Panasonic

ORDER NO. MD0512479C1 A6

Service Manual

Speaker System SC-TM54 Colour (S)... Silver Type

MODEL	UNIT	
SC-TM54	SA-TM54 SB-TM54 SB-WTM54	Stereo Front Speaker Subwoofer

SB-TM54 SA-TM54 SB-WTM54 SB-TM54

Specifications

POTENCIA DE SALIDA (AMPLIFICADOR)	
SC-TM54	Frontal (Bajo) 90 W RCM por canal (3 Ω) 1kHz, 10% DAT (Alto) 90 W RCM por canal (3 Ω) 10kHz, 10% DAT Subwoofer 180 W RCM por canal (8 Ω) 10% DAT

Amplificador	SA-TM 54
Potencia de salida	6000 W (P.M.P.O)
Consumo de potencia	132 W
Alimentaciòn	127 V ca ±10% 60 Hz
Sencibilidad music port:	100 mV
Rango de sintonìa AM:	520-1710MHz (paso de 0,2 MHz)
Rango de sintonìa FM:	87.9-107.9 MHz (paso de 0,2 MHz 87.5-108.0 MHz (paso de 0,1 MHz
Dimensiones (b x h x l)	250 mm x 330 mm x 343mm
Peso:	6.6 kg aprox

Bafles	SB-TM 54
FRONTAL Bocina Super Tweeter Bocina Tweeter Bocina Woofer	 Piezo type 6 cm 16 cm
IMPEDANCIA	Alto y bajo 3 Ω
Dimensiones (b x h x l)	247 mm x 330 mm x 221 mm
Peso:	2.8 kg aprox

Bafle	SB-WTM 54
SUBWOOFER	16 cm
IMPEDANCIA Subwoofer	8 Ω
Dimensiones (b x h x l)	248 mm x 330 mm x 256 mm
Peso:	3.6 kg aprox

Notes: Specifications are subject to change without notice. Mass and dimensions are approximate.Total harmonic distortion is measured by the digital spectrum analyzer.

⚠ 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.

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, ensure that all the protective devices such as insulation barriers and insulation papers shields are properly installed.
3. After servicing, check for leakage current checks to prevent from being exposed to shock hazards.

(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.

1.1.1. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Using an ohmmeter measure the resistance value, 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 1MΩ and 5.2MΩ.
   When the exposed metal does not have a return path to the chassis, the reading must be ∞ .

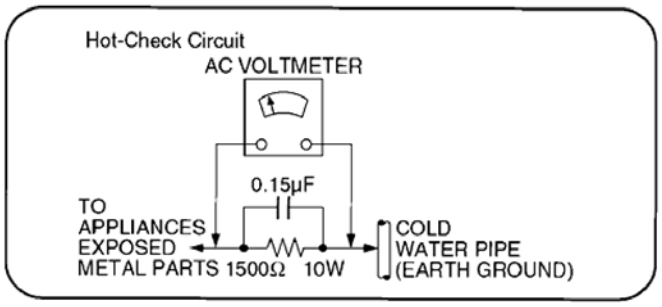


Fig. 1

1.1.2. Leakage Current Hot Check (See Figure 1)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kΩ, 10 watts resistor, in parallel with a 0.15μF capacitor, 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. Should the measurement is out 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.

1.2. Before repair and adjustment

Disconnect AC power, discharge Power Capacitors C5101, C5104, C5171, C5172, C5920, C5940 and C5950 through a 10Ω, 5W resistor to ground.

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 NO SIGNAL mode (volume min at CD mode) should be ~ 500mA.

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

(For English)
CAUTION:

Replace with the same type fuse:
(Manufacturer: Littlefuse Inc., Type: 233, 4A. 125V)

(For Canadian French)
ATTENTION:

Utiliser un fusible de rechange de même type:
(Fabricant: Littlefuse Inc., Type: 233, 4A. 125V)

2 Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by 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 electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equiped 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 equiped with ES devices, place the assembly on a conductive surface such as aluminium foil, to prevent electrostatic charge build up 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 remover device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge 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, aluminium 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 body 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).

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are imporant for safety.
These parts are marked by ⚠ in the schematic 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.

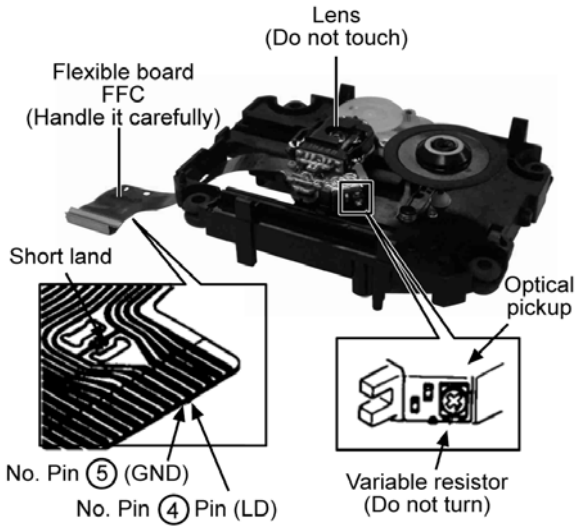
3 Handling Precautions For Traverse Deck

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by the static electricity of clothes or our human body.

So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).

· Way of handling the traverse deck (optical pickup)

1. Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
2. To prevent the breakdown of the laser diode, an antistatic shorting pin is inserted into the flexible board (FFC board).
3. Do not to apply excessive stress to the flexible board (FFC board). When removing or connecting the short pin, finish the job in as short time as possible.
4. Do not turn the variable resistor for laser power adjustment. (It is pre-adjusted during production time)



Grounding for electrostatic breakdown prevention

1. Human body grounding

   Use the anti-static wrist strap to discharge the static electricity from your body.
2. Work table grounding

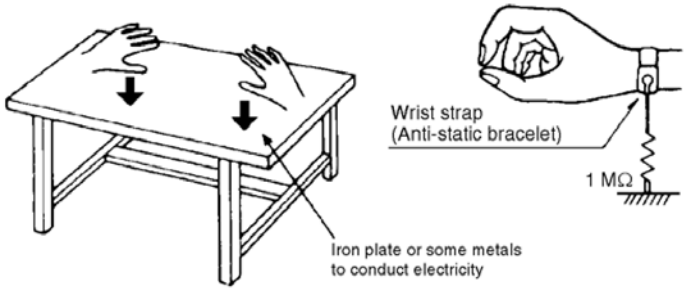
   Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is place, and ground the sheet.

Caution :

The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).

Caution when replacing the Traverse Deck

The traverse deck has a short point shorted with solder to protect the laser diode against electrostatics breakdown. Be sure to remove the solder from the short point before making connections.



4 Precaution of laser diode

CAUTION:

This unit utilizes a class 1 laser diode in the optical pickup unit .

Invisible laser radiation is emitted from the optical pickup lens.

Wavelength: 780nm

When the unit is turned on:

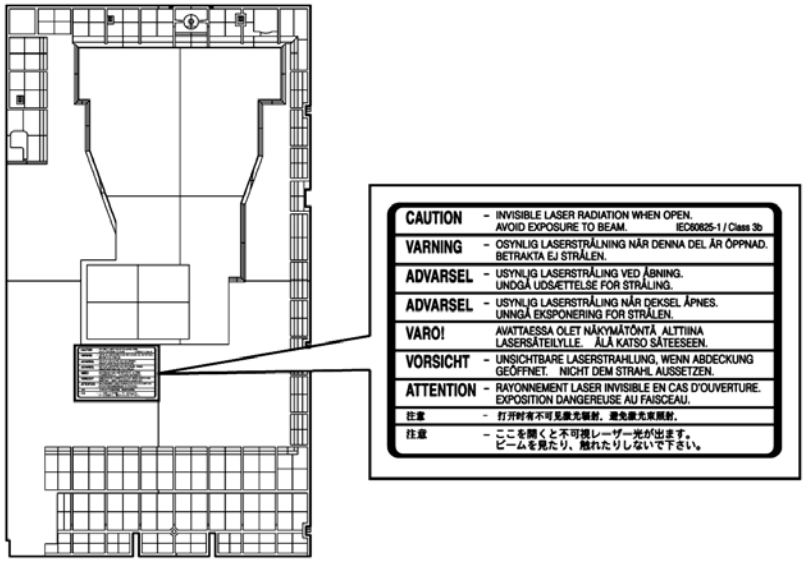
1. Do not look directly into the optical pickup lens.
2. Do not use optical instruments to look at the optical pickup lens.
3. Do not adjust the preset variable resistor on the optical pickup lens.
4. Do not disassemble the optical optical pickup unit.
5. If the optical pickup is replaced, use the manufacturer's specified replacement pickup only.
6. Use of control or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

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.

n Use of caution label (Except for U.S.A.)



5 Handling the Lead-free Solder

5.1. About lead free solder (PbF)

Distinction of PbF P.C.B.:

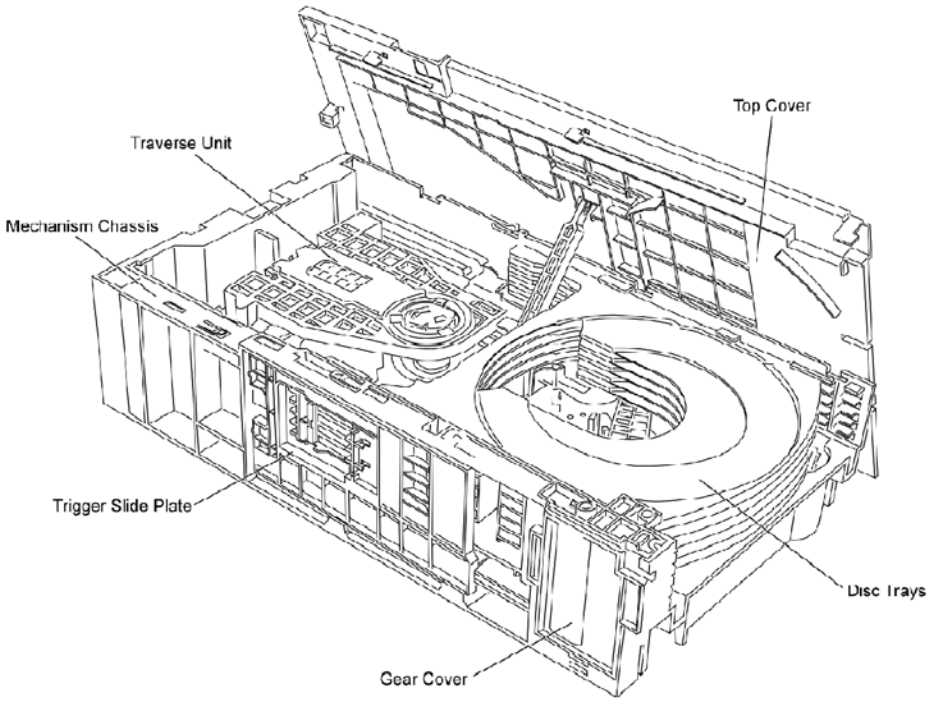
P.C.B.s (manufactured) using lead free solder will have a PbF stamp on the P.C.B.

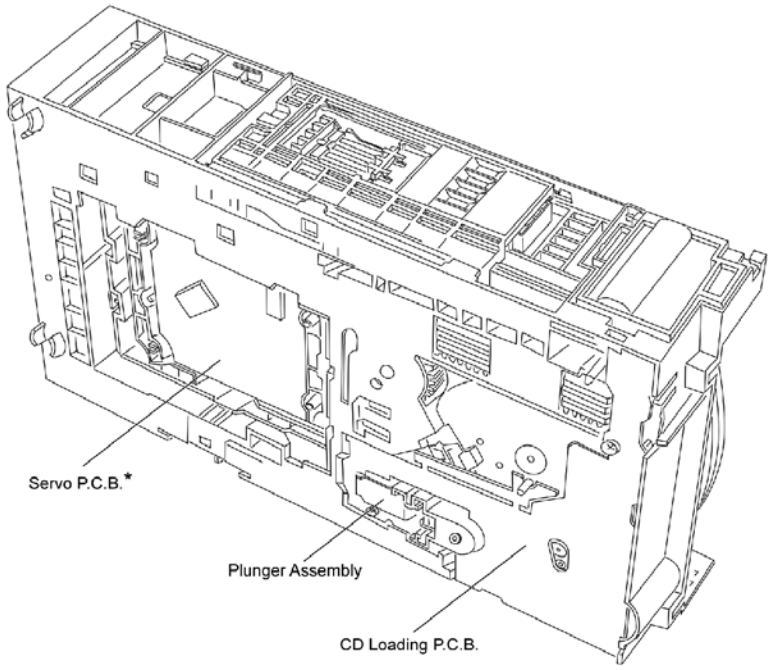
Caution:

- Pb free solder has a higher melting point than standard solder; Typically the melting point is 50 - 70°F (30 - 40°C) higher. Please use a high temperature soldering iron. In case of soldering iron with temperature control, please set it to 700 ± 20°F (370 ± 10°C).
- Pb free solder will tend to splash when heated too high (about 1100°F/600°C).
- When soldering or unsoldering, please completely remove all of the solder on the pins or solder area, and be sure to heat the soldering points with the Pb free solder until it melts enough.

6 New Features

6.1. CRS1 Mechanism Overview

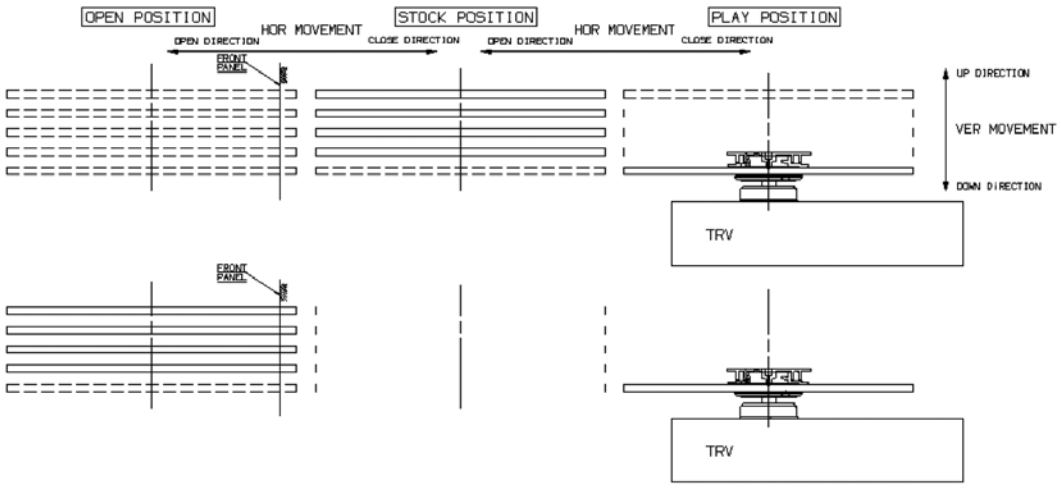




* Illustration for CD Servo P.C.B. (Applied models: SA-AK240/340/640 series)

6.1.1. General Feature

・This is a five disc changer mechanism for CD/DVD. The outline figure is shown below.



- The mechanism has **"CHANGE WHILE PLAY"** function. It open other trays for disc exchanging while one tray is at PLAY position performing recording or reproducing.
- The mechanism can quickly change all trays with **"CHANGE ALL"** function. All trays can be move to OPEN position with one operation.
- There is no sensor to indicate presence of disc on any tray.

6.1.2. Hardware composition

- Below is the hardware components of the mechanism

Name	Function
Open Switch (OPEN-SW)	The switch is used to detect normal tray opening
	The switch is used for detect tray being manually push/trigger when full open
Home Switch (HOME-SW)	Is used to detect cam gear home position
Close Sensor (CLOSE-SENSOR)	Used for normal single tray closing
	Used to detect cam gear rotate to Play Driving position
Play Switch (PLAY-SW)	Detect TRV clamping complete position
Stocking Switch (STOCK-SW)	Detect tray completely transfer for play position to stocking position
UD Sensor (UD-SENSOR)	Detect TRV vertical movement position
Top Switch (TOP-SW)	Detect a default position of TRV vertical movement position
Driver IC	To drive Motor
Motor	Main driving source for changer
Plunger	Switching the driving source from motor to: 1. Tray open/close 2. Drive tray to play/stock position and TRV vertical movement

6.1.3. Mechanism Operation

- This mechanism has the following state:
  1. Driving of a tray to open/close
  2. Up/down operation of a traverse performs a state changes of tray.

  By using the plunger to lift/release of a switching gear, and the cam gear to lift/release the function gear the motor can be link to several gear trains to perform various operations.
- The functions that can be perform in this mechanism are described as below:

Condition	Explanation
Open current playing tray	The state to change current playing disc. All tray will be open at once and current tray at PLAY position will be expose.
Open All	The state where all trays being driven to OPEN position. The disc can be taken in or out from tray to tray by close tray one by one from top to bottom.
Stock	The state where the trays are stored in STOCK position
Play	The state where one of the tray 5 trays is being driven to PLAY position and clamped by traverse unit
Play & Open Tray-*	The state where one of the tray is in playing position performing recording or reproducing, other trays can be used (OPEN position) for disc exchanging without stopping the recording or reproducing process.
Change	The state when one of the opened tray being driven from OPEN position to STOCK position and other opened trays remain still at OPEN position.
Close All	The state where all open trays will being driven from OPEN position to STOCK position, one by one from top to bottom

Note: * represent tray number (from 1 ~ 5)

6.1.4. New CD Mechanism (CRS1)

Note:

This service manual does not contain the following information for the mention CD Mechanism drive:

- Schematic Diagram, Block Diagram and P.C.B. layout of CD Loading P.C.B.
- Part List for individual parts of the mechanism.
- Exploded View and Parts List for individual parts of the CD Mechanism drive.

Please refer to the original service manual (Order No. MD0509368C0) for the CD Mechanism Drive CRS1.

6.2. Music Port

External unit

Connecting to a portable audio equipment

This feature enables you to enjoy music from a portable audio equipment.

Playing from a portable audio equipment

Switch off the equalizer function (if there is any) of the portable audio equipment before you plug into the MUSIC PORT jack. Otherwise, sound from the speaker may be distorted.

1. **Plug the audio cord into the MUSIC PORT jack and press [MUSIC P.].**
2. **Play the portable audio equipment. (See the portable audio equipment's instruction manual.)**

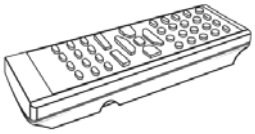
Recording from a portable audio equipment

1. **Press [MUSIC P.].**
2. **Play the portable audio equipment.**
3. **Press [●, REC] on the main unit to start recording.**

Note:
All peripheral components and cables are sold separately.

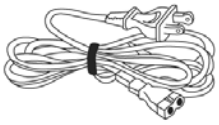
With reference to page 15 of the operating instruction manual.

7 Accessories

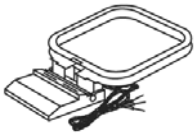


Remote Control
N2QAHB000064

FM Antenna Wire
RSA0006-L



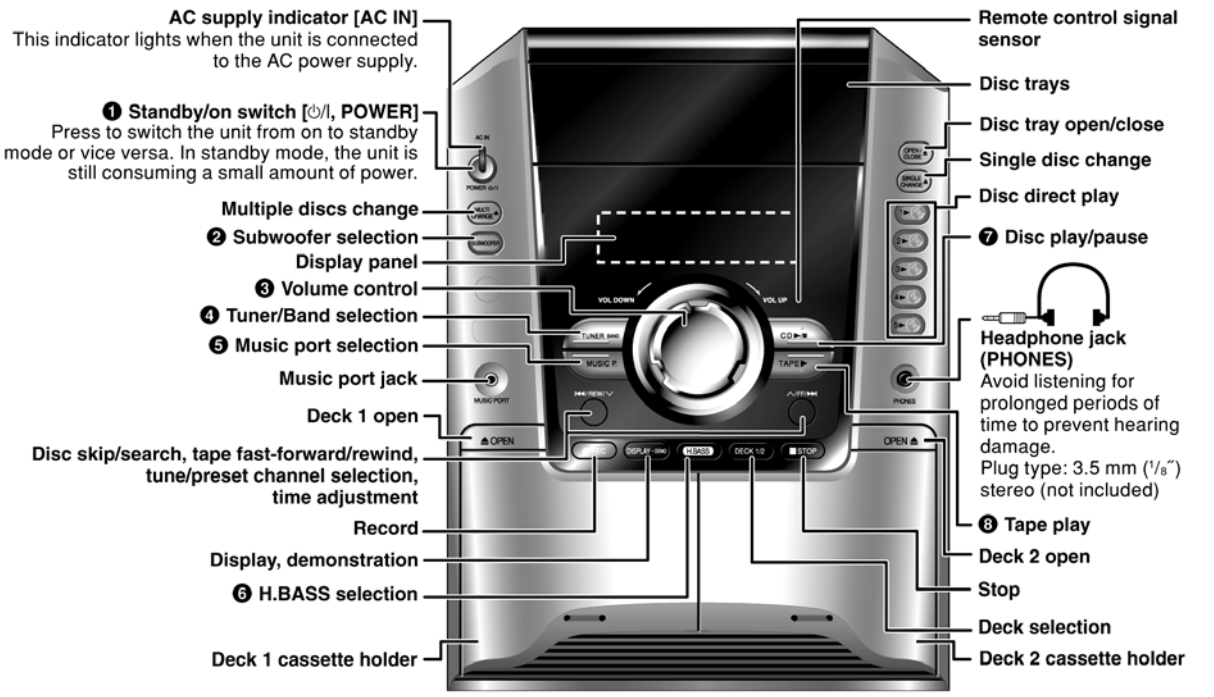
AC Cord
SJA168-1A



AM Loop Antenna
N1DAAAA00001

8 Operating Instructions Procedures

Main unit

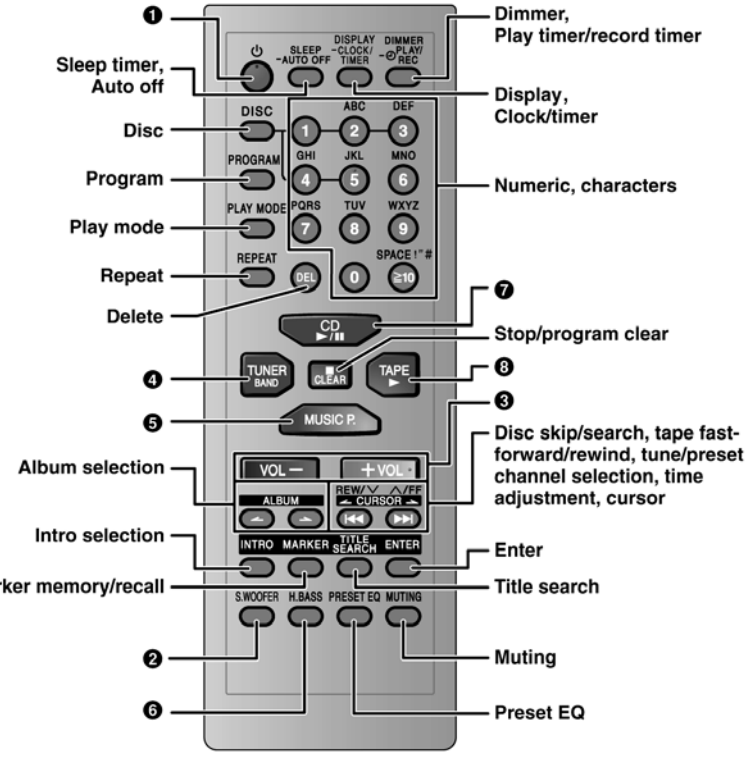


DISPLAY - DEMO

To select the desired display during play mode.
Each time you press the button: Normal → Reflection → (off)

Remote control

Buttons such as ❶ function the same as the controls on the main unit.



SLEEP -AUTO OFF

This auto off function allows you to turn off the unit in **disc or tape** mode only after left unused for 10 minutes.

- Press and hold [–AUTO OFF] to activate the function.
- Press and hold [–AUTO OFF] again to cancel.
- The setting is maintained even if the unit is turned off.

DIMMER -PLAY/REC

To dim the display panel.

MUTING

To mute the sound.

- Press the button to activate.
- Press again to cancel.

NOTE on CDs

- This unit can access up to 99 tracks.
- Choose disc with this mark.

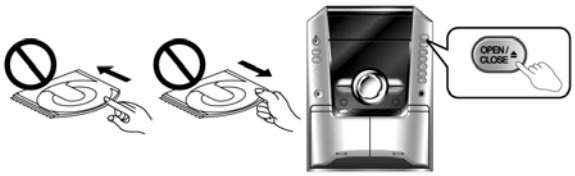
- This unit can play MP3 or WMA files and CD-DA format audio CD-R/RW that have been finalized.
- It may not be able to play some CD-R/RW due to the condition of the recording.
- Do not use irregularly shaped disc.
- Do not use disc with labels and stickers that are coming off or with adhesive exuding from under labels and stickers.
- Do not attach extra labels or stickers on the disc.
- Do not write anything on the disc.

Using DualDiscs

The "CD" sides of DualDiscs do not meet the CD-DA standard so it may not be possible to play them on this unit.

Not doing the following will cause damage to the unit.

- Press [⏻/I, POWER] to turn off the unit and remove the power plug only after all the displays have disappeared.



- Always press [⏏, OPEN/CLOSE] to insert or remove a disc.
- Do not push or pull out the tray by hand as this will cause an accident.

- Place the disc correctly label-up as shown in the diagram.
- Insert one disc into the tray.

NOTE on MP3 or WMA

- Files are treated as tracks and folders are treated as albums.
- This unit can access up to 999 tracks, 255 albums and 20 sessions.
- Disc must conform to ISO9660 level 1 or 2 (except for extended formats).
- To play in a certain order, prefix the folder and file names with 3-digits numbers in the order you want to play them.

MP3

When "NOT MP3/ERROR1" appears on the display, an unsupported MP3 format is being played. The unit will skip that track and play the next one.

WMA

- Noise may occur when playing WMA files.
- This unit cannot play WMA files that are copy protected.

Limitations on MP3 or WMA play

- If you have recorded MP3 or WMA on the same disc as CD-DA, only the format recorded in the first session can be played.
- Some MP3 or WMA may not be played due to the condition of the disc or recording.
- Due to differences and variations of WMA tags, some files may not play or display the tags' information properly.
- Recordings will not necessarily be played in the order you recorded them.

MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Thomson multimedia.

Windows Media, and the Windows logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/or other countries.

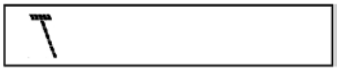
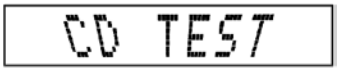
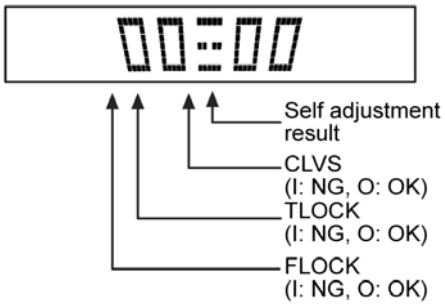
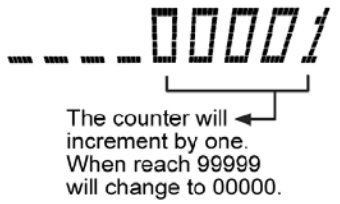
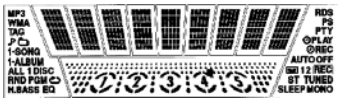
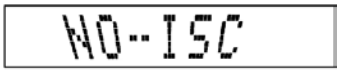
WMA is a compression format developed by Microsoft Corporation. It achieves the same sound quality as MP3 with a file size that is smaller than that of MP3.

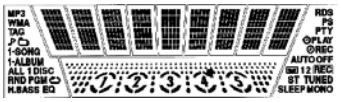
Designed for Windows Media™

9 Self diagnosis and special mode setting

This unit is equipped with functions for checking and inspecting namely: Self-Diagnostic and Test Mode.

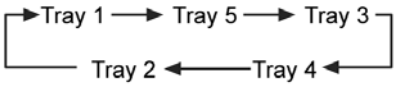
9.1. Special Mode Table

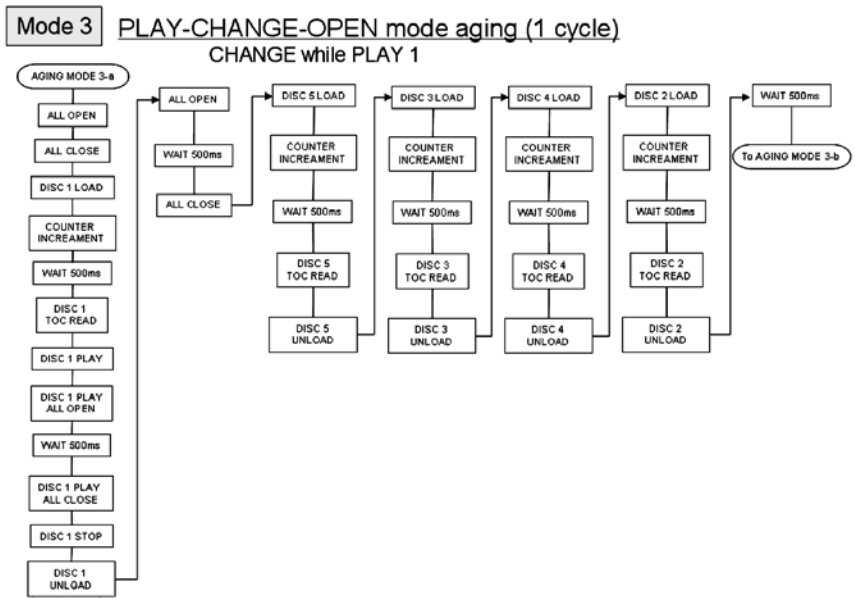
Item		FL Display	Key Operation
Mode Name	**Description**		**Front Key**
Self -Diagnostic Mode	To enter into self diagnostic checking for main unit.		1. Select [►, TAPE] for TAPE mode (Ensure no tape is inserted). 2. Press and hold [■, STOP]button for 3 seconds follow by [►►I, ∧/FF]. To exit, press [⏻/I, POWER] button on main unit or remote control.
CD Test Mode	To enter into checking the reliability of changer unit.		1. Select [►/II, CD] for CD mode. 2. Press and hold [■, STOP] button for 3 seconds follow by [►►I, ∧/FF]. To exit, press [⏻/I, POWER] button on main unit or remote control.
CD Auto Adjustment	To check the CD auto adjustment result for FLOCK, TLOCK and CLVS.		In CD Test Mode: 1. Press [0] button on the remote control. To exit, press [⏻/I, POWER] button on main unit or remote control.
CD Changer Reliability Test (CRS1)	To determine the reliability of CD Changer Unit. (For more information, refer to section 9.1.1)		In Self-Diagnostic Mode: 1. Select [►/II, CD] for CD mode. 2. Press [I◄◄, REW/∨] button. To exit, press [⏻/I, POWER] button on main unit or remote control. (The tray will return to PLAY position and then power off)
Doctor Mode	To enter into Doctor Mode for checking of various items and displaying EEPROM and firmware version.	1.  2.  1. All segments will light up for 1 second. 2. The Check Sum of EEPROM and firmware version will be display. * ROM correction ** Firmware version No:	In any mode: 1. Press [■, STOP] button on main unit follow by [4] and [7] on remote control. To exit, press [ENTER] button on remote control or [⏻/I, POWER] button on main unit or remote control.
Cold Start	To activate cold start upon next AC power up.		In doctor mode: 1. Press [4] button on remote control. To exit, press [ENTER] button on remote control or [⏻/I, POWER] button on main unit or remote control.
Changer Reliability Test	To check the function operation of changer unit. (For more information, refer to 9.1.1)		In doctor mode: 1. Press [DISC] on remote control. To exit, press [ENTER] button on remote control or [⏻/I, POWER] button on main unit or remote control.

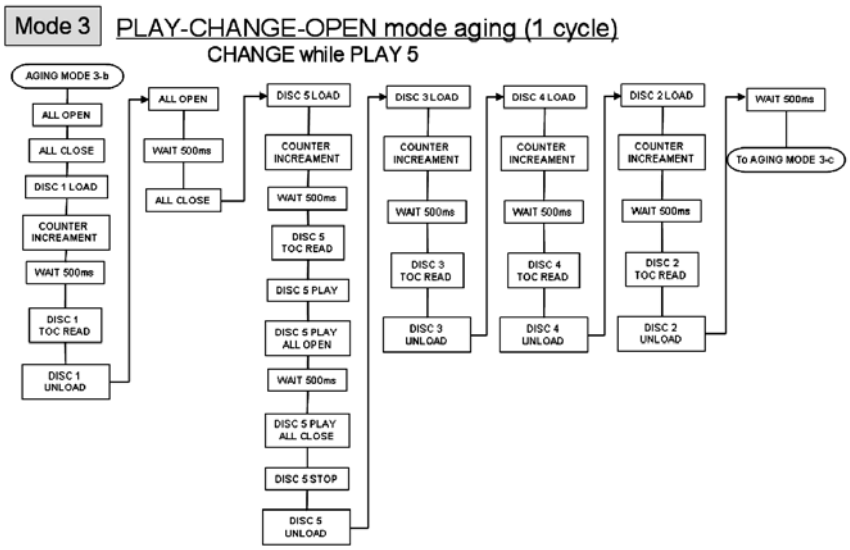
Item		FL Display	Key Operation
Mode Name	Description		Front Key
FL Display Test	To check the FL segments display (All segments will light up and LED will blink at 0.5 second interval)		In doctor mode: 1. Press [DIMMER] button on remote control.
Tape Eject Test	To check on the tape eject function (For deck 1/2)		In doctor mode: 1. Press [PROGRAM] button on remote control.

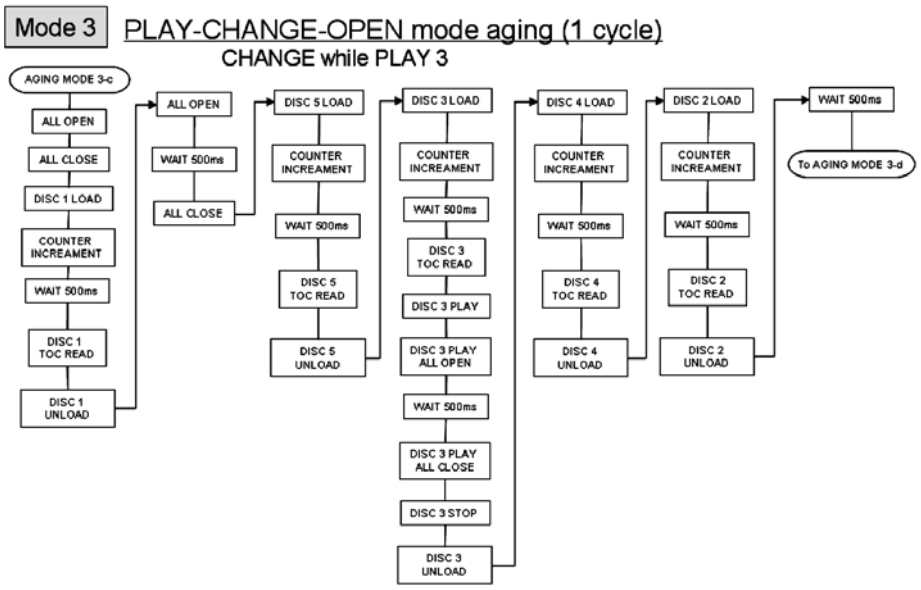
9.1.1. CD changer unit ageing test mode

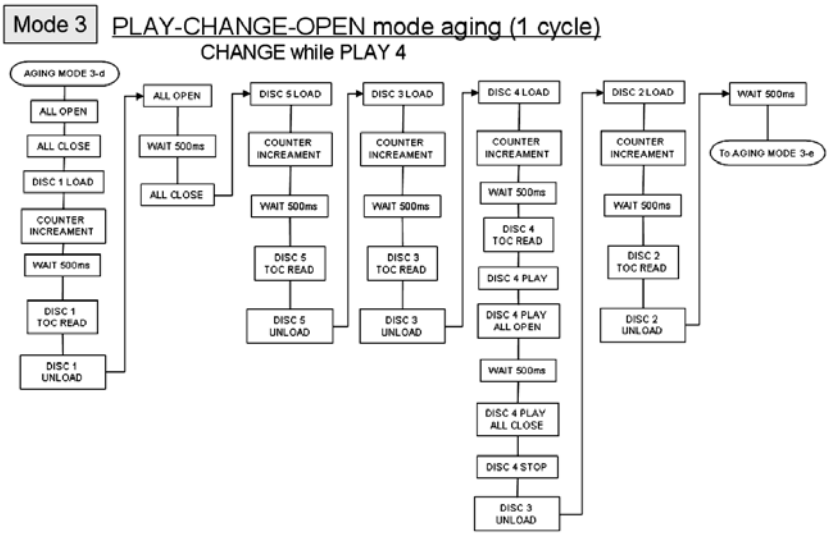
Below is the process flow chart of ageing for the CD changer unit. (CRS1)

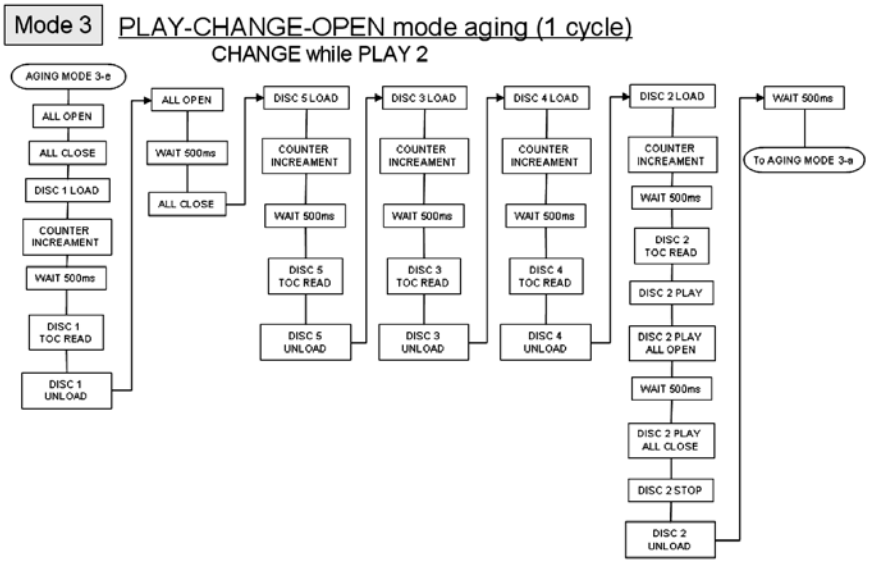








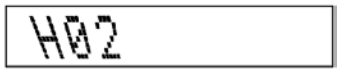
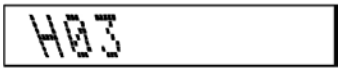
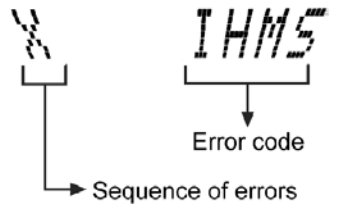
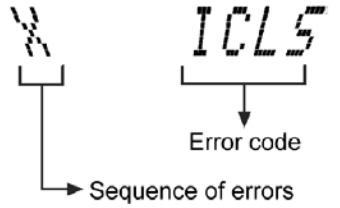
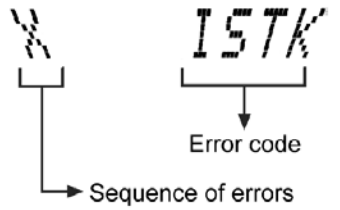
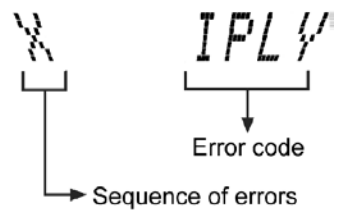


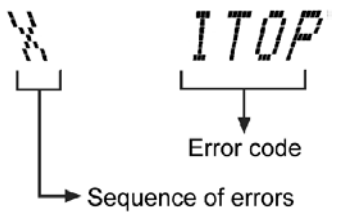
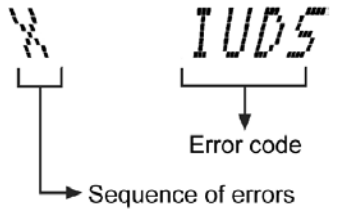
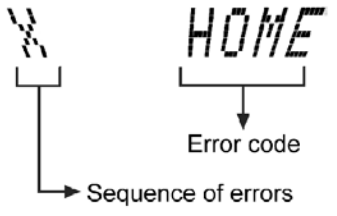
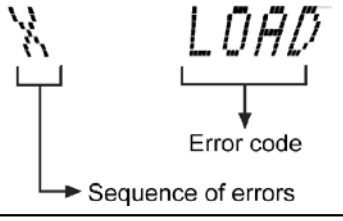
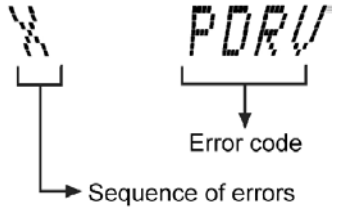
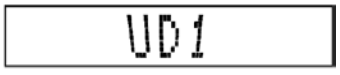
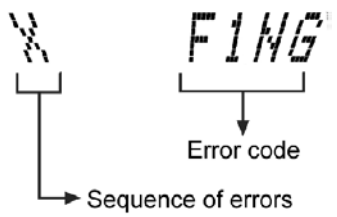
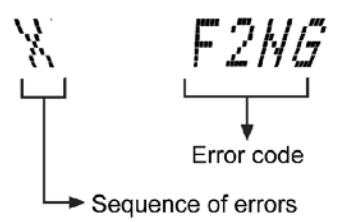


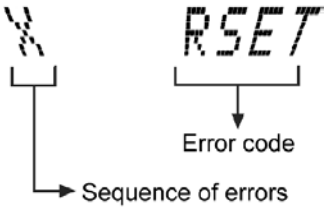
9.2. Error code Table

Self-Diagnosis Function (refer Section 9.1) provides information on any problems occuring for the unit and its respective components by displaying the error codes. These error code such as U**, H** and F** are stored in memory and held unless it is cleared.

The error code is automatically display after entering into self-diagnostic mode.

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
H01	Mode SW, plunger and capstan motor abnormal			For deck mechanism unit (For deck 1/2). Press [■, STOP] on main unit for next error.
H02	Rec INH SW abnormal			For deck mechanism unit (For deck 2). Press [■, STOP] on main unit for next error.
H03	HALF SW abnormal			For deck mechanism unit (For deck 1/2). Press [■, STOP] on main unit for next error.
F01 F02	Reel pulse abnormal TPS error		 	For deck mechanism unit (For deck 1/2). Press [■, STOP] on main unit for next error.
F15	RESET SW abnormal	REST SW: ON is not detected within the specified time.		For CD unit (For Traverse). Press [■, STOP] on main unit for next error.
F26	Transmission error between CD Servo LSI IC and microprocessor IC	When set to CD mode, the sense signal does not turn “Low”, a fail safe time after system command transmission is sent.		For CD unit (For Traverse). Press [■, STOP] on main unit for next error.
F61	Power Amp IC output abnormal	Upon power on, PCONT=HIGH, DCDET=L after checking LSI.		For power. Press [■, STOP] on main unit for next error.
IHMS	Cam gear abnormality	Cam gear does not rotate to “HOME” position.		For CD changer unit (CRS1). Press [SINGLE CHANGE] on main unit for next error.
ICSL	Cam gear/gear units abnormal	Cam gear does not rotate to “PLAY” driving position and hence does not drive playing tray to “STOCK” position.		For CD changer unit (CRS1). Press [SINGLE CHANGE] on main unit for next error.
ISTK	Drive rack/gear assembly abnormal	The tray drive rack does not move to “STOCK” position. (Tray does not move to “STOCK” position)		For CD changer unit (CRS1). Press [SINGLE CHANGE] on main unit for next error.
IPLY	Drive rack/gear assembly abnormal	The tray drive rack does not move to “PLAY” position. (Tray does not move to “PLAY” position)		For CD changer unit (CRS1). Press [SINGLE CHANGE] on main unit for next error.

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
ITOP	UD assembly	UD Rack does not move to front direction. This lead to UD base not raise to top position.		For CD changer unit (CRS1). Press [SINGLE CHANGE] on main unit for next error.
IUDS	UD assembly	After TOP SW is detected, UD rack does not move into tray 1 position.		For CD changer unit (CRS1). Press [SINGLE CHANGE] on main unit for next error.
HOME	Cam gear/gear assembly abnormal	Cam gear does not move to "HOME" position under following conditions 1. After tray is load to "PLAY" position. 2. After tray is unload to "STOCK" position.		For CD changer unit (CRS1). Press [SINGLE CHANGE] on main unit for next error.
LOAD	Tray drive assembly abnormal	Tray unit does not move from "STOCK" to "PLAY" position		For CD changer unit (CRS1). Press [SINGLE CHANGE] on main unit for next error.
PDRV	Cam gear/gear assembly abnormal	Cam gear does not move from "HOME" to "PLAY" drive position.		For CD changer unit (CRS1). Press [SINGLE CHANGE] on main unit for next error.
UDU	UD base asssembly abnormal	UD Base assembly does not move upwards from tray 5 to tray 2		For CD changer unit (CRS1). Press [SINGLE CHANGE] on main unit for next error.
UDD	UD base asssembly abnormal	UD Base assembly does not move downwards from tray 1 to tray 5.		For CD changer unit (CRS1). Press [SINGLE CHANGE] on main unit for next error.
UD1	UD base asssembly abnormal	UD Base assembly does not move to tray 1.		For CD changer unit (CRS1). Press [SINGLE CHANGE] on main unit for next error.
F1NG	Fail - safe mode. (For open/close tray unit(s))	When the tray open operation is performed, it fails to open. It will automatically close all trays after the time-out by the microprocessor. During this time when it fails, the error code will appear.		For CD changer unit (CRS1). Press [SINGLE CHANGE] on main unit for next error.
F2NG	Fail - safe mode. (For open/close tray unit(s))	When the tray close operation is performed, it fails to close. It will automatically open all trays after the time-out by the microprocessor. During this time when it fails, the error code will appear.		For CD changer unit (CRS1). Press [SINGLE CHANGE] on main unit for next error.

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
SRVC_TRV	To unlock the traverse unit for service	1. All trays set to "STOCK" position 2. Mechanism set to tray 5 3. Cam gear set to "HOME" position	SRVC TRV	For CD changer unit (CRS1). Press [SINGLE CHANGE] on main unit.
RSET	Cam gear jam/close sensor faulty	During tray re-open, the cam gear will rotate in the opposite direction to reset the cam gearposition. When it fails, the error code will appear.		For CD changer unit (CRS1). Press [SINGLE CHANGE] on main unit for next error.

CRS1 Error Code display

1. The errors that occured in CRS1 Mechanism can be recalled and displayed, in the order of the occurence under self-diagnostic (Refer to Section 9.1 for procedures to enter this mode.
   - Only the first 5 errors will be memorized (in backup memory). The subsequence error shall be ignored and not memorize.

   For system with EEPROM as memory backup,memory space in EEPROM is neccesary.
2. To display all error code memorized

   In CRS1 Self-Diagnostic mode, press [SINGLE CHANGE] to display subsequence error code.

   It shall repeat after reaching error no. 5.

   e.g.:

   [1 _ _ _ _ I H M S] → [SINGLE CHANGE]

   [2 _ _ _ _ I T O P] → [SINGLE CHANGE]

   [3 _ _ _ _ H O M E] → [SINGLE CHANGE]

   [4 _ _ _ _ L O A D] → [SINGLE CHANGE]

   [5 _ _ _ _ _ U D D] → [SINGLE CHANGE]
3. To clear the error code memory

   In CRS1 Self-Diagnostic mode, long press [SINGLE CHANGE] key (2s or more)

10 Assembling and Disassembling

10.1. Caution

Special Note:

This model uses a new CD changer unit CRS1. In this following section does not contain the necessary disassembly & assembly information for the CD changer unit (CRS1) except the disasembly & assembly of traverse unit. Kindly refer to the original service manual for the CD changer unit. (Order No. MD0509368C0).

"ATTENTION SERVICER"

Some chassis components may have sharp edges. Be careful when disassembling and servicing.

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures.
   Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.
4. Refer to the Parts No. on the page of "Parts Location and Replacement Parts List" (Section 22), if necessary.

Warning :-

This product uses a laser diode. Refer to caution statement Precaution of Laser Diode.

Caution:

After replacing of CD Changer Unit, ageing test is necessary. Please confirm operation for CD Changer Unit.

Caution:
Original screws should be used.

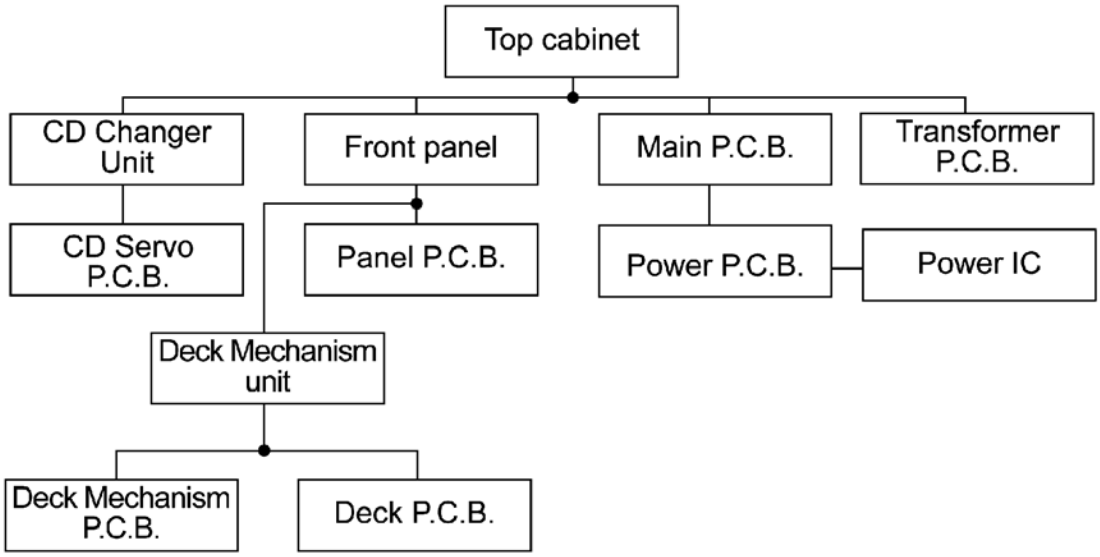
Below is the list of disassembly sections

- **Disassembly of Top Cabinet**
- **Disassembly of Rear Panel**
- **Disassembly of CD Changer Unit**
- **Disassembly of Main P.C.B.**
- **Disassembly of Transformer P.C.B.**
- **Disassembly of Power P.C.B.**
- **Disassembly of Front Panel Unit**
- **Disassembly of Panel P.C.B.**
- **Disassembly of Deck Mechanism Unit**
- **Disassembly for Deck P.C.B.**
- **Disassembly of Traverse Unit**
- **Disassembly of Optical Pickup Unit (CD Mechanism)**
- **Disassembly of Deck Mechanism**
- **Replacement for cassette lid**
- **Rectification for tape jam problem**

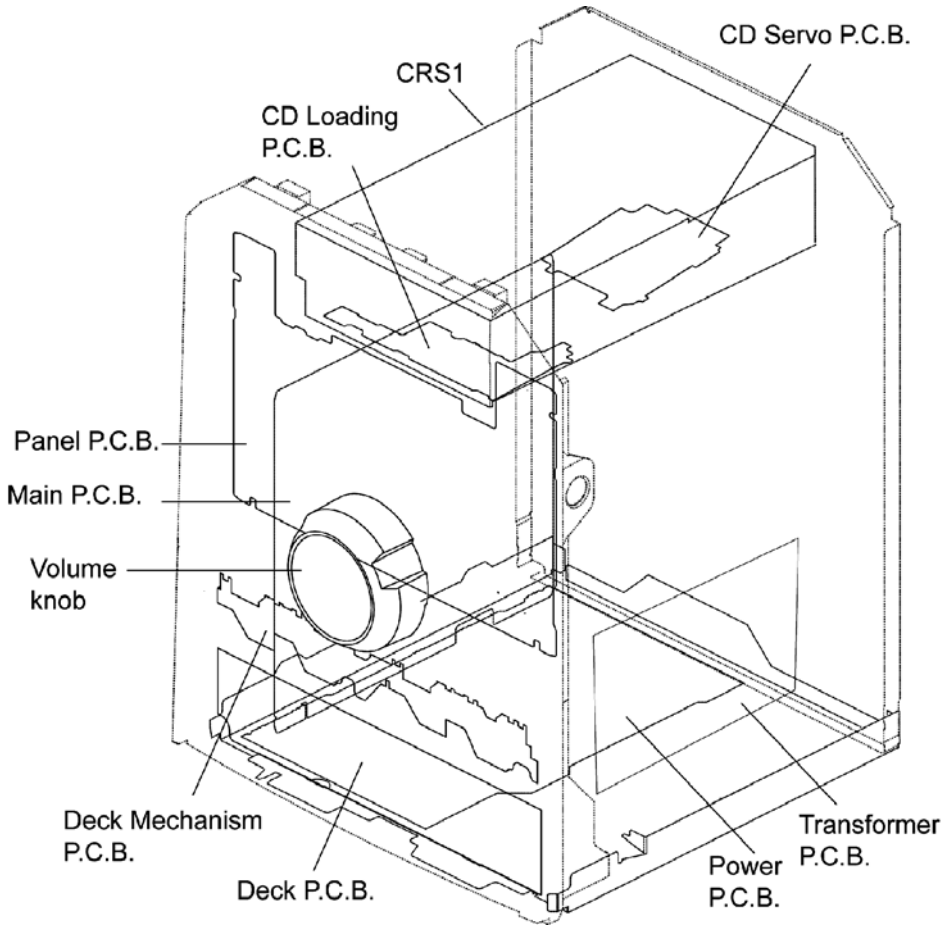
10.2. Disassembly flow chart

The following chart is the procedure for disassembling the casing and inside parts for internal inspection when carrying out the servicing.

To assemble the unit, reverse the steps shown in the chart as below.



10.3. Main Parts Location



10.4. Disassembly of Top Cabinet

Step 1 Remove 3 screws at each side and 5 screws at rear panel.

Step 2 Lift up both sides of the top cabinet, push the top cabinet towards the rear to remove the top cabinet.

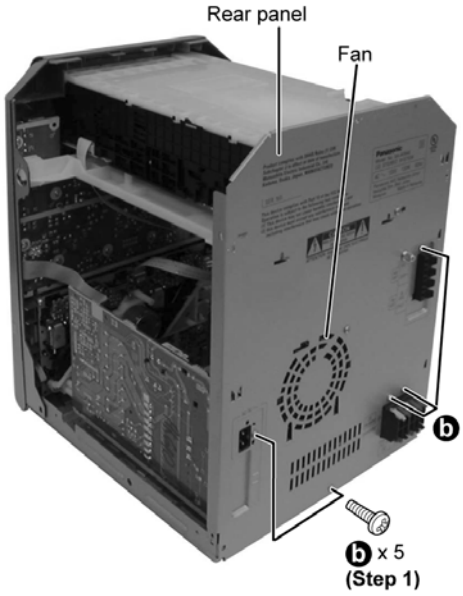
10.5. Disassembly of Rear Panel

・Follow the (Step 1) - (Step 2) of Item 10.4 - Disassembly of Top Cabinet

Step 1 Remove 5 screws.

Step 2 Disconnect cable CN2810 (Fan) at Main P.C.B..

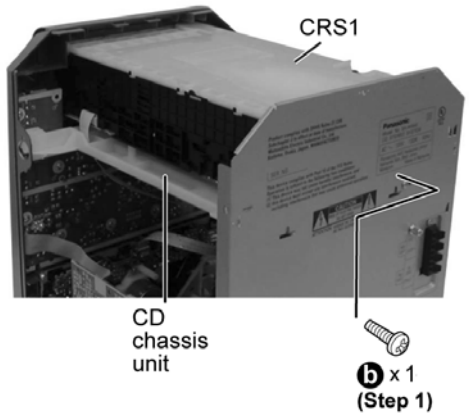
Step 3 Remove rear panel.



10.6. Disassembly of CD Changer Unit (CRS1)

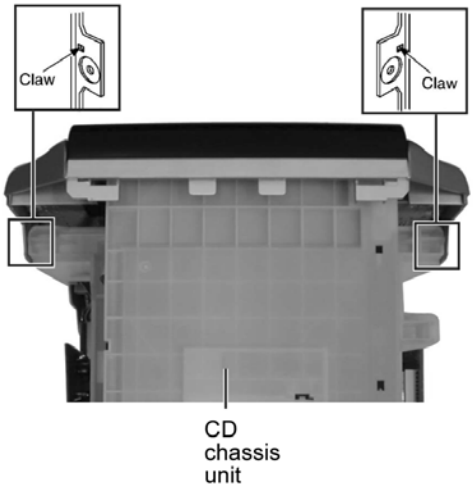
・Follow the (Step 1) - (Step 2) of Item 10.4 - Disassembly of Top Cabinet

Step 1 Remove 1 screw at rear panel.



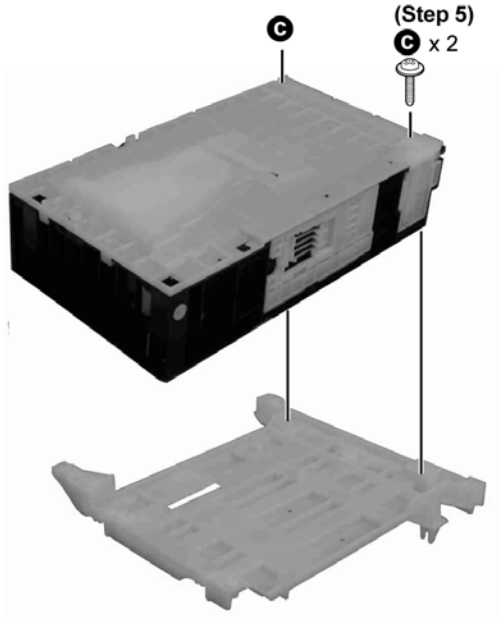
Step 2 Detach the FFC cables (CN2801 & CN2805).

Step 3 Release the claws on both ends.



Step 4 Lift the CD changer unit upwards to remove it.

· **Disassembly of Mecha Chassis**



Step 5 Remove 2 screws.

Step 6 Remove the Mecha Chassis.

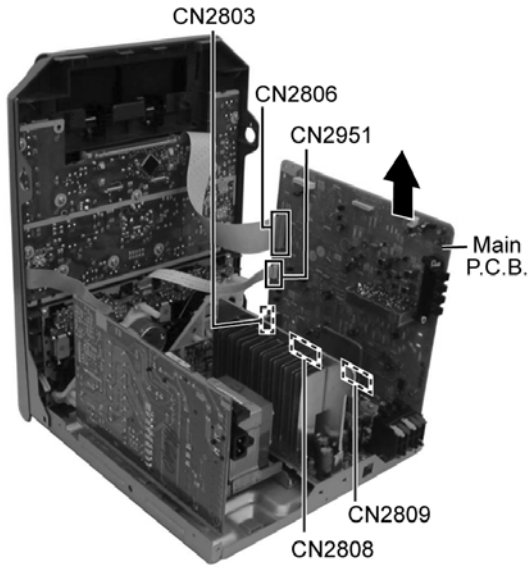
Note:

For disassembly & assembly of traverse unit, please refer to section 10.14 of this service manual.Please refer to original Service Manual for the Disassembly and Assembly of the CD Changer Unit (CRS1).

10.7. Disassembly of Main P.C.B.

- Follow the (Step 1) - (Step 2) of Item 10.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 10.6 - Disassembly of CD Changer Unit
- Follow the (Step 1) - (Step 3) of Item 10.5 - Disassembly of Rear Panel

Step 1 Disconnect FFC cables (CN2803, CN2806 and CN2951).



Step 2 Detach connectors (CN2808 & CN2809).

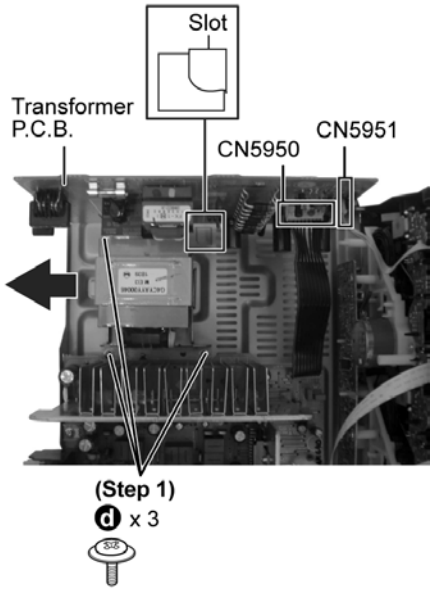
Step 3 Remove Main P.C.B..

10.8. Disassembly of Transformer P.C.B.

- Follow the (Step 1) - (Step 2) of Item 10.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 3) of Item 10.5 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 4) of Item 10.6 - Disassembly of CD Changer Unit

Step 1 Disconnect connectors (CN5950 & CN5951).

Step 2 Remove 3 screws (Mounting screws for transformer to bottom chassis).

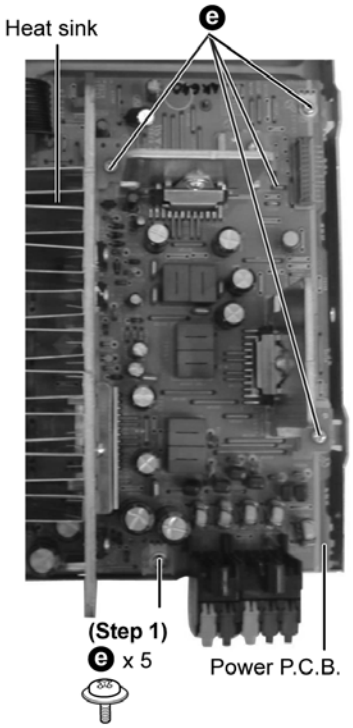


Step 3 Push the Transformer P.C.B. sidewards to remove it.

10.9. Disassembly of Power P.C.B.

- Follow the (Step 1) - (Step 2) of Item 10.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 10.6 - Disassembly of CD Changer Unit
- Follow the (Step 1) - (Step 3) of Item 10.5 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 3) of Item 10.7 - Disassembly of Main P.C.B.

Step 1 Remove the 5 screws on Power P.C.B..



Step 2 Detach cable (CN5950) remove the 5 screws on Power P.C.B..

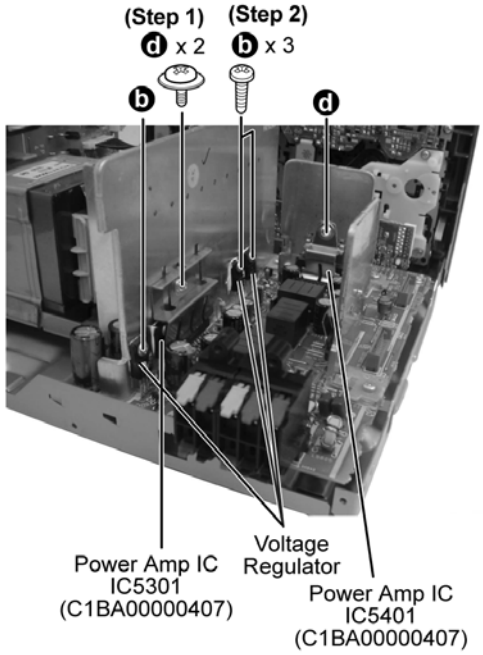
Step 3 Remove Power P.C.B..

Note:

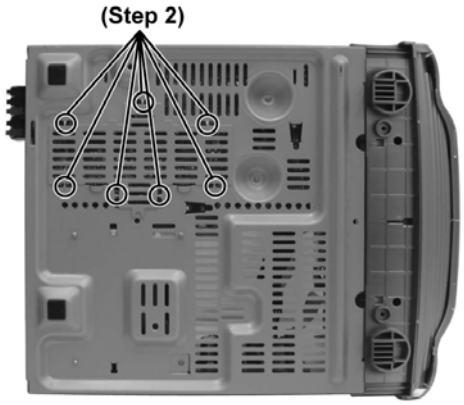
Insulate the Power P.C.B. with insulation material to avoid short circuit.

- **Replacement of the Power Amp IC or Voltage Regulator**

  Step 4 Remove 2 screws at the Power Amp IC and/or 3 screws to Voltage Regulator.



Step 5 Cut the joints with a metal cutter as shown below.



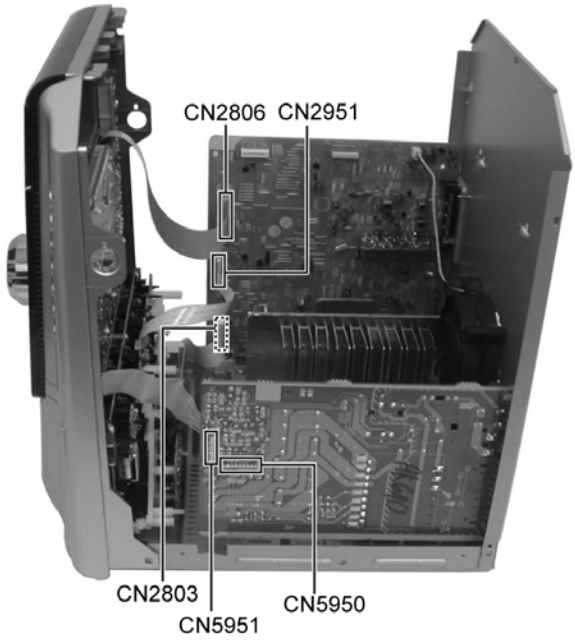
Step 6 Desolder the terminals to replace the components.

Step 7 Fix back the cut portion with a screw as shown.

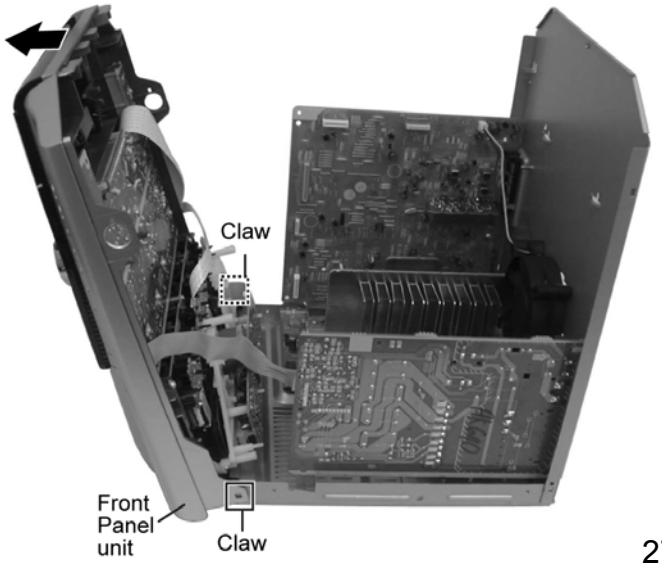
10.10. Disassembly of Front Panel Unit

- Follow the (Step 1) - (Step 2) of Item 10.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 10.6 - Disassembly of CD Changer Unit

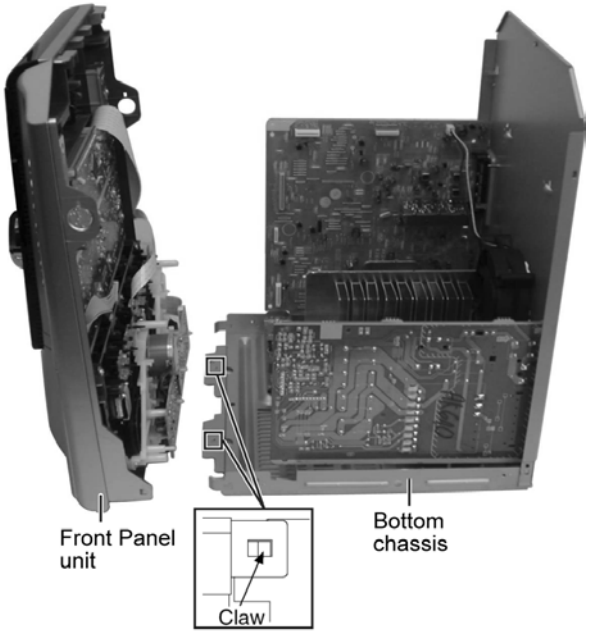
Step 1 Disconnect connectors (CN2803, CN2806, CN2951, CN5950 & CN5951).



Step 2 Bent the front panel unit slightly forward as arrow shown.



Step 3 Release 2 claws outwards.



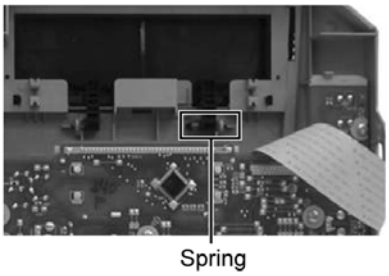
Step 4 Remove the front panel unit.

Note: Ensure 2 claws located at the bottom chassis is seated into the 2 slots at bottom of front panel at 2 catches (one on each side) of bottom chassis to be aligned to front panel's slot. Assembly is secured upon hearing clicking sound.

10.11. Disassembly for Panel P.C.B.

- Follow the (Step 1) - (Step 2) of Item 10.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 10.6 - Disassembly of CD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 10.10 - Disassembly of Front Panel Unit

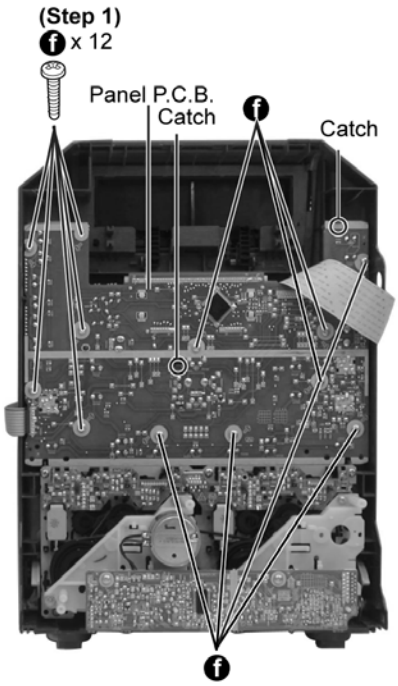
Step 1 Remove the volume knob.



Step 2 Remove Lid.

