

- COVER
- 1 Before Use
- 2 Before Repair and Adjustment
- 3 Protection Circuitry
- 4 Safety Precautions
 - 4.1 General Guidelines
 - 4.1.1 Leakage Current Cold Check
 - 4.1.2 Leakage Current Hot Check (See Figure 1)
 - 5 Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive (ES) Devices
 - 6 Handling the Lead-free Solder
 - 6.1 About lead free solder (PbF)
 - 7 Cautions to be taken when handling Optical Pickup
 - 7.1 Handling Optical Pickup
 - 7.2 Replacing Precautions for Optical Pickup Unit
 - 7.3 Grounding for Preventing Electrostatic Destruction
 - 8 Precaution of Laser Diode
 - 9 Accessories
 - 10 Operation Procedures
 - 11 Disc information
 - 12 About HighMAT
 - 12.1 What is HighMAT?
 - 12.2 Why use HighMAT?
 - 12.3 The advantages of using HighMAT
 - 12.4 Outline of the HighMAT standard
 - 13 Procedure for repairing the set
 - 13.1 Distinguish the trouble cause
 - 13.2 Diagnosis of Optical Pick-up Unit
 - 14 Optical Pickup Self-Diagnosis and Replacement Procedure

Service Manual

TOP NEXT

ORDER NO. MD0308338C3

Service Manual

DVD Stereo System



- SA-VK90DGCP

Colour

(S)... Silver Type



Specifications

AMPLIFIER SECTION

RMS Output power both channel driven: 10% Total Harmonic Distortion	
1 kHz Front-HI CH	80 W per channel (6Ω)
100 Hz Front-LOW CH	60 W (12Ω)
1 kHz Surround CH	40 W per channel (8Ω)
1 kHz Center CH	100 W (8Ω)
100 Hz Subwoofer CH	100 W per channel (6Ω)
Total RMS Dolby Digital Mode Power	600 W
PMPO Output Power	7000 W
Input sensitivity/Input Impedance	
AUX	250 mV, 13.3 kΩ
MIC	0.7 mV, 680Ω

FM TUNER SECTION

Frequency range	87.50 - 108.00 MHz (50 kHz steps)
Sensitivity	2.5•V (IHF)
S/N 26 dB	2.2•V
Antenna terminals	75Ω (unbalanced)
Preset station	15
AM TUNER SECTION	
Frequency range	522 - 1629 kHz (9 kHz steps) 520 - 1630 kHz (10 kHz steps)
AM sensitivity S/N 20 dB at 1000 kHz	560•V/m
Preset station	15
CASSETTE DECK SECTION	
Track system	4 track, 2 channel
Heads	
Record/playback	Solid permalloy head
Erasure	Double gap ferrite head
Motor	DC servo motor
Recording system	AC bias 100 kHz
Erasing system	AC erase 100 kHz
Tape speed	4.8 cm/s (1 7/8 ips)
Overall frequency response (+3 dB, -6 dB at DECK OUT)	
Normal (TYPE I)	35 Hz - 14 kHz
S/N ratio	50 dB (A weighted)
Wow and flutter	0.18% (WRMS)
Fast forward and rewind time	Approx. 120 seconds with C-60 cassette tape
Disc SECTION	
Disc	
DVD-Video/Audio	8 cm/12 cm, single/double-sided, single/double-layer
DVD-RAM/R (DVD-Video formatted discs)	
CD-DA/VCD/MP3/WMA	8 cm/12 cm, CD-R/RW
SVCD (Conforming to IEC62107)	
HighMAT Level 2 (Audio and Image)	
JPEG-Exif Ver 2.1 JPEG Baseline files	
Video	
Signal system	NTSC
Output level	
Composite video	1 Vp-p (75Ω)
S-Video Y	1 Vp-p (75Ω)
S-Video C	0.286 Vp-p (75Ω)(NTSC)
Component video	1 Vp-p (Y)(75Ω) 0.7 Vp-p (PB/CB PR/CR)(75Ω)
Audio	
Sampling frequency	
CD	44.1 kHz
MP3	32 kHz, 44.1 kHz, 48 kHz

Display
17 Operation Checks and Component Replacement Procedures
17.1 Disassembly of Top Cabinet
17.2 Disassembly for the DVD changer ass’y
17.2.1 Disassembly for the Top Ornament Unit
17.2.2 Disassembly for DVD changer unit
17.3 Checking for the changer unit operational condition
17.3.1 Initial setting of CD
17.3.2 Checking for the DVD Module (1) P.C.B.
17.3.3 Checking for Panel P.C.B., Deck P.C.B. and LED P.C.B.
17.3.4 Replacement of the Power Amplifier IC
17.4 Main Component Replacement Procedures
17.4.1 Replacement of the Traverse Deck
17.5 Replacement for the disc tray
17.6 Disassembly and reassembly for mechanism base drive unit
17.7 Replacement for the motor ass’y
17.8 Replacement for the pinch roller ass’y and head block
17.9 Replacement for the CD motor ass’y, capstan belt A, capstan belt B and winding belt
17.10 Replacement for the CD motor ass’y, capstan belt A, capstan belt B and winding belt
17.11 Replacement for the cassette lid ass’y
17.12 Measure for tape trouble
18 Measurements and

DVD-Video	48 kHz, 96 kHz
DVD-Audio	192 kHz
MP3	
Birate	32- 320 kbps
Decoding	16/20/24 bit linear
Number of channels	
	5.1 CH (FL, FR, SL, SR, C, SW)
Frequency response	20 Hz- 20 kHz (+1, -2 dB)
Pick up	
Beam Source	Semiconductor Laser
Wavelength	
DVD	658 nm
CD/VCD	780 nm
Wow and flutter	Less than possible measurement data
Digital filter	8 fs
D/A converter	Delta sigma DAC
GENERAL	
Power supply	AC 110/127/220-230/240 V, 50/60Hz
Power consumption	313 W
Power consumption in standby mode:	
	0.9 W
Dimwnsions (W x H x D)	250 x 330 x 370 mm
Mass	10 kg
SYSTEM	
SC-VK90D(GCP)	Music Center: SA-VK90D(GCPS)
	Front Speaker: SB-VK90(GC-S) x 2
	Subwoofer: SB-WVK80(GC-S) x 2
Speaker System: SB-PT810(GC-s) x 1	Center Speaker: SB-PC810(GC-S) x 1
	Surround Speaker: SB-PS810(GC-S) x 2

Notes:

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

© 2003 Panasonic AVC Networks Singapore Pte. Ltd. All rights reserved. Unauthorized copying and distribution is a violation of law.

 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.

[C.B. \(Component & Foil Side\)](#)

[23.2 \(B\) DVD Module \(2\) P.](#)

[C.B. \(Side A & B\)](#)

[23.3 \(C\) Main P.C.B.](#)

[23.4 \(D\) Tuner Extent P.C.](#)

[B. , \(F\) LED P.C.B. \(I\) Tuner](#)

[Pack P.C.B., \(R\) CD Loading](#)

[P.C.B., \(T\) Spindle Position P.](#)

[C.B. & \(S\) CD Detect P.C.B.](#)

[23.5 \(E\) Panel P.C.B.](#)

[23.6 \(G\) Tact Switch P.C.B.](#)

[& \(H\) Tuner P.C.B.](#)

[23.7 \(J\) Deck P.C.B. & \(K\)](#)

[Deck Mechanism P.C.B.](#)

[23.8 \(L\) Power Supply P.C.](#)

[B. & \(M\) Power AMP P.C.B.](#)

[23.9 \(N\) Power P.C.B.](#)

[23.10 \(O\) Transformer P.C.](#)

[B.](#)

[23.11 \(Q\) Voltage Selector](#)

[P.C.B. & \(P\) AC Inlet P.C.B.](#)

[24 Wiring Connection](#)

[Diagram](#)

[□ 25 Parts Location and](#)

[Replacement Parts List](#)

[□ 25.1 Deck Mechanism](#)

[\(RAA3412-S\)](#)

[25.1.1 Deck Mechanism](#)

[Parts Location](#)

[25.1.2 Deck Mechanism](#)

[Parts List](#)

[□ 25.2 CD Loading](#)

[Mechanism \(RD-DAC036-S\)](#)

[25.2.1 CD Loading](#)

[Mechanism Parts Location](#)

[25.2.2 CD Loading](#)

[Mechanism Parts List](#)

[□ 25.3 Cabinet](#)

[25.3.1 Cabinet Parts](#)

[Location](#)

[25.3.2 Cabinet Parts List](#)

[25.4 Electrical Parts List](#)

[25.5 Packing Materials &](#)

[Accessories Parts List](#)

[25.6 Packaging](#)

Service Manual

[TOP](#) [NEXT](#)

ORDER NO. MD0308338C3

Service Manual

DVD Stereo System



- SA-VK90DGCP

Colour

(S)... Silver Type



Specifications

AMPLIFIER SECTION

RMS Output power both channel driven: 10% Total Harmonic Distortion

1 kHz Front-HI CH	80 W per channel (6Ω)
100 Hz Front-LOW CH	60 W (12Ω)
1 kHz Surround CH	40 W per channel (8Ω)
1 kHz Center CH	100 W (8Ω)
100 Hz Subwoofer CH	100 W per channel (6Ω)

Total RMS Dolby Digital Mode Power

	600 W
PMPO Output Power	7000 W
Input sensitivity/Input Impedance	
AUX	250 mV, 13.3 k Ω
MIC	0.7 mV, 680 Ω
FM TUNER SECTION	
Frequency range	87.50 - 108.00 MHz (50 kHz steps)
Sensitivity	2.5 μ V (IHF)
S/N 26 dB	2.2 μ V
Antenna terminals	75 Ω (unbalanced)
Preset station	15
AM TUNER SECTION	
Frequency range	522 - 1629 kHz (9 kHz steps) 520 - 1630 kHz (10 kHz steps)
AM sensitivity S/N 20 dB at 1000 kHz	
	560 μ V/m
Preset station	15
CASSETTE DECK SECTION	
Track system	4 track, 2 channel
Heads	
Record/playback	Solid permalloy head
Erasure	Double gap ferrite head
Motor	DC servo motor
Recording system	AC bias 100 kHz
Erasing system	AC erase 100 kHz
Tape speed	4.8 cm/s (1 7/8 ips)
Overall frequency response (+3 dB, -6 dB at DECK OUT)	
Normal (TYPE I)	35 Hz - 14 kHz
S/N ratio	50 dB (A weighted)
Wow and flutter	0.18% (WRMS)
Fast forward and rewind time	Approx. 120 seconds with C-60 cassette tape
Disc SECTION	
Disc	
DVD-Video/Audio	8 cm/12 cm, single/double-sided, single/double-layer
DVD-RAM/R (DVD-Video formatted discs)	
CD-DA/VCD/MP3/WMA	8 cm/12 cm, CD-R/RW
SVCD (Conforming to IEC62107)	
HighMAT Level 2 (Audio and Image)	

JPEG-Exif Ver 2.1 JPEG Baseline files		
Video		
Signal system	NTSC	
Output level		
Composite video	1 Vp-p (75Ω)	
S-Video Y	1 Vp-p (75Ω)	
S-Video C	0.286 Vp-p (75Ω)(NTSC)	
Component video	1 Vp-p (Y)(75Ω)	
	0.7 Vp-p (PB/CB PR/CR)(75Ω)	
Audio		
Sampling frequency		
CD	44.1 kHz	
MP3	32 kHz, 44.1 kHz, 48 kHz	
DVD-Video	48 kHz, 96 kHz	
DVD-Audio	192 kHz	
MP3		
Birate	32- 320 kbps	
Decoding	16/20/24 bit linear	
Number of channels		
5.1 CH (FL, FR, SL, SR, C, SW)		
Frequency response		
20 Hz- 20 kHz (+1, -2 dB)		
Pick up		
Beam Source	Semiconductor Laser	
Wavelength		
DVD	658 nm	
CD/VCD	780 nm	
Wow and flutter		
Less than possible measurement data		
Digital filter	8 fs	
D/A converter	Delta sigma DAC	
GENERAL		
Power supply	AC 110/127/220-230/240 V, 50/60Hz	
Power consumption	313 W	
Power consumption in standby mode:		
0.9 W		
Dimwnsions (W x H x D)	250 x 330 x 370 mm	
Mass	10 kg	

SYSTEM

SC-VK90D(GCP)	Music Center: SA-VK90D(GCPS)
	Front Speaker: SB-VK90(GC-S) x 2

Speaker System: SB-PT810(GC-s) x 1

Subwoofer: SB-WVK80(GC-S) x 2

Center Speaker: SB-PC810(GC-S) x 1

Surround Speaker: SB-PS810(GC-S) x 2

Notes:

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

© 2003 Panasonic AVC Networks Singapore Pte. Ltd. All rights reserved. Unauthorized copying and distribution is a violation of law.



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

[TOP](#) [NEXT](#)

1 Before Use

[TOP](#) [PREVIOUS](#) [NEXT](#)

Be sure to disconnect the mains cord before adjusting the voltage selector.

Use a minus(-) screwdriver to set the voltage selector (on the rear panel) to the voltage setting for the area in which the unit will be used. (If the power supply in your area is 117V or 120V, set to the “127V” position.)

Note that this unit will be seriously damaged if this setting is not made correctly. (There is no voltage selector for some countries, the correct voltage is already set.)

[TOP](#) [PREVIOUS](#) [NEXT](#)

2 Before Repair and Adjustment

[TOP](#) [PREVIOUS](#) [NEXT](#)

Disconnect AC power, discharge Power Supply Capacitors C531~C534, C588~C589, C598~C599 and C954 through a 10 Ω , 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 110/127/220~230V, 50/60 Hz in NO SIGNAL (vol. min, at CD mode) & AC 240 V, 50 Hz should be ~770mA and ~370mA respectively.

[TOP](#) [PREVIOUS](#) [NEXT](#)

3 Protection Circuitry

[TOP](#) [PREVIOUS](#) [NEXT](#)

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.

[TOP](#) [PREVIOUS](#) [NEXT](#)

4 Safety Precautions

[TOP](#) [PREVIOUS](#) [NEXT](#)

[4.1 General Guidelines](#)

[4.1.1 Leakage Current Cold Check](#)

[4.1.2 Leakage Current Hot Check \(See Figure 1\)](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

4.1 General Guidelines

[TOP](#) [PREVIOUS](#) [NEXT](#)

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

[4.1.1 Leakage Current Cold Check](#)

[4.1.2 Leakage Current Hot Check \(See Figure 1\)](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

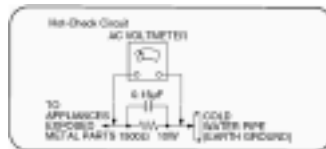
4.1.1 Leakage Current Cold Check

[TOP](#) [PREVIOUS](#) [NEXT](#)

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

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

Figure 1



[TOP](#) [PREVIOUS](#) [NEXT](#)

4.1.2 Leakage Current Hot Check (See Figure 1)

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5k Ω , 10 watts resistor, in parallel with a 0.15 μ F 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. In case a 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.

[TOP](#) [PREVIOUS](#) [NEXT](#)

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

[TOP](#) [PREVIOUS](#) [NEXT](#)

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-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as 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 important 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.

[TOP](#) [PREVIOUS](#) [NEXT](#)

6 Handling the Lead-free Solder

[TOP](#) [PREVIOUS](#) [NEXT](#)

[6.1 About lead free solder \(PbF\)](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

6.1 About lead free solder (PbF)

[TOP](#) [PREVIOUS](#) [NEXT](#)

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 $700 \pm 20^{\circ}\text{F}$ ($370 \pm 10^{\circ}\text{C}$).
- 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.

[TOP](#) [PREVIOUS](#) [NEXT](#)

7 Cautions to be taken when handling Optical Pickup

[TOP](#) [PREVIOUS](#) [NEXT](#)

The laser diode used inside optical pickup could be destroyed due to static electricity as a potential difference is caused by electrostatic load discharged from clothes or human body. Handling the parts carefully to avoid electrostatic destruction during repair.

[7.1 Handling Optical Pickup](#)

[7.2 Replacing Precautions for Optical Pickup Unit](#)

[7.3 Grounding for Preventing Electrostatic Destruction](#)

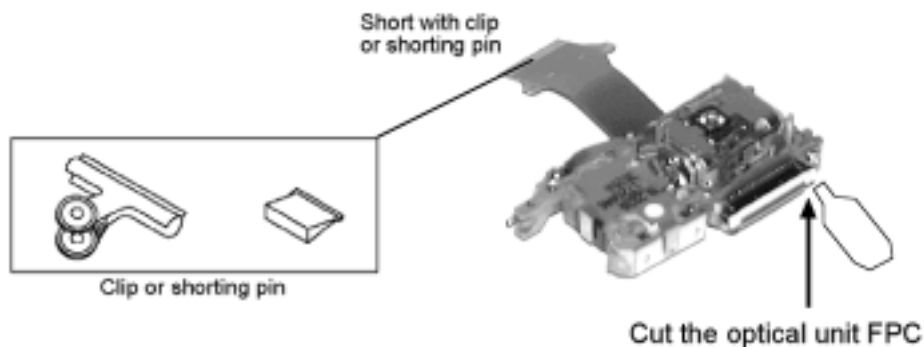
[TOP](#) [PREVIOUS](#) [NEXT](#)

7.1 Handling Optical Pickup

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Do not impact on optical pickup as the unit structurally uses an extremely precise technology.
2. Short-circuit the flexible cable of optical pickup remove from the circuit board using a short-circuit pin or clip in order to prevent laser diode from electrostatic destruction (Refer to Fig. 7.1 and Fig. 7.2)
3. Do not handle flexible cables forcibly as this may cause snapping. Handle the parts carefully (Refer to Fig. 7.1)
4. A new optical pickup is equipped with an anti-static flexible cable. After replacing and connecting to the flexible board, cut the anti-static flexible cable. (Refer to Fig. 7.1)

Fig. 7.1



[TOP](#) [PREVIOUS](#) [NEXT](#)

7.2 Replacing Precautions for Optical Pickup Unit

[TOP](#) [PREVIOUS](#) [NEXT](#)

DVD/CD Optical Pickup

The optical pickup by which part supply was carried out attaches the short clip to the flexible board for laser diode electrostatic discharge damage prevention. Please remove a short clip and be sure to check that the short land is open, beforeconnecting. (Please remove solder, when the short land short-circuits.)

[TOP](#) [PREVIOUS](#) [NEXT](#)

7.3 Grounding for Preventing Electrostatic Destruction

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Human body grounding

Use the anti-static wrist strap to discharge the static electricity accumulated in your body.
(Refer to Fig. 7.2)

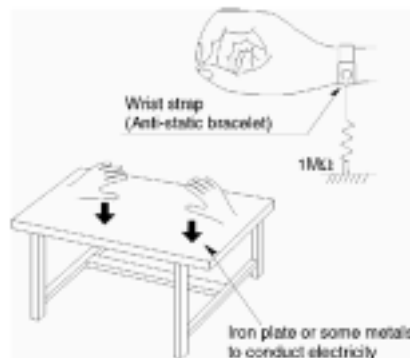
2. Work place grounding

Place a conductive material (conductive sheet) or ironboard where optical pickup is placed.
(Refer to Fig. 7.2)

Note :

Keep your clothes away from optical pickup as wrist strap does not release the static electricity charged in clothes.

Fig. 7.2



[TOP](#) [PREVIOUS](#) [NEXT](#)

8 Precaution of Laser Diode

[TOP](#) [PREVIOUS](#) [NEXT](#)

Caution :

This product utilizes a laser diode with the unit turned "ON", invisible laser radiation is emitted from the pick up lens.

Wavelength : 780 nm(VCD/CD)/658 nm(DVD)

Maximum output radiation power from pick up : 100 •W/VDE

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

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

ACHTUNG :

Dieses Produkt enthält eine Laserdiode. Im eingeschalteten Zustand wird unsichtbare Laserstrahlung von der Lasereinheit abgestrahlt.

