

Service Manual

CD Stereo System

Model No. **SA-AKX14P**

Product Color: (K)...Black Type



Please refer to the original service manual for:

- 1) SA-AKX14P is base on SA-AKX14PN-K, Order No. PSG1201003CE.
- 2) CD Mechanism Unit (BRS1C), Order No. PSG1102001CE.
- 3) Speaker system SB-AKX14P-K, Order No. PSG1203033AE.

WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

IMPORTANT SAFETY NOTICE


There are special components used in this equipment which are important for safety. These parts are marked by  in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

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1 Safety Precautions

1.1. General Guidelines

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, carry out the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.1.1. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between $1M\Omega$ and $5.2M\Omega$.

When the exposed metal does not have a return path to the chassis, the reading must be ∞

(This "Safety Precaution" is applied only in U.S.A.)

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

1.1.2. Leakage Current Hot Check

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a $1.5k\Omega$, 10 watts resistor, in parallel with a $0.15\mu F$ capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

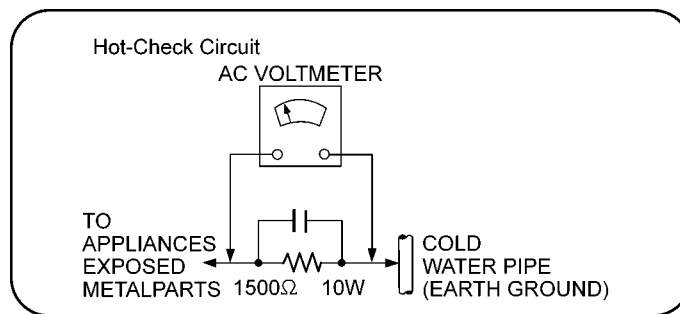


Figure 1

1.2. Before Repair and Adjustment

Disconnect AC power to discharge unit AC Capacitors as such (C5700, C5701, C5703, C5704, C5705, C5708) through a 10Ω , 10 W resistor to ground.

Caution:

DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices. After repairs are completed, restore power gradually using a variac, to avoid overcurrent. Current consumption at AC 120V, 60 Hz in Power ON, FM Tuner, No Signal, Volume minimal mode should be ~ 500 mA

1.3. Protection Circuitry

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are “shorted”, or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note:

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

1.4. Caution For Fuse Replacement


CAUTION:




























Replace with the same type fuse:
(Manufacturer: LITTELFUSE, INC., Type: 233, F1, 8A, 125V)

1.5. Safety Parts Information

Safety Parts List:

There are special components used in this equipment which are important for safety.

These parts are marked by () in the Exploded View & Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

Safety	Ref No.	Part No.	Part Name & Description	Remarks
	20	RKM1011-K1	TOP CABINET	
	21	RGRX1008K-F	REAR PANEL	
	301	RAEX1033Z-V	TRAVERSE ASS'Y	
	A2	K2CB2YY00059	AC CORD	
	A3	RQT9691-1P	O/I BOOK (En)	
	PCB8	REP4783AA	SMPS P.C.B.	(RTL)
	DZ5701	ERZVA5Z471	ZNR	
	L5701	G0B932H00002	LINE FILTER	
	T5701	G4DY20000057	MAIN TRANSFORMER	
	T5751	ETS19AB2E6AG	SUB TRANSFORMER	
	PC5701	B3PBA0000503	PHOTO COUPLER	
	PC5702	B3PBA0000503	PHOTO COUPLER	
	PC5720	B3PBA0000503	PHOTO COUPLER	
	PC5799	B3PBA0000503	PHOTO COUPLER	
	F1	K5D802APA008	FUSE	
	TH5702	D4CAA2R20001	THERMISTOR	
	TH5860	D4CC11040013	THERMISTOR	
	TH5900	D4CC11040013	THERMISTOR	
	P5701	K2AB2B000007	AC INLET	
	R5708	ERJ8GEYJ155V	1.5M 1/4W	
	R5709	ERJ8GEYJ155V	1.5M 1/4W	
	C5700	F1BAF471A013	470pF	
	C5701	F0CAF104A105	0.1uF	
	C5703	F0CAF224A105	0.22uF	
	C5704	F1BAF471A013	470pF	
	C5705	F1BAF471A013	470pF	
	C5708	F1BAF1020020	1000pF	

2 Warning

2.1. Prevention of Electrostatic Discharge (ESD) to Electrostatic Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor “chip” components. The following techniques should be used to help reduce the incidence of component damage caused by electrostatic discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as “anti-static (ESD protected)” can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

Caution:

Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

2.2. Precaution of Laser Diode

CAUTION:

THIS PRODUCT UTILIZES A LASER.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

Caution:

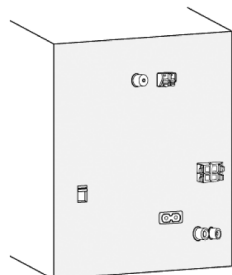
This product utilizes a laser diode with the unit turned “on”, invisible laser radiation is emitted from the pickup lens.

Wavelength: 790 nm (CD)

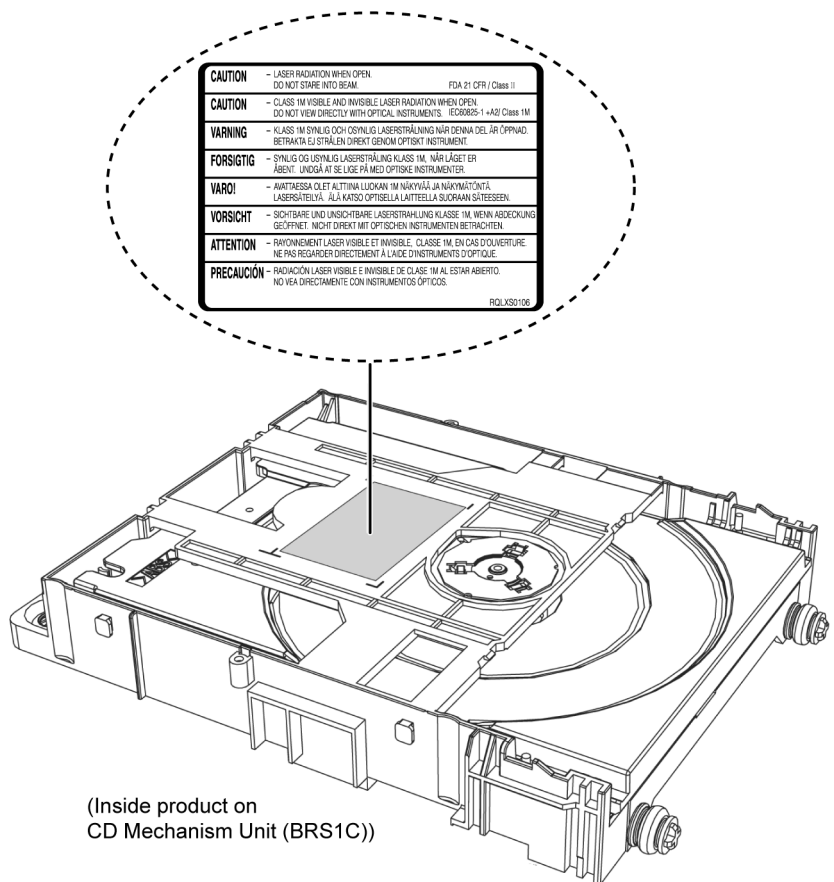
Maximum output radiation power from pickup: 100 μ W/VDE

Laser radiation from the pickup unit is safety level, but be sure the followings:

1. Do not disassemble the pickup unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pickup unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pickup lens for a long time.



(Back of product)



(Inside product on
CD Mechanism Unit (BRS1C))

CAUTION	- LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM. FDA 21 CFR / Class II
CAUTION	- CLASS 1M VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. IEC60825-1:2014 Class 1M
WARNING	- KLAS 1M SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRÄKTA EJ STRÅLEN DIREKT GENOM OPTISKE INSTRUMENT.
FORSIGTIG	- SYNLIG OG OSYNLIG LASERSTRÅLING KLASSE 1M. NÅR LÅGET ER ÅBENT, UNDGÅ AT SE UD PÅ MED OPTISKE INSTRUMENTER.
VARO!	- AVATTAESSA OLET ALTIINNA LUOKAN 1M NÄKYVÄÄ JA NÄKYMÄTÖNTÄ LASERISÄTELYÄ. ÄLÄ KATSO OPTISELLA LAITTEELLA SUORAAN SÄTEESEEN.
VORSICHT	- SICHTBARE UND UNSICHTBARE LASERSTRÄHLUNG KLASSE 1M. WENN ABDECKUNG GEÖFFNET, NICHT DIREKT MIT OPTISCHEN INSTRUMENTEN BETRACHTEN.
ATTENTION	- RAYONNEMENT LASER VISIBLE ET INVISIBLE. CLASSE 1M. EN CAS D'OUVERTURE, NE PAS REGARDER DIRECTEMENT À L'AIDE D'INSTRUMENTS D'OPTIQUE.
PRECAUCIÓN	- RADIACIÓN LASER VISIBLE E INVISIBLE DE CLASE 1M AL ESTAR ABIERTO. NO VEA DIRECTAMENTE CON INSTRUMENTOS ÓPTICOS.

ROLXSD100

2.3. Service caution based on Legal restrictions

2.3.1. General description about Lead Free Solder (PbF)

The lead free solder has been used in the mounting process of all electrical components on the printed circuit boards used for this equipment in considering the globally environmental conservation.

The normal solder is the alloy of tin (Sn) and lead (Pb). On the other hand, the lead free solder is the alloy mainly consists of tin (Sn), silver (Ag) and Copper (Cu), and the melting point of the lead free solder is higher approx.30 degrees C (86°F) more than that of the normal solder.

Definition of PCB Lead Free Solder being used

The letter of "PbF" is printed either foil side or components side on the PCB using the lead free solder. (See right figure)	PbF
---	-----

Service caution for repair work using Lead Free Solder (PbF)

- The lead free solder has to be used when repairing the equipment for which the lead free solder is used.
(Definition: The letter of "PbF" is printed on the PCB using the lead free solder.)
- To put lead free solder, it should be well molten and mixed with the original lead free solder.
- Remove the remaining lead free solder on the PCB cleanly for soldering of the new IC.
- Since the melting point of the lead free solder is higher than that of the normal lead solder, it takes the longer time to melt the lead free solder.
- Use the soldering iron (more than 70W) equipped with the temperature control after setting the temperature at 350±30 degrees C (662±86°F).

Recommended Lead Free Solder (Service Parts Route.)

- The following 3 types of lead free solder are available through the service parts route.
RFKZ03D01K----- (0.3mm 100g Reel)
RFKZ06D01K----- (0.6mm 100g Reel)
RFKZ10D01K----- (1.0mm 100g Reel)

Note

* Ingredient: tin (Sn), 96.5%, silver (Ag) 3.0%, Copper (Cu) 0.5%, Cobalt (Co) / Germanium (Ge) 0.1 to 0.3%

2.4. Handling Precautions for Traverse Unit

The laser diode in the optical pickup unit may break down due to static electricity of clothes or human body. Special care must be taken avoid caution to electrostatic breakdown when servicing and handling the laser diode in the traverse unit.

2.4.1. Cautions to Be Taken in Handling the Optical Pickup Unit

The laser diode in the optical pickup unit may be damaged due to electrostatic discharge generating from clothes or human body. Special care must be taken avoid caution to electrostatic discharge damage when servicing the laser diode.

1. Do not give a considerable shock to the optical pickup unit as it has an extremely high-precise structure.
2. To prevent the laser diode from the electrostatic discharge damage, the flexible cable of the optical pickup unit removed should be short-circuited with a short pin or a clip.
3. The flexible cable may be cut off if an excessive force is applied to it. Use caution when handling the flexible cable.
4. The antistatic FPC is connected to the new optical pickup unit. After replacing the optical pickup unit and connecting the flexible cable, cut off the antistatic FPC.