Note: Do not misplace the spring.

Step 2 Remove 12 screws.



Step 3 Release 2 catches.

Step 4 Remove Panel P.C.B..

10.11.1. Disassembly of Lid

Step 1 Lift the spring sideward.

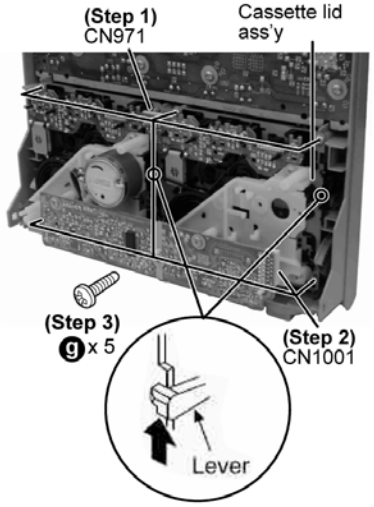
10.12. Disassembly of Deck mechanism unit

- Follow the (Step 1) - (Step 2) of Item 10.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 10.6 - Disassembly of CD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 10.10 - Disassembly of Front Panel Unit

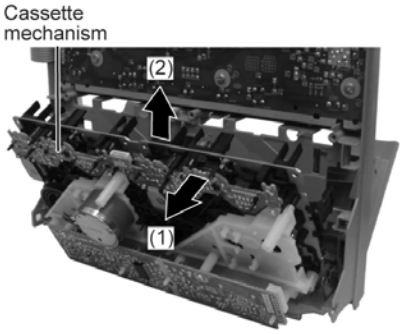
Step 1 Detach FFC cable (CN971).

Step 2 Disconnect FFC cable (CN1001).

Step 3 Remove the 5 screws.



Step 4 Push the lever upward, and then open the cassette lid ass'y (For DECK1 and DECK2).



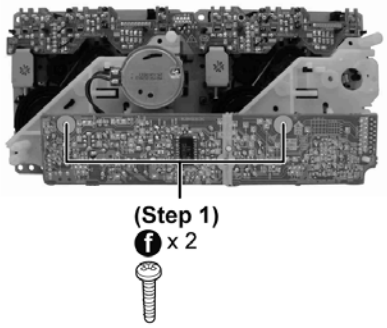
Step 5 Tilt the cassette mechanism unit in the direction of arrow (1), and then remove it in the direction of arrow (2).

Note: For disassembly of parts for deck mechanism unit, refer to Section 10.15.

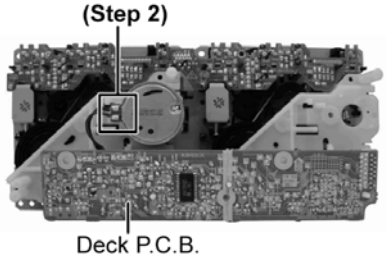
10.13. Disassembly of Deck P.C.B.

- Follow the (Step 1) - (Step 2) of Item 10.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 10.6 - Disassembly of CD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 10.10 - Disassembly of Front Panel Unit

Step 1 Remove 2 screws.



Step 2 Desolder wire at deck motor terminals (W1002).

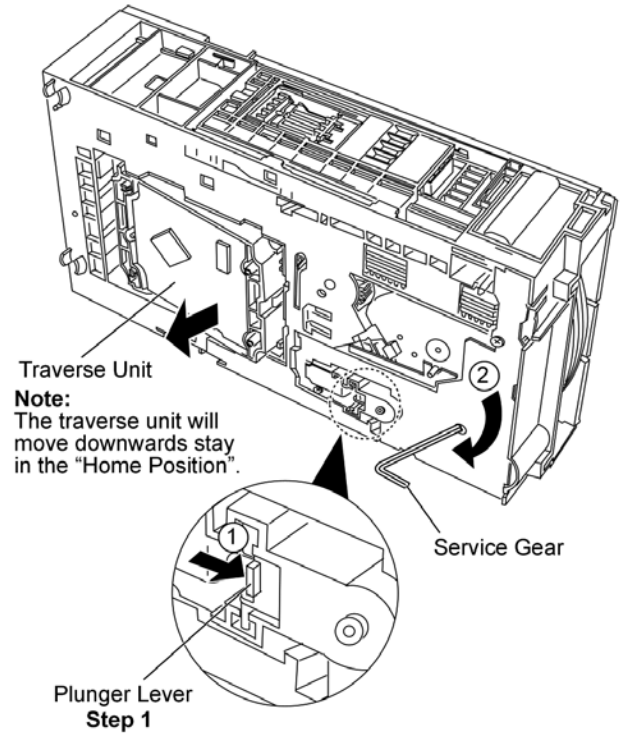


Step 3 Remove Deck P.C.B.

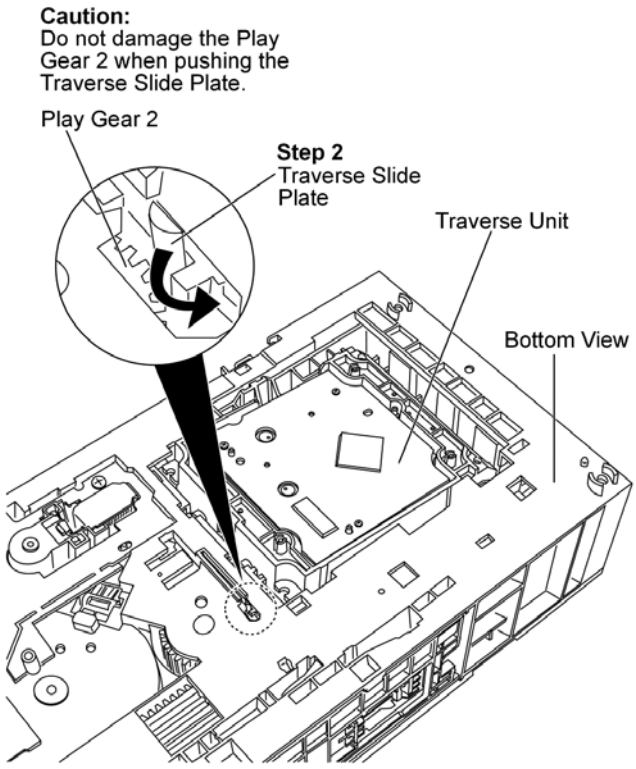
10.14. Disassembly of Traverse Unit

- Follow the (Step 1) - (Step 2) of Item 10.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 10.6 - Disassembly of CD Changer Unit

Important notes: Ensure all the trays are in the "STOCK" position before proceeding to the disassemble of traverse unit. For procedures to set the trays in "STOCK" position, please refer to original Service Manual for CRS1, Section 7. Disassembling Procedure When Tray In Play Position, Order No. MD0509368C0.

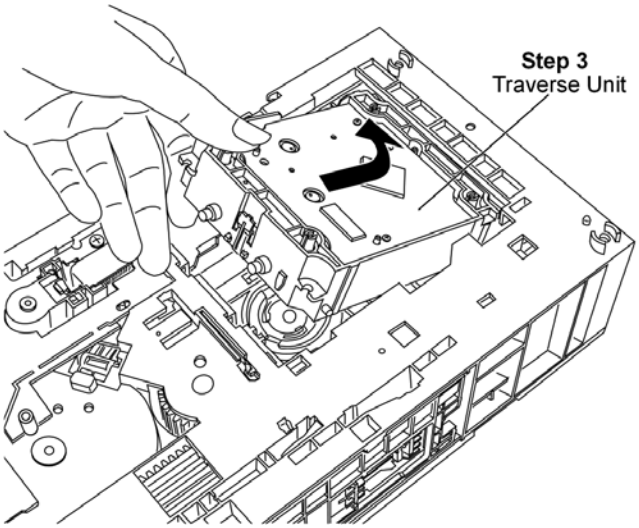


Step 1: Press and hold the plunger lever and rotate the gear as arrows shown until it stop.



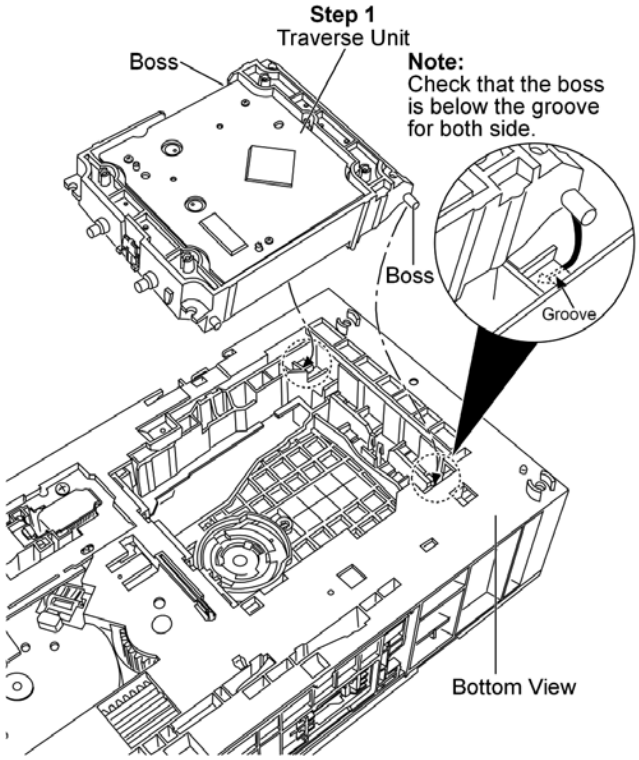
Step 2: Push the traverse slide plate as arrow shown to release the traverse unit.

Caution: Do not exert strong force on the traverse slide plate.

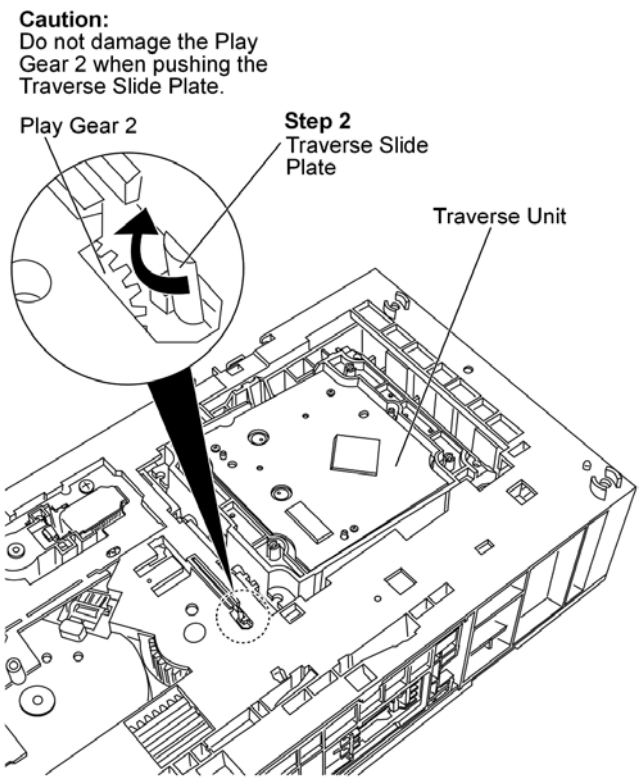


Step 3: Remove the traverse unit as arrow shown.

・ Assembly of Traverse Unit



Step 1: Turn over the unit and install the traverse unit.

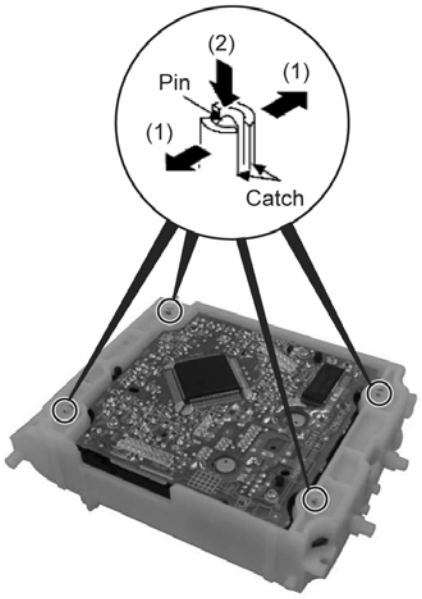


Step 2: Push the traverse slide plate as arrow shown to lock the traverse unit.

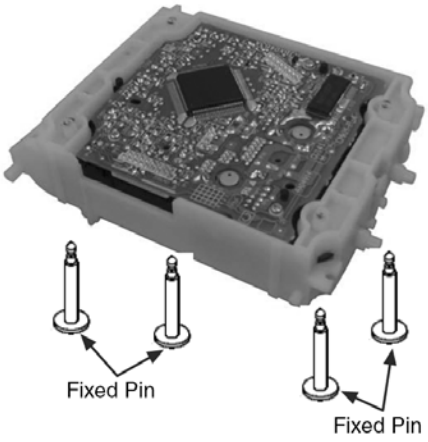
10.15. Disassembly of optical pickup unit (CD mechanism)

- Follow the (Step 1) - (Step 2) of Item 10.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 10.6 - Disassembly of CD Changer Unit
- Follow the (Step 1) - (Step 2) of Item 10.14 - Disassembly of Traverse Unit

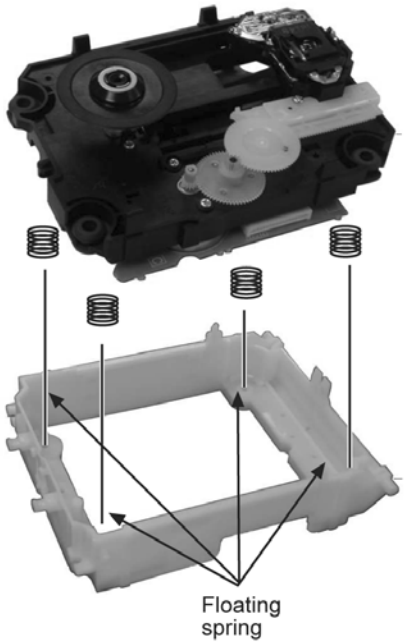
Step 1 Pull out FFC.



Step 2 Widening the catch, push the pin in.

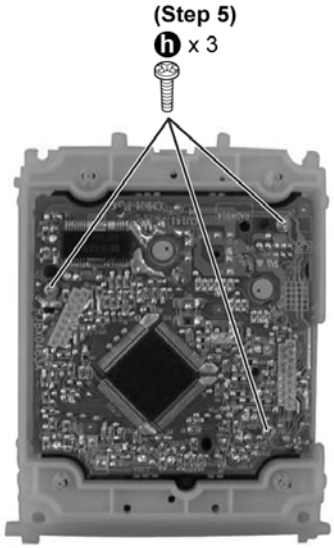


Step 3 Remove 4 pins.



Step 4 Remove the traverse deck.

Note: As floating springs (4 pieces) come off at the same time, be careful not to lose them.

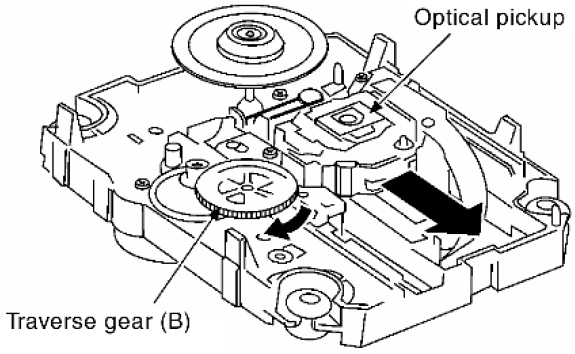


Step 5 Remove 3 screws.

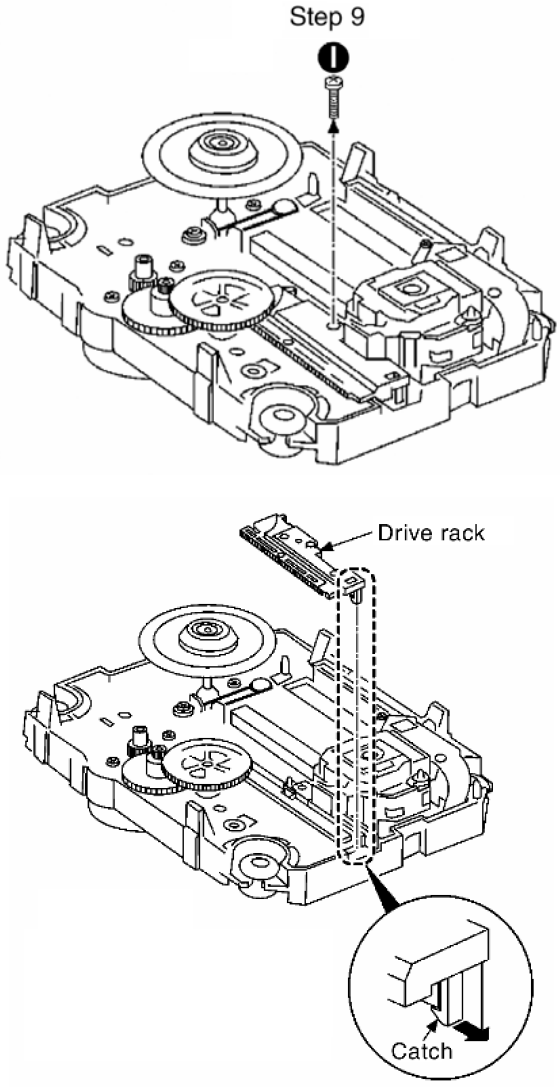
Step 6 Remove the CD Servo P.C.B. and turn it over.

Note: Insert a short pin into FFC of the optical pickup.

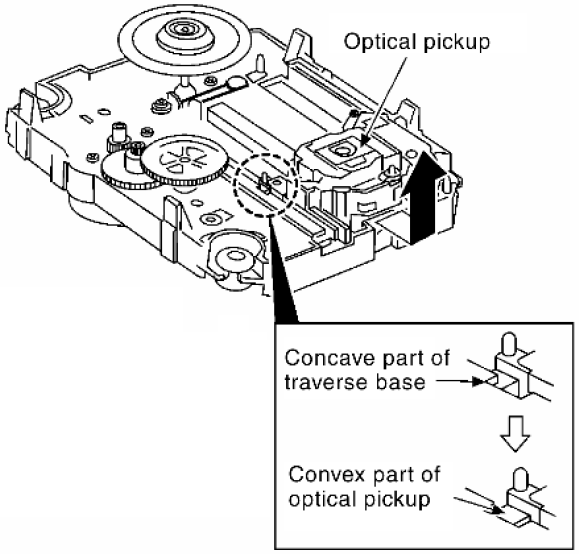
Step 7 Rotate the traverse deck (B) to the arrow direction and shift the optical pickup to the furthest backward.

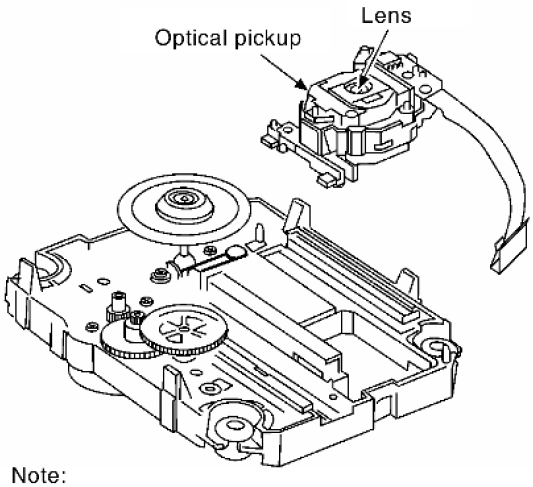


Step 8 Remove the catch of the drive rack, and take out the drive rack.



Step 9 Place the convex part of an optical pickup to the concave part of a traverse base, then take out the optical pickup.





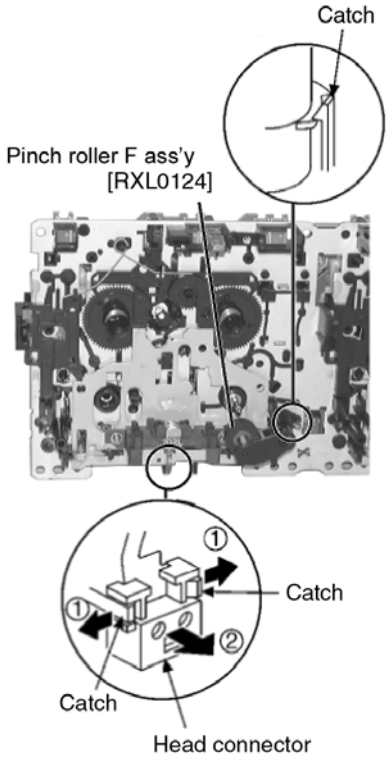
Note:
Do not touch the lens of the optical pickup

10.16. Disassembly of Deck Mechanism

- Follow the (Step 1) - (Step 2) of Item 10.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 10.6 - Disassembly of CD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 10.10 - Disassembly of Front Panel Unit
- Follow the (Step 1) - (Step 5) of Item 10.12 - Disassembly of Deck Mechanism Unit

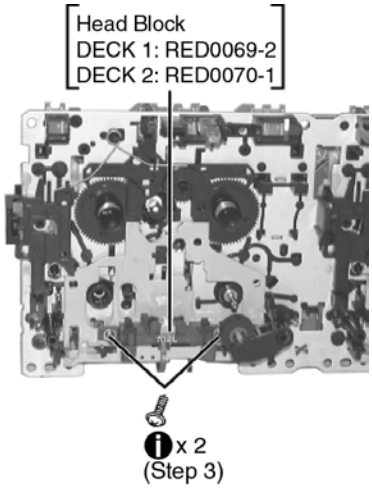
10.16.1. Disassembly of the pinch roller ass'y and head block

*** The mechanism as shown below is for DECK1. For DECK 2, perform the same procedures.**



Step 1 Release the catch, and then remove the pinch roller (F).

Step 2 Release 2 claws and detach the head block connector.



Step 3 Remove 2 screws.

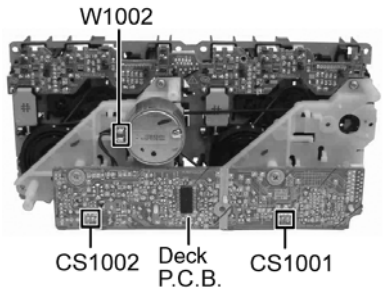
Step 4 Remove head block.

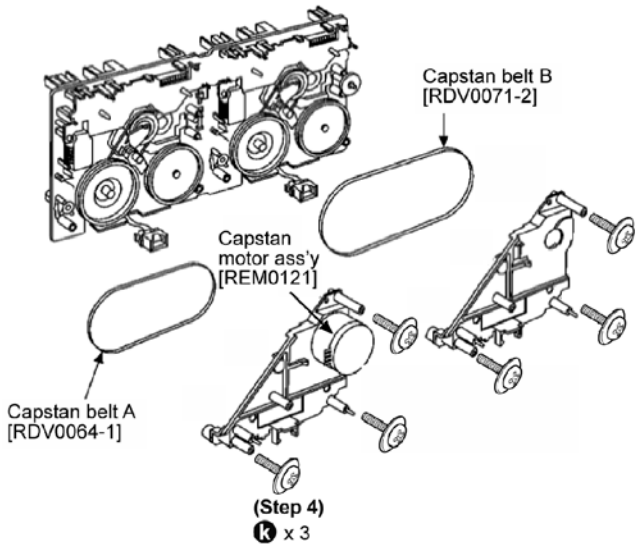
10.16.2. Disassembly of capstan motor ass'y, capstan belt A, capstan belt B and winding belt

Step 1 Detach the head block connector (Deck P.C.B.).

Step 2 Desolder wire(W1002) at motor assembly.

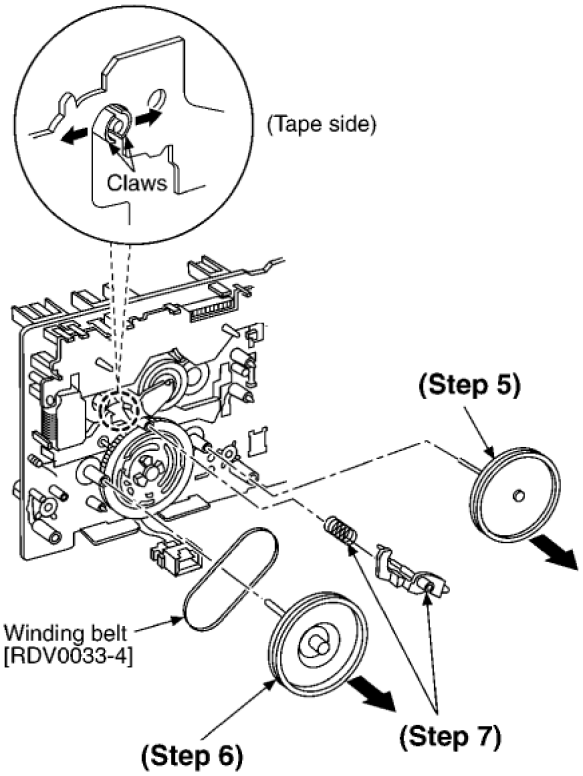
Step 3 Remove Deck P.C.B.





Step 4 Remove 3 screws (for deck 1 & 2).

Step 5 Remove capstan belt A/B.

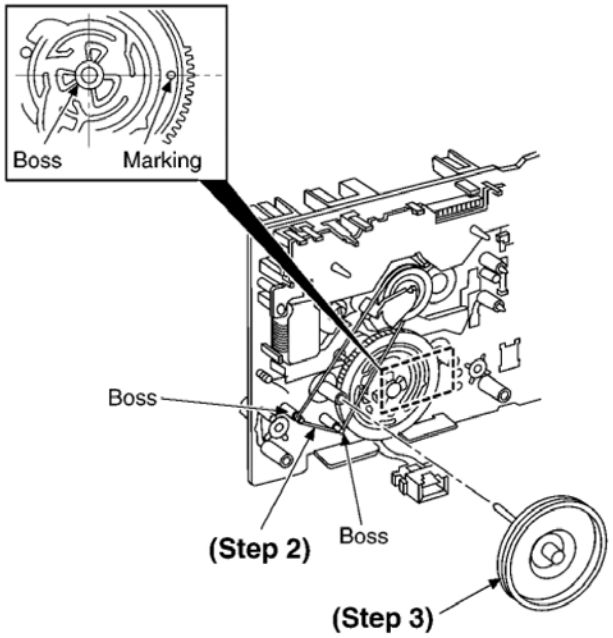


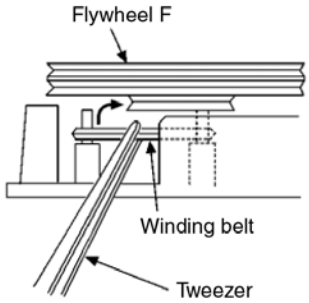
Step 6 Remove the flywheel R.

Step 7 Release the claw and remove the winding lever and spring.

[Installation of the belt]

Step 1 The boss and marking should be positioned horizontally.





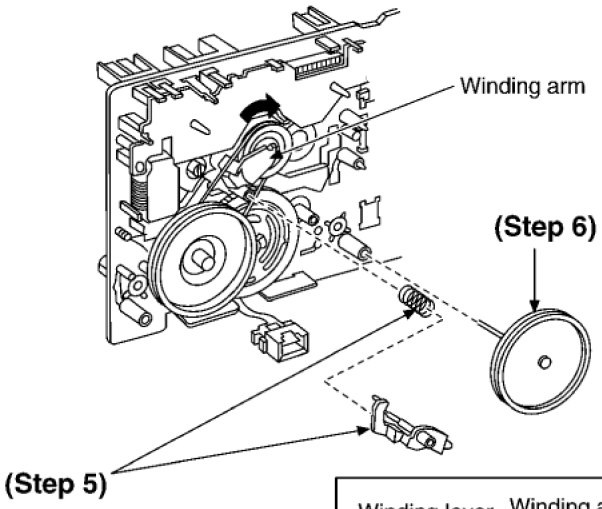
Step 2 Put the winding belt on the pulley temporarily.

Step 3 Install the flywheel F.

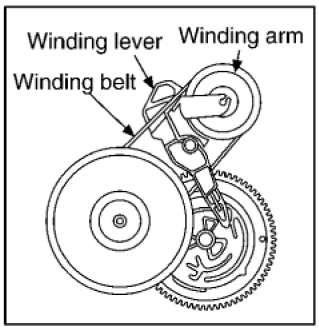
Step 4 Put the winding belt on the flywheel F.

Step 5 Install the winding lever and spring while pressing the winding arm in the direction of arrow.

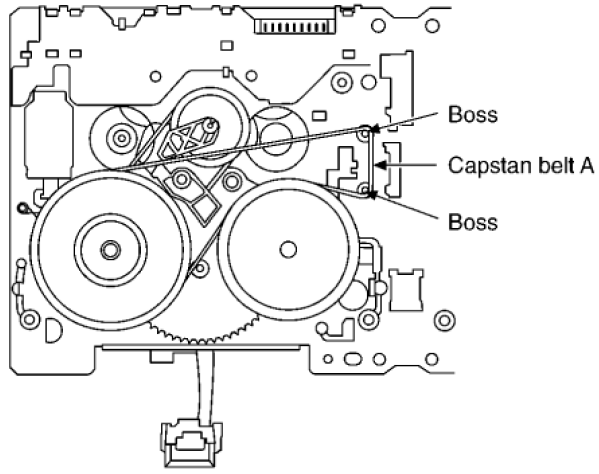
Step 6 Install the flywheel R.

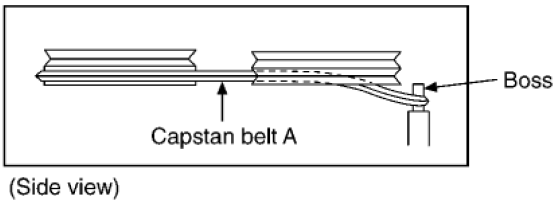


NOTE:
The winding lever should be positioned as shown below.



Step 7 Put the capstan belt A temporarily as shown below.

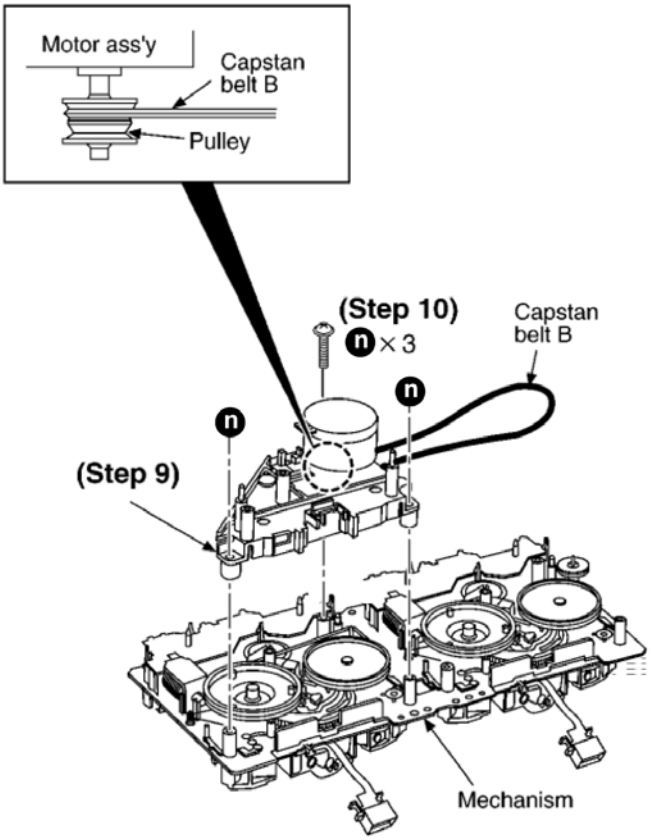




(Side view)

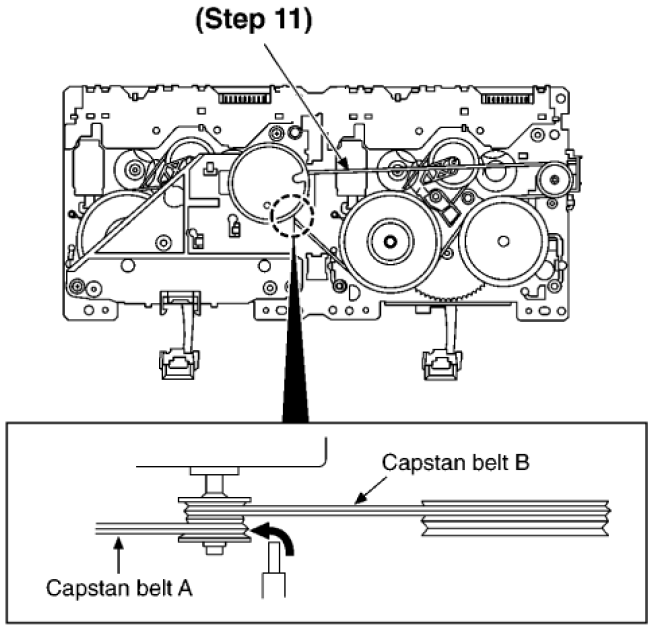
Step 8 Put the capstan belt B on the motor ass'y pulley.

Step 9 Install the sub chassis to the mechanism, and then tighten screws.



Step 10 Install 3 screws.

Step 11 Put the capstan belt B as shown below.

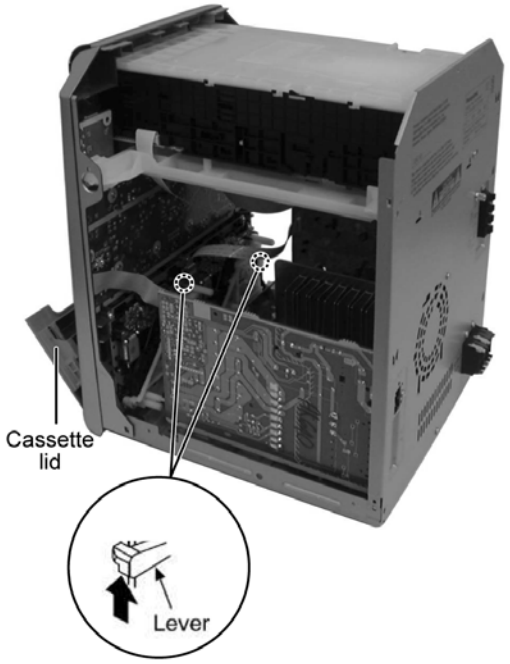


Step 12 Put the capstan belt A on the motor ass'y pulley.

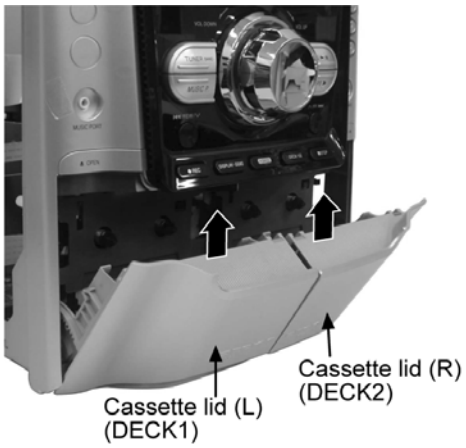
10.17. Replacement for cassette lid

· Follow the (Step 1) - (Step 2) of Item 10.4 - Disassembly of Top Cabinet

Step 1 Lift up the lever upward, open the cassette deck. (For DECK1 and DECK2)



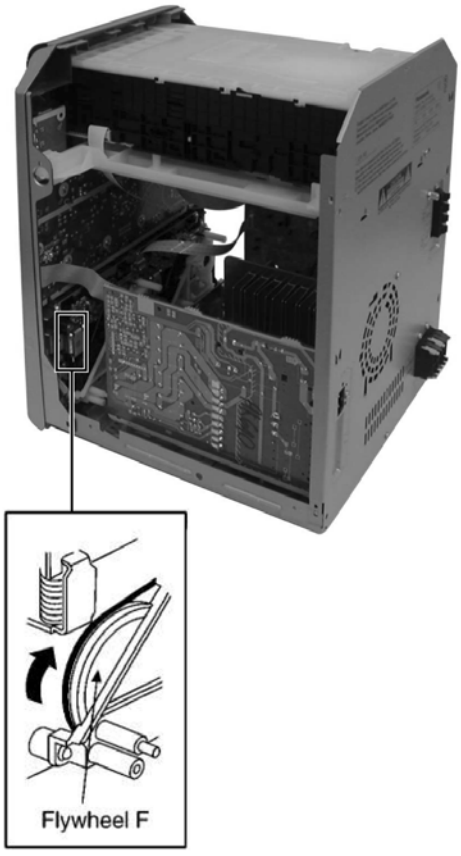
Step 2 Push up the cassette lid (L/R) in the direction of arrow. (For DECK1 and DECK2).



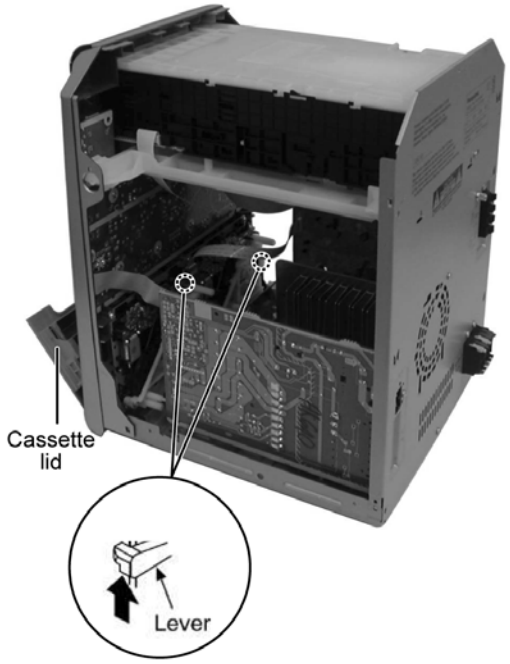
10.18. Rectification for tape jam problem

· Follow the (Step 1) - (Step 2) of Item 10.4 - Disassembly of Top Cabinet

Step 1 If a cassette tape cannot be removed from the deck (the tape is caught by the capstan or pinch roller during playback or recording), rotate the flywheel F in the direction of the arrow to remove it.



Step 2 Push the lever upward and open the cassette lid. Remove the cassette tape.


Cassette
lid
Lever

11 Service Fixture and Tools

Service Tools	
Extension FFC	
(A) Deck P.C.B. - Main P.C.B.	REEX0485 (14 Pins)
(B) Panel P.C.B. - Deck Mechanism P.C.B.	REEX0484 (10 Pins)

12 Service Positions

Note: For description of the disassembly procedures, see the Section 10.

12.1. Checking and Repairing of Main P.C.B.

1. Remove Top cabinet

- Remove 3 screws on L/R side.
- Remove 5 screws on rear panel.
- Remove top cabinet.

12.2. Checking and Repairing of Transformer P.C.B.

1. Remove Top cabinet

Remove 3 screws on L/R side.
Remove 5 screws on rear panel.
Remove top cabinet.

12.3. Checking and Repairing of Panel, Deck & Deck Mechanism P.C.B.

1. Remove Top cabinet

- Remove 3 screws on L/R side.
- Remove 5 screws on rear panel.
- Remove top cabinet.

2. Disassemble Front panel

- Disconnect 5 connectors, CN2803, CN2806, CN2951, CN5950 & CN5951.
- Bent front panel forward.
- Release 2 claws.

3. Disassemble Panel P.C.B.

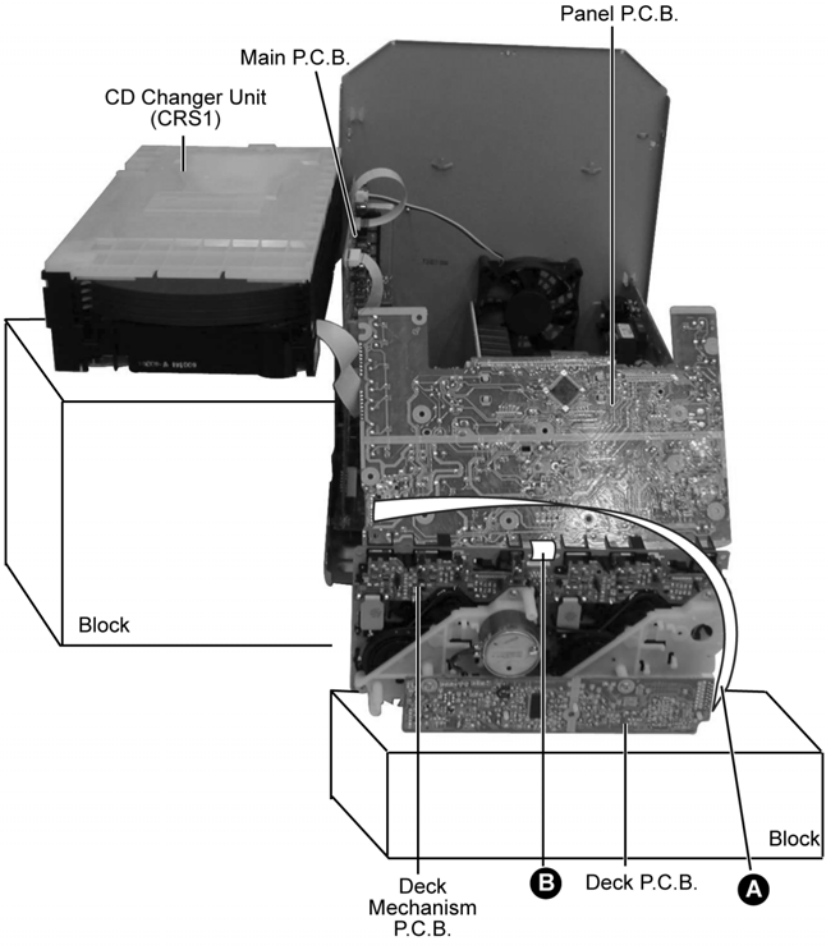
- Remove volume knob.
- Remove 11 screws.
- Release 2 catches.

4. Disassemble Deck mechanism unit

- Detach CN971.
- Disconnect CN1001.
- Remove 5 screws.
- Push lever upward.

5. Connect Panel P.C.B., CRS1 & Deck Mechanism

Connect 10P FFC cable (REEX0484) between CN971to CN2951
Connect 14P FFC cable (REEX0485) between CN2803 to CN1001
Connect 14P FFC cable between CN2805 to CN1
Connect 17P FFC cable between CN2801 to CN7002



12.4. Checking and Repairing of Power P.C.B.

1. Remove Top cabinet

- Remove 3 screws on L/R side.
- Remove 5 screws on rear panel.
- Remove top cabinet.

2.Remove Rear panel

- Disconnect 5 screws.
- Disconnect cable CN2810 (fan).

3.Disassemble CD changer unit

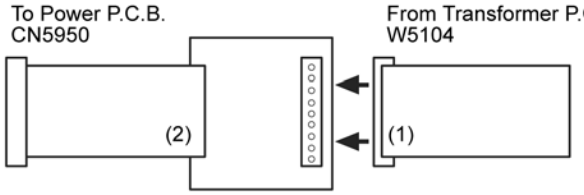
- Remove 1 screw at rear panel.
- Release 2 claws at (L) & (R).

4.Disassemble Power P.C.B.

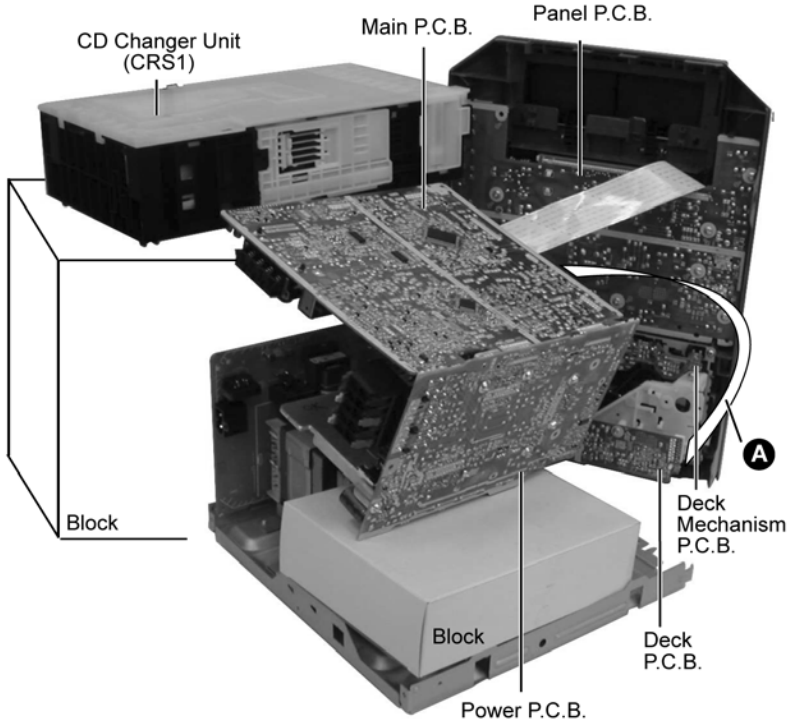
- Remove 5 screws
- Detach CN5950.

5. Connect Panel P.C.B., CRS1 & Deck Mechanism

Connect 10P FFC cable (REEX0484) between CN971to CN2951
Connect 14P FFC cable (REEX0485) between CN2803 to CN1001
Connect 14P FFC cable between CN2805 to CN1
Connect 17P FFC cable between CN2801 to CN7002
Connect service extension P.C.B (Part No. RFKAAK340PS) between CN5950 and W5104



(1) Connect W5104 (Transformer P.C.B.) to connector on Service Extension P.C.B.
(2) Connector the connector (Service Extension P.C.B.) to CN5950 (Powwer P.C.B.)



13 Adjustment Procedures

13.1. Cassette Deck Section

- Measurement Condition
  - Reverse-mode selector switch:
  - Deck Tape Select: NORMAL
  - Make sure head, capstan and press roller are clean.
  - Judgeable room temperature 20 ± 5 °C (68 ± 9°F)
- Measuring instrument
  - EVM (DC Electronic voltmeter)
  - Digital frequency counter
- Test Tape
  - Tape speed gain adjustment (3 kHz, -10 dB); QZZCWAT

13.1.1. Tape Speed Adjustment (Deck 1/2)

1. Insert the test tape (QZZCWAT) to DECK 2 and playback (FWD side) the middle portion of it.
2. Adjust Motor VR (DECK 2) for the output value shown below.

   Adjustment target: 2910 ~ 3090 Hz (NORMAL speed)

3. After alignment, assure that the output frequency of the DECK 1 FWD are within ±60 Hz of the value of the output frequency of DECK 2 FWD.

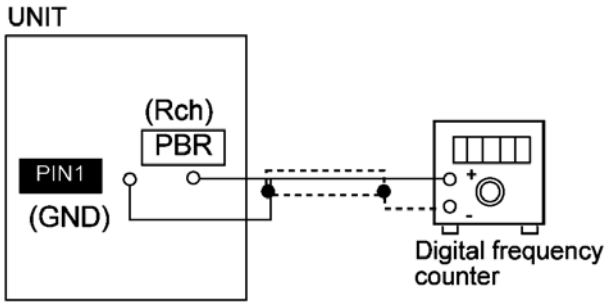


Fig. 1

13.1.2. Bias Voltage Check

1. Set the unit “AUX” position.
2. Insert the Normal blank tape (QZZCRA) into DECK 2 and the unit to “REC” mode (use “l REC/STOP” key).
3. Measure and make sure that the output is within the standard value.

Bias voltage for Deck 2 14±4mV (Normal)

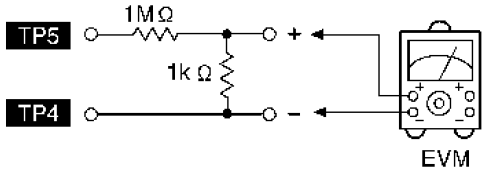


Fig. 2

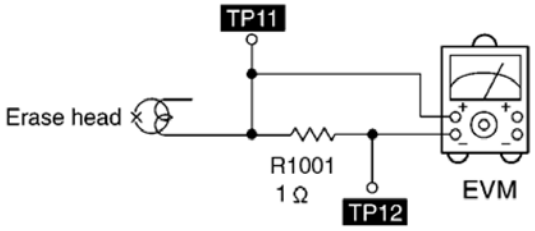


Fig. 3

13.1.3. Bias Frequency Adjustment (Deck 1/2)

1. Set the unit to “AUX” position.
2. Insert the Normal blank tape (QZZCRA) into DECK 2 and set the unit to “REC” mode (l use “REC/STOP” key).
3. Adjust L1002 so that the output frequency is within the standard value as below.

   Standard Value: 89 ~ 110 kHz

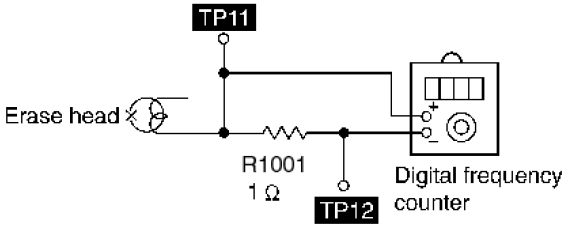
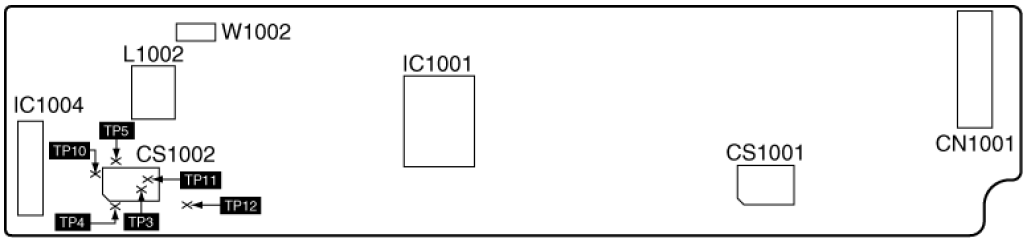


Fig. 4

13.1.3.1. Cassette Deck Section

Below is the locations of test points for Deck P.C.B.:-



13.2. Tuner Section

This section include details on the alignment of AM-IF and AM RF adjustment.

13.2.1. AM-IF Alignment

1. Set up the equipments as shown in Fig. 5.
2. Select [TUNER] mode on selector and set to [AM] mode.
3. Apply signal as shown in Fig. 5 from AM-SG.
4. Adjust Z2602 accordingly so that the output frequency is maximized at 450kHz in Fig. 6.

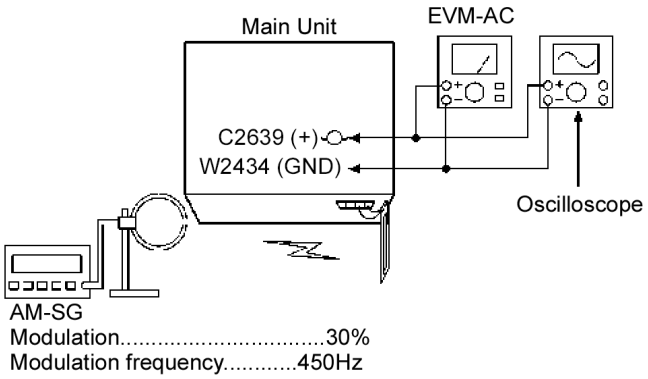


Fig. 5

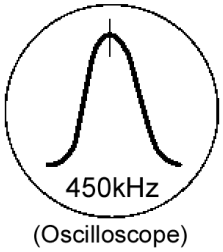


Fig. 6

13.2.2. AM RF Adjustment

1. Set up the equipments as shown in Fig. 7.
2. Select [TUNER] on selector and set to [AM] mode.
3. Set AM-SG to 520kHz.
4. Receive 520kHz in the unit.
5. Adjust L2601 (OSC) so that the EVM-AC is maximized.
6. Set AM-SG to 600Hz.
7. Receive 600Hz in the unit.
8. Adjust L2601 (ANT) so that the EVM-SG is maximized.
9. Set AM-SG to 520kHz.
10. Receive 520kHz in the unit.
11. Adjust L2602 (OSC) so that the EVM-DC value is with 1.1±0.5V.

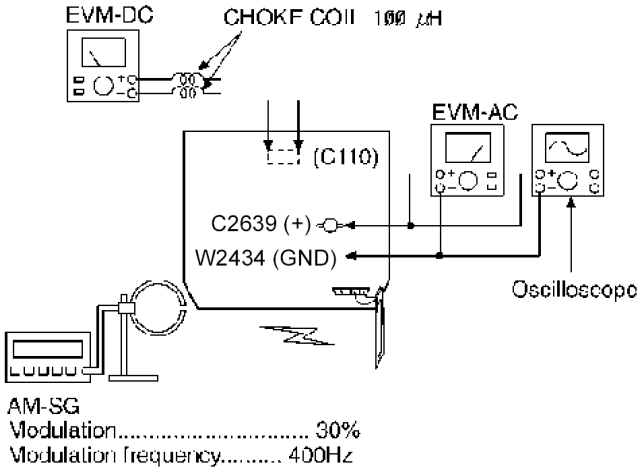
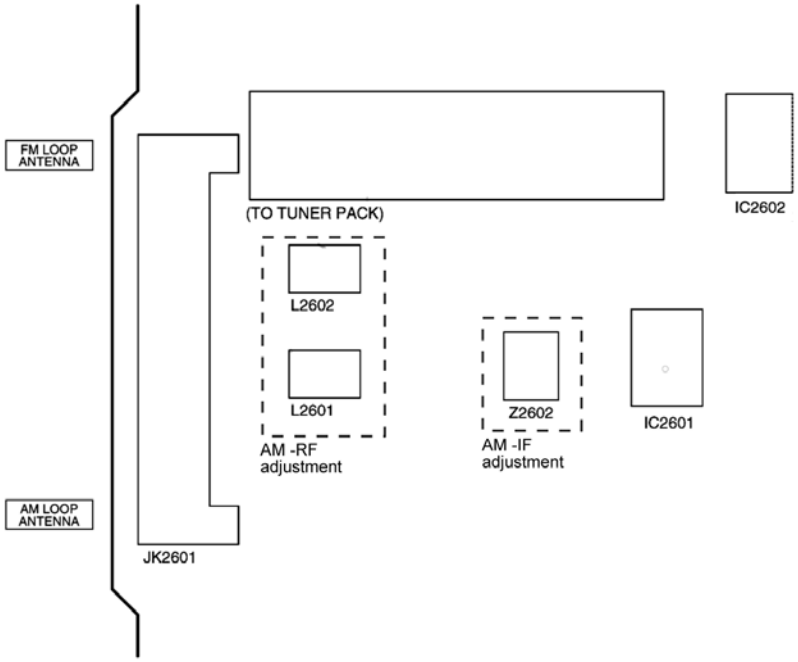


Fig. 7

13.2.3. Adjustment Point

Below is the locations of alignment points on the Main (Tuner) P.C.B.



14 Voltage and Waveform Chart

Note:

Circuit voltage and waveform described herein shall be regarded as reference information when probing defect point, because it may differ from an actual measuring value due to difference of Measuring instrument and its measuring condition and product itself.

14.1. CD Servo P.C.B. & Main P.C.B.

CD SERVO P.C.B.(SIDE A)

Ref No.	IC7001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.4
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.7	0	0	1.6	0
Ref No.	IC7001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	0	1.7	1.7	1.9	0	3.4	1.5	3.4	3.4	0	1.7	1.6	1.7	1.8	1.8	1.7	1.7	1.7	1.7
STANDBY	1.7	3.4	1.7	1.7	1.7	0	3.4	1.5	3.4	3.4	0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Ref No.	IC7001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0.2	2.5	1.4	1.7	1.7	1.8	3.4	1.2	1.2	1.3	1.7	1.7	0.8	1.5	1.5	1.5	0	3.1	1.5	0
STANDBY	0	3.4	1.4	1.7	1.7	1.8	3.4	1.2	1.2	1.2	0	1.7	0.8	1.1	0	1.5	0	3.1	1.5	0
Ref No.	IC7001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	3.4	3.4	0	0	0	0	3	2.5	3.7	2.3	0	3.7	0	1.7	0	1.5	3.4	0	3.4	1.7
STANDBY	3.4	0.8	0.8	0	3.2	0	3.7	0	3.7	0	0	3.7	0	1.7	0	1.5	3.4	0	3.4	1.7
Ref No.	IC7001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	-	3.4	0	0	0	0	0	0	0	0	0	0	3.4	0	0	0	0	0	0	0
STANDBY	1.6	3.4	0	0	0	0	0	0	0	0	0	0	3.4	0	0	0	0	0	0	0
Ref No.	IC7002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.7	0	1.7	0	0	0	0	0	0	7.2	4	3.4	3.4	3.4	3	3.8	3.5	3.2	7.2	0
STANDBY	1.7	0	1.7	3.3	0	0	0	0	0	7.5	3.8	3.8	3.4	3.4	3.4	3.4	3.4	3.4	7.5	0
Ref No.	IC7002																			
MODE	21	22	23	24	25	26	27	28												
CD PLAY	7.3	0	0	0	7.3	1.7	1.7	1.7												
STANDBY	7.5	0	0	0	7.5	1.7	1.7	1.7												

MAIN P.C.B.

Ref No.	IC2601																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	2	0	2	0	0	5	5.2	3.8	6	0	4.9	3.6	0	1.5	1.9	2	2	0	0	0.1
STANDBY	2	6	2	2	0	5	5.2	0	6	0	4.9	0	1.5	1.5	1.9	2	2	0	0	0
Ref No.	IC2601																			
MODE	21	22	23	24																
CD PLAY	2.4	2.4	6	4.6																
STANDBY	2.4	2.4	6	4.6																
Ref No.	IC2602																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	2.6	0	0	0	5.2	0	1.2	4.6	0	14.9	0	0	2.6	0	0	0	0	15	0	2.6
STANDBY	2.6	0	0	0	5.2	4.9	0.8	4.6	0	15	0	0	2.6	0	5.2	0	0	0	0	0
Ref No.	IC2801																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	2.5	0	0	2.5	2.5	0	0	0	0	0	0.0	0.7	5.5	2.7	-	5.5	5.5	5.4	5.5	3.6
STANDBY	0	0	0	2.4	2.5	0	0	0	0	0.6	0.7	0	2.7	0	2.7	5.5	5.5	5.5	0	3.7
Ref No.	IC2801																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	5.1	5.1	0	0	0	0	5.5	0	0	0	0	0	0	0	0	0	5.4	0	5.4	0
STANDBY	5.2	5.1	0	0	0	0	5.5	0	0	0	0	0	5	0	0	0	5.4	0	5.5	5.5
Ref No.	IC2801																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0	0	0	0	0	5.4	5..4	0	0	0	0	0	5.1	0	0	0	0	5.5	5.5	5.5
STANDBY	0	0	0	0	0	5.4	5..4	0	0	0	0	5	5.1	0	0	0	0	5.5	5.5	5.5
Ref No.	IC2801																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	0	5.5	0	0	0	5.5	0	0	0	3.5	3.8	4.7	0	5.5	1	5.4	4.2	4.9	5.1	0
STANDBY	0	5.5	0	0	0	5.5	0	0	0	5.5	5.5	5.5	5.5	5.5	5.1	5.5	0	5.5	5.1	0
Ref No.	IC2801																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	0	4.6	5.1	0	0	5.1	0	0	0	0.1	5.1	5.5	4.6	4.6	4.7	0	4.7	5.5	5.5	5.4
STANDBY	0	4.6	5.1	0	0	5.1	0	0	0	0.1	5.1	5.5	4.6	4.6	4.7	0	4.7	5.5	5.5	5.4

Ref No.	IC2803																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	0	4.6	4.6	4.6	4.6	4.6	4.6	4.6
STANDBY	0	4.6	0	0	4.6	4.6	4.6	0	0	4.6	0	4.6	0	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Ref No.	IC2803																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	4.6	4.6	4.6	4.6	4.6	4.6	4.6	0	0	0	4.6	4.6	4.6	4.6	4.6	4.6	4.6	9.2	5.5	0
STANDBY	4.6	4.6	4.6	4.6	4.6	4.6	4.6	0	0	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	9.2	5.5	0
Ref No.	IC2803																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56				
CD PLAY	0	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.5	4.5	4.6	4.6	4.6	8	2.2				
STANDBY	0	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.5	0	0	4.6	0	0	0				
Ref No.	IC2804																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	7.5	7.4	7.3	0	15.1	7.5	7.4	7.3												
STANDBY	7.5	7.4	7.3	0	15.1	7.5	7.5	7.3												

CD SERVO P.C.B.(SIDE A)

Ref No.	Q7601		
MODE	E	C	B
CD PLAY	3.2	2.1	2.5
STANDBY	3.4	0.2	3.4

MAIN P.C.B.

Ref No.	Q2142			Q2242			Q2311			Q2317			Q2341		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
CD PLAY	0	0	0	0	0	0	0	0	-3.5	0	0	-3.5	0	0	-3.5
STANDBY	0	0	0	0	0	0	0	0	0.6	0	0	0.6	0	0	0.6
Ref No.	Q2411			Q2417			Q2441			Q2501			Q2511		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
CD PLAY	0	0	-3.5	0	0	-3.5	-	-	-	0.3	2.2	1	0	-3.9	0
STANDBY	0	0	0.6	0	0	0.6	0	0	0.6	0.4	0.6	1.1	2.7	2.7	0
Ref No.	Q2521			Q2601			Q2606			Q2803			Q2901		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
CD PLAY	0.1	2.6	0.8	0	0	0	15.1	0	15.1	0	5.5	0	5.7	3.4	5
STANDBY	0.1	2.9	0.8	0	0	0	14.9	0	14.9	0	5.5	0	6.9	3.4	6.2
Ref No.	Q2902			Q2906			Q2907			Q2936			Q2937		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
CD PLAY	2.6	5.1	3.2	0	5.1	0	0	1.7	0.4	12	0	12	0	12	0
STANDBY	2.6	6.2	2.2	0	5.1	0	0	5.1	0	12.1	2	12.1	0	12.1	0
Ref No.	Q2942			Q2943			Q2948			Q2949			Q2950		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
CD PLAY	12	0	12	0	12	0	0	0	0.2	0	5.4	0	5.5	5.5	4.8
STANDBY	12.1	0	0	0	12	0	0	0	0.2	0	5.4	0	5.5	5.5	4.8
Ref No.	Q2951			Q2952			Q2957			Q2958			Q2959		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
CD PLAY	5.5	5.5	0	0	0.1	5.4	0	12	0	12	0	12	0	12	0
STANDBY	5.5	5.5	4.8	0	0.1	5.4	0	12.1	0	2.6	6.2	3.2	0	12.1	0
Ref No.				Q2978			Q2980								
B MODE				E	C	B	E	C	B						
12 D PLAY				5.1	0	5.4	5.1	-0.4	5.4						
0 TANDBY				5.1	0	5.4	5.1	-0.4	5.4						

14.2. Power P.C.B. & Transformer P.C.B.

POWER P.C.B.

Ref No.	IC5201																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
CD PLAY	0	5	2.4	2.5	2.3	2.4	0	4.2	1.6	2.5	2.6	3.2	1.5	5						
STANDBY	0	0	0	0	0	0	0	0	0	0.07	0	0	0	0						
Ref No.	IC5301																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	2.43	0.05	0.05	28.54	-0.02	-30	-22	28.95	11	-0.1	-30	-18	-30	-0.1	10.8	29	-30	-30	0	28.6
STANDBY	0.1	0	0	0.1	0	0.5	0.1	0.1	0.05	0.2	0.5	0.1	0.5	0.2	0	0.1	0.5	0.8	0	0.1
Ref No.	IC5301																			
MODE	21	22	23																	
CD PLAY	-0.1	-0.1	4.6																	
STANDBY	0	0	0																	
Ref No.	IC5401																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	24.3	-0.05	-0.05	28.5	-0.01	-30	-22	28	0	-0.1	-30	17	30	0	11	28.9	-30	-30	0	28.55
STANDBY	0	0	0	0.1	0	0.5	0.1	0.1	0.1	0.25	0.5	0.1	0.5	0.2	0	0.1	0.5	0.5	0	0.1
Ref No.	IC5401																			
MODE	21	22	23																	
CD PLAY	-0.1	-0.1	45.8																	
STANDBY	0	0	0																	

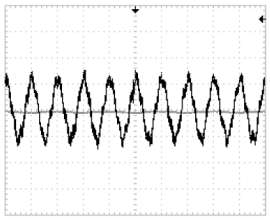
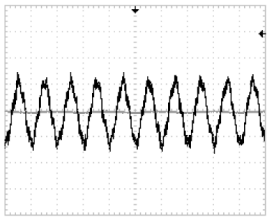
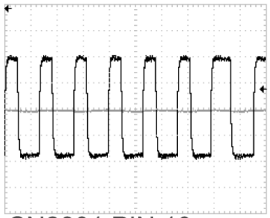
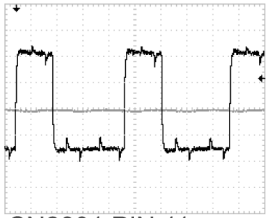
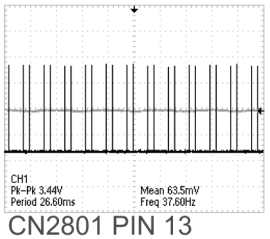
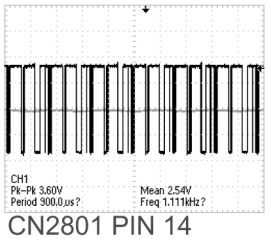
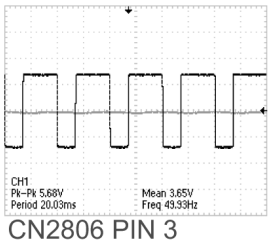
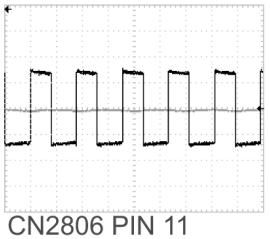
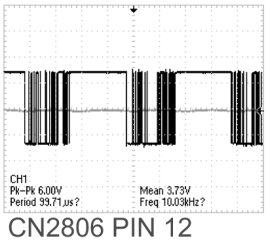
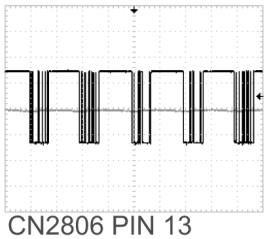
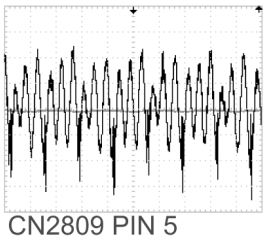
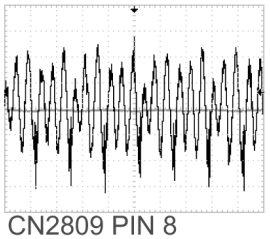
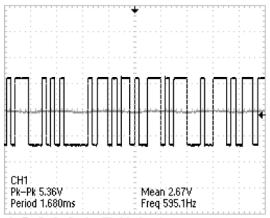
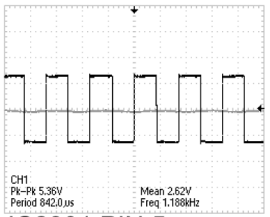
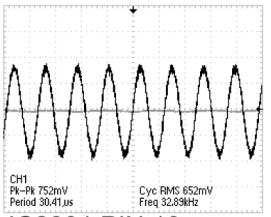
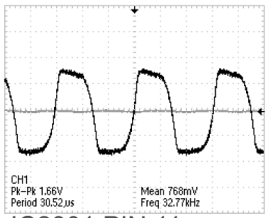
POWER P.C.B.

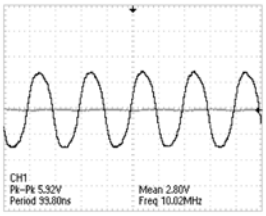
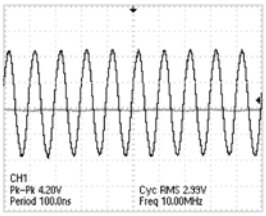
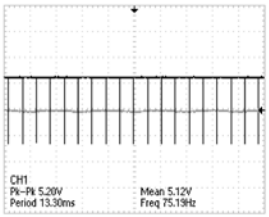
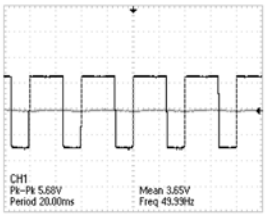
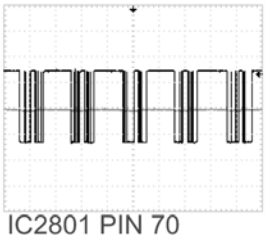
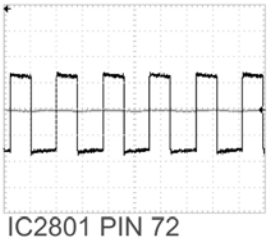
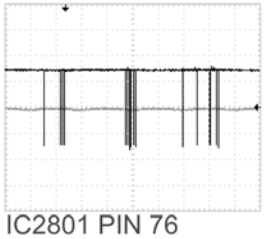
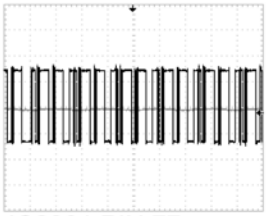
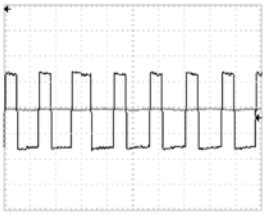
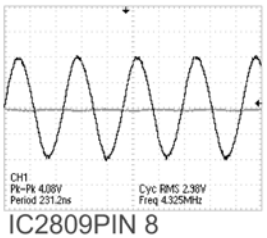
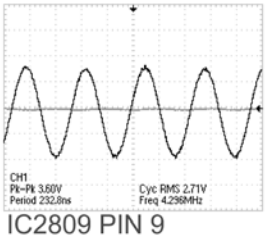
Ref No.	Q5101				Q5102				Q5103				Q5104				Q5108		
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B
CD PLAY	29	40.7	32.5		-41	30.4	-37.7		0	5.4	-0.3		-0.3	5.4	0		-41	-37.8	-40.5
STANDBY	0	0	10.5		-1	0	0		0	0.5	0.2		0.2	0.5	0		-0.6	0	0.7
Ref No.	Q5109				Q5110				Q5111				Q5112				Q5113		
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B
CD PLAY	-5	-15.3	-3.6		28.4	32.5	29		15.4	28.3	16.1		17.1	12	16.4		17.3	16.5	17.1
STANDBY	0	-0.7	0		0	11	0		0.06	0.06	0.07		0.42	0.08	0.45		0.47	0.45	0.47
Ref No.	Q5114				Q5115				Q5201				Q5202						
MODE	E	C	B		E	C	B		E	C	B		E	C	B				
CD PLAY	11.3	16.4	11.8		5.1	5.7	8		2.6	2.5	2.4		2.6	0	5.1				
STANDBY	0	0.43	0.47		0	0	0		0	0	0		0	0	0				

TRANSFORMER P.C.B.