Wellenlänge : 780 nm(VDC/CD)/658 nm(DVD)

Maximale Strahlungsleistung der Lasereinheit : 100•W/VDE

Die Strahlung an der Lasereinheit ist ungefährlich, wenn folgende Punkte beachtet werden:

1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
2. Den werkseitig justierten Einstellregler der Lasereinheit nicht verstellen.
3. Nicht mit optischen Instrumenten in die Fokussierlinse blicken.
4. Nicht über längere Zeit in die Fokussierlinse blicken.

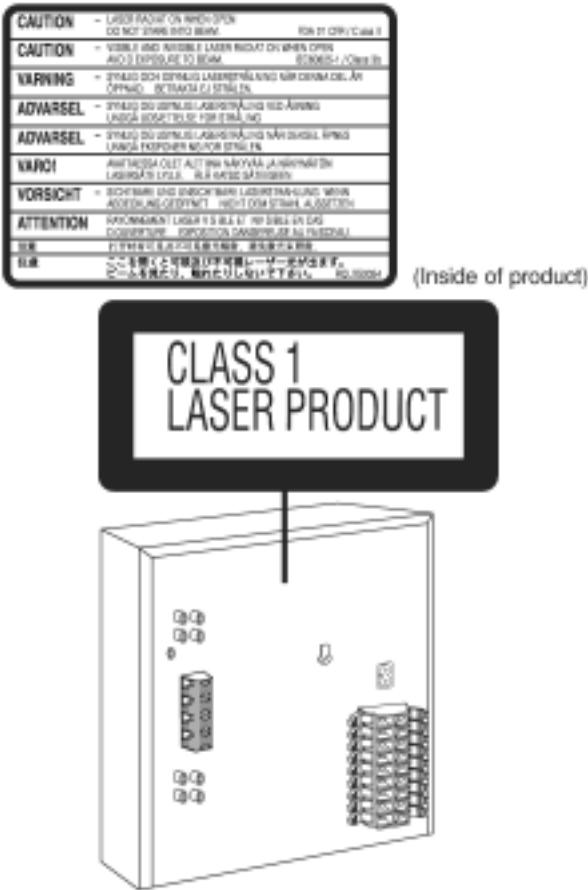
ADVARSEL :

I dette apparat anvendes laser.

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.

Use of Caution Labels



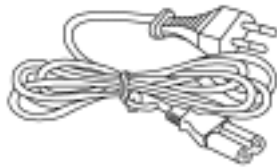
9 Accessories

[TOP](#) [PREVIOUS](#) [NEXT](#)

Remote Control



AC power supply cord



FM indoor antenna



AM indoor antenna



Video cable



Power plug adaptor



[TOP](#) [PREVIOUS](#) [NEXT](#)

10 Operation Procedures

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

11 Disc information

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12 About HighMAT

[TOP](#) [PREVIOUS](#) [NEXT](#)

[12.1 What is HighMAT?](#)

[12.2 Why use HighMAT?](#)

[12.3 The advantages of using HighMAT](#)

[12.4 Outline of the HighMAT standard](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

12.1 What is HighMAT?

[TOP](#) [PREVIOUS](#) [NEXT](#)

This word combines the abbreviations of Matsushita Electric Industrial Co. Ltd. and High Performance Media Access Technology, and is a trademark of Microsoft Corporation. The products with the HighMAT logo shown below are made according to the HighMATstandard.

HighMAT is a format that allows users to save digital contents such as photographs, audio, and images on a CD. This gives consistency in the way of reading data when general consumer products (such as DVD players) and PCs are used, and thus, itis easy to operate for the user.

[TOP](#) [PREVIOUS](#) [NEXT](#)

12.2 Why use HighMAT?

[TOP](#) [PREVIOUS](#) [NEXT](#)

Up to now, there was no harmonized standard from playing digital content stored in CD-ROM formats (including CD-R) on consumer products like DVD players. Therefore, we used to have problems such as follow:

- There was no common play list or attached information on contents, which is called metadata.
- The data compression method differed according to the equipment.
- As the number of CD-ROMs recorded increased retrieved the contents became more difficult.
- Because display and operation methods were different depending on the equipment, the play order of the content on the same disc could change.

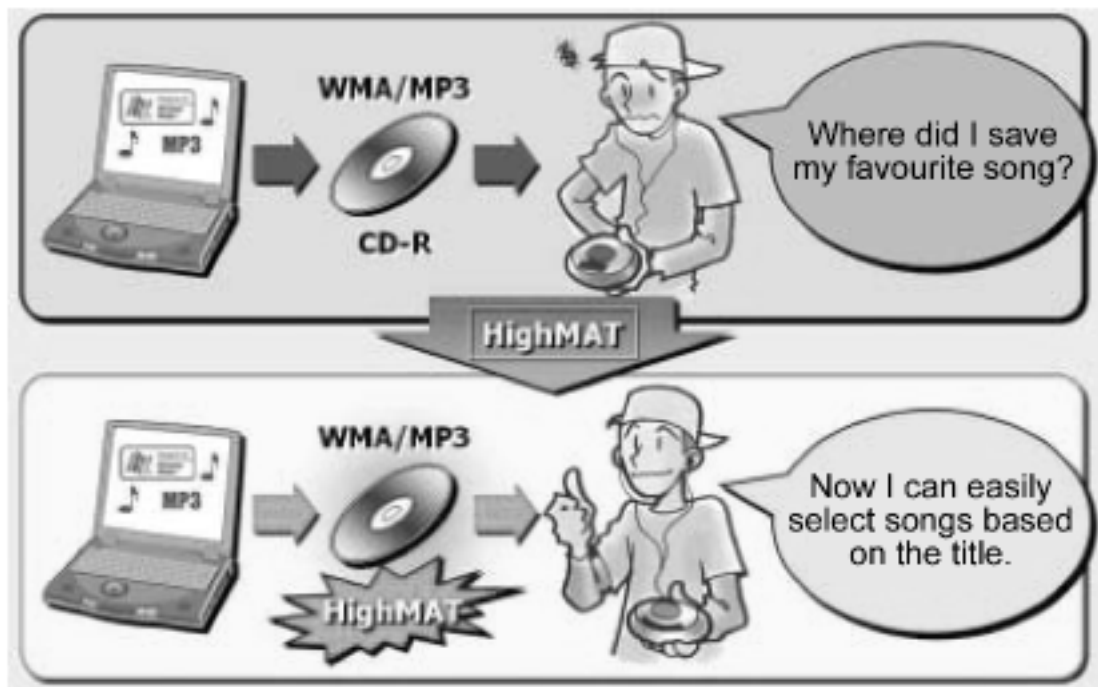
[TOP](#) [PREVIOUS](#) [NEXT](#)

12.3 The advantages of using HighMAT

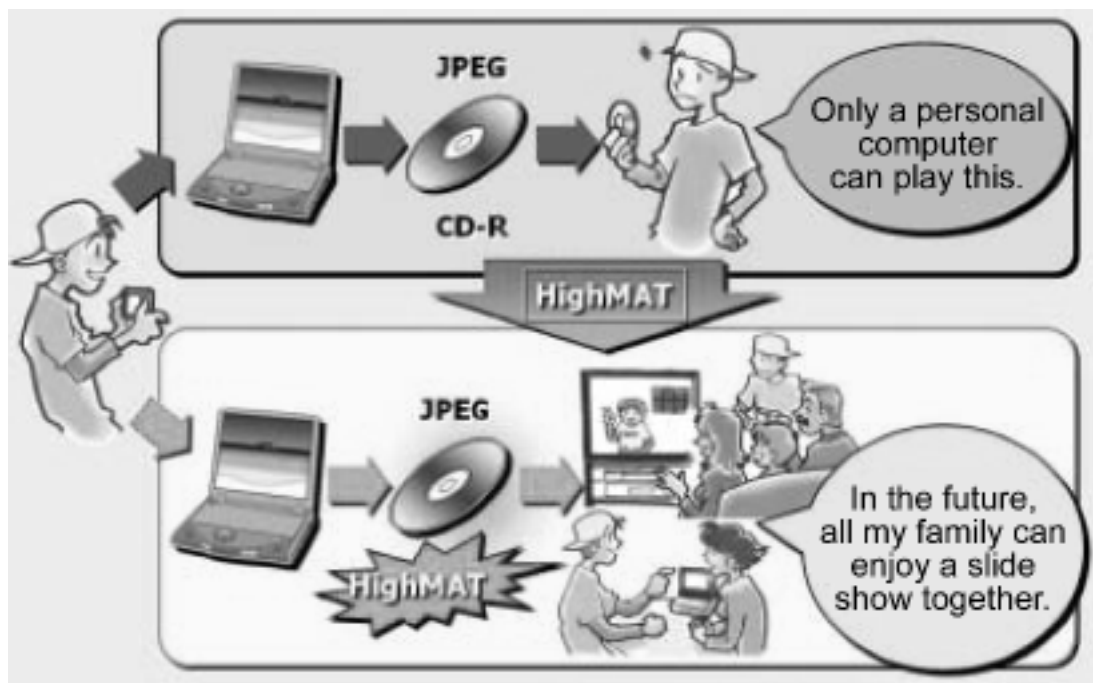
[TOP](#) [PREVIOUS](#) [NEXT](#)

Applying the HighMAT standard will solve the following problems and will improve usability.

- It will create a common user interface for both PC and consumer products.



- Regardless of the types of consumer products, such as DVD players, portable CD players, car stereos, and micro computers, a consistent way to pay for digital content will be created and it will make it easier to retrieve data.



- You can also play digital content on the disc, which was created in accordance with the HighMAT format with a conventional CD-ROM player.

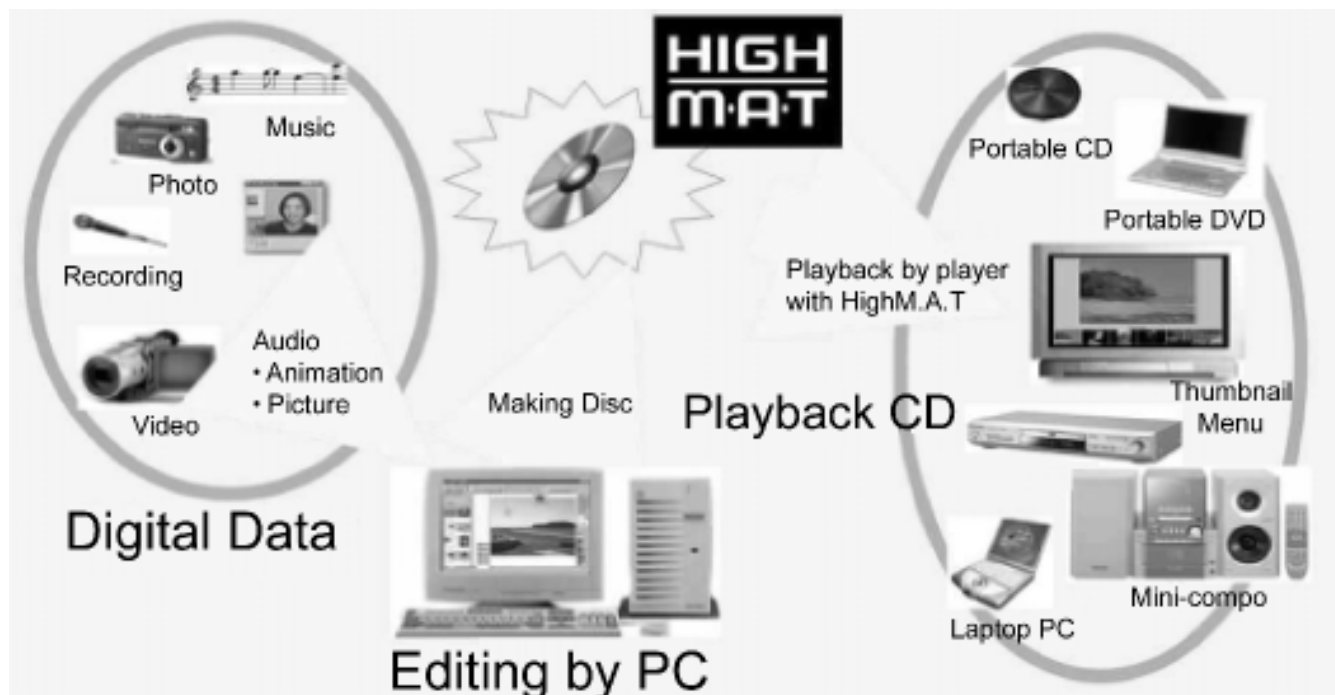
[TOP](#) [PREVIOUS](#) [NEXT](#)

12.4 Outline of the HighMAT standard

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Recording medium

- CD-R/CD-RW
- Supports ISO 9660 Level Expanded Joliet
- For multiple session



2. Support data format

- Level 1 player: WMA, MP3 (MPEG-1 Audio Layer 3)
- Level 2 player: WMA, MP3 (MPEG-1 Audio Layer 3), JPEG
- Level 3 player: WMA, MP3 (MPEG-1 Audio Layer 3), JPEG, WMV, MPEG4 (optional)

3. Limitation of data format

- WMA, MP3 (MPEG-1 Audio Layer 3) 64 kbps - 160.999 kbps, 44.1 KHz, stereo, fixed bit rate/ variable bit rate.
- WMA, V2 and above, excluding Lossless/Voice/Pro
- JPEG: Max 6M pixel, Maximum file size: 3 MB

4. Limitations regarding the number of files on the media, etc.

- Total number of audio files: Maximum 450
- Total number of still picture files: Maximum 999
- Total number of animation files: Maximum 200
- Total number of directories: Maximum 400
- Length of a file name: Maximum 108 characters (Unicode)
- Total number of play lists: Maximum 200
- Number of contents in the playlist: Maximum 900

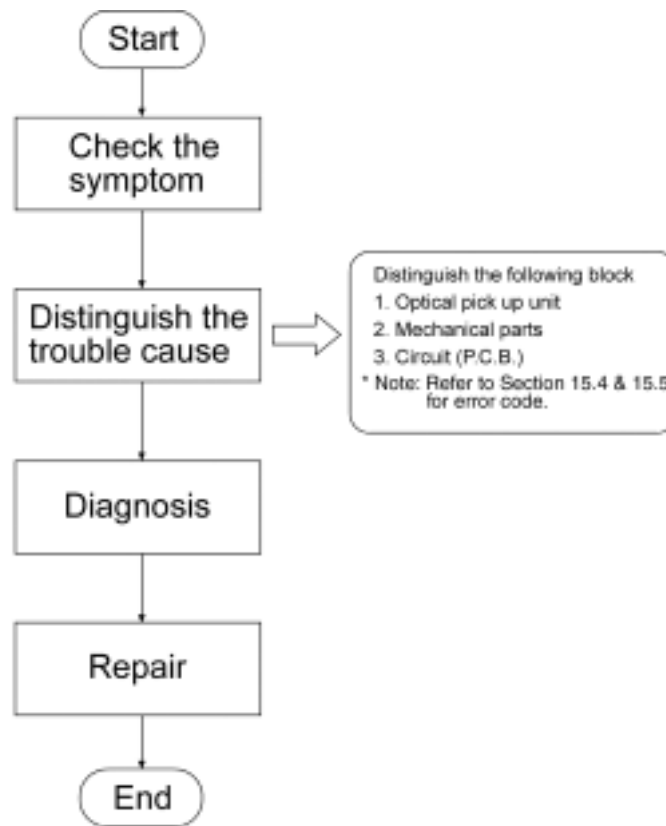
5. Composition of HighMAT disc

- Menu: Classified for the navigation of the HighMAT digital contents. When menu selected, its submenu or the play list will be displayed.
- Play list: A list in which one or more digital contents are arranged in order
- Group: Sub-divided group of a play list.
- Digital Contents: Audio, still picture, and animation data.

[TOP](#) [PREVIOUS](#) [NEXT](#)

13 Procedure for repairing the set

[TOP](#) [PREVIOUS](#) [NEXT](#)



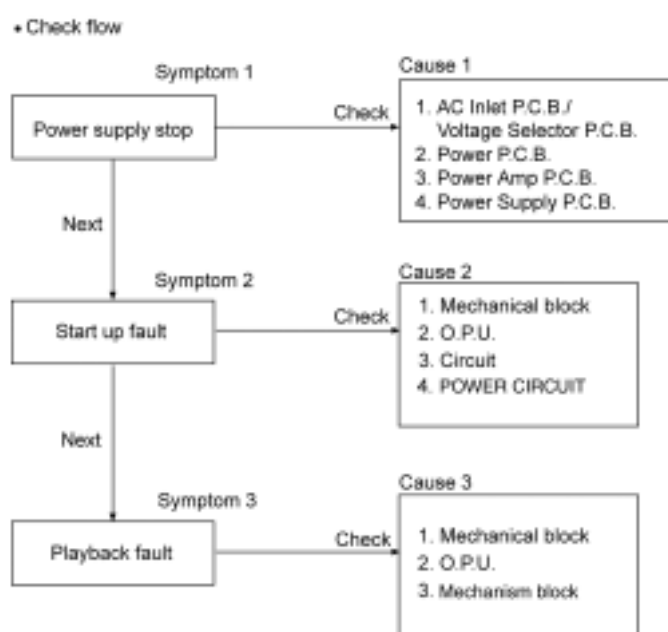
[13.1 Distinguish the trouble cause](#)

[13.2 Diagnosis of Optical Pick-up Unit](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

13.1 Distinguish the trouble cause

[TOP](#) [PREVIOUS](#) [NEXT](#)



How to distinguish the trouble

1. View mechanical part if visual damage occurred.

Confirm the movement of mechanical parts assembly (tray ass'y, loading mechanism ass'y, etc.).

2. Diagnose if Optical Pickup Unit is faulty (refer to diagnosis of Optical Pickup Unit).
3. If mechanism and OPU are OK, it is P.C.B.

Cause 1	Possible fault
1. AC Inlet Circuit/Voltage Selector Circuit	Fuse Blow (F1,F2), Power Transformer Problem(T501, T502), Wrong Selection of Selector (S501)
2. Power Circuit	F3, F4, FP951, FP950
3. Power Amp Circuit	IC502 faulty
4. Power Supply Circuit	IC500, IC501 faulty

Cause 2	Possible fault
1. Mechanical block	Tray and loading mechanical block, traverse unit, deck unit
2. O.P.U.	Refer to the diagnosis of OPU

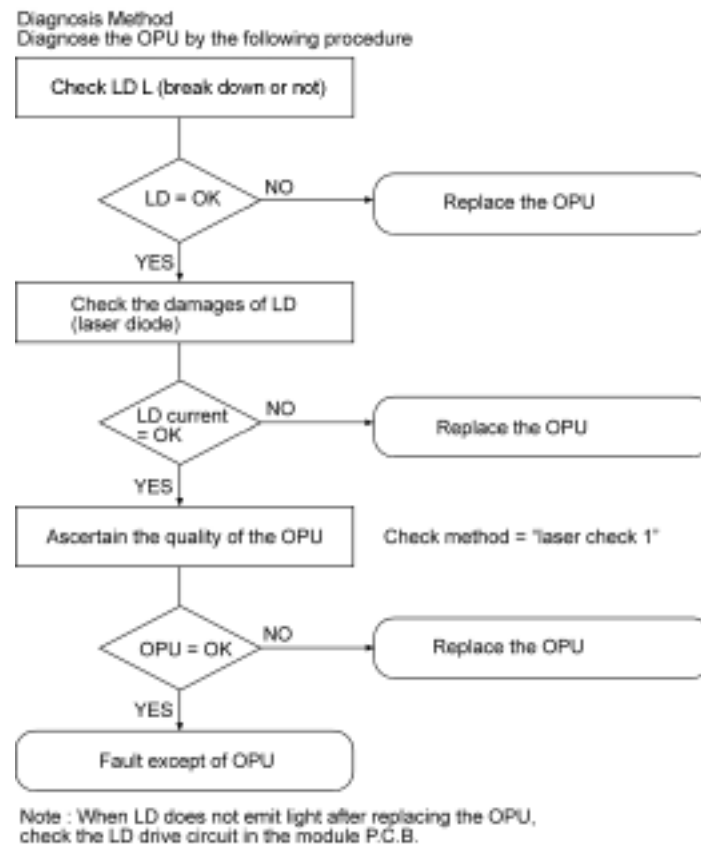
3. Circuit	LD drive, servo (Traverse, Focus, Tracking) Disc sensor Signal processing (FORE, SODC, DV1 etc.)
4. Power circuit	FP951

Cause 3	Possible fault
1. Mechanical block	Traverse block (Tilt adjustment)
2. O.P.U.	Refer to the diagnosis of OPU
3. Mechanism Circuit	Servo (Focus, tracking) Signal processing (FORE, SODC, DV1 etc.)