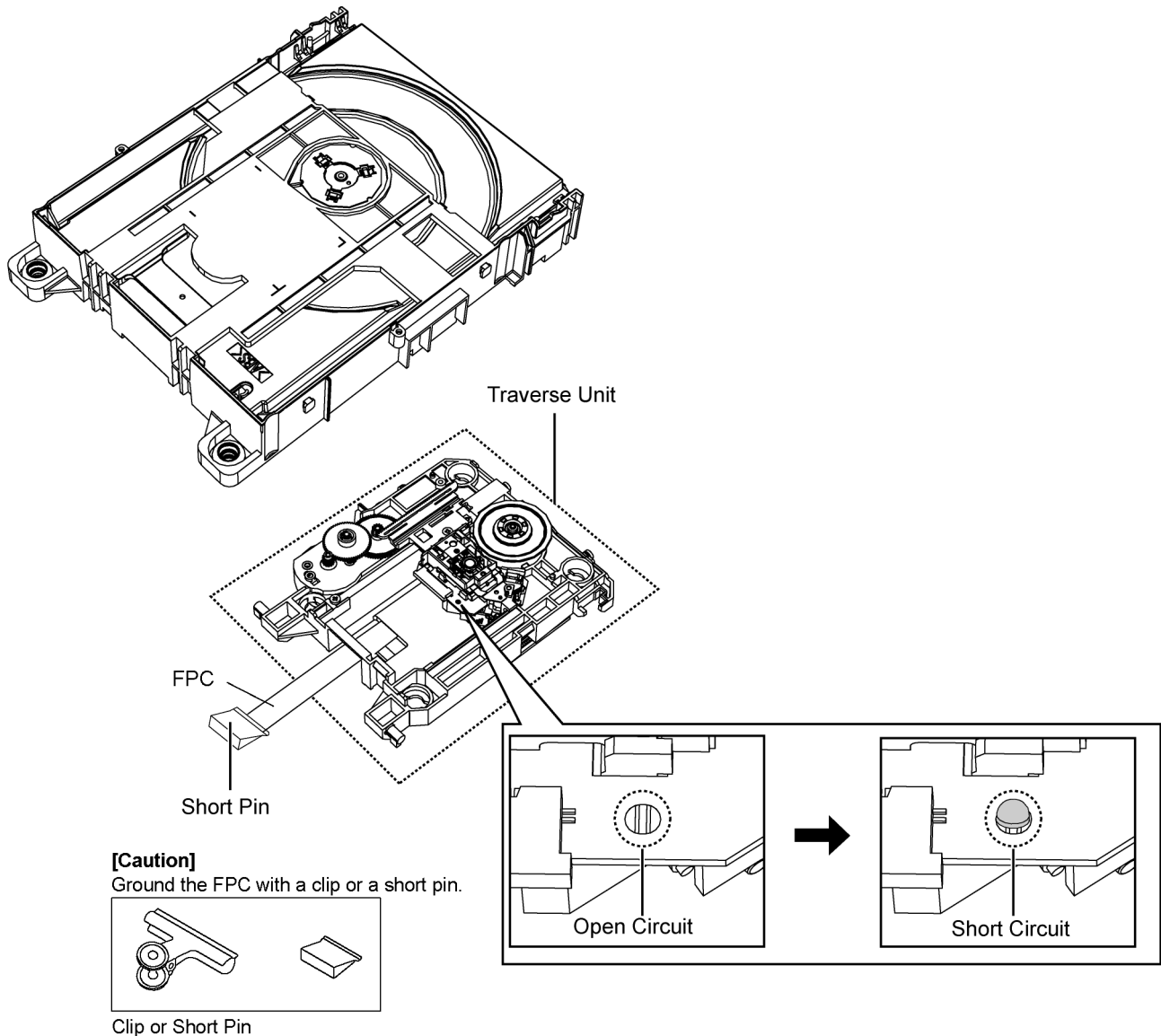


Figure A

2.4.2. Grounding for electrostatic breakdown prevention

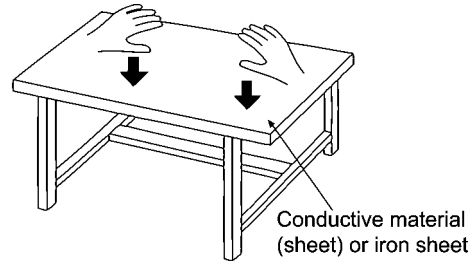
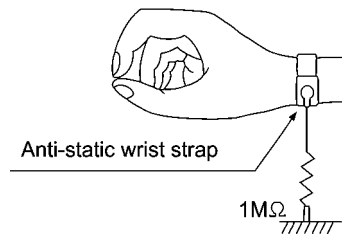
Some devices such as the DVD player use the optical pickup (laser diode) and the optical pickup will be damaged by static electricity in the working environment. Proceed servicing works under the working environment where grounding works is completed.

2.4.2.1. Worktable grounding

1. Put a conductive material (sheet) or iron sheet on the area where the optical pickup is placed, and ground the sheet.

2.4.2.2. Human body grounding

1. Use the anti-static wrist strap to discharge the static electricity form your body.



3 Service Navigation

3.1. Service Information

This service manual contains technical information which will allow service personnel's to understand and service this model. Please place orders using the parts list and not the drawing reference numbers.

If the circuit is changed or modified, this information will be followed by supplement service manual to be filed with original service manual.

- **CD Mechanism unit (BRS1C):**

1) This model uses CD Mechanism Unit (BRS1C).

- **Micro-processor:**

1) The following components are supplied as an assembled part.

- Micro-processor IC, IC2003 (RFKWMAKX14M0)

- **Speaker system:**

1) This model uses Speaker System, SA-AKX14P-K.

- **Base model:**

1) The base is SA-AKX14PN-K.

As such this service manual does not contain the following information as below:-

- Location of Controls and Components
- Self-Diagnostic and Special Mode Setting
- Troubleshooting Guide
- Disassembly and Assembly Instructions
- Replacement of Traverse Unit
- Simplified Block Diagram
- Block Diagram (except Power Supply)
- Wiring Connection Diagram
- Schematic Diagram (except Main Circuit & SMPS Circuit)
- Printed Circuit Board (CD Servo P.C.B. only)
- Voltage & Waveform Chart
- Illustration of IC, Transistor & Diode
- Terminal Function of ICs

3.2. Differences Table

Ref No.	Part No.		Part Name & Description	Remarks
	SA-AKX14PN-K	SA-AKX14P-K		
18	RFKGAKX14PHK	RFKGAKX14P-K	FRONT PANEL ASS'YL	
21	RGRX1008K-A	RGRX1008K-F	REAR PANEL	
A3	RQT9609-1M	RQT9691-1P	O/I BOOK (En)	
P1	RPG9738	RPG0A44	PACKING CASE	
PCB2	REP4743AA	REP4743EA	MAIN P.C.B.	
PCB3	REP4743AB	REP4743EB	PANEL P.C.BL	
PCB4	REP4743AC	REP4743EC	LCD P.C.B.	
PCB5	REP4743AD	REP4743ED	USB P.C.B.	
PCB6	REP4743AE	REP4743EE	REMOTE SENSOR P.C.B.	
PCB8	REP4783AA	REP4783HA	SMPS P.C.B.	

4 Specifications

■ AMPLIFIER SECTION

RMS output power stereo mode

Front Ch(both ch driven)

125 W per channel (4 Ω), 1 kHz, 10% THD

Total RMS stereo mode power 250 W (10% THD)

320 W (max)

FTC output power stereo mode

Front Ch(both ch driven)

56 W per channel (4 Ω), 20 Hz to 20 kHz, 1% THD

Total FTC stereo mode power 112 W

■ TUNER, TERMINALS SECTION

Preset station

FM 30 stations

AM 15 stations

Frequency Modulation (FM)

Frequency range

87.9 MHz to 107.9 MHz (200 kHz step)

87.5 MHz to 108.0 MHz (100 kHz step)

Antenna terminal (s)

75 Ω (unbalanced)

Amplitude Modulation (AM)

Frequency range

520 to 1710 kHz (10 kHz step)

AUX Input

RCA pin jack

■ DISC SECTION

Discs played (8 cm or 12 cm)

CD, CD-R/RW (CD-DA, MP3*)

Pick up

Wavelength

790 nm (CD)

Laser Power

CLASS 1

Audio output (Disc)

Number of channels

2 ch (FL, FR)

FL = Front left channel

FR = Front right channel

*MPEG-1 layer 3

■ USB SECTION

USB Port

USB standard

USB 2.0 full speed

Media file format support

MP3 (*.mp3)

USB device file system

FAT12, FAT16, FAT32

USB Port power

500 mA (max)

Bit Rate

16 kbps to 320 kbps (playback)

■ GENERAL

Power supply

AC 120 V, 60 Hz

Power Consumption

58 W

Dimensions (W x H x D)

220 mm x 334 mm x 245 mm

(8⁵/₈" x 13¹/₈" x 9⁵/₈")

Mass (Weight)

2.8 kg (6.2 lbs)

Operating temperature range

0 °C to +40 °C

(+32°F to 104°F)

Operating humidity range

35% to 80% RH

(no condensation)

Power Consumption in standby mode

0.2 W (Approximate)

Notes

- Specifications are subject to change without notice.
Mass and dimensions are approximate.

- Total harmonic distortion is measured by the digital spectrum analyzer.