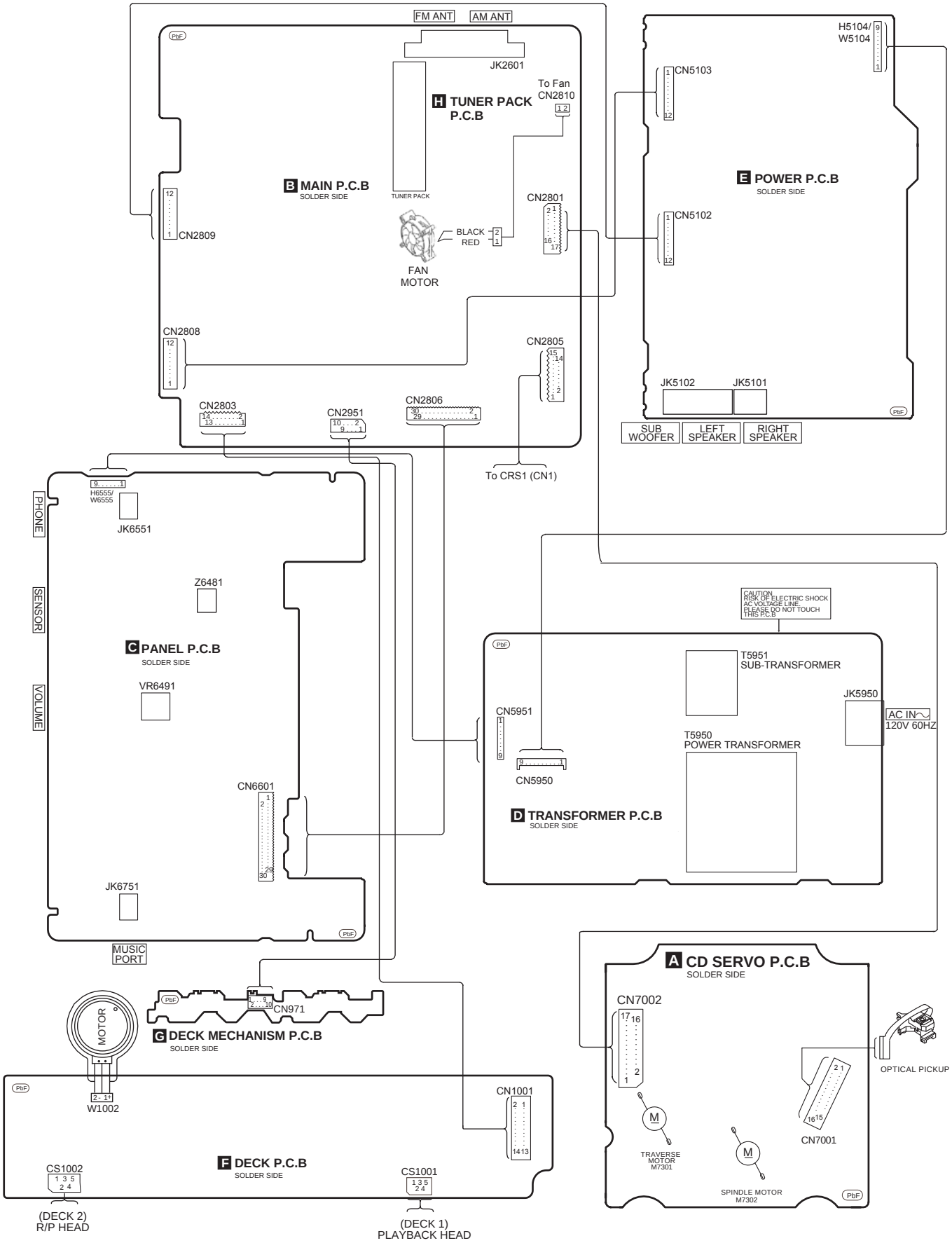
Ref No.	Q5950				Q5951				Q5952				Q5953						
MODE	E	C	B		E	C	B		E	C	B		E	C	B				
CD PLAY	6.2	6.8	12.2		-24.6	-45	-25		0	3.6	-0.4		0	0.1	0.8				
STANDBY	6.2	6.8	14.8		-20	-20	-20		0	3.8	-0.4		0	6.2	0				
Ref No.																			
MODE																			
CD PLAY																			
STANDBY																			
Ref No.																			
MODE																			
CD PLAY																			
STANDBY																			
Ref No.																			
MODE																			
CD PLAY																			
STANDBY																			

14.3. Waveform Chart

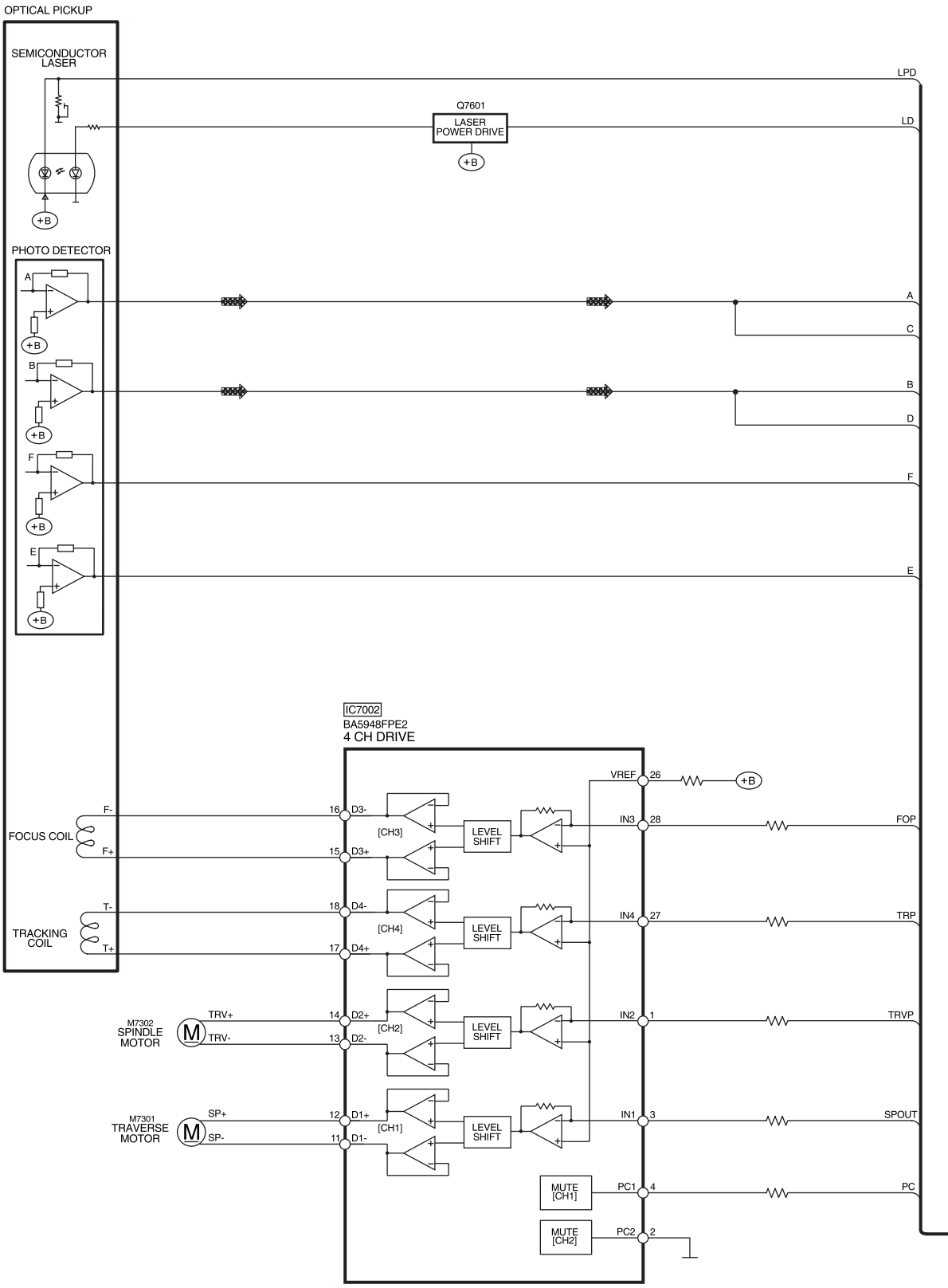
 CN2801 PIN 1 CD PLAY 600mVp-p (1msec.div)	 CN2801 PIN 3 CD PLAY 616mVp-p (1msec.div)	 CN2801 PIN 10 CD PLAY 3.96Vp-p (5msec.div)	 CN2801 PIN 11 CD PLAY 3.66Vp-p (5usec.div)
 CN2801 PIN 13 CD PLAY 3.44Vp-p (50msec.div)	 CN2801 PIN 14 CD PLAY 3.6Vp-p (25msec.div)	 CN2806 PIN 3 CD PLAY 5.68Vp-p (10msec.div)	 CN2806 PIN 11 CD PLAY 6.08Vp-p (5usec.div)
 CN2806 PIN 12 CD PLAY 6Vp-p (5msec.div)	 CN2806 PIN 13 CD PLAY 5.68Vp-p (10msec.div)	 CN2809 PIN 5 CD PLAY 119mVp-p (1usec.div)	 CN2809 PIN 8 CD PLAY 121mVp-p (1usec.div)
 IC2801 PIN 4 CD PLAY 5.36Vp-p (5msec.div)	 IC2801 PIN 5 CD PLAY 5.36Vp-p (500usec.div)	 IC2801 PIN 10 CD PLAY 752mVp-p (25usec.div)	 IC2801 PIN 11 CD PLAY 1.66Vp-p (10usec.div)

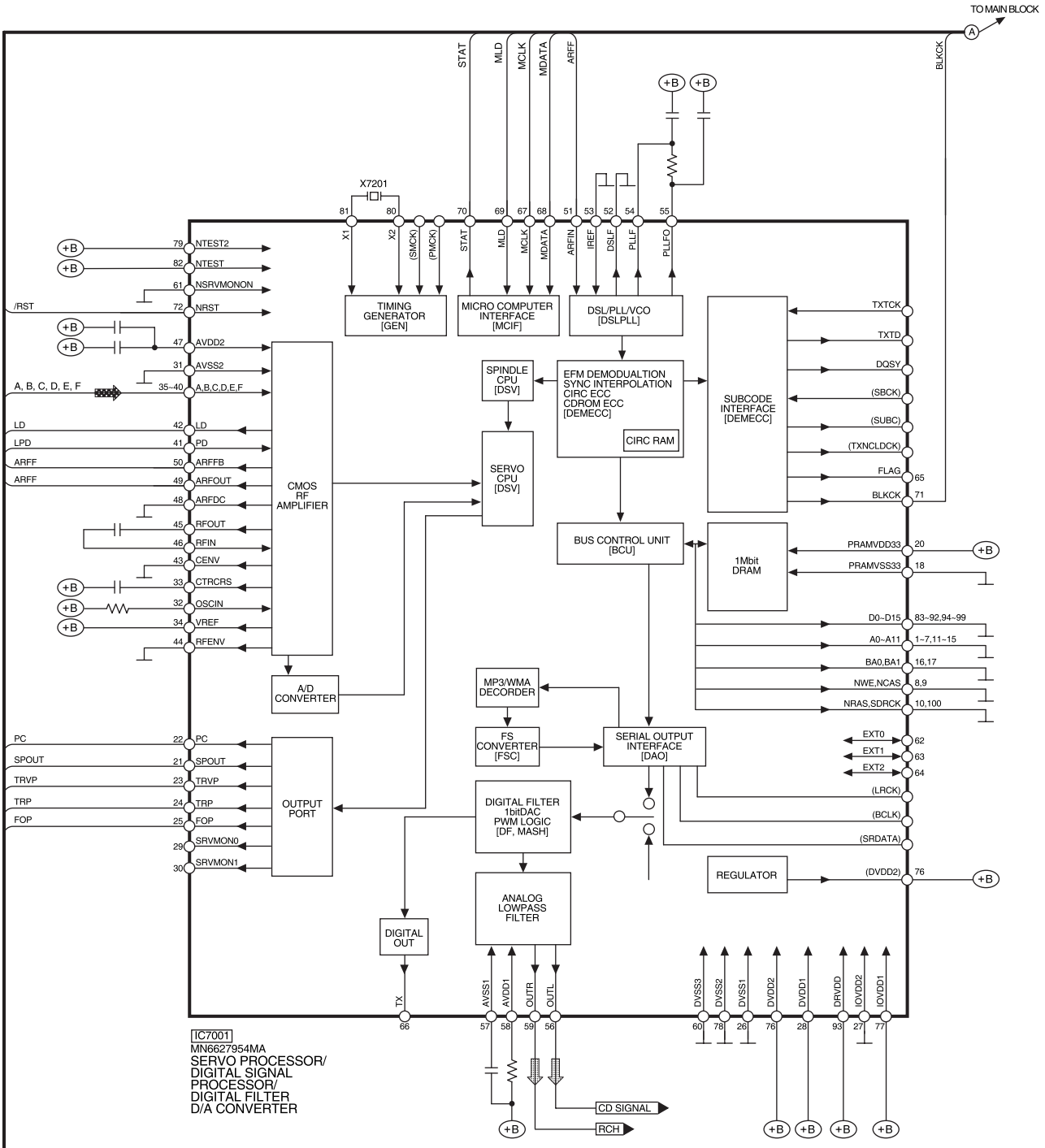
 IC2801 PIN 13 CD PLAY 5.92Vp-p (50nsec.div)	 IC2801 PIN 15 CD PLAY 4.2Vp-p (100nsec.div)	 IC2801 PIN 19 CD PLAY 5.2Vp-p (25msec.div)	 IC2801 PIN 20 CD PLAY 5.68Vp-p (10msec.div)
 IC2801 PIN 70 CD PLAY 6.06Vp-p (10msec.div)	 IC2801 PIN 71 CD PLAY 5.84Vp-p (10msec.div)	 IC2801 PIN 72 CD PLAY 6.32Vp-p (5usec.div)	 IC2801 PIN 76 CD PLAY 6.48Vp-p (2.5msec.div)
 IC2801 PIN 77 CD PLAY 6.24Vp-p (25msec.div)	 IC2801 PIN 78 CD PLAY 6.03Vp-p (5usec.div)	 IC2809PIN 8 CD PLAY 4.08Vp-p (100nsec.div)	 IC2809 PIN 9 CD PLAY 3.6Vp-p (100nsec.div)

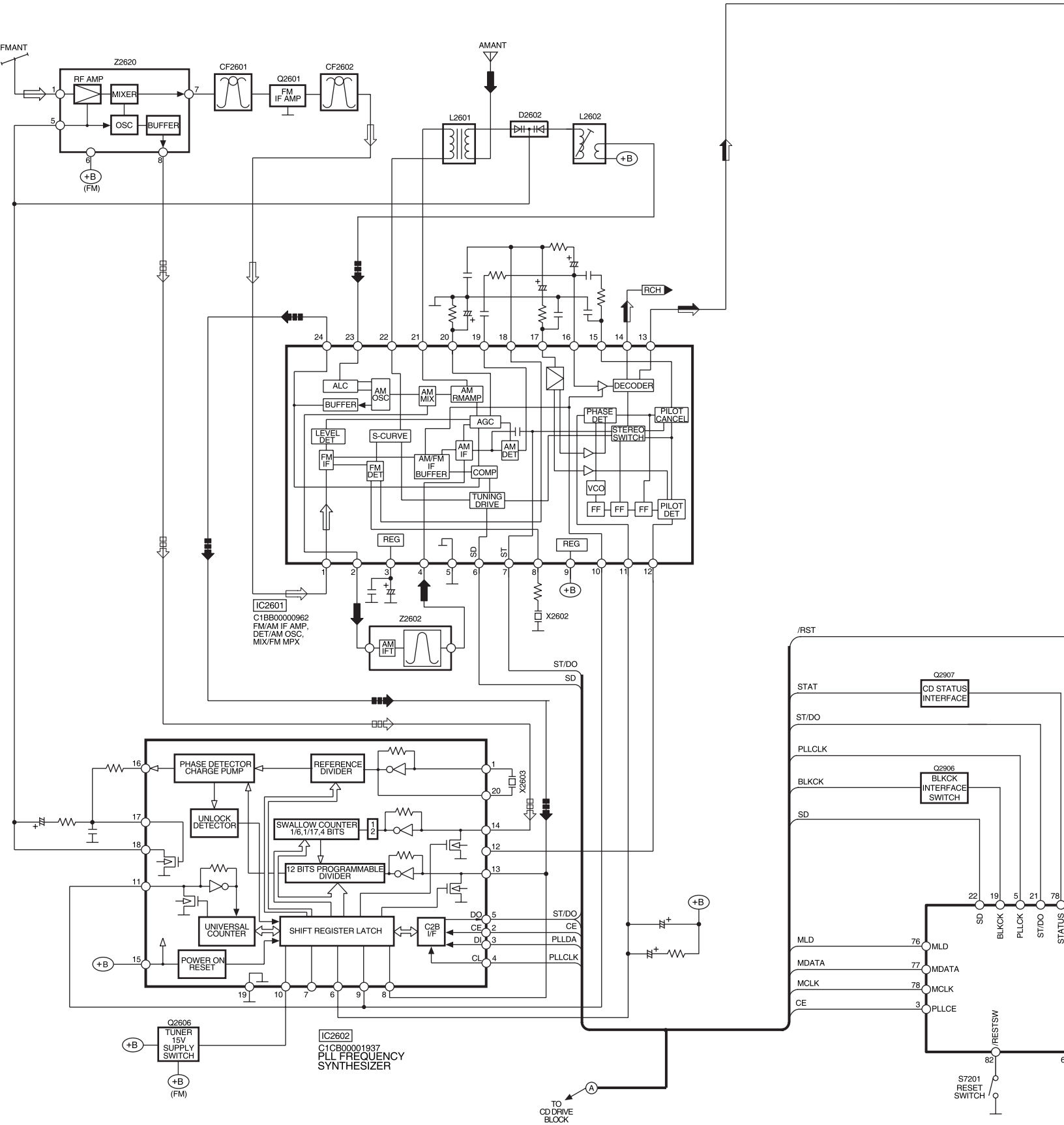
15 Wiring Connection Diagram

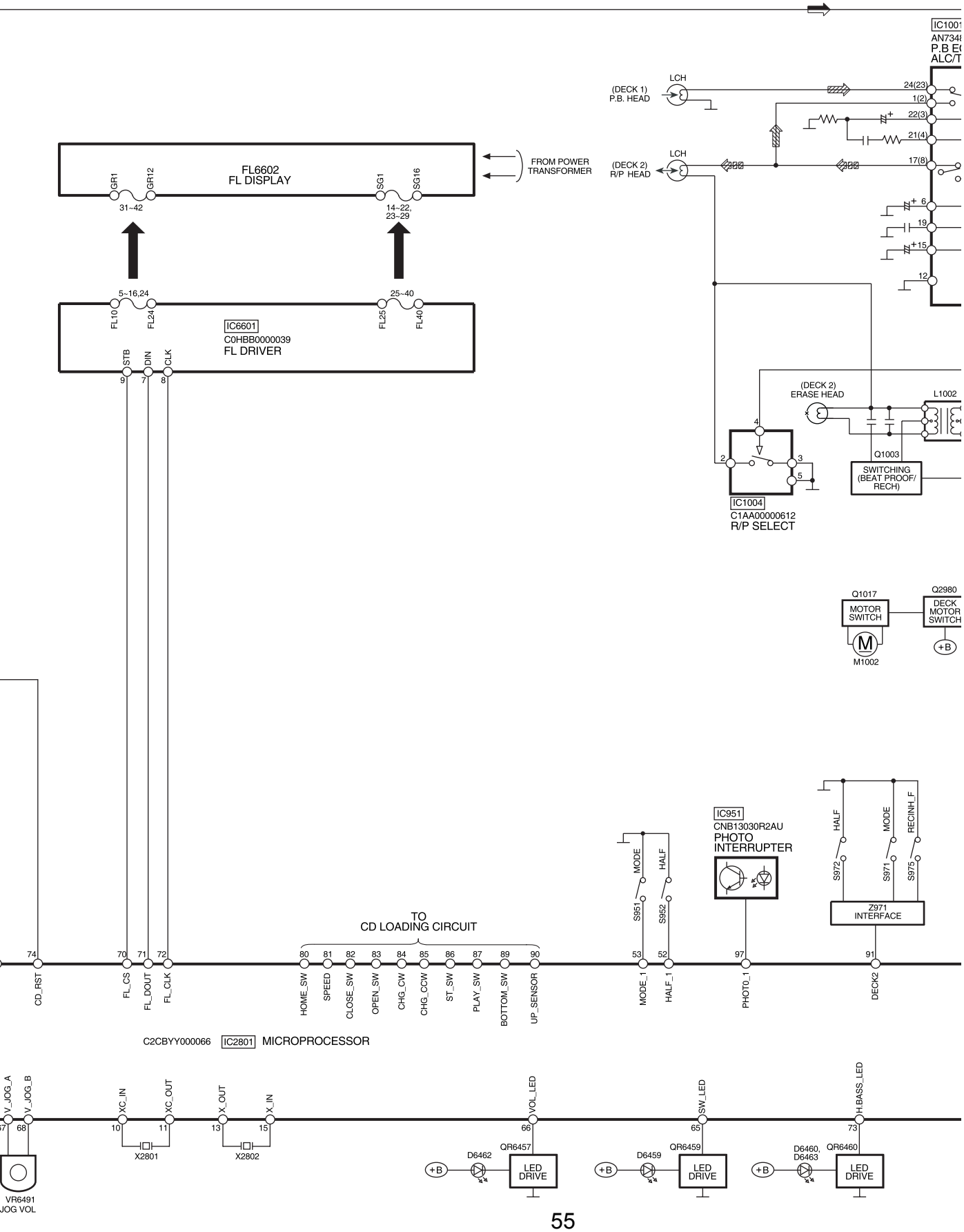


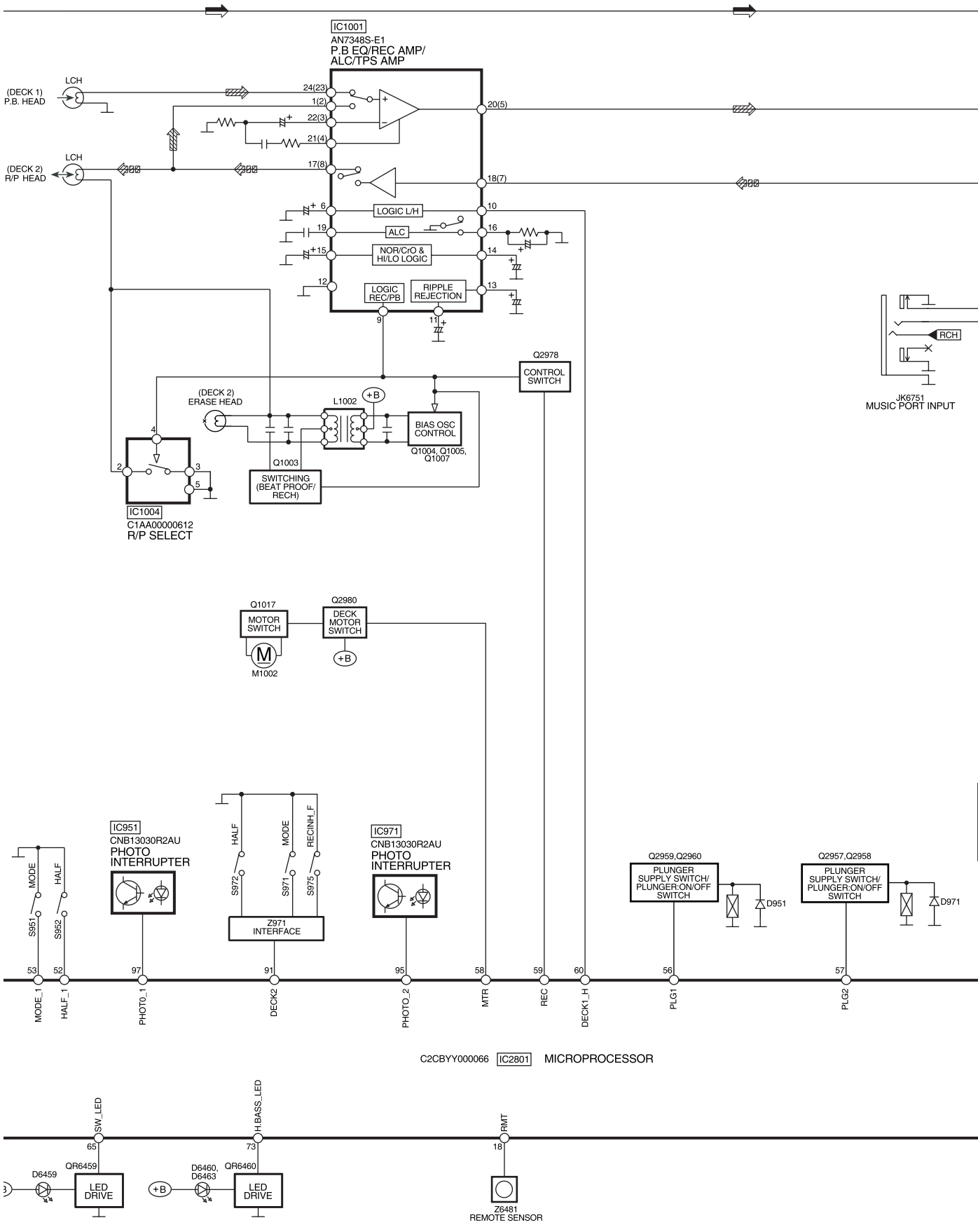
16 Block Diagram

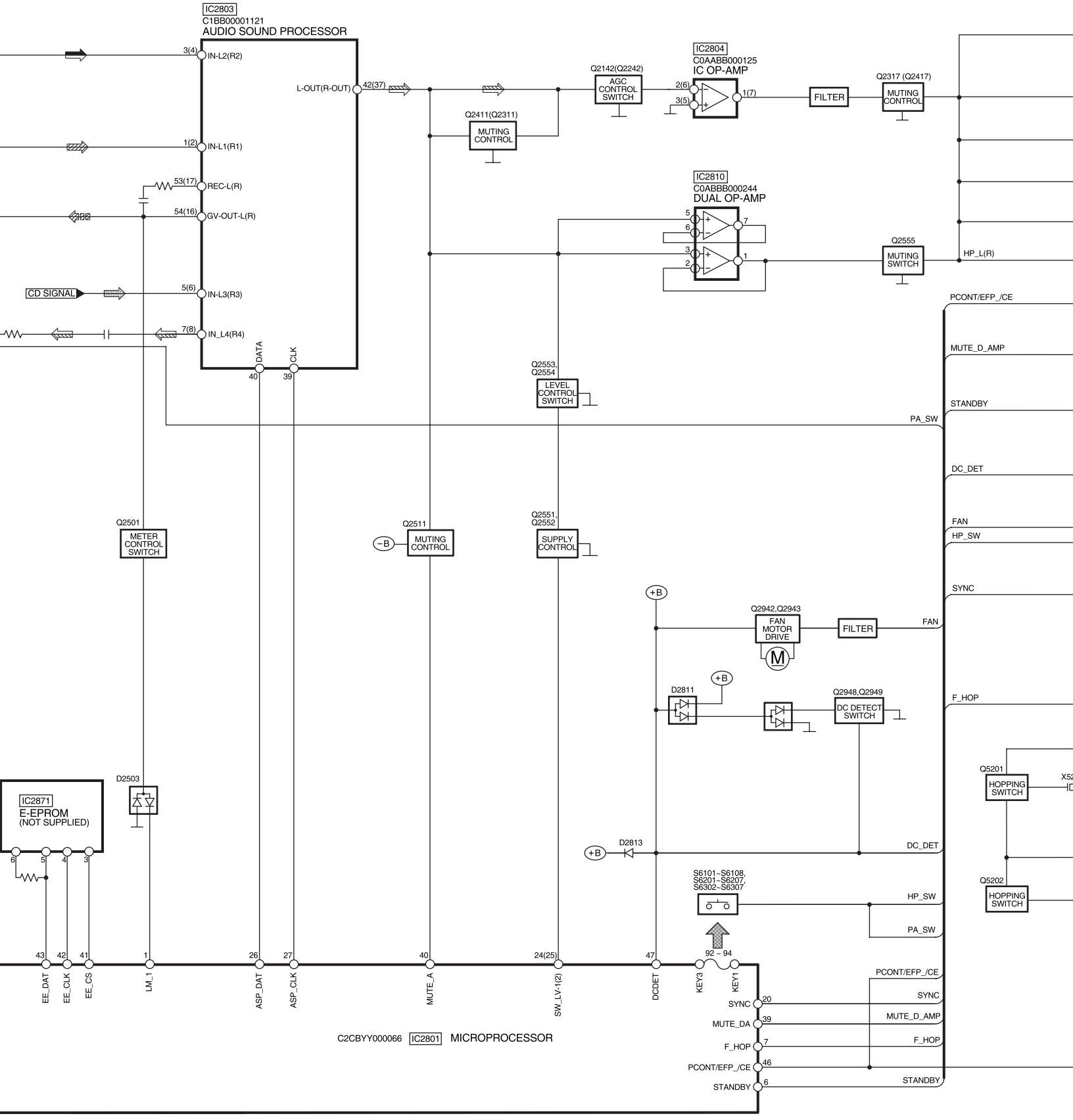


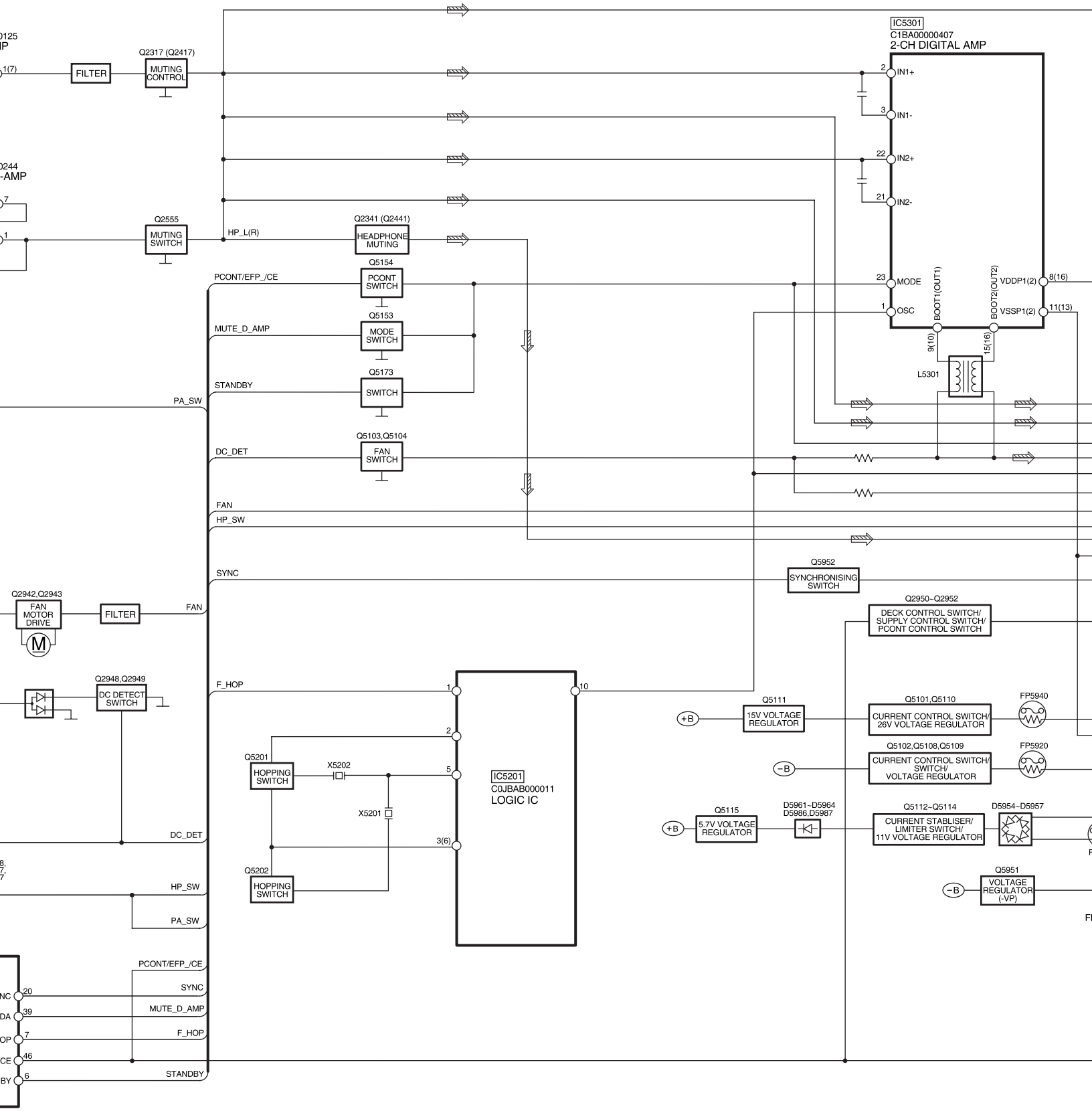

TO MAIN BLOCK
A
STAT
MLD
MCLK
MDATA
ARFF
BLKCK
+B
X7201
81
80
70
69
67
68
51
53
52
54
55
X1
X2
(SMCK)
(PMCK)
STAT
MLD
MCLK
MDATA
ARFIN
IREF
DSLF
PLLF
PLLFO
TIMING GENERATOR [GEN]
MICRO COMPUTER INTERFACE [MCIF]
DSL/PLL/VCO [DSLPLL]
79 NTEST2
82 NTEST
61 NSRVMONON
/RST
72 NRST
47 AVDD2
31 AVSS2
A, B, C, D, E, F
35~40 A,B,C,D,E,F
LD
42 LD
LPD
41 PD
ARFF
50 ARFFB
ARFF
49 ARFOUT
48 ARFDC
45 RFOUT
46 RFIN
43 CENV
33 CTRCRS
32 OSCIN
34 VREF
44 RFENV
CMOS RF AMPLIFIER
A/D CONVERTER
SPINDLE CPU [DSV]
SERVO CPU [DSV]
EFM DEMODUALTION
SYNC INTERPOLATION
CIRC ECC
CDROM ECC
[DEMECC]
CIRC RAM
BUS CONTROL UNIT [BCU]
SUBCODE INTERFACE [DEMECC]
1Mbit DRAM
TXTCK
TXTD
DQSY
(SBCK)
(SUBC)
(TXNCLDCK)
FLAG
65
BLKCK
71
PRAMVDD33
20
PRAMVSS33
18
D0~D15
83~92,94~99
A0~A11
1~7,11~15
BA0,BA1
16,17
NWE,NCAS
8,9
NRAS,SDRCK
10,100
MP3/WMA DECORDER
FS CONVERTER [FSC]
SERIAL OUTPUT INTERFACE [DAO]
EXT0
EXT1
EXT2
62
63
64
(LRCK)
(BCLK)
(SRDATA)
PC
22 PC
SPOUT
21 SPOUT
TRVP
23 TRVP
TRP
24 TRP
FOP
25 FOP
29 SRVMON0
30 SRVMON1
OUTPUT PORT
DIGITAL FILTER 1bitDAC PWM LOGIC [DF, MASH]
REGULATOR
(DVDD2)
76
ANALOG LOWPASS FILTER
DIGITAL OUT
TX
66
AVSS1
AVDD1
OUTR
OUTL
57
58
59
56
DVSS3
DVSS2
DVSS1
DVDD2
DVDD1
DRVDD
IOVDD2
IOVDD1
60
78
26
76
28
93
27
77
CD SIGNAL
RCH
IC7001
MN6627954MA
SERVO PROCESSOR/
DIGITAL SIGNAL
PROCESSOR/
DIGITAL FILTER
D/A CONVERTER

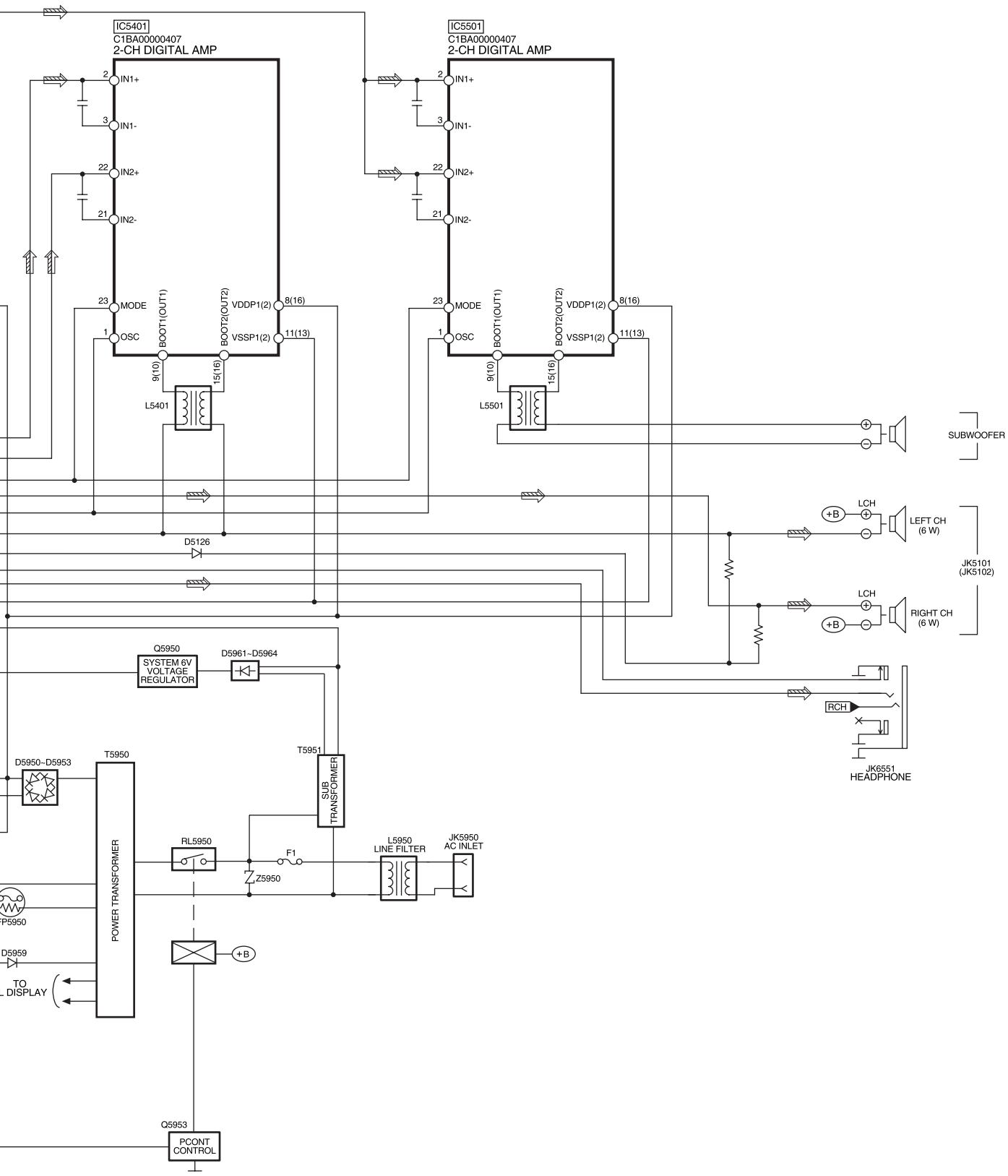

FMANT
Z2620
RF AMP
MIXER
OSC
BUFFER
+B
(FM)
CF2601
Q2601
FM
IF AMP
CF2602
AMANT
L2601
D2602
L2602
+B
RCH
ALC
AM
OSC
BUFFER
AM
MIX
AM
RMAMP
DECODER
PHASE
DET
PILOT
CANCEL
AGC
STEREO
SWITCH
LEVEL
DET
S-CURVE
FM
IF
FM
DET
AM
IF
AM
DET
AM/FM
IF
BUFFER
COMP
VCO
TUNING
DRIVE
FF
FF
FF
PILOT
DET
REG
SD
ST
REG
+B
X2602
IC2601
C1BB00000962
FM/AM IF AMP,
DET/AM OSC,
MIX/FM MPX
Z2602
AM
IFT
ST/DO
SD
/RST
Q2907
CD STATUS
INTERFACE
STAT
ST/DO
PLLCLK
Q2906
BLKCK
INTERFACE
SWITCH
BLKCK
SD
PHASE DETECTOR
CHARGE PUMP
REFERENCE
DIVIDER
X2603
UNLOCK
DETECTOR
SWALLOW COUNTER
1/6,1/17,4 BITS
12 BITS PROGRAMMABLE
DIVIDER
UNIVERSAL
COUNTER
SHIFT REGISTER LATCH
C2B
I/F
DO
CE
DI
CL
ST/DO
CE
PLLDA
PLLCLK
POWER ON
RESET
+B
+B
MLD
MDATA
MCLK
CE
MLD
MDATA
MCLK
PLLCE
SD
BLKCK
PLLCK
ST/DO
STATUS
/RESTSW
S7201
RESET
SWITCH
Q2606
TUNER
15V
SUPPLY
SWITCH
+B
(FM)
IC2602
C1CB00001937
PLL FREQUENCY
SYNTHESIZER
A
TO
CD DRIVE
BLOCK


FL6602
FL DISPLAY
GR1
GR12
31~42
SG1
SG16
14~22,
23~29
FROM POWER
TRANSFORMER
5~16,24
25~40
FL10
FL24
FL25
FL40
IC6601
C0HBB0000039
FL DRIVER
STB
DIN
CLK
9
7
8
IC1001
AN7348
P.B E
ALC/T
(DECK 1)
P.B. HEAD
LCH
(DECK 2)
R/P HEAD
LCH
24(23)
1(2)
22(3)
21(4)
17(8)
6
19
15
12
(DECK 2)
ERASE HEAD
L1002
Q1003
SWITCHING
(BEAT PROOF/
RECH)
IC1004
C1AA00000612
R/P SELECT
Q1017
MOTOR
SWITCH
M1002
Q2980
DECK
MOTOR
SWITCH
+B
IC951
CNB13030R2AU
PHOTO
INTERRUPTER
MODE
HALF
S951
S952
HALF
MODE
RECINH_F
S972
S971
S975
Z971
INTERFACE
TO
CD LOADING CIRCUIT
74
70
71
72
80
81
82
83
84
85
86
87
89
90
53
52
97
91
CD_RST
FL_CS
FL_DOUT
FL_CLK
HOME_SW
SPEED
CLOSE_SW
OPEN_SW
CHG_CW
CHG_CCW
ST_SW
PLAY_SW
BOTTOM_SW
UP_SENSOR
MODE_1
HALF_1
PHOTO_1
DECK2
C2CBYY000066
IC2801
MICROPROCESSOR
V_JOG_A
V_JOG_B
67
68
XC_IN
XC_OUT
10
11
X2801
X_OUT
X_IN
13
15
X2802
VOL_LED
SW_LED
H.BASS_LED
66
65
73
D6462
QR6457
D6459
QR6459
D6460,
D6463
QR6460
+B
LED
DRIVE
VR6491
JOG VOL


IC1001
AN7348S-E1
P.B EQ/REC AMP/
ALC/TPS AMP
(DECK 1)
P.B. HEAD
LCH
(DECK 2)
R/P HEAD
LCH
24(23)
1(2)
22(3)
21(4)
17(8)
20(5)
18(7)
LOGIC L/H
ALC
NOR/CrO &
HI/LO LOGIC
LOGIC
REC/PB
RIPPLE
REJECTION
Q2978
CONTROL
SWITCH
(DECK 2)
ERASE HEAD
L1002
+B
BIAS OSC
CONTROL
Q1004, Q1005,
Q1007
Q1003
SWITCHING
(BEAT PROOF/
RECH)
IC1004
C1AA00000612
R/P SELECT
RCH
JK6751
MUSIC PORT INPUT
Q1017
MOTOR
SWITCH
Q2980
DECK
MOTOR
SWITCH
M1002
IC951
CNB13030R2AU
PHOTO
INTERRUPTER
MODE
HALF
S951
S952
HALF
MODE
RECINH_F
S972
S971
S975
Z971
INTERFACE
IC971
CNB13030R2AU
PHOTO
INTERRUPTER
Q2959,Q2960
PLUNGER
SUPPLY SWITCH/
PLUNGER:ON/OFF
SWITCH
D951
Q2957,Q2958
PLUNGER
SUPPLY SWITCH/
PLUNGER:ON/OFF
SWITCH
D971
MODE_1
HALF_1
PHOTO_1
DECK2
PHOTO_2
MTR
REC
DECK1_H
PLG1
PLG2
C2CBYY000066
IC2801
MICROPROCESSOR
SW_LED
H.BASS_LED
RMT
D6459
QR6459
LED
DRIVE
D6460,
D6463
QR6460
LED
DRIVE
+B
Z6481
REMOTE SENSOR


IC2803
C1BB00001121
AUDIO SOUND PROCESSOR
3(4) IN-L2(R2)
1(2) IN-L1(R1)
53(17) REC-L(R)
54(16) GV-OUT-L(R)
CD SIGNAL
5(6) IN-L3(R3)
7(8) IN_L4(R4)
DATA
CLK
40
39
L-OUT(R-OUT) 42(37)
Q2142(Q2242)
AGC CONTROL SWITCH
IC2804
C0AABB000125
IC OP-AMP
2(6)
3(5)
1(7)
FILTER
Q2317 (Q2417)
MUTING CONTROL
Q2411(Q2311)
MUTING CONTROL
IC2810
C0ABBB000244
DUAL OP-AMP
5
6
7
3
2
1
Q2555
MUTING SWITCH
HP_L(R)
PCONT/EFP_/CE
MUTE_D_AMP
STANDBY
PA_SW
DC_DET
FAN
HP_SW
SYNC
Q2553, Q2554
LEVEL CONTROL SWITCH
Q2501
METER CONTROL SWITCH
Q2511
MUTING CONTROL
Q2551, Q2552
SUPPLY CONTROL
+B
Q2942,Q2943
FAN MOTOR DRIVE
FILTER
FAN
M
D2811
Q2948,Q2949
DC DETECT SWITCH
F_HOP
Q5201
HOPPING SWITCH
Q5202
HOPPING SWITCH
D2503
IC2871
E-EPROM
(NOT SUPPLIED)
6 5 4 3
D2813
DC_DET
S6101~S6108,
S6201~S6207,
S6302~S6307
HP_SW
PA_SW
92 ~ 94
43 42 41 1 26 27 40 24(25) 47
EE_DAT
EE_CLK
EE_CS
LM_1
ASP_DAT
ASP_CLK
MUTE_A
SW_LV-1(2)
DCDET
KEY3
KEY1
SYNC 20
MUTE_DA 39
F_HOP 7
PCONT/EFP_/CE 46
STANDBY 6
C2CBYY000066 IC2801 MICROPROCESSOR


IC5301
C1BA00000407
2-CH DIGITAL AMP
IN1+
IN1-
IN2+
IN2-
MODE
OSC
BOOT1(OUT1)
BOOT2(OUT2)
VDDP1(2)
VSSP1(2)
L5301
FILTER
Q2317 (Q2417)
MUTING CONTROL
Q2555
MUTING SWITCH
HP_L(R)
Q2341 (Q2441)
HEADPHONE MUTING
Q5154
PCONT SWITCH
Q5153
MODE SWITCH
Q5173
SWITCH
Q5103,Q5104
FAN SWITCH
PCONT/EFP_/CE
MUTE_D_AMP
STANDBY
PA_SW
DC_DET
FAN
HP_SW
SYNC
Q5952
SYNCHRONISING SWITCH
Q2950~Q2952
DECK CONTROL SWITCH/ SUPPLY CONTROL SWITCH/ PCONT CONTROL SWITCH
Q2942,Q2943
FAN MOTOR DRIVE
Q2948,Q2949
DC DETECT SWITCH
F_HOP
IC5201
C0JBAB000011
LOGIC IC
Q5201
HOPPING SWITCH
Q5202
HOPPING SWITCH
X5202
X5201
Q5111
15V VOLTAGE REGULATOR
Q5101,Q5110
CURRENT CONTROL SWITCH/ 26V VOLTAGE REGULATOR
FP5940
Q5102,Q5108,Q5109
CURRENT CONTROL SWITCH/ SWITCH/ VOLTAGE REGULATOR
FP5920
Q5115
5.7V VOLTAGE REGULATOR
D5961~D5964
D5986,D5987
Q5112~Q5114
CURRENT STABLISER/ LIMITER SWITCH/ 11V VOLTAGE REGULATOR
D5954~D5957
Q5951
VOLTAGE REGULATOR (-VP)
+B
-B



SIGNAL LINES

: MAIN SIGNAL LINE	: CD SIGNAL LINE	: AM SIGNAL LINE	: PLAYBACK SIGNAL LINE
: FM OSC SIGNAL LINE	: AM OSC SIGNAL LINE	: FM/AM SIGNAL LINE	: RECORD SIGNAL LINE
: FM SIGNAL LINE	: AUX SIGNAL LINE	: CD-DA (AUDIO/VIDEO) SIGNAL LINE	

( ) Indicates the Pin No. of Right Channel.

NOTE : Signal Lines are applicable to the Left Channel only.

17 Schematic Diagram

(All schematic diagrams may be modified at any time with the development of the new technology)

17.1. Notes of Schematic Diagrams

S951 : MODE Switch
S952 : HALF Switch
S971 : MODE Switch
S972 : HALF Switch
S975 : RECINH_F Switch
S6101 : POWER Switch
S6102 : SINGLE DISC CHANGE Switch
S6103 : OPEN/CLOSE Switch
S6104 : CD 1 Switch
S6105 : CD 2 Switch
S6106 : CD 3 Switch
S6107 : CD 4 Switch
S6108 : CD 5 Switch
S6201 : DECK 2 OPEN Switch
S6202 : DISPLAY/DEMO Switch
S6203 : DECK 1/2 Switch
S6204 : H.BASS Switch
S6205 : FF Switch
S6206 : REW Switch
S6207 : DECK 1 OPEN Switch
S6301 : CD Switch
S6302 : TAPE Switch
S6303 : STOP Switch
S6304 : REC Switch
S6305 : TUNER/BAND Switch
S6306 : MUSIC PORT Switch
S6307 : SUBWOOFER Switch
S6308 : MULTI DISC CHANGE Switch
S7201 : REST Switch
VR6491 : VR VOLUME JOG

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.
- **Importance safety notice :**

  Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer´s specified parts shown in the parts list.

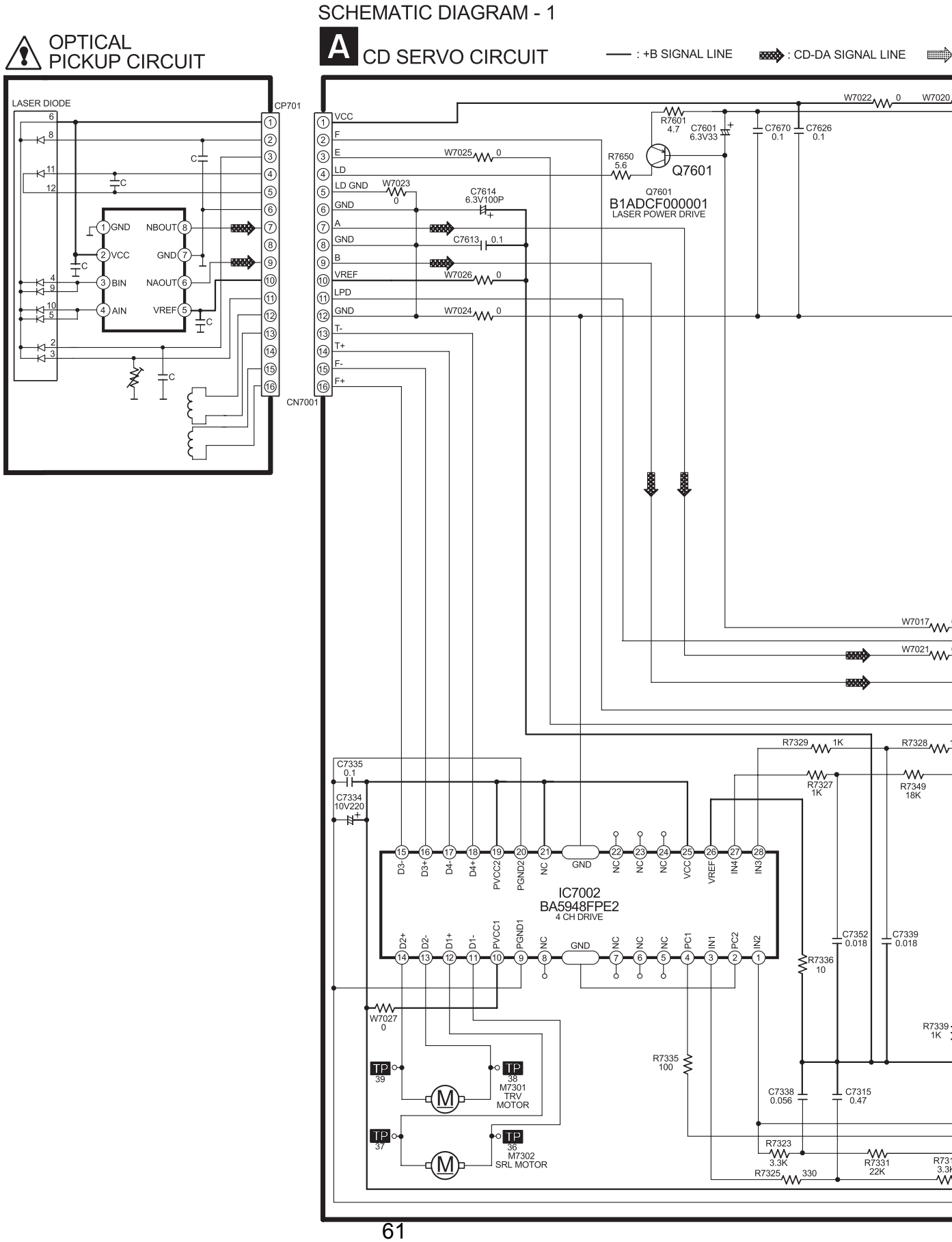
Caution !

IC, LSI and VLSI are sensitive to static electricity.

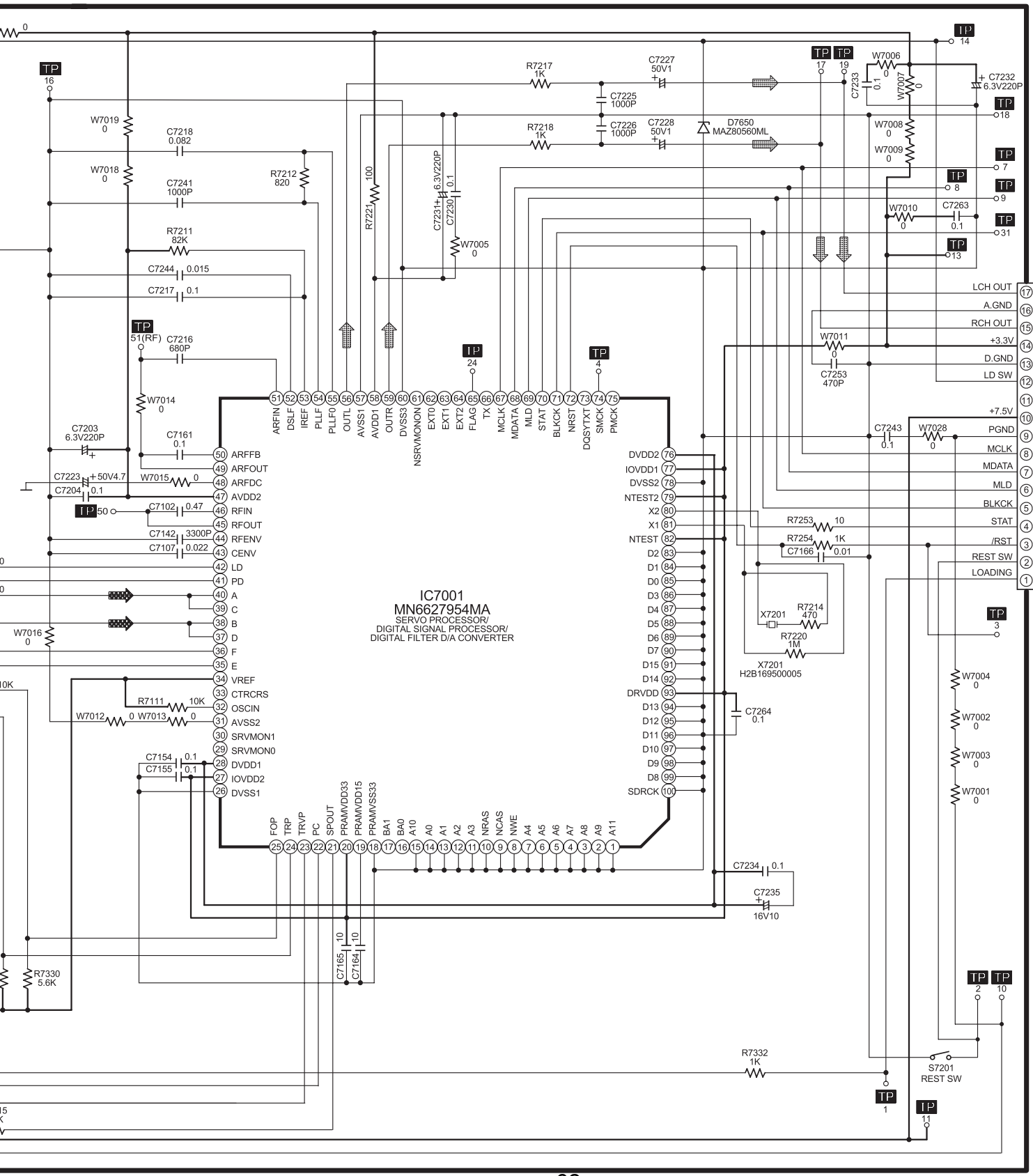
Secondary trouble can be prevented by taking care during repair.

- Cover the parts boxes made of plastics with aluminium foil.
- Put a conductive mat on the work table.
- Ground the soldering iron.
- Do not touch the pins of IC, LSI or VLSI with fingers directly.