[TOP](#) [PREVIOUS](#) [NEXT](#)

13.2 Diagnosis of Optical Pick-up Unit

[TOP](#) [PREVIOUS](#) [NEXT](#)



How to distinguish Laser destruction/damage

Confirmation 1

Remove cover of mechanism block so that you will see the lens of optical pickup.

Confirm emission of laser at the moment when power switch is turned on.

If there is no laser emission, laser diode is faulty.

Confirmation 2

While holding "Pause" and "Open/Close" button, press "Display" button on the remote controller.
Unit display laser current on FL.

From the reading of display, you can judge if laser diode is damaged or not.

Reading on the right side should be less than 70. If reading is more than 70, laser is damaged.

How to confirm if Optical Pickup is OK

Confirmation 1

1. Confirmation of jitter value with test disc. (Refer below for how to check jitter)
2. Lens cleaning.
3. Reconfirm jitter value.
4. Perform tilt adjustment. (Refer to tilt adjustment)
5. Reconfirm jitter value. (To confirm jitter value, while pressing “Pause” and “Open/Close” button, press numeric “5” on remote controller.)

Unit display jitter value on FL.

Confirmation 2

If servo is very unstable due to optical error and you cannot confirm jitter value, clean the lens and check appearance of pick up unit (cutting coil of actuator, etc), then check circuitry.

[TOP](#) [PREVIOUS](#) [NEXT](#)

14 Optical Pickup Self-Diagnosis and Replacement Procedure

[TOP](#) [PREVIOUS](#) [NEXT](#)

[14.1 Self-diagnosis](#)

[14.2 Cautions to Be Taken During Replacement of Optical Pickup and Spindle Motor](#)

[14.2.1 Cautions to be taken during replacement of optical pickup](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

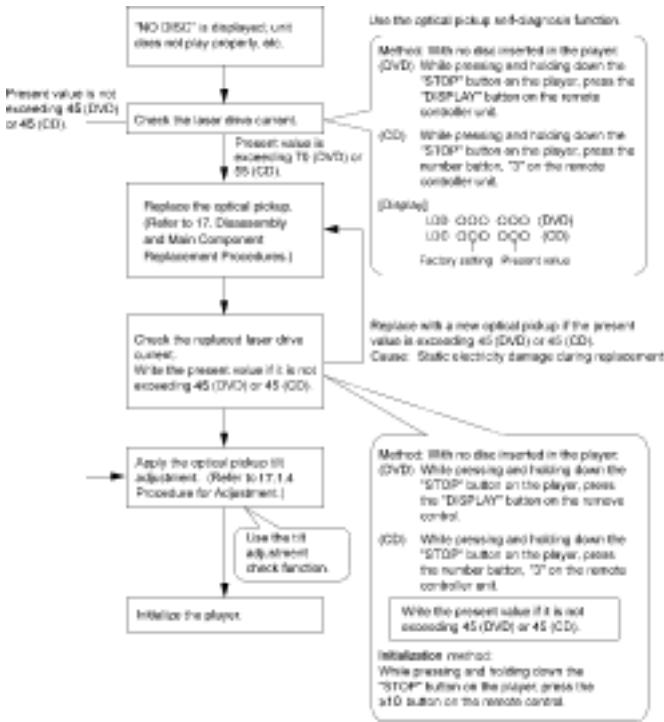
14.1 Self-diagnosis

[TOP](#) [PREVIOUS](#) [NEXT](#)

This unit is equipped with the optical pickup self-diagnosis function and the tilt adjustment check function. Follow the procedure described below during repair in order to perform self-diagnosis and tilt adjustment effectively. Especially when “NODISC” is displayed, be sure to apply the self-diagnosis function before replacing with an optical pickup. Replacement of optical pickup generally requires when the present value of laser drive exceeds 45 (DVD) or 45 (CD).

Note:

Start diagnosis within three minutes after turning on the power (as diagnosis fails when the unit becomes warm).



[TOP](#) [PREVIOUS](#) [NEXT](#)

14.2 Cautions to Be Taken During Replacement of Optical Pickup and Spindle Motor

[TOP](#) [PREVIOUS](#) [NEXT](#)

Before replacing the optical pickup and spindle motor, check a total usage time respectively. Follow the checking method described below.

Item	Status and Key Function	Display
Checking DVD, CD laser usage time	With the unit stopped and no disc inserted, press the. ■button on the player and the ■buttonon the remote controller unit.	T1_XXXX_yyyy XXXX(DVD), yyyy(CD): total time is displayed with a four-digit number by the ten hours.
Checking spindle motor usage time	With the unit stopped and no disc inserted, press the ■button on the player and the ■buttonon the remote controller unit.	T2_XXXXX XXXXX: total time is displayed with a four-digit number by the ten hours.
Resetting DVD, CD laser usage time	While the DVD and CD laser usage times are displayed, press the ■button on the player and the ■button on the remote controller unit.	T1_0000_0000
Resetting spindle motor usage time	While the spindle motor usage time is displayed, press the ■button on the player and the ■buttonon the remote controller unit.	T2_0000

[14.2.1 Cautions to be taken during replacement of optical pickup](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

14.2.1 Cautions to be taken during replacement of optical pickup

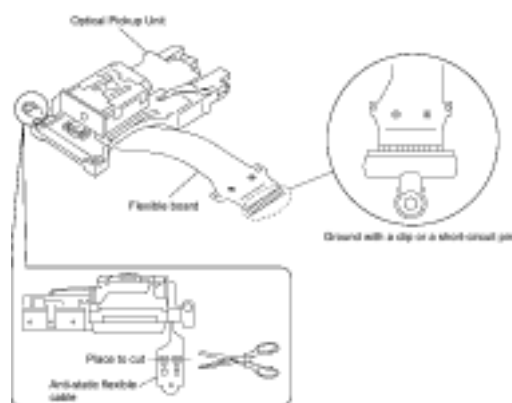
[TOP](#) [PREVIOUS](#) [NEXT](#)

Optical pickup could be damaged due to the static electricity discharged from human body. Wear proper protection gear against static electricity during optical pickup and its peripheral repair. (Refer to “Cautions to Be Taken When Handling Optical Pickup”.)

- Do not touch laser diode, actuator and their peripherals.
- Do not check laser diode with a tester and such. (The tester will be destroyed.)
- For short-circuiting or removing laser diode, the use of an anti-static soldering iron is recommended. (Recommended model: HAKKO ESD product)
- Solder the land of the flexible cable in the optical pickup.

Note:

If an anti-static soldering iron is not available, short-circuit the terminal surface of the flexible cable and then the land using a clip or equivalent device.



[TOP](#) [PREVIOUS](#) [NEXT](#)

15 Self-Diagnosis Function

[TOP](#) [PREVIOUS](#) [NEXT](#)

This unit is equipped with the self-diagnosis function, which displays an error when it occurs, for use during servicing.

[15.1 Automatic Displayed Error Codes](#)

[15.1.1 Automatic Display Function](#)

[15.1.2 Re-Display](#)

[15.1.3 Description of Error Code](#)

[15.2 Memorized Error Codes](#)

[15.2.1 Activating Self-Diagnosis Function and Displaying Method](#)

[15.2.2 Re-Display](#)

[15.3 Mode Table 1](#)

[15.4 DVD / CD Self-Diagnosis Error Code Description](#)

[15.5 Error Codes Stored During No Play](#)

[15.6 Mode Table 2](#)

[15.7 Tray Lock Function](#)

[15.7.1 Setting](#)

[15.8 Things to Do After Repair](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.1 Automatic Displayed Error Codes

[TOP](#) [PREVIOUS](#) [NEXT](#)

[15.1.1 Automatic Display Function](#)

[15.1.2 Re-Display](#)

[15.1.3 Description of Error Code](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.1.1 Automatic Display Function

[TOP](#) [PREVIOUS](#) [NEXT](#)

For a power unit error, the code is automatically displayed.

- **F61:**

Automatically displayed on the LCD of the player.

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.1.2 Re-Display

[TOP](#) [PREVIOUS](#) [NEXT](#)

- [For F61 Display](#)
 - When the code, F61 is displayed, the power is automatically turned off.
 - The code, F61 is displayed for three seconds, and then the current time appears.
 - To retrieve the code, turn on the power button so that the code F61 appears, however, is switched to time display after three seconds, and the power is automatically turned off.
- [For F76 Display](#)
 - The abnormalities is an output or the abnormalities in a power supply of POWER AMP.

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.1.3 Description of Error Code

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.1.3.1 F61

- [State, Condition](#)

When the power is turned on, the unit is automatically turned off. The power does not turn on.

- [Cause, Troubleshooting](#)

Power circuit system failure and/or direct current flown to speaker terminal
Identify the cause and replace with new parts.

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.2 Memorized Error Codes

[TOP](#) [PREVIOUS](#) [NEXT](#)

[15.2.1 Activating Self-Diagnosis Function and Displaying Method](#)

[15.2.2 Re-Display](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.2.1 Activating Self-Diagnosis Function and Displaying Method

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Turn on the power.
2. Select DVD/CD function. With no DVD/CD inserted in the player, press and hold down the
 - button for at least two seconds, and press the “0” button on the remote control for at least two seconds in order to display “DVD_F_ _ _”.
3. Press the
 - button. If a memorized error is detected, the result of self diagnosis is displayed. (Ex.: T H15)If several errors are detected, press the
 - button to display each.

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.2.2 Re-Display

[TOP](#) [PREVIOUS](#) [NEXT](#)

- Press the power button to turn off the power, and then turn on the power.
- The details of self diagnosis are stored in the unit memory.
To retrieve them, follow the procedure described the above, “Activating Self-Diagnosis Function and Displaying Method”.

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.3 Mode Table 1

[TOP](#) [PREVIOUS](#) [NEXT](#)

Following modes are available with combinations of the pressed buttons on the player and on the remote controller unit.

Player	Remote Controller Unit	Usage
 button	0	Error code display (Refer to the Item 9.4. DVD Error Code Description)
	5	Tilt adjustment
	6	Region number and broadcasting system check
	7	Bulit-in program version check
	DISPLAY	DVD laser drive current check
	3	CD laser drive current check
	PAUSE	Writing of laser drive current value after replacement of optical pickup (Do use this function only when optical pickup is replaced.)
		Initialization of the player (factory setting is restored.) Used after replacement of micro-computer and its peripherals and printed circuit board.

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.4 DVD/CD Self-Diagnosis Error Code Description

[TOP](#) [PREVIOUS](#) [NEXT](#)

Error Code	State, Conditon	Cause, Troubleshooting
H15	The disc tray cannot be opened: it closes spontaneously.	Disc tray open/close detection switch (S1001) failure. (Check and replace)
H16	The disc tray cannot be closed: it opens spontaneously.	

Error Code	Meaning	Details
U. H. Error		
U11	Focus servo failure	
H01	Tray loading failure	
H02	Spindle servo failure	(Spindle servo, DSC, SP motor, CLV servo failure)
H03	Traverse motor failure	
H04	Tracking servo error	
H05	Seek timeout failure	
DSC system		
F500	DSC failure	DSC stops due to servo failure. (Startup, focus failure, etc.)
F501	DSC not Ready failure	Communication failure between DSC and system computer (No communication because DSC does not move)
F502	DSC Time out failure	See F500.
F503	DSC communication failure	Communication failure (Result failure occurs after communication command is transmitted.)
F505	DSC Attention Error	See F500.
F506	Invalid media	Disc is placed upside down; TOC is unreadable or invalid disc is inserted.
Disc Code		
F103	Illegal highlight position	Disc standard is possibly illegal when highlight is displayed.
IIC Error		
F4FF	Forced initialization failure (Time out)	
F880	Unsuitable task number	When a message arrives from not existing task
F890	A message is sent during AV task transmission	During transmission of a message to AV task
F891	Unable to transmit a message to AV task	When transmission of a message to AV task starts

F893	FROM altered	
F894	EEPROM failure	
F8A0	Unsuitable message command	When transmission of a message to AV task starts

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.5 Error Codes Stored During No Play

[TOP](#) [PREVIOUS](#) [NEXT](#)

Error Code	Meaning	System Computer Item	Setting Task	Internal error in system computer
F0BF	6) Unable to replay due to physical layer identification failure	PCND_NOPLAY_PHYSICAL 0x50	DriveManager	0xD0BF
F0C0	8) DVD: Unable to replay due to no DVD Video/Audio/VR	PCND_NOPLAY_VIDEO 0x70	DiscManager	0xD0C0
F0C1	9) DVD: Prohibited due to illegal regional code	PCND_NOPLAY_RCD 0x80	DiscManager	0xD0C1
F0C2	A) DVD: No replay due to PAL system	PCND_NOPLAY_PAL 0x90	DiscManager	0xD0C2
F0C3	B) DVD: All title replay prohibited in parental setting	PCND_NOPLAY_PTL 0xA0	DiscManager	0xD0C3
F0C4	C) VCD: Prohibited due to PHOTO CD format	PCND_NOPLAY_PHOTOCD 0xB0	DiscManager	0xD0C4
F0C5	D) VCD/CD: Prohibited due to CD-ROM without CD-DA	PCND_NOPLAY_CDROM 0xC0	DiscManager	0xD0C5

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.6 Mode Table 2

[TOP](#) [PREVIOUS](#) [NEXT](#)

Following modes are available with combinations of the pressed buttons on the player and on the remote controller unit.

Item	Operational Condition and Key Function	Details	Display	TO Exit Mode
Jitter display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button, “5” on the remote controller unit.	Jitter display Measures and displays jitter. Measurement is repeated every second. Read error counter starts at 0 at the mode setting, and increased by one as data read fails at target block. A small defect is allowed to correct by retry. Any possibility is counted as one increment. Repetitive errors after retry increase by two levels or more.	J*1 xxx*2 _yyy*3 _zz*4 *1 : Jitter display mode *2 : Jitter measurement value *3 : Read error counter *4 : Focus driving value Values are shown to one decimal place in the decimal digit. Focus driving value is displayed in the hexadecimal digit.	Press the STOP or OPEN button.
Error code display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button, “0” on the remote controller unit.	Error code display Displays the latest error code stored in EEPROM.	DVDnn_F--- *nn: Error history *--: Error number DVD 01 FOBF	Press the OPEN button.
Measurement of laser current electricity initialization value	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the ■ button on the remote controller unit.	Measurement of laser current electricity initialization value Memorizes each initialization value of DVD and CD in EEPROM.	LDO*1 _013*2 _032*3 *1 : Laser current electricity measurement mode *2 : DVD current electricity value *3 : CD current electricity value Values are shown in the decimal digit. The above example indicates that the current electricity initialization value is 13mA at DVD laser and 32mA at	Automatically exits the mode after five seconds.

			CD laser when laser is turned on.	
Measurement of DVD laser current electricity	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the DISPLAY button on the remote controller unit.	Measurement of DVD laser current electricity Measures DVD laser current electricity and displays the result together with the initialization value stored in EEPROM. After measurement, DVD laser is lit till the power is turned off (or goes off when the primary power is turned off).	LDD*1 _012*2 _014*3 *1 : DVD laser current electricity measurement mode *2 : Current electricity initialization value stored in EEPROM *3 : Present value of current electricity Values are shown in the decimal digit. The above example indicates that the current electricity initialization value is 12mA and its present value is 14mA.	Automatically exits the mode after five seconds.
ADSC internal RAM display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button “1” or “2” on the remote controller unit.	ADSC internal RAM display Reads and displays the RAM value inside ADSC. The address is renewed when the CLEAR key is pressed so that the values at eleven points appear.	A*1 _FB0*2 _0000*3 *1 : ADSC internal RAM display mode *2 : Address *3 : RAM value at displayed address Values are shown in the hexadecimal digit. The above example indicates that ADSC value at the address, FB0h is 0000h.	Press the STOP or OPEN button.
Measurement of CD laser current electricity	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button “3” on the remote controller unit.	Measurement of CD laser current electricity Measures CD laser current electricity and displays the result together with the initialization value stored in EEPROM. After measurement, CD laser is lit till the power is turned off (or goes off when the primary power is turned off).	LDC*1 _032*2 _032*3 *1 : CD laser current electricity measurement mode *2 : Current electricity initialization value stored in EEPROM *3 : Present value of current electricity Values are shown in the decimal digit. The above example indicates the current electricity initialization value is 28mA and its present value is 26mA when laser is turned on.	Automatically exits the mode after five seconds.

User initialization	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button ⏏ on the remote controller unit.	User initialization The user setting recovers the factory setting.	“INITIALIZE”	-
Region display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button, “6” on the remote controller unit.	Region display	[srrrxyzzzz] s : Panecon model type rrr : Panecon release number x : Syscon generation (45) y: Syscon model type zzz: Syscon release number	Automatically exits the mode after five seconds.
Firmware version display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button, “7” on the remote controller unit.	Firmware version display	rrr*1 _xx*2 y*3 zzz*4 *1 : Panel computer release number *2 : System computer generation *3 : Systemcomputer model type *4 : System computer release number	Automatically exits the mode after five seconds.
Region and firmware display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button, “8” on the remote controller unit.	Region and firmware version display	_r*1 __xx*2 y*3 zzz*4 *1 : Region number *2 : System computer generation *3 : Systemcomputer model type *4 : System computer release number	Automatically exits the mode after five seconds.

Laser use time	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the ⌂ button on the remote controller unit.	Laser usage time Measures each for DVD and CD respectively.	T1_1234_5678 The numbers in the left show usage time for DVD laser and those in the right for CD laser. The four-digit number is shown by the ten hours in the decimal digit. The number after 0000 is 9999.	Automatically exits the mode after five seconds.
Reset laser use time	While the usage time 1 is displayed, press and hold down the ■ button on the player and the ⌂ button on the remote controller unit.	Laser usage time reset Resets both for DVD and CD at once.	T1_0000_0000	Automatically exits the mode after five seconds.
Spindle use time	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the ⌂ button on the remote controller unit.	Spindle motor usage time	T2_12345 The four-digit number is shown by the ten hours in the decimal digit. The number after 00000 is 99999.	Automatically exits the mode after five seconds.
Reset spindle use time	While the usage time 2 is displayed, press and hold down the ■ button on the player and the ⌂ button on the remote controller unit.	Usage time 2 reset Spindle motor usage time	T2_00000	Automatically exits the mode after five seconds.

Communication error display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the MENU button on the remote controller unit.	Displays frequency of communication errors between system computer firm IC and mechanical computer IC during DVD module.	ERR_00/30	Automatically exits the mode after five seconds.
-----------------------------	--	--	-----------	--

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.7 Tray Lock Function

[TOP](#) [PREVIOUS](#) [NEXT](#)

[15.7.1 Setting](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.7.1 Setting

[TOP](#) [PREVIOUS](#) [NEXT](#)

- [Disc Lock Function](#)

1. With the SELECTOR on DVD/CD and POWER ON, hold down the [STOP] KEY on the main unit, and then press the [POWER] KEY on the remote control for 3 seconds to enter toLock mode A.[_ _ _LOCKED_] will be displayed for 3 seconds, and then current disc will begin playing.
2. In Lock mode A, the following key is disabled.

[OPEN/CLOSE]

- [Operation Lock Function](#)

1. With the SELECTOR on DVD/CD and POWER ON, hold down the [CD PLAY] KEY on the main unit, and then press the [POWER] KEY on the remote control for 3 seconds to enter Lock mode B.

[_ _ _ LOCKED_] will be displayed for 3 seconds, and the current disc will begin playing.

2. Lock mode B primarily controls the selector and disc operations, and disenables for the following keys.

[Note:](#)

OPEN/CLOSE

▪ button are invalid and the player displays “___LOCKED_” while the lock function mode is entered.

- [Prohibiting operation of selector and disk](#)

1. Select the DVD/CD function.
2. Press and hold down the
▪ button on the player and the power button on the remote controller unit for at least

three seconds. (The message, “___LOCKED_” appears when the function is activated.)