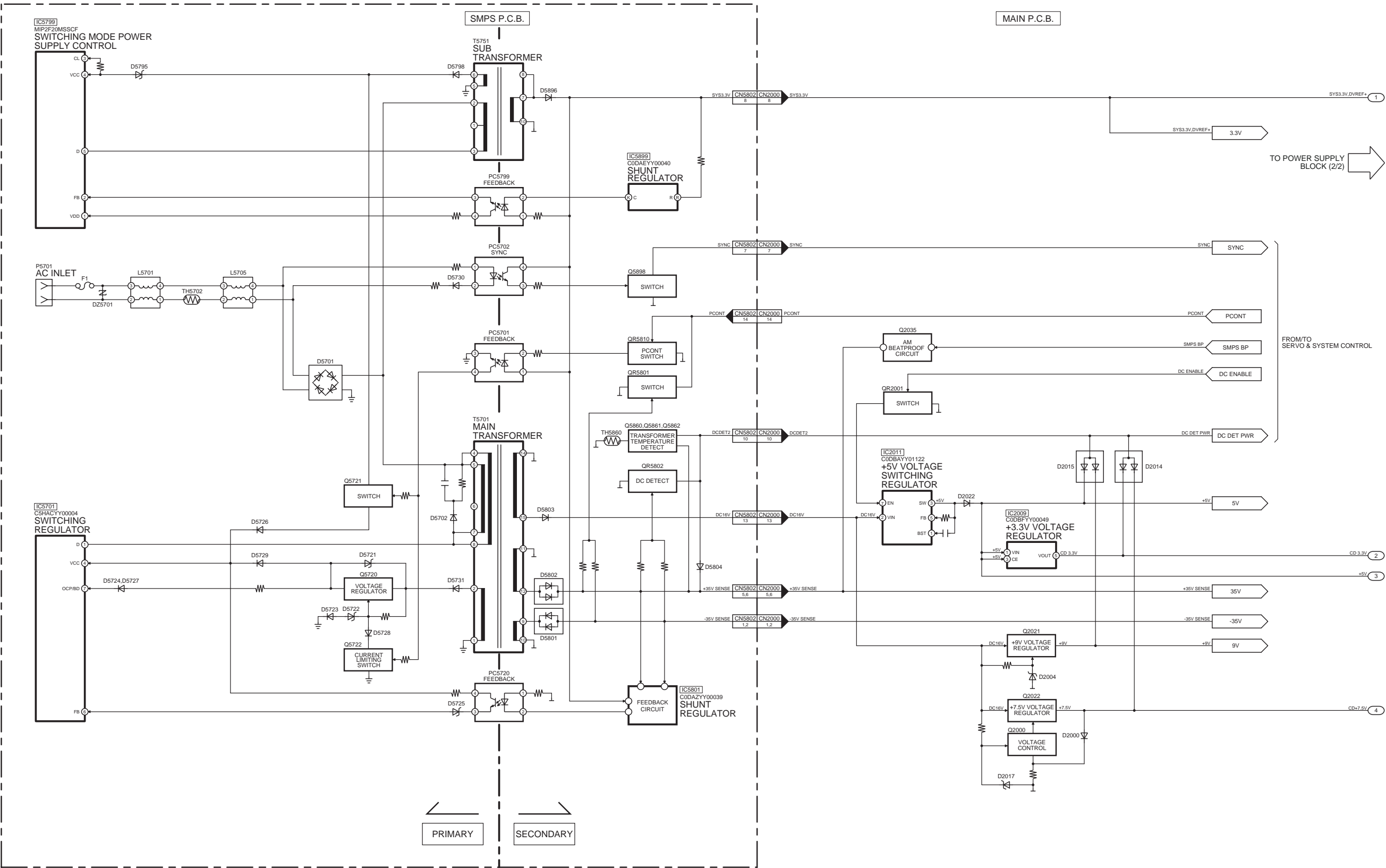
■ System: SC-AKX14P-K

Main Unit: SA-AKX14P-K

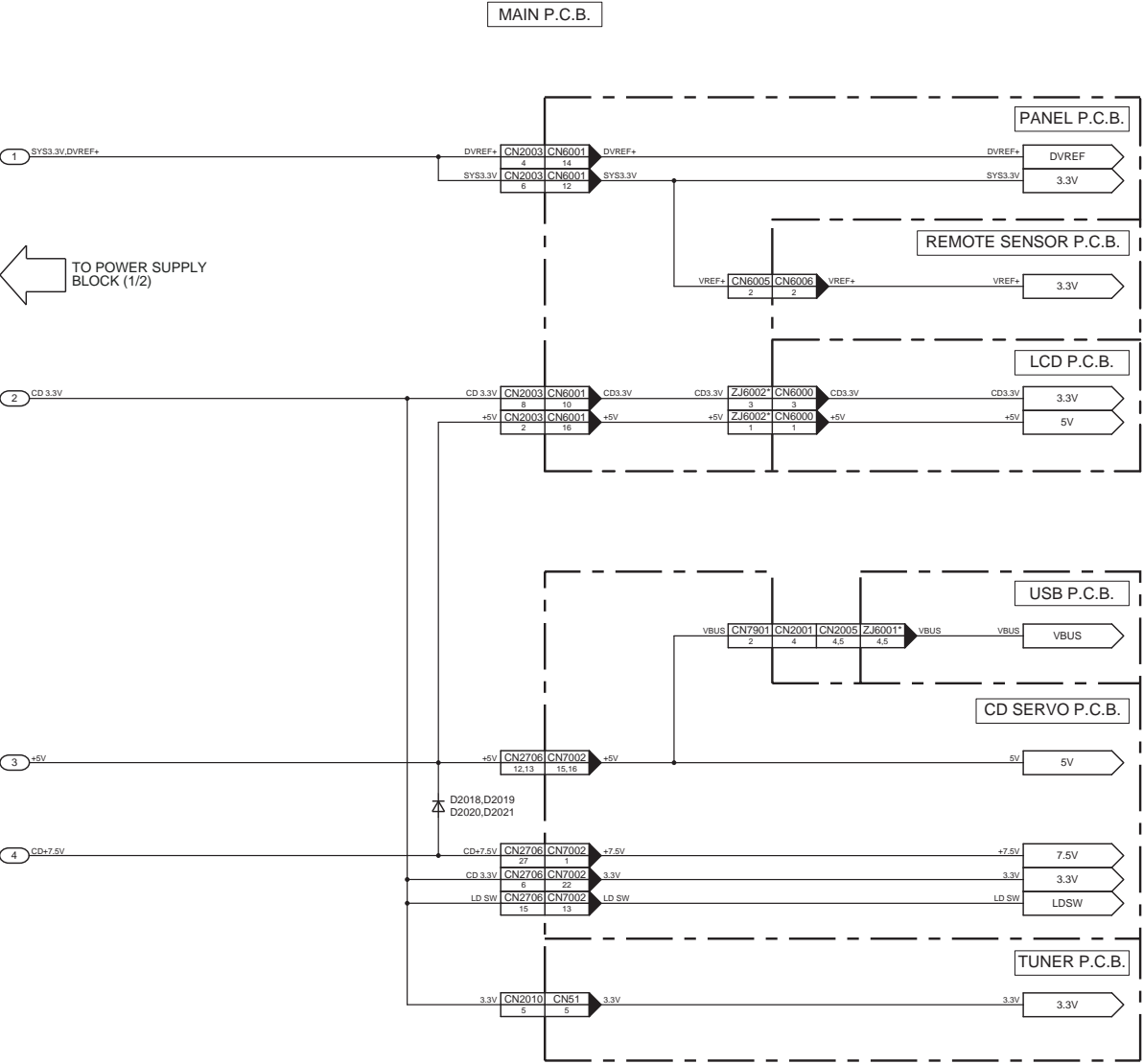
Front Speakers: SB-AKX14P-K

5 Block Diagram

5.1. Power Supply



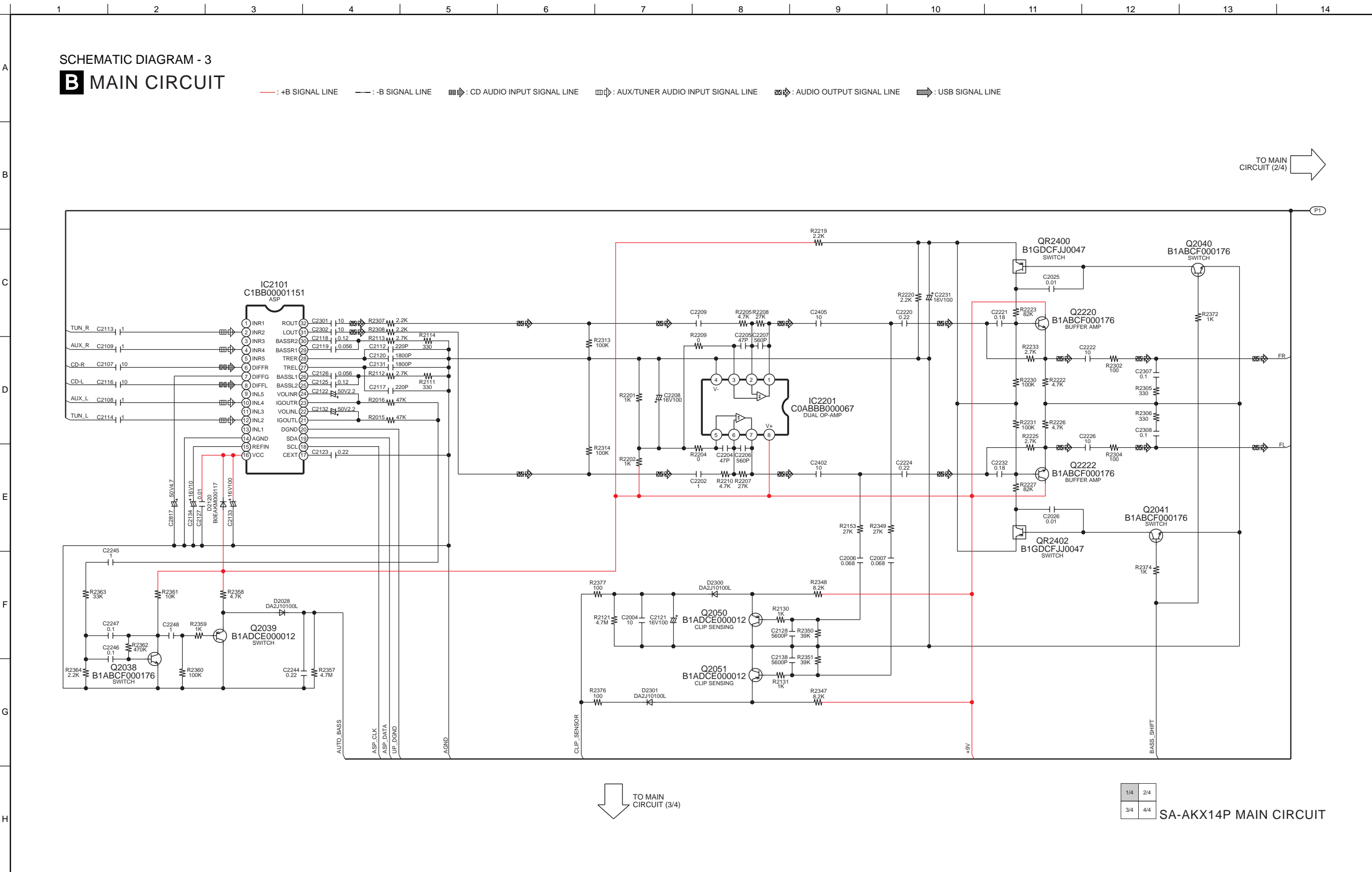
SA-AKX14P POWER SUPPLY (1/2) BLOCK DIAGRAM



SA-AKX14P POWER SUPPLY (2/2) BLOCK DIAGRAM

6 Schematic Diagram

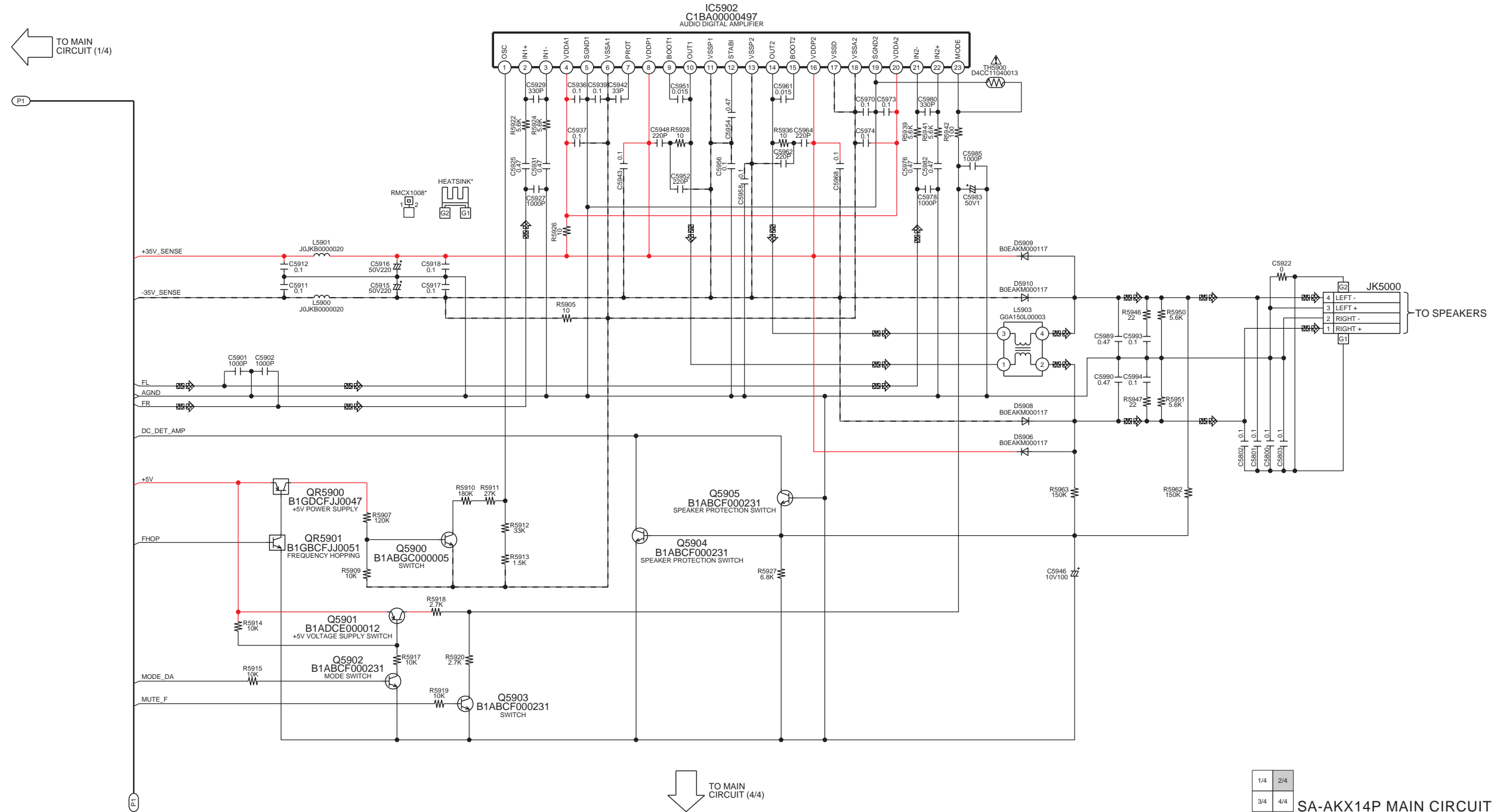
6.1. Main Circuit



SCHEMATIC DIAGRAM - 4

B MAIN CIRCUIT

— : +B SIGNAL LINE — : -B SIGNAL LINE : CD AUDIO INPUT SIGNAL LINE : AUX/TUNER AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : USB SIGNAL LINE



NOTE: " * " REF IS FOR INDICATION ONLY

SCHEMATIC DIAGRAM - 5
B MAIN CIRCUIT

— : +B SIGNAL LINE — : -B SIGNAL LINE : CD AUDIO INPUT SIGNAL LINE : AUX/TUNER AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : USB SIGNAL LINE

↑ TO MAIN
CIRCUIT (1/4)

→ TO MAIN
CIRCUIT (4/4)

TO **A**
CD SERVO
CIRCUIT (CN7002)
IN SCHEMATIC
DIAGRAM - 2

TO **C**
PANEL CIRCUIT
(CN6001)
IN SCHEMATIC
DIAGRAM - 7

FOR DEBUG

NOTE: “*” REF IS FOR INDICATION ONLY

1/4 2/4
3/4 4/4 SA-AKX14P MAIN CIRCUIT

B MAIN CIRCUIT

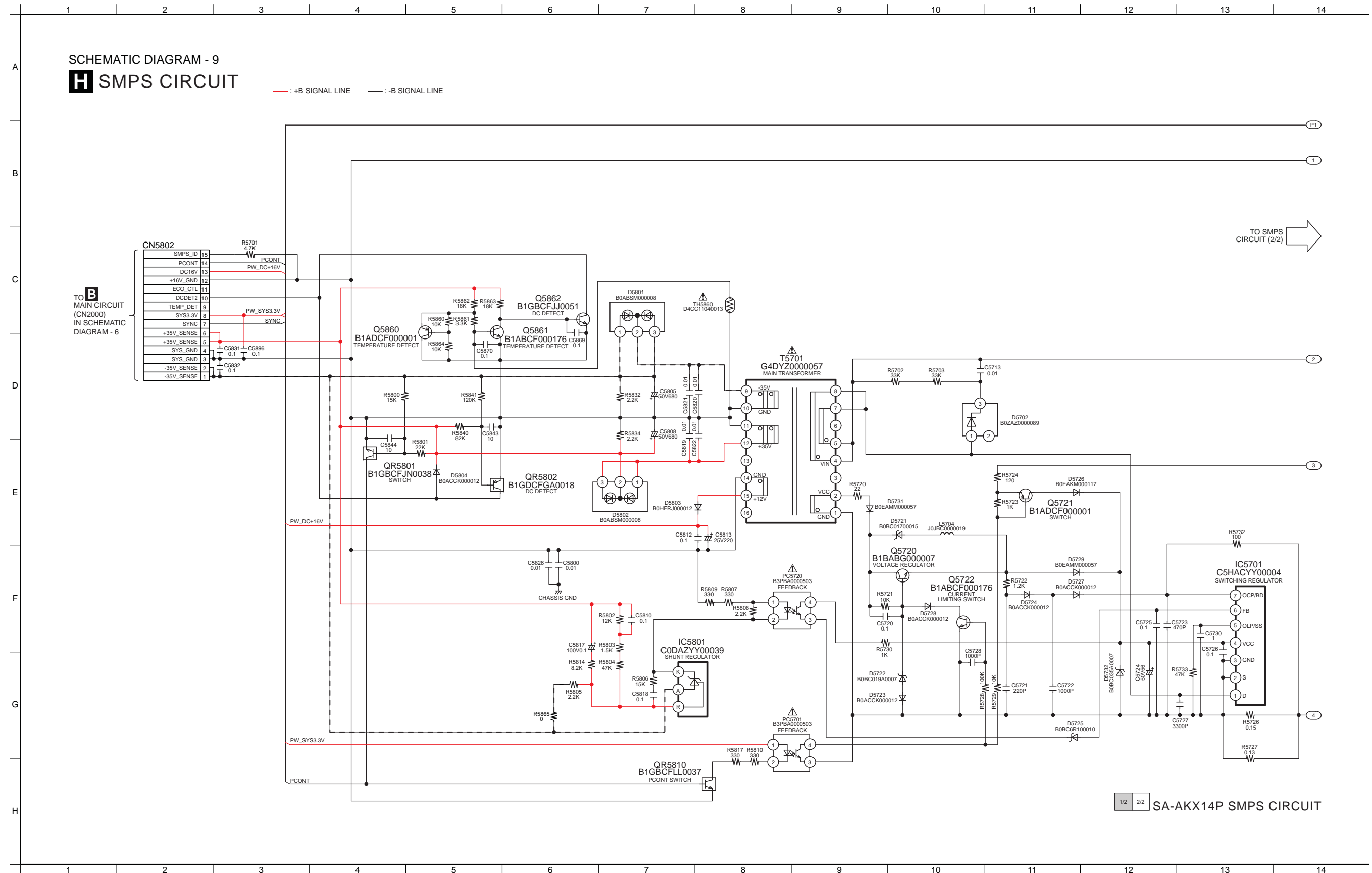
The schematic diagram illustrates the power supply section of a circuit board, featuring several key components and connections:

- Power Input:** The main power input is labeled **P1** at the top left. It branches into **+9V**, **CD+7.5V**, and **PGND** lines.
- Voltage Regulation:**
 - Q2021 B1BACG000048**: A +9V voltage regulator.
 - Q2022 B1BCCC000023**: A +7.5V voltage regulator.
 - Q2000 B1ABDF000026**: A voltage control component.
 - Q2009 C0DBFY000049**: A +3.3V voltage regulator.
 - IC2011 C0DBAYY01122**: A +5V switching voltage regulator.
 - Q2035 B1BABG000007**: A beatproof switch.
- Capacitors:** Numerous capacitors are used for filtering and decoupling, including **C2000**, **C2001**, **C2002**, **C2003**, **C2004**, **C2005**, **C2006**, **C2007**, **C2008**, **C2009**, **C2010**, **C2011**, **C2012**, **C2013**, **C2014**, **C2015**, **C2016**, **C2017**, **C2018**, **C2019**, **C2020**, **C2021**, **C2022**, **C2023**, **C2024**, **C2025**, **C2026**, **C2027**, **C2028**, **C2029**, **C2030**, **C2031**, **C2032**, **C2033**, **C2034**, **C2035**, **C2036**, **C2037**, **C2038**, **C2039**, **C2040**, **C2041**, **C2042**, **C2043**, **C2044**, **C2045**, **C2046**, **C2047**, **C2048**, **C2049**, **C2050**, **C2051**, **C2052**, **C2053**, **C2054**, **C2055**, **C2056**, **C2057**, **C2058**, **C2059**, **C2060**, **C2061**, **C2062**, **C2063**, **C2064**, **C2065**, **C2066**, **C2067**, **C2068**, **C2069**, **C2070**, **C2071**, **C2072**, **C2073**, **C2074**, **C2075**, **C2076**, **C2077**, **C2078**, **C2079**, **C2080**, **C2081**, **C2082**, **C2083**, **C2084**, **C2085**, **C2086**, **C2087**, **C2088**, **C2089**, **C2090**, **C2091**, **C2092**, **C2093**, **C2094**, **C2095**, **C2096**, **C2097**, **C2098**, **C2099**, **C2100**, **C2101**, **C2102**, **C2103**, **C2104**, **C2105**, **C2106**, **C2107**, **C2108**, **C2109**, **C2110**, **C2111**, **C2112**, **C2113**, **C2114**, **C2115**, **C2116**, **C2117**, **C2118**, **C2119**, **C2120**, **C2121**, **C2122**, **C2123**, **C2124**, **C2125**, **C2126**, **C2127**, **C2128**, **C2129**, **C2130**, **C2131**, **C2132**, **C2133**, **C2134**, **C2135**, **C2136**, **C2137**, **C2138**, **C2139**, **C2140**, **C2141**, **C2142**, **C2143**, **C2144**, **C2145**, **C2146**, **C2147**, **C2148**, **C2149**, **C2150**, **C2151**, **C2152**, **C2153**, **C2154**, **C2155**, **C2156**, **C2157**, **C2158**, **C2159**, **C2160**, **C2161**, **C2162**, **C2163**, **C2164**, **C2165**, **C2166**, **C2167**, **C2168**, **C2169**, **C2170**, **C2171**, **C2172**, **C2173**, **C2174**, **C2175**, **C2176**, **C2177**, **C2178**, **C2179**, **C2180**, **C2181**, **C2182**, **C2183**, **C2184**, **C2185**, **C2186**, **C2187**, **C2188**, **C2189**, **C2190**, **C2191**, **C2192**, **C2193**, **C2194**, **C2195**, **C2196**, **C2197**, **C2198**, **C2199**, **C2200**, **C2201**, **C2202**, **C2203**, **C2204**, **C2205**, **C2206**, **C2207**, **C2208**, **C2209**, **C2210**, **C2211**, **C2212**, **C2213**, **C2214**, **C2215**, **C2216**, **C2217**, **C2218**, **C2219**, **C2220**, **C2221**, **C2222**, **C2223**, **C2224**, **C2225**, **C2226**, **C2227**, **C2228**, **C2229**, **C2230**, **C2231**, **C2232**, **C2233**, **C2234**, **C2235**, **C2236**, **C2237**, **C2238**, **C2239**, **C2240**, **C2241**, **C2242**, **C2243**, **C2244**, **C2245**, **C2246**, **C2247**, **C2248**, **C2249**, **C2250**, **C2251**, **C2252**, **C2253**, **C2254**, **C2255**, **C2256**, **C2257**, **C2258**, **C2259**, **C2260**, **C2261**, **C2262**, **C2263**, **C2264**, **C2265**, **C2266**, **C2267**, **C2268**, **C2269**, **C2270**, **C2271**, **C2272**, **C2273**, **C2274**, **C2275**, **C2276**, **C2277**, **C2278**, **C2279**, **C2280**, **C2281**, **C2282**, **C2283**, **C2284**, **C2285**, **C2286**, **C2287**, **C2288**, **C2289**, **C2290**, **C2291**, **C2292**, **C2293**, **C2294**, **C2295**, **C2296**, **C2297**, **C2298**, **C2299**, **C2300**, **C2301**, **C2302**, **C2303**, **C2304**, **C2305**, **C2306**, **C2307**, **C2308**, **C2309**, **C2310**, **C2311**, **C2312**, **C2313**, **C2314**, **C2315**, **C2316**, **C2317**, **C2318**, **C2319**, **C2320**, **C2321**, **C2322**, **C2323**, **C2324**, **C2325**, **C2326**, **C2327**, **C2328**, **C2329**, **C2330**, **C2331**, **C2332**, **C2333**, **C2334**, **C2335**, **C2336**, **C2337**, **C2338**, **C2339**, **C2340**, **C2341**, **C2342**, **C2343**, **C2344**, **C2345**, **C2346**, **C2347**, **C2348**, **C2349**, **C2350**, **C2351**, **C2352**, **C2353**, **C2354**, **C2355**, **C2356**, **C2357**, **C2358**, **C2359**, **C2360**, **C2361**, **C2362**, **C2363**, **C2364**, **C2365**, **C2366**, **C2367**, **C2368**, **C2369**, **C2370**, **C2371**, **C2372**, **C23**

1/4	2/4
3/4	4/4

SA-AKX14P MAIN CIRCUIT

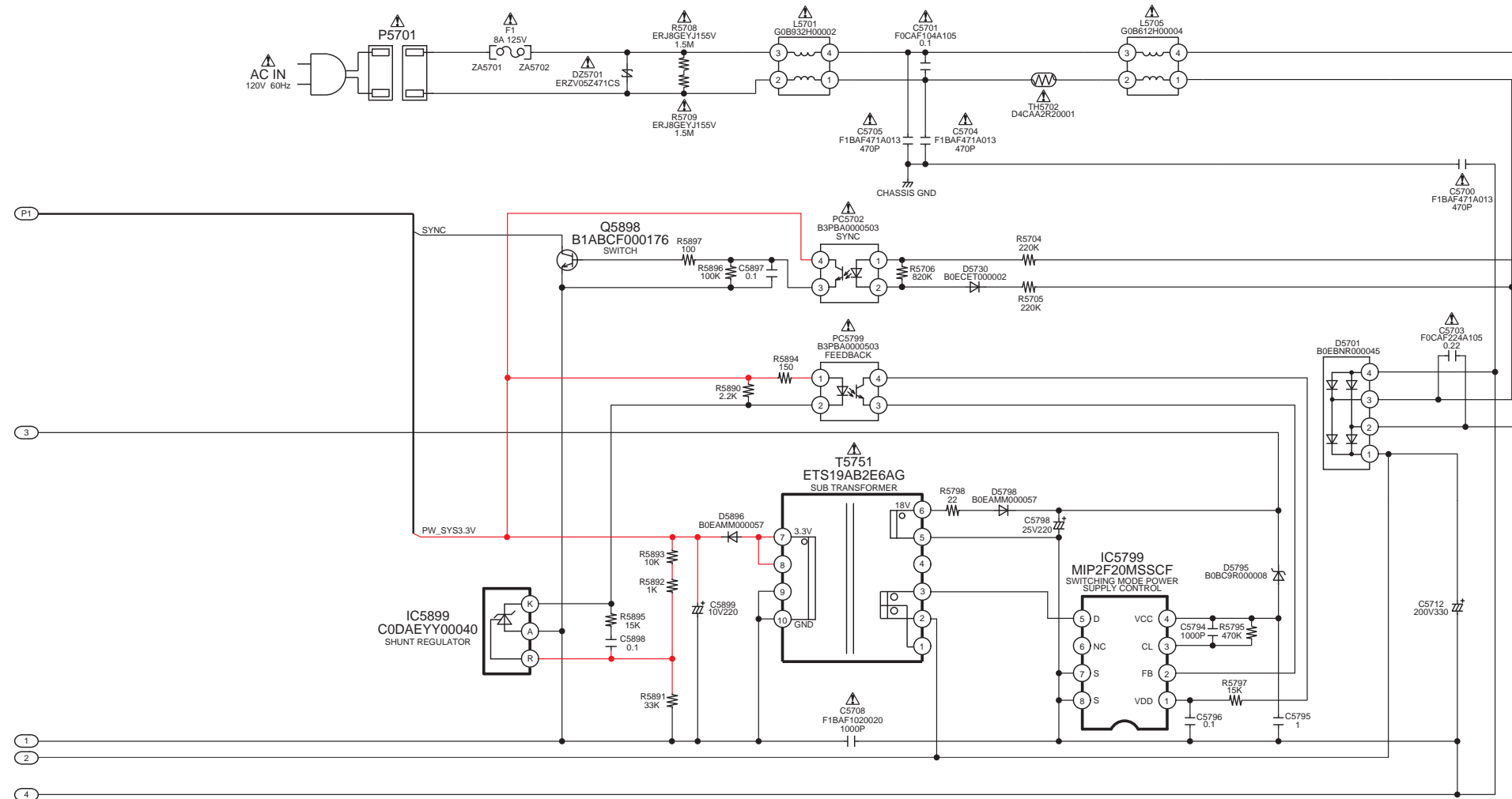
6.2. SMPS Circuit



SCHEMATIC DIAGRAM - 10 **H** SMPS CIRCUIT

— : +B SIGNAL LINE — : -B SIGNAL LINE

TO SMPS
CIRCUIT (1/2)

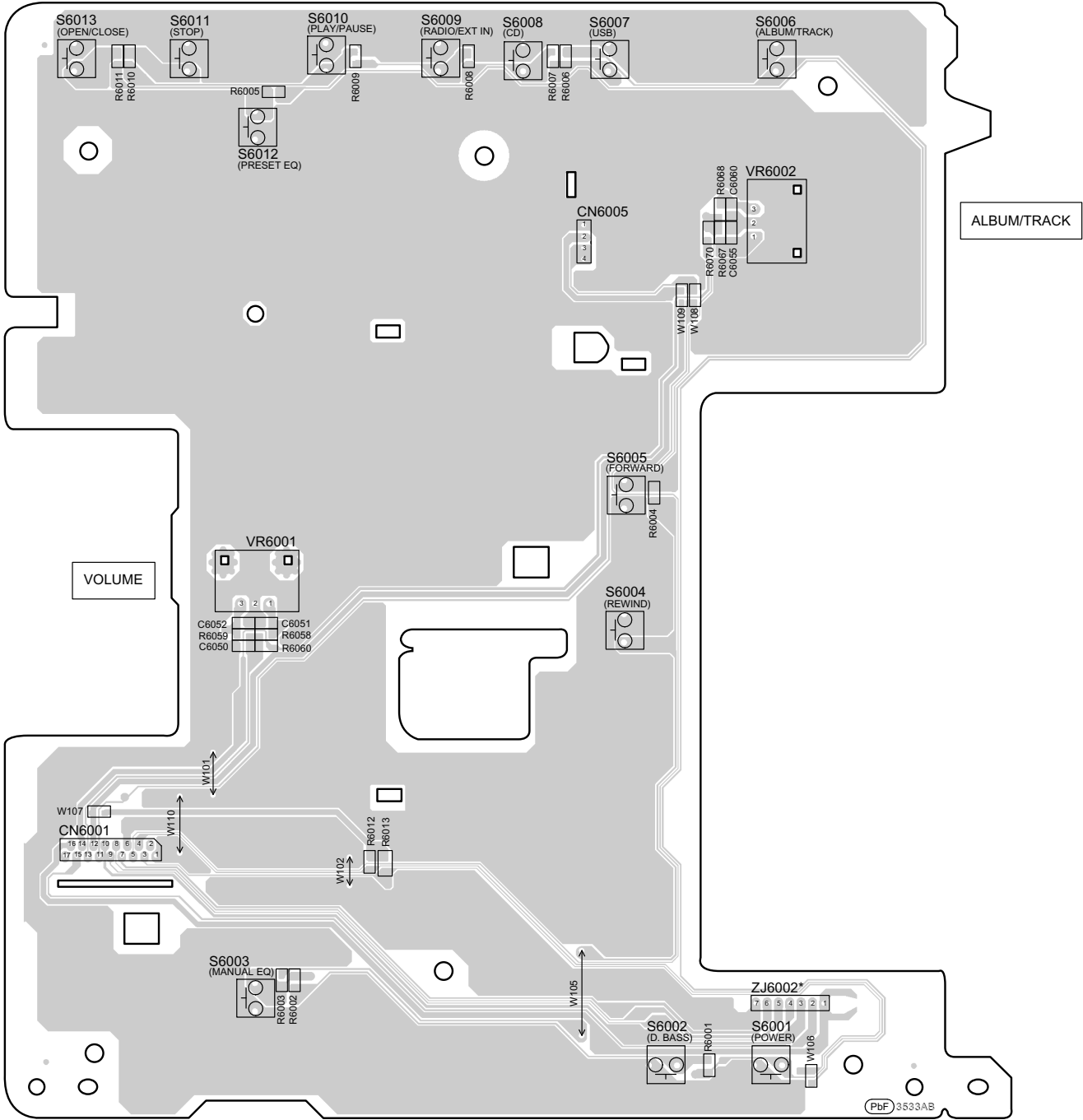


NOTE: " * " REF IS FOR INDICATION ONLY

1/2 2/2 SA-AKX14P SMPS CIRCUIT

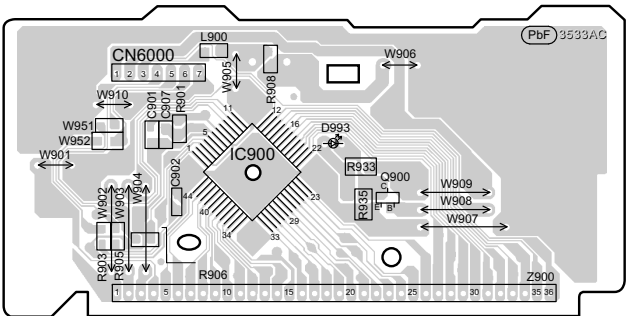
7.2. Panel, LCD, Remote Sensor & USB P.C.B.