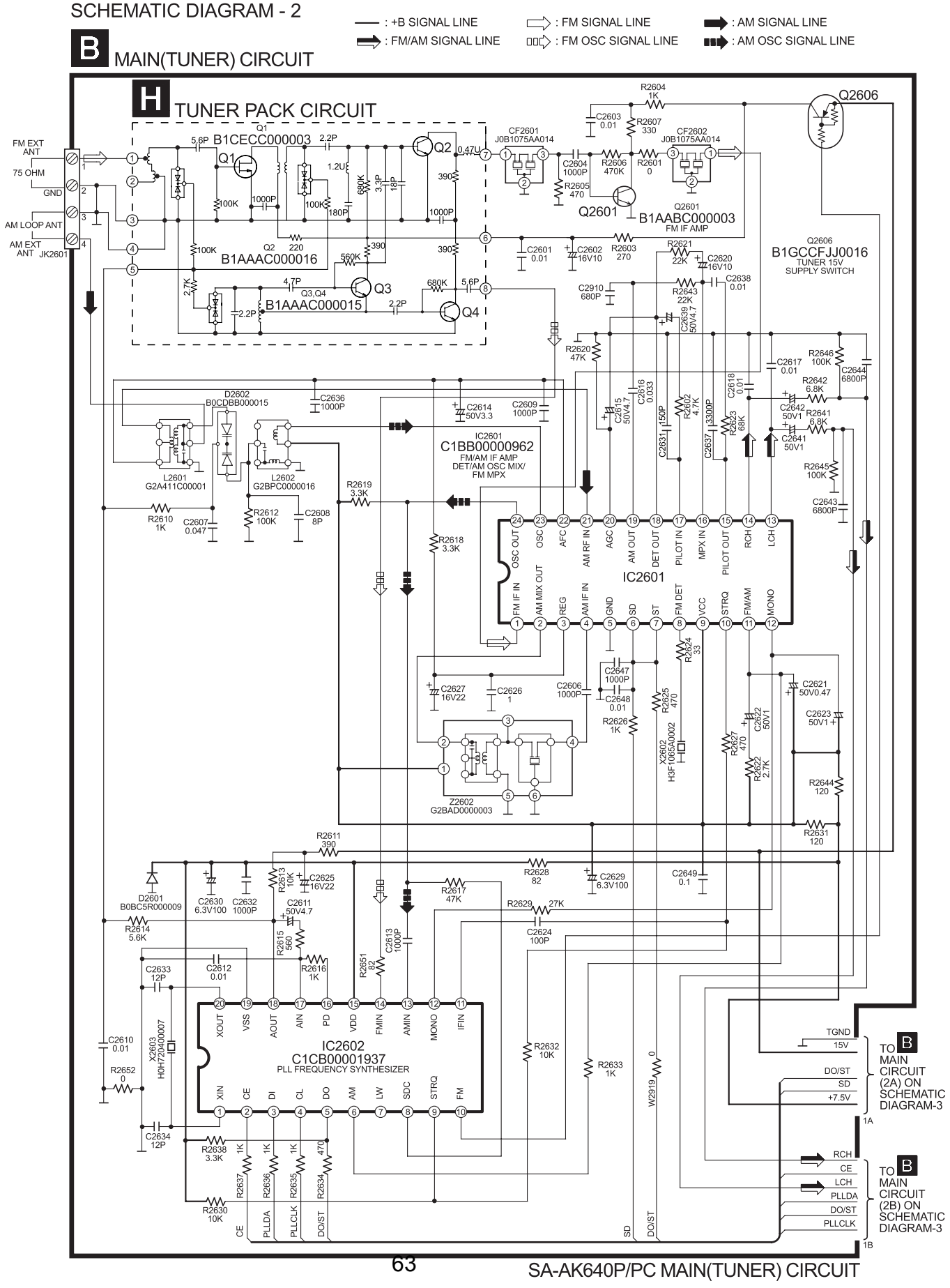
17.2. (A) CD Servo Circuit



: CD SIGNAL LINE



17.3. (B) Main (Tuner) Circuit



SA-AK640P/PC MAIN(TUNER) CIRCUIT

17.4. (B) Main Circuit

SCHEMATIC DIAGRAM - 3

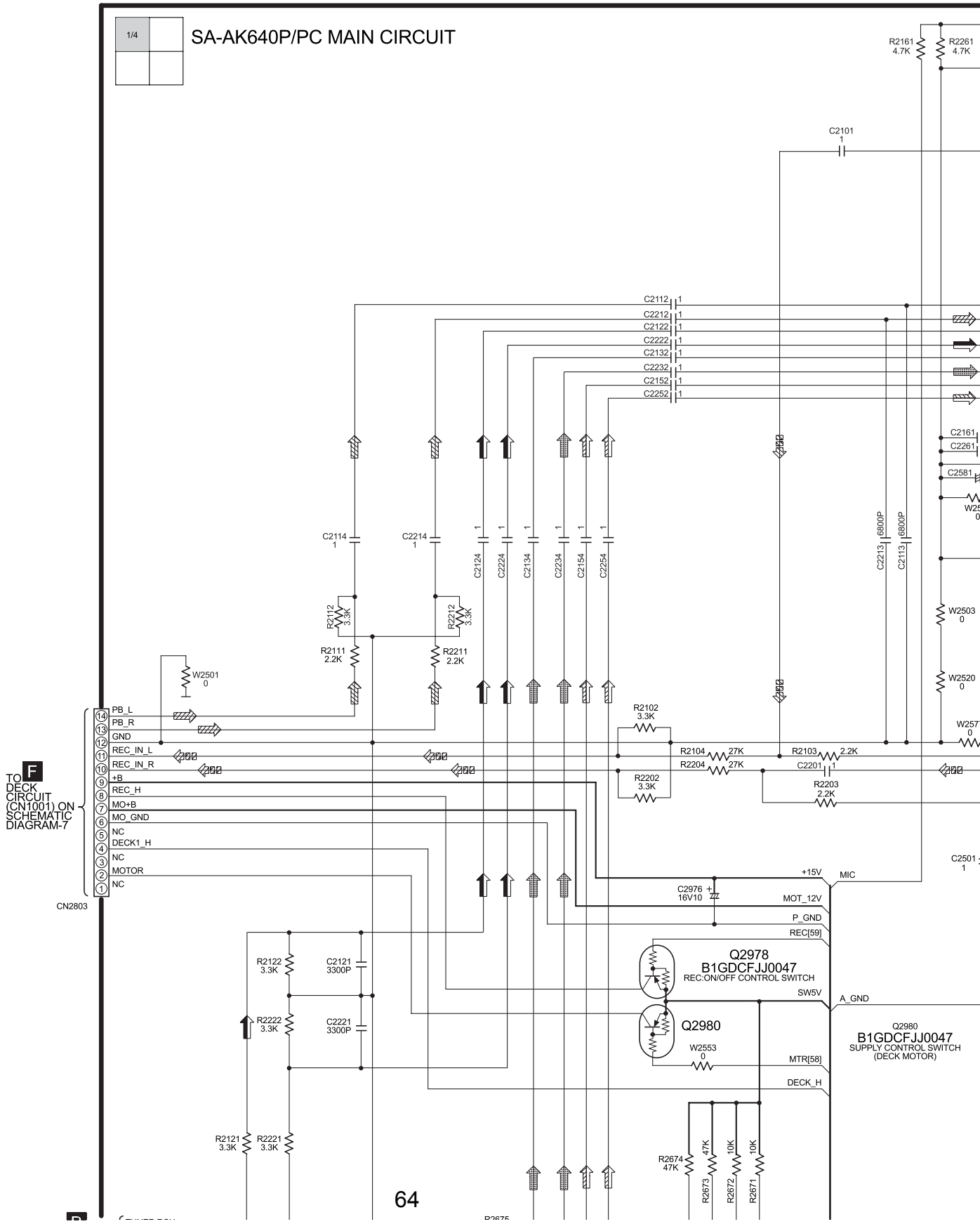
B MAIN CIRCUIT

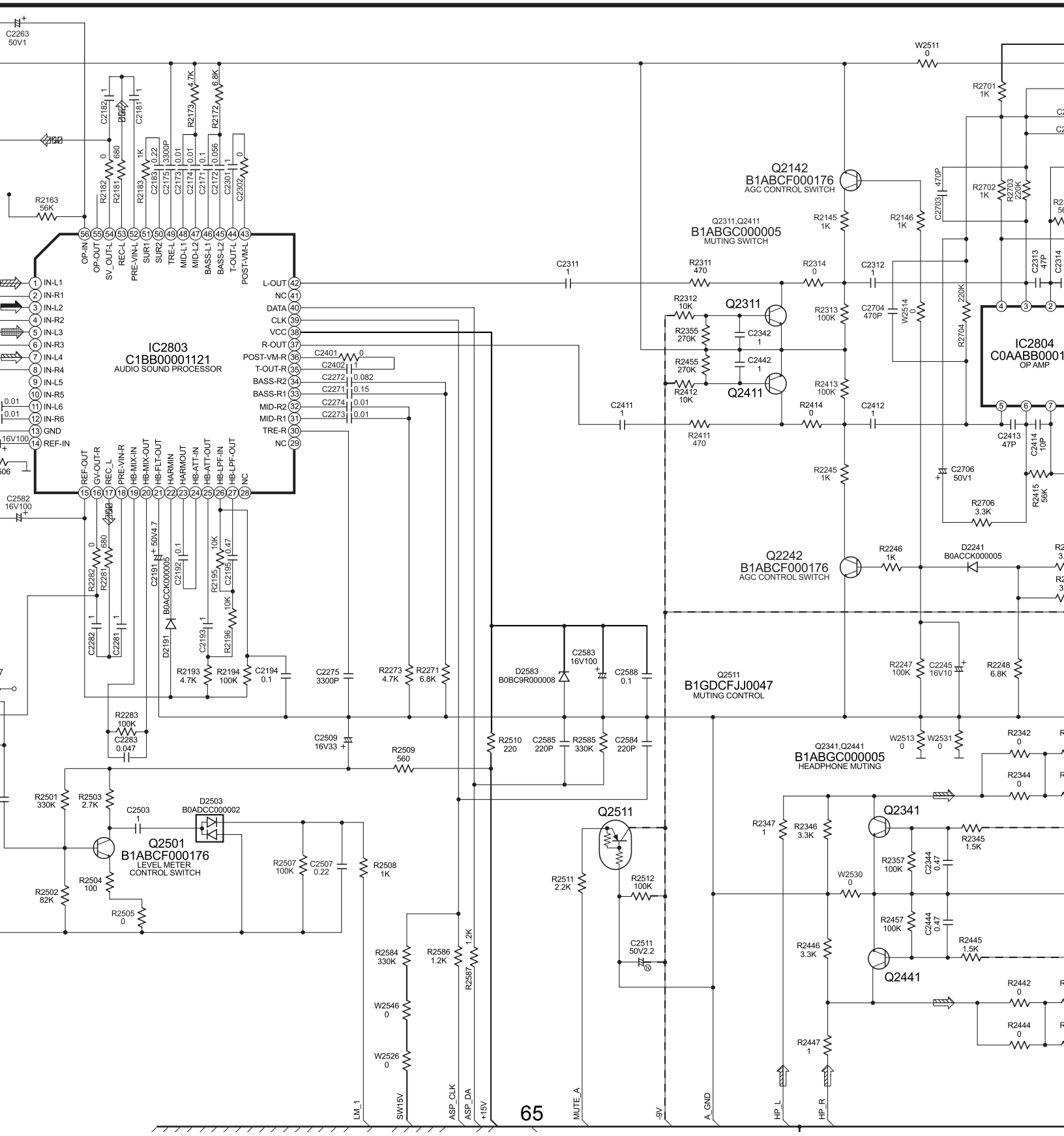
: +B SIGNAL : FM/AM SIGNAL LINE : TAPE RECORD SIGNAL LINE : CD SIGNAL LINE

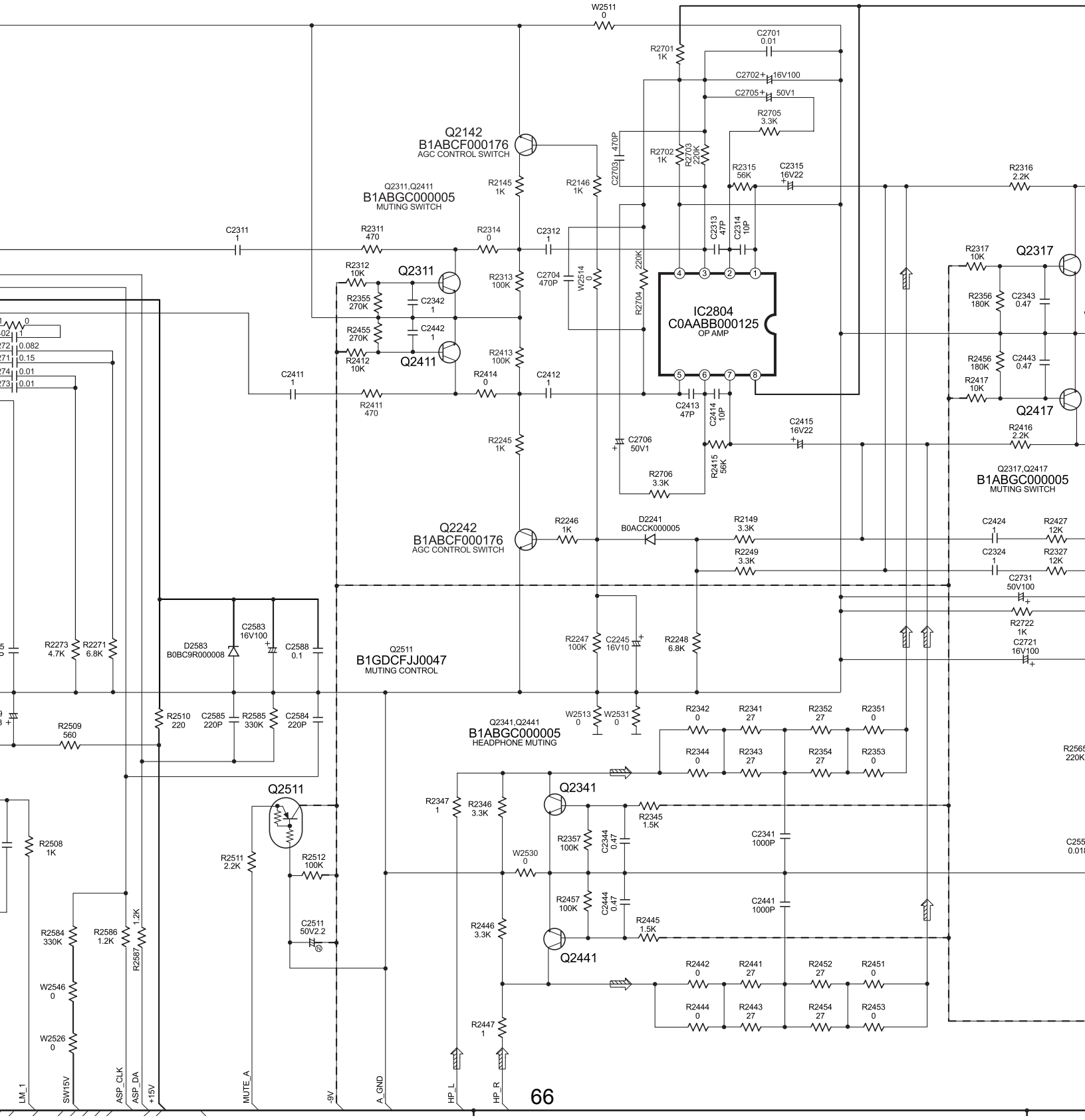
: -B SIGNAL : MAIN SIGNAL LINE : TAPE PLAYBACK SIGNAL LINE

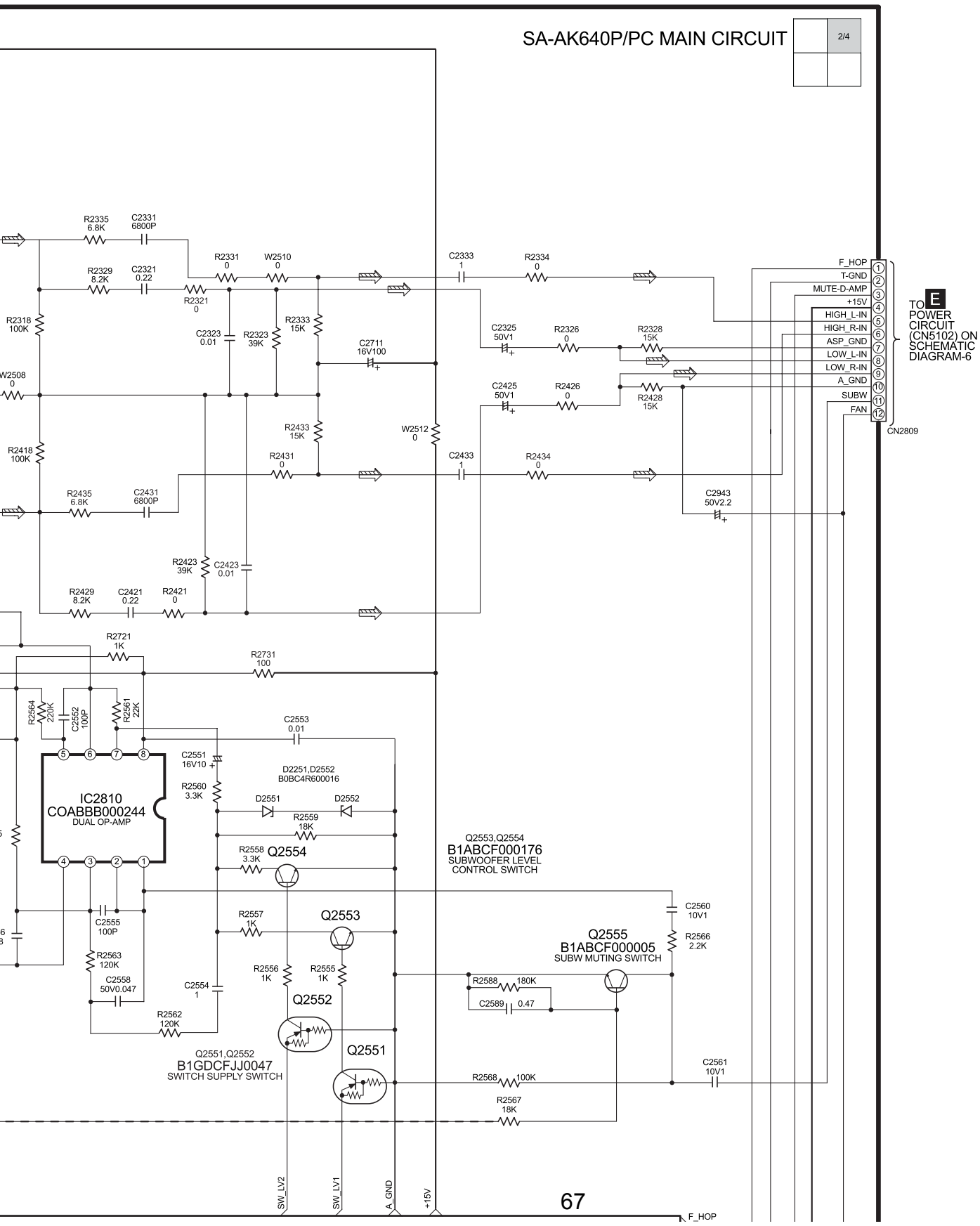
1/4

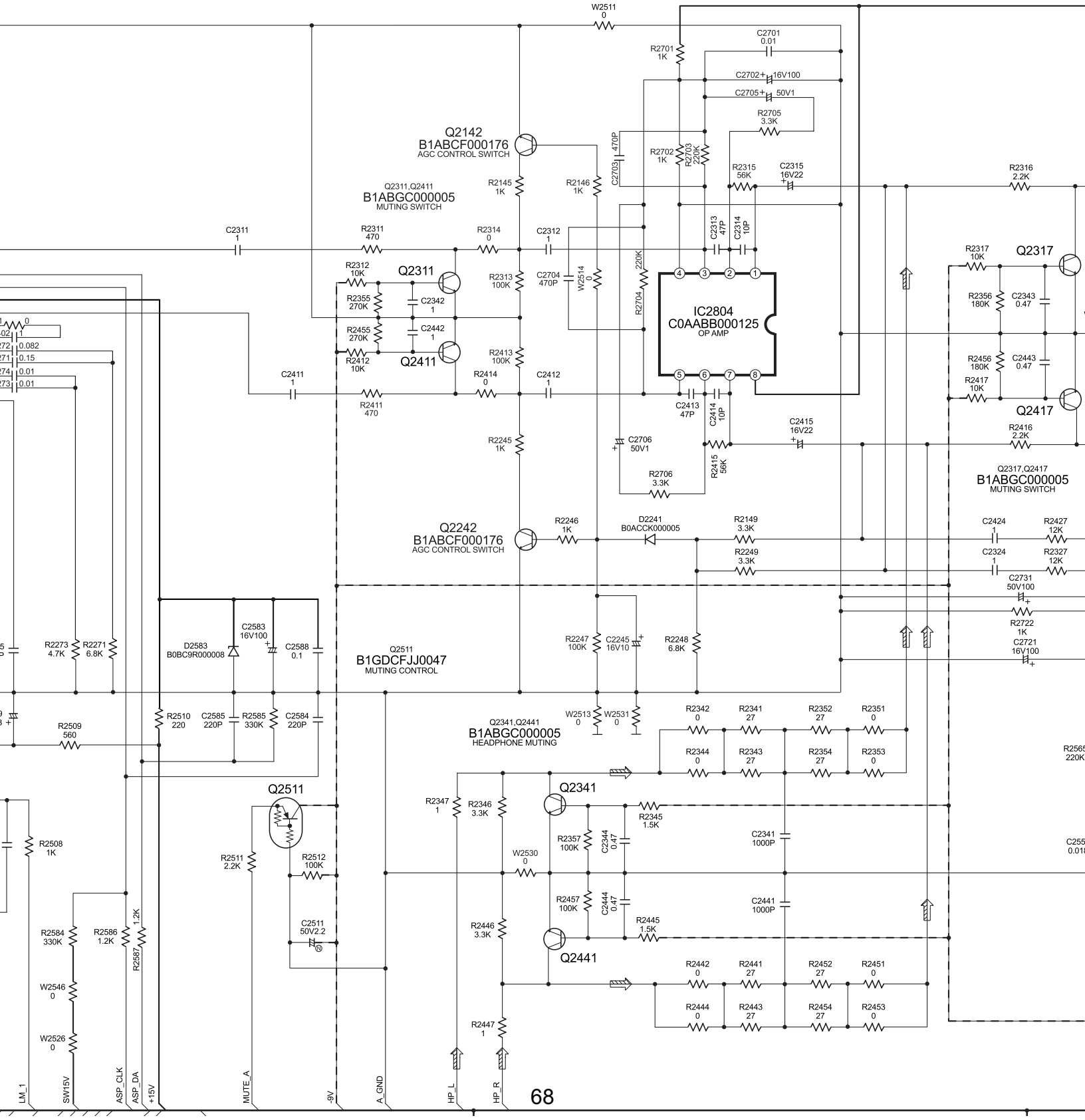
SA-AK640P/PC MAIN CIRCUIT

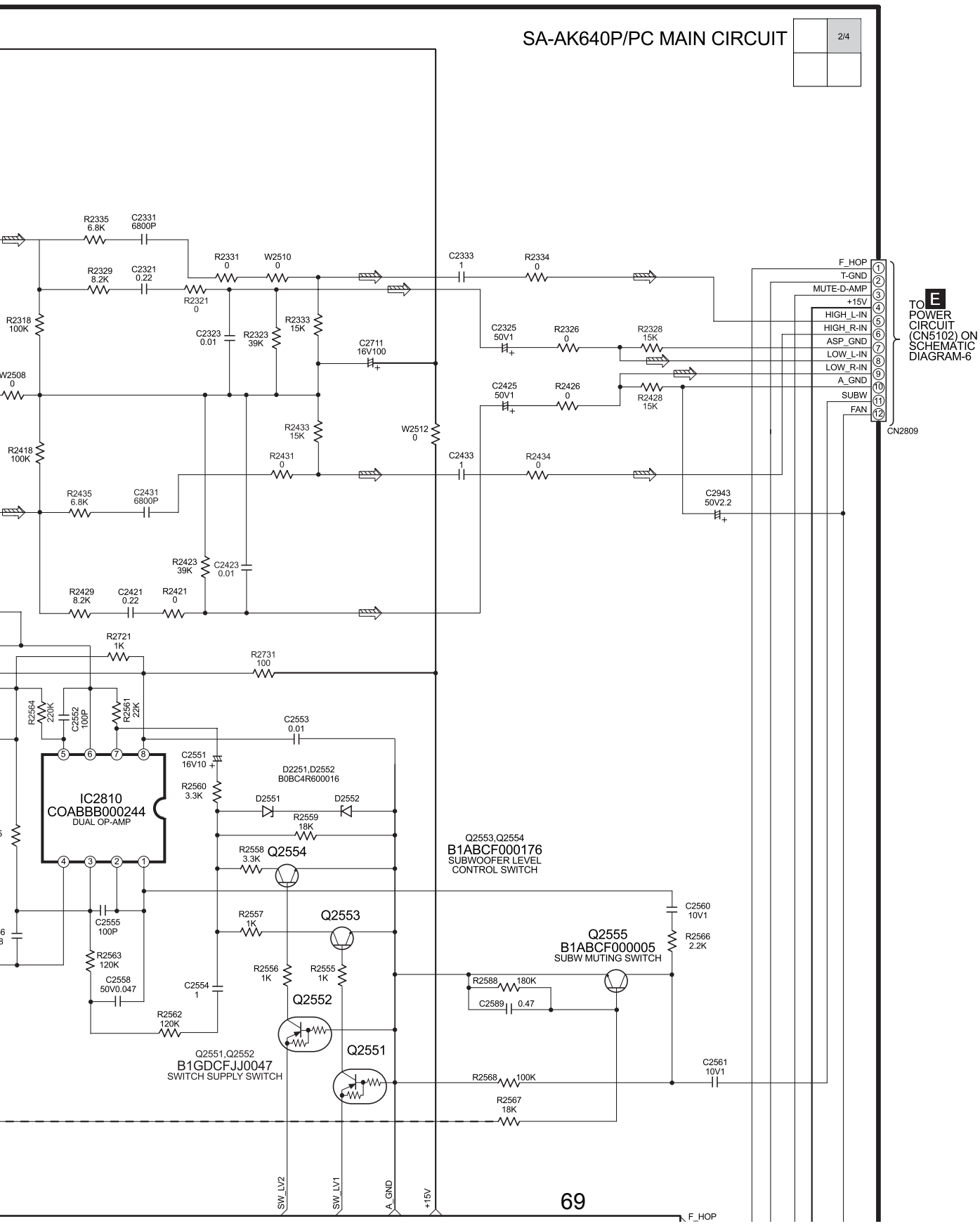


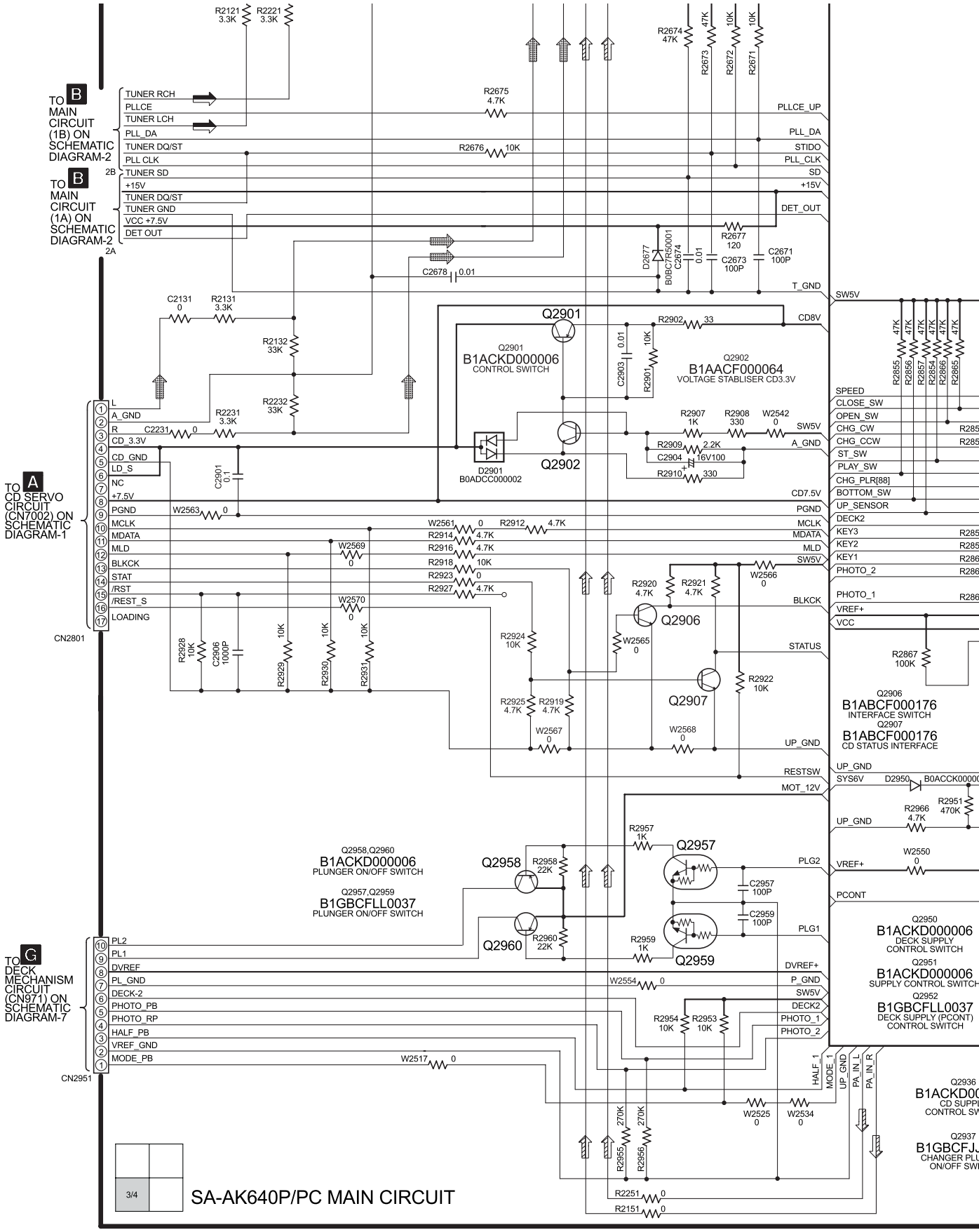

IC2803
C1BB00001121
AUDIO SOUND PROCESSOR
IC2804
C0AABB0001
OP AMP
Q2142
B1ABCF000176
AGC CONTROL SWITCH
Q2311,Q2411
B1ABGC000005
MUTING SWITCH
Q2311
Q2411
Q2242
B1ABCF000176
AGC CONTROL SWITCH
Q2511
B1GDCFJJ0047
MUTING CONTROL
Q2341,Q2441
B1ABGC000005
HEADPHONE MUTING
Q2341
Q2441
Q2501
B1ABCF000176
LEVEL METER
CONTROL SWITCH
Q2511
D2583
B0BC9R000008
D2503
B0ADCC000002
D2241
B0ACCK000005
B0ACCK000005
IN-L1
IN-R1
IN-L2
IN-R2
IN-L3
IN-R3
IN-L4
IN-R4
IN-L5
IN-R5
IN-L6
IN-R6
GND
REF-IN
L-OUT
NC
DATA
CLK
VCC
R-OUT
POST-VM-R
T-OUT-R
BASS-R2
BASS-R1
MID-R2
MID-R1
TRE-R
NC
OP-IN
OP-OUT
SV_OUT-L
REC-L
PRE-VIN-L
SUR1
SUR2
TRE-L
MID-L1
MID-L2
BASS-L1
BASS-L2
T-OUT-L
POST-VM-L
REF-OUT
GV-OUT-R
REC_L
PRE-VIN-R
HB-MIX-IN
HB-MIX-OUT
HB-FLT-OUT
HARMIN
HARMOUT
HB-ATT-IN
HB-ATT-OUT
HB-LPF-IN
HB-LPF-OUT
NC
LM_1
SW15V
ASP_CLK
ASP_DA
+15V
MUTE_A
-9V
A_GND
HP_L
HP_R

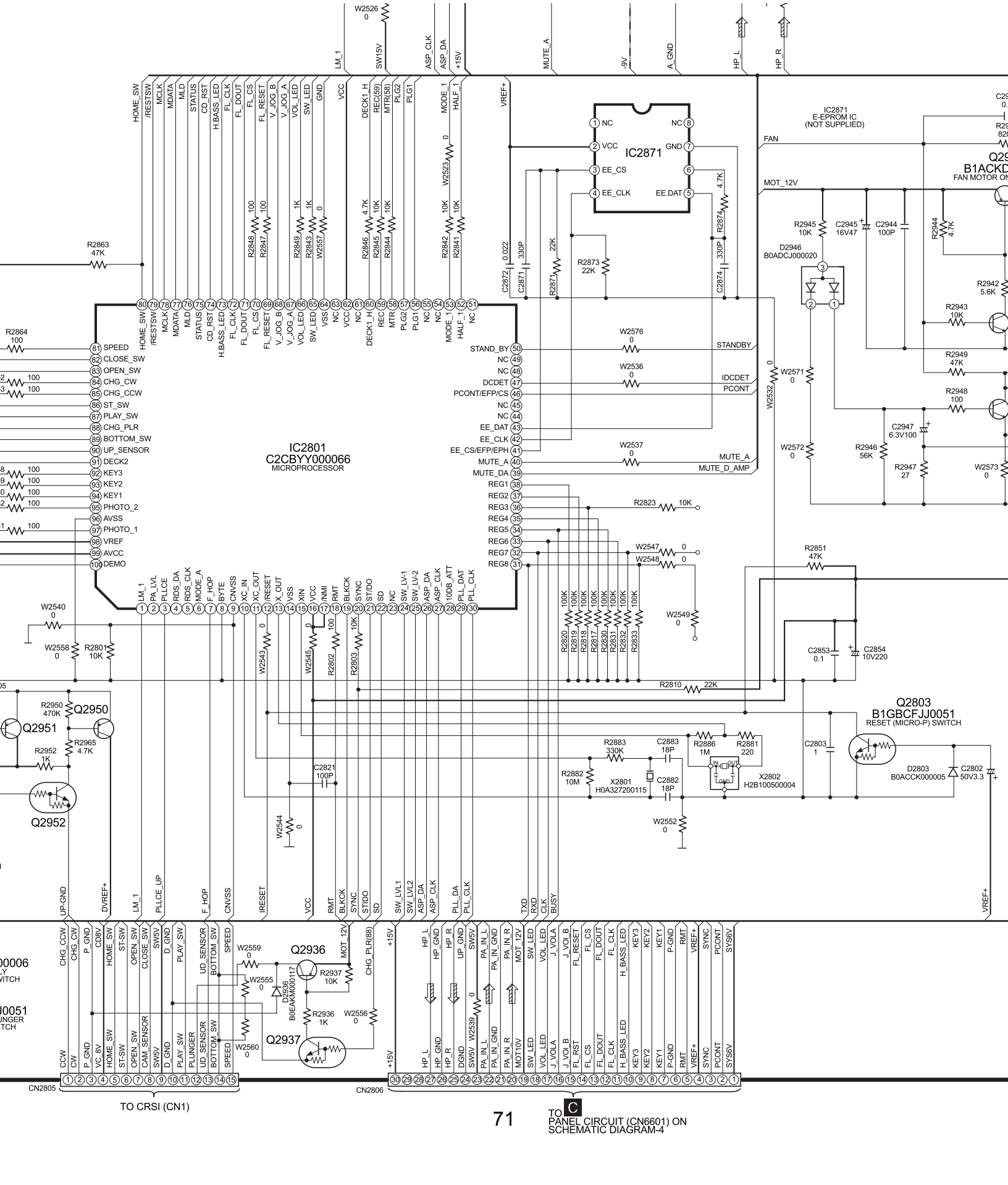

W2511 0
R2701 1K
C2701 0.01
C2702+ 16V100
C2705+ 50V1
R2705 3.3K
Q2142
B1ABCF000176
AGC CONTROL SWITCH
R2702 1K
R2703 220K
C2703 470P
R2315 56K
C2315 16V22
R2316 2.2K
Q2311,Q2411
B1ABGC000005
MUTING SWITCH
R2145 1K
R2146 1K
C2311 1
R2311 470
R2314 0
C2312 1
C2313 47P
C2314 10P
R2312 10K
Q2311
R2313 100K
C2704 470P
W2514 0
R2704 220K
IC2804
C0AABB000125
OP AMP
R2355 270K
C2342 1
R2455 270K
C2442 1
R2412 10K
Q2411
R2413 100K
C2411 1
R2414 0
C2412 1
R2411 470
C2413 47P
C2414 10P
C2415 16V22
R2245 1K
C2706 50V1
R2706 3.3K
R2415 56K
R2317 10K
Q2317
R2356 180K
C2343 0.47
R2456 180K
C2443 0.47
R2417 10K
Q2417
R2416 2.2K
Q2317,Q2417
B1ABGC000005
MUTING SWITCH
Q2242
B1ABCF000176
AGC CONTROL SWITCH
R2246 1K
D2241
B0ACCK000005
R2149 3.3K
R2249 3.3K
C2424 1
R2427 12K
C2324 1
R2327 12K
C2731 50V100
R2722 1K
C2721 16V100
R2273 4.7K
R2271 6.8K
D2583
B0BC9R000008
C2583 16V100
C2588 0.1
Q2511
B1GDCFJJ0047
MUTING CONTROL
R2247 100K
C2245 16V10
R2248 6.8K
R2509 560
R2510 220
C2585 220P
R2585 330K
C2584 220P
W2513 0
W2531 0
Q2341,Q2441
B1ABGC000005
HEADPHONE MUTING
R2342 0
R2341 27
R2352 27
R2351 0
R2344 0
R2343 27
R2354 27
R2353 0
Q2511
Q2341
R2347 1
R2346 3.3K
R2345 1.5K
R2357 100K
C2344 0.47
C2341 1000P
W2530 0
R2457 100K
C2444 0.47
C2441 1000P
R2446 3.3K
R2445 1.5K
Q2441
R2442 0
R2441 27
R2452 27
R2451 0
R2444 0
R2443 27
R2454 27
R2453 0
R2447 1
R2508 1K
R2511 2.2K
R2512 100K
C2511 50V2.2
R2584 330K
R2586 1.2K
R2587 1.2K
W2546 0
W2526 0
LM_1
SW15V
ASP_CLK
ASP_DA
+15V
MUTE_A
-9V
A_GND
HP_L
HP_R

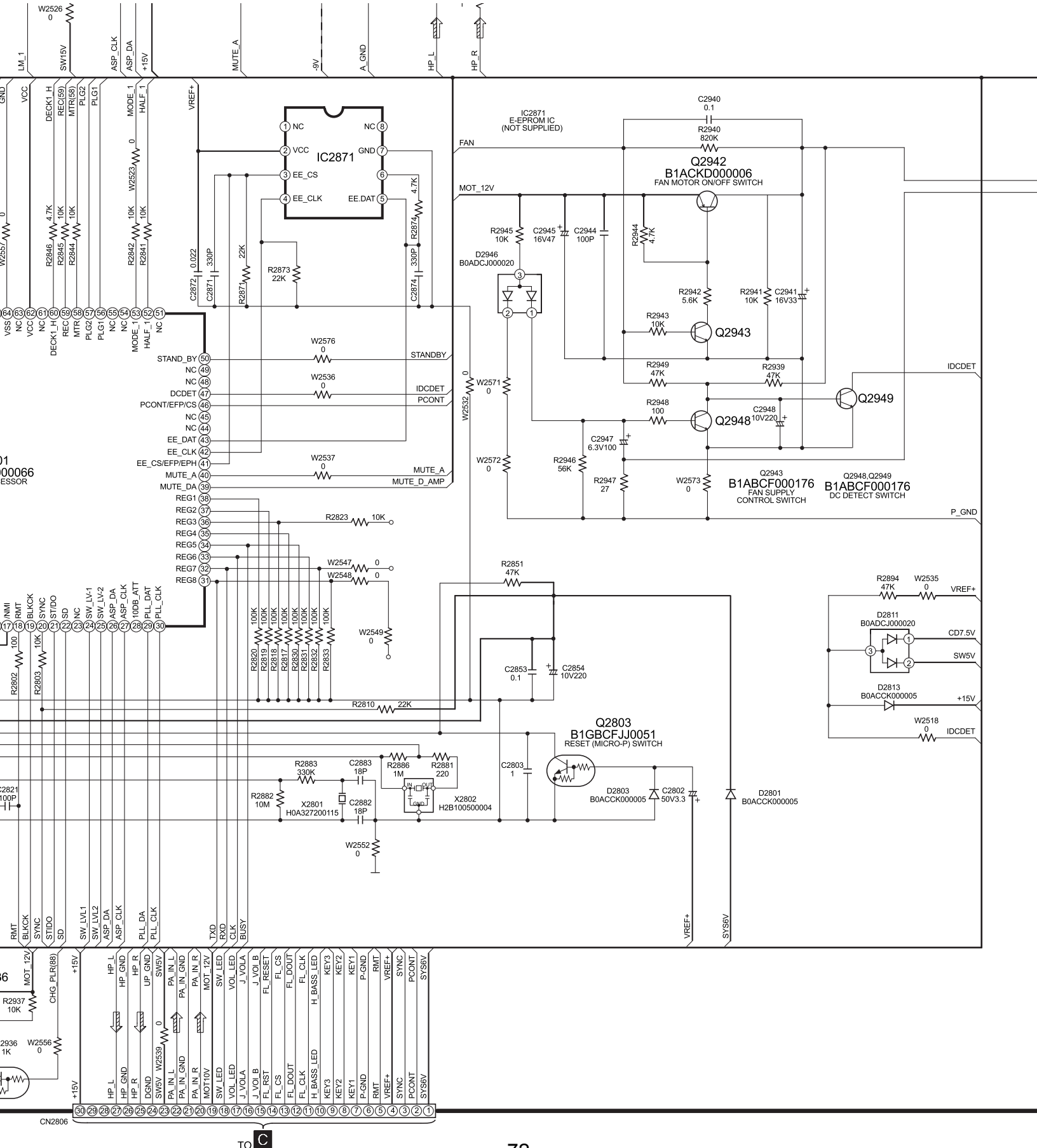

R2335 6.8K
C2331 6800P
R2329 8.2K
C2321 0.22
R2331 0
W2510 0
R2321 0
C2333 1
R2334 0
R2318 100K
C2323 0.01
R2323 39K
R2333 15K
C2711 16V100
C2325 50V1
R2326 0
R2328 15K
W2508 0
C2425 50V1
R2426 0
R2428 15K
R2433 15K
W2512 0
R2418 100K
R2431 0
C2433 1
R2434 0
R2435 6.8K
C2431 6800P
C2943 50V2.2
R2423 39K
C2423 0.01
R2429 8.2K
C2421 0.22
R2421 0
R2721 1K
R2731 100
R2564 220K
C2552 100P
R2561 22K
C2553 0.01
C2551 16V10
D2251,D2552 B0BC4R600016
IC2810 COABBB000244 DUAL OP-AMP
R2560 3.3K
D2551
D2552
R2559 18K
R2558 3.3K
Q2554
Q2553,Q2554 B1ABCF000176 SUBWOOFER LEVEL CONTROL SWITCH
C2555 100P
R2557 1K
Q2553
C2560 10V1
Q2555 B1ABCF000005 SUBW MUTING SWITCH
R2566 2.2K
R2563 120K
C2558 50V0.047
R2556 1K
R2555 1K
R2588 180K
C2589 0.47
C2554 1
Q2552
R2562 120K
Q2551
Q2551,Q2552 B1GDCFJJ0047 SWITCH SUPPLY SWITCH
C2561 10V1
R2568 100K
R2567 18K
SW_LV2
SW_LV1
A_GND
+15V
F_HOP
F_HOP
T-GND
MUTE-D-AMP
+15V
HIGH_L-IN
HIGH_R-IN
ASP_GND
LOW_L-IN
LOW_R-IN
A_GND
SUBW
FAN
CN2809
TO E POWER CIRCUIT (CN5102) ON SCHEMATIC DIAGRAM-6

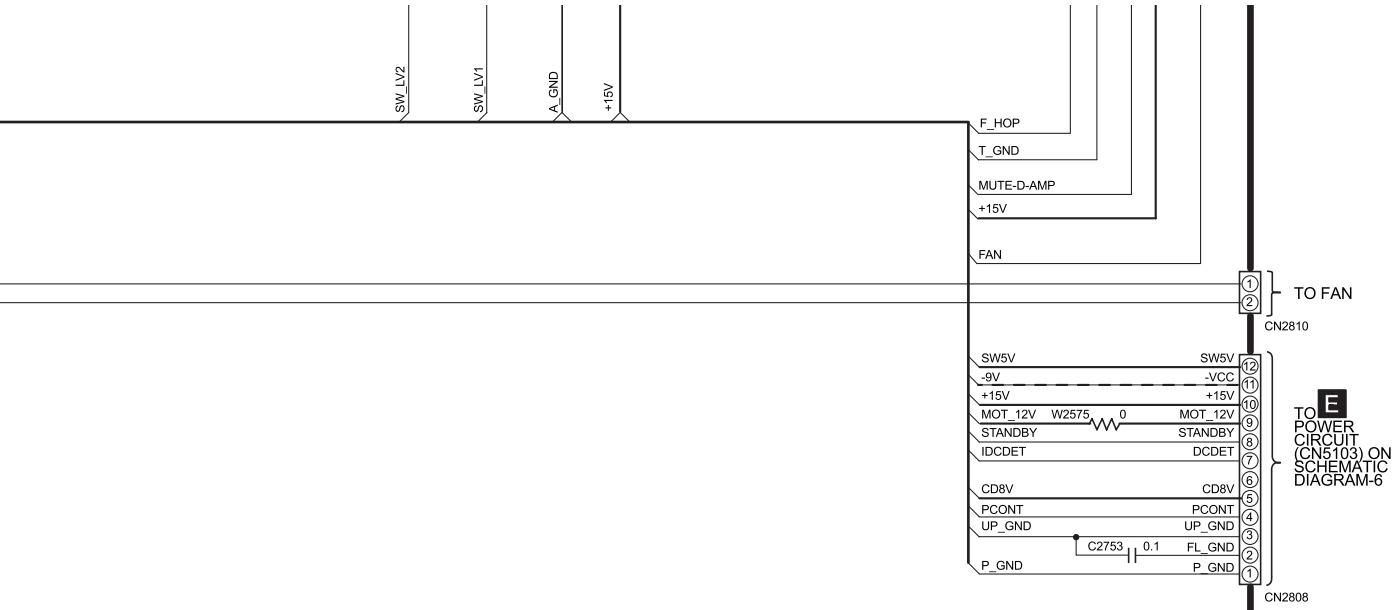

W2511 0
R2701 1K
C2701 0.01
C2702+ 16V100
C2705+ 50V1
R2705 3.3K
Q2142
B1ABCF000176
AGC CONTROL SWITCH
C2703 470P
R2702 1K
R2703 220K
R2315 56K
C2315 16V22
R2316 2.2K
Q2311,Q2411
B1ABGC000005
MUTING SWITCH
R2145 1K
R2146 1K
C2311 1
R2311 470
R2314 0
C2312 1
C2313 47P
C2314 10P
R2312 10K
Q2311
R2313 100K
C2704 470P
W2514 0
R2704 220K
IC2804
C0AABB000125
OP AMP
R2317 10K
Q2317
R2355 270K
C2342 1
R2356 180K
C2343 0.47
R2455 270K
C2442 1
R2412 10K
Q2411
R2413 100K
R2456 180K
C2443 0.47
R2417 10K
Q2417
C2411 1
R2414 0
C2412 1
R2411 470
C2413 47P
C2414 10P
C2415 16V22
R2416 2.2K
R2245 1K
C2706 50V1
R2415 56K
R2706 3.3K
Q2317,Q2417
B1ABGC000005
MUTING SWITCH
Q2242
B1ABCF000176
AGC CONTROL SWITCH
R2246 1K
D2241
B0ACCK000005
R2149 3.3K
R2249 3.3K
C2424 1
R2427 12K
C2324 1
R2327 12K
C2731 50V100
R2722 1K
C2721 16V100
R2273 4.7K
R2271 6.8K
D2583
B0BC9R000008
C2583 16V100
C2588 0.1
Q2511
B1GDCFJJ0047
MUTING CONTROL
R2247 100K
C2245 16V10
R2248 6.8K
R2509 560
R2510 220
C2585 220P
R2585 330K
C2584 220P
W2513 0
W2531 0
Q2341,Q2441
B1ABGC000005
HEADPHONE MUTING
R2342 0
R2341 27
R2352 27
R2351 0
R2344 0
R2343 27
R2354 27
R2353 0
Q2511
Q2341
R2347 1
R2346 3.3K
R2345 1.5K
R2357 100K
C2344 0.47
C2341 1000P
W2530 0
R2508 1K
R2511 2.2K
R2512 100K
R2457 100K
C2444 0.47
C2441 1000P
R2446 3.3K
R2445 1.5K
C2511 50V2.2
Q2441
R2584 330K
R2586 1.2K
R2587 1.2K
R2442 0
R2441 27
R2452 27
R2451 0
R2444 0
R2443 27
R2454 27
R2453 0
W2546 0
W2526 0
R2447 1
LM_1
SW15V
ASP_CLK
ASP_DA
+15V
MUTE_A
-9V
A_GND
HP_L
HP_R


R2335 6.8K
C2331 6800P
R2329 8.2K
C2321 0.22
R2331 0
W2510 0
R2321 0
C2333 1
R2334 0
R2318 100K
C2323 0.01
R2323 39K
R2333 15K
C2711 16V100
C2325 50V1
R2326 0
R2328 15K
W2508 0
C2425 50V1
R2426 0
R2428 15K
R2433 15K
W2512 0
R2418 100K
R2431 0
C2433 1
R2434 0
R2435 6.8K
C2431 6800P
C2943 50V2.2
R2423 39K
C2423 0.01
R2429 8.2K
C2421 0.22
R2421 0
R2721 1K
R2731 100
R2564 220K
C2552 100P
R2561 22K
C2553 0.01
C2551 16V10
D2251,D2552 B0BC4R600016
IC2810 COABBB000244 DUAL OP-AMP
R2560 3.3K
D2551
D2552
R2559 18K
R2558 3.3K
Q2554
Q2553,Q2554 B1ABCF000176 SUBWOOFER LEVEL CONTROL SWITCH
C2555 100P
R2557 1K
Q2553
C2560 10V1
Q2555 B1ABCF000005 SUBW MUTING SWITCH
R2566 2.2K
R2563 120K
C2558 50V0.047
R2556 1K
R2555 1K
R2588 180K
C2589 0.47
C2554 1
Q2552
R2562 120K
Q2551
Q2551,Q2552 B1GDCFJJ0047 SWITCH SUPPLY SWITCH
C2561 10V1
R2568 100K
R2567 18K
SW_LV2
SW_LV1
A_GND
+15V
F_HOP
F_HOP
T-GND
MUTE-D-AMP
+15V
HIGH_L-IN
HIGH_R-IN
ASP_GND
LOW_L-IN
LOW_R-IN
A_GND
SUBW
FAN
CN2809
TO E POWER CIRCUIT (CN5102) ON SCHEMATIC DIAGRAM-6


TO B MAIN CIRCUIT (1B) ON SCHEMATIC DIAGRAM-2
TUNER RCH
PLLCE
TUNER LCH
PLL_DA
TUNER DQ/ST
PLL CLK
TUNER SD
+15V
TO B MAIN CIRCUIT (1A) ON SCHEMATIC DIAGRAM-2
TUNER DQ/ST
TUNER GND
VCC +7.5V
DET OUT
TO A CD SERVO CIRCUIT (CN7002) ON SCHEMATIC DIAGRAM-1
CN2801
L
A_GND
R
CD_3.3V
CD_GND
LD_S
NC
+7.5V
PGND
MCLK
MDATA
MLD
BLKCK
STAT
/RST
/REST_S
LOADING
TO G DECK MECHANISM CIRCUIT (CN971) ON SCHEMATIC DIAGRAM-7
CN2951
PL2
PL1
DVREF
PL_GND
DECK-2
PHOTO_PB
PHOTO_RP
HALF_PB
VREF_GND
MODE_PB
PLLCE_UP
PLL_DA
STIDO
PLL_CLK
SD
+15V
DET_OUT
T_GND
SW5V
CD8V
CD7.5V
PGND
MCLK
MDATA
MLD
SW5V
BLKCK
STATUS
RESTSW
MOT_12V
UP_GND
SYS6V
VREF+
PCONT
PLG2
PLG1
DVREF+
P_GND
SW5V
DECK2
PHOTO_1
PHOTO_2
HALF_1
MODE_1
UP_GND
PA_IN_L
PA_IN_R
SPEED
CLOSE_SW
OPEN_SW
CHG_CW
CHG_CCW
ST_SW
PLAY_SW
CHG_PLR[88]
BOTTOM_SW
UP_SENSOR
DECK2
KEY3
KEY2
KEY1
PHOTO_2
PHOTO_1
VREF+
VCC
Q2901
B1ACKD000006
CONTROL SWITCH
Q2902
B1AACF000064
VOLTAGE STABLISER CD3.3V
D2901
B0ADCC000002
Q2906
B1ABCF000176
INTERFACE SWITCH
Q2907
B1ABCF000176
CD STATUS INTERFACE
Q2958,Q2960
B1ACKD000006
PLUNGER ON/OFF SWITCH
Q2957,Q2959
B1GBCFLL0037
PLUNGER ON/OFF SWITCH
Q2950
B1ACKD000006
DECK SUPPLY CONTROL SWITCH
Q2951
B1ACKD000006
SUPPLY CONTROL SWITCH
Q2952
B1GBCFLL0037
DECK SUPPLY (PCONT) CONTROL SWITCH
Q2936
B1ACKD00
CD SUPPL
CONTROL SW
Q2937
B1GBCFJ
CHANGER PLU
ON/OFF SWI
3/4
SA-AK640P/PC MAIN CIRCUIT


IC2801
C2CBYY000066
MICROPROCESSOR
IC2871
E-EPROM IC
(NOT SUPPLIED)
IC2871
Q2803
B1GBCFJJ0051
RESET (MICRO-P) SWITCH
Q2936
Q2937
Q2950
Q2951
Q2952
X2801
H0A327200115
X2802
H2B100500004
D2803
B0ACCK000005
D2946
B0ADCJ000020
FAN
MOT_12V
STANDBY
IDCDET
PCONT
MUTE_A
MUTE_D_AMP
TO CRSI (CN1)
TO C
PANEL CIRCUIT (CN6601) ON
SCHEMATIC DIAGRAM-4


IC2871
E-EPROM IC
(NOT SUPPLIED)
Q2942
B1ACKD000006
FAN MOTOR ON/OFF SWITCH
Q2943
B1ABCF000176
FAN SUPPLY
CONTROL SWITCH
Q2948,Q2949
B1ABCF000176
DC DETECT SWITCH
Q2803
B1GBCFJJ0051
RESET (MICRO-P) SWITCH
X2801
H0A327200115
X2802
H2B100500004
D2946
B0ADCJ000020
D2811
B0ADCJ000020
D2813
B0ACCK000005
D2803
B0ACCK000005
D2801
B0ACCK000005
FAN
MOT_12V
STANDBY
IDCDET
PCONT
MUTE_A
MUTE_D_AMP
P_GND
CD7.5V
SW5V
+15V
VREF+
SYS6V
CN2806
TO C
PANEL CIRCUIT (CN6601) ON
SCHEMATIC DIAGRAM-4



SA-AK640P/PC MAIN CIRCUIT

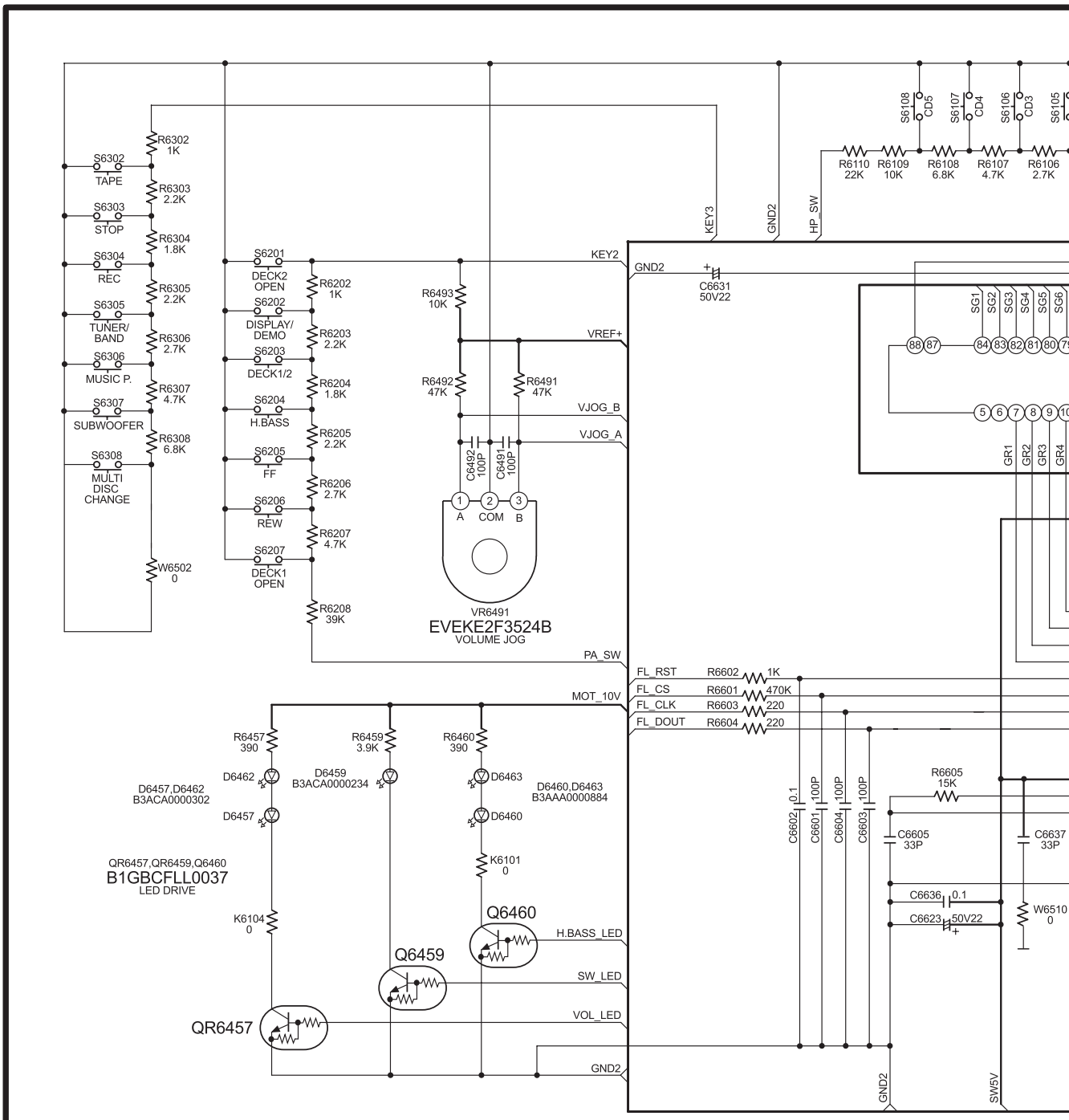
4/4

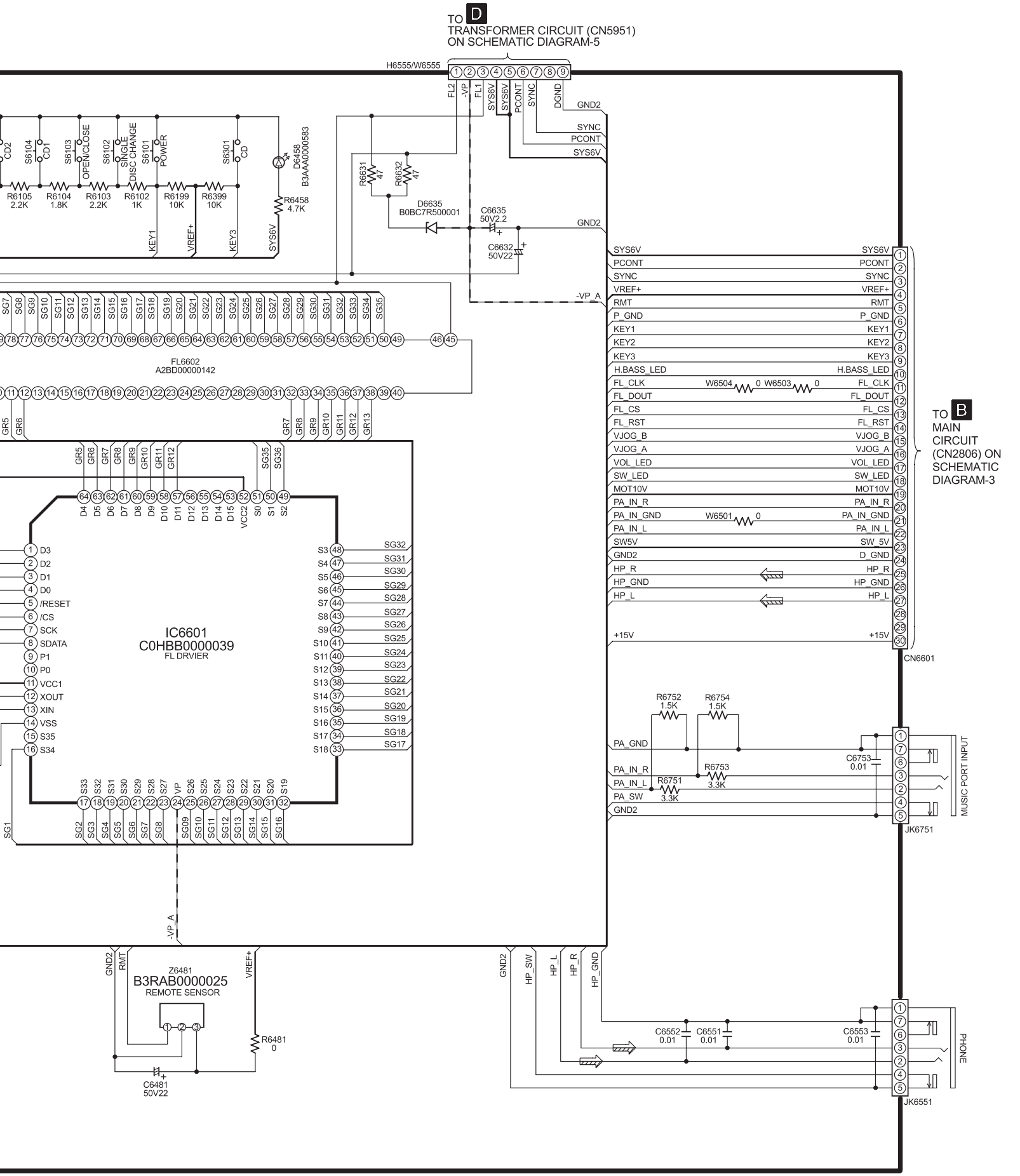
17.5. (C) Panel Circuit

SCHEMATIC DIAGRAM - 4

C PANEL CIRCUIT

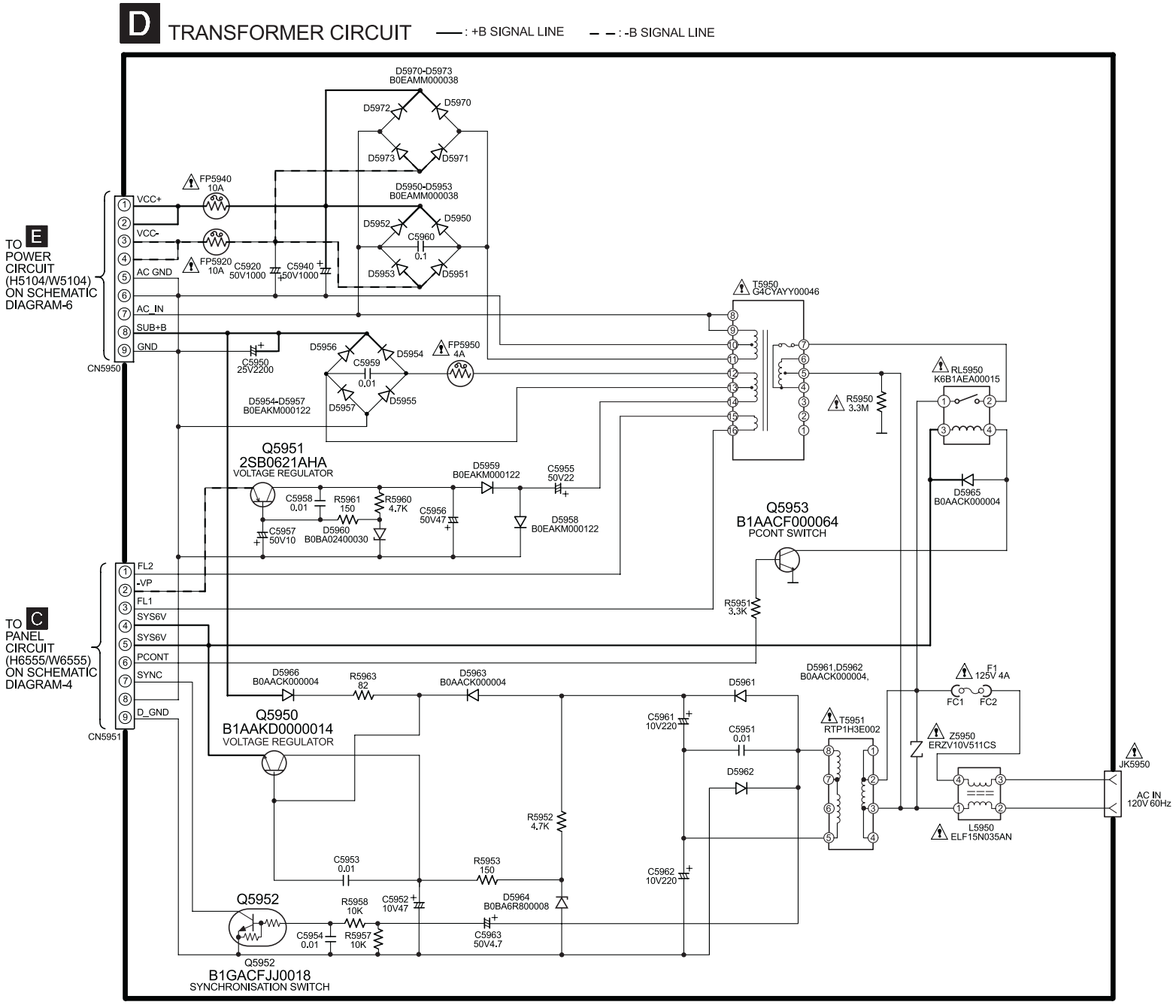
—— : +B SIGNAL LINE – – : -B SIGNAL LINE ⇨ : MAIN SIGNAL LINE




TO D
TRANSFORMER CIRCUIT (CN5951)
ON SCHEMATIC DIAGRAM-5
H6555/W6555
FL2
-VP
FL1
SYS6V
SYS6V
PCONT
SYNC
DGND
GND2
SYNC
PCONT
SYS6V
S6104 CD1
S6103 OPEN/CLOSE
S6102 SINGLE DISC CHANGE
S6101 POWER
S6301 CD
D6458 B3AAA0000583
R6105 2.2K
R6104 1.8K
R6103 2.2K
R6102 1K
R6199 10K
R6399 10K
R6458 4.7K
KEY1
VREF+
KEY3
SYS6V
R6631 47
R6632 47
D6635 B0BC7R500001
C6635 50V2.2
C6632 50V22
GND2
-VP_A
FL6602
A2BD00000142
IC6601
C0HBB0000039
FL DRVIER
SYS6V
PCONT
SYNC
VREF+
RMT
P_GND
KEY1
KEY2
KEY3
H.BASS_LED
FL_CLK
FL_DOUT
FL_CS
FL_RST
VJOG_B
VJOG_A
VOL_LED
SW_LED
MOT10V
PA_IN_R
PA_IN_GND
PA_IN_L
SW5V
GND2
HP_R
HP_GND
HP_L
+15V
W6504 0
W6503 0
W6501 0
CN6601
TO B
MAIN
CIRCUIT
(CN2806) ON
SCHEMATIC
DIAGRAM-3
R6752 1.5K
R6754 1.5K
R6753 3.3K
R6751 3.3K
C6753 0.01
PA_GND
PA_IN_R
PA_IN_L
PA_SW
GND2
JK6751
MUSIC PORT INPUT
Z6481
B3RAB0000025
REMOTE SENSOR
GND2
RMT
VREF+
R6481 0
C6481 50V22
GND2
HP_SW
HP_L
HP_R
HP_GND
C6552 0.01
C6551 0.01
C6553 0.01
JK6551
PHONE

17.6. (D) Transformer Circuit

SCHEMATIC DIAGRAM - 5

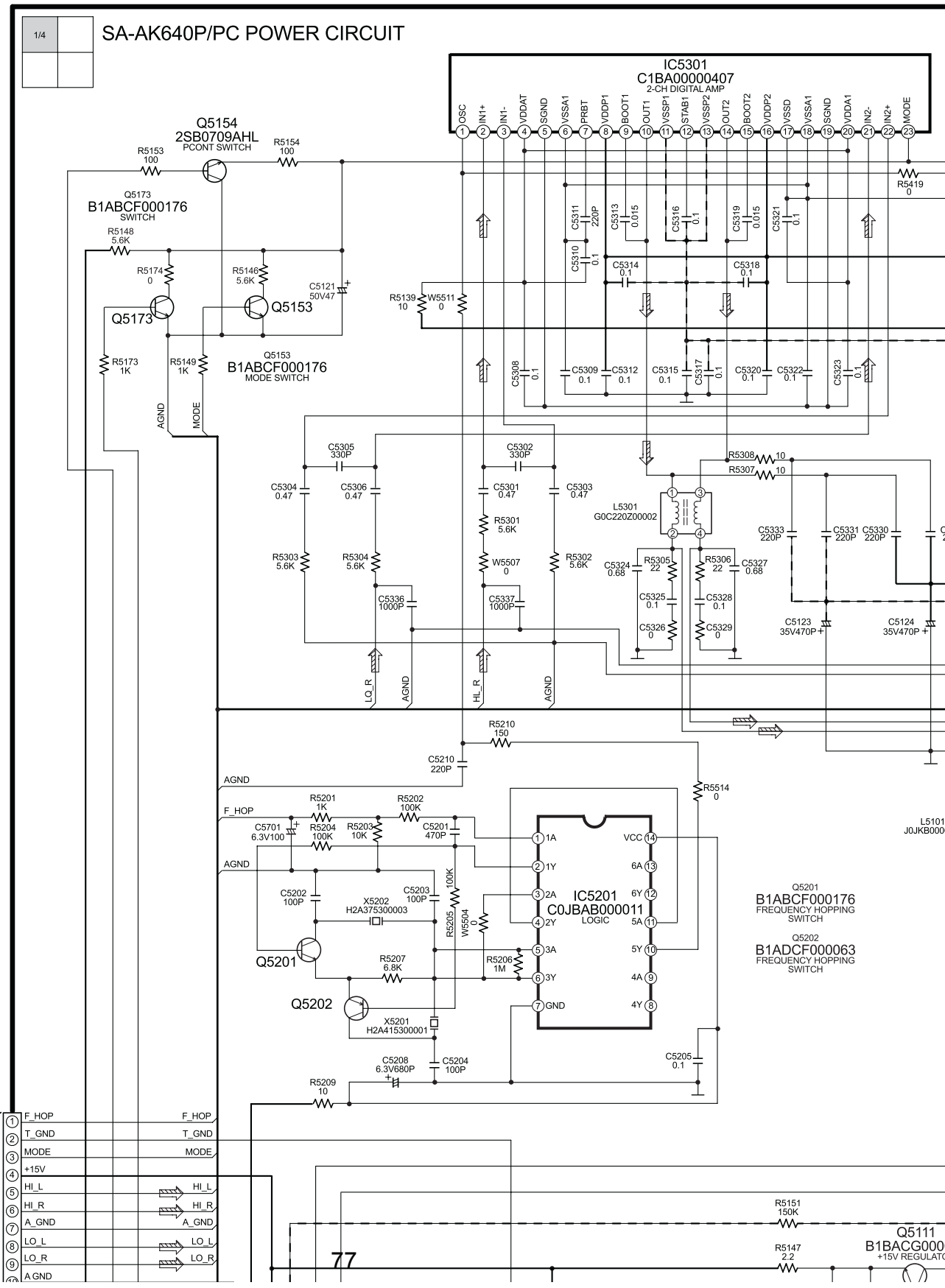


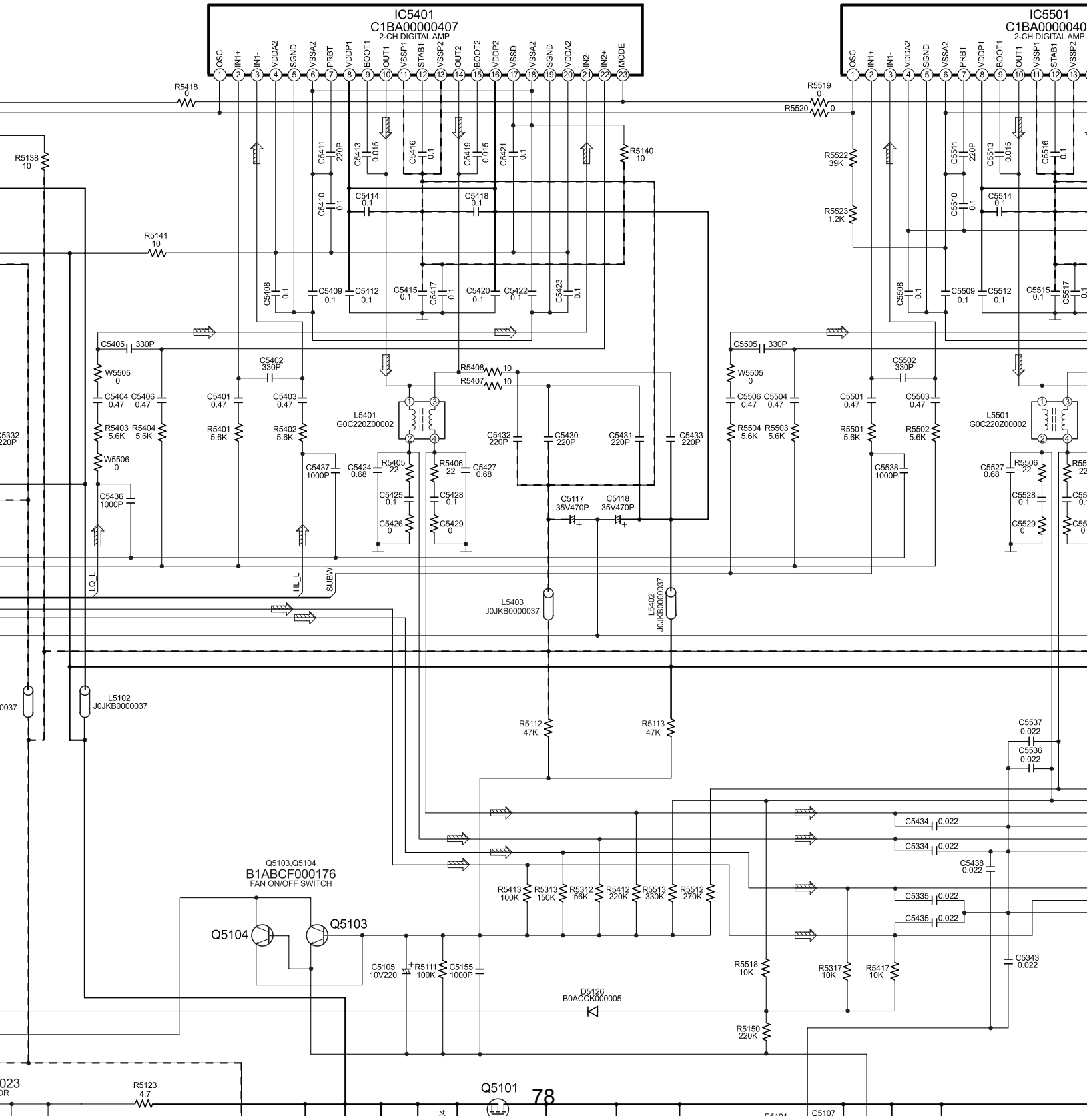
SA-AK640P/PC TRANSFORMER CIRCUIT

17.7. (E) Power Circuit

SCHEMATIC DIAGRAM - 6

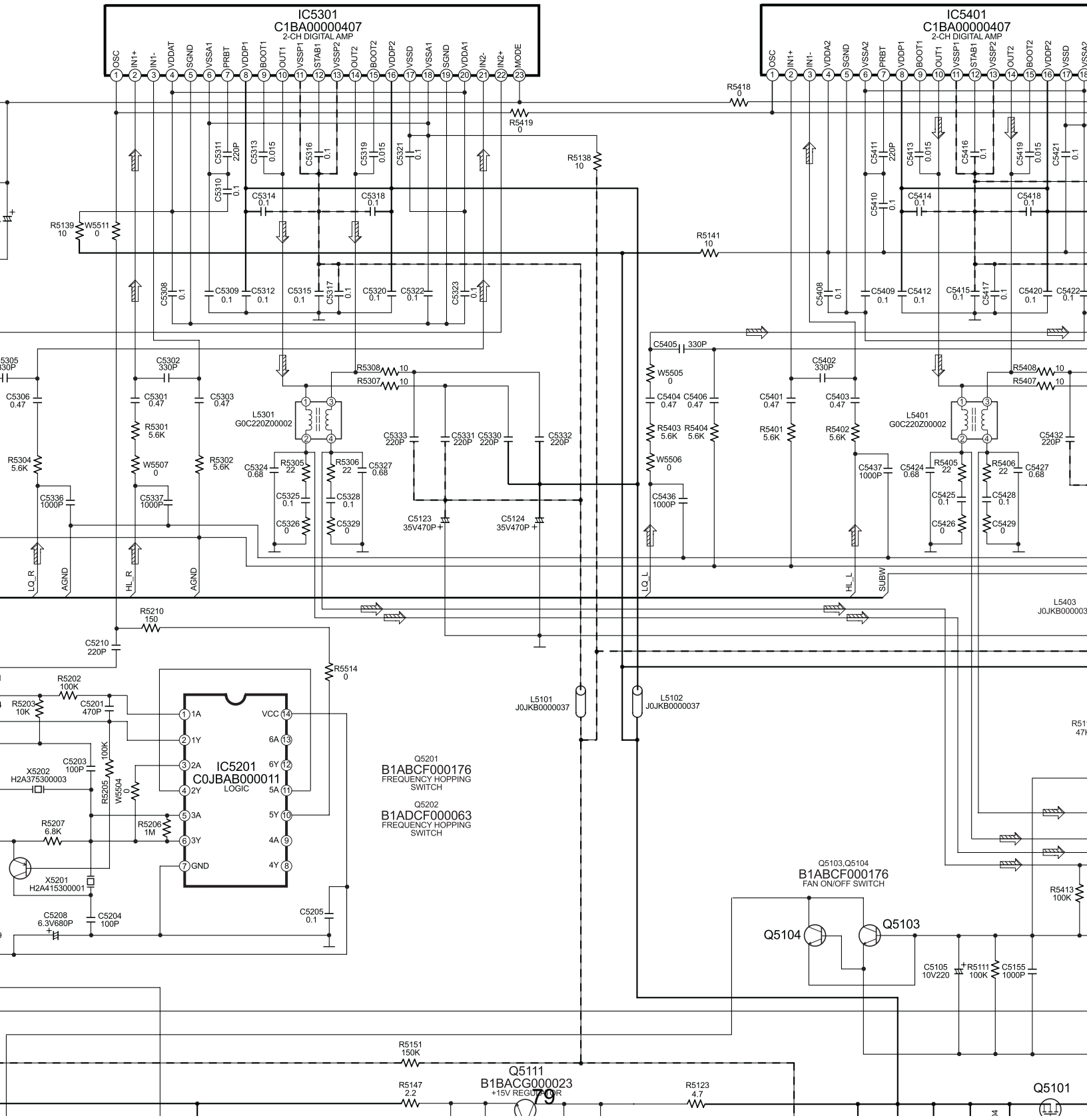
E POWER CIRCUIT —— : +B SIGNAL LINE – – : -B SIGNAL LINE ⇨ : MAIN SIGNAL LINE

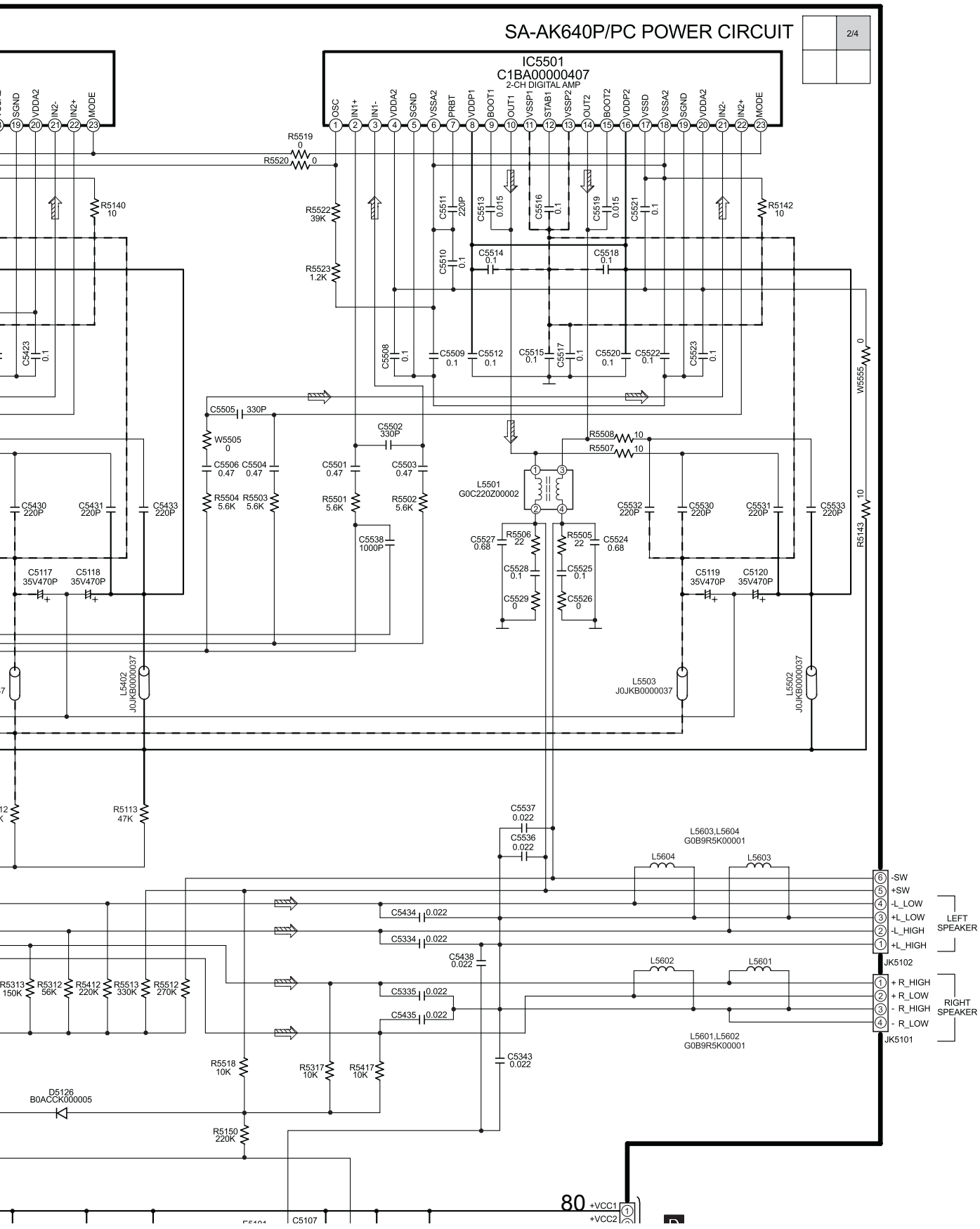


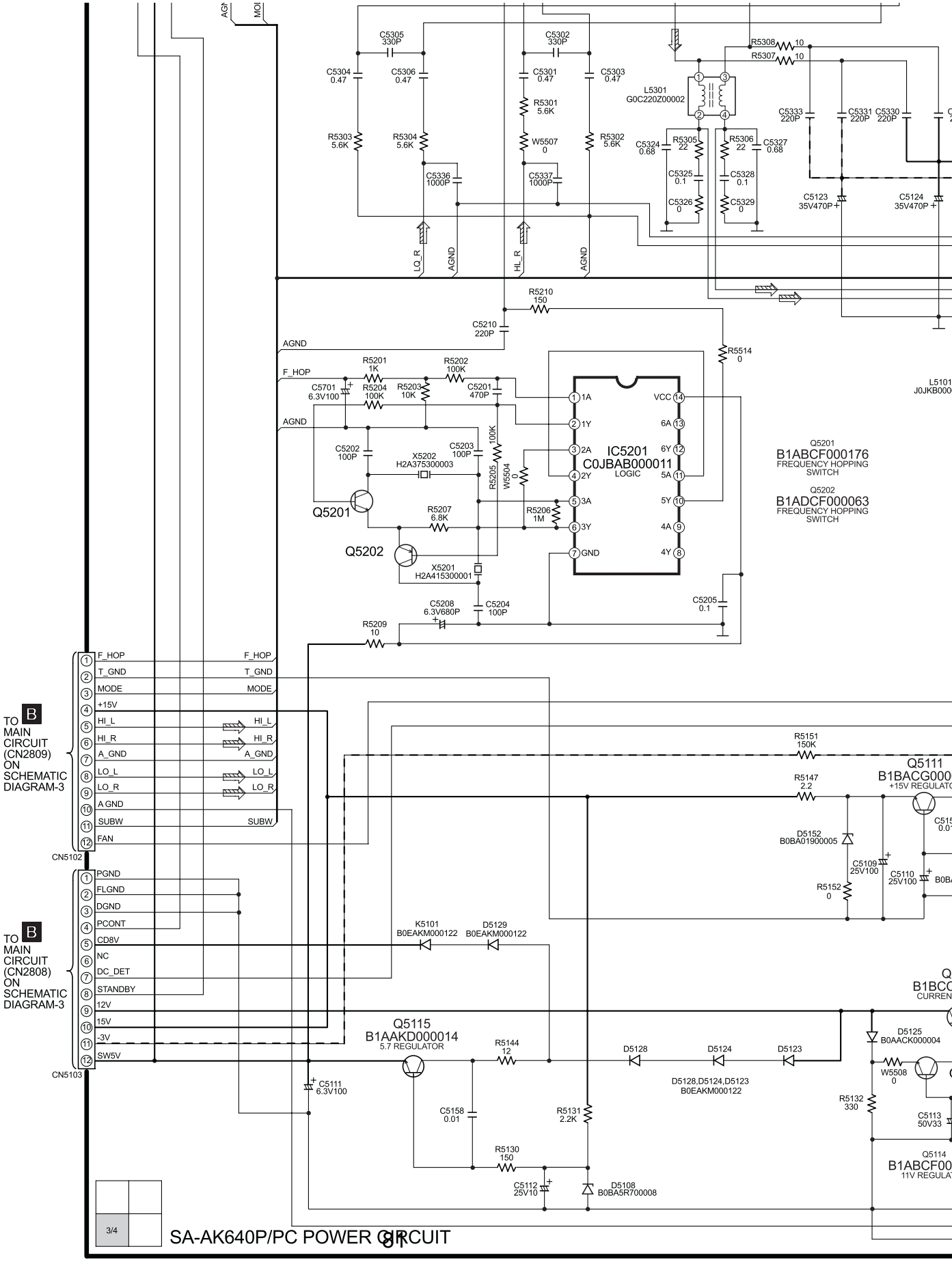

IC5401
C1BA00000407
2-CH DIGITAL AMP
OSC IN1+ IN1- VDDA2 SGND VSSA2 PRBT VDDP1 BOOT1 OUT1 VSSP1 STAB1 VSSP2 OUT2 BOOT2 VDDP2 VSSD VSSA2 SGND VDDA2 IN2- IN2+ MODE
IC5501
C1BA00000407
2-CH DIGITAL AMP
R5418 0
R5519 0
R5520 0
R5138 10
R5140 10
R5141 10
R5522 39K
R5523 1.2K
C5411 220P
C5413 0.015
C5416 0.1
C5419 0.015
C5421 0.1
C5410 0.1
C5414 0.1
C5418 0.1
C5408 0.1
C5409 0.1
C5412 0.1
C5415 0.1
C5417 0.1
C5420 0.1
C5422 0.1
C5423 0.1
C5511 220P
C5513 0.015
C5516 0.1
C5510 0.1
C5514 0.1
C5508 0.1
C5509 0.1
C5512 0.1
C5515 0.1
C5517 0.1
C5405 330P
C5402 330P
C5505 330P
C5502 330P
W5505 0
C5404 0.47
C5406 0.47
C5401 0.47
C5403 0.47
R5403 5.6K
R5404 5.6K
R5401 5.6K
R5402 5.6K
W5506 0
C5436 1000P
C5437 1000P
C5506 0.47
C5504 0.47
C5501 0.47
C5503 0.47
R5504 5.6K
R5503 5.6K
R5501 5.6K
R5502 5.6K
C5538 1000P
L5401
G0C220Z00002
L5501
G0C220Z00002
R5408 10
R5407 10
C5432 220P
C5430 220P
C5431 220P
C5433 220P
C5424 0.68
R5405 22
C5425 0.1
C5426 0
R5406 22
C5428 0.1
C5427 0.68
C5429 0
C5117 35V470P
C5118 35V470P
C5527 0.68
R5506 22
C5528 0.1
C5529 0
LQ_L
HL_L
SUBW
L5403
J0JKB0000037
L5402
J0JKB0000037
L5102
J0JKB0000037
R5112 47K
R5113 47K
C5537 0.022
C5536 0.022
C5434 0.022
C5334 0.022
C5438 0.022
C5335 0.022
C5435 0.022
C5343 0.022
Q5103,Q5104
B1ABCF000176
FAN ON/OFF SWITCH
Q5104
Q5103
R5413 100K
R5313 150K
R5312 56K
R5412 220K
R5513 330K
R5512 270K
C5105 10V220
R5111 100K
C5155 1000P
R5518 10K
R5317 10K
R5417 10K
D5126
B0ACCK000005
R5150 220K
R5123 4.7
Q5101
C5107