Note:

The following buttons are invalid and the player displays “___LOCKED_” while the lock function mode is entered.



[TOP](#) [PREVIOUS](#) [NEXT](#)

15.8 Things to Do After Repair

[TOP](#) [PREVIOUS](#) [NEXT](#)

Follow the procedure described below after repair.

1. While the power is on, press the
⌘ button to close the tray.
2. Press the power button to turn off the power.
3. Unplug the power cable.

Note:

It is prohibited to unplug the power cable while the tray is opened and to close the tray manually.

[TOP](#) [PREVIOUS](#) [NEXT](#)

16 Cautions To Be Taken During Servicing

[TOP](#) [PREVIOUS](#) [NEXT](#)

[16.1 Recovery after the dvd player is repaired](#)

[16.2 DVD Player Firmware Version Upgrade Process](#)

[16.3 Firmware Version Upgrade Process by Using Disc and Recovery Process](#)

[16.3.1 Self-Diagnosis Function](#)

[16.4 Using Recovery Disc](#)

[16.4.1 Recovery Process](#)

[16.4.2 Version Upgrade Process](#)

[16.5 Total Usage Time Display](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

16.1 Recovery after the dvd player is repaired

[TOP](#) [PREVIOUS](#) [NEXT](#)

- When Flash ROM or module(2) P.C.B. is replaced, carry out the recovery processing to optimize the drive. Playback the recovery disc to process the recovery automatically.
- Recovery disc (Product number=RFKZD03R004)
- Performing recovery
 1. Load the recovery disc (Product number: RFKZD03R004) to the player and run it.
 2. Recovery is performed automatically. When it is finished, a message appears on the screen.
 3. Remove the recovery disc.
 4. Turn off the power.

Note:

This unit requires no initialization process carried out after the traditional DVD players were repaired. When the recovery measures are taken, the customer setting will return to the factory setting as same as the procedure described in item “Initialization” in9.6 is carried out. Write down the contents of the setting before recovery processing, and reset the player.

[TOP](#) [PREVIOUS](#) [NEXT](#)

16.2 DVD Player Firmware Version Upgrade Process

[TOP](#) [PREVIOUS](#) [NEXT](#)

Firmware of DVD player may upgrade to conform to improvement of its performance and quality including operational range, playability of non-standardized discs, etc. The version upgrade disc contains the recovery function, and the recovery disc is not necessary.

Note:

Version upgrade process cannot be complete if the AC power is cut off due to power failure and other occasions during the process. If this occurs, replace FLASH ROM and restart version upgrade. Version upgrade disc number is informed when ordered.

[TOP](#) [PREVIOUS](#) [NEXT](#)

16.3 Firmware Version Upgrade Process by Using Disc and Recovery Process

[TOP](#) [PREVIOUS](#) [NEXT](#)

- Recovery process
- Firmware version upgrade process

Both of the above procedures automatically start when the recovery disc is replayed. General CD-R disc allows version upgrade process and recovery process, making version upgrade through disc simple.

Recovery process: Optimization process of player after replacement of FLASH ROM, EEPROM, or module circuit board

Version upgrade process: Renewal of firmware for improvement of operational range and performance

[16.3.1 Self-Diagnosis Function](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

16.3.1 Self-Diagnosis Function

[TOP](#) [PREVIOUS](#) [NEXT](#)

- Total usage time display (spindle motor, DVD/CD laser)
- ADSC internal RAM display
- Others: Last error count.....20 items

Efficiency of failure diagnosis is expected to improve by using the above functions together with the repair process.

[Purpose of Use]

Total usage time display: used for estimating a failure due to exhausted spindle motor, laser, or other parts.

ADSC internal RAM display: used for deciding servo system failure according to servo learning values.

[TOP](#) [PREVIOUS](#) [NEXT](#)

16.4 Using Recovery Disc

[TOP](#) [PREVIOUS](#) [NEXT](#)

[16.4.1 Recovery Process](#)

[16.4.2 Version Upgrade Process](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

16.4.1 Recovery Process

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Insert the recovery disc (RFKZD03R004) to the player to replay.
2. The recovery process automatically starts, and a message of completion prompts on the screen.
3. Remove the disc.
4. Turn off the power.

[TOP](#) [PREVIOUS](#) [NEXT](#)

16.4.2 Version Upgrade Process

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Insert the recovery disc to the player to replay.
2. The version of player is automatically checked and prompts if necessary.
3. Select version upgrade process using the cursor keys on the remote controller unit. (Select YES or NO)
4.
 - a. If YES is selected, the process starts.
 - b. If NO is selected, only the recovery process is applied.
5.
 - a. When the version upgrade process is complete, a message of completion appears on the screen. Remove the disc.
 - b. Follow the instruction appearing on the screen, and remove the disc.
6. Turn off the power.

[TOP](#) [PREVIOUS](#) [NEXT](#)

16.5 Total Usage Time Display

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Details of Operation/Display



Keys for Operation:

Laser usage time: While the player is stopped and no disc is inserted, press both the

- button on the player and the
- button on the remote controller unit.

Spindle motor usage time: While the player is stopped and no disc is inserted, press both the

- button on the player and the
- button on the remote controller unit.

To reset the usage time, [while the usage time is displayed](#):

Laser usage time: press both the

- button on the player and the
- button on the remote controller unit.

Spindle motor usage time: press both the

- button on the player and the
- button on the remote controller unit.

2. Purpose of Use

To obtain reference data of laser and spindle motor systems during failure diagnosis.

To check faulty parts during re-repair.

[TOP](#) [PREVIOUS](#) [NEXT](#)

17 Operation Checks and Component Replacement Procedures

[TOP](#) [PREVIOUS](#) [NEXT](#)

“ATTENTION SERVICER”

Some chassis components may have sharp edges.

Be careful when disassembling and servicing.

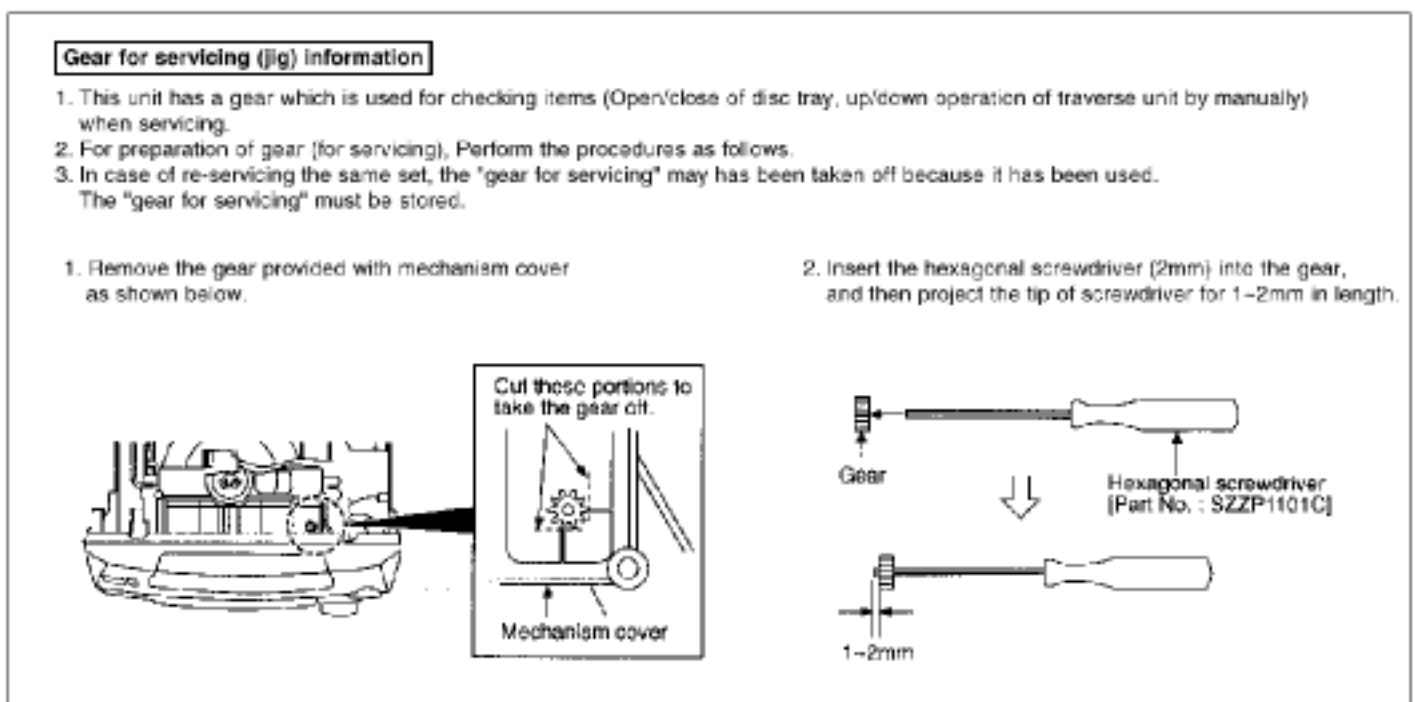
1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures.

Special reassembly procedures are described only when required.

3. Select items from the following index when checks or replacement are required.

Warning:

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



17.1 Disassembly of Top Cabinet

[17.2 Disassembly for the DVD changer ass'y](#)

[17.2.1 Disassembly for the Top Ornament Unit](#)

[17.2.2 Disassembly for DVD changer unit](#)

[17.3 Checking for the changer unit operational condition](#)

[17.3.1 Initial setting of CD](#)

[17.3.2 Checking for the DVD Module \(1\) P.C.B.](#)

[17.3.3 Checking for Panel P.C.B., Deck P.C.B. and LED P.C.B.](#)

[17.3.4 Replacement of the Power Amplifier IC](#)

[17.4 Main Component Replacement Procedures](#)

[17.4.1 Replacement of the Traverse Deck](#)

[17.5 Replacement for the disc tray](#)

[17.6 Disassembly and reassembly for mechanism base drive unit](#)

[17.7 Replacement for the motor ass'y](#)

[17.8 Replacement for the pinch roller ass'y and head block](#)

[17.9 Replacement for the CD motor ass'y, capstan belt A, capstan belt B and winding belt](#)

[17.10 Replacement for the CD motor ass'y, capstan belt A, capstan belt B and winding belt](#)

[17.11 Replacement for the cassette lid ass'y](#)

[17.12 Measure for tape trouble](#)

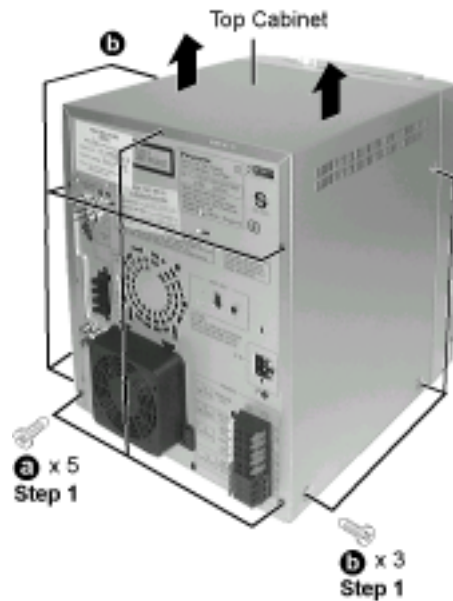
[TOP](#) [PREVIOUS](#) [NEXT](#)

17.1 Disassembly of Top Cabinet

[TOP](#) [PREVIOUS](#) [NEXT](#)

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

Step 2 Lift up both sides of cabinet ass'y, push the cabinet ass'y toward the rear and remove the cabinet ass'y.



- Checking the DVD Module (2) P.C.B. and Main P.C.B.



[TOP](#) [PREVIOUS](#) [NEXT](#)

17.2 Disassembly for the DVD changer ass'y

[TOP](#) [PREVIOUS](#) [NEXT](#)

(The DVD changer unit can be removed after the Top Ornament Unit is removed)

[17.2.1 Disassembly for the Top Ornament Unit](#)

[17.2.2 Disassembly for DVD changer unit](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

17.2.1 Disassembly for the Top Ornament Unit

[TOP](#) [PREVIOUS](#) [NEXT](#)

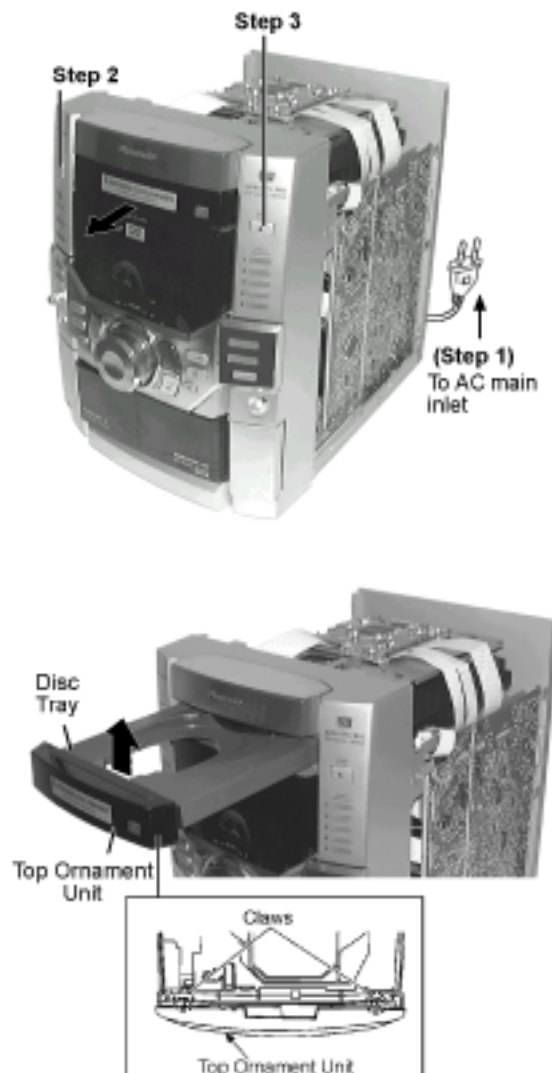
- Follow the (Step 1) - (Step 2) of Item 17.1.

When opening the disc tray automatically (Using Power Supply)

Step 1 Connect the AC power cord.

Step 2 Press the power button to power up the main unit.

Step 3 Press the OPEN/CLOSE button, the disc tray will be open automatically.



Step 4 Release the 2 claws, and then remove the Top Ornament Unit.

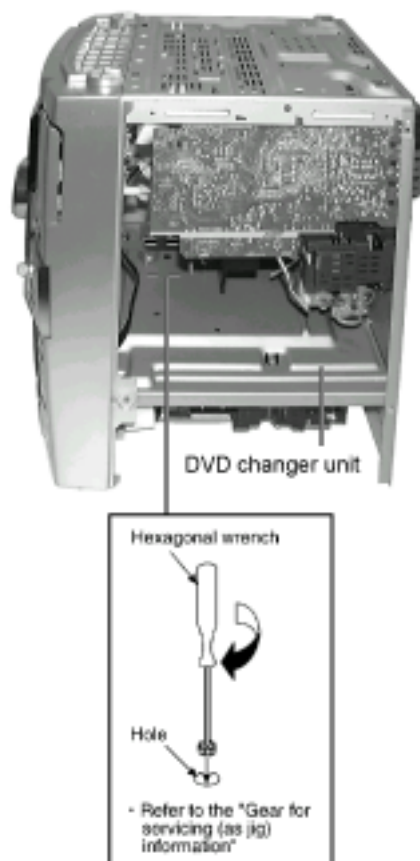


Step 5 Press the power button to turn the power on.

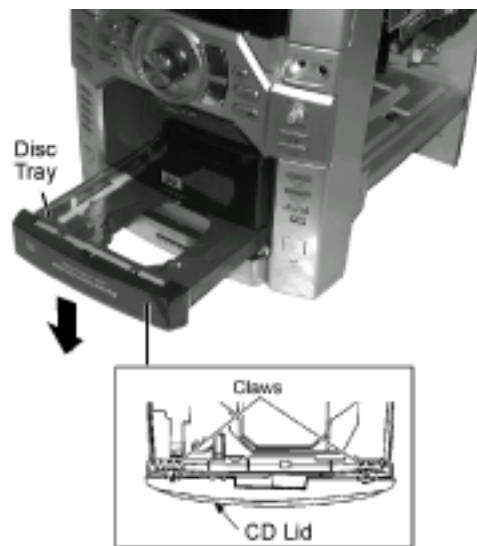
Step 6 Press the OPEN/CLOSE button, the disc tray will be close.

[Open the disc tray manually (Using service tools)]

Step 1 Upset the unit as shown below.



Step 2 Insert the gear tool into the hole on the underside of changer chasis and then rotate in the direction of arrow. The disc tray will be open.



[Step 3](#) Release the 2 claws, and then remove the CD lid cover.



[Step 4](#) Repeat Step 2 but rotate the tools in anti-clockwise.

[TOP](#) [PREVIOUS](#) [NEXT](#)

17.2.2 Disassembly for DVD changer unit

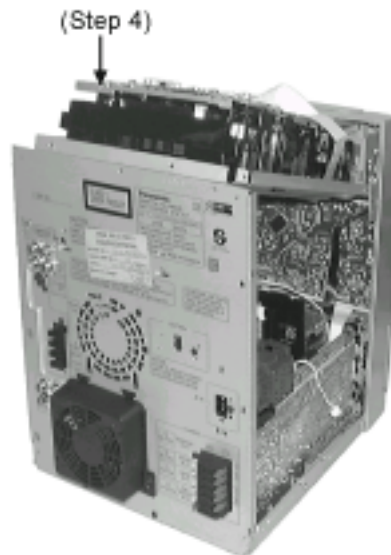
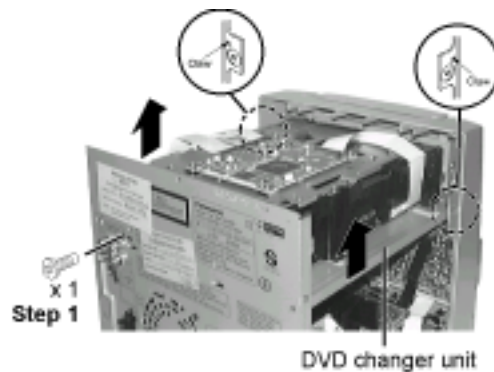
[TOP](#) [PREVIOUS](#) [NEXT](#)

- Follow the (Step 1) - (Step 2) of Item 17.1.
- Follow the Disassembly for the Top Ornament Unit of Item 17.2.1.

Step 1 Remove 1 screw at rear cabinet as show below.

Step 2 Lift up the mechanism unit cover, and then push in the mechanism unit cover.

Step 3 Release the claws of both ends, and then lift up the DVD changer unit.



Step 4 Upset the DVD changer unit.

Step 5 Place the DVD changer unit on the unit.



NOTE:
Cover the front panel
ass'y with cloth to
prevent from the damage.

<The preparation of checking procedures in operational condition is completed>

[TOP](#) [PREVIOUS](#) [NEXT](#)

17.3 Checking for the changer unit operational condition

[TOP](#) [PREVIOUS](#) [NEXT](#)

[17.3.1 Initial setting of CD](#)

[17.3.2 Checking for the DVD Module \(1\) P.C.B.](#)

[17.3.3 Checking for Panel P.C.B., Deck P.C.B. and LED P.C.B.](#)

[17.3.4 Replacement of the Power Amplifier IC](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

17.3.1 Initial setting of CD

[TOP](#) [PREVIOUS](#) [NEXT](#)

- Follow the (Step 1) - (Step 2) of Item 17.1.
- Follow the Disassembly for the Top Ornament Unit of Item 17.2.1.

Step 1 Connect the AC power cord.

Step 2 Press power button to turn on power for main unit.

Step 3 Select the input select button to “DVD/CD”.



Step 4 Push the OPEN/CLOSE button, and then open the disc tray.



[Step 5](#) Put the CD into the disc tray.



[Step 6](#) Press the OPEN/CLOSE button, and then close the disc tray. (Then, the CD will load.)