C PANEL P.C.B. (REP4743EB)

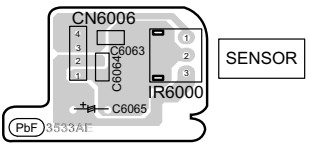


NOTE: " * " REF IS FOR INDICATION ONLY.

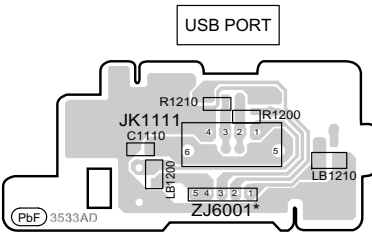
D LCD P.C.B. (REP4743EC)



E REMOTE SENSOR P.C.B. (REP4743EE)



F USB P.C.B. (REP4743ED)



SA-AKX14P
PANEL / LCD / REMOTE SENSOR / USB P.C.B.

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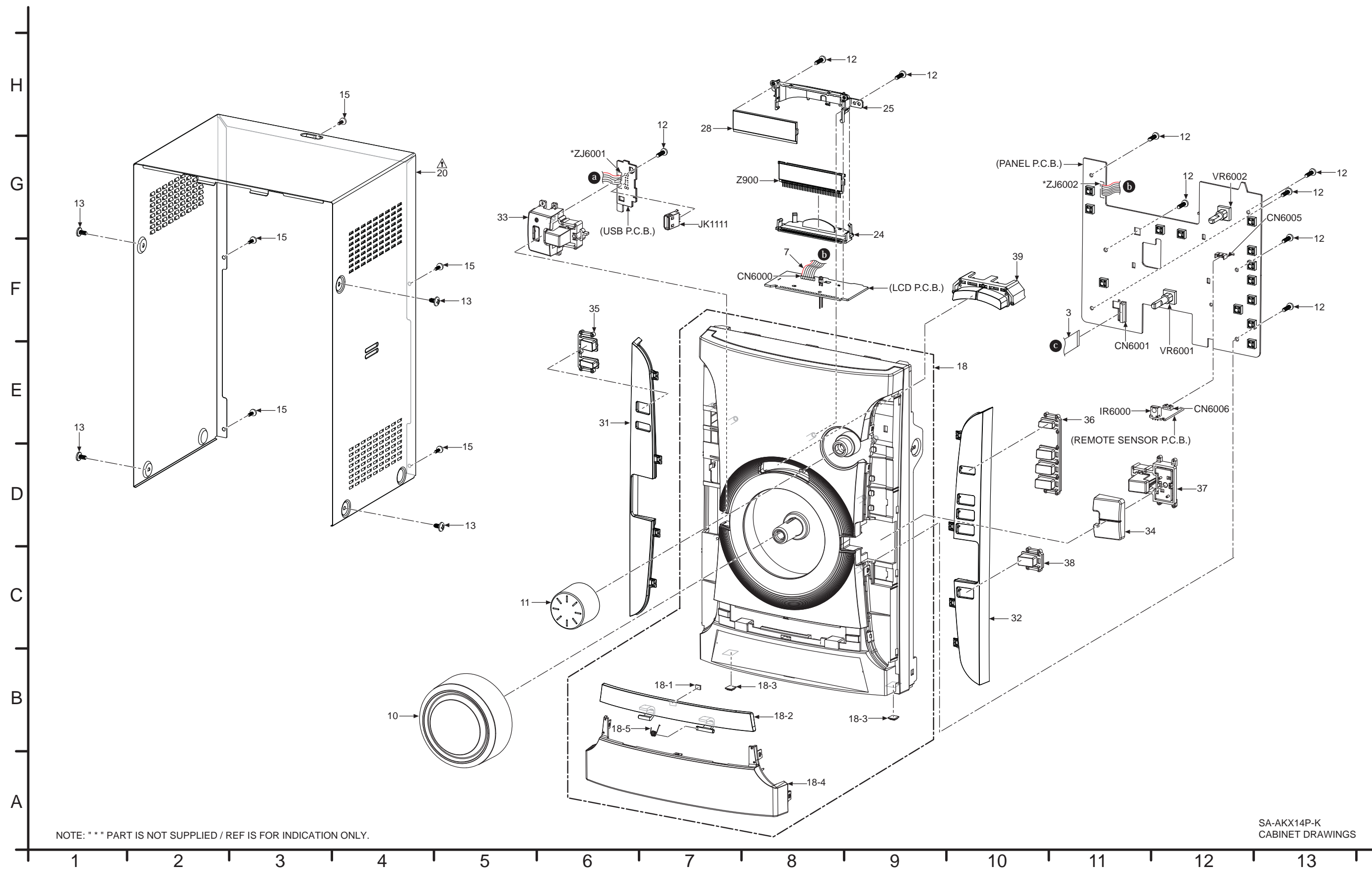
12

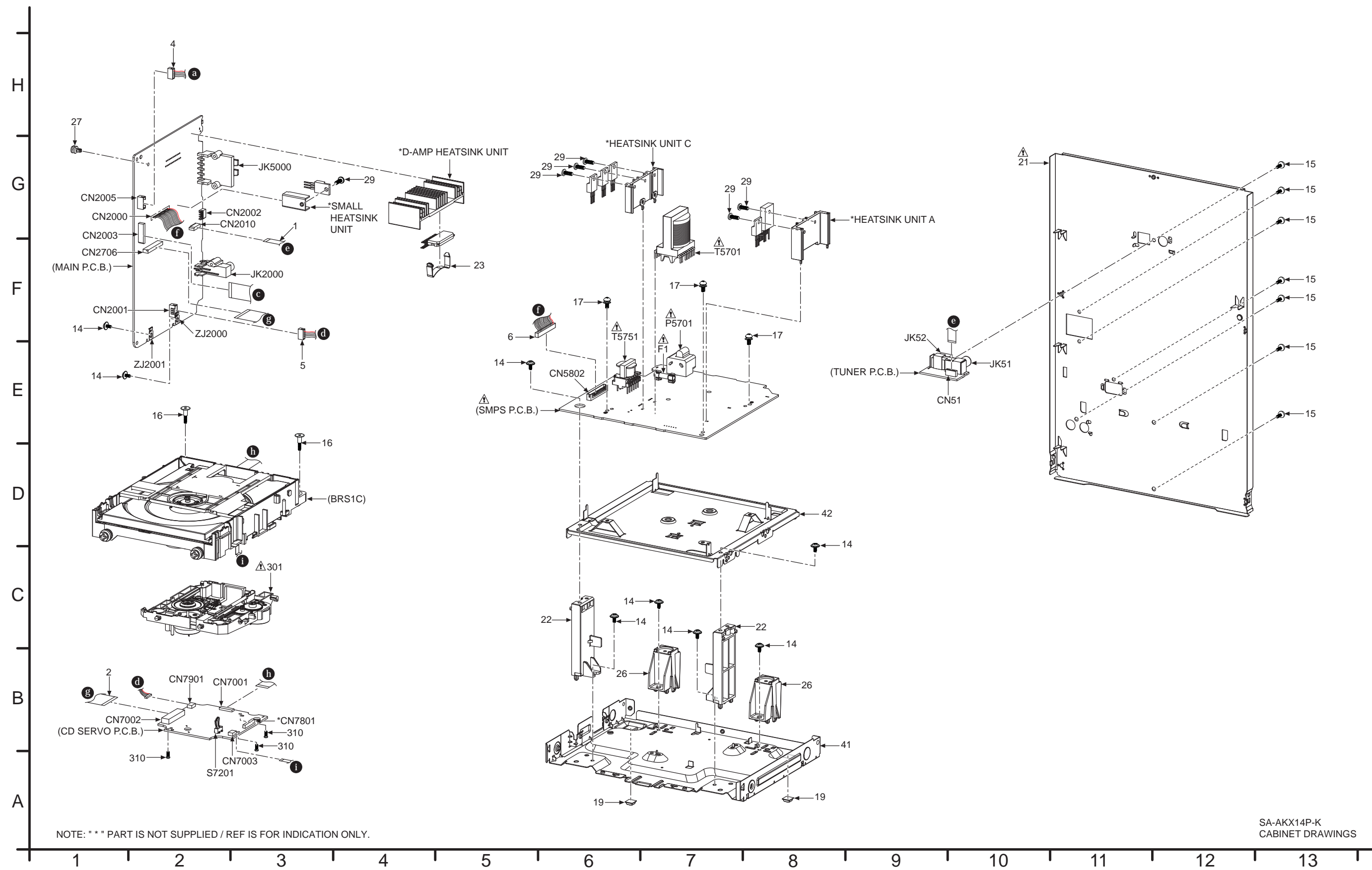
13

8 Exploded View and Replacement Parts List

8.1. Exploded View and Mechanical Replacement Parts List

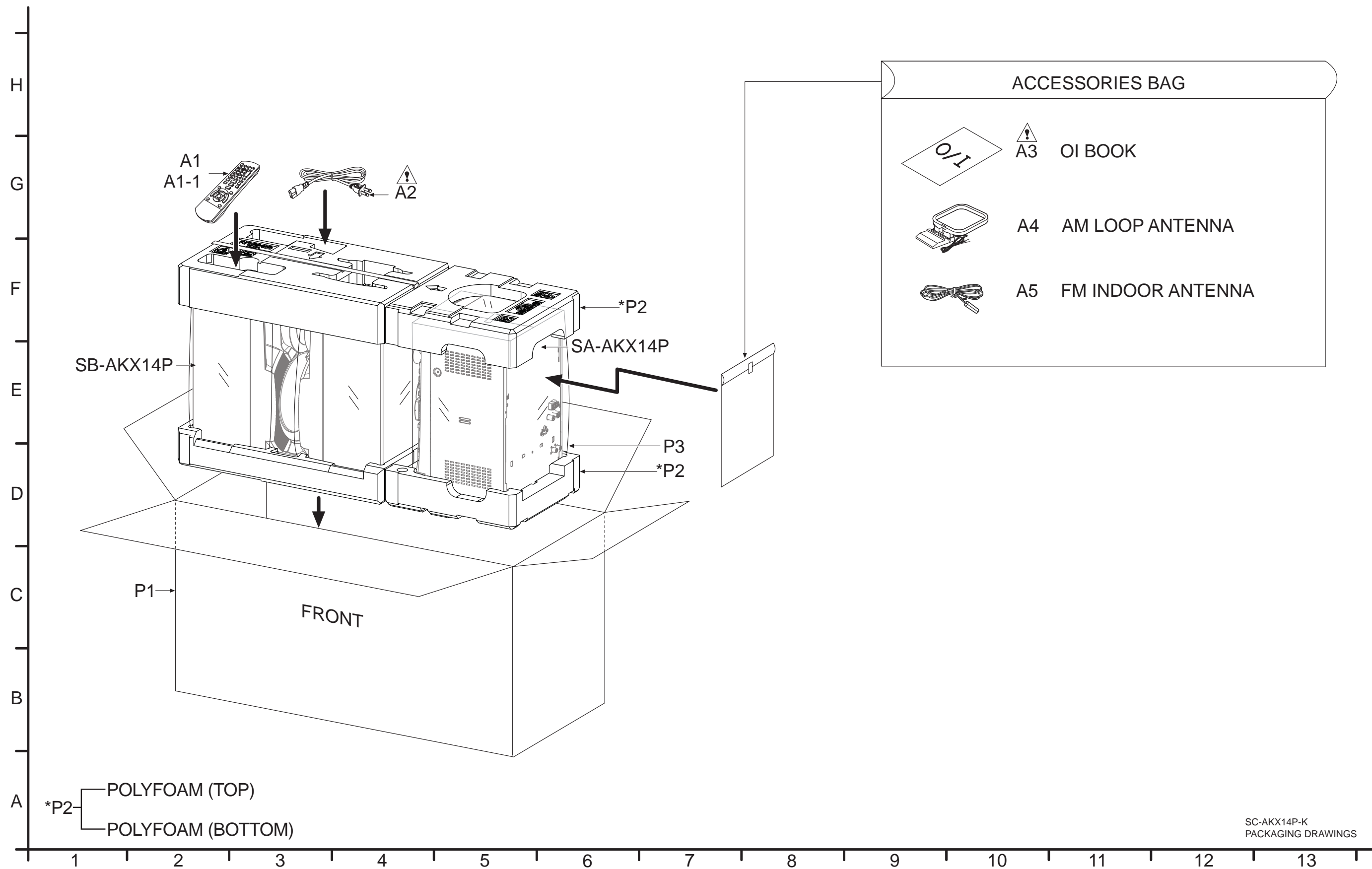
8.1.1. Cabinet Parts Location





SA-AKX14P-K
CABINET DRAWINGS

8.1.2. Packaging



8.1.3. Mechanical Replacement Parts List

Important Safety Notice

Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

RTL (Retention Time Limited)

Note: The marking (RTL) indicates that the Retention Time is Limited for this item.