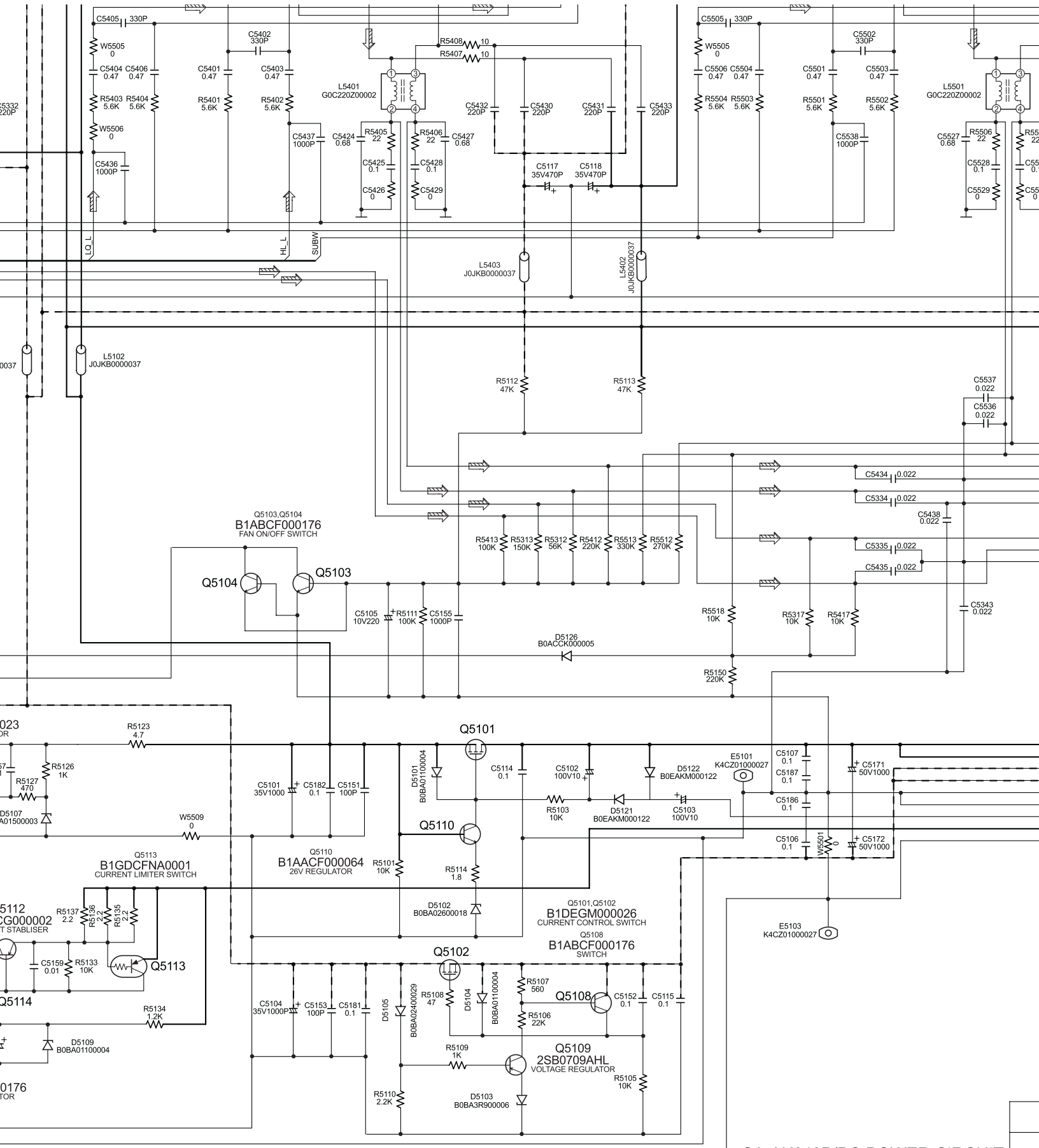
INE – – : -B SIGNAL LINE ⇨ : MAIN SIGNAL LINE

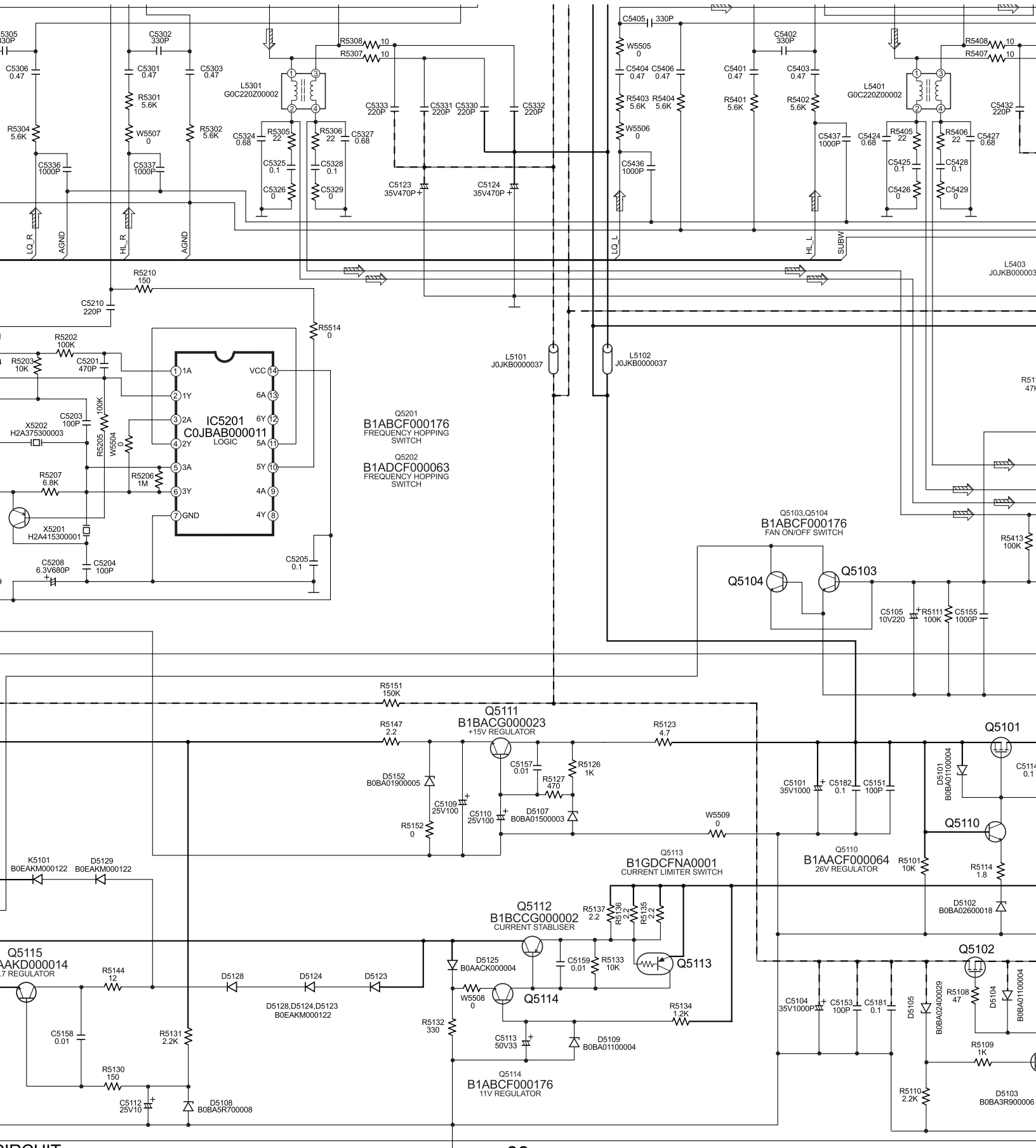
CIRCUIT

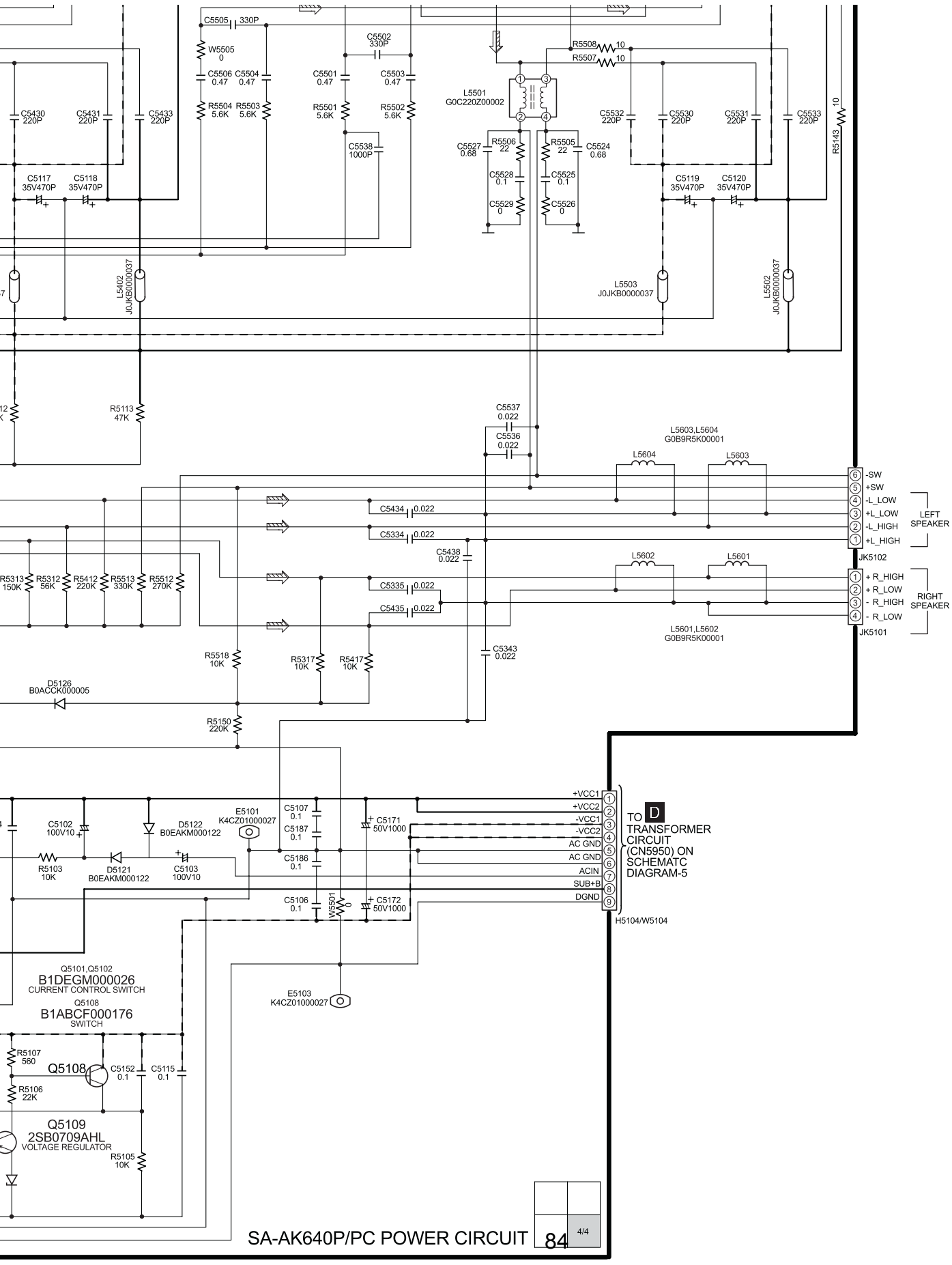



SA-AK640P/PC POWER CIRCUIT
2/4
IC5501
C1BA00000407
2-CH DIGITAL AMP
OSC IN1+ IN1- VDDA2 SGND VSSA2 PRBT VDDP1 BOOT1 OUT1 VSSP1 STAB1 VSSP2 OUT2 BOOT2 VDDP2 VSSD VSSA2 SGND VDDA2 IN2- IN2+ MODE
R5519 0
R5520 0
R5522 39K
R5523 1.2K
R5140 10
R5142 10
C5511 220P
C5513 0.015
C5516 0.1
C5519 0.015
C5521 0.1
C5510 0.1
C5514 0.1
C5518 0.1
C5508 0.1
C5509 0.1
C5512 0.1
C5515 0.1
C5517 0.1
C5520 0.1
C5522 0.1
C5523 0.1
C5423 0.1
W5555 0
C5505 330P
C5502 330P
W5505 0
C5506 0.47
C5504 0.47
C5501 0.47
C5503 0.47
R5504 5.6K
R5503 5.6K
R5501 5.6K
R5502 5.6K
C5538 1000P
L5501 G0C220Z00002
R5508 10
R5507 10
C5430 220P
C5431 220P
C5433 220P
C5532 220P
C5530 220P
C5531 220P
C5533 220P
R5143 10
C5527 0.68
R5506 22
R5505 22
C5524 0.68
C5528 0.1
C5525 0.1
C5529 0
C5526 0
C5117 35V470P
C5118 35V470P
C5119 35V470P
C5120 35V470P
L5402 J0JKB0000037
L5503 J0JKB0000037
L5502 J0JKB0000037
R5113 47K
C5537 0.022
C5536 0.022
L5603,L5604 G0B9R5K00001
L5604
L5603
C5434 0.022
C5334 0.022
C5438 0.022
L5602
L5601
R5313 150K
R5312 56K
R5412 220K
R5513 330K
R5512 270K
C5335 0.022
C5435 0.022
L5601,L5602 G0B9R5K00001
R5518 10K
R5317 10K
R5417 10K
C5343 0.022
D5126 B0ACCK000005
R5150 220K
-SW
+SW
-L_LOW
+L_LOW
-L_HIGH
+L_HIGH
LEFT SPEAKER
JK5102
+ R_HIGH
+ R_LOW
- R_HIGH
- R_LOW
RIGHT SPEAKER
JK5101
+VCC1
+VCC2
C5107


C5305 330P
C5302 330P
C5304 0.47
C5306 0.47
C5301 0.47
C5303 0.47
R5308 10
R5307 10
L5301 G0C220Z00002
R5301 5.6K
R5303 5.6K
R5304 5.6K
W5507 0
R5302 5.6K
C5333 220P
C5331 220P
C5330 220P
C5324 0.68
R5305 22
R5306 22
C5327 0.68
C5325 0.1
C5328 0.1
C5326 0
C5329 0
C5123 35V470P
C5124 35V470P
C5336 1000P
C5337 1000P
LO_R
AGND
HI_R
AGND
R5210 150
C5210 220P
R5514 0
AGND
F_HOP
R5201 1K
R5202 100K
C5701 6.3V100
R5204 100K
R5203 10K
C5201 470P
AGND
C5202 100P
X5202 H2A375300003
C5203 100P
R5205 100K
W5504 0
IC5201 C0JBAB000011 LOGIC
1A 1Y 2A 2Y 3A 3Y GND
VCC 6A 6Y 5A 5Y 4A 4Y
Q5201 B1ABCF000176 FREQUENCY HOPPING SWITCH
Q5202 B1ADCF000063 FREQUENCY HOPPING SWITCH
Q5201
R5207 6.8K
R5206 1M
Q5202
X5201 H2A415300001
C5208 6.3V680P
C5204 100P
C5205 0.1
R5209 10
F_HOP
T_GND
MODE
+15V
HI_L
HI_R
A_GND
LO_L
LO_R
A GND
SUBW
FAN
CN5102
TO B MAIN CIRCUIT (CN2809) ON SCHEMATIC DIAGRAM-3
PGND
FLGND
DGND
PCONT
CD8V
NC
DC_DET
STANDBY
12V
15V
-3V
SW5V
CN5103
TO B MAIN CIRCUIT (CN2808) ON SCHEMATIC DIAGRAM-3
R5151 150K
Q5111 B1BACG000
+15V REGULATO
R5147 2.2
D5152 B0BA01900005
C5109 25V100
C5110 25V100
R5152 0
K5101 B0EAKM000122
D5129 B0EAKM000122
Q5115 B1AAKD000014 5.7 REGULATOR
R5144 12
D5128
D5124
D5123
D5125 B0AACK000004
W5508 0
D5128,D5124,D5123 B0EAKM000122
R5132 330
C5113 50V33
C5111 6.3V100
C5158 0.01
R5131 2.2K
R5130 150
C5112 25V10
D5108 B0BA5R700008
Q5114 B1ABCF00
11V REGULA
3/4
SA-AK640P/PC POWER CIRCUIT


C5405 330P
C5402 330P
W5505 0
C5404 0.47
C5406 0.47
C5401 0.47
C5403 0.47
R5403 5.6K
R5404 5.6K
R5401 5.6K
R5402 5.6K
W5506 0
C5436 1000P
C5437 1000P
L5401 G0C220Z00002
R5408 10
R5407 10
C5424 0.68
R5405 22
C5425 0.1
C5426 0
C5427 0.68
R5406 22
C5428 0.1
C5429 0
C5432 220P
C5430 220P
C5431 220P
C5433 220P
C5117 35V470P
C5118 35V470P
C5505 330P
C5502 330P
C5506 0.47
C5504 0.47
C5501 0.47
C5503 0.47
R5504 5.6K
R5503 5.6K
R5501 5.6K
R5502 5.6K
C5538 1000P
L5501 G0C220Z00002
C5527 0.68
R5506 22
C5528 0.1
C5529 0
LIQ_L
HL_L
SUBW
L5403 J0JKB0000037
L5402 J0JKB0000037
L5102 J0JKB0000037
R5112 47K
R5113 47K
C5537 0.022
C5536 0.022
C5434 0.022
C5334 0.022
C5438 0.022
Q5103,Q5104
B1ABCF000176
FAN ON/OFF SWITCH
Q5104
Q5103
R5413 100K
R5313 150K
R5312 56K
R5412 220K
R5513 330K
R5512 270K
C5335 0.022
C5435 0.022
C5105 10V220
R5111 100K
C5155 1000P
R5518 10K
R5317 10K
R5417 10K
C5343 0.022
D5126 B0ACCK000005
R5150 220K
R5123 4.7
Q5101
R5126 1K
R5127 470
D5107 A01500003
W5509 0
C5101 35V1000
C5182 0.1
C5151 100P
D5101 B0BA01100004
C5114 0.1
C5102 100V10
D5122 B0EAKM000122
E5101 K4CZ01000027
C5107 0.1
C5187 0.1
C5171 50V1000
C5186 0.1
R5103 10K
D5121 B0EAKM000122
C5103 100V10
Q5110
C5106 0.1
W5501 0
C5172 50V1000
Q5113
B1GDCFNA0001
CURRENT LIMITER SWITCH
Q5110
B1AACF000064
26V REGULATOR
R5101 10K
R5114 1.8
R5137 2.2
R5136 2.2
R5135 2.2
C5159 0.01
R5133 10K
Q5113
Q5114
R5134 1.2K
D5102 B0BA02600018
Q5101,Q5102
B1DEGM000026
CURRENT CONTROL SWITCH
Q5108
B1ABCF000176
SWITCH
E5103 K4CZ01000027
Q5102
C5104 35V1000P
C5153 100P
C5181 0.1
D5105
B0BA02400029
R5108 47
D5104
B0BA01100004
R5107 560
R5106 22K
Q5108
C5152 0.1
C5115 0.1
D5109 B0BA01100004
R5109 1K
Q5109
2SB0709AHL
VOLTAGE REGULATOR
R5105 10K
R5110 2.2K
D5103 B0BA3R900006


C5306 0.47
C5301 330P
C5302 330P
C5303 0.47
R5301 5.6K
W5507 0
R5302 5.6K
R5304 5.6K
C5336 1000P
C5337 1000P
L5301 G0C220Z00002
R5308 10
R5307 10
C5333 220P
C5331 220P
C5330 220P
C5332 220P
C5324 0.68
R5305 22
C5325 0.1
C5326 0
R5306 22
C5327 0.68
C5328 0.1
C5329 0
C5123 35V470P
C5124 35V470P
C5405 330P
W5505 0
C5404 0.47
C5406 0.47
R5403 5.6K
R5404 5.6K
W5506 0
C5436 1000P
C5402 330P
C5401 0.47
C5403 0.47
R5401 5.6K
R5402 5.6K
C5437 1000P
L5401 G0C220Z00002
R5408 10
R5407 10
C5432 220P
C5424 0.68
R5405 22
C5425 0.1
C5426 0
R5406 22
C5427 0.68
C5428 0.1
C5429 0
LQ_R
AGND
HL_R
AGND
LQ_L
HL_L
SUBW
L5403 J0JKB000003
R5210 150
C5210 220P
R5514 0
R5202 100K
R5203 10K
C5201 470P
X5202 H2A375300003
C5203 100P
R5205 100K
W5504 0
R5207 6.8K
R5206 1M
X5201 H2A415300001
C5208 6.3V680P
C5204 100P
C5205 0.1
IC5201
C0JBAB000011
LOGIC
1A
2Y
3A
4Y
GND
VCC
6A
6Y
5A
5Y
4A
L5101 J0JKB0000037
L5102 J0JKB0000037
Q5201
B1ABCF000176
FREQUENCY HOPPING SWITCH
Q5202
B1ADCF000063
FREQUENCY HOPPING SWITCH
Q5103,Q5104
B1ABCF000176
FAN ON/OFF SWITCH
Q5104
Q5103
R5413 100K
C5105 10V220
R5111 100K
C5155 1000P
R5151 150K
Q5111
B1BACG000023
+15V REGULATOR
R5147 2.2
R5123 4.7
D5152 B0BA01900005
C5157 0.01
R5126 1K
R5127 470
C5109 25V100
C5110 25V100
D5107 B0BA01500003
R5152 0
W5509 0
C5101 35V1000
C5182 0.1
C5151 100P
Q5101
D5101 B0BA01100004
C5114 0.1
Q5110
B1AACF000064
26V REGULATOR
R5101 10K
R5114 1.8
D5102 B0BA02600018
K5101 B0EAKM000122
D5129 B0EAKM000122
Q5113
B1GDCFNA0001
CURRENT LIMITER SWITCH
Q5112
B1BCCG000002
CURRENT STABLISER
R5137 2.2
R5136 2.2
R5135 2.2
Q5115
AAKD000014
7 REGULATOR
R5144 12
D5128
D5124
D5123
D5128,D5124,D5123 B0EAKM000122
D5125 B0AACK000004
C5159 0.01
R5133 10K
Q5113
W5508 0
Q5114
R5134 1.2K
R5132 330
C5113 50V33
D5109 B0BA01100004
Q5114
B1ABCF000176
11V REGULATOR
C5158 0.01
R5131 2.2K
R5130 150
C5112 25V10
D5108 B0BA5R700008
Q5102
C5104 35V1000P
C5153 100P
C5181 0.1
D5105
B0BA02400029
R5108 47
D5104
B0BA01100004
R5109 1K
R5110 2.2K
D5103 B0BA3R900006


C5505 330P
C5502 330P
W5505 0
C5506 0.47
C5504 0.47
C5501 0.47
C5503 0.47
R5504 5.6K
R5503 5.6K
R5501 5.6K
R5502 5.6K
C5538 1000P
L5501 G0C220Z00002
R5508 10
R5507 10
C5430 220P
C5431 220P
C5433 220P
C5532 220P
C5530 220P
C5531 220P
C5533 220P
R5143 10
C5527 0.68
R5506 22
C5528 0.1
C5529 0
R5505 22
C5524 0.68
C5525 0.1
C5526 0
C5117 35V470P
C5118 35V470P
C5119 35V470P
C5120 35V470P
L5402 J0JKB0000037
L5503 J0JKB0000037
L5502 J0JKB0000037
R5113 47K
C5537 0.022
C5536 0.022
L5603,L5604 G0B9R5K00001
L5604
L5603
C5434 0.022
C5334 0.022
C5438 0.022
L5602
L5601
R5313 150K
R5312 56K
R5412 220K
R5513 330K
R5512 270K
C5335 0.022
C5435 0.022
L5601,L5602 G0B9R5K00001
C5343 0.022
R5518 10K
R5317 10K
R5417 10K
D5126 B0ACCK000005
R5150 220K
-SW
+SW
-L_LOW
+L_LOW
-L_HIGH
+L_HIGH
LEFT SPEAKER
JK5102
+ R_HIGH
+ R_LOW
- R_HIGH
- R_LOW
RIGHT SPEAKER
JK5101
+VCC1
+VCC2
-VCC1
-VCC2
AC GND
AC GND
ACIN
SUB+B
DGND
TO D TRANSFORMER CIRCUIT (CN5950) ON SCHEMATC DIAGRAM-5
H5104/W5104
E5101 K4CZ01000027
C5107 0.1
C5187 0.1
C5171 50V1000
C5102 100V10
D5122 B0EAKM000122
C5186 0.1
R5103 10K
D5121 B0EAKM000122
C5103 100V10
C5106 0.1
W5501 0
C5172 50V1000
Q5101,Q5102
B1DEGM000026
CURRENT CONTROL SWITCH
Q5108
B1ABCF000176
SWITCH
E5103 K4CZ01000027
R5107 560
Q5108
C5152 0.1
C5115 0.1
R5106 22K
Q5109
2SB0709AHL
VOLTAGE REGULATOR
R5105 10K

17.8. (F) Deck Circuit & (G) Deck Mechanism Circuit

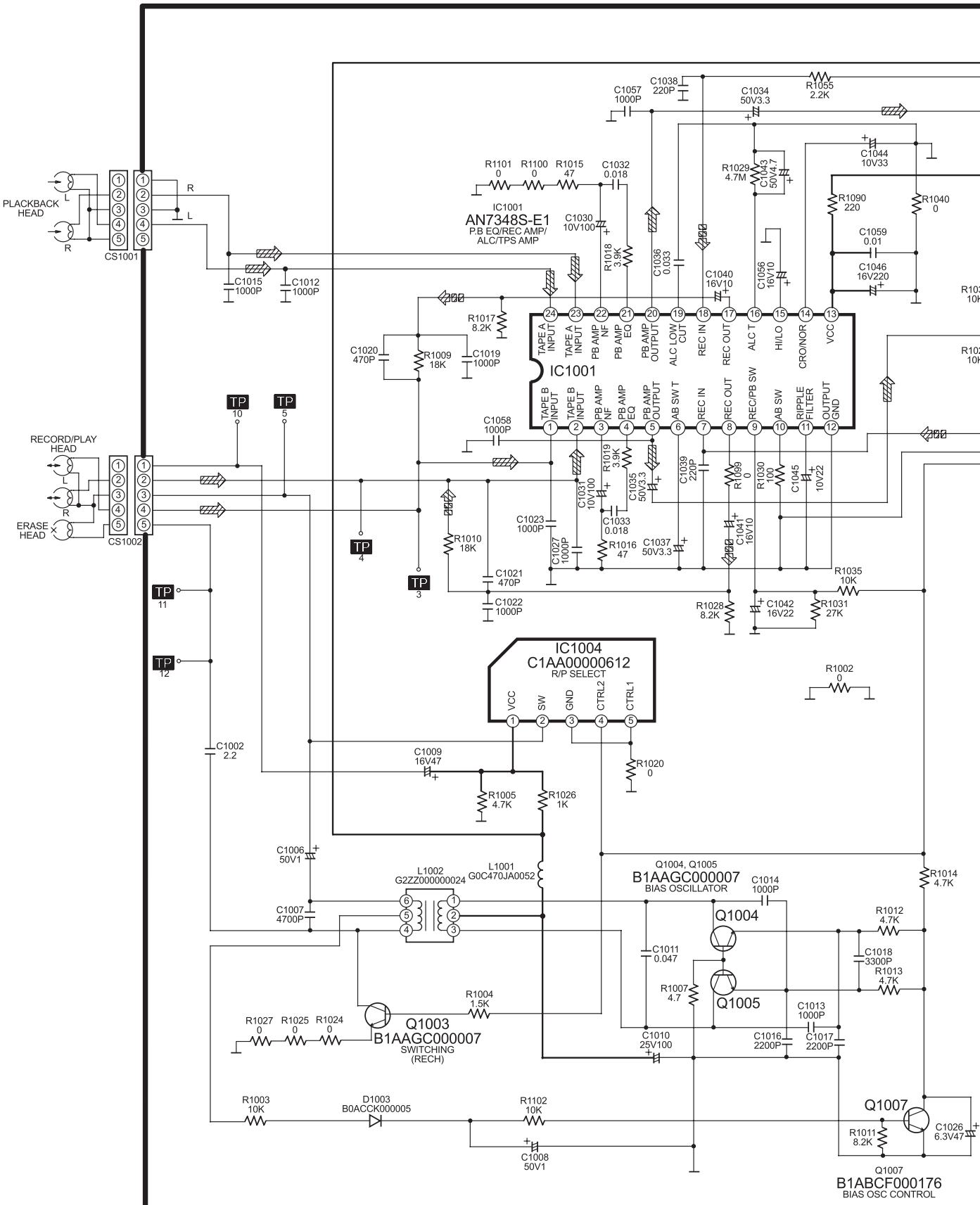
SCHEMATIC DIAGRAM - 7

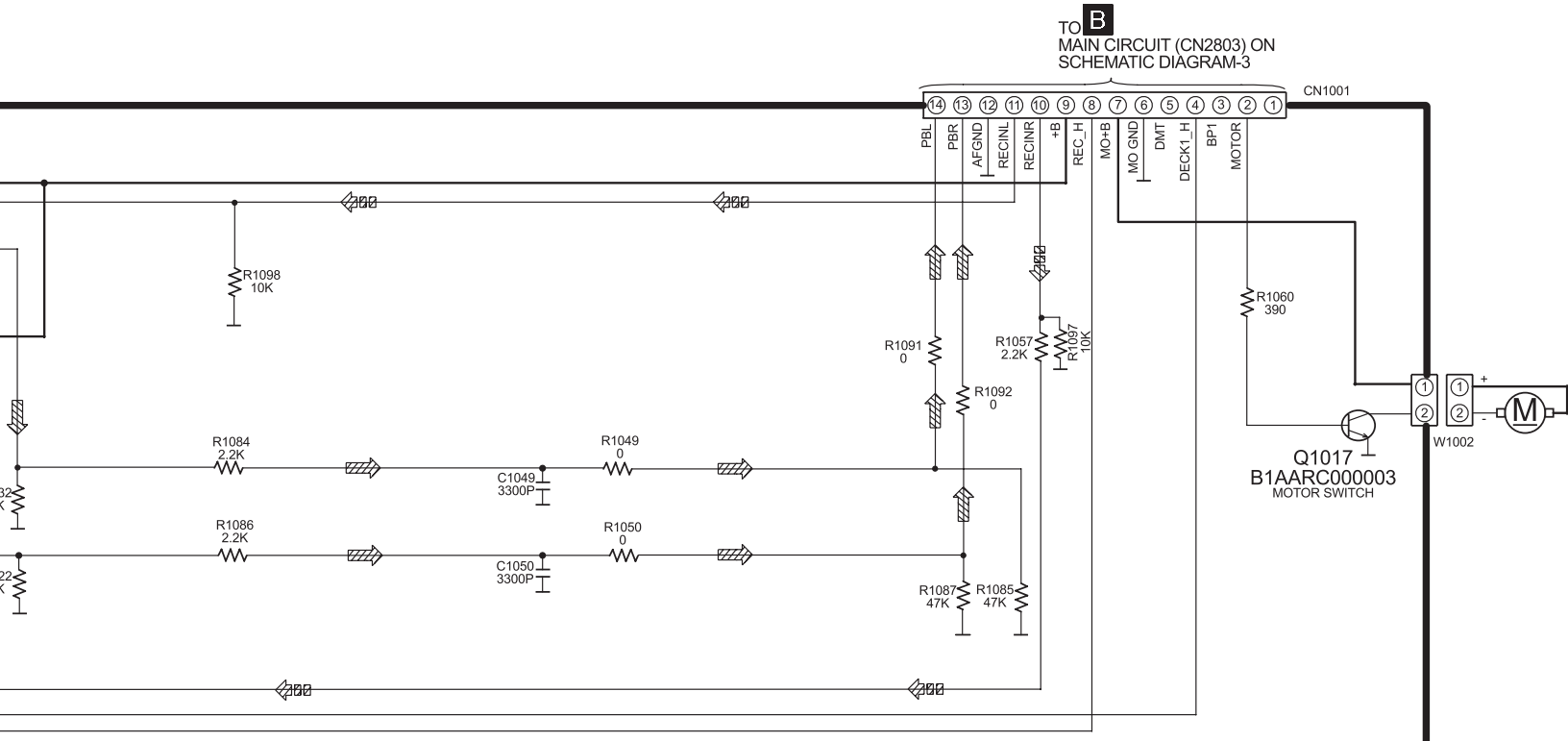
F DECK CIRCUIT

—— : +B SIGNAL

▨▨▨ : RECORD SIGNAL LINE

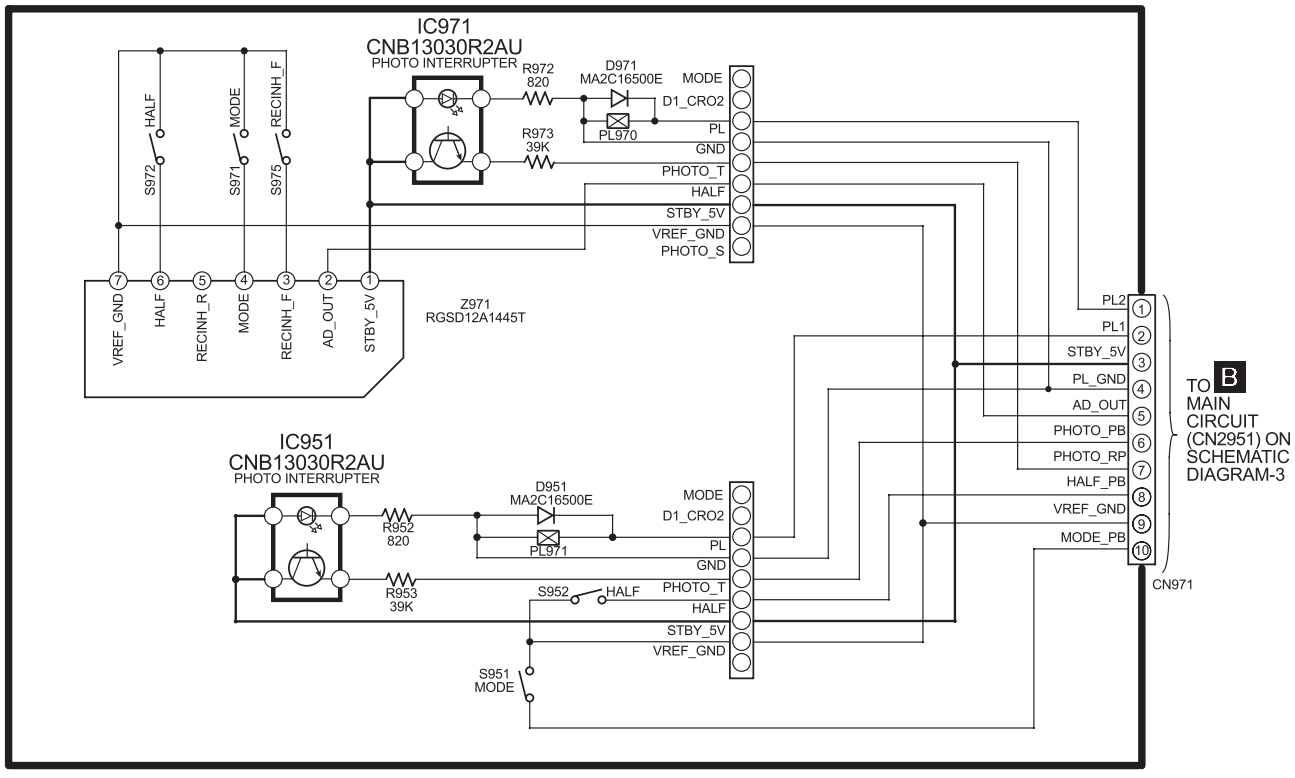
▨▨▨ : PLAYBACK SIGNAL





SA-AK640P/PC DECK CIRCUIT

G DECK MECHANISM CIRCUIT



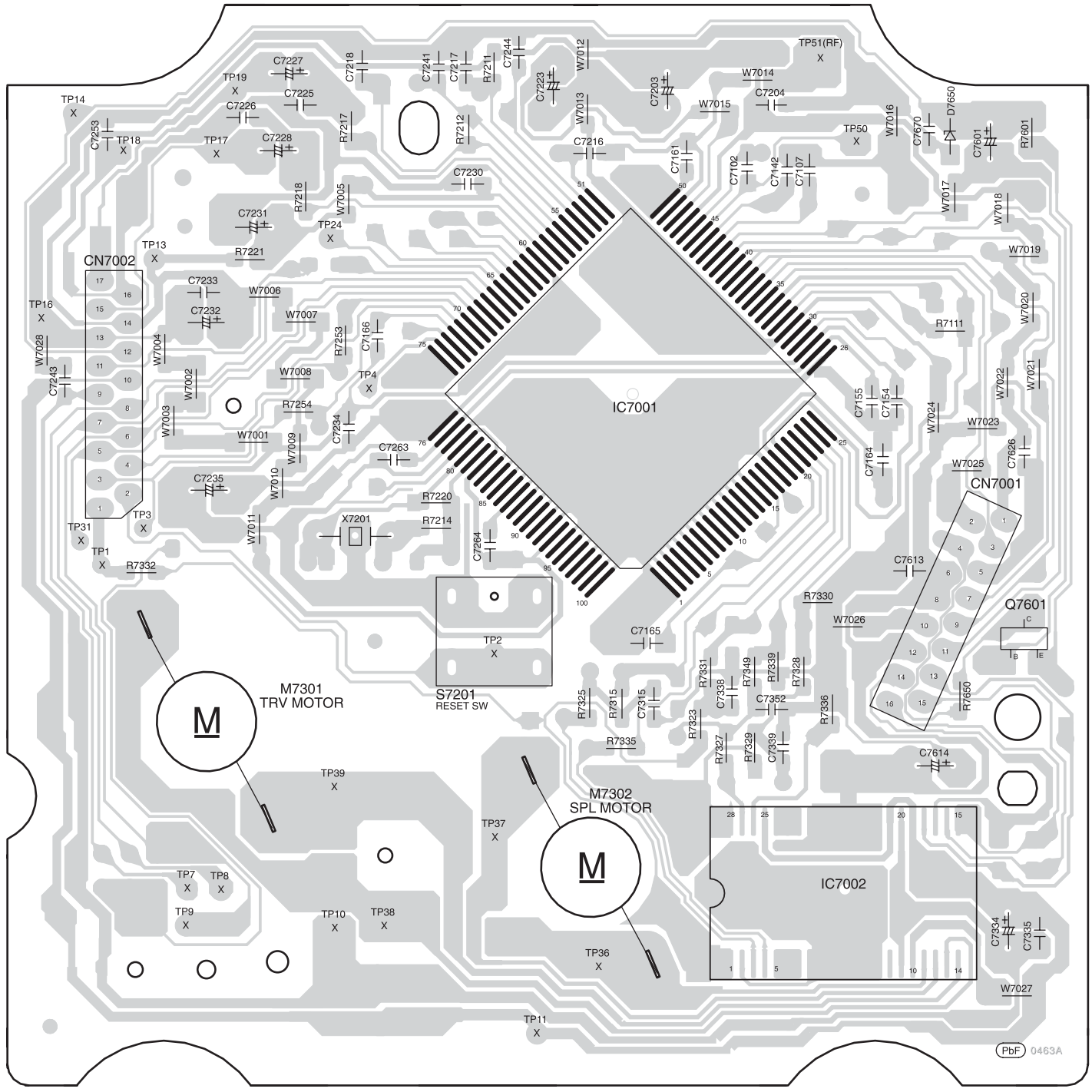
SA-AK640P/PC DECK MECHANISM CIRCUIT

18 Printed Circuit Board

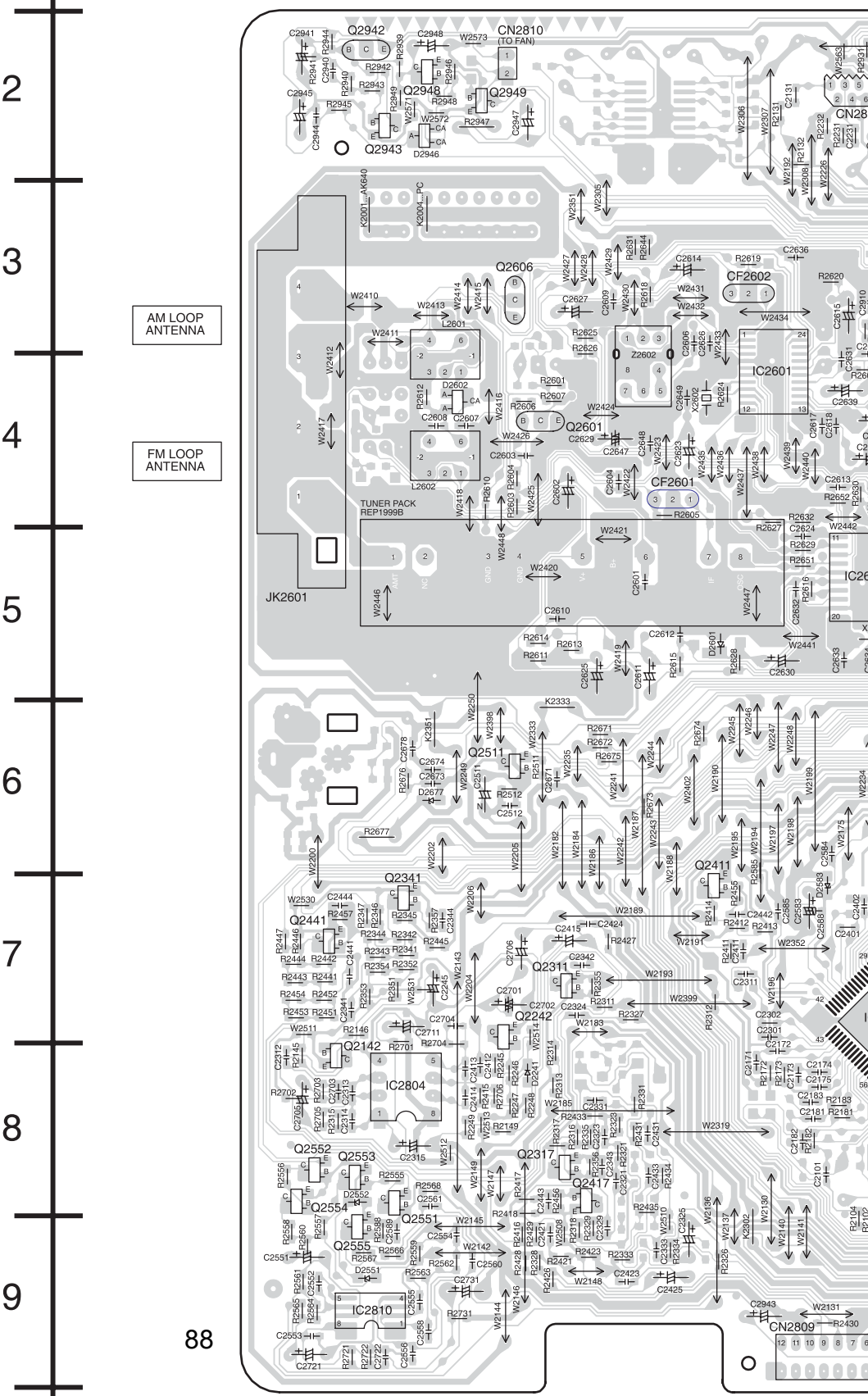
Note: Circuit board diagrams may be modified at any time with the development of new technology.

18.1. (A) CD Servo P.C.B.

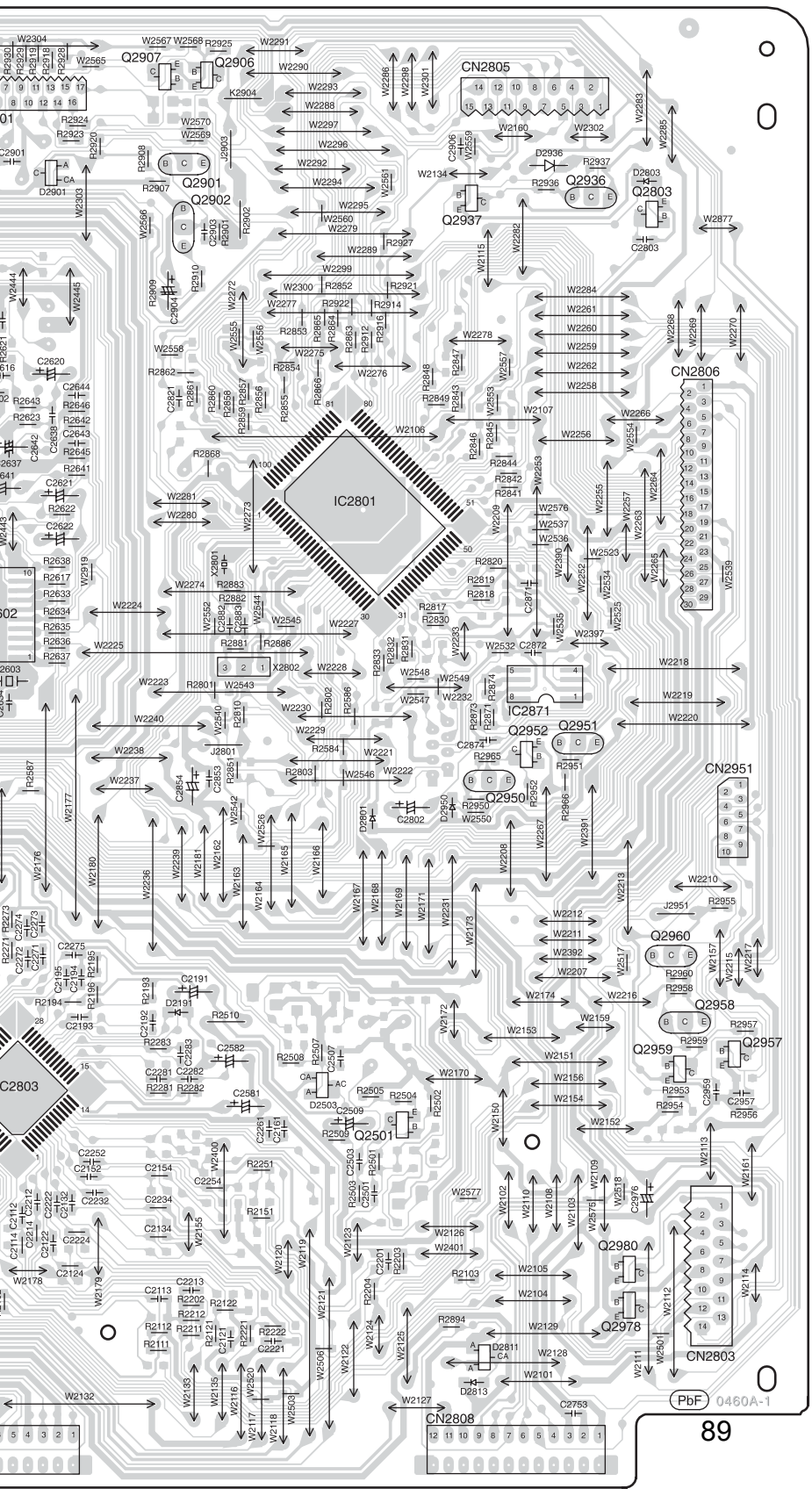
A CD SERVO P.C.B (REPX0494A)



B MAIN P.C.B (REPX0516S)

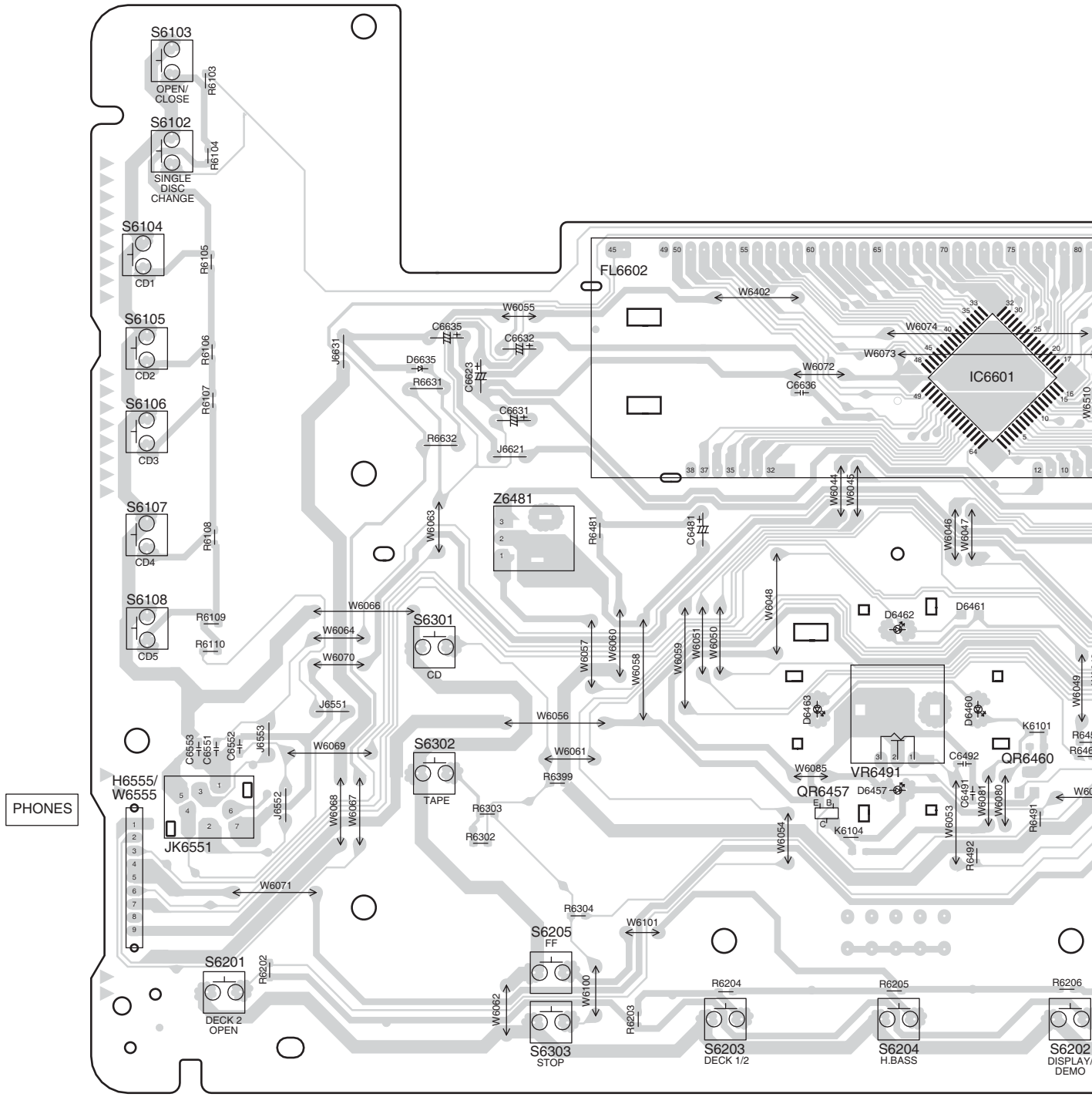


F G H I J


IC2801
IC2871
CN2805
CN2806
CN2951
CN2803
CN2808
Q2907
Q2906
Q2901
Q2902
Q2936
Q2937
Q2803
Q2952
Q2951
Q2950
Q2960
Q2958
Q2959
Q2957
Q2980
Q2978
Q2501
X2801
X2802
J2903
J2801
J2951
PbF
0460A-1

18.3. (C) Panel P.C.B.

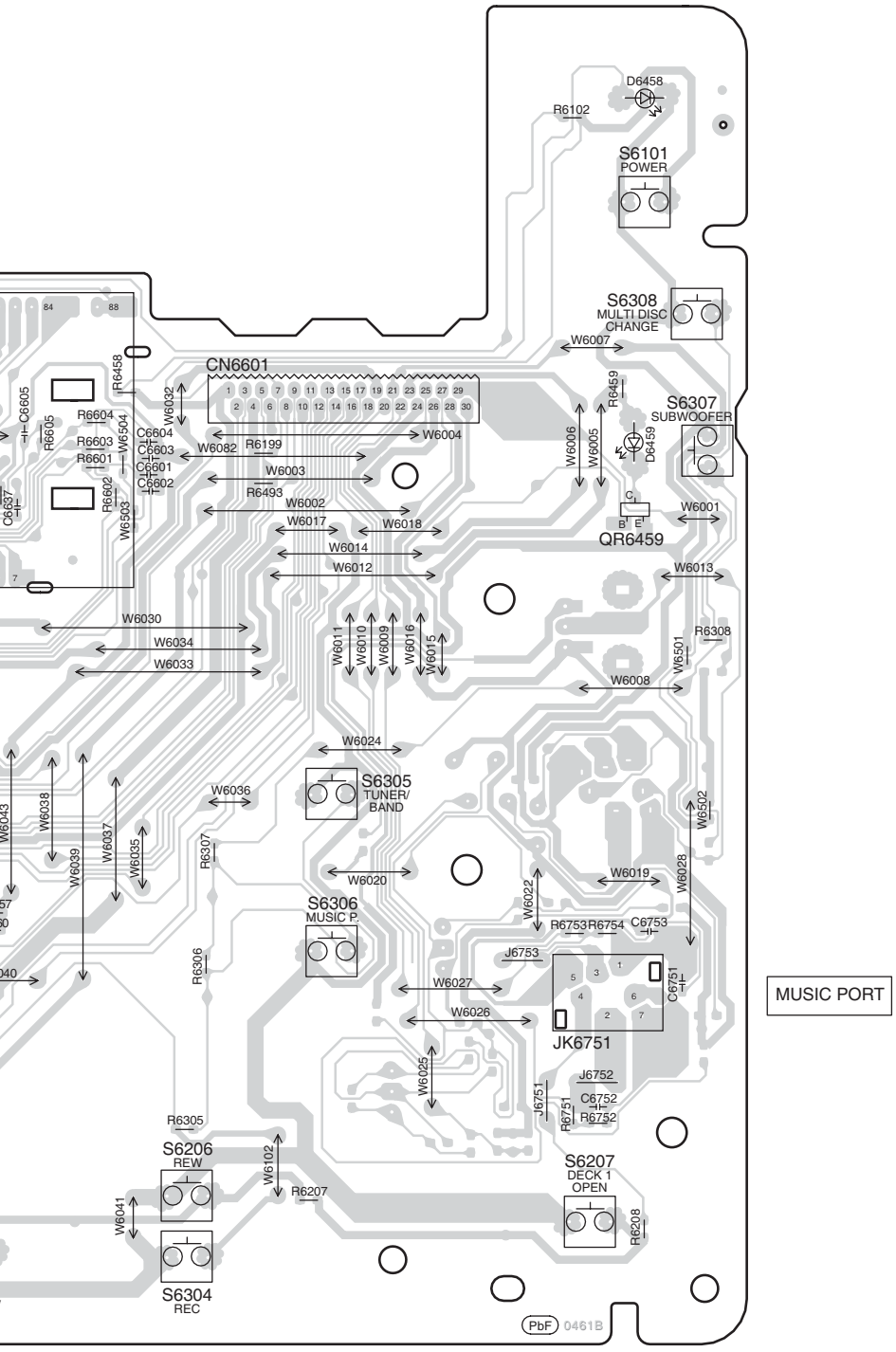
C PANEL P.C.B (REPX0517J)



SENSOR

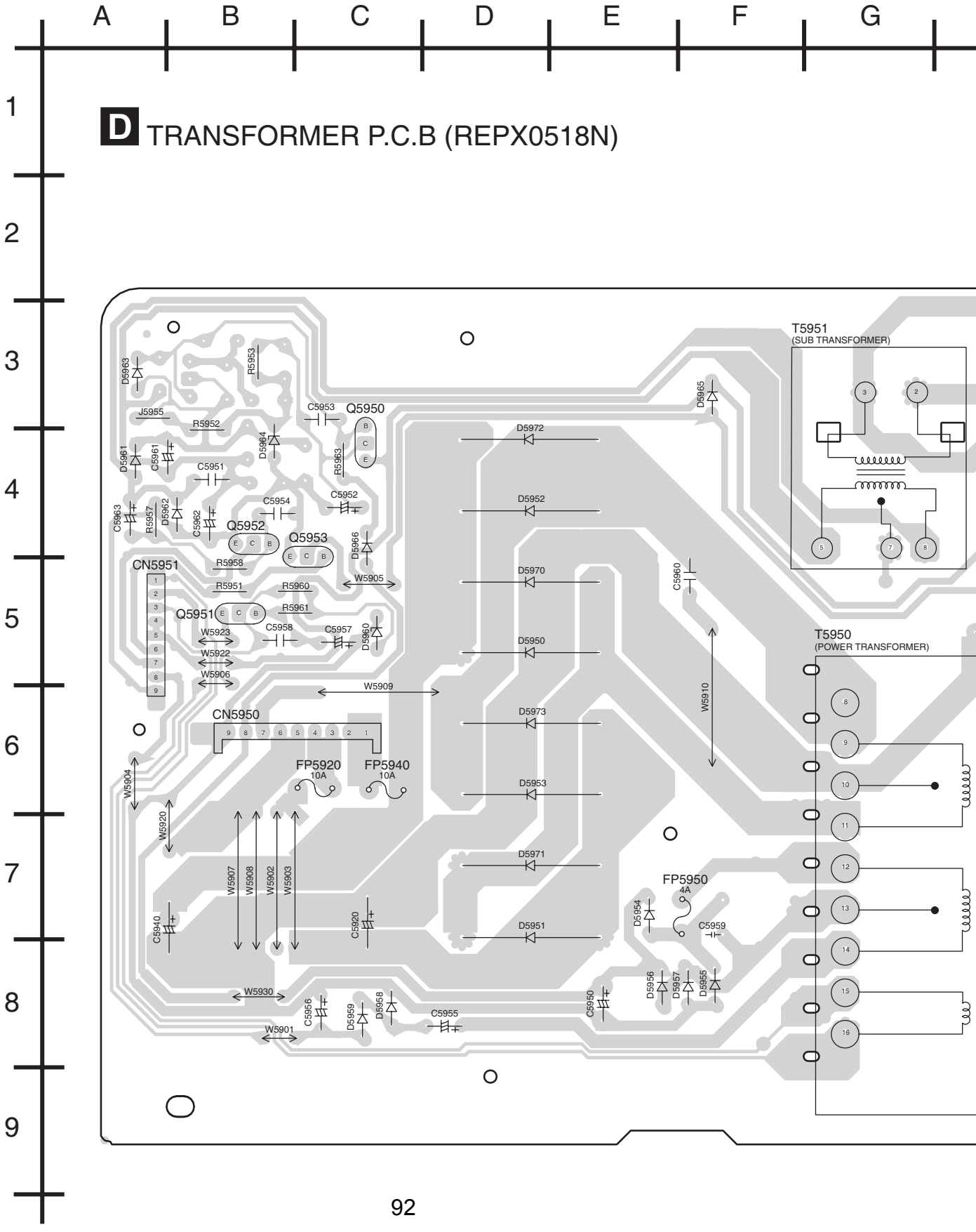
VOLUME

J K L M N O P



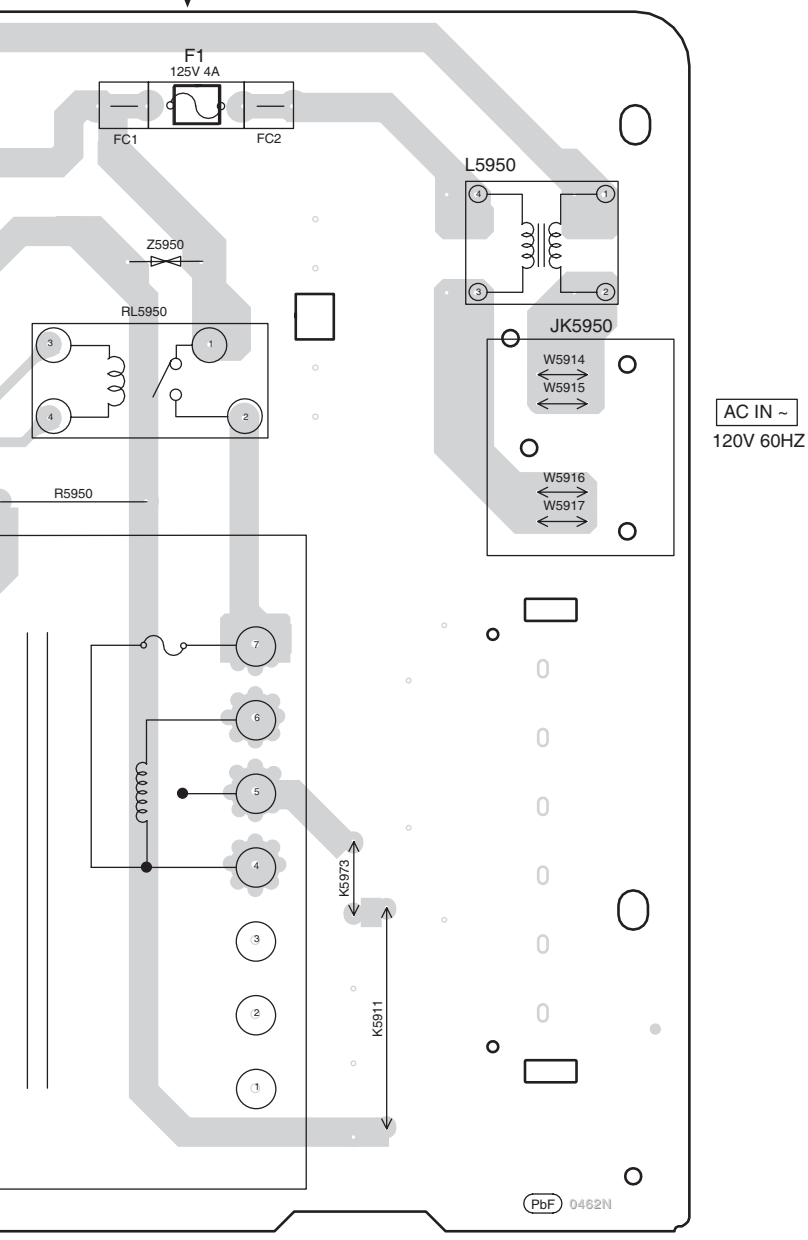
MUSIC PORT

18.4. (D) Transformer P.C.B.