[<The initial setting of CD unit is completed.>](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

17.3.2 Checking for the DVD Module (1) P.C.B.

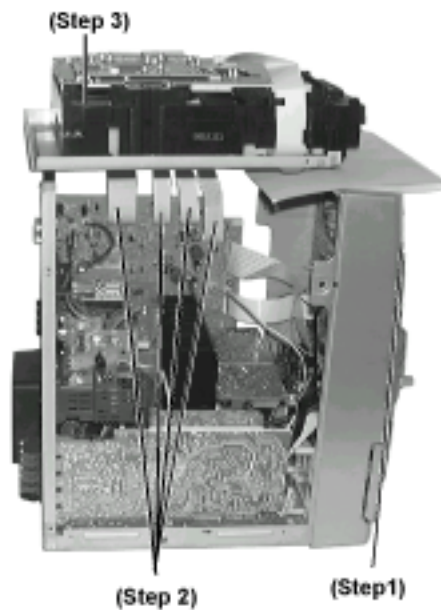
[TOP](#) [PREVIOUS](#) [NEXT](#)

- Follow the (Step 1) - (Step 2) of Item 17.1.
- Follow the Disassembly for the Top Ornament Unit of Item 17.2.1.
- The initial setting of CD unit must be completed. (Refer to the initial setting of CD unit in Item 17.3.1).
- [Check for DVD Module \(1\) P.C.B.](#)

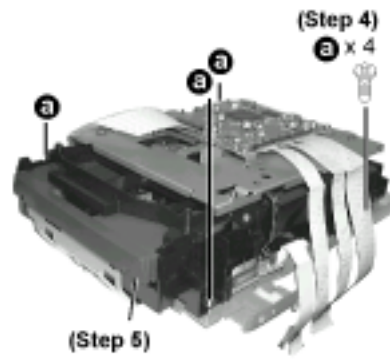
[Step 1](#) Push the power button and the power turns off.

[Step 2](#) Remove the FFC boards. (CN303, CN304, CN302 & CN309)

[Step 3](#) Remove the DVD changer unit.



[Step 4](#) Remove 4 screws.



[Step 5](#) Remove the mechanism unit cover.

- [Check the DVD Module \(1\) P.C.B. as shown below](#)

[Step 6](#) Lay the unit.



[Step 7](#) Connect the FFCs board from DVD Module (1) P.C.B..

[TOP](#) [PREVIOUS](#) [NEXT](#)

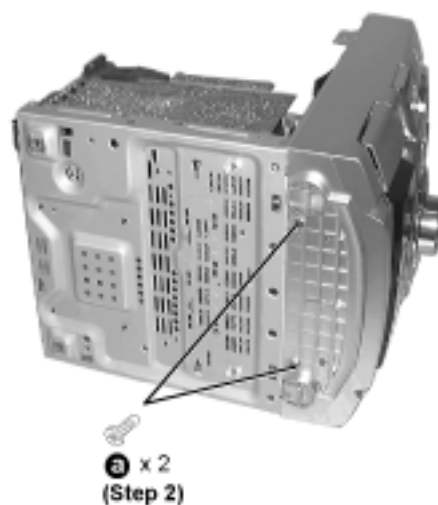
17.3.3 Checking for Panel P.C.B., Deck P.C.B. and LED P.C.B.

[TOP](#) [PREVIOUS](#) [NEXT](#)

- Follow the (Step 1) - (Step 2) of Item 17.1.
- Follow the (Step 1) - (Step 6) of Disassembly for the Top Ornament Unit of Item 17.2.1.
- Follow the (Step 1) - (Step 7) of Checking for DVD Module (1) P.C.B. of Item 17.3.2.



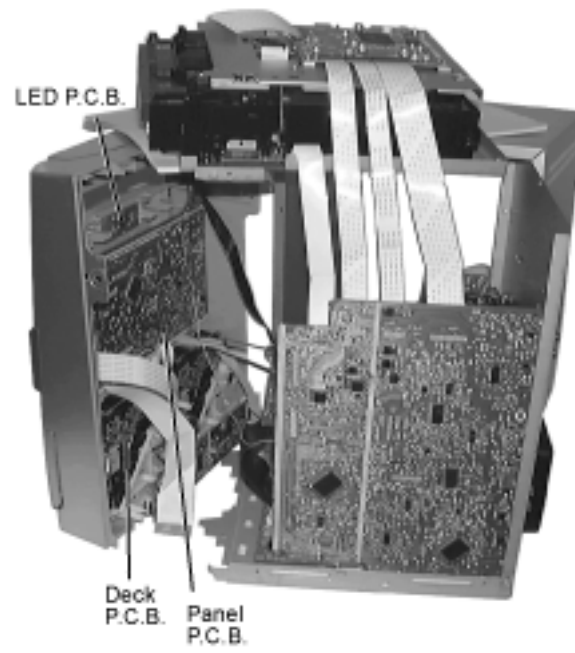
Step 1 Lay the unit as shown below.



Step 2 Remove 2 screws at bottom chassis.

Step 3 Release the 2 claws, and then draw the front panel ass'y forward.

- Check the Panel P.C.B., Deck P.C.B. and LED P.C.B. as shown below



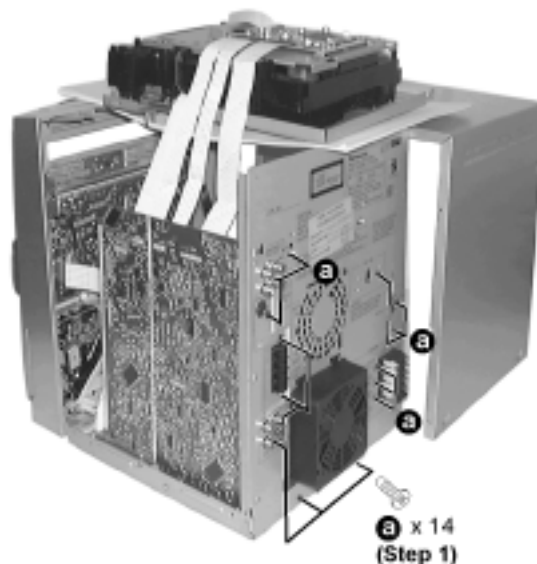
[TOP](#) [PREVIOUS](#) [NEXT](#)

17.3.4 Replacement of the Power Amplifier IC

[TOP](#) [PREVIOUS](#) [NEXT](#)

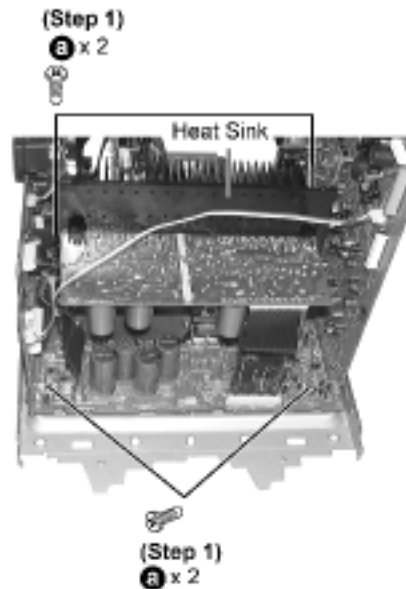
- Follow the (Step 1) - (Step 2) of Item 17.1.
- Follow the (Step 1) - (Step 6) of Disassembly for the Top Ornament Unit of Item 17.2.1.
- Follow the (Step 1) - (Step 7) of Checking for DVD Module (1) P.C.B. of Item 17.3.2.
- Follow the (Step 1) - (Step 3) of Checking for Panel P.C.B., Deck P.C.B. & LED P.C.B. of Item 17.3.3.

Step 1 Release the 14 screws, and then remove the rear cover.



- [Checking the Power P.C.B., Power Amp P.C.B. and Power Supply P.C.B. as shown below](#)
- Follow the (Step 1) - (Step 2) of Item 17.1.
- Follow the (Step 1) - (Step 6) of Disassembly for the Top Ornament Unit of Item 17.2.1.
- Follow the (Step 1) - (Step 7) of Checking for DVD Module (1) P.C.B. of Item 17.3.2.
- Follow the (Step 1) - (Step 3) of Checking for Panel P.C.B., Deck P.C.B. & LED P.C.B. of Item 17.3.3.
- Follow the (Step 1) of Replacement of the Power Amplifier IC of Item 17.3.4.

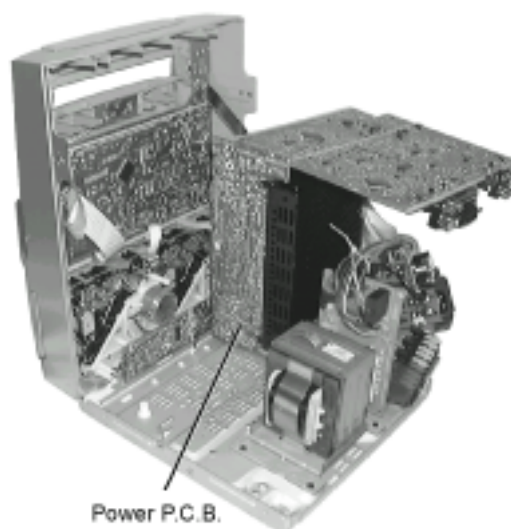
Step 1 Remove the 4 screws.



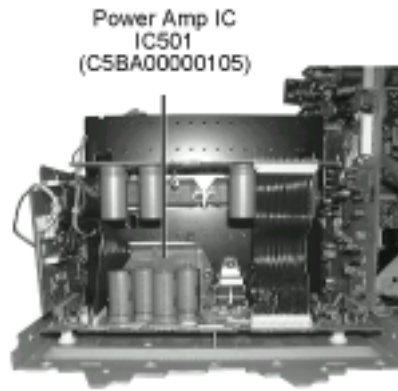
NOTE:

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

- [Checking the Power P.C.B.](#)
- Follow the (Step 1) - (Step 2) of Item 17.1.
- Follow the (Step 1) - (Step 6) of Disassembly for the Top Ornament Unit of Item 17.2.1.
- Follow the (Step 1) - (Step 7) of Checking for DVD Module (1) P.C.B. of Item 17.3.2.
- Follow the (Step 1) - (Step 3) of Checking for Panel P.C.B., Deck P.C.B. & LED P.C.B. of Item 17.3.3.
- Follow the (Step 1) of Replacement of the Power Amplifier IC of Item 17.3.4.



Step 1 Remove the 2 screws fixed to the Power Amplifier IC.



Step 2 Remove 2 screws fixed to the Power Amplifier IC and Transistor Holders.

Step 3 Break the joint with a metal cutter as shown below.



Step 4 Unsolder the terminals of Power Amp IC, replace the component.





Step 5 Fix back the bottom chasis with a screw as shown.

[TOP](#) [PREVIOUS](#) [NEXT](#)

17.4 Main Component Replacement Procedures

[TOP](#) [PREVIOUS](#) [NEXT](#)

[17.4.1 Replacement of the Traverse Deck](#)

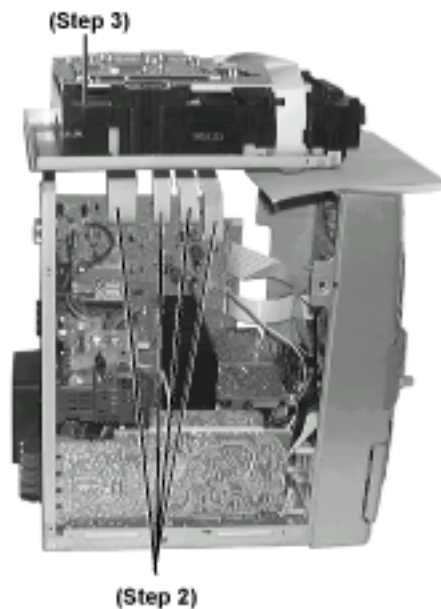
[TOP](#) [PREVIOUS](#) [NEXT](#)

17.4.1 Replacement of the Traverse Deck

[TOP](#) [PREVIOUS](#) [NEXT](#)

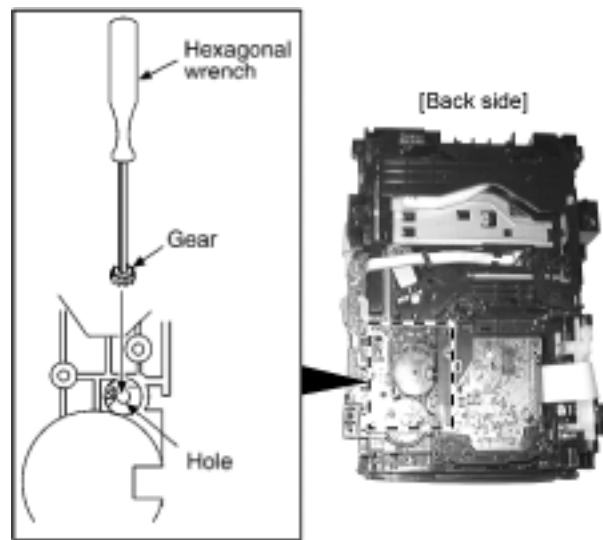
- Follow the (Step 1) - (Step 2) of Item 17.1.
- Follow the Disassembly for the Top Ornament Unit of Item 17.2.1.
- The initial setting of CD unit must be completed. (Refer to the initial setting of CD unit in Item 17.3.1).
- Follow the (Step 1) - (Step 7) of Checking for DVD Module (1) P.C.B. of Item 17.3.2.

Step 1 Push the power button and the power turns off.

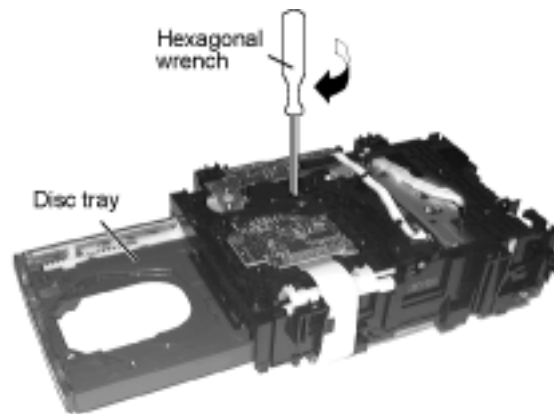


Step 2 Disconnect cables. (FP3202, FP3203 & FP4202)

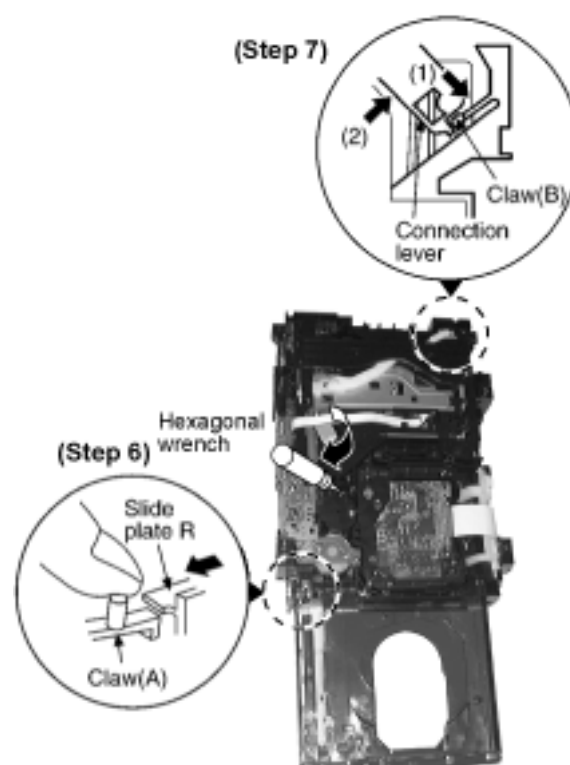
Step 3 Remove the DVD changer unit.



Step 4 Insert the gear with hexagonal wrench into the hole.

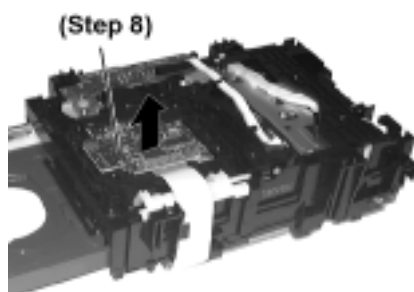


Step 5 Rotate the hexagonal wrench in the direction of arrow (clockwise), and then open the disc tray fully.

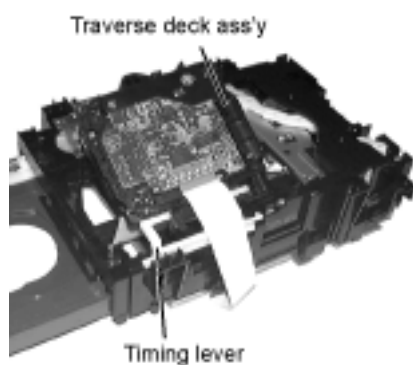


Step 6 With pressing the claw (A), rotate the hexagonal wrench clockwise. (The slide plate R moves for a little amount.)

Step 7 Pressing the claw (B) in the direction of arrow (1), the connection lever moves in the direction of arrow (2).



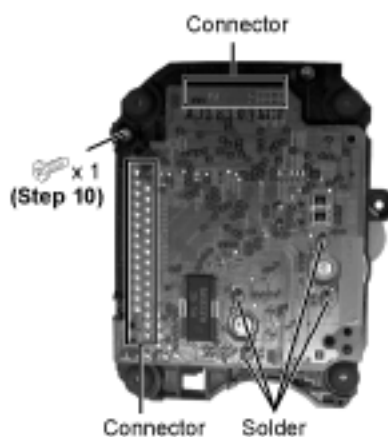
Step 8 Lift up the traverse deck ass'y.



Step 9 Remove the traverse deck ass'y from the timing lever.

Caution:

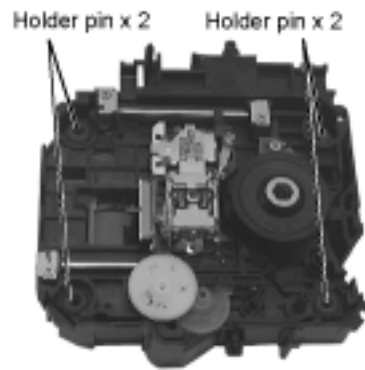
When removing or inserting the traverse deck avoid touching the OPU lens and pressing onto the turntable.



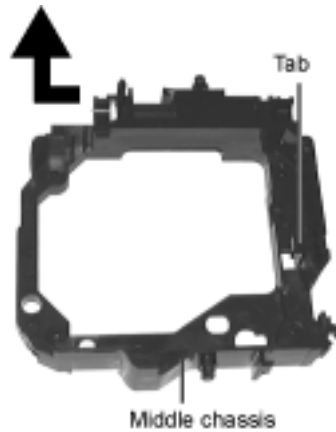
Step 10 Remove 3 screws.

Step 11 Unsolder the motor terminals (4 points).

Step 12 Remove the holder pins.



Step 13 Remove the tab.

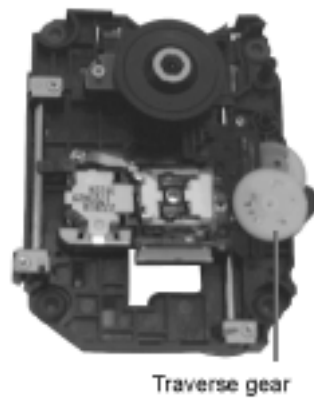


Step 14 Disengage the tabs from the traverse gear.

Tab of traverse gear



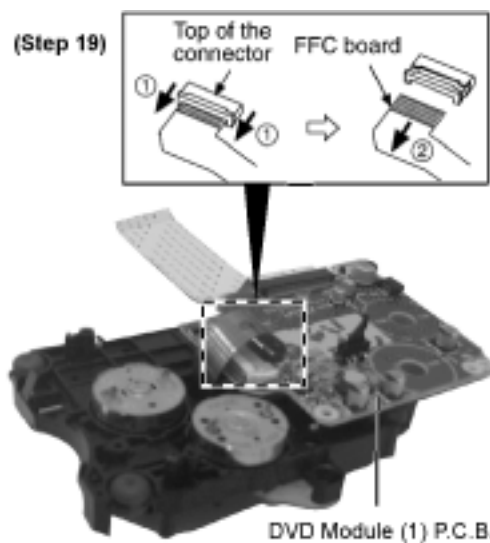
Step 15 Remove the traverse gear.