After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

Note:

- When replacing any of these components, be sure to use only manufacturer's specified parts shown in the replacement part list.
- The parenthesized indications on the Remarks column specify the destination & product color (Refer to the cover page for the information).
- Parts without these indications shall be used for all areas.
- This product uses a laser diode. Refer to "Precaution of Laser Diode".
- All parts mentioned are supplied by PAVCSG unless indicated likewise.
- Parts mentioned [SPG] in the Remarks column are supplied by PAVC-CSG.
- Reference for O/I book languages are as follows:

Ar:	Arabic	Du:	Dutch	It:	Italian	Sp:	Spanish
Cf:	Canadian French	En:	English	Ko:	Korean	S:	Swedish
Cz:	Czech	Fr:	French	Po:	Polish	Co:	Traditional Chinese
Da:	Danish	Ge:	German	Ru:	Russian	Cn:	Simplified Chinese
Pe:	Persian	Ur:	Ukraine	Pr:	Portuguese		

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			CABINET AND CHASSIS		
	1	REE1693	9P FFC (TUNER-MAIN)	1	
	2	REEX1259	27P FFC (MAIN-CD SERVO)	1	
	3	REEX1263	17P FFC (MAIN-PANEL)	1	
	4	REX1472	5P CABLE WIRE (USB-MAIN)	1	
	5	REX1473	5P CABLE WIRE (CD SERVO - MAIN)	1	
	6	REX1534	15P CABLE WIRE (MAIN-SMPS)	1	
	7	REX1535	7P CABLE WIRE (PANEL-LCD)	1	
	10	RGW0428-S	VOLUME KNOB	1	
	11	RGW0429-K	SKIP KNOB	1	
	12	RHD26046-L	SCREW	9	
	13	RHD30007-K2J	SCREW	4	
	14	RHD30111-31	SCREW	8	
	15	RHD30119-S	SCREW	12	
	16	RHD3031008	SCREW	2	
	17	RHD330005-J	SCREW	3	
	18	RFKGAAX14P-K	FRONT PANEL ASS'Y	1	
	18-1	RMGX0033A-K	CD LID CUSHION	1	
	18-2	RGK2307-K1	CD LID	1	
	18-3	RKAX0042-K	LEG CUSHION	2	
	18-4	RKW0984-K1	LCD WINDOW	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	18-5	RMB0930	CD LID SPRING	1	
	19	RKAX0042-K	LEG CUSHION	2	
Δ	20	RKMX1011-K1	TOP CABINET	1	
Δ	21	RGRX1008K-F	REAR PANEL	1	
	22	RMAX1007	CHASSIS SUPPORT	2	
	23	RMXX0035	HEAT SINK CLIP	1	
	24	RMNX1011-W2	LCD HOLDER BASE	1	
	25	RMNX1012A-W2	LCD HOLDER COVER	1	
	26	RMXX1088	MECHA HOLDER	2	
	27	RMX0444	PCB SPACER	1	
	28	RMXX1008-2	LCD DIFFUSER SHEET	1	
	29	XTB3+10JFJ	SCREW	6	
	31	RGK2308-K1	SIDE ORNAMENT L	1	
	32	RGK2309-K	SIDE ORNAMENT R	1	
	33	RGK2325-S	USB ORNAMENT	1	
	34	RGK2328-S	PLAY BUTTON ORNAMENT	1	
	35	RGU2761-K	POWER BUTTON	1	
	36	RGU2762-K	FUNCTION BUTTON	1	
	37	RGU2763A-S	PUSH/PLAY BUTTON	1	
	38	RGU2765-K	CD OPEN CLOSE BUTTON	1	
	39	RGU2792-K	SKIP BUTTON	1	
	41	RMXX1031A-1	BOTTOM CHASSIS	1	
	42	RMXX1037-3	INNER CHASSIS	1	
			TRAVERSE DECK		
Δ	301	RAEX1033Z-V	TRAVERSE ASS'Y	1	
	310	XTN2+6GFJ	SCREW	3	
			PACKING MATERIALS		

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	P1	RPG0A44	PACKING CASE	1	
	P2	RPN2348	POLYFOAM	1	
	P3	RPF0198	MIRAMAT SHEET	1	
			ACCESSORIES		
	A1	N2QAYB000636	REMOTE CONTROL	1	
	A1-1	RKK-PM500EBK	R/C BATTERY COVER	1	
⚠	A2	K2CB2YY00059	AC CORD	1	
⚠	A3	RQT9691-1P	O/I BOOK (En)	1	
	A4	N1DY000011	AM LOOP ANTENNA	1	
	A5	RSAX0002	FM INDOOR ANTENNA	1	

8.2. Electrical Replacement Parts List

Important Safety Notice

Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

RTL (Retention Time Limited)

Note: The marking (RTL) indicates that the Retention Time is Limited for this item.

After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

Note:

- When replacing any of these components, be sure to use only manufacturer's specified parts shown in the replacement part list.
- The parenthesized indications on the Remarks column specify the destination & product color (Refer to the cover page for the information).
- Parts without these indications shall be used for all areas.
- This product uses a laser diode. Refer to "Precaution of Laser Diode".
- Capacitor value are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF), F=Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1000 (OHM).
- All parts mentioned are supplied by PAVCSG unless indicated likewise.
- Parts mentioned [SPG] in the Remarks column are supplied by PAVC-CSG.

