SCHEMATIC DIAGRAMS (2/3) 1U-3432 POWER AMP UNIT

SCHEMATIC DIAGRAMS (3/3)

1 2 3 4 5 6 7 8



1U-3433 FLAT AMP UNIT

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
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 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
 NOTICE.

WARNING:

Parts marked with this symbol  have critical characteristics.
 Use ONLY replacement parts recommended by the manufacture.

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 card is less than 460kohms, the unit is defective.

WARNING:

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



SCHEMATIC DIAGRAMS (3/3)
1U-3433 FLAT AMP UNIT