Step 16 Unscrew the screws.

Step 17 Remove the spring holders and the springs.

Step 18 Pull out the drive shaft and guide shaft.



Step 19 Remove the FFC board from the connector, and then remove the DVD Module (1) P.C.B.

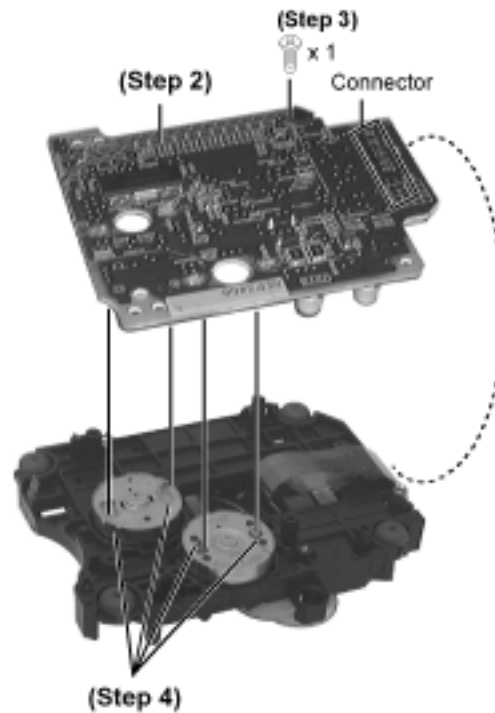
- Installation of the DVD Module (1) P.C.B. after replacement

Step 1 Connect the FFC board.

Step 2 Install the DVD Module (1) P.C.B. in the traverse deck ass'y.

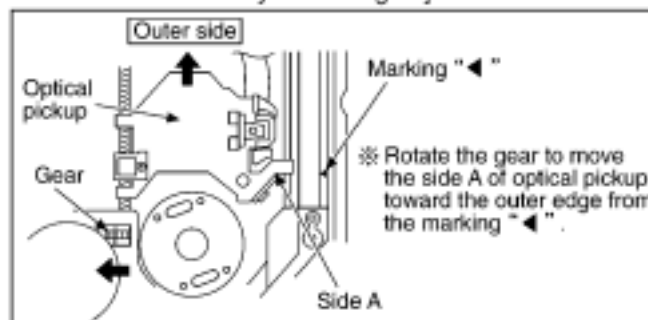
Step 3 Remove 3 screws.

Step 4 Solder.

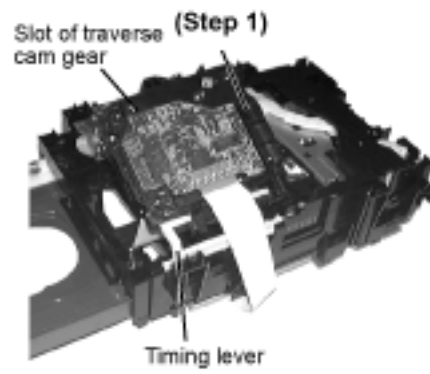


- Note for installation of the DVD Module (1) P.C.B.

Before installing the CD servo P.C.B., move the optical pickup toward the outer edge from the mark "◀".
[Otherwise, the rest detect switch (S701) mounted on the CD servo P.C.B. may be damaged.]

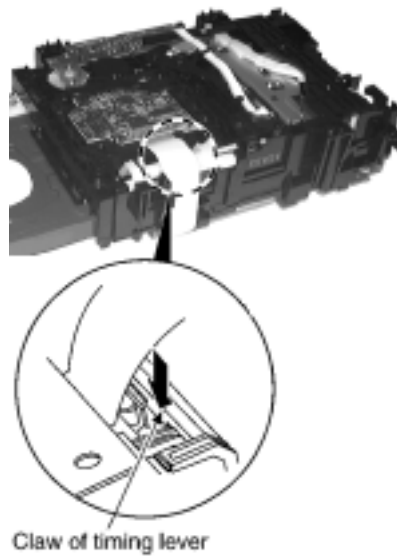


- Installation for traverse deck ass'y

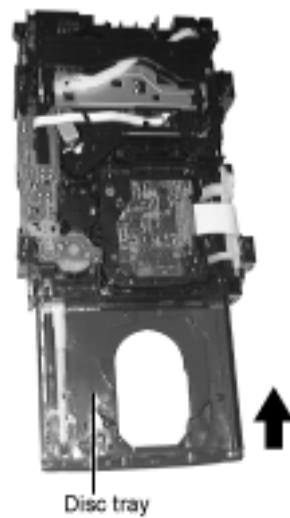


Step 1 Install the traverse deck ass'y to the timing lever.

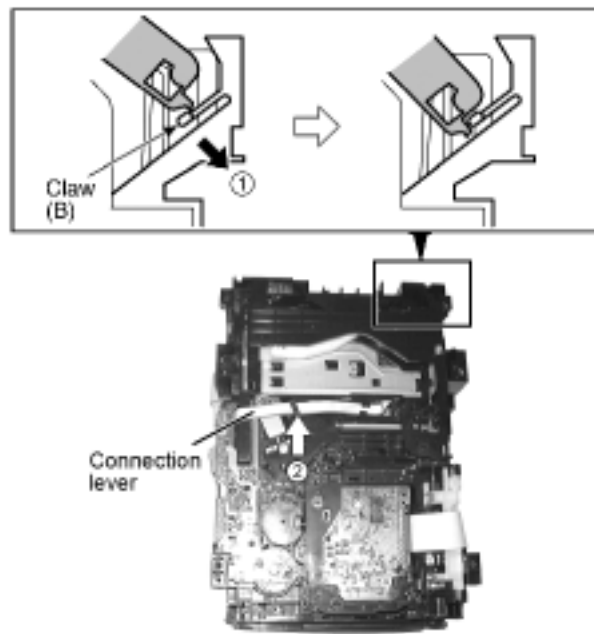
Step 2 Align the boss of traverse deck ass'y with the slot of traverse cam gear.



Step 3 Force the claw of timing lever.



Step 4 Force the disc tray fully.



Step 5 With pressing the claw (B) in the direction of arrow (1), force the connection lever in the direction of arrow (2).

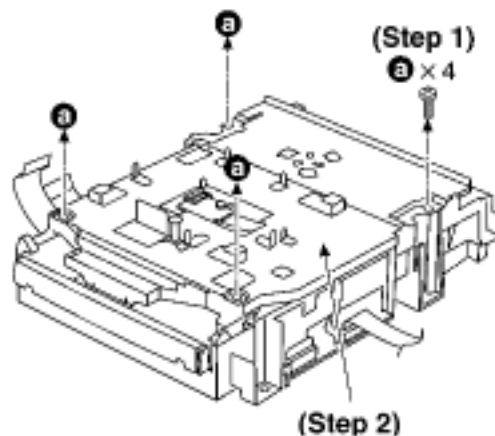
[TOP](#) [PREVIOUS](#) [NEXT](#)

17.5 Replacement for the disc tray

[TOP](#) [PREVIOUS](#) [NEXT](#)

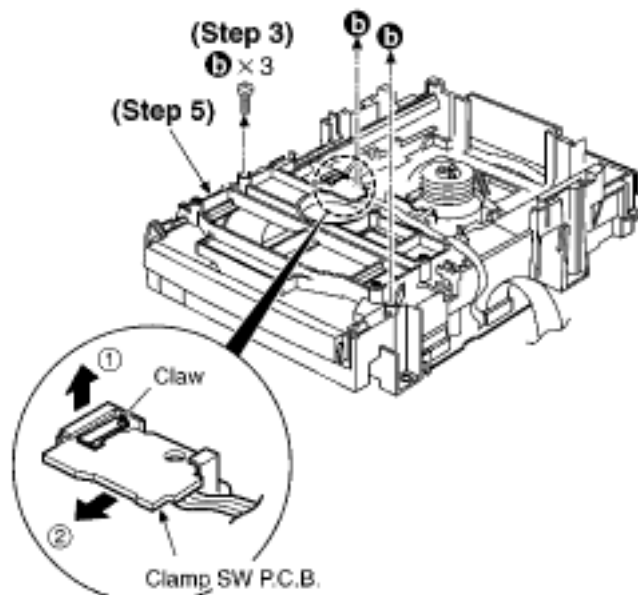
- Follow the (Step 1) - (Step 2) of Item 17.1
- Follow the Disassembly for the Top Ornament Unit of Item 17.2.1.
- Follow the Disassembly for the DVD Changer Unit of Item 17.2.2.
- Follow the (Step 1) - (Step 8) of Item 17.4

Step 1 Remove 4 screws.



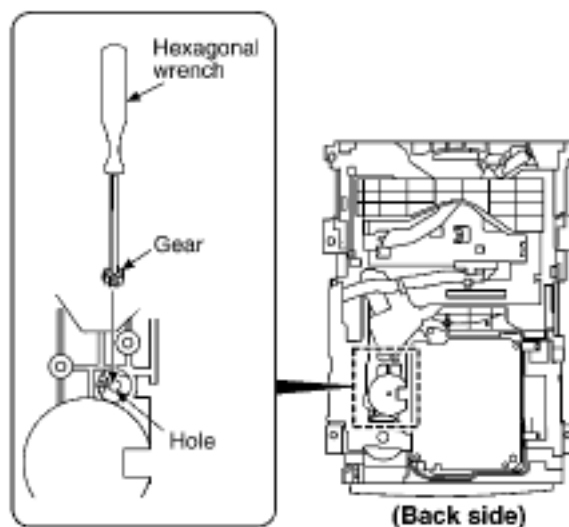
Step 2 Remove the upper plate.

Step 3 Remove 3 screws.

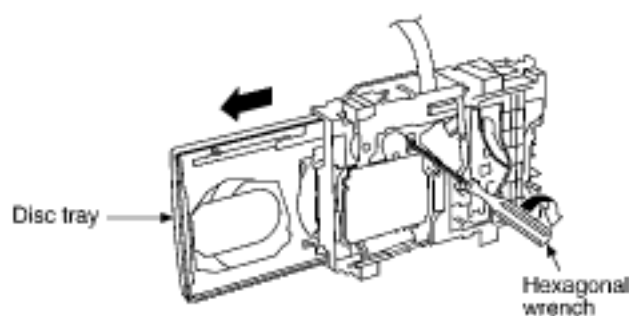


Step 4 With lifting the claw in the direction of (1), draw the clamp SW P.C.B. in the direction of arrow (2).

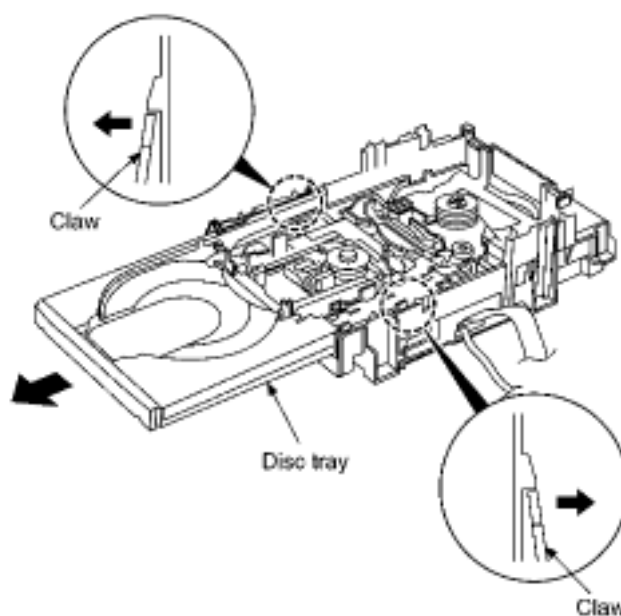
Step 5 Remove the mechanism cover.



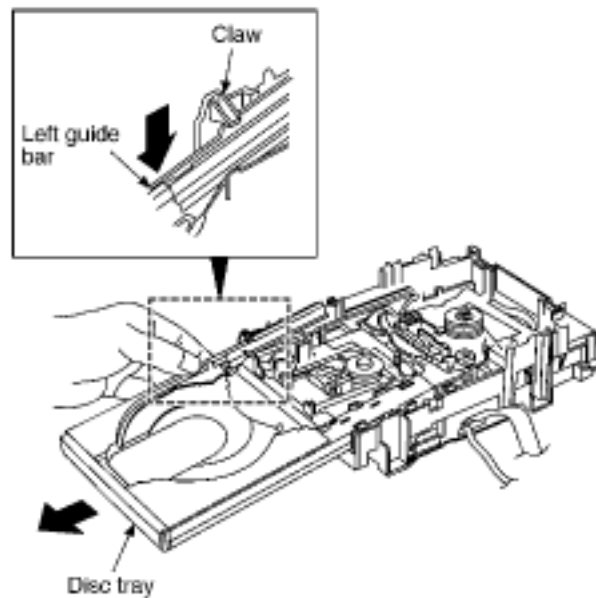
Step 6 Insert the gear with hexagonal wrench into the hole.



Step 7 Rotate the hexagonal wrench in the direction of arrow, and then open the disc tray fully.

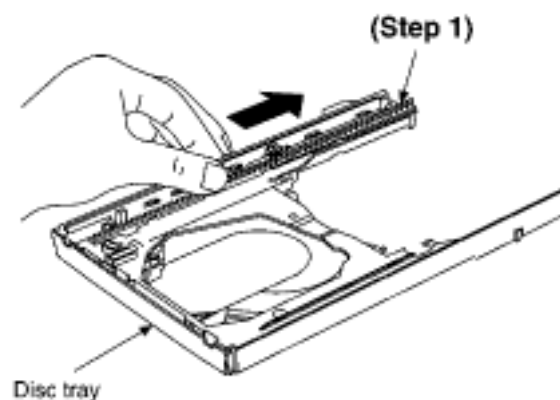


Step 8 Release the both claws, and then draw the disc tray.

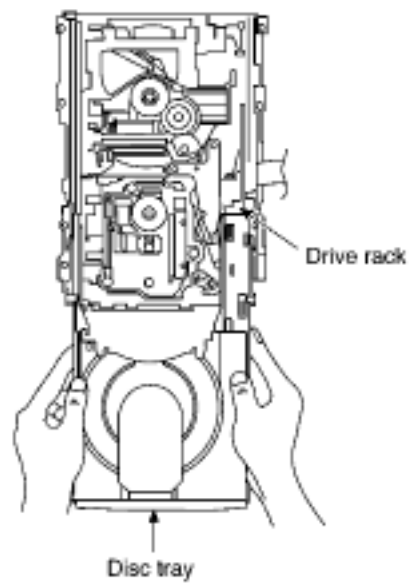


Step 9 With forcing the left guide bar manually because the left guide bar interferes with claw, draw the disc tray.

[Installation of the disc tray after replacement]

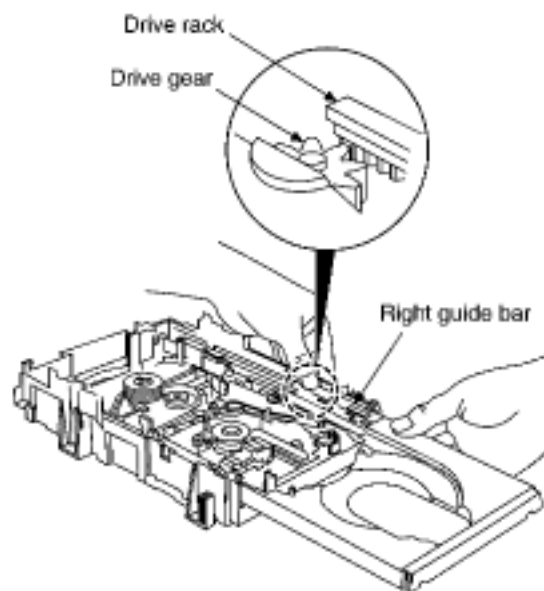


Step 1 Slide the drive rack fully in the direction of arrow.



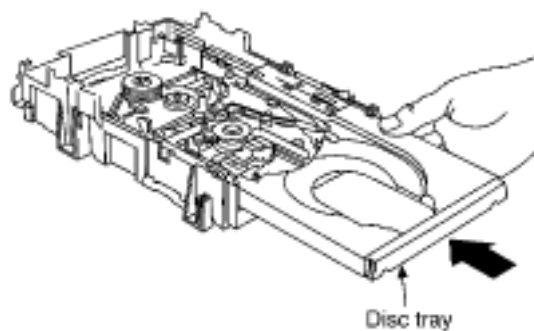
Step 2 Holding the drive rack not to move, install the disc tray.

Step 3 Align the drive rack with the drive gear.



NOTE:

Force the right guide bar of tray base manually not to move upwards.



[Step 4](#) Holding the disc tray manually, push the disc tray in the direction of the arrow.

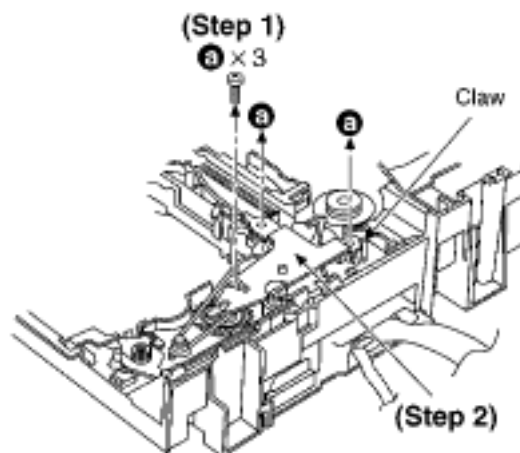
[TOP](#) [PREVIOUS](#) [NEXT](#)

17.6 Disassembly and reassembly for mechanism base drive unit

[TOP](#) [PREVIOUS](#) [NEXT](#)

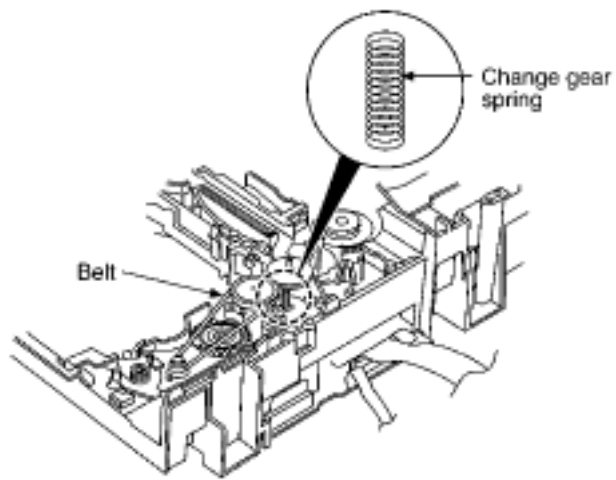
- Follow the (Step 1) - (Step 2) of Item 17.1.
- Follow the Disassembly for the CD Lid of Item 17.2.1.
- Follow the Disassembly for the CD changer unit of Item 17.2.2.
- Follow the (Step 1) - (Step 14) of Item 17.4
- Follow the (Step 1) - (Step 9) of Item 17.5

[Step 1](#) Remove 3 screws.



[Step 2](#) Release the claw, and then remove the gear holder.

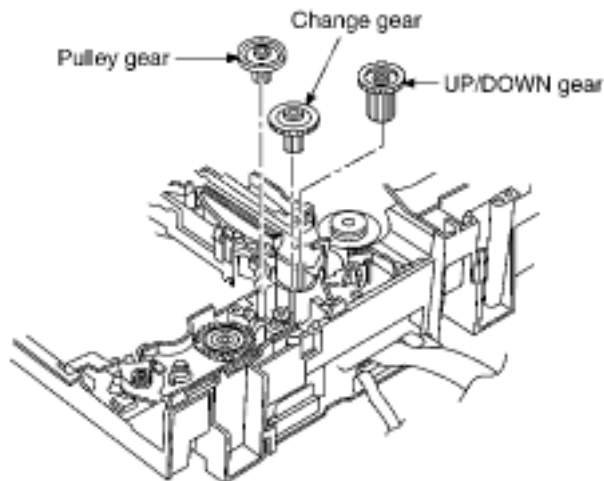
[Step 3](#) Remove the belt and change gear spring.