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			PRINTED CIRCUIT BOARDS		
	PCB1	REPX0918C	CD SERVO P.C.B.	1	(RTL)
	PCB2	REP4743AA	MAIN P.C.B.	1	(RTL)
	PCB3	REP4743AB	PANEL P.C.B.	1	(RTL)
	PCB4	REP4743AC	LCD P.C.B.	1	(RTL)
	PCB5	REP4743AD	USB P.C.B.	1	(RTL)
	PCB6	REP4743AE	REMOTE SENSOR P.C.B.	1	(RTL)
	PCB7	REP4780A	TUNER P.C.B.	1	
Δ	PCB8	REP4783AA	SMPS P.C.B.	1	(RTL)
			INTEGRATED CIRCUITS		
	IC2003	RFKWMAX14M0	IC	1	
	IC2006	C3EBEY000037	IC	1	
	IC2009	C0DBFY000049	IC	1	
	IC2011	C0DBAY01122	IC	1	
	IC2101	C1BB00001151	IC	1	
	IC2201	C0ABBB000067	IC	1	
	IC5701	C5HACY000004	IC	1	
	IC5799	MIP2F20MSSCF	IC	1	
	IC5801	C0DAZYY00039	IC	1	
	IC5899	C0DAEYY00040	IC	1	
	IC5902	C1BA00000497	IC	1	
			TRANSISTORS		
	Q2000	B1ABDF000026	TRANSISTOR	1	
	Q2011	B1GBCFL0037	TRANSISTOR	1	
	Q2021	B1BACG000048	TRANSISTOR	1	
	Q2022	B1BCCG000023	TRANSISTOR	1	
	Q2035	B1BABG000007	TRANSISTOR	1	
	Q2038	B1ABCF000176	TRANSISTOR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	Q2039	B1ADCE000012	TRANSISTOR	1	
	Q2040	B1ABCF000176	TRANSISTOR	1	
	Q2041	B1ABCF000176	TRANSISTOR	1	
	Q2050	B1ADCE000012	TRANSISTOR	1	
	Q2051	B1ADCE000012	TRANSISTOR	1	
	Q2220	B1ABCF000176	TRANSISTOR	1	
	Q2222	B1ABCF000176	TRANSISTOR	1	
	Q5720	B1BAG0000007	TRANSISTOR	1	
	Q5721	B1ADCF000001	TRANSISTOR	1	
	Q5722	B1ABCF000176	TRANSISTOR	1	
	Q5860	B1ADCF000001	TRANSISTOR	1	
	Q5861	B1ABCF000176	TRANSISTOR	1	
	Q5862	B1GBCFJJ0051	TRANSISTOR	1	
	Q5898	B1ABCF000176	TRANSISTOR	1	
	Q5900	B1ABGC000005	TRANSISTOR	1	
	Q5901	B1ADCE000012	TRANSISTOR	1	
	Q5902	B1ABCF000231	TRANSISTOR	1	
	Q5903	B1ABCF000231	TRANSISTOR	1	
	Q5904	B1ABCF000231	TRANSISTOR	1	
	Q5905	B1ABCF000231	TRANSISTOR	1	
	QR2001	B1GBCFJJ0051	TRANSISTOR	1	
	QR2400	B1GDCFJJ0047	TRANSISTOR	1	
	QR2402	B1GDCFJJ0047	TRANSISTOR	1	
	QR5801	B1GBCFJN0038	TRANSISTOR	1	
	QR5802	B1GDCFGA0018	TRANSISTOR	1	
	QR5810	B1GBCFL0037	TRANSISTOR	1	
	QR5900	B1GDCFJJ0047	TRANSISTOR	1	
	QR5901	B1GBCFJJ0051	TRANSISTOR	1	
			DIODES		
	D2000	DA2J10100L	DIODE	1	
	D2001	DA2J10100L	DIODE	1	
	D2002	DZ2J033M0L	DIODE	1	
	D2003	DZ2J033M0L	DIODE	1	
	D2004	DZ2J100M0L	DIODE	1	
	D2008	DA2J10100L	DIODE	1	
	D2014	B0ADDJ000032	DIODE	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	D2015	B0ADDJ000032	DIODE	1	
	D2017	DZ2J07500L	DIODE	1	
	D2018	B0EAMM000057	DIODE	1	
	D2019	B0EAMM000057	DIODE	1	
	D2020	B0EAMM000057	DIODE	1	
	D2021	B0EAKM000117	DIODE	1	
	D2022	B0EAKM000117	DIODE	1	
	D2028	DA2J10100L	DIODE	1	
	D2120	B0EAKM000117	DIODE	1	
	D2300	DA2J10100L	DIODE	1	
	D2301	DA2J10100L	DIODE	1	
	D5701	B0EBNR000045	DIODE	1	
	D5702	B0ZAZ0000089	DIODE	1	
	D5721	B0BC01700015	DIODE	1	
	D5722	B0BC019A0007	DIODE	1	
	D5723	B0ACCK000012	DIODE	1	
	D5724	B0ACCK000012	DIODE	1	
	D5725	B0BC6R100010	DIODE	1	
	D5726	B0EAKM000117	DIODE	1	
	D5727	B0ACCK000012	DIODE	1	
	D5728	B0ACCK000012	DIODE	1	
	D5729	B0EAMM000057	DIODE	1	
	D5730	B0ECET000002	DIODE	1	
	D5731	B0EAMM000057	DIODE	1	
	D5732	B0BC035A0007	DIODE	1	
	D5795	B0BC9R000008	DIODE	1	
	D5798	B0EAMM000057	DIODE	1	
	D5801	B0ABSM000008	DIODE	1	
	D5802	B0ABSM000008	DIODE	1	
	D5803	B0HFRJ000012	DIODE	1	
	D5804	B0ACCK000012	DIODE	1	
	D5896	B0EAMM000057	DIODE	1	
	D5906	B0EAKM000117	DIODE	1	
	D5908	B0EAKM000117	DIODE	1	
	D5909	B0EAKM000117	DIODE	1	
	D5910	B0EAKM000117	DIODE	1	
△	DZ5701	ERZVA5Z471	ZNR	1	
			CONNECTORS		
	CN2000	K1YZ15000001	15P CONNECTOR	1	
	CN2001	K1KA05AA0193	5P CONNECTOR	1	
	CN2002	K1MY06B00012	6P CONNECTOR	1	
	CN2003	K1MY17AA0124	17P CONNECTOR	1	
	CN2005	K1KA05AA0193	5P CONNECTOR	1	
	CN2010	K1MY09AA0124	9P CONNECTOR	1	
	CN2706	K1MY27AA0124	27P CONNECTOR	1	
	CN5802	K1KA15AA0194	15P CONNECTOR	1	
			COILS AND INDUC-TORS		
	L2000	G0A330ZA0045	CHOKE COIL	1	
△	L5701	G0B932H00002	LINE FILTER	1	
	L5704	J0JBC0000019	INDUCTOR	1	
	L5705	G0B612H00004	LINE FILTER	1	
	L5900	J0JKB0000020	INDUCTOR	1	
	L5901	J0JKB0000020	INDUCTOR	1	
	L5903	G0A150L00003	CHOKE COIL	1	
	LB2100	J0JYC0000339	INDUCTOR	1	
			TRANSFORMERS		
△	T5701	G4DYZ0000057	MAIN TRANSFORMER	1	
△	T5751	ETS19AB2E6AG	SUB TRANSFORMER	1	
			PHOTO COUPLERS		
△	PC5701	B3PBA0000503	PHOTO COUPLER	1	
△	PC5702	B3PBA0000503	PHOTO COUPLER	1	
△	PC5720	B3PBA0000503	PHOTO COUPLER	1	
△	PC5799	B3PBA0000503	PHOTO COUPLER	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			EARTH PLATES		
	ZJ2000	K9ZZ00001279	EARTH PLATE	1	
	ZJ2001	K9ZZ00001279	EARTH PLATE	1	
			OSCILLATORS		
	X2000	H0A327200181	CRYSTAL OSCILLA-TOR	1	
	X2001	H2B800400007	CRYSTAL OSCILLA-TOR	1	
			FUSE		
△	F1	K5D802APA008	FUSE	1	
			FUSE HOLDERS		
	ZA5701	K3GE1ZZ00001	FUSE HOLDER	1	
	ZA5702	K3GE1ZZ00001	FUSE HOLDER	1	
			THERMISTORS		
△	TH5702	D4CAA2R20001	THERMISTOR	1	
△	TH5860	D4CC11040013	THERMISTOR	1	
△	TH5900	D4CC11040013	THERMISTOR	1	
			JACKS		
	JK2000	K2HA204B0153	JK AUX IN	1	
	JK5000	K4AC04B00030	JK SPEAKER	1	
△	P5701	K2AB2B000007	AC INLET	1	
			CHIP JUMPERS		
	K8	D0GBR00JA008	0 1/10W	1	
	LB2010	D0GBR00JA008	0 1/10W	1	
	W5301	D0GDR00JA017	0 1/8W	1	
	W5302	D0GDR00JA017	0 1/8W	1	
	W5303	D0GDR00JA017	0 1/8W	1	
	W5305	D0GBR00JA008	0 1/10W	1	
	W5306	D0GBR00JA008	0 1/10W	1	
	W5307	D0GDR00JA017	0 1/8W	1	
	W5308	D0GBR00JA008	0 1/10W	1	
	W5309	D0GDR00JA017	0 1/8W	1	
	W5312	D0GBR00JA008	0 1/10W	1	
	W5601	D0GBR00JA008	0 1/10W	1	
	W5602	D0GDR00JA017	0 1/8W	1	
	W5603	D0GDR00JA017	0 1/8W	1	
	W5604	D0GBR00JA008	0 1/10W	1	
			RESISTORS		
	R2000	D0GBR00JA008	0 1/10W	1	
	R2001	D0GB473JA008	47K 1/10W	1	
	R2002	D0GB473JA008	47K 1/10W	1	
	R2003	D0GBR00JA008	0 1/10W	1	
	R2004	D0GBR00JA008	0 1/10W	1	
	R2010	D0GB102JA008	1K 1/10W	1	
	R2011	D0GB102JA008	1K 1/10W	1	
	R2015	D0GB473JA008	47K 1/10W	1	
	R2016	D0GB473JA008	47K 1/10W	1	
	R2017	ERJ3RBD4701V	4.7K 1/16W	1	
	R2018	D0GB102JA008	1K 1/10W	1	
	R2028	D0GB101JA008	100 1/10W	1	
	R2029	D0GB181JA008	180 1/10W	1	
	R2065	D0GB101JA008	100 1/10W	1	
	R2066	D0GD101JA017	100 1/8W	1	
	R2067	D0GD101JA017	100 1/8W	1	
	R2069	D0GB102JA008	1K 1/10W	1	
	R2070	D0GB101JA008	100 1/10W	1	
	R2071	D0GB101JA008	100 1/10W	1	
	R2074	D0GB101JA008	100 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R2076	D0GB102JA008	1K 1/10W	1	
	R2084	D0GB104JA008	100K 1/10W	1	
	R2085	D0GB154JA008	150K 1/10W	1	
	R2093	D0GB392JA008	3.9K 1/10W	1	
	R2094	D0GB392JA008	3.9K 1/10W	1	
	R2095	D0GB473JA008	47K 1/10W	1	
	R2096	D0GD473JA017	47K 1/8W	1	
	R2098	D0GB472JA008	4.7K 1/10W	1	
	R2102	D0GB472JA008	4.7K 1/10W	1	
	R2103	D0GB332JA008	3.3K 1/10W	1	
	R2104	D0GB332JA008	3.3K 1/10W	1	
	R2105	D0GB682JA008	6.8K 1/10W	1	
	R2107	D0GB682JA008	6.8K 1/10W	1	
	R2111	D0GB331JA008	330 1/10W	1	
	R2112	D0GB272JA008	2.7K 1/10W	1	
	R2113	D0GB272JA008	2.7K 1/10W	1	
	R2114	D0GB331JA008	330 1/10W	1	
	R2117	D0GB101JA008	100 1/10W	1	
	R2120	D0GB101JA008	100 1/10W	1	
	R2121	D0GB475JA008	4.7M 1/10W	1	
	R2123	D0GB564JA008	560K 1/10W	1	
	R2126	D0GB101JA008	100 1/10W	1	
	R2129	D0GB101JA008	100 1/10W	1	
	R2130	D0GB102JA008	1K 1/10W	1	
	R2131	D0GB102JA008	1K 1/10W	1	
	R2136	D0GBR00JA008	0 1/10W	1	
	R2140	D0GBR00JA008	0 1/10W	1	
	R2153	D0GB273JA008	27K 1/10W	1	
	R2156	D0GB101JA008	100 1/10W	1	
	R2159	D0GB101JA008	100 1/10W	1	
	R2163	D0GB102JA008	1K 1/10W	1	
	R2164	D0GB101JA008	100 1/10W	1	
	R2165	D0GB102JA008	1K 1/10W	1	
	R2166	D0GB101JA008	100 1/10W	1	
	R2173	D0GB153JA008	15K 1/10W	1	
	R2174	D0GB103JA008	10K 1/10W	1	
	R2175	D0GB103JA008	10K 1/10W	1	
	R2177	D0GB153JA008	15K 1/10W	1	
	R2178	D0GB103JA008	10K 1/10W	1	
	R2182	D0GB103JA008	10K 1/10W	1	
	R2185	D0GB103JA008	10K 1/10W	1	
	R2189	D0GD473JA017	47K 1/8W	1	
	R2195	D0GB101JA008	100 1/10W	1	
	R2196	D0GB102JA008	1K 1/10W	1	
	R2197	D0GD101JA017	100 1/8W	1	
	R2198	D0GB102JA008	1K 1/10W	1	
	R2201	D0GB102JA008	1K 1/10W	1	
	R2202	D0GB102JA008	1K 1/10W	1	
	R2204	D0GBR00JA008	0 1/10W	1	
	R2205	D0GB472JA008	4.7K 1/10W	1	
	R2207	D0GB273JA008	27K 1/10W	1	
	R2208	D0GB273JA008	27K 1/10W	1	
	R2209	D0GBR00JA008	0 1/10W	1	
	R2210	D0GB472JA008	4.7K 1/10W	1	
	R2218	D0GBR00JA008	0 1/10W	1	
	R2219	D0GB222JA008	2.2K 1/10W	1	
	R2220	D0GB222JA008	2.2K 1/10W	1	
	R2222	D0GB472JA008	4.7K 1/10W	1	
	R2223	D0GB823JA008	82K 1/10W	1	
	R2225	D0GB272JA008	2.7K 1/10W	1	
	R2226	D0GB472JA008	4.7K 1/10W	1	
	R2227	D0GB823JA008	82K 1/10W	1	
	R2229	D0GD103JA017	10K 1/8W	1	
	R2230	D0GB104JA008	100K 1/10W	1	
	R2231	D0GB104JA008	100K 1/10W	1	
	R2232	D0GB103JA008	10K 1/10W	1	
	R2233	D0GB272JA008	2.7K 1/10W	1	
	R2234	D0GB472JA008	4.7K 1/10W	1	
	R2235	D0GB223JA008	22K 1/10W	1	
	R2236	D0GB103JA008	10K 1/10W	1	
	R2237	ERJ3RBD563V	56K 1/16W	1	
	R2238	D0GBR00JA008	0 1/10W	1	
	R2239	ERJ3RBD103V	10K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R2240	D0GB220JA008	22 1/10W	1	
	R2271	D0GB101JA008	100 1/10W	1	
	R2278	D0GB681JA008	680 1/10W	1	
	R2302	D0GB101JA008	100 1/10W	1	
	R2304	D0GB101JA008	100 1/10W	1	
	R2305	D0GB331JA008	330 1/10W	1	
	R2306	D0GB331JA008	330 1/10W	1	
	R2307	D0GB222JA008	2.2K 1/10W	1	
	R2308	D0GB222JA008	2.2K 1/10W	1	
	R2313	D0GB104JA008	100K 1/10W	1	
	R2314	D0GB104JA008	100K 1/10W	1	
	R2333	ERG2SJ471E	470 2W	1	
	R2334	ERG2SJ471E	470 2W	1	
	R2335	D0GB102JA008	1K 1/10W	1	
	R2336	ERG2SJ471E	470 2W	1	
	R2337	ERG2SJ471E	470 2W	1	
	R2338	ERG2SJ471E	470 2W	1	
	R2339	ERG2SJ471E	470 2W	1	
	R2347	D0GB822JA008	8.2K 1/10W	1	
	R2348	D0GB822JA008	8.2K 1/10W	1	
	R2349	D0GB273JA008	27K 1/10W	1	
	R2350	D0GB393JA008	39K 1/10W	1	
	R2351	D0GB393JA008	39K 1/10W	1	
	R2357	D0GB475JA008	4.7M 1/10W	1	
	R2358	D0GB472JA008	4.7K 1/10W	1	
	R2359	D0GB102JA008	1K 1/10W	1	
	R2360	D0GB104JA008	100K 1/10W	1	
	R2361	D0GB103JA008	10K 1/10W	1	
	R2362	D0GB474JA008	470K 1/10W	1	
	R2363	D0GB333JA008	33K 1/10W	1	
	R2364	D0GB222JA008	2.2K 1/10W	1	
	R2372	D0GB102JA008	1K 1/10W	1	
	R2374	D0GB102JA008	1K 1/10W	1	
	R2376	D0GB101JA008	100 1/10W	1	
	R2377	D0GB101JA008	100 1/10W	1	