H I J K L M N O P

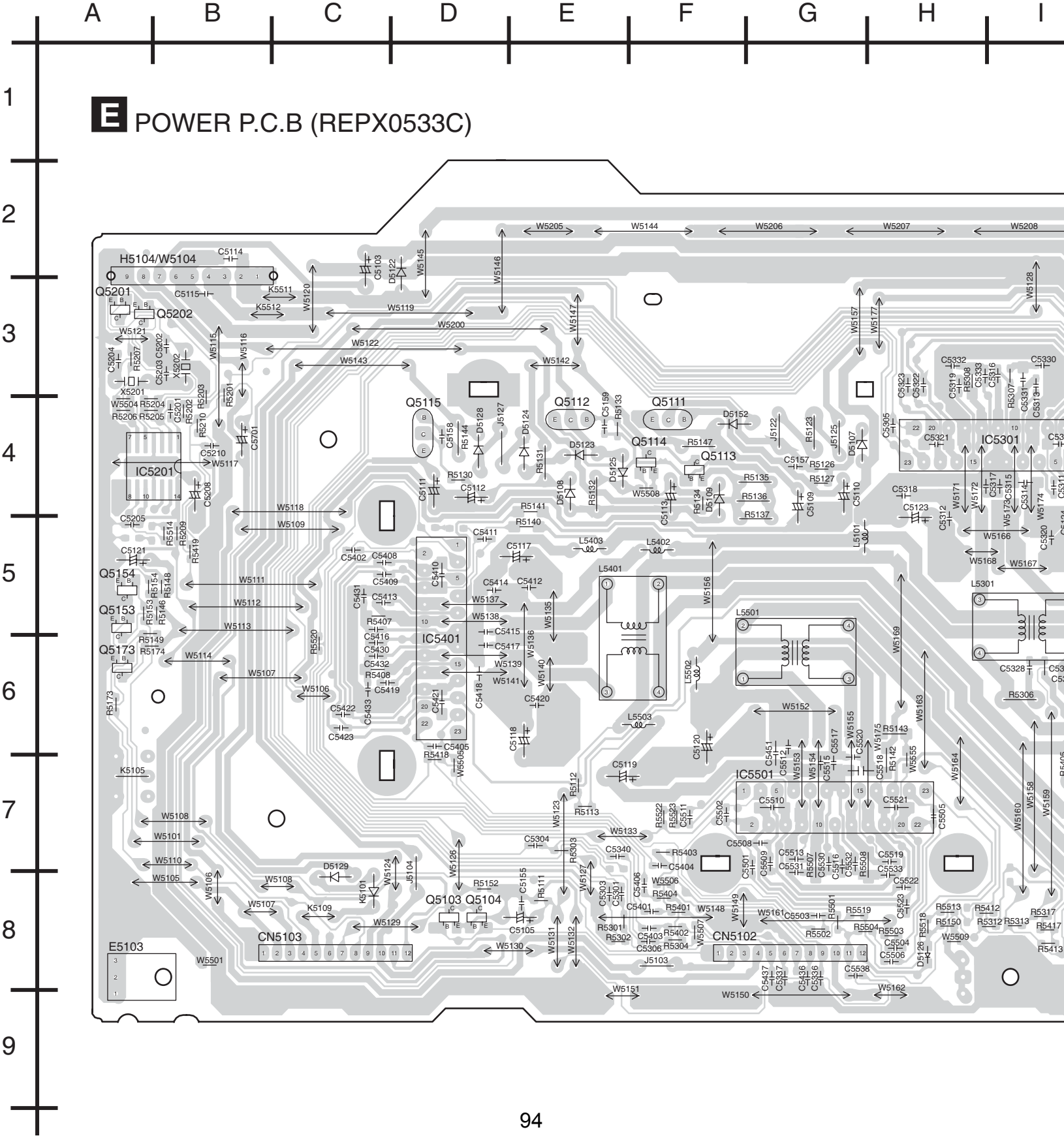
CAUTION
RISK OF ELECTRIC SHOCK
AC VOLTAGE LINE.
PLEASE DO NOT TOUCH THIS P.C.B



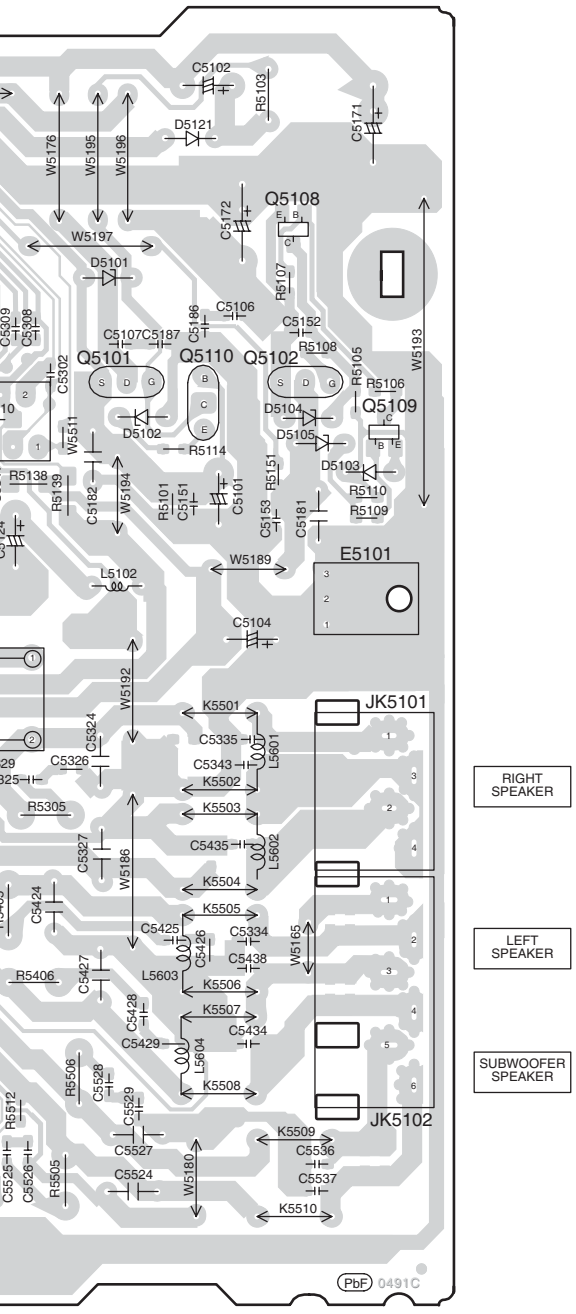
AC IN ~
120V 60HZ

18.5. (E) Power P.C.B.

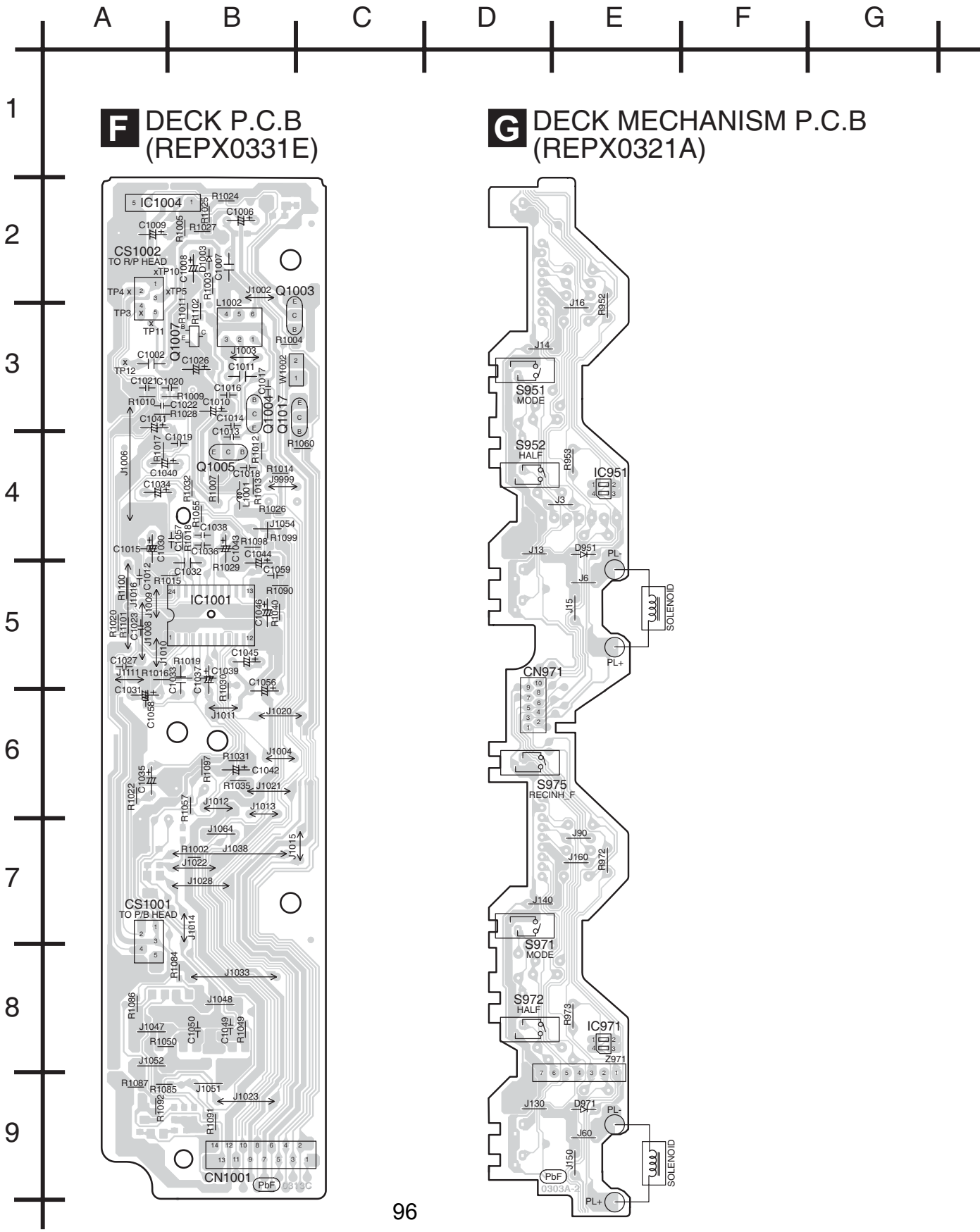
E POWER P.C.B (REPX0533C)



J K L M N O P

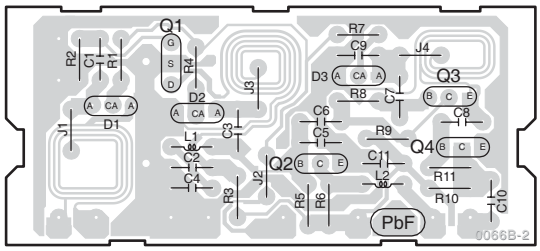

C5102
R5103
D5121
C5171
W5176
W5195
W5196
Q5108
C5172
W5197
D5101
R5107
C5106
C5186
C5152
C5107
C5187
R5108
Q5101
Q5110
Q5102
R5105
W5193
C5302
R5106
Q5109
D5104
D5102
D5105
R5114
D5103
W5511
R5138
R5139
C5182
W5194
R5101
C5151
C5101
R5151
C5153
C5181
R5110
R5109
E5101
W5189
L5102
C5104
W5192
JK5101
K5501
C5335
C5343
L5601
K5502
C5324
C5326
K5503
R5305
C5435
L5602
C5327
W5186
K5504
C5424
K5505
C5425
C5426
C5334
C5438
W5165
R5406
C5427
L5603
K5506
C5428
K5507
C5429
C5434
L5604
R5506
C5528
K5508
C5529
R5512
C5527
K5509
C5536
C5525
C5526
C5524
W5180
C5537
R5505
K5510
JK5102
PbF 0491C
RIGHT SPEAKER
LEFT SPEAKER
SUBWOOFER SPEAKER

18.6. (F) Deck P.C.B. (G) Deck Mechanism P.C.B. & (H) Tuner Pack P



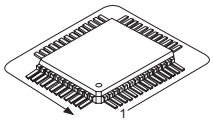
H I J K L M N O P

H TUNER PACK P.C.B (REP1999B)

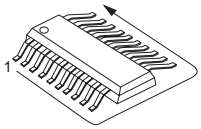


19 Illustration of ICs, Transistors and Diodes

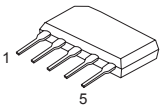
C1BB00001121 (100P)
C2CBYY000066 (100P)
C0HBB0000039 (44P)
MN6627954MA (100P)



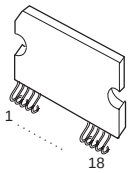
AN7348S-E1 (24P)
C0JBAB000011 (14P)
C1BB00000962 (24P)
C1CB00001937 (20P)



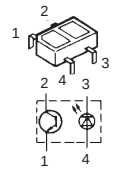
C1AA00000612



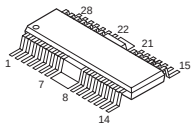
C1BA00000407



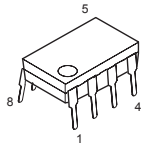
CNB13030R2AU (4P)



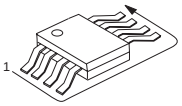
BA5948FPE2



C0AABB000125



C0ABBB000244 (8P)



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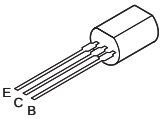
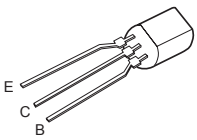
B1ACKD000006



2SB0621AHA



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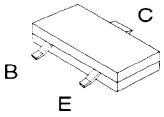
B1GBCFJJ0051
B1GDCFNA0001
B1GBCFLL0037

B1ADCF000001
B1GDCFJJ0047



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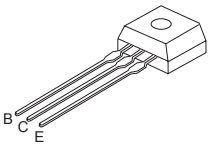
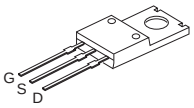
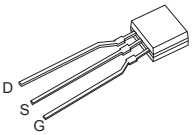


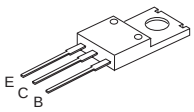
B1DEGM000026



B1CECC000003



B1BACG000023
B1BCCG000002



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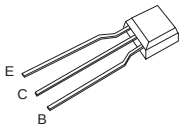
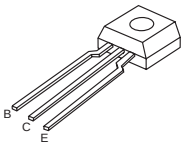
B1AAGC000007



B1AACF000064



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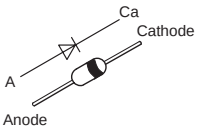

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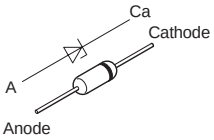
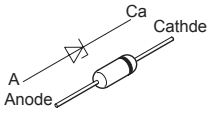
B0BA3R900006
B0BA5R700008
B0BA02400029
B0BA02400030



B0BA01900005



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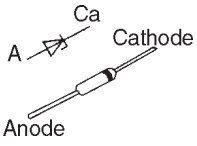

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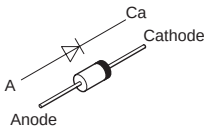

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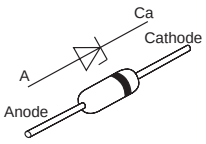

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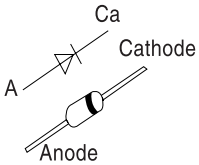

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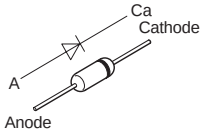

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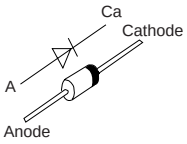

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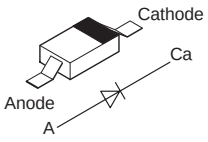

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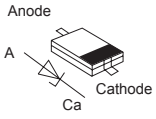

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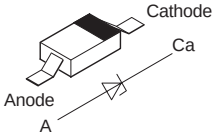

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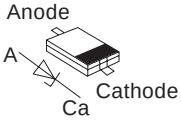

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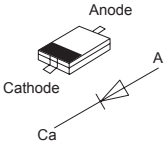

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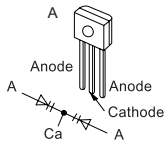

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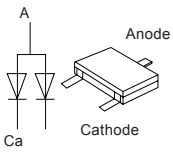

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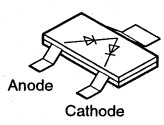

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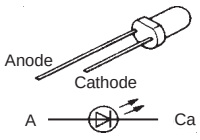

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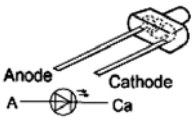


20 Terminal Function of IC's

20.1. IC7001 (MN6627954MA) Servo Processor,Digital Signal Processor/Digital filter and D/A Converter

Pin No.	Mark	I/O	Function
1	A11	O	DRAM address signal O/P 11
2	A9	O	DRAM address signal O/P 9
3	A8	O	DRAM address signal O/P 8
4	A7	O	DRAM address signal O/P 7
5	A6	O	DRAM address signal O/P 6
6	A5	O	DRAM address signal O/P 5
7	A4	O	DRAM address signal O/P 4
8	NWE	O	Write Enable Signal (DRAM)
9	NCAS	O	DRAM CAS Control Signal
10	NRAS	O	DRAM ARS Control Signal
11	A3	O	DRAM address Signal O/P 3
12	A2	O	DRAM address Signal O/P 2
13	A1	O	DRAM address Signal O/P 1
14	A0	O	DRAM address Signal O/P 0
15	A10	O	DRAM address Signal O/P 10
16	BA0	N.C.	Motor O/P (0);/Serial I/P
17	BA1	N.C.	Motor O/P (1);/Serial I/P
18	PRAMVSS33	-	GND (DRAM)
19	PRAMVDD15	-	Power Supply Voltage (DRAM)
20	PRAMVDD33	-	Power Supply Voltage (+1.6V)
21	SPOUT	O	Spindle Drive O/P
22	PC	I/O	Spindle motor drive O/P signal serial data/Monitoring I/P
23	TRVP	O	Traverse Drive O/P (+ve)
24	TRP	O	Tracking Drive O/P (+ve)
25	FOP	O	Focusing Drive O/P (+ve)
26	DVSS1	-	GND
27	IOVDD2	I	Digital Power Supply Voltage 2 (I/O)
28	DVDD1	-	Digital Power Supply Voltage 1 (Built-In)
29	SRVMON0	N.C.	Servo Monitor (0) O/P
30	SRVMON1	N.C.	Servo Monitor (1) O/P
31	AVSS2	-	GND
32	OSCIN	I	Oscillating Input
33	CTRCRS	N.C.	Tracking Cross Comparator
34	VREF	-	+Vref Supply Voltage
35	E	I	Tracking Input Signal 1
36	F	I	Tracking Input Signal 2
37	D	I	Focusing Input Signal 4
38	B	I	Focusing Input Signal 2
39	C	I	Focusing Input Signal 3
40	A	I	Focusing Input Signal 1
41	PD	I	APC Amp I/P
42	LD	O	Laser Drive Current O/P
43	CENV	I	Detection Capacitance Connection terminal
44	RFENV	O	RF Envelope O/P
45	RFOUT	O	RF Summing Amp O/P
46	RFIN	I	SGC I/P
47	AVDD2	I	Analog Power Supply voltage 2 (For DSL/PLL)
48	ARFDC	O	AGC Capacitive Connection Terminal
49	ARFOUT	O	AGC Output
50	ARFFB	I	ARF Feedback Signal I/P
51	ARFIN	I	Audio RF Signal I/P
52	DSLF	I	Loop Filter Terminal (For DSL)

Pin No.	Mark	I/O	Function
53	IREF	I	Reference I/P
54	PLLF	I	PLL Loop Filter Terminal (Phase Compare)
55	PLLF0	O	PLL Loop Filter Terminal (Speed Compare)
56	OUTL	O	Audio O/P (LCH)
57	AVSS1	-	GND
58	AVDD1	I	Analog Power Supply Voltage 1
59	OUTR	O	Audio O/P (RCH)
60	DVSS3	-	GND3 (Digital Circuit)
61	NSRVMONON	I	Servo Motor O/P Enabling
62	EXT0	N.C.	Expansion O/P Port 0
63	EXT1	N.C.	Expansion O/P Port 1
64	EXT2	N.C.	Expansion O/P Port 2
65	FLAG	N.C.	Flag Signal O/P
66	TX	N.C.	Digital Audio Interface O/P signal
67	MCLK	I	Micro-Computer Command Clock I/P
68	MDATA	I	Micro-Computer Data I/P
69	MLD	I	Micro-Computer Load I/P
70	STAT	O	Status Signal O/P
71	BLKCK	O	Subcode Blk Clock
72	NRST	O	LSI Reset Signal
73	DQSYTXT	N.C.	Pack Signal O/P for CD-Text data
74	SMCK	N.C.	Micro-Computer Clock O/P
75	PMCK	N.C.	IOCNT Serial data O/P (Synchronous O/P)
76	DVDD2	-	Digital Power Supply Voltage 2 (+1.5V)
77	IOVDD1	-	Digital Power Supply Voltage 1 (For I/O)
78	DVSS2	-	GND2 (For Digital Circuit)
79	NTEST2	I	Test Mode Setting (ON:H)
80	X2	O	Crystal Oscillating Circuit O/P
81	X1	I	Crystal Oscillating Circuit I/P
82	NTEST	I	Test Mode Setting I/P (ON:H)
83	D2	I/O	Data Signal O/P 2
84	D1	I/O	Data Signal O/P 1
85	D0	I/O	Data Signal O/P 0
86	D3	I/O	Data Signal O/P 3
87	D4	I/O	Data Signal O/P 4
88	D5	I/O	Data Signal O/P 5
89	D6	I/O	Data Signal O/P 6
90	D7	I/O	Data Signal O/P 7
91	D15	I/O	Data Signal O/P 15
92	D14	I/O	Data Signal O/P 14
93	DRVDD	I	I/O Power Supply Voltage (DRAM)
94	D13	I/O	Data Signal O/P 13
95	D12	I/O	Data Signal O/P 12
96	D11	I/O	Data Signal O/P 11
97	D10	I/O	Data Signal O/P 10
98	D9	I/O	Data Signal O/P 9
99	D8	I/O	Data Signal O/P 8
100	SDRCK	O	Clock Signal O/P

20.2. IC7002 (BA5948FPE2) IC 4CH Drive

Pin No.	Mark	I/O	Function
1	IN2	I	Motor Driver 92 Input
2	PC2	I	Turntable Motor Drive Signal (“L”:ON)
3	IN1	I	Motor Drive (1) Input
4	PC1	-	Traverse Motor Drive Signal (“L”): ON)
5-8	N.C.	-	No Connection
9	PGND1	-	Ground Connection (1) for Drive
10	PVCC1	I	Power Supply (1) for Drive
11	D1-	O	Motor Drive (1) reverse - action output
12	D1+	O	Motor Drive (1) forward - action output
13	D2-	O	Motor Drive (2) reverse - action output
14	D2+	O	Motor Drive (2) forward - action output
15	D3-	O	Motor Drive (3) reverse - action output
16	D3+	O	Motor Drive (3) forward - action output
17	D4-	O	Motor Drive (4) reverse - action output
18	D4+	O	Motor Drive (4) forward - action output
19	PVCC2	-	Power Supply (2) for Driver
20	PGND2	-	Ground Connection (2) for Driver
21-24	N.C.	O	No Connection
25	VCC	I	Power Supply terminal
26	VREF	I	Reference Voltage Input
27	IN4	I	Motor Driver (4) Input
28	IN3	I	Motor Driver (3) Input

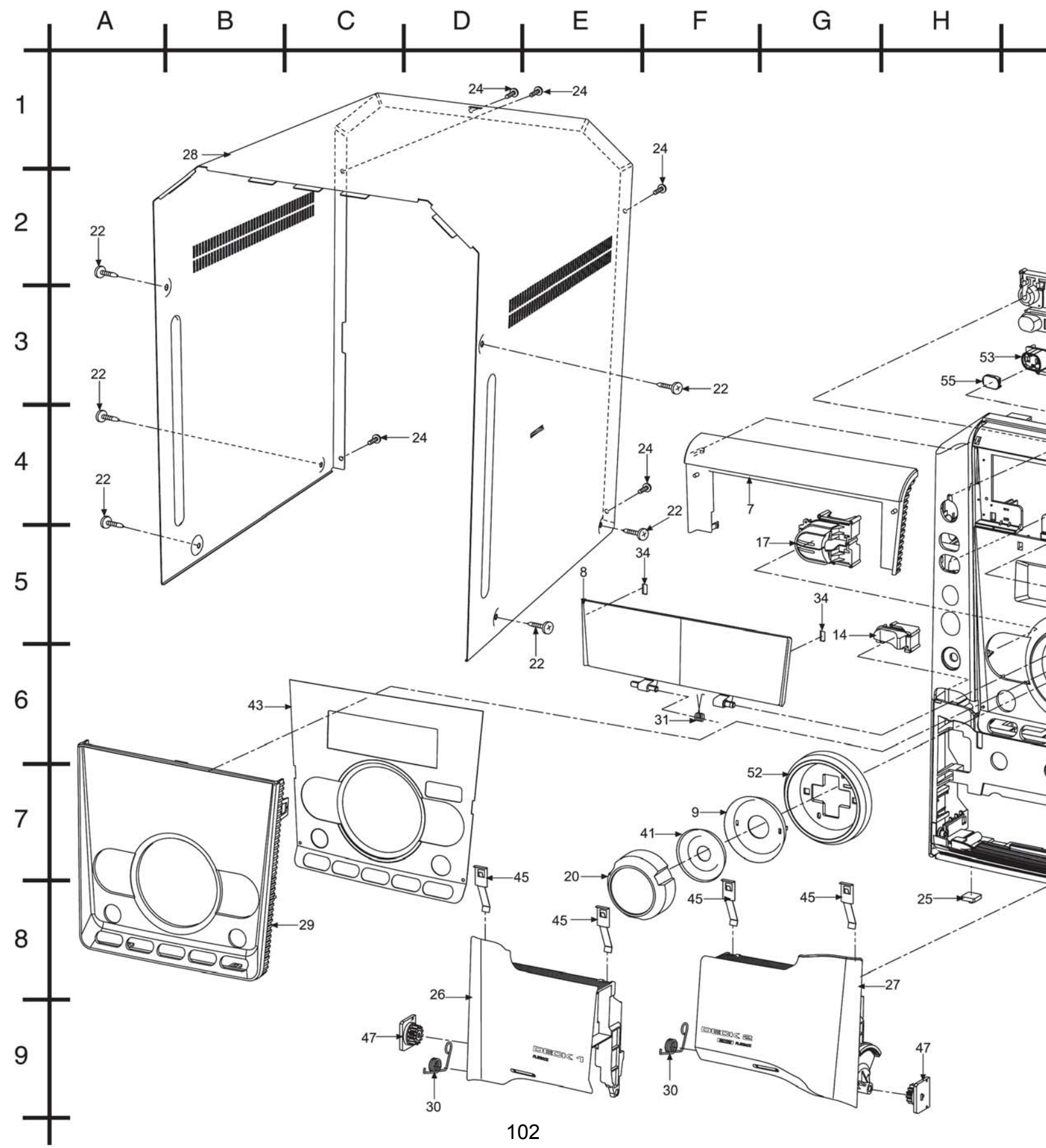
20.3. IC2801 (C2CBYY000066) System Microprocessor

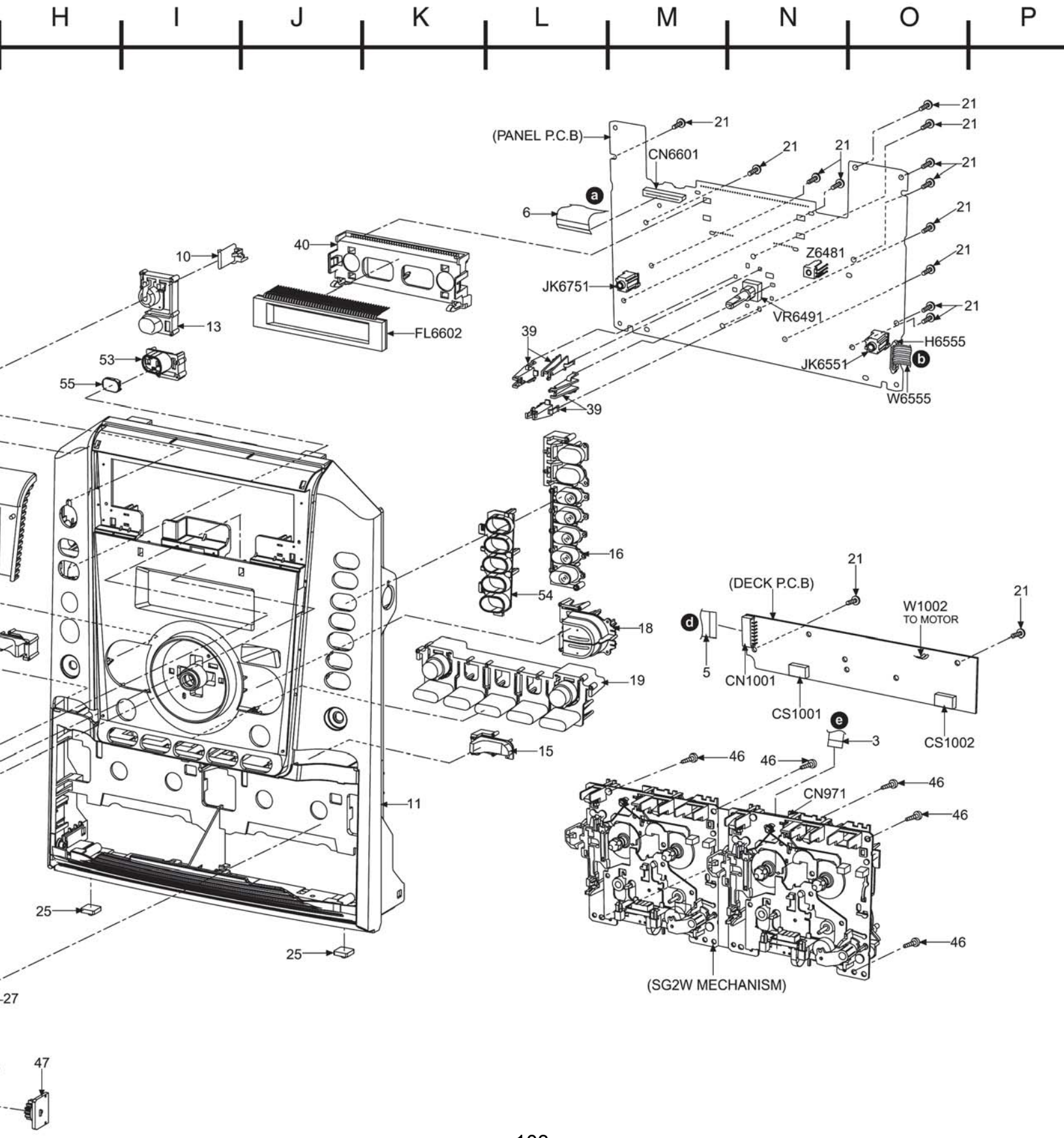
Pin No.	Mark	I/O	Function
1	LM_1	-	Level Meter
2	PA_LVL	-	No Connection
3	PLLCE	O	PLL Chip Select
4	RDS_DA	I	RDS Data Input
5	RDS_CLK	I	RDS Clock Input
6	MODE_A	-	No Connection
7	F_Hop	O	F_Hop for Digital Amp
8	BYTE	-	External Data Bus Width Select Input (Connect to Ground)
9	CNVSS	-	Flash Mode Terminal (Connect to Ground)
10	XC_IN	-	32.768 kHz Sub Clock
11	XC_OUT	-	32.768 kHz Sub Clock
12	/RESET	-	Reset Input (ACTIVE L)
13	X_OUT	-	10 MHz Main Clock
14	VSS	-	Ground (0V)
15	XIN	-	10 MHz Main Clock
16	VCC	-	Power Supply (+5V)
17	/NMI	-	Connect to Vcc (+5V)
18	RMT	I	Remote Control Input
19	BLKCK	I	CD Block Clock Input (Inverted)
20	SYNC	I	AC Failure Detect Input
21	ST/DO	I	Tuner IF Data/ Stereo Input
22	SD	I	Tuner Signal Detect Input
23	N.C.	-	No Connection
24	SW_LV-1	O	Sub-Woofer Level 1
25	SW_LV-2	O	Sub-Woofer Level 2
26	ASP_DA	O	ASP DATA
27	ASP_CLK	O	ASP CLOCK
28	10DB_ATT	O	No Connection
29	PLL_DAT	O	PLL DATA
30	PLL_CLK	O	PLLCLK
31	REG8	-	To GND resistor
32	REG7	I	Region Setting 7 (MIC)/Flash Rx
33	REG6	I	Region Setting 6 (RDS)/Flash Clock
34	REG5	O	Chip Select/Flash Busy
35	REG4	I	Latin Non Chip Select
36	REG3	I	Region Setting 3 (Tuner)
37	REG2	I	Region Setting 2 (Tuner)
38	REG1	I	Region Setting 1 (Tuner)
39	MUTE_DA	O	Mute_DA for Digital Amp
40	MUTE_A	O	Audio Mute
41	EE_CS/EFP/EPH	O	EEPROM Chip Select
42	EE_CLK	O	EEPROM CLOCK
43	EE_DAT	I/O	EEPROM DATA
44	N.C.	-	No Connection
45	N.C.	-	No Connection
46	PCONT/EFP/CS	O	Main Transformer Control Output
47	DCDET	I	DC Detect Input
48-49	N.C.	-	No Connection
50	STANDBY	O	Standby mode
51	N.C.	-	No Connection
52	HALF_1	I	Deck 1 HALF PLAYBACK INPUT
53	MODE_1	I	Deck 1 MODE PLYABACK INPUT
54	N.C.	-	No Connection
55	N.C.	-	No Connection
56	PLG1	O	Deck 1 plunger control
57	PLG2	O	Deck 2 plunger control
58	MTR	O/I	Deck motor control (“L” for motor ON)
59	REC	O/I	L when record circuit is operating
60	DECK1_H	O	H when DECK 1 P/B head is selected
61	N.C.	-	No Connection
62	VCC	-	Power Supply (+5V)
63	N.C.	-	No Connection
64	VSS	-	Ground (0V)
65	SW_LED	O	SUB WOOFER LED
66	VOL_LED	O	VOLUME_LED
67	V_JOG_A	I	Volume Jog A
68	V_JOG_B	I	Volume Jog B
69	FL_RESET	O	FL Driver reset
70	FL_CS	I/O	FL Driver Chip Select
71	FL_DOUT	O	Serial Data To FL Driver
72	FL_CLK	I/O	Serial Clock To FL Driver
73	H.BASS_LED	O	H.BASS LED
74	CD_RST	O	CD Reset Output
75	STATUS	I	CD Servo LSI Status Input
76	MLD	O	CD Command Load Output
77	MDATA	O	CD Command Data Output
78	MCLK	O	CD Command Clock Output
79	/RESTSW	I	CD Limit Switch Input for the most Inner Point (Active Low)
80	HOME_SW	I	Home Switch for CRS1
81	SPEED	O	SPEED is For CRS1 (cater)
82	CLOSE_SW	I	CLOSE SW is for CRS1

Pin No.	Mark	I/O	Function
83	OPEN_SW	I	Open_Sw for CRS1
84	CHG_CW	O	CRS1 motor CW
85	CHG_CCW	O	CRS1 motor CCW
86	ST_SW	I	Stock_Sw for CRS1
87	PLAY_SW	I	Play_Sw for CRS1
88	CHG_PLR	O	Plunger for CRS1
89	BOTTOM_SW	I	Bottom_SW for CRS1
90	UP_SENSOR	I	UD-Sensor for CRS1
91	DECK2	I	DECK CONDITION INPUT 2 (R_INHF/MODE2/HALF2)
92	KEY3	I	KEY3 INPUT
93	KEY2	I	KEY2 INPUT
94	KEY1	I	KEY1 INPUT
95	PHOTO_2	I	Rotation Detection Signal (Deck 2)
96	AVSS	-	Analog Power Supply Input (Connect to GND)
97	PHOTO_1	I	Rotation Detection Signal (Deck 1)
98	VREF	-	Reference for A-D (5V)
99	AVCC	-	Analog Power Supply Input
100	DEMO	I	(H= default demo on, L= default demo off.)

21 Exploded Views

21.1. Cabinet Parts Location

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JK6751
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H6555
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15
11
(DECK P.C.B)
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CN971
(SG2W MECHANISM)
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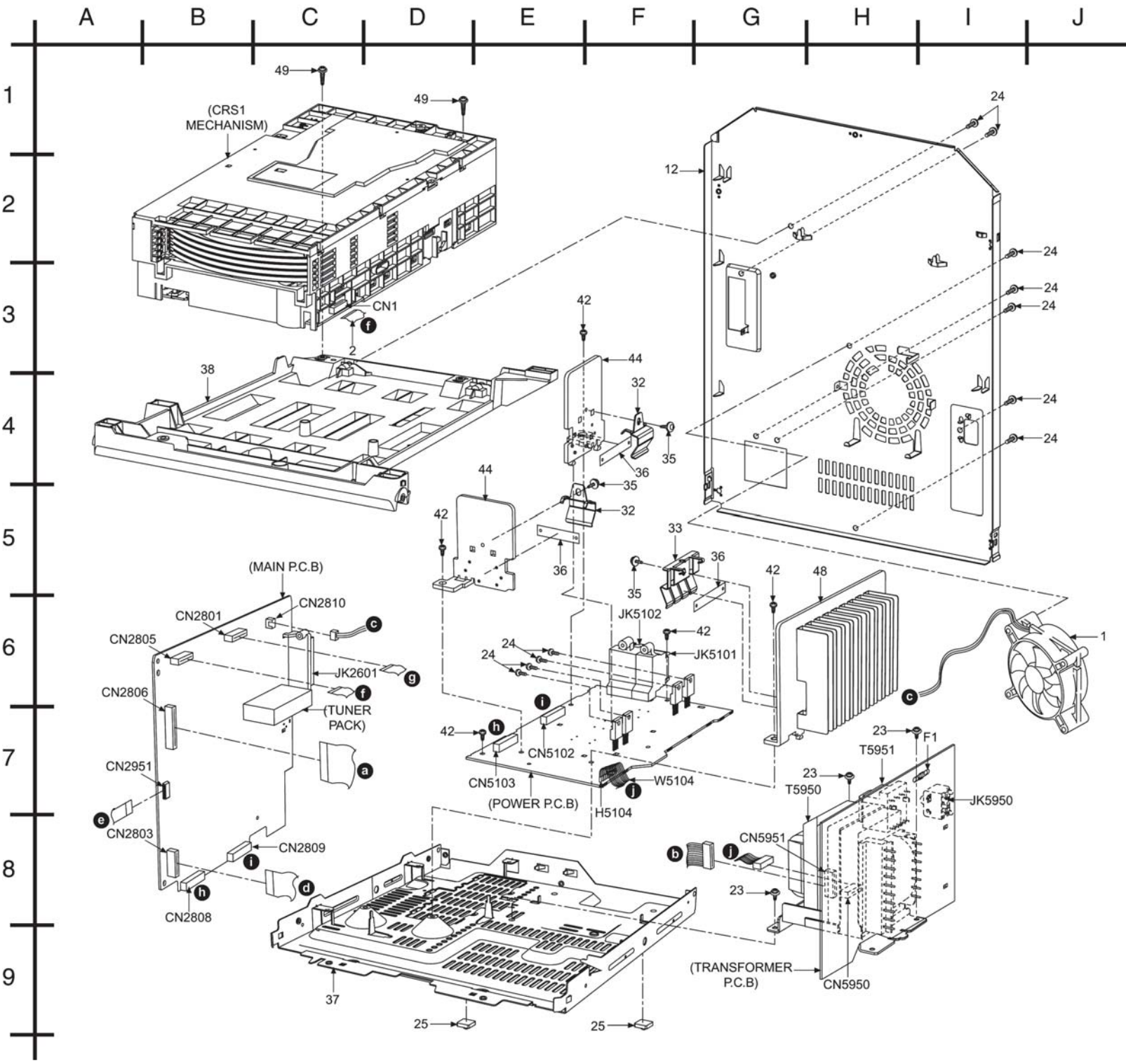
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(CRS1
MECHANISM)
CN1
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(MAIN P.C.B)
CN2801
CN2810
CN2805
JK2601
CN2806
(TUNER
PACK)
CN2951
CN2803
CN2809
CN2808
37
25
JK5102
JK5101
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48
1
CN5102
CN5103
(POWER P.C.B)
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F1
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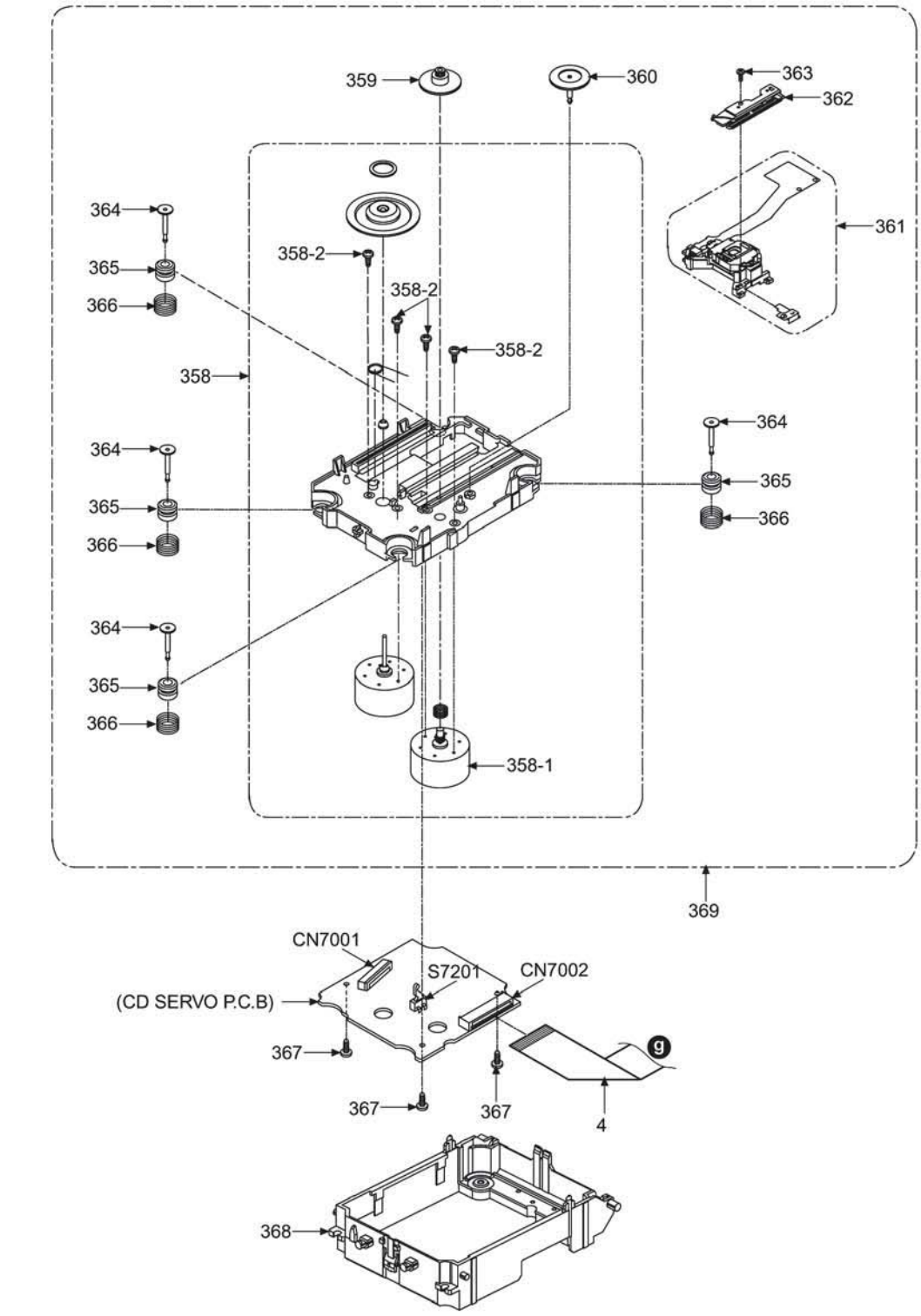
P.C.B)
CN5950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358-1
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CN7001
S7201
CN7002
(CD SERVO P.C.B)
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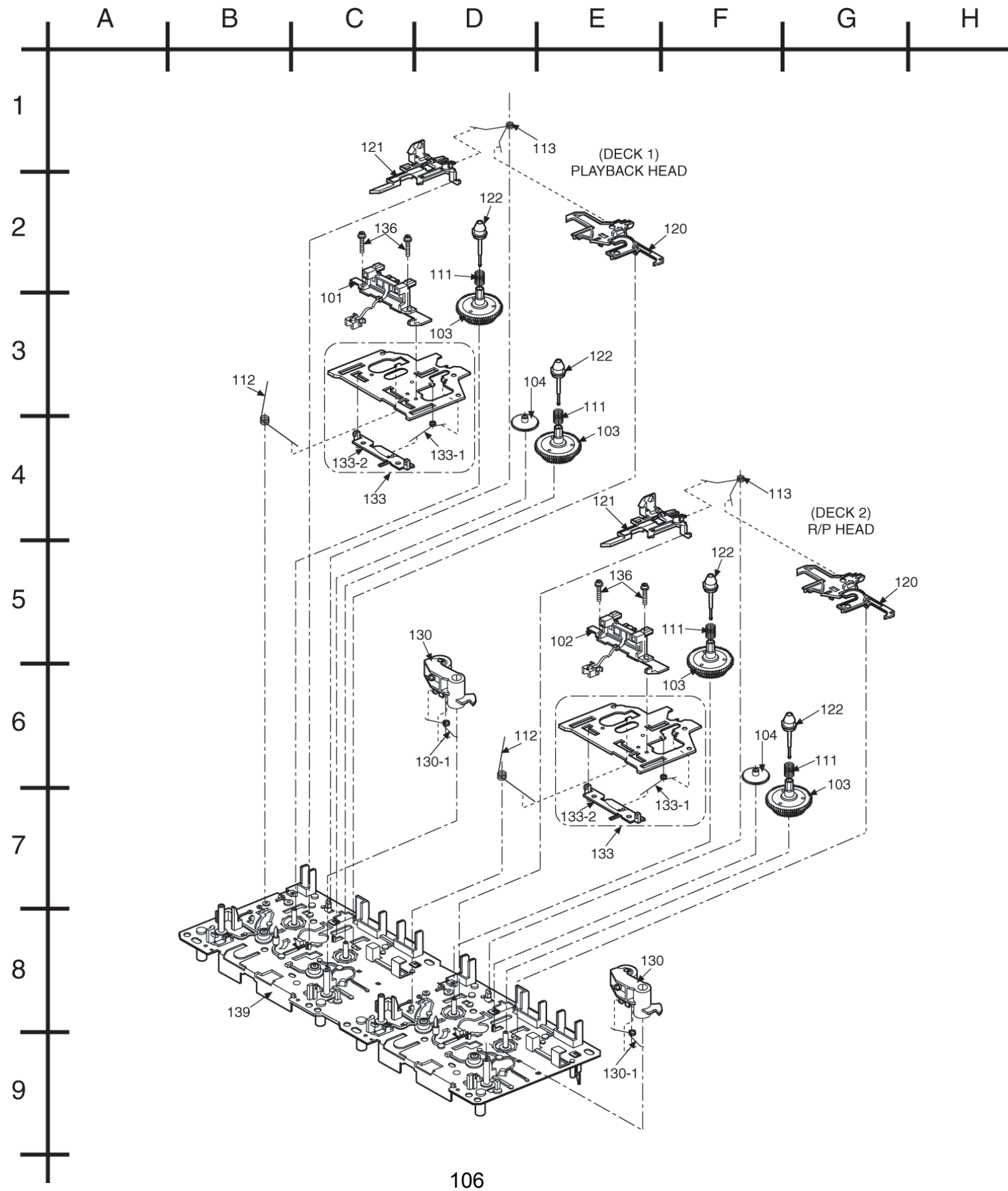
21.2. Deck Mechanism Parts Location (RAA4502-S)



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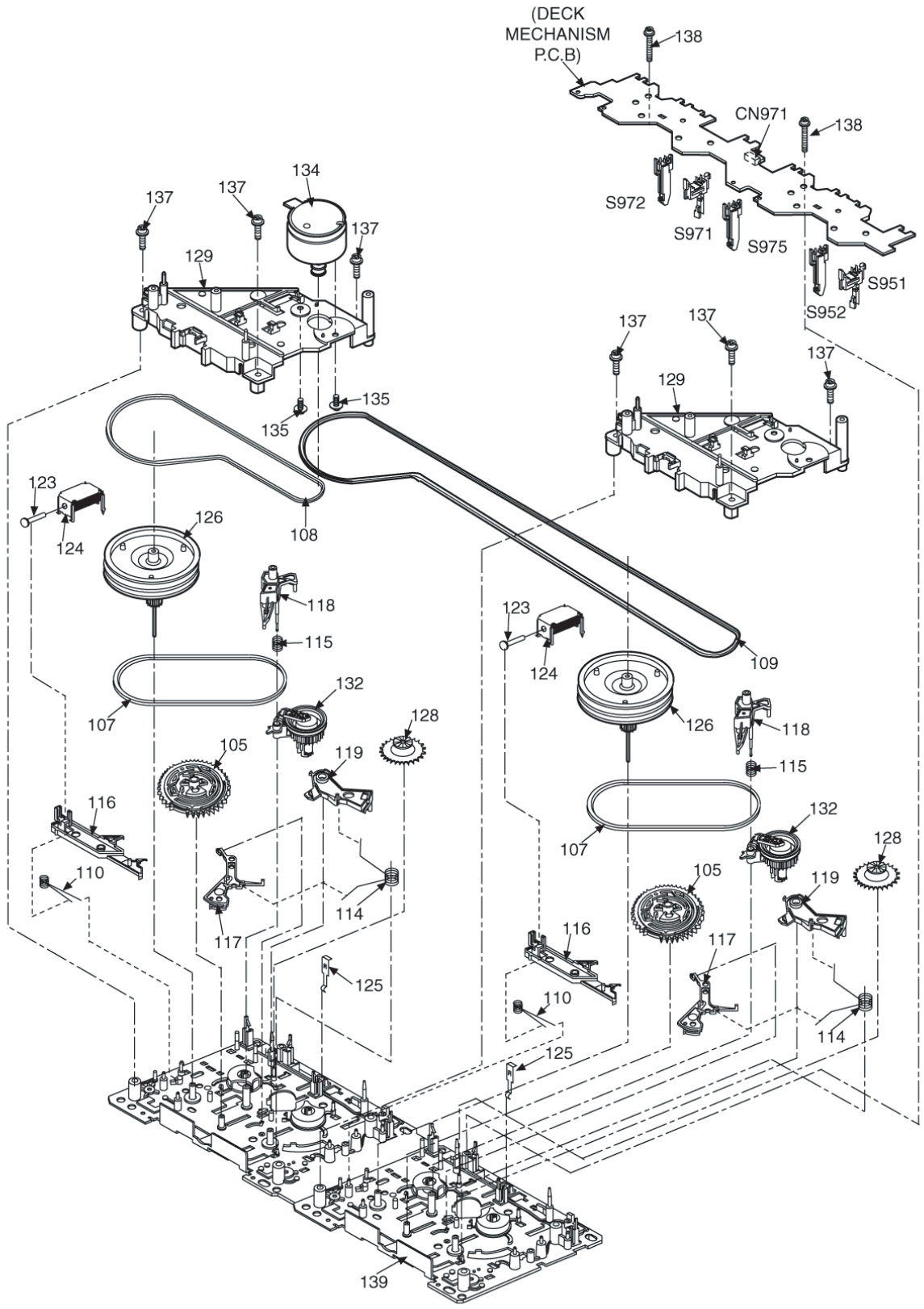
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S975
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S952
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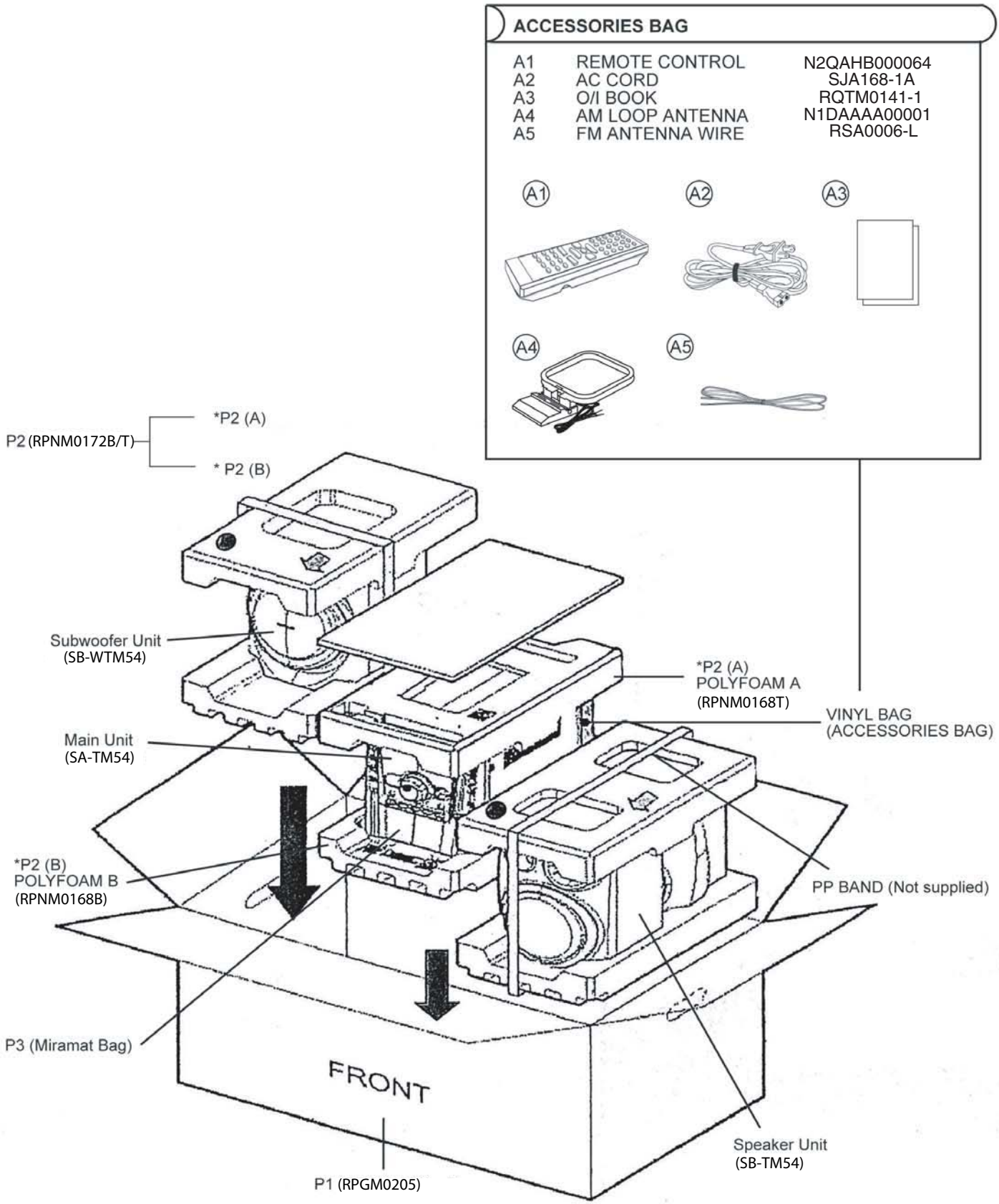
21.3. Packaging



22 Replacement Parts List

Notes:

· Important safety notice:

Components identified by ⚠ mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardent (resistors), high-quality sound (capacitors), low noise (resistors), etc are used.

When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.

· The parenthesized indications in the Remarks columns specify the areas or colour. (Refer to the cover page for area or colour)

Parts without these indications can be used for all areas.

· Warning: This product uses a laser diode. Refer to caution statements on "Precaution of Laser Diode".

· Capacitor values are in microfarads (μF) unless specified otherwise, P= Pico-farads (pF), F= Farads.

· Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM).

· The marking (RTL) indicates that the Retention Time is limited for this items. 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 a availability is dependent 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.

· [M] Indicates in the Remarks columns indicates parts supplied by PAVCSG.

· Reference for O/I book languages are as follows:

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

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	L6FALEFH0030	FAN UNIT	[M]
2	REEX0212-2	WIRE	[M]
3	REEX0503	10P FFC WIRE	[M]
4	REEX0513	17P FFC WIRE	[M]
5	REEX0528	14P FFC WIRE	[M]
6	REEX0529	30P FFC WIRE	[M]
7	RGKX0319-KL	TOP ORNAMENT	[M]
8	RGKX0320B-KL	CD LID	[M]
9	RGLX0120-Q	VOLUME LIGHT PIECE	[M]
10	RGLX0121-Q1	POWER LIGHT PIECE	[M]
11	RGPX0224-SL	FRONT PANEL	[M]
12	RGRX0054G-AL	REAR PANEL	[M]
13	RGUX0637Z-S	POWER BUTTON	[M]
14	RGUX0638Z-S	OPEN DECK 1 BUTTON	[M]
15	RGUX0639Z-S	OPEN DECK 2 BUTTON	[M]
16	RGUX0640Z-S	DISC/OPEN/5 DISC BTN	[M]
17	RGUX0642Z-S	FUNCTION BUTTON L	[M]
18	RGUX0643Z-S	FUNCTION BUTTON R	[M]
19	RGUX0644-K1	CONTROL BUTTON	[M]
20	RGWX0093-S	VOLUME KNOB	[M]
21	RHD26046	SCREW	[M]
22	RHD30007-1SJ	SCREW	[M]
23	RHD30111-3	SCREW	[M]
24	RHD30119-S	SCREW	[M]
25	RKA0072-KJ	LEG RUBBER	[M]
26	RKFX0131-SLM	CASS LID L	[M]
27	RKFX0132-SLM	CASS LID R	[M]
28	RYKM0043	TOP PANEL (BEND)	[M]
29	RKWX0253-H	FL WINDOW	[M]
30	RMBX0036	CASS OPEN SPRING	[M]
31	RMBX0049	CD LID SPRING	[M]
32	RMC0158-S2	TRANSISTOR HOLDER	[M]
33	RMCX0021-J	TRANSISTOR CLIP	[M]
34	RMG0547-K	CUSHION	[M]
35	XTWS3+6TFJ	SCREW	[M]
36	RMGX0044-1	D.AMP.IC INSULATOR	[M]
37	RMKX0112-L	BOTTOM CHASSIS	[M]
38	RMKX0113-L	CD CHASSIS	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
39	RMNX0161	LED HOLDER	[M]
40	RMNX0162	FL HOLDER	[M]
41	RMQX0150-W	VOL. LIGHT DIFFUSER	[M]
42	XTW3+10TFC	SCREW	[M]
43	RMVX0092	FL WINDOW BACK GROUND	[M]
44	RMYX0131-1	SUB HEAT SINK	[M]
45	RUS757ZAA	CASS HALF SPRING	[M]
46	XTV3+10GFJ-M	SCREW	[M]
47	RXGX0002	DAMPER GEAR	[M]
48	RXXX0066-1	HEAT SINK UNIT	[M]
49	XTW3+12TFJ	SCREW	[M]
50	RGLX0123-Q	SUBWOOFER BUTTON	[M]
51	RGLX0641-D	5 CD BACK ORNAMENT	[M]
52	RGUX0645Z-S	SUBWOOFER CAP	[M]
53	RGKX0322-S	VOLUME KNOB ORNAMENT	[M]
		CASSETTE DECK	
101	RED0069-2	R/P HEAD BLOCK UNIT	[M]
102	RED0070-1	P/B HEAD BLOCK UNIT	[M]
103	RDG0300	REEL BASE GEAR	[M]
104	RDG0301	WINDING RELAY GEAR	[M]
105	RDK0026-4	MAIN GEAR	[M]
107	RDV0033-4	WINDING BELT	[M]
108	RDV0064-1	CAPSTAN BELT	[M]
109	RDV0071-2	CAPSTAN BELT B	[M]
110	RMB0312	TRIGGER LEVER SPRING	[M]
111	RMB0400-J	REEL SPRING	[M]
112	RMB0403	HEAB PANEL SPRING	[M]
113	RMB0404	BRAKE ROD SPRING	[M]
114	RMB0406-5	FR LEVER SPRING	[M]
115	RMB0408-J	THRUST SPRING	[M]
116	RML0370-4	TRIGGER LEVER	[M]
117	RML0371	FR LEVER	[M]
118	RML0372-2	WINDING LEVER	[M]
119	RML0374-2	EJECT LEVER	[M]
120	RMM0131-1	BRAKE ROD	[M]
121	RMM0133-1	EJECT ROD	[M]
122	RMQ0519	REEL HUB	[M]
123	RMS0398-1	MOVING CORE	[M]
124	RXQ0142-3	PLUNGER ASS'Y	[M]
125	RMC0061	PACK SPRING	[M]
126	RXF0061	FLYWHEEL F ASS'Y	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
128	RXG0040	FF RELAY GEAR ASS'Y	[M]
129	RMK0283A-2	SUB-CHASSIS	[M]
130	RXL0124	PINCH ROLLER F ASS'Y	[M]
130-1	RMB0401	PINCH ARM SPRING F	[M]
132	RXL0126	WINDING ARM ASS'Y	[M]
133	RXQ0412-3	HEAD PANEL ASS'Y	[M]
133-1	RMB0405-1	FR ROD SPRING	[M]
133-2	RMM0132-1	FR ROD	[M]
134	REM0121	CAP MOTOR ASS'Y	[M]
135	RHD26022-1	MOTOR SCREW	[M]
136	XTW2+5LFJ-A	HEAD BLOCK UNIT SCREW	[M]
137	XTW26+10SFJ-A	SUB-CHASSIS SCREW	[M]
138	XYC2+JF17FJ-A	PCB EARTH SCREW	[M]
139	RFKJAA4501-S	CHASSIS ASS'Y	[M]

		TRAVERSE DECK	
358	RFKNCT121157	SPINDLE MOTOR ASS'Y	[M]
358-1	RXQ0632	TRV MOTOR UNIT	[M]
358-2	XQN17+C28FJ	SCREW	[M]
359	RDG0455	TRV GEAR (A)	[M]
360	RDG0456	TRV GEAR (B)	[M]
361	RXQ0999	OPU UNIT	[M]
362	RMM0218	TRV DRIVE RACK	[M]
363	XTN2+6GFJ	SCREW	[M]
364	RMS0757-1	FIXED PIN	[M]
365	RMG0703-R	FLOATING RUBBER	[M]
366	RME0109	FLOATING SPRING	[M]
367	SNSD38-1	SCREW	[M]
368	RMRX0064	MIDDLE CHASSIS	[M]
369	RAE0157A-V	TRV UNIT W/O SERVO	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
		PRINTED CIRCUIT BOARDS	
	REPX0321A	PISTA DE INSERCION	(M)
	REPM06444A	CONJUNTO MANUAL DECK TM44	(M)
	REPM06542A	CONJUNTO MANUAL MAIN	(M)
	REPM03815A	CONJUNTO TUNER MANUAL	(M)
	REPM06543A	CONJUNTO MANUAL PANEL	(M)
	REPM06540A	CONJUNTO MANUAL TRANSF	(M)
	REPM06541A	CONJUNTO MANUAL PODER	(M)
	RJBX0303A-2	SWITCH PCB	(M)
	RJBX0313C	DECK NEW PCB	(M)
	RJBX0460A-1	MAIN PCB AK 2006	(M)
	RJBX0066B-2	PCB TUNER PACK	(M)
	RJBX0461B	PANEL PCB	(M)
	RJBX0462N	TRANS/POWER PCB	(M)
	RJBX0491C	PCB PODER	(M)
		INTEGRATED CIRCUITS	
IC971	CNB13030R2AU	FOTOACOPLADOR	(M)
IC951	CNB13030R2AU	FOTOACOPLADOR	(M)
IC1004	C1AA00000612	SWIC	(M)
IC1001	AN7348S-E1	TAPE PB IC	(M)
IC2810	C0ABBB000244	SMT DUAL OP-AMP IC	(M)
IC2601	C1BB00000962	IC PREAMPLIFICADOR	(M)
IC2803	C1BB00001121	ASP IC	(M)
IC2602	C1CB00001937	IC PLL	(M)
IC2801	C2CBYY000066	MICROPROCESADOR	(M)
IC2871	C3EBEG000072	IC	(M)
IC2804	C0AABB000125	OP AMP IC	(M)
IC6601	C0HBB0000039	FL DRIVE IC	(M)
IC5301	C1BA00000407	2-CH DIGITAL AMP	(M)
IC5401	C1BA00000407	2-CH DIGITAL AMP	(M)
IC5501	C1BA00000407	2-CH DIGITAL AMP	(M)
IC5201	C0JBAB000011	LOGIC IC	(M)
		TRANSISTORS	
Q2	2SC2786MTA	TRANSISTOR	(M)
Q3	2SC2787FL1TA	TRANSISTOR	(M)
Q4	2SC2787FL1TA	TRANSISTOR	(M)
Q1	B1CECC000003	TRANSISITOR	(M)
Q1007	B1ABCF000176	TRANSISTOR	(M)
Q1003	B1AAGC000007	TRANSISTOR	(M)
Q1004	B1AAGC000007	TRANSISTOR	(M)
Q1005	B1AAGC000007	TRANSISTOR	(M)
Q1017	B1AARC000003	TRANSISTOR	(M)
Q2142	B1ABCF000176	TRANSISTOR	(M)
Q2242	B1ABCF000176	TRANSISTOR	(M)
Q2501	B1ABCF000176	TRANSISTOR	(M)
Q2949	B1ABCF000176	TRANSISTOR	(M)
Q2948	B1ABCF000176	TRANSISTOR	(M)
Q2943	B1ABCF000176	TRANSISTOR	(M)
Q2907	B1ABCF000176	TRANSISTOR	(M)
Q2906	B1ABCF000176	TRANSISTOR	(M)
Q2554	B1ABCF000176	TRANSISTOR	(M)
Q2553	B1ABCF000176	TRANSISTOR	(M)
Q2937	B1GBCFJJ0051	TRANSISTOR	(M)
Q2803	B1GBCFJJ0051	TRANSISTOR	(M)
Q2952	B1GBCFLL0037	CHIP TRANSISTOR	(M)
Q2957	B1GBCFLL0037	CHIP TRANSISTOR	(M)
Q2959	B1GBCFLL0037	CHIP TRANSISTOR	(M)
Q2980	B1GDCFJJ0047	TRANSISTOR	(M)
Q2978	B1GDCFJJ0047	TRANSISTOR	(M)
Q2552	B1GDCFJJ0047	TRANSISTOR	(M)
Q2551	B1GDCFJJ0047	TRANSISTOR	(M)
Q2511	B1GDCFJJ0047	TRANSISTOR	(M)
Q2601	B1AABC000003	TRANSISTOR	(M)
Q2902	B1AACF000064	TRANSISTOR	(M)
Q2960	B1ACKD000006	TRANSISTOR	(M)
Q2958	B1ACKD000006	TRANSISTOR	(M)
Q2951	B1ACKD000006	TRANSISTOR	(M)
Q2950	B1ACKD000006	TRANSISTOR	(M)
Q2942	B1ACKD000006	TRANSISTOR	(M)
Q2936	B1ACKD000006	TRANSISTOR	(M)
Q2901	B1ACKD000006	TRANSISTOR	(M)
Q2606	B1GCCFJJ0016	Transistor	(M)
Q2317	B1ABGC000005	TRANSISTOR	(M)
Q2311	B1ABGC000005	TRANSISTOR	(M)
Q2341	B1ABGC000005	TRANSISTOR	(M)
Q2411	B1ABGC000005	TRANSISTOR	(M)
Q2441	B1ABGC000005	TRANSISTOR	(M)
Q2417	B1ABGC000005	TRANSISTOR	(M)
Q2555	B1ABGC000005	TRANSISTOR	(M)
QR6457	B1GBCFLL0037	CHIP TRANSISTOR	(M)
QR6459	B1GBCFLL0037	CHIP TRANSISTOR	(M)
QR6460	B1GBCFLL0037	CHIP TRANSISTOR	(M)
Q2417	B1ABGC000005	TRANSISTOR	(M)
Q2417	B1ABGC000005	TRANSISTOR	(M)
Q5951	2SB0621AHA	TRANSISTOR	(M)
Q5953	B1AACF000064	TRANSISTOR	(M)
Q5952	B1GACFJJ0018	TRANSISTOR	(M)
Q5950	B1AAKD000014	TRANSISTOR	(M)
Q5111	B1BACG000023	TRANSISTOR	(M)
Q5112	B1BCCG000002	TRANSISTOR	(M)
Q5101	B1DEGM000026	MOSFET TRANSISTOR	(M)
Q5102	B1DEGM000026	MOSFET TRANSISTOR	(M)
Q5109	2SB0709AHL	TRANSISTOR CHIP	(M)
Q5153	B1ABCF000176	TRANSISTOR	(M)
Q5154	2SB0709AHL	TRANSISTOR CHIP	(M)
Q5173	B1ABCF000176	TRANSISTOR	(M)
Q5103	B1ABCF000176	TRANSISTOR	(M)