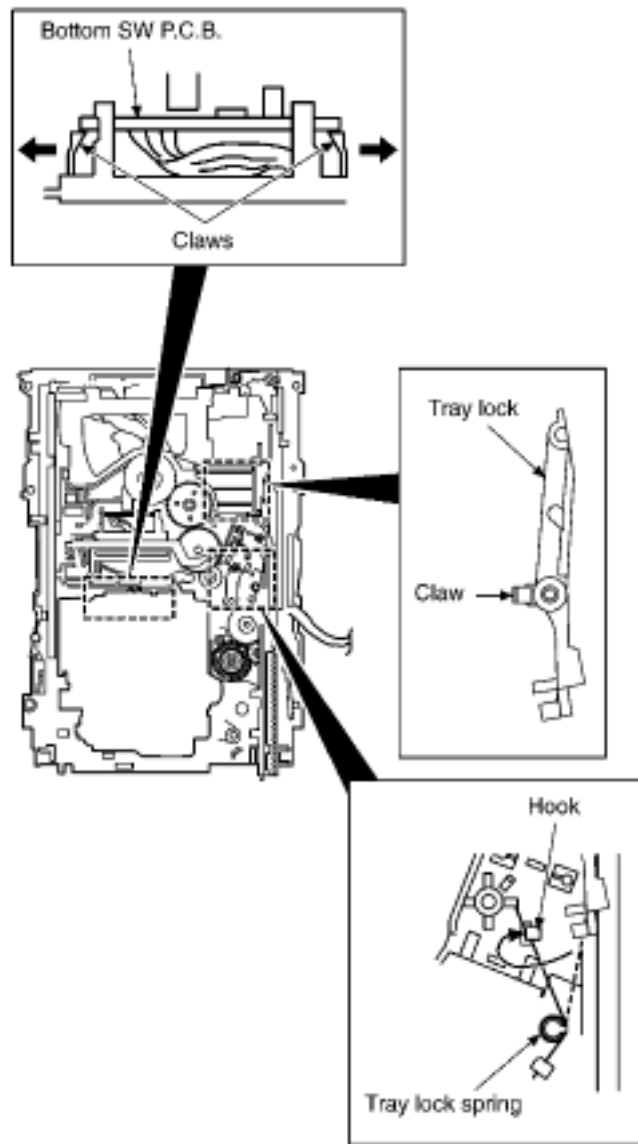
NOTE:

Take care not to lose the change gear spring.

Step 4 Remove the pulley gear, change gear and UP/DOWN gear.



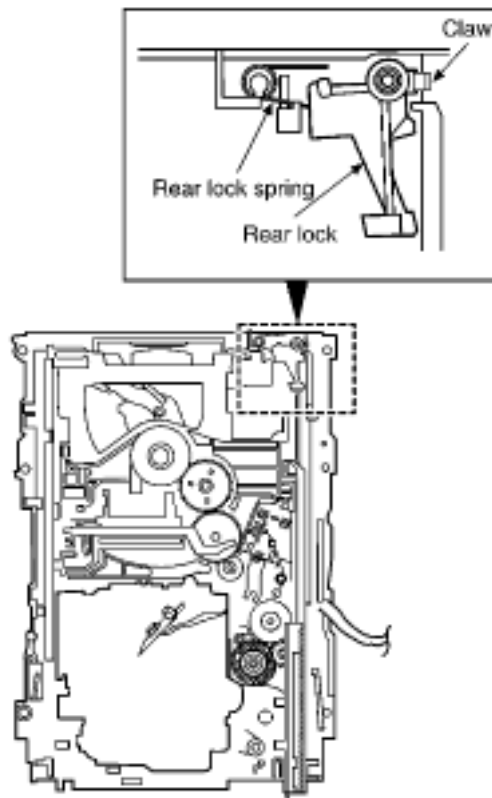
Step 5 Release the 2 claws, and then remove the bottom SW P.C.B..



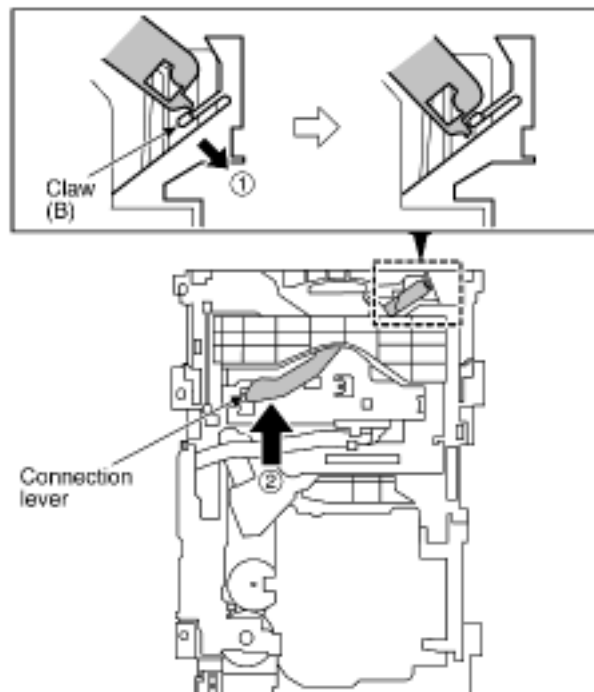
[Step 6](#) Install the tray lock spring to hook temporary.

[Step 7](#) Release the claw, and then remove the tray lock.

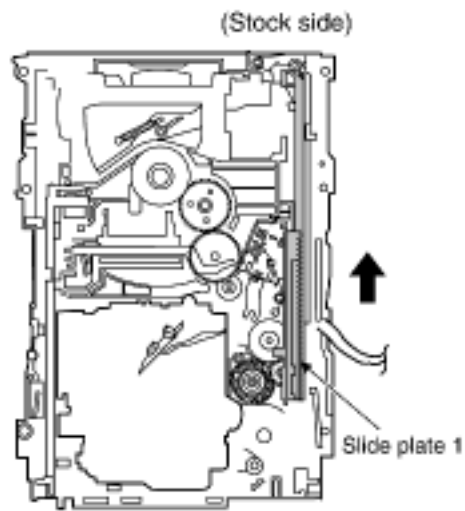
[Step 8](#) Release the claw, and then remove the rear lock.



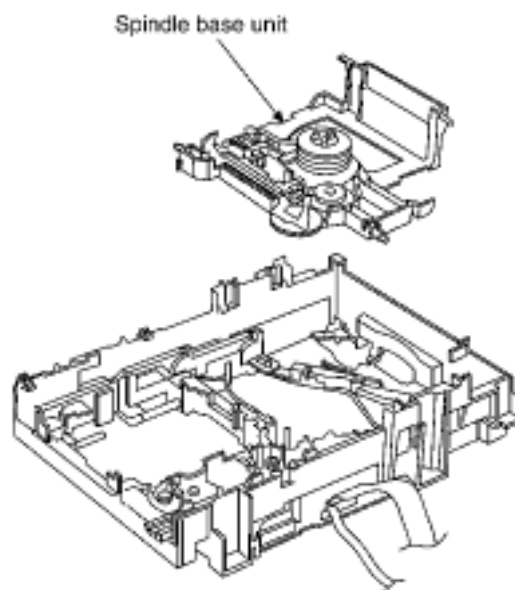
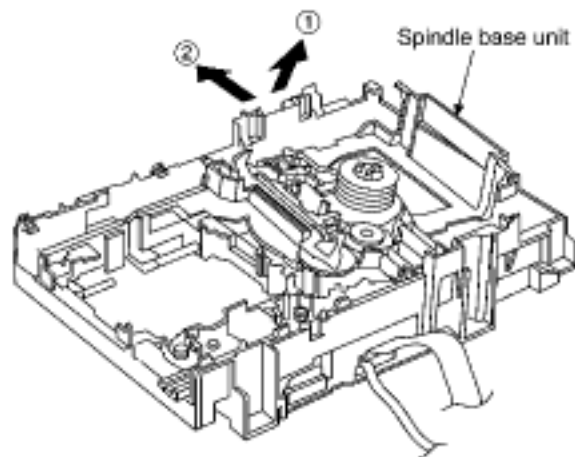
Step 9 Pressing the claw (B) in the direction of arrow (1), force the connection lever in the direction of arrow (2).



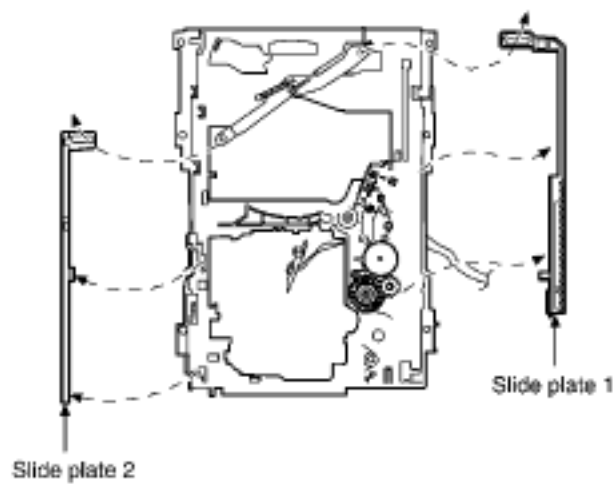
Step 10 Move the slide plate 1 to the end of stock side.



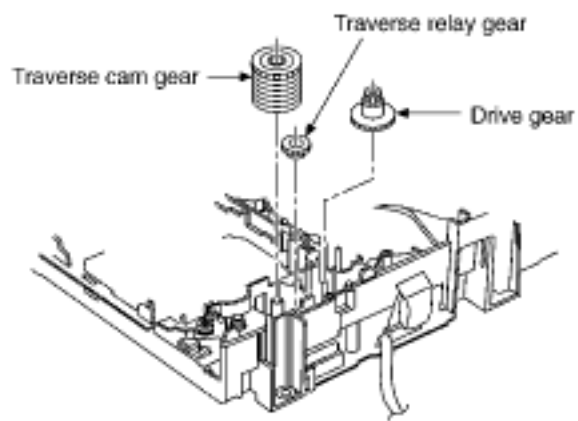
Step 11 Lift up the left end of spindle base unit in the direction of arrow (1), and then remove the unit in the direction of arrow (2).



Step 12 Remove slide plate 1 and slide plate 2.

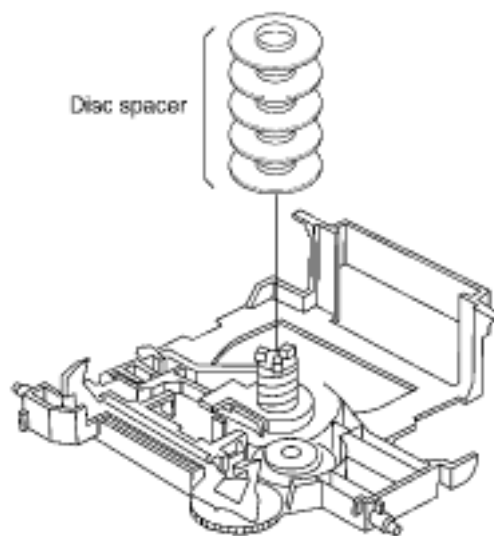


Step 13 Remove the traverse relay gear, traverse cam gear and drive gear.

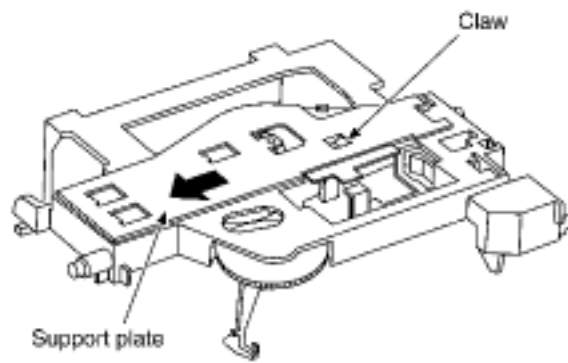


[Disassembly/reassembly for the spindle base unit]

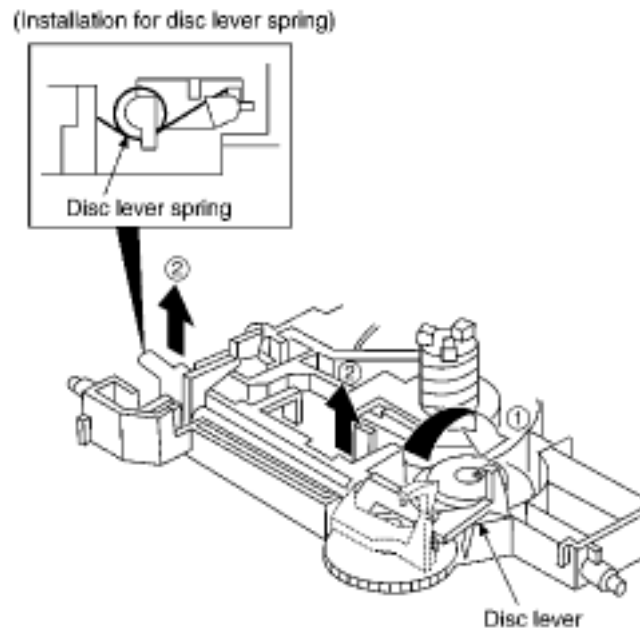
Step 1 Draw the 5 disc spacers.



Step 2 Pushing the claw, slide the support plate in the direction of arrow, and then remove it.

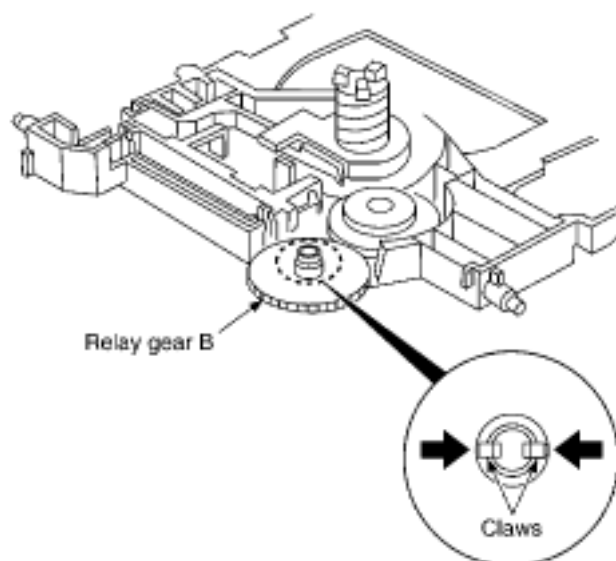


Step 3 Rotate the disc lever in the direction of arrow (1), draw the disc lever.



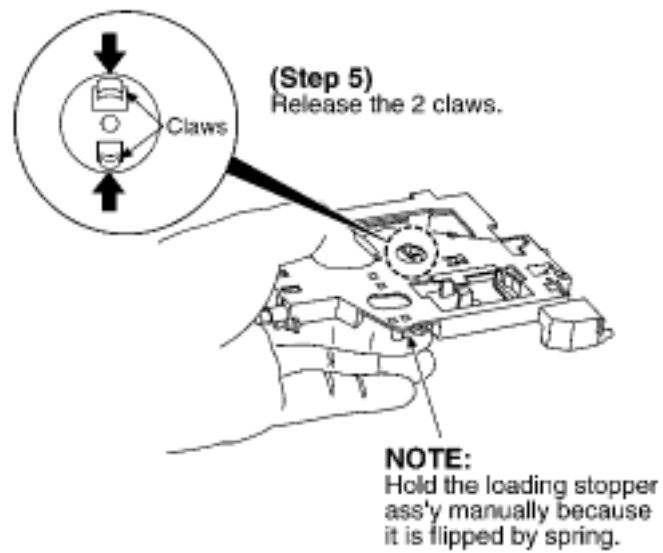
NOTE:

Take care not to lose the disc lever spring.



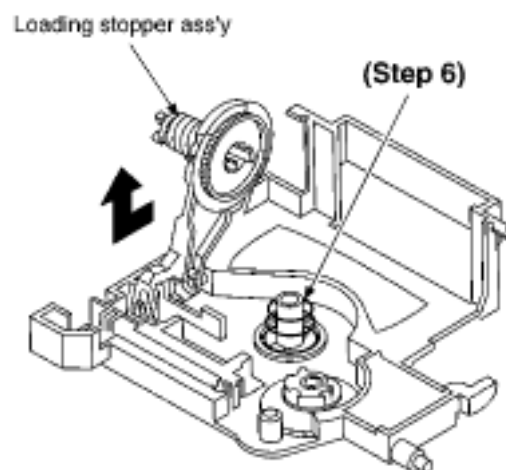
Step 4 Release the 2 claws, and then draw the relay gear B.

Step 5 Release the 2 claws as shown below.



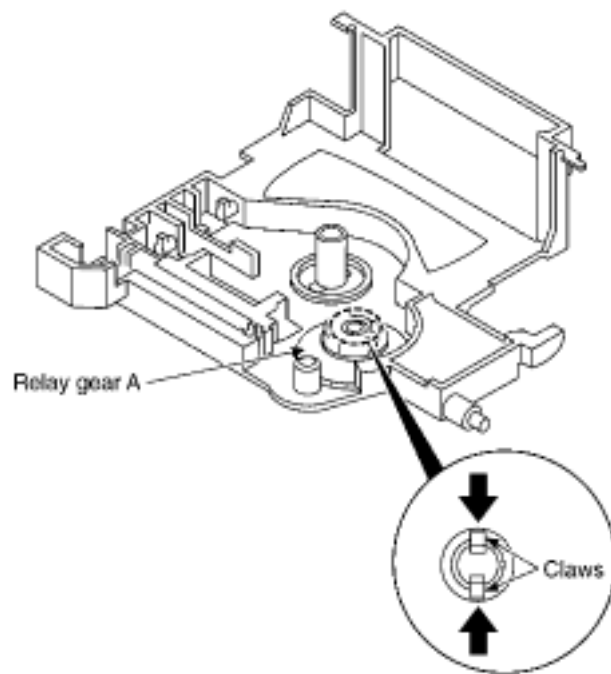
NOTE:

Hold the loading stopper ass'y manually because it is flipped by spring.



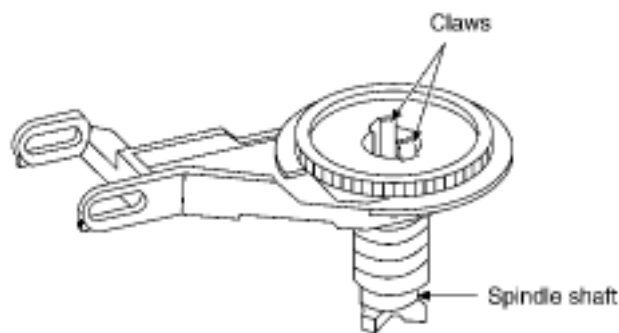
Step 6 Remove the cushion spring.

Step 7 Remove the loading stopper ass'y in the direction of arrow.

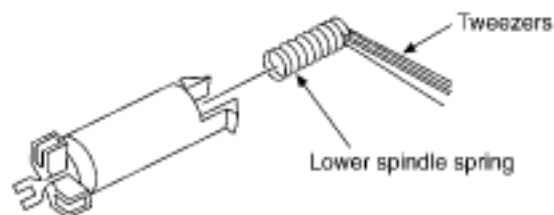


Step 8 Release the 2 claws, and then remove the relay gear A.