	R2402	D0GB101JA008	100 1/10W	1	
	R2403	D0GB101JA008	100 1/10W	1	
	R2404	D0GB102JA008	1K 1/10W	1	
	R2405	D0GB101JA008	100 1/10W	1	
	R2406	D0GB332JA008	3.3K 1/10W	1	
	R2407	D0GD472JA017	4.7K 1/8W	1	
	R2408	D0GB472JA008	4.7K 1/10W	1	
	R5701	ERJ3RBD4701V	4.7K 1/16W	1	
	R5702	D0GZ333JA012	33K 1W	1	
	R5703	D0GZ333JA012	33K 1W	1	
	R5704	ERJ8GEYJ224V	220K 1/4W	1	
	R5705	ERJ8GEYJ224V	220K 1/4W	1	
	R5706	D0GD824JA017	820K 1/8W	1	
	R5708	ERJ8GEYJ155V	1.5M 1/4W	1	
	R5709	ERJ8GEYJ155V	1.5M 1/4W	1	
	R5720	D0GD220JA017	22 1/8W	1	
	R5721	D0GD103JA017	10K 1/8W	1	
	R5722	D0GD122JA017	1.2K 1/8W	1	
	R5723	D0GB102JA008	1K 1/10W	1	
	R5724	D0GD121JA017	120 1/8W	1	
	R5726	ERX2SZJR15P	0.15 2W	1	
	R5727	ERX2SZJR13P	0.13 2W	1	
	R5728	D0GB104JA008	100K 1/10W	1	
	R5729	D0GD103JA017	10K 1/8W	1	
	R5730	D0GB102JA008	1K 1/10W	1	
	R5732	D0GB101JA008	100 1/10W	1	
	R5733	D0GB473JA008	47K 1/10W	1	
	R5795	D0GD474JA017	470K 1/8W	1	
	R5797	D0GB153JA008	15K 1/10W	1	
	R5798	D0GB220JA008	22 1/10W	1	
	R5800	D0GD153JA017	15K 1/8W	1	
	R5801	D0GD223JA017	22K 1/8W	1	
	R5802	D0HB123ZA002	12K 1/16W	1	
	R5803	D0HB152ZA002	1.5K 1/16W	1	
	R5804	D1BD4702A077	47 1/8W	1	
	R5805	ERJ3RBD222V	2.2K 1/16W	1	
	R5806	D0GB153JA008	15K 1/10W	1	
	R5807	D0GD331JA017	330 1/8W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R5808	D0GD222JA017	2.2K 1/8W	1	
	R5809	D0GD331JA017	330 1/8W	1	
	R5810	D0GB331JA008	330 1/10W	1	
	R5814	D0GB822JA008	8.2K 1/10W	1	
	R5817	D0GB331JA008	330 1/10W	1	
	R5832	D0GZ222JA012	2.2K 1W	1	
	R5834	D0GZ222JA012	2.2K 1W	1	
	R5840	D0GB823JA008	82K 1/10W	1	
	R5841	D0GB124JA008	120K 1/10W	1	
	R5860	ERJ3GEYF103V	10K 1/10W	1	
	R5861	ERJ3GEYF332V	3.3K 1/10W	1	
	R5862	D0GD183JA017	18K 1/8W	1	
	R5863	D0GD183JA017	18K 1/8W	1	
	R5864	ERJ3GEYF103V	10K 1/10W	1	
	R5865	D0GBR00JA008	0 1/10W	1	
	R5890	D0GB222JA008	2.2K 1/10W	1	
	R5891	ERJ3RBD333V	33K 1/16W	1	
	R5892	D0HB102ZA002	1K 1/16W	1	
	R5893	ERJ3RBD103V	10K 1/16W	1	
	R5894	D0GB151JA008	150 1/10W	1	
	R5895	D0GB153JA008	15K 1/10W	1	
	R5896	D0GB104JA008	100K 1/10W	1	
	R5897	D0GB101JA008	100 1/10W	1	
	R5905	D0GF100JA014	10 1/4W	1	
	R5907	D0GB124JA008	120K 1/10W	1	
	R5909	D0GB103JA008	10K 1/10W	1	
	R5910	D0GB184JA008	180K 1/10W	1	
	R5911	ERJ3RBD273V	27K 1/16W	1	
	R5912	ERJ3RBD333V	33K 1/16W	1	
	R5913	D0HB152ZA002	1.5K 1/16W	1	
	R5914	D0GB103JA008	10K 1/10W	1	
	R5915	D0GB103JA008	10K 1/10W	1	
	R5917	D0GB103JA008	10K 1/10W	1	
	R5918	ERJ3RBD272V	2.7K 1/16W	1	
	R5919	D0GB103JA008	10K 1/10W	1	
	R5920	ERJ3RBD272V	2.7K 1/16W	1	
	R5922	D0GB562JA008	5.6K 1/10W	1	
	R5924	D0GB562JA008	5.6K 1/10W	1	
	R5926	D0GF100JA014	10 1/4W	1	
	R5927	D0GB682JA008	6.8K 1/10W	1	
	R5928	D0GF100JA014	10 1/4W	1	
	R5936	D0GF100JA014	10 1/4W	1	
	R5939	D0GB562JA008	5.6K 1/10W	1	
	R5941	D0GB562JA008	5.6K 1/10W	1	
	R5942	D0GB101JA008	100 1/10W	1	
	R5946	ERJ1TYJ220U	22 1W	1	
	R5947	ERJ1TYJ220U	22 1W	1	
	R5950	D0GB562JA008	5.6K 1/10W	1	
	R5951	D0GB562JA008	5.6K 1/10W	1	
	R5962	D0GB154JA008	150K 1/10W	1	
	R5963	D0GB154JA008	150K 1/10W	1	
			CAPACITORS		
	C2000	D0GBR00JA008	0 1/10W	1	
	C2003	F1H0J1050012	1uF 6.3V	1	
	C2004	F1J1A106A043	10uF 10V	1	
	C2006	F1H1C683A087	0.068uF 16V	1	
	C2007	F1H1C683A087	0.068uF 16V	1	
	C2015	F1H1H2210001	220pF 50V	1	
	C2016	F1H1H2210001	220pF 50V	1	
	C2017	F1H1H101A230	100pF 50V	1	
	C2018	F1H1H101A230	100pF 50V	1	
	C2025	F1H1H103A219	0.01uF 50V	1	
	C2026	F1H1H103A219	0.01uF 50V	1	
	C2095	F1H1H104A013	0.1uF 50V	1	
	C2102	F1H1H104A013	0.1uF 50V	1	
	C2103	F1H1H331A013	330pF 50V	1	
	C2104	F1H1H103A219	0.01uF 50V	1	
	C2105	F1H1H103A219	0.01uF 50V	1	
	C2106	F2A1C101A208	100uF 16V	1	
	C2107	F1J1A106A043	10uF 10V	1	
	C2108	F1H0J1050012	1uF 6.3V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C2109	F1H0J1050012	1uF 6.3V	1	
	C2110	F1H1H102A219	1000pF 50V	1	
	C2112	F1H1H2210001	220pF 50V	1	
	C2113	F1H0J1050012	1uF 6.3V	1	
	C2114	F1H0J1050012	1uF 6.3V	1	
	C2115	F1J1A106A043	10uF 10V	1	
	C2116	F1J1A106A043	10uF 10V	1	
	C2117	F1H1H2210001	220pF 50V	1	
	C2118	F1H1A124A012	0.12uF 10V	1	
	C2119	F1H1H563A748	0.056uF 50V	1	
	C2120	F1H1H182A219	1800pF 50V	1	
	C2121	F2A1C101A208	100uF 16V	1	
	C2122	F2A1H2R20063	2.2uF 50V	1	
	C2123	F1H1A224A007	0.22uF 10V	1	
	C2124	F1H1H220A230	22pF 50V	1	
	C2125	F1H1A124A012	0.12uF 10V	1	
	C2126	F1H1H563A748	0.056uF 50V	1	
	C2127	F1H1H103A219	0.01uF 50V	1	
	C2128	F1H1H562A219	5600pF 50V	1	
	C2129	F1H1H180A230	18pF 50V	1	
	C2130	F1J1H104A459	0.1uF 50V	1	
	C2131	F1H1H182A219	1800pF 50V	1	
	C2132	F2A1H2R20063	2.2uF 50V	1	
	C2133	F2A1C101A208	100uF 16V	1	
	C2134	F2A1C100A234	10uF 16V	1	
	C2137	F1H1H104A013	0.1uF 50V	1	
	C2138	F1H1H562A219	5600pF 50V	1	
	C2139	F2A1C221A019	220uF 16V	1	
	C2141	F1H1H104A013	0.1uF 50V	1	
	C2142	F1H1H104A013	0.1uF 50V	1	
	C2143	F1H1H102A219	1000pF 50V	1	
	C2144	F1H0J1050012	1uF 6.3V	1	
	C2148	F1H1H223A219	0.022uF 50V	1	
	C2150	F2A1H3R3A213	3.3uF 50V	1	
	C2154	F1H1H102A219	1000pF 50V	1	
	C2156	F1J1A106A043	10uF 10V	1	
	C2157	F1J1A106A043	10uF 10V	1	
	C2163	F1H1H331A013	330pF 50V	1	
	C2187	F1H1H104A013	0.1uF 50V	1	
	C2188	F2A1A101A184	100uF 10V	1	
	C2191	F1H1H104A013	0.1uF 50V	1	
	C2195	F1H0J1050012	1uF 6.3V	1	
	C2198	F2A1C221A019	220uF 16V	1	
	C2201	F1J1A106A043	10uF 10V	1	
	C2202	F1H0J1050012	1uF 6.3V	1	
	C2203	F1H1H103A219	0.01uF 50V	1	
	C2204	F1H1H470A004	47pF 50V	1	
	C2205	F1H1H470A004	47pF 50V	1	
	C2206	F1H1H561A004	560pF 50V	1	
	C2207	F1H1H561A004	560pF 50V	1	
	C2208	F2A1C101A208	100uF 16V	1	
	C2209	F1H0J1050012	1uF 6.3V	1	
	C2218	F1H1H104A013	0.1uF 50V	1	
	C2220	F1H1A224A007	0.22uF 10V	1	
	C2221	F1H1A184A012	0.18uF 10V	1	
	C2222	F1J1A106A043	10uF 10V	1	
	C2224	F1H1A224A007	0.22uF 10V	1	
	C2225	D0GBR00JA008	0 1/10W	1	
	C2226	F1J1A106A043	10uF 10V	1	
	C2230	F1H1H104A013	0.1uF 50V	1	
	C2231	F2A1C101A208	100uF 16V	1	
	C2232	F1H1A184A012	0.18uF 10V	1	
	C2234	F2A1E221B422	220uF 25V	1	
	C2235	F1J1C106A059	10uF 16V	1	
	C2236	F1H1H104A013	0.1uF 50V	1	
	C2237	F1H1H682A219	6800pF 50V	1	
	C2238	F1J1A106A043	10uF 10V	1	
	C2239	F1H1H104A013	0.1uF 50V	1	
	C2240	F1H1H2210001	220pF 50V	1	
	C2244	F1H1A224A007	0.22uF 10V	1	
	C2245	F1H0J1050012	1uF 6.3V	1	
	C2246	F1H1H104A013	0.1uF 50V	1	
	C2247	F1H1H104A013	0.1uF 50V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C2248	F1H0J1050012	1uF 6.3V	1	
	C2249	F1H0J1050012	1uF 6.3V	1	
	C2301	F1J1A106A043	10uF 10V	1	
	C2302	F1J1A106A043	10uF 10V	1	
	C2307	F1H1H104A013	0.1uF 50V	1	
	C2308	F1H1H104A013	0.1uF 50V	1	
	C2402	F1J1A106A043	10uF 10V	1	
	C2405	F1J1A106A043	10uF 10V	1	
	C2817	F2A1H4R7A213	4.7uF 50V	1	
⚠	C5700	F1BAF471A013	470pF	1	
⚠	C5701	F0CAF104A105	0.1uF	1	
⚠	C5703	F0CAF224A105	0.22uF	1	
⚠	C5704	F1BAF471A013	470pF	1	
⚠	C5705	F1BAF471A013	470pF	1	
⚠	C5708	F1BAF1020020	1000pF	1	
	C5712	F2B2D3310024	330uF 200V	1	
	C5713	F0C2J1030007	0.01uF 630V	1	
	C5720	F1H1H104A013	0.1uF 50V	1	
	C5721	F1H1H2210001	220pF 50V	1	
	C5722	F1H1H102A219	1000pF 50V	1	
	C5723	F1H1H471A219	470pF 50V	1	
	C5724	F2A1H5600009	56uF 50V	1	
	C5725	F1H1H104A013	0.1uF 50V	1	
	C5726	F1H1H104A013	0.1uF 50V	1	
	C5727	F1B3A3320012	3300pF 1000V	1	
	C5728	F1H1H102A219	1000pF 50V	1	
	C5730	F1H1E105A116	1uF 25V	1	
	C5794	F1H1H102A219	1000pF 50V	1	
	C5795	F1K1H105A149	1uF 50V	1	
	C5796	F1H1H104A013	0.1uF 50V	1	
	C5798	F2A1E221B422	220uF 25V	1	
	C5800	F1H1H104A013	0.1uF 50V	1	
	C5800	F1J2E1030004	0.01uF 250V	1	
	C5801	F1H1H104A013	0.1uF 50V	1	
	C5802	F1H1H104A013	0.1uF 50V	1	
	C5803	F1H1H104A013	0.1uF 50V	1	
	C5805	F2A1H6810027	680uF 50V	1	
	C5808	F2A1H6810027	680uF 50V	1	
	C5810	F1H1H104A013	0.1uF 50V	1	
	C5812	F1H1H104A013	0.1uF 50V	1	
	C5813	F2A1E221B422	220uF 25V	1	
	C5817	F2A2AR100002	0.10uF 100V	1	
	C5818	F1H1H104A013	0.1uF 50V	1	
	C5819	F1J2E1030004	0.01uF 250V	1	
	C5820	F1J2E1030004	0.01uF 250V	1	
	C5821	F1J2E1030004	0.01uF 250V	1	
	C5822	F1J2E1030004	0.01uF 250V	1	
	C5826	F1J2E1030004	0.01uF 250V	1	
	C5831	F1H1H104A013	0.1uF 50V	1	
	C5832	F1H1H104A013	0.1uF 50V	1	
	C5843	F1J1A106A043	10uF 10V	1	
	C5844	F1J1A106A043	10uF 10V	1	
	C5869	F1H1H104A013	0.1uF 50V	1	
	C5870	F1H1H104A013	0.1uF 50V	1	
	C5896	F1H1H104A013	0.1uF 50V	1	
	C5897	F1H1H103A219	0.01uF 50V	1	
	C5898	F1H1H104A013	0.1uF 50V	1	
	C5899	F2A1A221B161	220uF 10V	1	
	C5901	F1H1H102A219	1000pF 50V	1	
	C5902	F1H1H102A219	1000pF 50V	1	
	C5911	F1H1H104A013	0.1uF 50V	1	
	C5912	F1H1H104A013	0.1uF 50V	1	
	C5915	F2A1H221B436	220uF 50V	1	
	C5916	F2A1H221B436	220uF 50V	1	
	C5917	F1H1H104A013	0.1uF 50V	1	
	C5918	F1H1H104A013	0.1uF 50V	1	
	C5922	D0GBR00JA008	0 1/10W	1	
	C5925	F1H1A474A001	0.47uF 10V	1	
	C5927	F1H1H102A219	1000pF 50V	1	
	C5929	F1H1H331A013	330pF 50V	1	
	C5931	F1H1A474A001	0.47uF 10V	1	
	C5936	F1H1H104A013	0.1uF 50V	1	
	C5937	F1K2A1040007	0.1uF 100V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C5939	F1H1H104A013	0.1uF 50V	1	
	C5942	F1H1H330A230	33pF 50V	1	
	C5943	F1K2A1040007	0.1uF 100V	1	
	C5946	F2A1A101A184	100uF 10V	1	
	C5948	F1J2A221A030	220pF 100V	1	
	C5951	F1H1H153A219	0.015uF 50V	1	
	C5952	F1J2A221A030	220pF 100V	1	
	C5954	F1H1C474A140	0.47uF 16V	1	
	C5956	F1H1H104A013	0.1uF 50V	1	
	C5958	F1H1H104A013	0.1uF 50V	1	
	C5961	F1H1H153A219	0.015uF 50V	1	
	C5962	F1J2A221A030	220pF 100V	1	
	C5964	F1J2A221A030	220pF 100V	1	
	C5968	F1K2A1040007	0.1uF 100V	1	
	C5970	F1H1H104A013	0.1uF 50V	1	
	C5973	F1H1H104A013	0.1uF 50V	1	
	C5974	F1K2A1040007	0.1uF 100V	1	
	C5976	F1H1A474A001	0.47uF 10V	1	
	C5978	F1H1H102A219	1000pF 50V	1	
	C5980	F1H1H331A013	330pF 50V	1	
	C5982	F1H1A474A001	0.47uF 10V	1	
	C5983	F2A1H1R0A213	1uF 50V	1	
	C5985	F1H1H102A219	1000pF 50V	1	
	C5989	ECQV1H474JL3	0.47uF 50V	1	
	C5990	ECQV1H474JL3	0.47uF 50V	1	
	C5993	F1H1H104A013	0.1uF 50V	1	
	C5994	F1H1H104A013	0.1uF 50V	1	