Q5104	B1ABCF000176	TRANSISTOR	(M)
Q5108	B1ABCF000176	TRANSISTOR	(M)
Q5202	B1ADCF000063	CHIP TRANSISTOR	(M)
Q5113	B1GDCFNA0001	TRANSISTOR	(M)
Q5201	B1ABCF000176	TRANSISTOR	(M)
Q5110	B1AACF000064	TRANSISTOR	(M)
Q5115	B1AAKD000014	TRANSISTOR	(M)
Q5114	B1ABCF000176	TRANSISTOR	(M)
	RMC0158-S2	SOPORTE TRANSISTOR	(M)
	RMCX0021-J	TRANSISTOR CLIP	(M)
		DIODES	
D951	MA2C16500E	DIODE	(M)
D971	MA2C16500E	DIODE	(M)
D1003	B0ACCK000005	CHIP DIODE	(M)
D2950	B0ACCK000005	CHIP DIODE	(M)
D2813	B0ACCK000005	CHIP DIODE	(M)
D2803	B0ACCK000005	CHIP DIODE	(M)
D2801	B0ACCK000005	CHIP DIODE	(M)
D2241	B0ACCK000005	CHIP DIODE	(M)
D2191	B0ACCK000005	CHIP DIODE	(M)
D2503	B0ADCC000002	DUAL CHIP DIODE	(M)
D2901	B0ADCC000002	DUAL CHIP DIODE	(M)
D2811	B0ADCJ000020	DUAL CHIP DIODE	(M)
D2946	B0ADCJ000020	DUAL CHIP DIODE	(M)
D2601	B0BC5R000009	CHIP ZENER DIODE	(M)
D2677	B0BC7R500001	CHIP DIODE	(M)
D2583	B0BC9R000008	DIODO	(M)
D2602	B0CDBB000015	CHIP DIODE	(M)
D2936	B0EAKM000117	DIODO	(M)
D1	B0CBAD000004	DIODO	(M)
D2	B0CBAD000004	DIODO	(M)
D3	B0CBAD000004	DIODO	(M)
D6635	B0BC7R500001	CHIP DIODE	(M)
D6458	B3AAA0000803	DIODO LED	(M)
D6461	B0BC8R100004	DIODO	(M)
D6457	B3AEA0000041	DIODO	(M)
D6462	B3AEA0000041	DIODO	(M)
D5950	B0EAMM000038	DIODO RECTIFICADOR	(M)
D5951	B0EAMM000038	DIODO RECTIFICADOR	(M)
D5952	B0EAMM000038	DIODO RECTIFICADOR	(M)
D5953	B0EAMM000038	DIODO RECTIFICADOR	(M)
D5970	B0EAMM000038	DIODO RECTIFICADOR	(M)
D5971	B0EAMM000038	DIODO RECTIFICADOR	(M)
D5972	B0EAMM000038	DIODO RECTIFICADOR	(M)
D5973	B0EAMM000038	DIODO RECTIFICADOR	(M)
D5961	B0AACK000004	DIODE	(M)
D5962	B0AACK000004	DIODE	(M)
D5963	B0AACK000004	DIODE	(M)
D5965	B0AACK000004	DIODE	(M)
D5966	B0AACK000004	DIODE	(M)

D5960	B0BA02400030	DIODO	(M)
D5964	B0BA6R800008	ZEENER DIODE (MTZJT-776.8C)	(M)
D5954	B0EAKM000122	RECTIFIER DIODE	(M)
D5955	B0EAKM000122	RECTIFIER DIODE	(M)
D5956	B0EAKM000122	RECTIFIER DIODE	(M)
D5957	B0EAKM000122	RECTIFIER DIODE	(M)
D5958	B0EAKM000122	RECTIFIER DIODE	(M)
D5959	B0EAKM000122	RECTIFIER DIODE	(M)
D5126	B0ACCK000005	CHIP DIODE	(M)
D5125	B0AACK000004	DIODE	(M)
D5101	B0BA01100004	DIODO ZENER	(M)
D5104	B0BA01100004	DIODO ZENER	(M)
D5109	B0BA01100004	DIODO ZENER	(M)
D5107	B0BA01500003	ZENER DIODE	(M)
D5105	B0BA02400029	DIODO	(M)
D5102	B0BA02600018	ZENER DIODE	(M)
D5108	B0BA5R700008	ZENER DIODE	(M)
D5121	B0EAKM000122	RECTIFIER DIODE	(M)
D5122	B0EAKM000122	RECTIFIER DIODE	(M)
D5123	B0EAKM000122	RECTIFIER DIODE	(M)
D5124	B0EAKM000122	RECTIFIER DIODE	(M)
D5128	B0EAKM000122	RECTIFIER DIODE	(M)
D5129	B0EAKM000122	RECTIFIER DIODE	(M)
D5103	B0BA3R900006	ZEENER DIODE (MTZJT-773.6A)	(M)
K5101	B0EAKM000122	RECTIFIER DIODE	(M)
D5152	B0BA01900005	ZENER DIODE	(M)
		VARIABLE RESISTORS	
VR6491	EVEKE2F3524B	CONTROL DE VOLUMEN	
		SWITCHES	
V	EVQ21405R	TACT SWITCH	(M)
S6202	EVQ21405R	TACT SWITCH	(M)
S6201	EVQ21405R	TACT SWITCH	(M)
S6108	EVQ21405R	TACT SWITCH	(M)
S6107	EVQ21405R	TACT SWITCH	(M)
S6106	EVQ21405R	TACT SWITCH	(M)
S6105	EVQ21405R	TACT SWITCH	(M)
S6104	EVQ21405R	TACT SWITCH	(M)
S6103	EVQ21405R	TACT SWITCH	(M)
S6102	EVQ21405R	TACT SWITCH	(M)
S6101	EVQ21405R	TACT SWITCH	(M)
S6204	EVQ21405R	TACT SWITCH	(M)
S6308	EVQ21405R	TACT SWITCH	(M)
S6307	EVQ21405R	TACT SWITCH	(M)
S6306	EVQ21405R	TACT SWITCH	(M)
S6305	EVQ21405R	TACT SWITCH	(M)
S6304	EVQ21405R	TACT SWITCH	(M)
S6303	EVQ21405R	TACT SWITCH	(M)
S6302	EVQ21405R	TACT SWITCH	(M)

S6301	EVQ21405R	TACT SWITCH	(M)
S6207	EVQ21405R	TACT SWITCH	(M)
S6206	EVQ21405R	TACT SWITCH	(M)
S6205	EVQ21405R	TACT SWITCH	(M)
S952	K0J1BB000021	INTERRUPTOR DE HOJA METALICO	(M)
S972	K0J1BB000021	INTERRUPTOR DE HOJA METALICO	(M)
S975	K0J1BB000021	INTERRUPTOR DE HOJA METALICO	(M)
S971	K0J1BB000017	INTERUPTOR DE HOJA METALICA	(M)
S951	K0J1BB000017	INTERUPTOR DE HOJA METALICA	(M)
		CONNECTORS	
CN971	K1MN10B00104	10P FFC CONNECTOR	(M)
CN1001	K1MN14B00058	CONECTOR	(M)
CS1001	K1MY05AA0043	CONECTOR	(M)
CS1002	K1MY05AA0043	CONECTOR	(M)
CN2810	K1KA02AA0186	CONECTOR	(M)
CN2808	K1KB12B00036	P2 MO CONNECTOR (12 LOC)	(M)
CN2809	K1KB12B00036	P2 MO CONNECTOR (12 LOC)	(M)
CN2951	K1MN10AA0003	10P FFC SIDE CONNECTOR	(M)
CN2805	K1MN14A00049	FF CONECTOR	(M)
CN2803	K1MN14A00049	FF CONECTOR	(M)
CN2801	K1MN17AA0004	CONNECTOR	(M)
CN2806	K1MN30AA0004	CONNECTOR	(M)
CN6601	K1MN30AA0004	CONNECTOR	(M)
CN5951	K1KA09AA0193	CONNECTOR	(M)
CN5950	K1KA09AA0319	9 PIN CONECTO	(M)
JK5950	K2AA2B000015	CONECTOR	(M)
CN5102	K1KA12AA0424	CONNECTOR	(M)
CN5103	K1KA12AA0424	CONNECTOR	(M)
		COILS & TRANSFORMERS	
L5101	J0JKB0000037	FILTER	(M)
L5102	J0JKB0000037	FILTER	(M)
L5402	J0JKB0000037	FILTER	(M)
L5403	J0JKB0000037	FILTER	(M)
L5502	J0JKB0000037	FILTER	(M)
L5503	J0JKB0000037	FILTER	(M)
L5301	G0C220Z00002	COIL	(M)
L5401	G0C220Z00002	COIL	(M)
L5501	G0C220Z00002	COIL	(M)
L5601	G0B9R5K00001	BOBINA	(M)
L5602	G0B9R5K00001	BOBINA	(M)
L5603	G0B9R5K00001	BOBINA	(M)
L5604	G0B9R5K00001	BOBINA	(M)
L1002	G2ZZ00000024	BIAS OSC COIL	(M)
L1001	G0C470JA0052	INDUCTOR	(M)
L2601	G2A411C00001	Coil	(M)
L2602	G2BPC0000016	OSCILLATOR COIL	(M)
L1	G0C1R2KA0029	BOBINA AXIAL	(M)
L2	G0CR47KA0029	BOBINA AXIAL	(M)

T5951	RTP1H3E002	TRANSFORMADOR DE RESPALDO	(M)
		COMPONENT COMBINATIONS	
Z971	RGSD12A1445T	RESISTENCIA RADA	(M)
Z2602	G2BAD0000003	BOBINA AM	(M)
Z6481	B3RAB0000025	CONTROL SENSOR REMOTO	(M)
		RELAY	
RL5950	K6B1AEA00015	RELEVADOR	(M)
		OSCILLATORS	
X2802	H2B100500004	CERAMIC RESONATORS	(M)
X2602	H3F1065A0002	DISCRIMINATOR	(M)
X2603	H0H720400007	CRYSTAL OSCILLATOR	(M)
X2801	H0A327200115	37.768 KHz XTAL	(M)
X5202	H2A375300003	OSCILLATOR	(M)
X5201	H2A415300001	OSCILLATOR	(M)
		DISPLAY TUBE	
FL6602	A2BD00000142	DISPLAY	(M)
		FUSE	
F1	K5D402APA008	FUSE 4A	(M)
		FUSE HOLDERS	
FC1	EYF52BCY	PORTAFUSIBLE	(M)
FC2	EYF52BCY	PORTAFUSIBLE	(M)
		FUSE PROTECTORS	
FP5920	K5G103A00019	FUSE PROTECTOR	(M)
FP5940	K5G103A00019	FUSE PROTECTOR	(M)
W5921	K5G103A00019	FUSE PROTECTOR	(M)
FP5950	K5G402A00025	FUSIBLE	(M)
		HOLDERS	
H5104	K1YF09000001	9 PIN WIRE HOLDER	(M)
H6555	K1YZ09000002	JACK	(M)
		JACKS	
JK6551	K2HC103A0024	JACKS FOR SMALL SIGNAL	(M)
JK6751	K2HC1YYA0002	MUSIC PORT JACK	(M)
JK2601	K4BC04B00105	ANTENA JACK	(M)
JK5101	K4BC04B00120	4P SPEAKER JACK	(M)

JK5102	K4BC06B00061	6P SPEAKER JACK	(M)
		EARTH TERMINAL	
E5101	K4CZ01000027	TERMINAL DE TIERRA	(M)
E5102	K4CZ01000027	TERMINAL DE TIERRA	(M)
E5103	K4CZ01000027	TERMINAL DE TIERRA	(M)
		WIRES	
W6555	REXX0324	9P (2MM) FLAT WIRE	(M)
W5104	REXX0325	9P (2.5MM) FLAT WIRE	(M)
W1002	RWJ0102050CK	MULTICABLE	(M)
		PACKING MATERIALS	
	RPGM0205	CAJA SC-TM54	(M)
	RPNM0168B	UNICEL SA-TM44/54	(M)
	RPNM0168T	UNICEL SA-TM44/54	(M)
	RPFM0028	BOLSA	(M)
		ACCESSORIES	
	SJA168-1A	AC CORD	(M)
	N2QAHB000064	REMOTE CONTROL	(M)
	RSA0006-L	FM ANTENA	(M)
	UM-3PA/T	PILA CARBON TAMAÑO AA	(M)
	N1DAAAA00001	AM LOOP ANTENA	(M)
	RQTM0141-1	INSTRUCTIVO DE OPERACIÓN	(M)
		RESISTORS	
R973	ERDS2TJ393T	RESISTENCIA CARBON	(M)
R953	ERDS2TJ393T	RESISTENCIA CARBON	(M)
R972	ERDS2TJ821T	RESISTENCIA CARBON	(M)
R952	ERDS2TJ821T	RESISTENCIA CARBON	(M)
R1030	D0GB101JA008	CHIP RESISTENCIA	(M)
R1004	D0GB152JA008	CHIP RESISTENCIA	(M)
R1009	ERJ3GEYJ183V	RESISTENCIA CHIP PEL□CULA	(M)
R1010	ERJ3GEYJ183V	RESISTENCIA CHIP PEL□CULA	(M)
R1090	D0GB221JA008	RESISTENCIA CHIP	(M)
R1086	D0GB222JA008	RESISTENCIA CHIP	(M)
R1084	D0GB222JA008	RESISTENCIA CHIP	(M)
R1057	D0GB222JA008	RESISTENCIA CHIP	(M)
R1055	D0GB222JA008	RESISTENCIA CHIP	(M)
R1031	D0GB273JA008	CHIP RESISTENCIA	(M)
R1018	D0GB392JA008	CHIP RESISTENCIA	(M)
R1019	D0GB392JA008	CHIP RESISTENCIA	(M)
R1016	ERJ3GEYJ470V	RESISTENCIA CHIP PEL□CULA	(M)
R1015	ERJ3GEYJ470V	RESISTENCIA CHIP PEL□CULA	(M)
R1005	D0GB472JA008	RESISTENCIA CHIP	(M)
R1012	D0GB472JA008	RESISTENCIA CHIP	(M)

R1013	D0GB472JA008	RESISTENCIA CHIP	(M)
R1014	D0GB472JA008	RESISTENCIA CHIP	(M)
R1087	D0GB473JA008	RESISTENCIA CHIP	(M)
R1085	D0GB473JA008	RESISTENCIA CHIP	(M)
R1029	D0GB475JA008	CHIP RESISTOR	(M)
R1026	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R1003	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R1022	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R1032	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R1035	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R1097	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R1098	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R1102	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R1060	ERJ3GEYJ391V	RESISTENCIA CHIP PEL□CULA	(M)
R1011	ERJ3GEYJ822V	RESISTENCIA CHIP PEL□CULA	(M)
R1017	ERJ3GEYJ822V	RESISTENCIA CHIP PEL□CULA	(M)
R1028	ERJ3GEYJ822V	RESISTENCIA CHIP PEL□CULA	(M)
C1016	F1H1H222A013	CHIP RESISTOR	(M)
C1017	F1H1H222A013	CHIP RESISTOR	(M)
C1018	F1H1H332A013	CHIP RESISTOR	(M)
C1049	F1H1H332A013	CHIP RESISTOR	(M)
C1050	F1H1H332A013	CHIP RESISTOR	(M)
R1007	ERD25FVJ4R7T	RESISTENCIA	(M)
R2831	D0GB104JA008	CHIP RESISTENCIA	(M)
R2832	D0GB104JA008	CHIP RESISTENCIA	(M)
R2833	D0GB104JA008	CHIP RESISTENCIA	(M)
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R2318	D0GB104JA008	CHIP RESISTENCIA	(M)
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R2283	D0GB104JA008	CHIP RESISTENCIA	(M)
R2247	D0GB104JA008	CHIP RESISTENCIA	(M)
R2194	D0GB104JA008	CHIP RESISTENCIA	(M)
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R2568	D0GB104JA008	CHIP RESISTENCIA	(M)
R2512	D0GB104JA008	CHIP RESISTENCIA	(M)
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R2418	D0GB104JA008	CHIP RESISTENCIA	(M)
R2413	D0GB104JA008	CHIP RESISTENCIA	(M)
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R2646	D0GB104JA008	CHIP RESISTENCIA	(M)
R2817	D0GB104JA008	CHIP RESISTENCIA	(M)
R2818	D0GB104JA008	CHIP RESISTENCIA	(M)
R2882	ERJ3GEYJ106V	CHIP RESISTOR	(M)
R2644	ERJ3GEYJ121V	RESISTENCIA CHIP	(M)
R2631	ERJ3GEYJ121V	RESISTENCIA CHIP	(M)
R2427	D0GB123JA008	CHIP RESISTENCIA	(M)
R2327	D0GB123JA008	CHIP RESISTENCIA	(M)
R2328	D0GB153JA008	CHIP RESISTENCIA	(M)

R2333	D0GB153JA008	CHIP RESISTENCIA	(M)
R2428	D0GB153JA008	CHIP RESISTENCIA	(M)
R2433	D0GB153JA008	CHIP RESISTENCIA	(M)
R2356	D0GB184JA008	CHIP RESISTENCIA	(M)
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R2447	D0GB1R0JA008	CHIP RESISTENCIA	(M)
R2347	D0GB1R0JA008	CHIP RESISTENCIA	(M)
R2881	D0GB221JA008	RESISTENCIA CHIP	(M)
R2103	D0GB222JA008	RESISTENCIA CHIP	(M)
R2203	D0GB222JA008	RESISTENCIA CHIP	(M)
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R2416	D0GB222JA008	RESISTENCIA CHIP	(M)
R2511	D0GB222JA008	RESISTENCIA CHIP	(M)
R2566	D0GB222JA008	RESISTENCIA CHIP	(M)
R2909	D0GB222JA008	RESISTENCIA CHIP	(M)
R2564	D0GB224JA008	CHIP RESISTENCIA	(M)
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R2704	D0GB224JA008	CHIP RESISTENCIA	(M)
R2703	D0GB224JA008	CHIP RESISTENCIA	(M)
R2622	D0GB272JA008	CHIP RESISTENCIA	(M)
R2503	D0GB272JA008	CHIP RESISTENCIA	(M)
R2629	D0GB273JA008	CHIP RESISTENCIA	(M)
R2956	D0GB274JA008	CHIP RESISTENCIA	(M)
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R2624	D0GB330JA008	CHIP RESISTENCIA	(M)
R2705	D0GB332JA008	CHIP RESISTENCIA	(M)
R2638	D0GB332JA008	CHIP RESISTENCIA	(M)
R2619	D0GB332JA008	CHIP RESISTENCIA	(M)
R2618	D0GB332JA008	CHIP RESISTENCIA	(M)
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R2346	D0GB332JA008	CHIP RESISTENCIA	(M)
R2232	D0GB332JA008	CHIP RESISTENCIA	(M)
R2231	D0GB332JA008	CHIP RESISTENCIA	(M)
R2222	D0GB332JA008	CHIP RESISTENCIA	(M)
R2221	D0GB332JA008	CHIP RESISTENCIA	(M)
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R2122	D0GB332JA008	CHIP RESISTENCIA	(M)
R2121	D0GB332JA008	CHIP RESISTENCIA	(M)
R2112	D0GB332JA008	CHIP RESISTENCIA	(M)
R2102	D0GB332JA008	CHIP RESISTENCIA	(M)
R2706	D0GB332JA008	CHIP RESISTENCIA	(M)
R2423	D0GB393JA008	CHIP RESISTENCIA	(M)
R2323	D0GB393JA008	CHIP RESISTENCIA	(M)
R2605	D0GB471JA008	RESISTENCIA CHIP	(M)

R2625	D0GB471JA008	RESISTENCIA CHIP	(M)
R2627	D0GB471JA008	RESISTENCIA CHIP	(M)
R2634	D0GB471JA008	RESISTENCIA CHIP	(M)
R2966	D0GB472JA008	RESISTENCIA CHIP	(M)
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R2925	D0GB472JA008	RESISTENCIA CHIP	(M)
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R2920	D0GB472JA008	RESISTENCIA CHIP	(M)
R2919	D0GB472JA008	RESISTENCIA CHIP	(M)
R2916	D0GB472JA008	RESISTENCIA CHIP	(M)
R2914	D0GB472JA008	RESISTENCIA CHIP	(M)
R2912	D0GB472JA008	RESISTENCIA CHIP	(M)
R2874	D0GB472JA008	RESISTENCIA CHIP	(M)
R2846	D0GB472JA008	RESISTENCIA CHIP	(M)
R2675	D0GB472JA008	RESISTENCIA CHIP	(M)
R2602	D0GB472JA008	RESISTENCIA CHIP	(M)
R2273	D0GB472JA008	RESISTENCIA CHIP	(M)
R2193	D0GB472JA008	RESISTENCIA CHIP	(M)
R2173	D0GB472JA008	RESISTENCIA CHIP	(M)
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R2620	D0GB473JA008	RESISTENCIA CHIP	(M)
R2673	D0GB473JA008	RESISTENCIA CHIP	(M)
R2674	D0GB473JA008	RESISTENCIA CHIP	(M)
R2851	D0GB473JA008	RESISTENCIA CHIP	(M)
R2854	D0GB473JA008	RESISTENCIA CHIP	(M)
R2855	D0GB473JA008	RESISTENCIA CHIP	(M)
R2856	D0GB473JA008	RESISTENCIA CHIP	(M)
R2857	D0GB473JA008	RESISTENCIA CHIP	(M)
R2863	D0GB473JA008	RESISTENCIA CHIP	(M)
R2865	D0GB473JA008	RESISTENCIA CHIP	(M)
R2866	D0GB473JA008	RESISTENCIA CHIP	(M)
R2894	D0GB473JA008	RESISTENCIA CHIP	(M)
R2606	D0GB474JA008	RESISTENCIA CHIP	(M)
R2950	D0GB474JA008	RESISTENCIA CHIP	(M)
R2951	D0GB474JA008	RESISTENCIA CHIP	(M)
R2615	ERJ3GEYJ561V	RESISTENCIA CHIP PEL□CULA	(M)
R2509	ERJ3GEYJ561V	RESISTENCIA CHIP PEL□CULA	(M)
R2946	D0GB563JA008	CHIP RESISTENCIA	(M)
R2623	D0GB683JA008	CHIP RESISTENCIA	(M)
R2502	D0GB823JA008	CHIP RESISTENCIA	(M)
C2644	ECJ1VB1H682K	CHIP RESISTOR	(M)
C2643	ECJ1VB1H682K	CHIP RESISTOR	(M)
C2552	ECJ1VC1H101K	CHIP RESISTOR	(M)
C2555	ECJ1VC1H101K	CHIP RESISTOR	(M)
C2624	ECJ1VC1H101K	CHIP RESISTOR	(M)
C2671	ECJ1VC1H101K	CHIP RESISTOR	(M)
C2673	ECJ1VC1H101K	CHIP RESISTOR	(M)
C2821	ECJ1VC1H101K	CHIP RESISTOR	(M)
C2944	ECJ1VC1H101K	CHIP RESISTOR	(M)
C2957	ECJ1VC1H101K	CHIP RESISTOR	(M)

C2959	ECJ1VC1H101K	CHIP RESISTOR	(M)
R2853	ERJ3GEYJ101V	RESISTENCIA CHIP PEL□CULA	(M)
R2852	ERJ3GEYJ101V	RESISTENCIA CHIP PEL□CULA	(M)
R2848	ERJ3GEYJ101V	RESISTENCIA CHIP PEL□CULA	(M)
R2847	ERJ3GEYJ101V	RESISTENCIA CHIP PEL□CULA	(M)
R2802	ERJ3GEYJ101V	RESISTENCIA CHIP PEL□CULA	(M)
R2731	ERJ3GEYJ101V	RESISTENCIA CHIP PEL□CULA	(M)
R2504	ERJ3GEYJ101V	RESISTENCIA CHIP PEL□CULA	(M)
R2858	ERJ3GEYJ101V	RESISTENCIA CHIP PEL□CULA	(M)
R2859	ERJ3GEYJ101V	RESISTENCIA CHIP PEL□CULA	(M)
R2860	ERJ3GEYJ101V	RESISTENCIA CHIP PEL□CULA	(M)
R2861	ERJ3GEYJ101V	RESISTENCIA CHIP PEL□CULA	(M)
R2862	ERJ3GEYJ101V	RESISTENCIA CHIP PEL□CULA	(M)
R2864	ERJ3GEYJ101V	RESISTENCIA CHIP PEL□CULA	(M)
R2948	ERJ3GEYJ101V	RESISTENCIA CHIP PEL□CULA	(M)
R2959	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2957	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2952	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2936	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2907	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2849	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2843	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2722	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2721	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2702	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2701	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2637	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2636	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2635	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2633	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2626	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2616	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2610	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2604	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2557	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2556	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2555	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2508	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2246	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2183	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2146	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2941	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2943	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2945	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2953	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2954	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2671	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2676	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2632	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2937	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2931	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2930	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)

R2929	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2928	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2924	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2922	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2672	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2801	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2803	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2841	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2842	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2844	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2845	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2901	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2918	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2630	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2613	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2196	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2195	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2886	ERJ3GEYJ105V	RESISTENCIA CHIP	(M)
R2586	ERJ3GEYJ122V	RESISTENCIA CHIP PEL□CULA	(M)
R2587	ERJ3GEYJ122V	RESISTENCIA CHIP PEL□CULA	(M)
R2559	ERJ3GEYJ183V	RESISTENCIA CHIP PEL□CULA	(M)
R2567	ERJ3GEYJ183V	RESISTENCIA CHIP PEL□CULA	(M)
R2873	ERJ3GEYJ223V	RESISTENCIA CHIP PEL□CULA	(M)
R2871	ERJ3GEYJ223V	RESISTENCIA CHIP PEL□CULA	(M)
R2958	ERJ3GEYJ223V	RESISTENCIA CHIP PEL□CULA	(M)
R2960	ERJ3GEYJ223V	RESISTENCIA CHIP PEL□CULA	(M)
R2810	ERJ3GEYJ223V	RESISTENCIA CHIP PEL□CULA	(M)
R2643	ERJ3GEYJ223V	RESISTENCIA CHIP PEL□CULA	(M)
R2621	ERJ3GEYJ223V	RESISTENCIA CHIP PEL□CULA	(M)
R2603	ERJ3GEYJ271V	RESISTENCIA CHIP PEL□CULA	(M)
R2910	ERJ3GEYJ331V	RESISTENCIA CHIP PEL□CULA	(M)
R2908	ERJ3GEYJ331V	RESISTENCIA CHIP PEL□CULA	(M)
R2607	ERJ3GEYJ331V	RESISTENCIA CHIP PEL□CULA	(M)
R2883	ERJ3GEYJ334V	RESISTENCIA CHIP	(M)
R2585	ERJ3GEYJ334V	RESISTENCIA CHIP	(M)
R2584	ERJ3GEYJ334V	RESISTENCIA CHIP	(M)
R2501	ERJ3GEYJ334V	RESISTENCIA CHIP	(M)
R2611	ERJ3GEYJ391V	RESISTENCIA CHIP PEL□CULA	(M)
R2942	ERJ3GEYJ562V	RESISTENCIA CHIP PEL□CULA	(M)
R2614	ERJ3GEYJ562V	RESISTENCIA CHIP PEL□CULA	(M)
R2642	ERJ3GEYJ682V	RESISTENCIA CHIP PEL□CULA	(M)
R2641	ERJ3GEYJ682V	RESISTENCIA CHIP PEL□CULA	(M)
R2271	ERJ3GEYJ682V	RESISTENCIA CHIP PEL□CULA	(M)
R2248	ERJ3GEYJ682V	RESISTENCIA CHIP PEL□CULA	(M)
R2628	ERJ3GEYJ820V	RESISTENCIA CHIP PEL□CULA	(M)
R2651	ERJ3GEYJ820V	RESISTENCIA CHIP PEL□CULA	(M)
R2940	ERJ3GEYJ824V	RESISTENCIA CHIP	(M)
C2871	F1H1H331A013	CHIP RESISTOR	(M)
C2874	F1H1H331A013	CHIP RESISTOR	(M)
C2637	F1H1H332A013	CHIP RESISTOR	(M)
C2221	F1H1H332A013	CHIP RESISTOR	(M)
C2121	F1H1H332A013	CHIP RESISTOR	(M)

R2510	D0AF221JA039	RESISTOR	(M)
R2947	D0AF270JA039	RESISTENCIA RADIAL	(M)
R2677	D0C1121JA020	RESISTOR	(M)
R2902	ERDS1FVJ330T	RESISTENCIA	(M)
R2341	D0GB270JA008	CHIP RESISTENCIA	(M)
R2343	D0GB270JA008	CHIP RESISTENCIA	(M)
R2352	D0GB270JA008	CHIP RESISTENCIA	(M)
R2354	D0GB270JA008	CHIP RESISTENCIA	(M)
R2443	D0GB270JA008	CHIP RESISTENCIA	(M)
R2452	D0GB270JA008	CHIP RESISTENCIA	(M)
R2454	D0GB270JA008	CHIP RESISTENCIA	(M)
R2211	D0GB222JA008	RESISTENCIA CHIP	(M)
R2111	D0GB222JA008	RESISTENCIA CHIP	(M)
R2204	D0GB273JA008	CHIP RESISTENCIA	(M)
R2104	D0GB273JA008	CHIP RESISTENCIA	(M)
R2949	D0GB473JA008	RESISTENCIA CHIP	(M)
R2939	D0GB473JA008	RESISTENCIA CHIP	(M)
R2563	ERJ3GEYJ124V	RESISTENCIA CHIP PEL□CULA	(M)
R2562	ERJ3GEYJ124V	RESISTENCIA CHIP PEL□CULA	(M)
R2441	D0GB270JA008	CHIP RESISTENCIA	(M)
R2317	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2417	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2312	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2412	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2345	ERJ3GEYJ152V	RESISTENCIA CHIP PEL□CULA	(M)
R2445	ERJ3GEYJ152V	RESISTENCIA CHIP PEL□CULA	(M)
R2281	ERJ3GEYJ681V	RESISTENCIA	(M)
R2181	ERJ3GEYJ681V	RESISTENCIA	(M)
C2331	ECJ1VB1H682K	CHIP RESISTOR	(M)
C2431	ECJ1VB1H682K	CHIP RESISTOR	(M)
D2551	B0BC4R600016	RESISTENCIA	(M)
D2552	B0BC4R600016	RESISTENCIA	(M)
R2145	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2245	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R2311	D0GB471JA008	RESISTENCIA CHIP	(M)
R2411	D0GB471JA008	RESISTENCIA CHIP	(M)
R2868	D0GB104JA008	CHIP RESISTENCIA	(M)
R2149	D0GB332JA008	CHIP RESISTENCIA	(M)
R2249	D0GB332JA008	CHIP RESISTENCIA	(M)
R2561	ERJ3GEYJ223V	RESISTENCIA CHIP PEL□CULA	(M)
C2113	ECJ1VB1H682K	CHIP RESISTOR	(M)
R2172	ERJ3GEYJ822V	RESISTENCIA CHIP PEL□CULA	(M)
C2201	ECJ1VB1H682K	CHIP RESISTOR	(M)
R2315	D0GB823JA008	CHIP RESISTENCIA	(M)
R2415	D0GB823JA008	CHIP RESISTENCIA	(M)
R2335	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2435	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R2329	D0GB332JA008	CHIP RESISTENCIA	(M)
R2429	D0GB332JA008	CHIP RESISTENCIA	(M)
R1	ERDS2TJ104T	RESISTENCIA	(M)
R2	ERDS2TJ104T	RESISTENCIA	(M)
R4	ERDS2TJ104T	RESISTENCIA	(M)

R3	ERDS2TJ221T	RESISTENCIA	(M)
R7	ERDS2TJ272T	RESISTENCIA CARBON	(M)
R10	ERDS2TJ391T	RESISTENCIA CARBON	(M)
R6	ERDS2TJ391T	RESISTENCIA CARBON	(M)
R9	ERDS2TJ391T	RESISTENCIA CARBON	(M)
R5	ERDS2TJ564T	RESISTENCIA	(M)
R11	ERDS2TJ684T	RESISTENCIA CARBON	(M)
R8	ERDS2TJ684T	RESISTENCIA CARBON	(M)
R6605	D0GB153JA008	CHIP RESISTENCIA	(M)
R6304	D0GB182JA008	CHIP RESISTENCIA	(M)
R6204	D0GB182JA008	CHIP RESISTENCIA	(M)
R6104	D0GB182JA008	CHIP RESISTENCIA	(M)
R6603	D0GB221JA008	RESISTENCIA CHIP	(M)
R6604	D0GB221JA008	RESISTENCIA CHIP	(M)
R6103	D0GB222JA008	RESISTENCIA CHIP	(M)
R6105	D0GB222JA008	RESISTENCIA CHIP	(M)
R6203	D0GB222JA008	RESISTENCIA CHIP	(M)
R6205	D0GB222JA008	RESISTENCIA CHIP	(M)
R6303	D0GB222JA008	RESISTENCIA CHIP	(M)
R6305	D0GB222JA008	RESISTENCIA CHIP	(M)
R6306	D0GB272JA008	CHIP RESISTENCIA	(M)
R6206	D0GB272JA008	CHIP RESISTENCIA	(M)
R6106	D0GB272JA008	CHIP RESISTENCIA	(M)
R6459	D0GB392JA008	CHIP RESISTENCIA	(M)
R6208	D0GB393JA008	CHIP RESISTENCIA	(M)
R6107	D0GB472JA008	RESISTENCIA CHIP	(M)
R6207	D0GB472JA008	RESISTENCIA CHIP	(M)
R6307	D0GB472JA008	RESISTENCIA CHIP	(M)
R6458	D0GB472JA008	RESISTENCIA CHIP	(M)
R6491	D0GB473JA008	RESISTENCIA CHIP	(M)
R6492	D0GB473JA008	RESISTENCIA CHIP	(M)
C6491	ECJ1VC1H101K	CHIP RESISTOR	(M)
C6604	ECJ1VC1H101K	CHIP RESISTOR	(M)
C6603	ECJ1VC1H101K	CHIP RESISTOR	(M)
C6601	ECJ1VC1H101K	CHIP RESISTOR	(M)
C6492	ECJ1VC1H101K	CHIP RESISTOR	(M)
R6102	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R6202	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R6302	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R6199	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R6109	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R6493	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R6110	ERJ3GEYJ223V	RESISTENCIA CHIP PEL□CULA	(M)
R6460	ERJ3GEYJ391V	RESISTENCIA CHIP PEL□CULA	(M)
R6308	ERJ3GEYJ682V	RESISTENCIA CHIP PEL□CULA	(M)
R6108	ERJ3GEYJ682V	RESISTENCIA CHIP PEL□CULA	(M)
R6631	ERD2FCVG470T	RESISTENCIA	(M)
R6632	ERD2FCVG470T	RESISTENCIA	(M)
R6751	ERJ3GEYJ332V	RESISTENCIA CHIP PEL□CULA	(M)
R6753	ERJ3GEYJ332V	RESISTENCIA CHIP PEL□CULA	(M)
R6752	ERJ3GEYJ152V	RESISTENCIA CHIP PEL□CULA	(M)
R6754	ERJ3GEYJ152V	RESISTENCIA CHIP PEL□CULA	(M)

R6602	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R6399	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R6601	D0GB471JA008	RESISTENCIA CHIP	(M)
R6457	ERJ3GEYJ511V	CHIP RESISTOR	(M)
R5963	D0AF820JA039	RESISTOR	(M)
R5957	D0AE103JA048	CARBON RESISTOR	(M)
R5958	D0AE103JA048	CARBON RESISTOR	(M)
R5953	D0AE151JA048	CARBON RESISTOR	(M)
R5961	D0AE151JA048	CARBON RESISTOR	(M)
R5951	D0AE332JA048	CARBON RESISTOR	(M)
R5952	D0AE472JA048	RESISTOR	(M)
R5960	D0AE472JA048	RESISTOR	(M)
R5153	D0GB101JA008	CHIP RESISTENCIA	(M)
R5154	D0GB101JA008	CHIP RESISTENCIA	(M)
R5173	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R5209	ERJ3GEYJ100V	RESISTENCIA CHIP	(M)
R5111	D0GB104JA008	CHIP RESISTENCIA	(M)
R5202	D0GB104JA008	CHIP RESISTENCIA	(M)
R5204	D0GB104JA008	CHIP RESISTENCIA	(M)
R5205	D0GB104JA008	CHIP RESISTENCIA	(M)
R5413	D0GB104JA008	CHIP RESISTENCIA	(M)
R5206	ERJ3GEYJ105V	RESISTENCIA CHIP	(M)
R5130	ERJ3GEYJ151V	RESISTENCIA CHIP PEL□CULA	(M)
R5151	D0GB154JA008	CHIP RESISTENCIA	(M)
R5313	D0GB154JA008	CHIP RESISTENCIA	(M)
R5110	D0GB222JA008	RESISTENCIA CHIP	(M)
R5106	ERJ3GEYJ223V	RESISTENCIA CHIP PEL□CULA	(M)
R5150	D0GB224JA008	CHIP RESISTENCIA	(M)
R5412	D0GB224JA008	CHIP RESISTENCIA	(M)
R5513	ERJ3GEYJ334V	RESISTENCIA CHIP	(M)
R5522	D0GB393JA008	CHIP RESISTENCIA	(M)
R5108	ERJ3GEYJ470V	RESISTENCIA CHIP PEL□CULA	(M)
R5127	D0GB471JA008	RESISTENCIA CHIP	(M)
R5107	ERJ3GEYJ561V	RESISTENCIA CHIP PEL□CULA	(M)
R5146	ERJ3GEYJ562V	RESISTENCIA CHIP PEL□CULA	(M)
R5148	ERJ3GEYJ562V	RESISTENCIA CHIP PEL□CULA	(M)
R5301	ERJ3GEYJ562V	RESISTENCIA CHIP PEL□CULA	(M)
R5302	ERJ3GEYJ562V	RESISTENCIA CHIP PEL□CULA	(M)
R5303	ERJ3GEYJ562V	RESISTENCIA CHIP PEL□CULA	(M)
R5304	ERJ3GEYJ562V	RESISTENCIA CHIP PEL□CULA	(M)
R5401	ERJ3GEYJ562V	RESISTENCIA CHIP PEL□CULA	(M)
R5402	ERJ3GEYJ562V	RESISTENCIA CHIP PEL□CULA	(M)
R5403	ERJ3GEYJ562V	RESISTENCIA CHIP PEL□CULA	(M)
R5404	ERJ3GEYJ562V	RESISTENCIA CHIP PEL□CULA	(M)
R5503	ERJ3GEYJ562V	RESISTENCIA CHIP PEL□CULA	(M)
R5504	ERJ3GEYJ562V	RESISTENCIA CHIP PEL□CULA	(M)
R5312	D0GB563JA008	CHIP RESISTENCIA	(M)
C5153	ECJ1VC1H101K	CHIP RESISTOR	(M)
C5202	ECJ1VC1H101K	CHIP RESISTOR	(M)
C5203	ECJ1VC1H101K	CHIP RESISTOR	(M)
C5204	ECJ1VC1H101K	CHIP RESISTOR	(M)
R5109	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)

R5126	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R5149	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R5201	ERJ3GEYJ102V	RESISTENCIA CHIP PEL□CULA	(M)
R5101	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R5105	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R5133	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R5203	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R5317	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R5417	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R5518	ERJ3GEYJ103V	RESISTENCIA CHIP PEL□CULA	(M)
R5134	ERJ3GEYJ122V	RESISTENCIA CHIP PEL□CULA	(M)
R5523	ERJ3GEYJ122V	RESISTENCIA CHIP PEL□CULA	(M)
R5114	ERJ3GEYJ1R8V	CHIP RESISTOR	(M)
R5207	ERJ3GEYJ682V	RESISTENCIA CHIP PEL□CULA	(M)
R5138	ERJ8GEYJ100V	CHIP RESISTOR	(M)
R5139	ERJ8GEYJ100V	CHIP RESISTOR	(M)
R5142	ERJ8GEYJ100V	CHIP RESISTOR	(M)
R5143	ERJ8GEYJ100V	CHIP RESISTOR	(M)
R5307	ERJ8GEYJ100V	CHIP RESISTOR	(M)
R5308	ERJ8GEYJ100V	CHIP RESISTOR	(M)
R5407	ERJ8GEYJ100V	CHIP RESISTOR	(M)
R5408	ERJ8GEYJ100V	CHIP RESISTOR	(M)
R5507	ERJ8GEYJ100V	CHIP RESISTOR	(M)
R5508	ERJ8GEYJ100V	CHIP RESISTOR	(M)
C5302	F1H1H331A013	CHIP RESISTOR	(M)
C5305	F1H1H331A013	CHIP RESISTOR	(M)
C5402	F1H1H331A013	CHIP RESISTOR	(M)
C5405	F1H1H331A013	CHIP RESISTOR	(M)
C5502	F1H1H331A013	CHIP RESISTOR	(M)
C5505	F1H1H331A013	CHIP RESISTOR	(M)
R5512	D0GB274JA008	CHIP RESISTENCIA	(M)
R5502	ERJ3GEYJ562V	RESISTENCIA CHIP PEL□CULA	(M)
C5151	ECJ1VC1H101K	CHIP RESISTOR	(M)
R5141	ERJ8GEYJ100V	CHIP RESISTOR	(M)
R5144	D0AF120JA039	1/2W RESISTOR	(M)
R5147	D0AF2R2JA039	1/2W RESISTOR	(M)
R5132	D0AF331JA039	RESISTENCIA RADIAL	(M)
R5103	D0C1103JA020	RESISTOR	(M)
R5123	D0C14R7JA020	RESISTOR	(M)
R5131	ERDS1FVJ222T	RESISTENCIA	(M)
R5135	D0AE2R2JA048	CARBON RESISTOR	(M)
R5136	D0AE2R2JA048	CARBON RESISTOR	(M)
R5137	D0AE2R2JA048	CARBON RESISTOR	(M)
R5305	ERG1SJ220E	1 WATT RESISTOR	(M)
R5306	ERG1SJ220E	1 WATT RESISTOR	(M)
R5405	ERG1SJ220E	1 WATT RESISTOR	(M)
R5406	ERG1SJ220E	1 WATT RESISTOR	(M)
R5505	ERG1SJ220E	1 WATT RESISTOR	(M)
R5506	ERG1SJ220E	1 WATT RESISTOR	(M)
R5140	ERJ8GEYJ100V	CHIP RESISTOR	(M)
R5501	ERJ3GEYJ562V	RESISTENCIA CHIP PEL□CULA	(M)
R5210	ERJ3GEYJ151V	RESISTENCIA CHIP PEL□CULA	(M)

C5436	ECJ1VB1H102K	RESISTENCIA	(M)
R5112	D0GB394JA008	CHIP RESISTENCIA	(M)
R5113	D0GB394JA008	CHIP RESISTENCIA	(M)
C2321	ECJ1VB1A224K	CHIP - R	(M)
C2421	ECJ1VB1A224K	CHIP - R	(M)
		CHIP JUMPERS	
J130	Z-W6NL	ALAMBRE JUMPER	(M)
J14	Z-W6NL	ALAMBRE JUMPER	(M)
J140	Z-W6NL	ALAMBRE JUMPER	(M)
J15	Z-W6NL	ALAMBRE JUMPER	(M)
J150	Z-W6NL	ALAMBRE JUMPER	(M)
J16	Z-W6NL	ALAMBRE JUMPER	(M)
J160	Z-W6NL	ALAMBRE JUMPER	(M)
J3	Z-W6NL	ALAMBRE JUMPER	(M)
J6	Z-W6NL	ALAMBRE JUMPER	(M)
J60	Z-W6NL	ALAMBRE JUMPER	(M)
J90	Z-W6NL	ALAMBRE JUMPER	(M)
J13	Z-W6NL	ALAMBRE JUMPER	(M)
R1002	ERJ3GEY0R00V	CHIP JUMPER	(M)
R1020	ERJ3GEY0R00V	CHIP JUMPER	(M)
R1024	ERJ3GEY0R00V	CHIP JUMPER	(M)
R1025	ERJ3GEY0R00V	CHIP JUMPER	(M)
R1027	ERJ3GEY0R00V	CHIP JUMPER	(M)
R1040	ERJ3GEY0R00V	CHIP JUMPER	(M)
R1049	ERJ3GEY0R00V	CHIP JUMPER	(M)
R1050	ERJ3GEY0R00V	CHIP JUMPER	(M)
R1092	ERJ3GEY0R00V	CHIP JUMPER	(M)
R1099	ERJ3GEY0R00V	CHIP JUMPER	(M)
R1100	ERJ3GEY0R00V	CHIP JUMPER	(M)
R1101	ERJ3GEY0R00V	CHIP JUMPER	(M)
	RENM06444AJ	CONJUNTO JUMPER DECK TM44	(M)
C1047	Z-W6NL	ALAMBRE JUMPER	(M)
C1048	Z-W6NL	ALAMBRE JUMPER	(M)
C1051	Z-W6NL	ALAMBRE JUMPER	(M)
C1052	Z-W6NL	ALAMBRE JUMPER	(M)
C1054	Z-W6NL	ALAMBRE JUMPER	(M)
C1064	Z-W6NL	ALAMBRE JUMPER	(M)
J1002	Z-W6NL	ALAMBRE JUMPER	(M)
J1003	Z-W6NL	ALAMBRE JUMPER	(M)
J1004	Z-W6NL	ALAMBRE JUMPER	(M)
J1009	Z-W6NL	ALAMBRE JUMPER	(M)
J1010	Z-W6NL	ALAMBRE JUMPER	(M)
J1011	Z-W6NL	ALAMBRE JUMPER	(M)
J1012	Z-W6NL	ALAMBRE JUMPER	(M)
J1013	Z-W6NL	ALAMBRE JUMPER	(M)
J1014	Z-W6NL	ALAMBRE JUMPER	(M)
J1015	Z-W6NL	ALAMBRE JUMPER	(M)
J1111	Z-W6NL	ALAMBRE JUMPER	(M)
J9999	Z-W6NL	ALAMBRE JUMPER	(M)
J1020	Z-W6NL	ALAMBRE JUMPER	(M)

J1021	Z-W6NL	ALAMBRE JUMPER	(M)
J1022	Z-W6NL	ALAMBRE JUMPER	(M)
J1008	Z-W6NL	ALAMBRE JUMPER	(M)
J1023	Z-W6NL	ALAMBRE JUMPER	(M)
J1028	Z-W6NL	ALAMBRE JUMPER	(M)
J1016	Z-W6NL	ALAMBRE JUMPER	(M)
J1033	Z-W6NL	ALAMBRE JUMPER	(M)
J1006	Z-W6NL	ALAMBRE JUMPER	(M)
J1038	Z-W6NL	ALAMBRE JUMPER	(M)
R1091	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2314	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2321	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2550	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2552	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2556	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2555	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2554	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2553	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2540	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2539	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2537	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2536	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2535	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2534	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2532	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2531	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2530	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2526	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2543	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2542	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2573	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2919	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2326	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2331	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2334	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2342	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2344	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2351	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2353	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2414	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2421	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2426	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2431	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2434	ERJ3GEY0R00V	CHIP JUMPER	(M)
C2114	ERJ3GEY0R00V	CHIP JUMPER	(M)
C2124	ERJ3GEY0R00V	CHIP JUMPER	(M)
C2134	ERJ3GEY0R00V	CHIP JUMPER	(M)
C2154	ERJ3GEY0R00V	CHIP JUMPER	(M)
C2214	ERJ3GEY0R00V	CHIP JUMPER	(M)
C2224	ERJ3GEY0R00V	CHIP JUMPER	(M)
C2234	ERJ3GEY0R00V	CHIP JUMPER	(M)
C2254	ERJ3GEY0R00V	CHIP JUMPER	(M)

R2182	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2282	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2513	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2512	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2511	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2510	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2577	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2508	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2506	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2503	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2501	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2923	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2652	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2601	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2505	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2453	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2451	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2444	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2442	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2518	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2520	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2523	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2525	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2572	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2571	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2570	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2569	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2568	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2567	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2566	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2565	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2563	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2561	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2544	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2514	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2517	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2549	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2548	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2547	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2546	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2545	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2557	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2558	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2559	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2560	ERJ3GEY0R00V	CHIP JUMPER	(M)
	RENM06542AJ	CONJUNTO JUMPER MAIN	(M)
W2114	Z-W6NL	ALAMBRE JUMPER	(M)
R2903	Z-W6NL	ALAMBRE JUMPER	(M)
L2951	Z-W6NL	ALAMBRE JUMPER	(M)
K2351	Z-W6NL	ALAMBRE JUMPER	(M)
K2333	Z-W6NL	ALAMBRE JUMPER	(M)
K2302	Z-W6NL	ALAMBRE JUMPER	(M)

K2004	Z-W6NL	ALAMBRE JUMPER	(M)
K2001	Z-W6NL	ALAMBRE JUMPER	(M)
W2120	Z-W6NL	ALAMBRE JUMPER	(M)
W2123	Z-W6NL	ALAMBRE JUMPER	(M)
W2124	Z-W6NL	ALAMBRE JUMPER	(M)
W2134	Z-W6NL	ALAMBRE JUMPER	(M)
W2137	Z-W6NL	ALAMBRE JUMPER	(M)
W2147	Z-W6NL	ALAMBRE JUMPER	(M)
W2148	Z-W6NL	ALAMBRE JUMPER	(M)
W2155	Z-W6NL	ALAMBRE JUMPER	(M)
W2157	Z-W6NL	ALAMBRE JUMPER	(M)
W2159	Z-W6NL	ALAMBRE JUMPER	(M)
W2160	Z-W6NL	ALAMBRE JUMPER	(M)
W2172	Z-W6NL	ALAMBRE JUMPER	(M)
W2178	Z-W6NL	ALAMBRE JUMPER	(M)
W2183	Z-W6NL	ALAMBRE JUMPER	(M)
W2191	Z-W6NL	ALAMBRE JUMPER	(M)
W2196	Z-W6NL	ALAMBRE JUMPER	(M)
W2202	Z-W6NL	ALAMBRE JUMPER	(M)
W2309	Z-W6NL	ALAMBRE JUMPER	(M)
W2206	Z-W6NL	ALAMBRE JUMPER	(M)
W2217	Z-W6NL	ALAMBRE JUMPER	(M)
W2233	Z-W6NL	ALAMBRE JUMPER	(M)
W2235	Z-W6NL	ALAMBRE JUMPER	(M)
W2244	Z-W6NL	ALAMBRE JUMPER	(M)
W2246	Z-W6NL	ALAMBRE JUMPER	(M)
W2257	Z-W6NL	ALAMBRE JUMPER	(M)
W2265	Z-W6NL	ALAMBRE JUMPER	(M)
W2287	Z-W6NL	ALAMBRE JUMPER	(M)
W2302	Z-W6NL	ALAMBRE JUMPER	(M)
W2305	Z-W6NL	ALAMBRE JUMPER	(M)
W2351	Z-W6NL	ALAMBRE JUMPER	(M)
W2397	Z-W6NL	ALAMBRE JUMPER	(M)
W2398	Z-W6NL	ALAMBRE JUMPER	(M)
W2410	Z-W6NL	ALAMBRE JUMPER	(M)
W2411	Z-W6NL	ALAMBRE JUMPER	(M)
W2412	Z-W6NL	ALAMBRE JUMPER	(M)
W2413	Z-W6NL	ALAMBRE JUMPER	(M)
W2414	Z-W6NL	ALAMBRE JUMPER	(M)
W2415	Z-W6NL	ALAMBRE JUMPER	(M)
W2416	Z-W6NL	ALAMBRE JUMPER	(M)
W2417	Z-W6NL	ALAMBRE JUMPER	(M)
W2418	Z-W6NL	ALAMBRE JUMPER	(M)
W2419	Z-W6NL	ALAMBRE JUMPER	(M)
W2420	Z-W6NL	ALAMBRE JUMPER	(M)
W2421	Z-W6NL	ALAMBRE JUMPER	(M)
W2422	Z-W6NL	ALAMBRE JUMPER	(M)
W2423	Z-W6NL	ALAMBRE JUMPER	(M)
W2424	Z-W6NL	ALAMBRE JUMPER	(M)
W2427	Z-W6NL	ALAMBRE JUMPER	(M)
W2428	Z-W6NL	ALAMBRE JUMPER	(M)
W2429	Z-W6NL	ALAMBRE JUMPER	(M)

W2430	Z-W6NL	ALAMBRE JUMPER	(M)
W2431	Z-W6NL	ALAMBRE JUMPER	(M)
W2432	Z-W6NL	ALAMBRE JUMPER	(M)
W2433	Z-W6NL	ALAMBRE JUMPER	(M)
W2435	Z-W6NL	ALAMBRE JUMPER	(M)
W2436	Z-W6NL	ALAMBRE JUMPER	(M)
W2438	Z-W6NL	ALAMBRE JUMPER	(M)
W2439	Z-W6NL	ALAMBRE JUMPER	(M)
W2440	Z-W6NL	ALAMBRE JUMPER	(M)
W2441	Z-W6NL	ALAMBRE JUMPER	(M)
W2442	Z-W6NL	ALAMBRE JUMPER	(M)
W2443	Z-W6NL	ALAMBRE JUMPER	(M)
W2446	Z-W6NL	ALAMBRE JUMPER	(M)
W2447	Z-W6NL	ALAMBRE JUMPER	(M)
W2448	Z-W6NL	ALAMBRE JUMPER	(M)
W2102	Z-W6NL	ALAMBRE JUMPER	(M)
W2103	Z-W6NL	ALAMBRE JUMPER	(M)
W2108	Z-W6NL	ALAMBRE JUMPER	(M)
W2109	Z-W6NL	ALAMBRE JUMPER	(M)
W2110	Z-W6NL	ALAMBRE JUMPER	(M)
W2113	Z-W6NL	ALAMBRE JUMPER	(M)
W2115	Z-W6NL	ALAMBRE JUMPER	(M)
W2144	Z-W6NL	ALAMBRE JUMPER	(M)
W2141	Z-W6NL	ALAMBRE JUMPER	(M)
W2140	Z-W6NL	ALAMBRE JUMPER	(M)
W2135	Z-W6NL	ALAMBRE JUMPER	(M)
W2133	Z-W6NL	ALAMBRE JUMPER	(M)
W2131	Z-W6NL	ALAMBRE JUMPER	(M)
W2127	Z-W6NL	ALAMBRE JUMPER	(M)
W2126	Z-W6NL	ALAMBRE JUMPER	(M)
W2149	Z-W6NL	ALAMBRE JUMPER	(M)
W2150	Z-W6NL	ALAMBRE JUMPER	(M)
W2152	Z-W6NL	ALAMBRE JUMPER	(M)
W2161	Z-W6NL	ALAMBRE JUMPER	(M)
W2170	Z-W6NL	ALAMBRE JUMPER	(M)
W2174	Z-W6NL	ALAMBRE JUMPER	(M)
W2175	Z-W6NL	ALAMBRE JUMPER	(M)
W2179	Z-W6NL	ALAMBRE JUMPER	(M)
W2186	Z-W6NL	ALAMBRE JUMPER	(M)
W2188	Z-W6NL	ALAMBRE JUMPER	(M)
W2192	Z-W6NL	ALAMBRE JUMPER	(M)
W2195	Z-W6NL	ALAMBRE JUMPER	(M)
W2200	Z-W6NL	ALAMBRE JUMPER	(M)
W2210	Z-W6NL	ALAMBRE JUMPER	(M)
W2211	Z-W6NL	ALAMBRE JUMPER	(M)
W2212	Z-W6NL	ALAMBRE JUMPER	(M)
W2215	Z-W6NL	ALAMBRE JUMPER	(M)
W2216	Z-W6NL	ALAMBRE JUMPER	(M)
W2226	Z-W6NL	ALAMBRE JUMPER	(M)
W2228	Z-W6NL	ALAMBRE JUMPER	(M)
W2237	Z-W6NL	ALAMBRE JUMPER	(M)
W2241	Z-W6NL	ALAMBRE JUMPER	(M)

W2245	Z-W6NL	ALAMBRE JUMPER	(M)
W2248	Z-W6NL	ALAMBRE JUMPER	(M)
W2266	Z-W6NL	ALAMBRE JUMPER	(M)
W2268	Z-W6NL	ALAMBRE JUMPER	(M)
W2269	Z-W6NL	ALAMBRE JUMPER	(M)
W2270	Z-W6NL	ALAMBRE JUMPER	(M)
W2275	Z-W6NL	ALAMBRE JUMPER	(M)
W2278	Z-W6NL	ALAMBRE JUMPER	(M)
W2280	Z-W6NL	ALAMBRE JUMPER	(M)
W2281	Z-W6NL	ALAMBRE JUMPER	(M)
W2285	Z-W6NL	ALAMBRE JUMPER	(M)
W2286	Z-W6NL	ALAMBRE JUMPER	(M)
W2291	Z-W6NL	ALAMBRE JUMPER	(M)
W2298	Z-W6NL	ALAMBRE JUMPER	(M)
W2301	Z-W6NL	ALAMBRE JUMPER	(M)
W2425	Z-W6NL	ALAMBRE JUMPER	(M)
W2426	Z-W6NL	ALAMBRE JUMPER	(M)
W2445	Z-W6NL	ALAMBRE JUMPER	(M)
W2101	Z-W6NL	ALAMBRE JUMPER	(M)
W2104	Z-W6NL	ALAMBRE JUMPER	(M)
W2105	Z-W6NL	ALAMBRE JUMPER	(M)
W2116	Z-W6NL	ALAMBRE JUMPER	(M)
W2117	Z-W6NL	ALAMBRE JUMPER	(M)
W2118	Z-W6NL	ALAMBRE JUMPER	(M)
W2122	Z-W6NL	ALAMBRE JUMPER	(M)
W2125	Z-W6NL	ALAMBRE JUMPER	(M)
W2130	Z-W6NL	ALAMBRE JUMPER	(M)
W2142	Z-W6NL	ALAMBRE JUMPER	(M)
W2145	Z-W6NL	ALAMBRE JUMPER	(M)
W2153	Z-W6NL	ALAMBRE JUMPER	(M)
W2154	Z-W6NL	ALAMBRE JUMPER	(M)
W2156	Z-W6NL	ALAMBRE JUMPER	(M)
W2166	Z-W6NL	ALAMBRE JUMPER	(M)
W2181	Z-W6NL	ALAMBRE JUMPER	(M)
W2187	Z-W6NL	ALAMBRE JUMPER	(M)
W2197	Z-W6NL	ALAMBRE JUMPER	(M)
W2198	Z-W6NL	ALAMBRE JUMPER	(M)
W2204	Z-W6NL	ALAMBRE JUMPER	(M)
W2207	Z-W6NL	ALAMBRE JUMPER	(M)
W2208	Z-W6NL	ALAMBRE JUMPER	(M)
W2224	Z-W6NL	ALAMBRE JUMPER	(M)
W2229	Z-W6NL	ALAMBRE JUMPER	(M)
W2232	Z-W6NL	ALAMBRE JUMPER	(M)
W2238	Z-W6NL	ALAMBRE JUMPER	(M)
W2239	Z-W6NL	ALAMBRE JUMPER	(M)
W2242	Z-W6NL	ALAMBRE JUMPER	(M)
W2247	Z-W6NL	ALAMBRE JUMPER	(M)
W2250	Z-W6NL	ALAMBRE JUMPER	(M)
W2255	Z-W6NL	ALAMBRE JUMPER	(M)
W2256	Z-W6NL	ALAMBRE JUMPER	(M)
W2264	Z-W6NL	ALAMBRE JUMPER	(M)
W2272	Z-W6NL	ALAMBRE JUMPER	(M)

W2276	Z-W6NL	ALAMBRE JUMPER	(M)
W2282	Z-W6NL	ALAMBRE JUMPER	(M)
W2283	Z-W6NL	ALAMBRE JUMPER	(M)
W2288	Z-W6NL	ALAMBRE JUMPER	(M)
W2292	Z-W6NL	ALAMBRE JUMPER	(M)
W2293	Z-W6NL	ALAMBRE JUMPER	(M)
W2303	Z-W6NL	ALAMBRE JUMPER	(M)
W2151	Z-W6NL	ALAMBRE JUMPER	(M)
W2107	Z-W6NL	ALAMBRE JUMPER	(M)
W2437	Z-W6NL	ALAMBRE JUMPER	(M)
W2434	Z-W6NL	ALAMBRE JUMPER	(M)
W2402	Z-W6NL	ALAMBRE JUMPER	(M)
W2352	Z-W6NL	ALAMBRE JUMPER	(M)
W2333	Z-W6NL	ALAMBRE JUMPER	(M)
W2308	Z-W6NL	ALAMBRE JUMPER	(M)
W2162	Z-W6NL	ALAMBRE JUMPER	(M)
W2163	Z-W6NL	ALAMBRE JUMPER	(M)
W2164	Z-W6NL	ALAMBRE JUMPER	(M)
W2165	Z-W6NL	ALAMBRE JUMPER	(M)
W2167	Z-W6NL	ALAMBRE JUMPER	(M)
W2168	Z-W6NL	ALAMBRE JUMPER	(M)
W2169	Z-W6NL	ALAMBRE JUMPER	(M)
W2171	Z-W6NL	ALAMBRE JUMPER	(M)
W2173	Z-W6NL	ALAMBRE JUMPER	(M)
W2182	Z-W6NL	ALAMBRE JUMPER	(M)
W2184	Z-W6NL	ALAMBRE JUMPER	(M)
W2190	Z-W6NL	ALAMBRE JUMPER	(M)
W2205	Z-W6NL	ALAMBRE JUMPER	(M)
W2213	Z-W6NL	ALAMBRE JUMPER	(M)
W2219	Z-W6NL	ALAMBRE JUMPER	(M)
W2222	Z-W6NL	ALAMBRE JUMPER	(M)
W2234	Z-W6NL	ALAMBRE JUMPER	(M)
W2249	Z-W6NL	ALAMBRE JUMPER	(M)
W2252	Z-W6NL	ALAMBRE JUMPER	(M)
W2258	Z-W6NL	ALAMBRE JUMPER	(M)
W2259	Z-W6NL	ALAMBRE JUMPER	(M)
W2260	Z-W6NL	ALAMBRE JUMPER	(M)
W2261	Z-W6NL	ALAMBRE JUMPER	(M)
W2262	Z-W6NL	ALAMBRE JUMPER	(M)
W2267	Z-W6NL	ALAMBRE JUMPER	(M)
W2284	Z-W6NL	ALAMBRE JUMPER	(M)
W2289	Z-W6NL	ALAMBRE JUMPER	(M)
W2290	Z-W6NL	ALAMBRE JUMPER	(M)
W2294	Z-W6NL	ALAMBRE JUMPER	(M)
W2295	Z-W6NL	ALAMBRE JUMPER	(M)
W2297	Z-W6NL	ALAMBRE JUMPER	(M)
W2400	Z-W6NL	ALAMBRE JUMPER	(M)
W2128	Z-W6NL	ALAMBRE JUMPER	(M)
W2129	Z-W6NL	ALAMBRE JUMPER	(M)
W2136	Z-W6NL	ALAMBRE JUMPER	(M)
W2139	Z-W6NL	ALAMBRE JUMPER	(M)
W2180	Z-W6NL	ALAMBRE JUMPER	(M)

W2221	Z-W6NL	ALAMBRE JUMPER	(M)
W2230	Z-W6NL	ALAMBRE JUMPER	(M)
W2231	Z-W6NL	ALAMBRE JUMPER	(M)
W2240	Z-W6NL	ALAMBRE JUMPER	(M)
W2263	Z-W6NL	ALAMBRE JUMPER	(M)
W2273	Z-W6NL	ALAMBRE JUMPER	(M)
W2296	Z-W6NL	ALAMBRE JUMPER	(M)
W2307	Z-W6NL	ALAMBRE JUMPER	(M)
W2111	Z-W6NL	ALAMBRE JUMPER	(M)
W2185	Z-W6NL	ALAMBRE JUMPER	(M)
W2193	Z-W6NL	ALAMBRE JUMPER	(M)
W2194	Z-W6NL	ALAMBRE JUMPER	(M)
W2209	Z-W6NL	ALAMBRE JUMPER	(M)
W2218	Z-W6NL	ALAMBRE JUMPER	(M)
W2220	Z-W6NL	ALAMBRE JUMPER	(M)
W2223	Z-W6NL	ALAMBRE JUMPER	(M)
W2236	Z-W6NL	ALAMBRE JUMPER	(M)
W2274	Z-W6NL	ALAMBRE JUMPER	(M)
W2279	Z-W6NL	ALAMBRE JUMPER	(M)
W2306	Z-W6NL	ALAMBRE JUMPER	(M)
W2399	Z-W6NL	ALAMBRE JUMPER	(M)
W2401	Z-W6NL	ALAMBRE JUMPER	(M)
W2112	Z-W6NL	ALAMBRE JUMPER	(M)
W2121	Z-W6NL	ALAMBRE JUMPER	(M)
W2132	Z-W6NL	ALAMBRE JUMPER	(M)
W2146	Z-W6NL	ALAMBRE JUMPER	(M)
W2189	Z-W6NL	ALAMBRE JUMPER	(M)
W2199	Z-W6NL	ALAMBRE JUMPER	(M)
W2243	Z-W6NL	ALAMBRE JUMPER	(M)
W2253	Z-W6NL	ALAMBRE JUMPER	(M)
W2277	Z-W6NL	ALAMBRE JUMPER	(M)
W2299	Z-W6NL	ALAMBRE JUMPER	(M)
W2300	Z-W6NL	ALAMBRE JUMPER	(M)
W2304	Z-W6NL	ALAMBRE JUMPER	(M)
L2801	Z-W6NL	ALAMBRE JUMPER	(M)
W2225	Z-W6NL	ALAMBRE JUMPER	(M)
W2177	Z-W6NL	ALAMBRE JUMPER	(M)
W2143	Z-W6NL	ALAMBRE JUMPER	(M)
W2106	Z-W6NL	ALAMBRE JUMPER	(M)
W2119	Z-W6NL	ALAMBRE JUMPER	(M)
W2227	Z-W6NL	ALAMBRE JUMPER	(M)
W2176	Z-W6NL	ALAMBRE JUMPER	(M)
K2904	Z-W6NL	ALAMBRE JUMPER	(M)
W2390	Z-W6NL	ALAMBRE JUMPER	(M)
W2391	Z-W6NL	ALAMBRE JUMPER	(M)
W2392	Z-W6NL	ALAMBRE JUMPER	(M)
R2251	ERJ3GEY0R00V	CHIP JUMPER	(M)
R2151	ERJ3GEY0R00V	CHIP JUMPER	(M)
C2302	ERJ3GEY0R00V	CHIP JUMPER	(M)
C2401	ERJ3GEY0R00V	CHIP JUMPER	(M)
C2131	ERJ3GEY0R00V	CHIP JUMPER	(M)
C2231	ERJ3GEY0R00V	CHIP JUMPER	(M)

W2575	ERJ3GEY0R00V	CHIP JUMPER	(M)
W2576	ERJ3GEY0R00V	CHIP JUMPER	(M)
	RENM03815AJ	CONJUNTO TUNER PACK JUMPER	(M)
FJ1	Z-W6NL	ALAMBRE JUMPER	(M)
FJ2	Z-W6NL	ALAMBRE JUMPER	(M)
FJ3	Z-W6NL	ALAMBRE JUMPER	(M)
FJ4	Z-W6NL	ALAMBRE JUMPER	(M)
FJ5	Z-W6NL	ALAMBRE JUMPER	(M)
FJ6	Z-W6NL	ALAMBRE JUMPER	(M)
FJ7	Z-W6NL	ALAMBRE JUMPER	(M)
FJ8	Z-W6NL	ALAMBRE JUMPER	(M)
J1	Z-W6NL	ALAMBRE JUMPER	(M)
J2	Z-W6NL	ALAMBRE JUMPER	(M)
J3	Z-W6NL	ALAMBRE JUMPER	(M)
J4	Z-W6NL	ALAMBRE JUMPER	(M)
R6481	ERJ3GEY0R00V	CHIP JUMPER	(M)
W6501	ERJ3GEY0R00V	CHIP JUMPER	(M)
W6502	ERJ3GEY0R00V	CHIP JUMPER	(M)
W6503	ERJ3GEY0R00V	CHIP JUMPER	(M)
W6504	ERJ3GEY0R00V	CHIP JUMPER	(M)
	RENM06543AJ	CONJUNTO JUMPER PANEL	(M)
L6551	Z-W6NL	ALAMBRE JUMPER	(M)
L6552	Z-W6NL	ALAMBRE JUMPER	(M)
L6553	Z-W6NL	ALAMBRE JUMPER	(M)
L6621	Z-W6NL	ALAMBRE JUMPER	(M)
L6631	Z-W6NL	ALAMBRE JUMPER	(M)
L6751	Z-W6NL	ALAMBRE JUMPER	(M)
L6752	Z-W6NL	ALAMBRE JUMPER	(M)
L6753	Z-W6NL	ALAMBRE JUMPER	(M)
W6015	Z-W6NL	ALAMBRE JUMPER	(M)
W6032	Z-W6NL	ALAMBRE JUMPER	(M)
W6036	Z-W6NL	ALAMBRE JUMPER	(M)
W6041	Z-W6NL	ALAMBRE JUMPER	(M)
W6055	Z-W6NL	ALAMBRE JUMPER	(M)
W6085	Z-W6NL	ALAMBRE JUMPER	(M)
W6101	Z-W6NL	ALAMBRE JUMPER	(M)
W6001	Z-W6NL	ALAMBRE JUMPER	(M)
W6007	Z-W6NL	ALAMBRE JUMPER	(M)
W6009	Z-W6NL	ALAMBRE JUMPER	(M)
W6044	Z-W6NL	ALAMBRE JUMPER	(M)
W6035	Z-W6NL	ALAMBRE JUMPER	(M)
W6025	Z-W6NL	ALAMBRE JUMPER	(M)
W6022	Z-W6NL	ALAMBRE JUMPER	(M)
W6019	Z-W6NL	ALAMBRE JUMPER	(M)
W6017	Z-W6NL	ALAMBRE JUMPER	(M)
W6016	Z-W6NL	ALAMBRE JUMPER	(M)
W6013	Z-W6NL	ALAMBRE JUMPER	(M)
W6011	Z-W6NL	ALAMBRE JUMPER	(M)
W6010	Z-W6NL	ALAMBRE JUMPER	(M)
W6045	Z-W6NL	ALAMBRE JUMPER	(M)
W6046	Z-W6NL	ALAMBRE JUMPER	(M)
W6047	Z-W6NL	ALAMBRE JUMPER	(M)

W6054	Z-W6NL	ALAMBRE JUMPER	(M)
W6061	Z-W6NL	ALAMBRE JUMPER	(M)
W6062	Z-W6NL	ALAMBRE JUMPER	(M)
W6063	Z-W6NL	ALAMBRE JUMPER	(M)
W6064	Z-W6NL	ALAMBRE JUMPER	(M)
W6070	Z-W6NL	ALAMBRE JUMPER	(M)
W6100	Z-W6NL	ALAMBRE JUMPER	(M)
W6102	Z-W6NL	ALAMBRE JUMPER	(M)
W6005	Z-W6NL	ALAMBRE JUMPER	(M)
W6006	Z-W6NL	ALAMBRE JUMPER	(M)
W6008	Z-W6NL	ALAMBRE JUMPER	(M)
W6018	Z-W6NL	ALAMBRE JUMPER	(M)
W6020	Z-W6NL	ALAMBRE JUMPER	(M)
W6024	Z-W6NL	ALAMBRE JUMPER	(M)
W6040	Z-W6NL	ALAMBRE JUMPER	(M)
W6049	Z-W6NL	ALAMBRE JUMPER	(M)
W6050	Z-W6NL	ALAMBRE JUMPER	(M)
W6051	Z-W6NL	ALAMBRE JUMPER	(M)
W6057	Z-W6NL	ALAMBRE JUMPER	(M)
W6060	Z-W6NL	ALAMBRE JUMPER	(M)
W6067	Z-W6NL	ALAMBRE JUMPER	(M)
W6068	Z-W6NL	ALAMBRE JUMPER	(M)
W6027	Z-W6NL	ALAMBRE JUMPER	(M)
W6028	Z-W6NL	ALAMBRE JUMPER	(M)
W6038	Z-W6NL	ALAMBRE JUMPER	(M)
W6052	Z-W6NL	ALAMBRE JUMPER	(M)
W6069	Z-W6NL	ALAMBRE JUMPER	(M)
W6071	Z-W6NL	ALAMBRE JUMPER	(M)
W6402	Z-W6NL	ALAMBRE JUMPER	(M)
W6026	Z-W6NL	ALAMBRE JUMPER	(M)
W6037	Z-W6NL	ALAMBRE JUMPER	(M)
W6048	Z-W6NL	ALAMBRE JUMPER	(M)
W6056	Z-W6NL	ALAMBRE JUMPER	(M)
W6058	Z-W6NL	ALAMBRE JUMPER	(M)
W6059	Z-W6NL	ALAMBRE JUMPER	(M)
W6066	Z-W6NL	ALAMBRE JUMPER	(M)
W6014	Z-W6NL	ALAMBRE JUMPER	(M)
W6039	Z-W6NL	ALAMBRE JUMPER	(M)
W6030	Z-W6NL	ALAMBRE JUMPER	(M)
W6004	Z-W6NL	ALAMBRE JUMPER	(M)
W6002	Z-W6NL	ALAMBRE JUMPER	(M)
W6082	Z-W6NL	ALAMBRE JUMPER	(M)
W6033	Z-W6NL	ALAMBRE JUMPER	(M)
W6034	Z-W6NL	ALAMBRE JUMPER	(M)
W6012	Z-W6NL	ALAMBRE JUMPER	(M)
W6003	Z-W6NL	ALAMBRE JUMPER	(M)
W6043	Z-W6NL	ALAMBRE JUMPER	(M)
W6080	Z-W6NL	ALAMBRE JUMPER	(M)
W6081	Z-W6NL	ALAMBRE JUMPER	(M)
W6072	Z-W6NL	ALAMBRE JUMPER	(M)
W6073	Z-W6NL	ALAMBRE JUMPER	(M)
W6074	Z-W6NL	ALAMBRE JUMPER	(M)

K6104	ERJ3GEY0R00V	CHIP JUMPER	(M)
K6101	ERJ3GEY0R00V	CHIP JUMPER	(M)
W6510	ERJ3GEY0R00V	CHIP JUMPER	(M)
	RENM06540AJ	CONJUNTO JUMPER TRANSF	(M)
R5955	Z-W6NL	ALAMBRE JUMPER	(M)
W5901	Z-W6NL	ALAMBRE JUMPER	(M)
W5914	Z-W6NL	ALAMBRE JUMPER	(M)
W5915	Z-W6NL	ALAMBRE JUMPER	(M)
W5916	Z-W6NL	ALAMBRE JUMPER	(M)
W5917	Z-W6NL	ALAMBRE JUMPER	(M)
K5973	Z-W6NL	ALAMBRE JUMPER	(M)
W5904	Z-W6NL	ALAMBRE JUMPER	(M)
W5905	Z-W6NL	ALAMBRE JUMPER	(M)
W5920	Z-W6NL	ALAMBRE JUMPER	(M)
W5923	Z-W6NL	ALAMBRE JUMPER	(M)
W5930	Z-W6NL	ALAMBRE JUMPER	(M)
W5921	Z-W6NL	ALAMBRE JUMPER	(M)
W5912	Z-W6NL	ALAMBRE JUMPER	(M)
W5909	Z-W6NL	ALAMBRE JUMPER	(M)
W5902	Z-W6NL	ALAMBRE JUMPER	(M)
W5903	Z-W6NL	ALAMBRE JUMPER	(M)
W5907	Z-W6NL	ALAMBRE JUMPER	(M)
W5908	Z-W6NL	ALAMBRE JUMPER	(M)
W5910	Z-W6NL	ALAMBRE JUMPER	(M)
K5911	Z-W6NL	ALAMBRE JUMPER	(M)
W5922	Z-W6NL	ALAMBRE JUMPER	(M)
K5918	Z-W6NL	ALAMBRE JUMPER	(M)
K5919	Z-W6NL	ALAMBRE JUMPER	(M)
W5906	Z-W6NL	ALAMBRE JUMPER	(M)
R5152	ERJ3GEY0R00V	CHIP JUMPER	(M)
R5174	ERJ3GEY0R00V	CHIP JUMPER	(M)
W5555	ERJ3GEY0R00V	CHIP JUMPER	(M)
C5326	ERJ3GEY0R00V	CHIP JUMPER	(M)
C5329	ERJ3GEY0R00V	CHIP JUMPER	(M)
C5426	ERJ3GEY0R00V	CHIP JUMPER	(M)
C5529	ERJ3GEY0R00V	CHIP JUMPER	(M)
R5418	ERJ3GEY0R00V	CHIP JUMPER	(M)
R5419	ERJ3GEY0R00V	CHIP JUMPER	(M)
R5514	ERJ3GEY0R00V	CHIP JUMPER	(M)
R5519	ERJ3GEY0R00V	CHIP JUMPER	(M)
R5520	ERJ3GEY0R00V	CHIP JUMPER	(M)
W5501	ERJ3GEY0R00V	CHIP JUMPER	(M)
W5504	ERJ3GEY0R00V	CHIP JUMPER	(M)
W5505	ERJ3GEY0R00V	CHIP JUMPER	(M)
W5506	ERJ3GEY0R00V	CHIP JUMPER	(M)
W5507	ERJ3GEY0R00V	CHIP JUMPER	(M)
W5508	ERJ3GEY0R00V	CHIP JUMPER	(M)
W5509	ERJ3GEY0R00V	CHIP JUMPER	(M)
C5526	ERJ3GEY0R00V	CHIP JUMPER	(M)
	RENM06541AJ	CONJUNTO JUMPER PODER	(M)
K5105	Z-W6NL	ALAMBRE JUMPER	(M)
K5106	Z-W6NL	ALAMBRE JUMPER	(M)

K5107	Z-W6NL	ALAMBRE JUMPER	(M)
K5108	Z-W6NL	ALAMBRE JUMPER	(M)
K5109	Z-W6NL	ALAMBRE JUMPER	(M)
R5122	Z-W6NL	ALAMBRE JUMPER	(M)
R5125	Z-W6NL	ALAMBRE JUMPER	(M)
W5112	Z-W6NL	ALAMBRE JUMPER	(M)
W5128	Z-W6NL	ALAMBRE JUMPER	(M)
W5130	Z-W6NL	ALAMBRE JUMPER	(M)
W5150	Z-W6NL	ALAMBRE JUMPER	(M)
W5152	Z-W6NL	ALAMBRE JUMPER	(M)
W5167	Z-W6NL	ALAMBRE JUMPER	(M)
W5168	Z-W6NL	ALAMBRE JUMPER	(M)
W5171	Z-W6NL	ALAMBRE JUMPER	(M)
W5202	Z-W6NL	ALAMBRE JUMPER	(M)
W5116	Z-W6NL	ALAMBRE JUMPER	(M)
W5117	Z-W6NL	ALAMBRE JUMPER	(M)
W5118	Z-W6NL	ALAMBRE JUMPER	(M)
W5120	Z-W6NL	ALAMBRE JUMPER	(M)
W5121	Z-W6NL	ALAMBRE JUMPER	(M)
W5127	Z-W6NL	ALAMBRE JUMPER	(M)
W5131	Z-W6NL	ALAMBRE JUMPER	(M)
W5132	Z-W6NL	ALAMBRE JUMPER	(M)
W5138	Z-W6NL	ALAMBRE JUMPER	(M)
W5140	Z-W6NL	ALAMBRE JUMPER	(M)
W5148	Z-W6NL	ALAMBRE JUMPER	(M)
W5160	Z-W6NL	ALAMBRE JUMPER	(M)
W5166	Z-W6NL	ALAMBRE JUMPER	(M)
W5107	Z-W6NL	ALAMBRE JUMPER	(M)
W5111	Z-W6NL	ALAMBRE JUMPER	(M)
W5114	Z-W6NL	ALAMBRE JUMPER	(M)
W5119	Z-W6NL	ALAMBRE JUMPER	(M)
W5133	Z-W6NL	ALAMBRE JUMPER	(M)
W5139	Z-W6NL	ALAMBRE JUMPER	(M)
W5142	Z-W6NL	ALAMBRE JUMPER	(M)
W5158	Z-W6NL	ALAMBRE JUMPER	(M)
W5159	Z-W6NL	ALAMBRE JUMPER	(M)
W5161	Z-W6NL	ALAMBRE JUMPER	(M)
W5162	Z-W6NL	ALAMBRE JUMPER	(M)
W5164	Z-W6NL	ALAMBRE JUMPER	(M)
W5172	Z-W6NL	ALAMBRE JUMPER	(M)
W5173	Z-W6NL	ALAMBRE JUMPER	(M)
W5101	Z-W6NL	ALAMBRE JUMPER	(M)
W5108	Z-W6NL	ALAMBRE JUMPER	(M)
W5110	Z-W6NL	ALAMBRE JUMPER	(M)
W5122	Z-W6NL	ALAMBRE JUMPER	(M)
W5123	Z-W6NL	ALAMBRE JUMPER	(M)
W5124	Z-W6NL	ALAMBRE JUMPER	(M)
W5135	Z-W6NL	ALAMBRE JUMPER	(M)
W5141	Z-W6NL	ALAMBRE JUMPER	(M)
W5146	Z-W6NL	ALAMBRE JUMPER	(M)
W5147	Z-W6NL	ALAMBRE JUMPER	(M)
W5153	Z-W6NL	ALAMBRE JUMPER	(M)

W5154	Z-W6NL	ALAMBRE JUMPER	(M)
W5155	Z-W6NL	ALAMBRE JUMPER	(M)
W5163	Z-W6NL	ALAMBRE JUMPER	(M)
W5175	Z-W6NL	ALAMBRE JUMPER	(M)
W5106	Z-W6NL	ALAMBRE JUMPER	(M)
W5109	Z-W6NL	ALAMBRE JUMPER	(M)
W5143	Z-W6NL	ALAMBRE JUMPER	(M)
W5144	Z-W6NL	ALAMBRE JUMPER	(M)
W5174	Z-W6NL	ALAMBRE JUMPER	(M)
W5200	Z-W6NL	ALAMBRE JUMPER	(M)
W5105	Z-W6NL	ALAMBRE JUMPER	(M)
W5126	Z-W6NL	ALAMBRE JUMPER	(M)
W5129	Z-W6NL	ALAMBRE JUMPER	(M)
W5145	Z-W6NL	ALAMBRE JUMPER	(M)
W5113	Z-W6NL	ALAMBRE JUMPER	(M)
W5115	Z-W6NL	ALAMBRE JUMPER	(M)
W5137	Z-W6NL	ALAMBRE JUMPER	(M)
W5151	Z-W6NL	ALAMBRE JUMPER	(M)
W5165	Z-W6NL	ALAMBRE JUMPER	(M)
W5136	Z-W6NL	ALAMBRE JUMPER	(M)
W5149	Z-W6NL	ALAMBRE JUMPER	(M)
W5156	Z-W6NL	ALAMBRE JUMPER	(M)
W5157	Z-W6NL	ALAMBRE JUMPER	(M)
L5103	Z-W6NL	ALAMBRE JUMPER	(M)
L5104	Z-W6NL	ALAMBRE JUMPER	(M)
W5169	Z-W6NL	ALAMBRE JUMPER	(M)
D5127	Z-W6NL	ALAMBRE JUMPER	(M)
K5509	Z-W6NL	ALAMBRE JUMPER	(M)
K5510	Z-W6NL	ALAMBRE JUMPER	(M)
K5511	Z-W6NL	ALAMBRE JUMPER	(M)
K5512	Z-W6NL	ALAMBRE JUMPER	(M)
W5176	Z-W6NL	ALAMBRE JUMPER	(M)
W5177	Z-W6NL	ALAMBRE JUMPER	(M)
W5180	Z-W6NL	ALAMBRE JUMPER	(M)
W5186	Z-W6NL	ALAMBRE JUMPER	(M)
W5189	Z-W6NL	ALAMBRE JUMPER	(M)
W5192	Z-W6NL	ALAMBRE JUMPER	(M)
W5193	Z-W6NL	ALAMBRE JUMPER	(M)
W5194	Z-W6NL	ALAMBRE JUMPER	(M)
W5195	Z-W6NL	ALAMBRE JUMPER	(M)
W5196	Z-W6NL	ALAMBRE JUMPER	(M)
W5197	Z-W6NL	ALAMBRE JUMPER	(M)
W5205	Z-W6NL	ALAMBRE JUMPER	(M)
W5206	Z-W6NL	ALAMBRE JUMPER	(M)
W5207	Z-W6NL	ALAMBRE JUMPER	(M)
W5208	Z-W6NL	ALAMBRE JUMPER	(M)
C5429	ERJ3GEY0R00V	CHIP JUMPER	(M)
W5511	ERJ3GEY0R00V	CHIP JUMPER	(M)
		CAPACITORS	
X	F1H1C333A071	CHIP CAPACITOR	(M)

C1012	F1H1H102A219	CHIP CAPACITOR	(M)
C1013	F1H1H102A219	CHIP CAPACITOR	(M)
C1014	F1H1H102A219	CHIP CAPACITOR	(M)
C1015	F1H1H102A219	CHIP CAPACITOR	(M)
C1019	F1H1H102A219	CHIP CAPACITOR	(M)
C1022	F1H1H102A219	CHIP CAPACITOR	(M)
C1023	F1H1H102A219	CHIP CAPACITOR	(M)
C1027	F1H1H102A219	CHIP CAPACITOR	(M)
C1057	F1H1H102A219	CHIP CAPACITOR	(M)
C1058	F1H1H102A219	CHIP CAPACITOR	(M)
C1059	F1H1H103A219	CHIP CAPACITOR	(M)
C1038	F1H1H221A748	CHIP CAPACITOR	(M)
C1039	F1H1H221A748	CHIP CAPACITOR	(M)
C1020	F1H1H471A219	CHIP CAPACITOR	(M)
C1021	F1H1H471A219	CHIP CAPACITOR	(M)
C1026	ECA0JAK470XB	CAPACITOR	(M)
C1045	ECA1AAK220XB	ELECTROLYTIC CAP	(M)
C1044	ECA1AAK330XB	CAPACITOR ELECTROLITICO	(M)
C1040	ECA1CAK100XB	CAPACITOR ELECTROLITICO	(M)
C1041	ECA1CAK100XB	CAPACITOR ELECTROLITICO	(M)
C1056	ECA1CAK100XB	CAPACITOR ELECTROLITICO	(M)
C1042	ECA1CAK220XB	CAPACITOR ELECTROLITICO	(M)
C1009	ECA1CAK470XB	CAPACITOR ELECTROLITICO	(M)
C1046	ECA1CAM221XB	ELECTROLYTIC CAP	(M)
C1010	ECA1EAM101XB	CAPACITOR	(M)
C1006	ECA1HAK010XB	CAPACITOR ELECTROLITICO	(M)
C1008	ECA1HAK010XB	CAPACITOR ELECTROLITICO	(M)
C1034	ECA1HAK3R3XB	CAPACITOR ELECTROLITICO	(M)
C1035	ECA1HAK3R3XB	CAPACITOR ELECTROLITICO	(M)
C1037	ECA1HAK3R3XB	CAPACITOR ELECTROLITICO	(M)
C1043	ECA1HAK4R7XB	ELECTROLYTIC CAPACITOR	(M)
C1030	ECEA1AKA101B	CAPACITOR	(M)
C1031	ECEA1AKA101B	CAPACITOR	(M)
C1002	ECEA1HKN2R2B	CAPACITOR	(M)
C1011	ECQV1H473JL3	CAPACITOR PP	(M)
C1007	F0A2A472A034	CAPACITOR	(M)
C1032	F1C1C183A023	CAPACITOR	(M)
C1033	F1C1C183A023	CAPACITOR	(M)
C2342	ECJ1VB1A105K	CHIP CAPACITOR	(M)
C2281	ECJ1VB1A105K	CHIP CAPACITOR	(M)
C2181	ECJ1VB1A105K	CHIP CAPACITOR	(M)
C2501	ECJ1VB1A105K	CHIP CAPACITOR	(M)
C2442	ECJ1VB1A105K	CHIP CAPACITOR	(M)
C2344	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C2343	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C2443	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C2195	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C2444	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C2589	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C2183	ECJ1VB1C224K	CHIP CAPACITOR	(M)
C2507	ECJ1VB1C224K	CHIP CAPACITOR	(M)
C2607	ECJ1VB1E473K	CAPACITOR CHIP	(M)

C2283	ECJ1VB1H473K	CAPACITOR CHIP	(M)
C2910	ECJ1VB1H681K	CHIP CAPACITOR	(M)
C2608	ECJ1VC1H080D	CHIP CAPACITOR	(M)
C2314	ECJ1VC1H100D	CAPACITOR	(M)
C2414	ECJ1VC1H100D	CAPACITOR	(M)
C2631	ECJ1VC1H151J	CHIP CAPACITOR	(M)
C2883	ECJ1VC1H180J	CHIP CAPACITOR	(M)
C2882	ECJ1VC1H180J	CHIP CAPACITOR	(M)
C2626	ECJ1VF1C105Z	CHIP CAPACITOR	(M)
C2271	F1H1A154A001	CHIP CAPACITOR	(M)
C2649	F1H1C104A008	CAPACITOR	(M)
C2171	F1H1C104A041	CHIP CAPACITOR	(M)
C2192	F1H1C104A041	CHIP CAPACITOR	(M)
C2588	F1H1C104A041	CHIP CAPACITOR	(M)
C2753	F1H1C104A041	CHIP CAPACITOR	(M)
C2853	F1H1C104A041	CHIP CAPACITOR	(M)
C2901	F1H1C104A041	CHIP CAPACITOR	(M)
C2940	F1H1C104A041	CHIP CAPACITOR	(M)
C2872	ECJ1VB1C223K	CAPACITOR	(M)
C2616	F1H1C333A071	CHIP CAPACITOR	(M)
C2341	F1H1H102A219	CHIP CAPACITOR	(M)
C2441	F1H1H102A219	CHIP CAPACITOR	(M)
C2604	F1H1H102A219	CHIP CAPACITOR	(M)
C2606	F1H1H102A219	CHIP CAPACITOR	(M)
C2609	F1H1H102A219	CHIP CAPACITOR	(M)
C2613	F1H1H102A219	CHIP CAPACITOR	(M)
C2632	F1H1H102A219	CHIP CAPACITOR	(M)
C2636	F1H1H102A219	CHIP CAPACITOR	(M)
C2647	F1H1H102A219	CHIP CAPACITOR	(M)
C2906	F1H1H102A219	CHIP CAPACITOR	(M)
C2610	F1H1H103A219	CHIP CAPACITOR	(M)
C2161	F1H1H103A219	CHIP CAPACITOR	(M)
C2173	F1H1H103A219	CHIP CAPACITOR	(M)
C2174	F1H1H103A219	CHIP CAPACITOR	(M)
C2261	F1H1H103A219	CHIP CAPACITOR	(M)
C2553	F1H1H103A219	CHIP CAPACITOR	(M)
C2601	F1H1H103A219	CHIP CAPACITOR	(M)
C2603	F1H1H103A219	CHIP CAPACITOR	(M)
C2612	F1H1H103A219	CHIP CAPACITOR	(M)
C2617	F1H1H103A219	CHIP CAPACITOR	(M)
C2618	F1H1H103A219	CHIP CAPACITOR	(M)
C2638	F1H1H103A219	CHIP CAPACITOR	(M)
C2648	F1H1H103A219	CHIP CAPACITOR	(M)
C2674	F1H1H103A219	CHIP CAPACITOR	(M)
C2678	F1H1H103A219	CHIP CAPACITOR	(M)
C2701	F1H1H103A219	CHIP CAPACITOR	(M)
C2903	F1H1H103A219	CHIP CAPACITOR	(M)
C2584	F1H1H221A748	CHIP CAPACITOR	(M)
C2585	F1H1H221A748	CHIP CAPACITOR	(M)
C2413	F1H1H470A230	CAPACITOR	(M)
C2313	F1H1H470A230	CAPACITOR	(M)
C2629	ECA0JAK101XB	CAPACITOR ELECTROLITICO	(M)
C2630	ECA0JAK101XB	CAPACITOR ELECTROLITICO	(M)
C2947	ECA0JAK101XB	CAPACITOR ELECTROLITICO	(M)
C2948	ECA1AAK221XB	ELECTROLYTIC CAPACITOR	(M)
C2245	ECA1CAK100XB	CAPACITOR ELECTROLITICO	(M)
C2551	ECA1CAK100XB	CAPACITOR ELECTROLITICO	(M)
C2602	ECA1CAK100XB	CAPACITOR ELECTROLITICO	(M)
C2620	ECA1CAK100XB	CAPACITOR ELECTROLITICO	(M)
C2976	ECA1CAK100XB	CAPACITOR ELECTROLITICO	(M)
C2583	ECA1CAK101XB	CAPACITOR ELECTROLITICO	(M)
C2702	ECA1CAK101XB	CAPACITOR ELECTROLITICO	(M)
C2711	ECA1CAK101XB	CAPACITOR ELECTROLITICO	(M)
C2721	ECA1CAK101XB	CAPACITOR ELECTROLITICO	(M)
C2904	ECA1CAK101XB	CAPACITOR ELECTROLITICO	(M)
C2315	ECA1CAK220XB	CAPACITOR ELECTROLITICO	(M)
C2415	ECA1CAK220XB	CAPACITOR ELECTROLITICO	(M)
C2625	ECA1CAK220XB	CAPACITOR ELECTROLITICO	(M)
C2627	ECA1CAK220XB	CAPACITOR ELECTROLITICO	(M)
C2509	ECA1CAK330XB	CAPACITOR ELECTROLITICO	(M)
C2941	ECA1CAK330XB	CAPACITOR ELECTROLITICO	(M)
C2945	ECA1CAK470XB	CAPACITOR ELECTROLITICO	(M)
C2622	ECA1HAK010XB	CAPACITOR ELECTROLITICO	(M)
C2623	ECA1HAK010XB	CAPACITOR ELECTROLITICO	(M)
C2641	ECA1HAK010XB	CAPACITOR ELECTROLITICO	(M)
C2642	ECA1HAK010XB	CAPACITOR ELECTROLITICO	(M)
C2705	ECA1HAK010XB	CAPACITOR ELECTROLITICO	(M)
C2706	ECA1HAK010XB	CAPACITOR ELECTROLITICO	(M)
C2943	ECA1HAK2R2XB	ELECTROLYTIC CAPACITOR	(M)
C2614	ECA1HAK3R3XB	CAPACITOR ELECTROLITICO	(M)
C2191	ECA1HAK4R7XB	ELECTROLYTIC CAPACITOR	(M)
C2611	ECA1HAK4R7XB	ELECTROLYTIC CAPACITOR	(M)
C2615	ECA1HAK4R7XB	ELECTROLYTIC CAPACITOR	(M)
C2639	ECA1HAK4R7XB	ELECTROLYTIC CAPACITOR	(M)
C2621	ECA1HAKR47XB	ELECTROLYTIC CAPACITOR	(M)
C2731	ECA1HM101B	ELECTRONIC CAPACITOR	(M)
C2511	ECEA1HKN2R2B	CAPACITOR	(M)
C2802	ECA1HAK3R3XB	CAPACITOR ELECTROLITICO	(M)
C2325	ECA1HAK010XB	CAPACITOR ELECTROLITICO	(M)
C2425	ECA1HAK010XB	CAPACITOR ELECTROLITICO	(M)
C2854	ECA1AAK221XB	ELECTROLYTIC CAPACITOR	(M)
C2581	ECA1CM101B	CAPACITOR	(M)
C2582	ECA1CM101B	CAPACITOR	(M)
C2633	ECJ1VC1H120J	CAPACITOR CHIP	(M)
C2634	ECJ1VC1H120J	CAPACITOR CHIP	(M)
C2182	F1H1A105A025	CAPACITOR	(M)
C2282	F1H1A105A025	CAPACITOR	(M)
C2175	ECJ1VB1H332K	CHIP CAPACITOR	(M)
C2194	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C2213	ECJ1VB1H152K	CAPACITOR	(M)
C2275	ECJ1VB1H332K	CHIP CAPACITOR	(M)
C2323	ECJ1VB1H103K	CHIP CAPACITOR	(M)
C2423	ECJ1VB1H103K	CHIP CAPACITOR	(M)
C2556	ECJ1VB1H183K	CHIP CAPACITOR	(M)

C2558	ECJ1VB1H473K	CAPACITOR CHIP	(M)
C5187	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5107	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5106	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5186	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C2172	ECJ1VB1C563K	CAPACITOR	(M)
C2272	ECJ1VB1C823K	CHIP CAPACITOR	(M)
C2273	F1H1H103A219	CHIP CAPACITOR	(M)
C2274	F1H1H103A219	CHIP CAPACITOR	(M)
C2703	ECJ1VB1H471K	CHIP CAPACITOR	(M)
C2704	ECJ1VB1H471K	CHIP CAPACITOR	(M)
C10	F1D1H180A015	CAPACITOR	(M)
C4	F1D1H181A012	CAPACITOR	(M)
C3	F1D1H2R2A017	CAPACITOR	(M)
C9	F1D1H2R2A017	CAPACITOR	(M)
C6	F1D1H3R3A017	CAPACITOR	(M)
C8	F1D1H3R3A017	CAPACITOR	(M)
C7	F1D1H4R7A017	CAPACITOR	(M)
C1	F1D1H5R6A017	CAPACITOR	(M)
C5	F1D1H5R6A017	CAPACITOR	(M)
C11	F1D1H102A029	CAPACITOR	(M)
C2	F1D1H102A029	CAPACITOR	(M)
C6605	ECJ1VC1H330J	CHIP CAPACITOR	(M)
C6551	F1H1H103A219	CHIP CAPACITOR	(M)
C6552	F1H1H103A219	CHIP CAPACITOR	(M)
C6553	F1H1H103A219	CHIP CAPACITOR	(M)
C6751	F1H1H103A219	CHIP CAPACITOR	(M)
C6752	F1H1H103A219	CHIP CAPACITOR	(M)
C6753	F1H1H103A219	CHIP CAPACITOR	(M)
C6635	ECA1HAK2R2XB	ELECTROLYTIC CAPACITOR	(M)
C6636	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C6637	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C6602	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5920	ECA1HM102E	ELECTROLYTIC CAPACITOR	(M)
C5940	ECA1HM102E	ELECTROLYTIC CAPACITOR	(M)
C5961	ECA1AAK221XB	ELECTROLYTIC CAPACITOR	(M)
C5962	ECA1AAK221XB	ELECTROLYTIC CAPACITOR	(M)
C5952	ECA1AAK470XB	ELECTROLYTIC CAPACITOR	(M)
C5957	ECA1HAK100XB	CAPACITOR	(M)
C5963	ECA1HAK4R7XB	ELECTROLYTIC CAPACITOR	(M)
C5956	ECA1HAM470XB	CAPACITOR	(M)
C5955	ECA1HM220B	C.ELECTROLITICO	(M)
C5951	F1B1H103A007	CAPACITOR	(M)
C5953	F1B1H103A007	CAPACITOR	(M)
C5954	F1B1H103A007	CAPACITOR	(M)
C5958	F1B1H103A007	CAPACITOR	(M)
C5959	F1B1H103A007	CAPACITOR	(M)
C5950	ECA1EAM222XE	CAPACITOR ELECTROLITICO	(M)
C5171	ECA1HM102E	ELECTROLYTIC CAPACITOR	(M)
C5172	ECA1HM102E	ELECTROLYTIC CAPACITOR	(M)
C5101	F2A1V102A154	CAPACITOR	(M)
C5104	F2A1V102A154	CAPACITOR	(M)

C5301	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C5303	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C5304	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C5306	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C5401	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C5403	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C5404	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C5406	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C5501	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C5503	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C5504	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C5506	ECJ1VB1A474K	CAPACITOR CHIP	(M)
C5152	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5160	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5308	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5309	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5312	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5315	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5316	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5317	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5320	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5322	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5323	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5325	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5328	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5408	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5409	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5412	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5415	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5416	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5420	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5425	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5428	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5508	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5509	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5512	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5515	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5516	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5520	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5522	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5523	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5525	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5528	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5313	ECJ1VB1H153K	CHIP CAPACITOR	(M)
C5319	ECJ1VB1H153K	CHIP CAPACITOR	(M)
C5413	ECJ1VB1H153K	CHIP CAPACITOR	(M)
C5419	ECJ1VB1H153K	CHIP CAPACITOR	(M)
C5513	ECJ1VB1H153K	CHIP CAPACITOR	(M)
C5155	F1H1H102A219	CHIP CAPACITOR	(M)
C5336	F1H1H102A219	CHIP CAPACITOR	(M)
C5337	F1H1H102A219	CHIP CAPACITOR	(M)
C5437	F1H1H102A219	CHIP CAPACITOR	(M)

C5538	F1H1H102A219	CHIP CAPACITOR	(M)
C5157	F1H1H103A219	CHIP CAPACITOR	(M)
C5158	F1H1H103A219	CHIP CAPACITOR	(M)
C5159	F1H1H103A219	CHIP CAPACITOR	(M)
C5411	F1H1H221A748	CHIP CAPACITOR	(M)
C5511	F1H1H221A748	CHIP CAPACITOR	(M)
C5201	F1H1H471A219	CHIP CAPACITOR	(M)
C5330	F1H2A221A009	CHIP CAPACITOR	(M)
C5331	F1H2A221A009	CHIP CAPACITOR	(M)
C5332	F1H2A221A009	CHIP CAPACITOR	(M)
C5333	F1H2A221A009	CHIP CAPACITOR	(M)
C5430	F1H2A221A009	CHIP CAPACITOR	(M)
C5431	F1H2A221A009	CHIP CAPACITOR	(M)
C5432	F1H2A221A009	CHIP CAPACITOR	(M)
C5433	F1H2A221A009	CHIP CAPACITOR	(M)
C5532	F1H2A221A009	CHIP CAPACITOR	(M)
C5533	F1H2A221A009	CHIP CAPACITOR	(M)
C5310	F1K2A1040007	CHIP CAPACITOR	(M)
C5314	F1K2A1040007	CHIP CAPACITOR	(M)
C5318	F1K2A1040007	CHIP CAPACITOR	(M)
C5321	F1K2A1040007	CHIP CAPACITOR	(M)
C5410	F1K2A1040007	CHIP CAPACITOR	(M)
C5414	F1K2A1040007	CHIP CAPACITOR	(M)
C5418	F1K2A1040007	CHIP CAPACITOR	(M)
C5421	F1K2A1040007	CHIP CAPACITOR	(M)
C5510	F1K2A1040007	CHIP CAPACITOR	(M)
C5514	F1K2A1040007	CHIP CAPACITOR	(M)
C5518	F1K2A1040007	CHIP CAPACITOR	(M)
C5205	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5423	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5311	F1H1H221A748	CHIP CAPACITOR	(M)
C5531	F1H2A221A009	CHIP CAPACITOR	(M)
C5117	F2A1V471A141	ELECTROLYTIC CAPACITOR	(M)
C5118	F2A1V471A141	ELECTROLYTIC CAPACITOR	(M)
C5119	F2A1V471A141	ELECTROLYTIC CAPACITOR	(M)
C5120	F2A1V471A141	ELECTROLYTIC CAPACITOR	(M)
C5123	F2A1V471A141	ELECTROLYTIC CAPACITOR	(M)
C5124	F2A1V471A141	ELECTROLYTIC CAPACITOR	(M)
C5111	ECA0JAK101XB	CAPACITOR ELECTROLITICO	(M)
C5105	ECA1AAK221XB	ELECTROLYTIC CAPACITOR	(M)
C5112	ECA1EAK100XB	ELECTROLYTIC CAPACITOR	(M)
C5109	ECA1EAM101XB	CAPACITOR	(M)
C5110	ECA1EAM101XB	CAPACITOR	(M)
C5121	ECA1HAM470XB	CAPACITOR	(M)
C5113	ECA1HM330B	ELECTROLYTIC CAPACITOR	(M)
C5102	ECA2AM100B	CAPACITOR ELECTROLITICO	(M)
C5103	ECA2AM100B	CAPACITOR ELECTROLITICO	(M)
C5324	ECQV1H684JL3	CAPACITOR	(M)
C5327	ECQV1H684JL3	CAPACITOR	(M)
C5424	ECQV1H684JL3	CAPACITOR	(M)
C5427	ECQV1H684JL3	CAPACITOR	(M)
C5524	ECQV1H684JL3	CAPACITOR	(M)

C5527	ECQV1H684JL3	CAPACITOR	(M)
C5181	F1D1H1040002	CAPACITOR	(M)
C5182	F1D1H1040002	CAPACITOR	(M)
C5208	F2A0J681A550	CAPACITOR E	(M)
C5701	ECA0JAK101XB	CAPACITOR ELECTROLITICO	(M)
C5161	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5210	F1H1H221A748	CHIP CAPACITOR	(M)
C5422	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5519	ECJ1VB1H153K	CHIP CAPACITOR	(M)
C5521	F1K2A1040007	CHIP CAPACITOR	(M)
C5530	F1H2A221A009	CHIP CAPACITOR	(M)
C5106	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5107	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5186	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5187	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5334	ECJ1VB1H223K	CAPACITOR CHIP	(M)
C5335	ECJ1VB1H223K	CAPACITOR CHIP	(M)
C5343	ECJ1VB1H223K	CAPACITOR CHIP	(M)
C5434	ECJ1VB1H223K	CAPACITOR CHIP	(M)
C5435	ECJ1VB1H223K	CAPACITOR CHIP	(M)
C5536	ECJ1VB1H223K	CAPACITOR CHIP	(M)
C5537	ECJ1VB1H223K	CAPACITOR CHIP	(M)
C5438	ECJ1VB1H223K	CAPACITOR CHIP	(M)
C5114	F1K2A1040007	CHIP CAPACITOR	(M)
C5115	F1K2A1040007	CHIP CAPACITOR	(M)
C5417	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C5517	ECJ1VB1H104K	CAPACITOR CHIP	(M)
C6481	ECA1HM220B	C.ELECTROLITICO	(M)
C6623	ECA1HM220B	C.ELECTROLITICO	(M)
C6631	ECA1HM220B	C.ELECTROLITICO	(M)
C6632	ECA1HM220B	C.ELECTROLITICO	(M)
		CERAMIC CONDENSERS	
C2252	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2232	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2152	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2212	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2222	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2132	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2122	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2112	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2301	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2402	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2101	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2193	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2201	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2311	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2312	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2324	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2333	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2411	ECJ1VB1C105K	CERAMIC CONDENSER	(M)

C2412	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2424	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2433	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2503	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2554	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2560	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2561	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
C2803	ECJ1VB1C105K	CERAMIC CONDENSER	(M)
		CERAMIC FILTERS	
CF2601	J0B1075AA014	BOBINA	(M)
CF2602	J0B1075AA014	BOBINA	(M)
		LEDS	
D6459	B3ACA0000234	LED (AMBER)	(M)
D6460	B3AAA0000884	LED	(M)
D6463	B3AAA0000884	LED	(M)

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Service Manual

Speaker System

SB-TM54
SB-WTM54

Colour
(S)... Silver Type

SB-TM54 SA-TM54 SB-WTM54 SB-TM54

Specification

Bafles	SB-TM 54
FRONTAL **Bocina Super Tweeter** **Bocina Tweeter** **Bocina Woofer**	 Piezo type 6 cm 16 cm
IMPEDANCIA	Alto y bajo 3 Ω
Dimensiones (b x h x l)	247 mm x 330 mm x 221 mm
Peso:	2.8 kg aprox

Bafle	SB-WTM 54
SUBWOOFER	16 cm
IMPEDANCIA Subwoofer	8 Ω
Dimensiones (b x h x l)	248 mm x 330 mm x 256 mm
Peso:	3.6 kg aprox

⚠ 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.

Panasonic

1 Assembling and Disassembling "ATTENTION SERVICER"

Some chassis components may have sharp edges. Be careful when disassembling and servicing.

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures.

   Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.
4. Refer to the Parts No. on the page of "Parts Location and Replacement Parts List" (Section 5), if necessary.

> **Caution:**
> Original screws should be used.

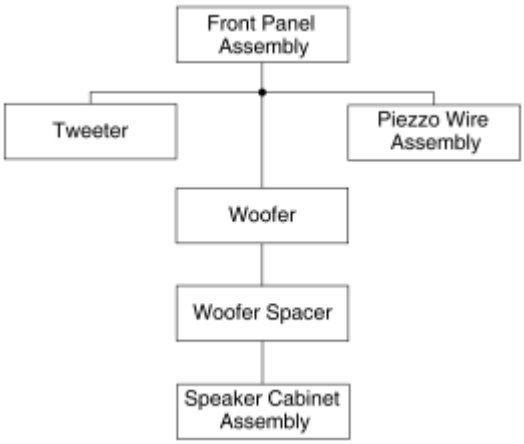
Below is the list of disassembly sections

- Disassembly of Front Panel Assembly
- Disassembly of Tweeter
- Disassembly of Piezzo Wire Assembly
- Disassembly of Woofer
- Disassembly of Woofer Spacer
- Disassembly of Speaker Cabinet Assembly

1.1 Disassembly flow chart

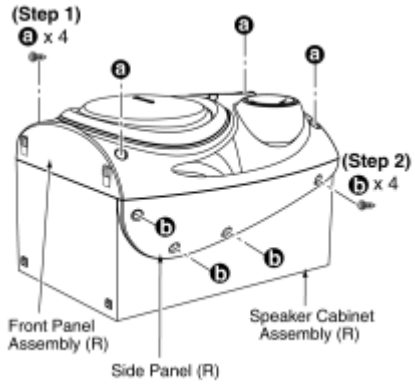
The following chart is the procedure for disassembling the casing and inside parts for internal inspection when carrying out the servicing.

To assemble the unit, reverse the steps shown in the chart as below.



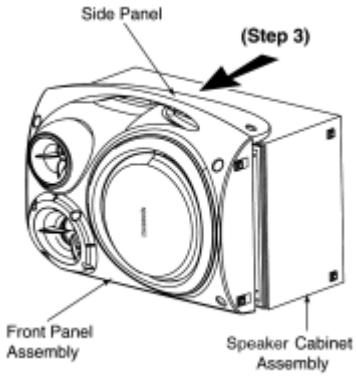
1.2 Disassembly of Front Panel Assembly

Note: The disassembly process illustration below is for the right speaker only.



Step 1: Remove 4 screws from Front Panel Assembly.

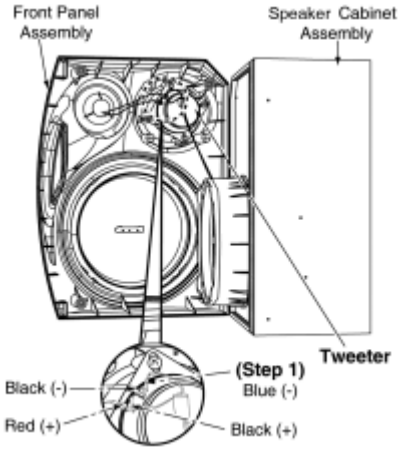
Step 2: Remove 4 screws from Side Panel.



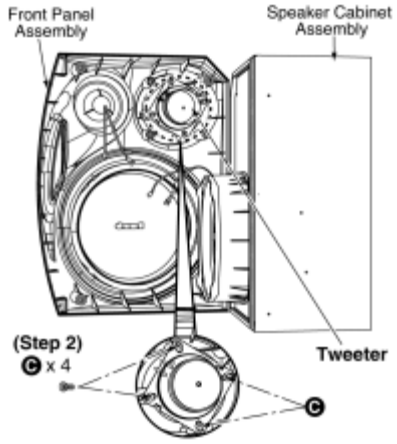
Step 3: Secure the Speaker Cabinet Assembly firmly, then remove the Front Panel Assembly with Side Panel from the Speaker Cabinet Assembly as shown in the picture.

1.3 Disassembly of Tweeter

Follow (step 1) to (step 3) in item 1.2.



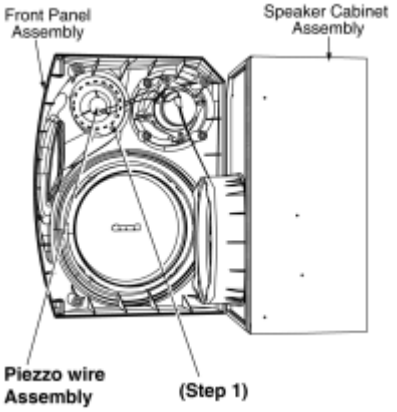
Step 1: Detach the (+) black/red, (-) blue/black wires from Tweeter.



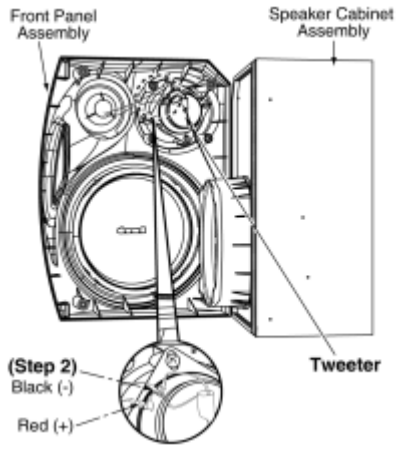
Step 2: Remove 4 screws from Tweeter.

1.4 Disassembly of Piezzo Wire Assembly

Follow (step 1) to (step 3) in item 1.2.



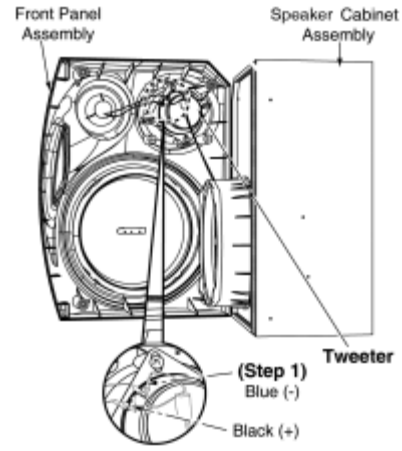
Step 1: Remove the glue from Piezzo Wire Assembly.



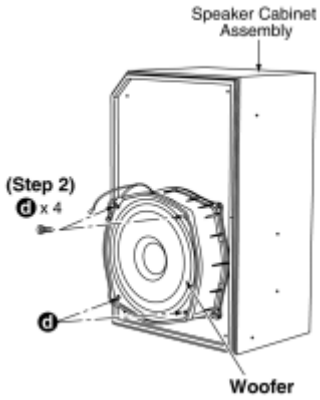
Step 2: Detach the (+) red and (-) black wires from Tweeter.

1.5 Disassembly of Woofer

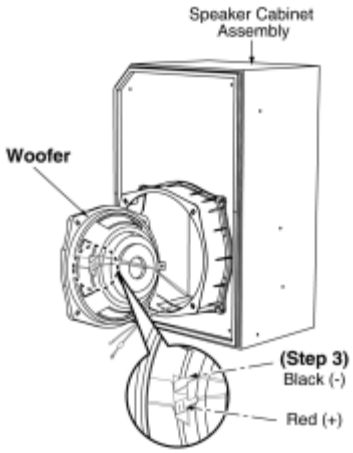
Follow (step 1) to (step 3) in item 1.2.



Step 1: Detach the (+) black and (-) blue wires from Tweeter.



Step 2: Remove 4 screws from Woofer.

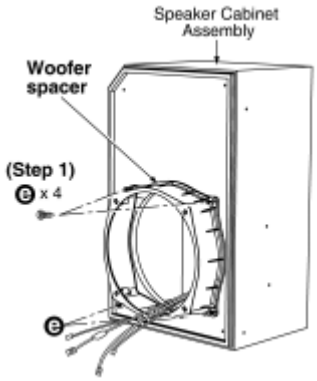


Step 3: Detach the (+) red and (-) black wires from Woofer.

1.6 Disassembly of Woofer Spacer

Follow (step 1) to (step 3) in item 1.2.

Follow (step 1) to (step 3) in item 1.5.



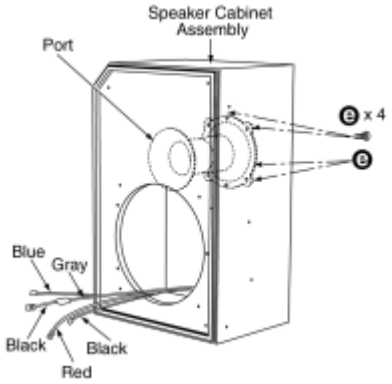
Step 1: Remove 4 screws from Woofer Spacer.

1.7 Disassembly of Speaker Cabinet Assembly

Follow (step 1) to (step 3) in item 1.2.

Follow (step 1) to (step 3) in item 1.5.

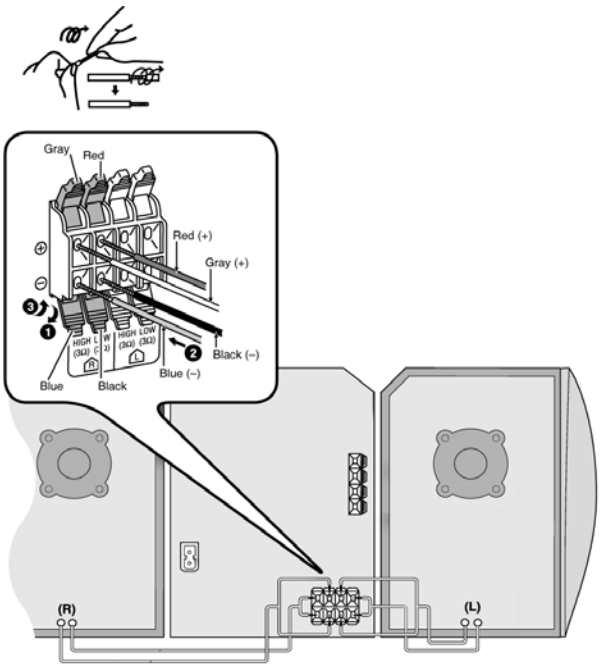
Follow (step 1) in item 1.6.



2 Connection of the Speaker Cables

- Be sure to connect speaker cables before connecting the AC power supply cord.
- The load impedance of any speaker used with this unit must be 3 Ω.
- Be sure to connect the cable from the right speaker to the right terminal and the cable from the left speaker to the left terminal.

1. Twist and pull off the vinyl tip of the speaker cords. If the speaker cords do not have vinyl tips, connect them directly to the terminals. Make sure the bare ends of the wires are not unravelled.
2. Insert the wire to the rear panel of the unit and close the lever.



Notes :

- To prevent damage to circuitry, never short-circuit positive (+) and negative (-) speaker wires.
- Be sure to connect only positive (red/gray) wires to positive (+) terminals and negative (black/blue) wires to negative (-) terminals.

Placement

Place the front speakers so that the tweeter is on the inside.

You cannot take the front net off the speakers.

Connection

Use only the supplied speakers

The combination of the main unit and speakers provide the best sound. Using other speakers can damage the unit and sound quality will be negatively affected.

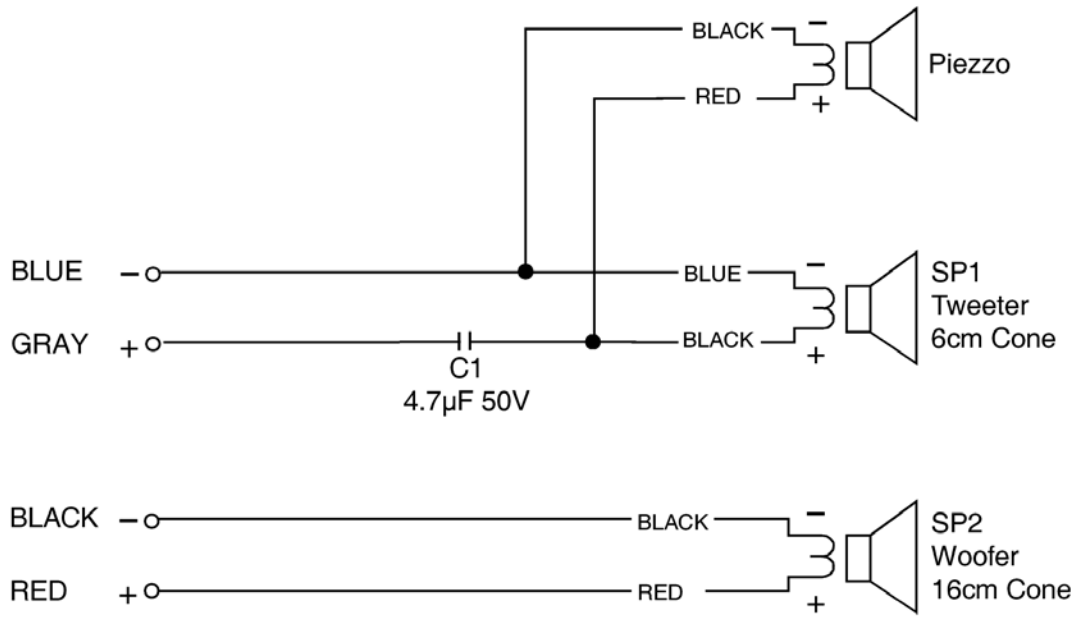
Note

- Keep your speakers at least 10 mm (13/32”) away from the system for proper ventilation.
- These speakers do not have magnetic shielding. Do not place them near televisions, personal computers or other devices easily influenced by magnetism.
- You can damage your speakers and shorten their useful life if you play sound at high levels over extended periods.
- Reduce the volume in the following cases to avoid damage.
  - When playing distorted sound.
  - When adjusting the sound quality.

Caution

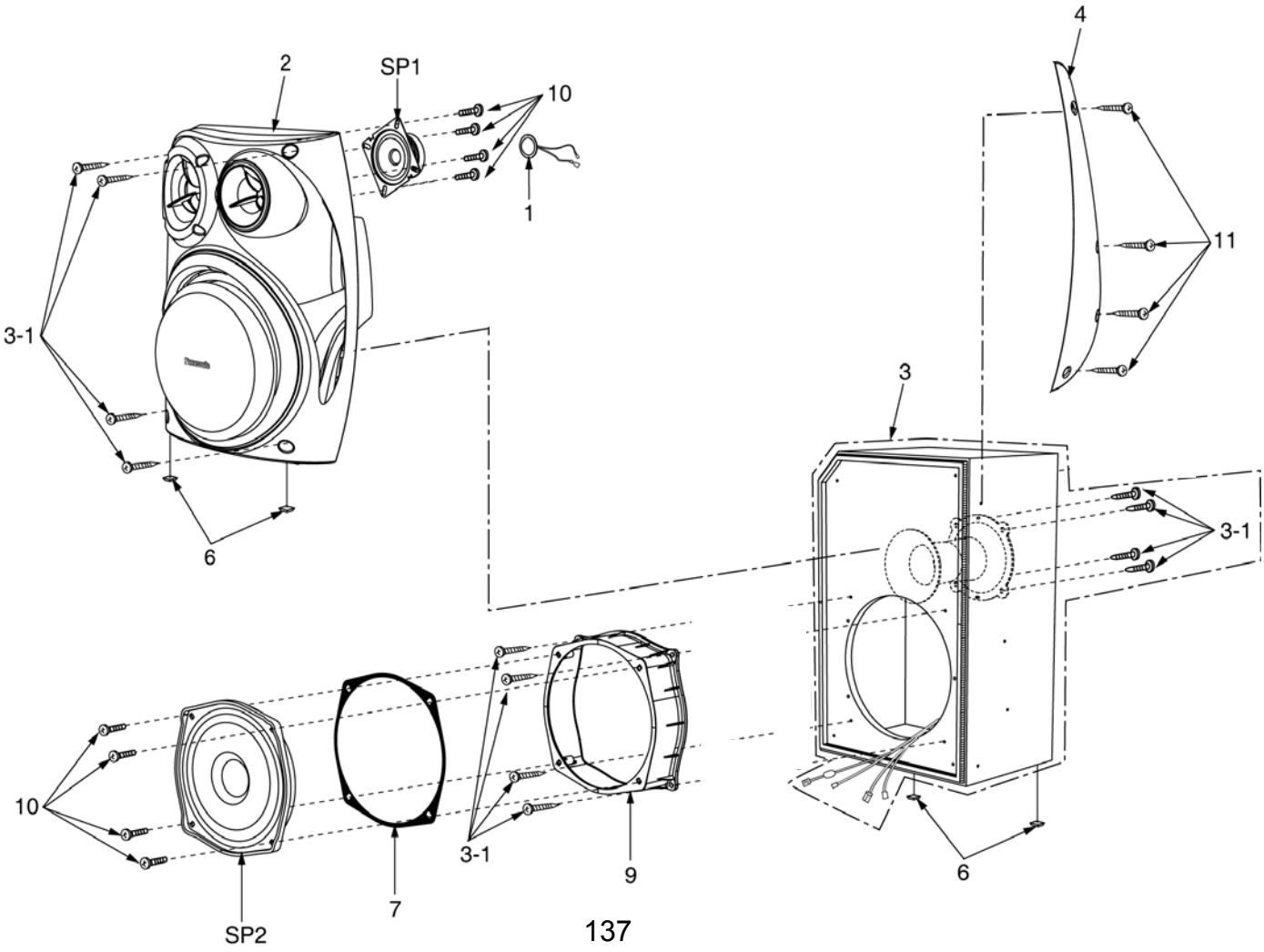
- **Use the speakers only with the recommended system. Failure to do so may lead to damage to the amplifier and/or the speakers, and may result in the risk of fire. Consult a qualified service person if damage has occurred or if you experience a sudden change in performance.**
- **Do not attach these speakers to walls or ceilings.**

3 Connection of the Wiring Diagram



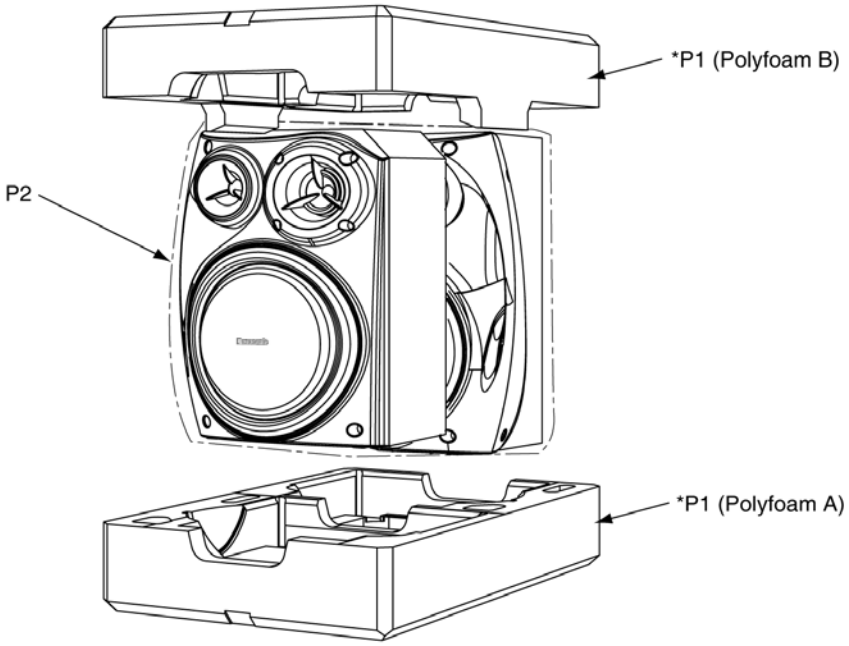
4 Exploded view

4.1. Cabinet Parts Location



4.2. Packaging

*P1 — Polyfoam B
*P1 — Polyfoam A



5 Replacement Parts List

Notes :

· Important safety notice :

When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.

· [M] markings in the Remarks columns indicates parts supplied by PAVCSG .

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	REEX0512	PIEZZO WIRE ASS'Y	[M]
2	RYPM0219	FRONT PANEL ASS'Y L	[M]
2	RYPM0220	FRONT PANEL ASS'Y R	[M]
3	RKPM0100	SPEAKER CAB ASS'Y L	[M]
3	RKPM0101	SPEAKER CAB ASS'Y R	[M]
3-1	XTB4+16AFJK	SCREW	[M]
4	RGPX0214-SL	SIDE PANEL (L)	[M]
4	RGPX0215-SL	SIDE PANEL (R)	[M]
6	RKA0072-KJ	LEG CUSHION	[M]
7	RMQX0163-K	W/SPACER E/P (TOP)	[M]
9	RMRX0067-K	WOOFER SPACER	[M]
10	XTB4+10GFJK	SCREW	[M]
11	XTB4+16AFN	SCREW (SIDE)	[M]
		CAPACITOR	
C1	F1D1H5R6A017	4.7uf 50V	[M]
		PACKING MATERIALS	
P1	RPNX0169T	POLYFOAM TOP	[M]
P1	RPNX0169B	POLYFOAM (BTM)	[M]
P2	RPFM0028	MIRAMAT BAG	[M]
		SPEAKERS	
SP1	L0AA06A00037	TWEETER	[M]
SP2	L0AA16A00021	WOOFER	[M]

Panasonic

1 Assembling and Disassembling "ATTENTION SERVICER"

Some chassis components may have sharp edges. Be careful when disassembling and servicing.

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures.

   Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.
4. Refer to the Parts No. on the page of "Parts Location and Replacement Parts List" (Section 5), if necessary.

Caution:
Original screws should be used.

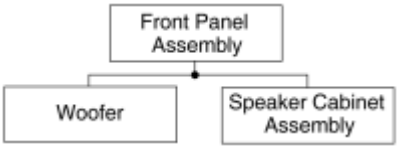
Below is the list of disassembly sections

- Disassembly of Front Panel Assembly
- Disassembly of Woofer
- Disassembly of Speaker Cabinet Assembly

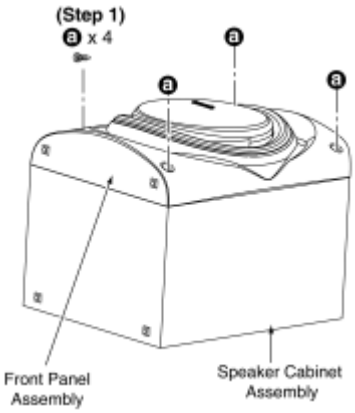
1.1 Disassembly flow chart

The following chart is the procedure for disassembling the casing and inside parts for internal inspection when carrying out the servicing.

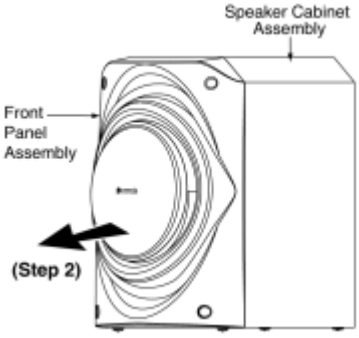
To assemble the unit, reverse the steps shown in the chart as below.



1.2 Disassembly of Front Panel Assembly



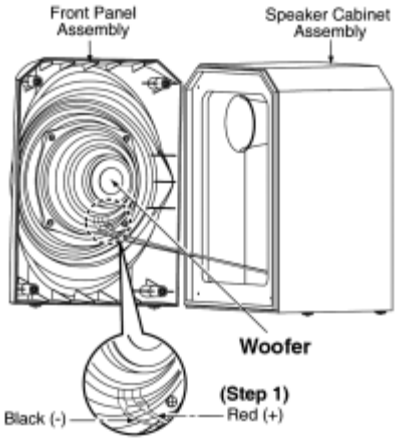
Step 1: Remove 4 screws from Front Panel Assembly.



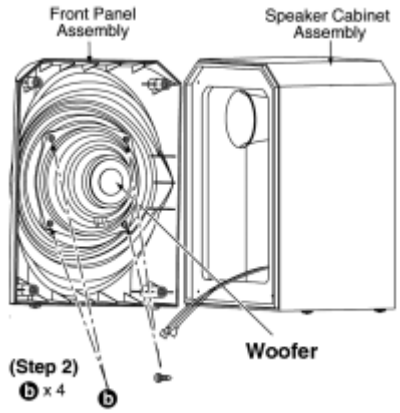
Step 2: Remove Front Panel Assembly from Speaker Cabinet Assembly as arrow shown.

1.3 Disassembly of Woofer

Follow (step 1) to (step 2) in item 1.2.



Step 1: Detach the (+) Red and (-) Black wires from Woofer.

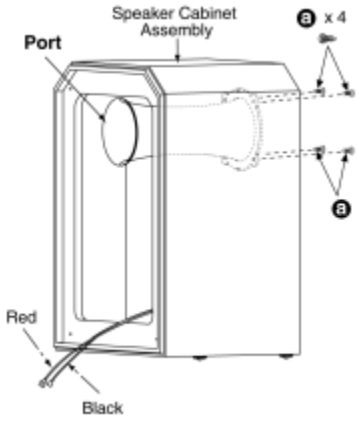


Step 2: Remove 4 screws from Woofer.

1.4 Disassembly of Speaker Cabinet Assembly

Follow (step 1) to (step 2) in item 1.2.

Follow (step 1) in item 1.3.



2 Connection of the Speaker Cables

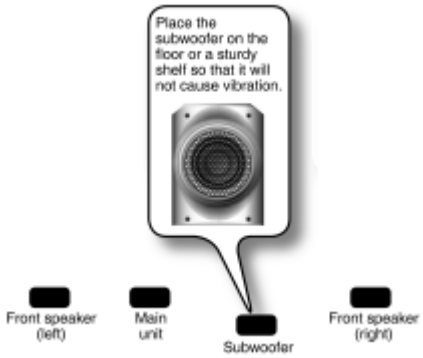
- Be sure to connect speaker cables before connecting the AC power supply cord.
- The load impedance of any speaker used with this unit must be 8 Ω.
- Be sure to connect the cable from the right speaker to the right terminal and the cable from the left speaker to the left terminal.

1. Twist and pull off the vinyl tip of the speaker cords. If the speaker cords do not have vinyl tips, connect them directly to the terminals. Make sure the bare ends of the wires are not unravelled.
2. Insert the wire to the rear panel of the unit and close the lever.

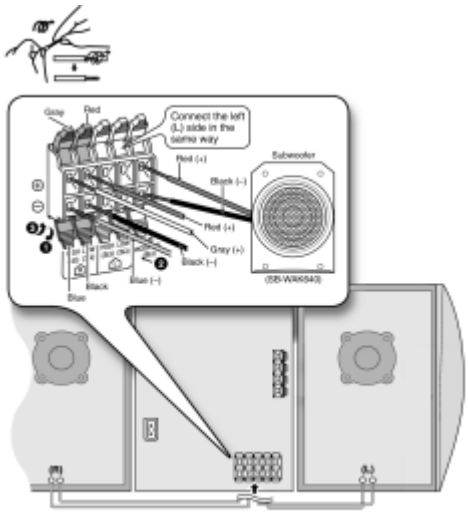
Notes :

- To prevent damage to circuitry, never short-circuit positive (+) and negative (-) speaker wires.
- Be sure to connect only positive (red) wires to positive (+) terminals and negative (black) wires to negative (-) terminals.

Placement



Connection

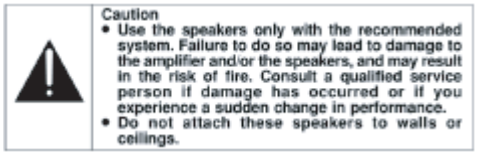


Use only the supplied speakers

The combination of the main unit and speakers provide the best sound. Using other speakers can damage the unit and sound quality will be negatively affected.

Note

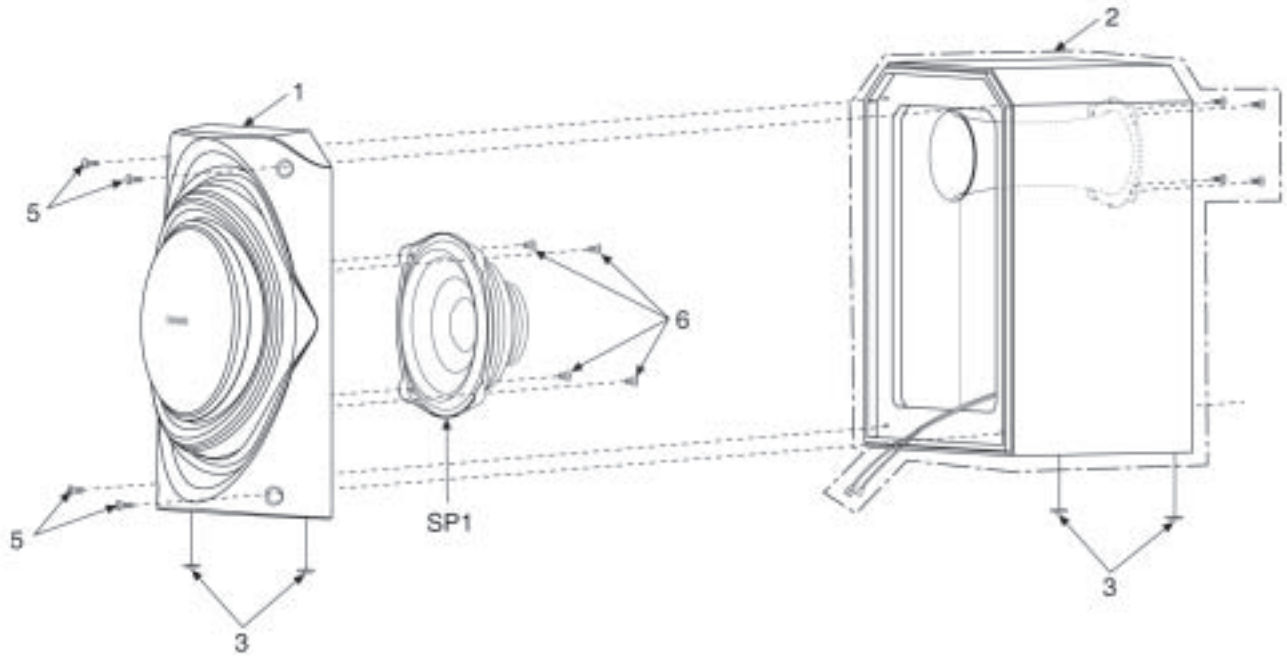
- Keep your speakers at least 10 mm (13/32”) away from the system for proper ventilation.
- These speakers do not have magnetic shielding. Do not place them near televisions, personal computers or other devices easily influenced by magnetism.
- You can damage your speakers and shorten their useful life if you play sound at high levels over extended periods.
- Reduce the volume in the following cases to avoid damage.
    - When playing distorted sound.
    - When adjusting the sound quality.



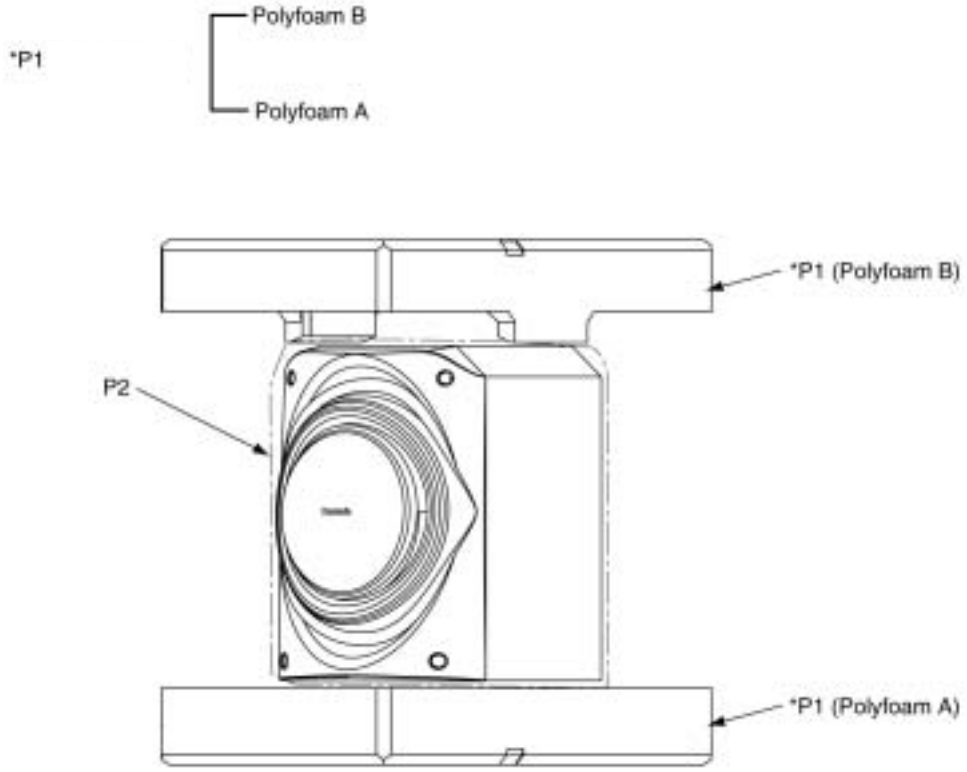
3 Connection of the Wiring Diagram

4 Exploded view

4.1 Cabinet Parts Location



4.2 Packaging



5 Replacement Parts List

Notes :

- Important safety notice :

  When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.

- [M] markings in the Remarks columns indicates parts supplied by PAVCSG .

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RYPM0227	FRONT PANEL ASS'Y	[M]
2	RKPM0103	SPEAKER CAB ASS'Y	[M]
3	RKA0072-KJ	LEG CUSHION	[M]
5	XTB4+16AFJK	SCREW	[M]
6	XTB4+10GFJK	SCREW	[M]
		PACKING MATERIALS	
P1	RPNX0172T	POLYFOAM TOP	[M]
P1	RPNX0172B	POLYFOAM (BTM)	[M]
P2	RPFM0028	MIRAMAT BAG	[M]
		SPEAKERS	
SP1	L0AA16A00028	WOOFER	[M]