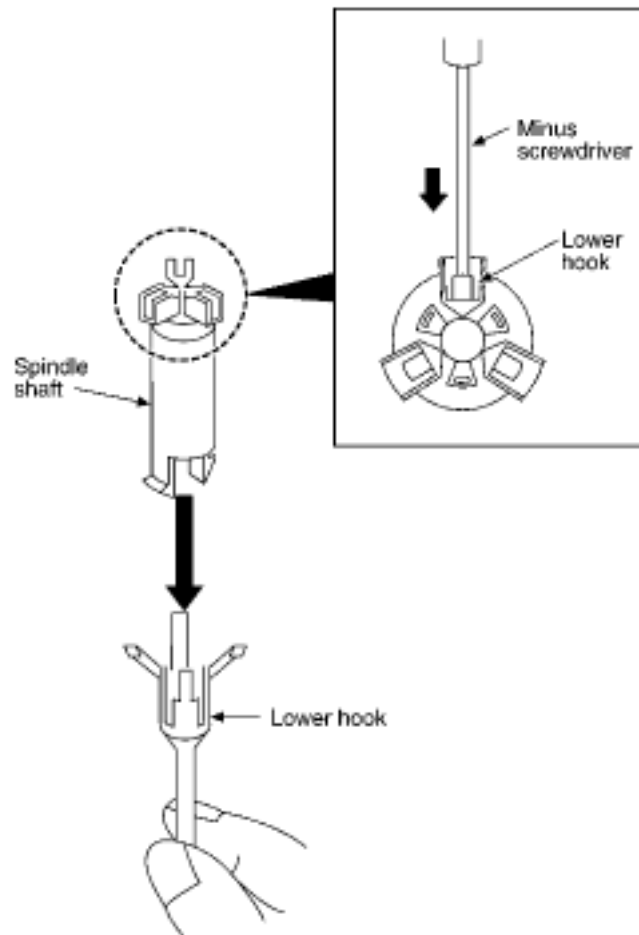
Step 9 Release the 2 claws, and then remove the spindle shaft.



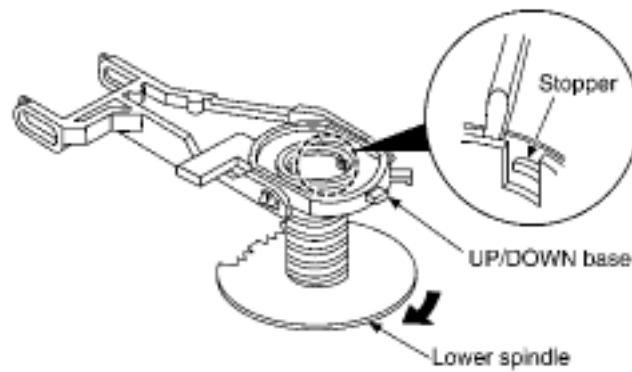
Step 10 Remove the lower spindle spring with tweezers.



Step 11 Force the lower hook with thin tip of minus screwdriver.

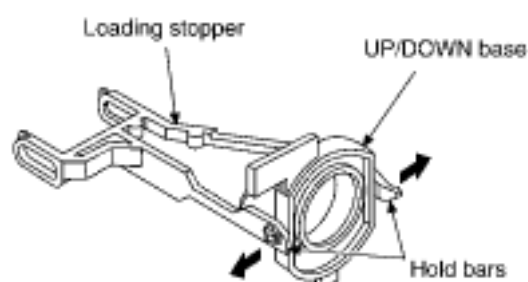


Step 12 Squeeze the shaft of lower hook, and then draw it.



Step 13 Rotate the lower spindle in the direction of arrow until the lower spindle interferes with stopper.

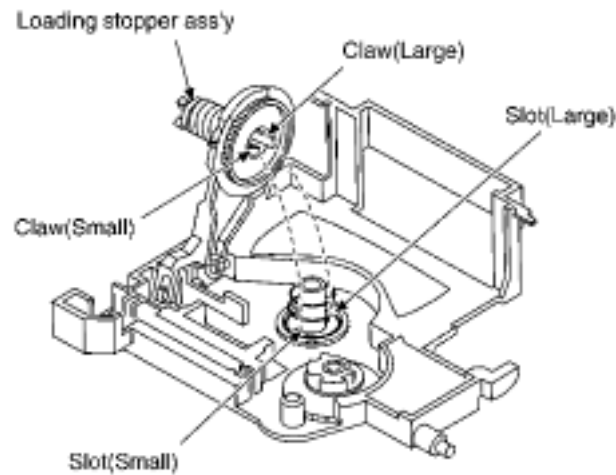
Step 14 Insert the thin tip of minus screwdriver between the lower spindle and UP/DOWN base, and then slacken the lower spindle to release the stopper. Then, rotate the lower spindle and remove it.



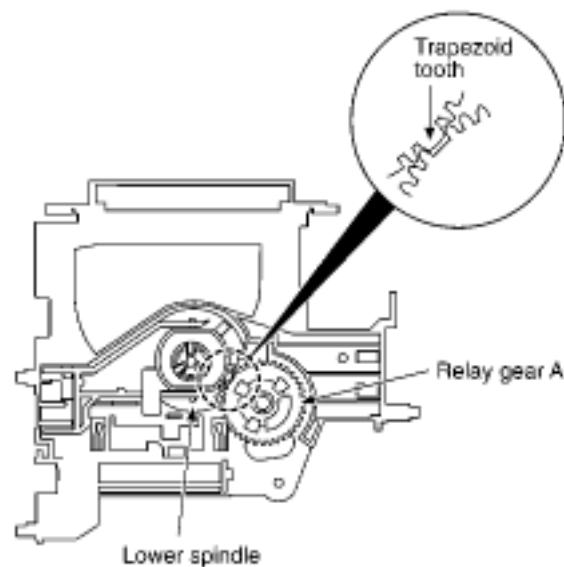
Step 15 Rotate the UP/DOWN base at a 90° angle. Then, spread the hold bars of loading stopper and remove the UP/DOWN base.

[Installation for loading stopper ass'y]

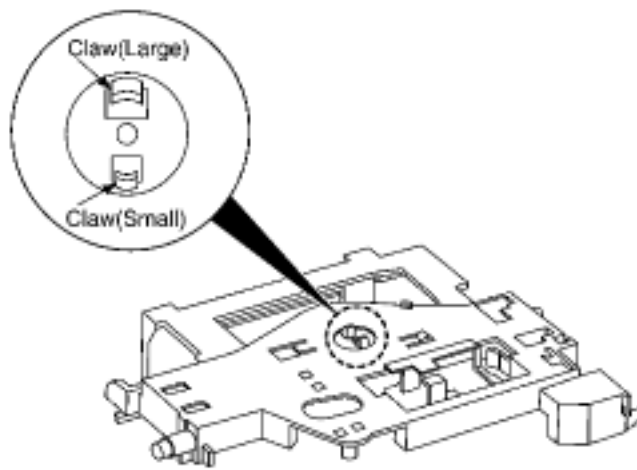
Step 1 Align the claw of loading stoppers ass'y with the slot of spindle base. (Caution should be exercised when alignment of claw due to the size of claws.)



Step 2 Lower the loading stopper ass'y, and then align the lower spindle with the trapezoid tooth of relay gear A.



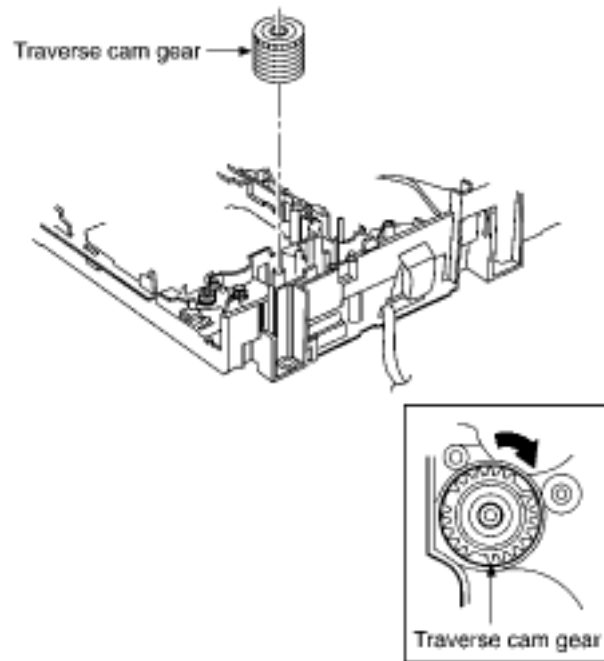
Step 3 Force the loading stopper ass'y, latch the claw firmly.



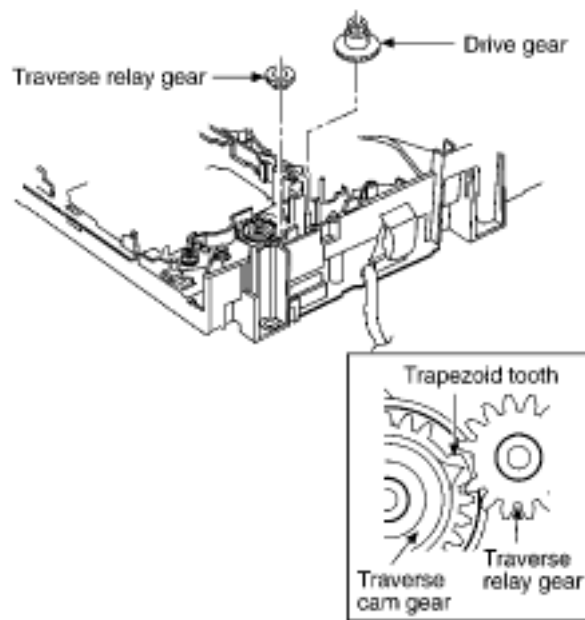
[Reassembly for mechanism base drive unit]

Step 1 Install the traverse cam gear.

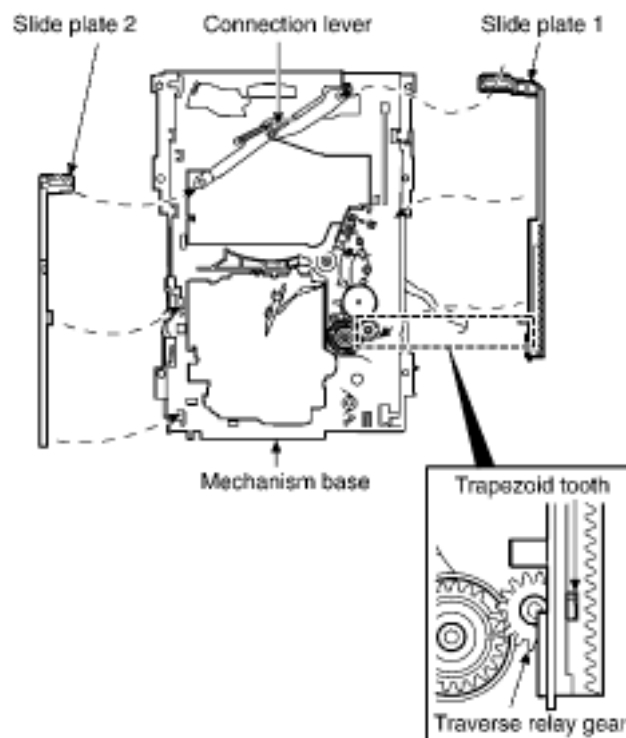
Step 2 Rotate the traverse cam gear to the direction of arrow.



Step 3 Install the drive gear and traverse relay gear.

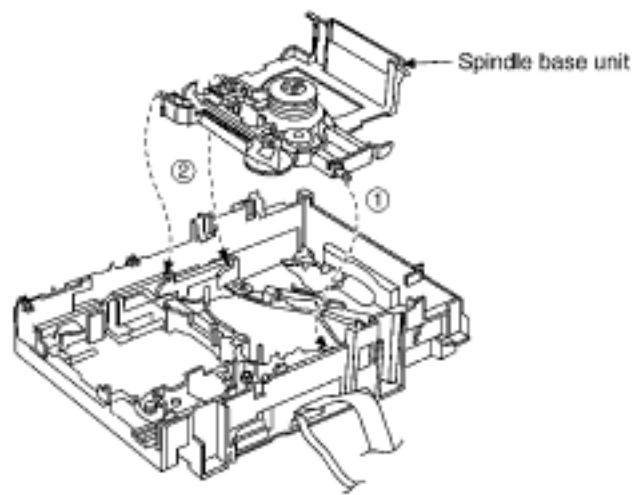


*When installing the traverse relay gear, align the trapezoid tooth of gear with tooth of traverse cam gear.

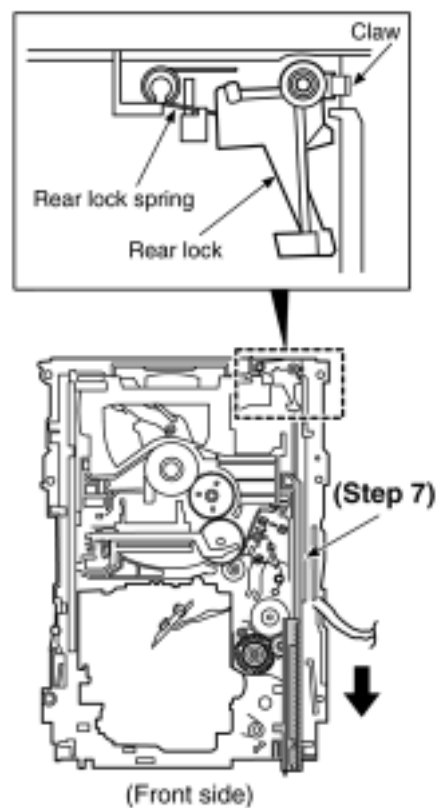


Step 4 Install the slide plate 2 to the mechanism base, and then match to the connection lever.

Step 5 Install the slide plate 1 to the mechanism base, and then match to the connection leve and align the trapezoid tooth of traverse relay gear with the slide plate 1.



Step 6 Install the spindle base unit. (First, slide plate 1.)

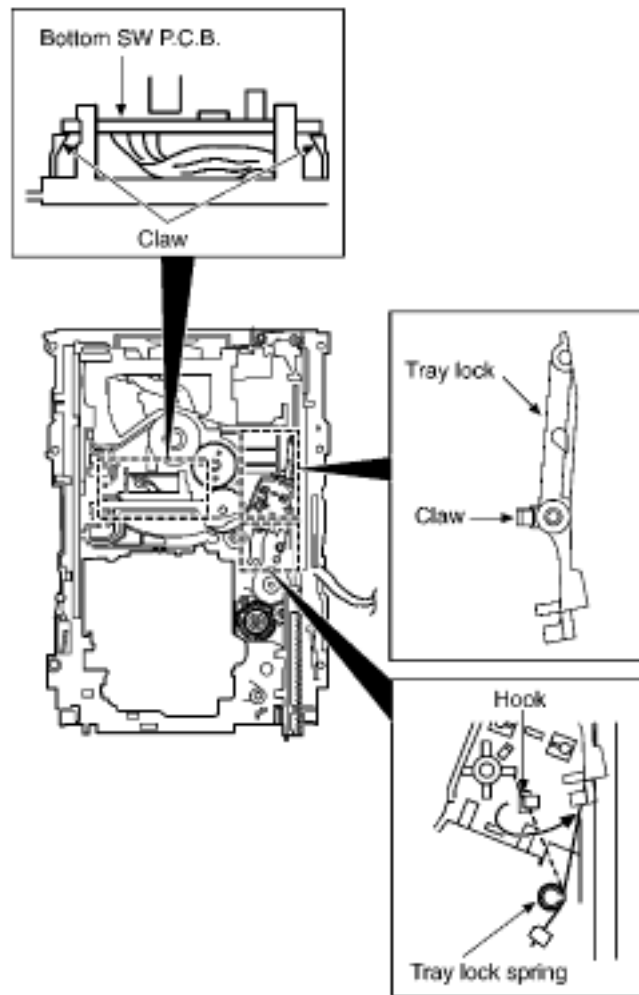


Step 7 Move the slide plate 1 to forward fully.

Step 8 Install the rear lock. (The claw should be latched.)

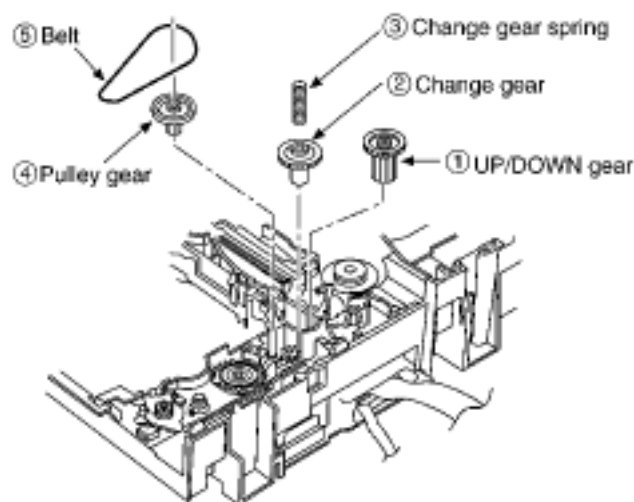
Step 9 Install the bottom SW P.C.B.. (The claw should be latched.)

Step 10 Install the tray lock. (The claw should be latched.)

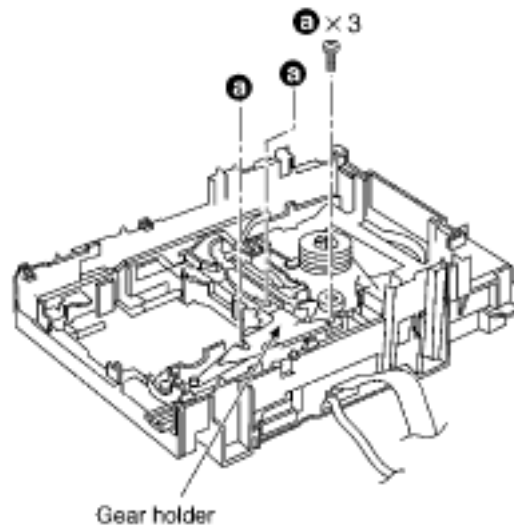


Step 11 Remove the tray lock spring from hook, and then latch to the tray lock.

Step 12 Install the UP/DOWN gear, change gear, change gear spring, pulley gear and belt in the order of (1) - (5).



Step 13 Install the gear holder, and then tighten the screw (a).



Step 14 Install the tray base, traverse ass'y, mechanism cover and upper plate.

[Operation check after servicing]

Check the proper operation of following items with gear and hexagonal screwdriver.

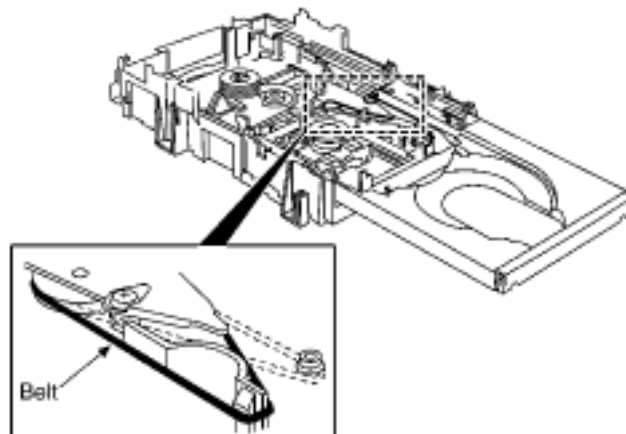
1. Open/close of tray base.
2. Moving the tray base to the stock side.
3. UP/DOWN operation of spindle base unit.
4. UP/DOWN operation of traverse ass'y.

[TOP](#) [PREVIOUS](#) [NEXT](#)

17.7 Replacement for the motor ass'y

[TOP](#) [PREVIOUS](#) [NEXT](#)

- Follow the (Step 1) - (Step 2) of Item 17.1.
- Follow the Disassembly for the CD Lid of Item 17.2.1.
- Follow the Disassembly for the CD changer unit of Item 17.2.2.
- Follow the (Step 1) - (Step 8) of Item 17.4
- Follow the (Step 1) - (Step 7) of Item 17.5



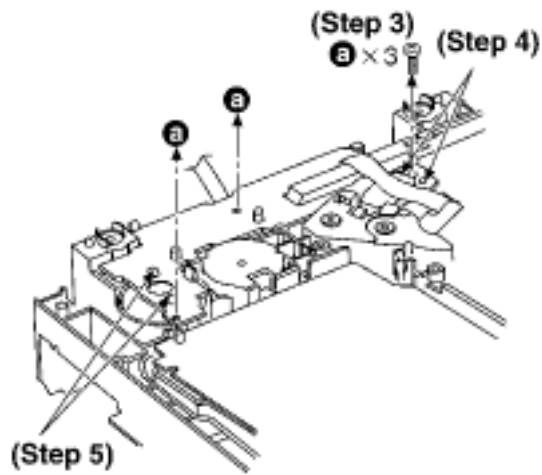
Step 1 Install the belt temporarily.

NOTE:

Take care not apply the grease to the belt.

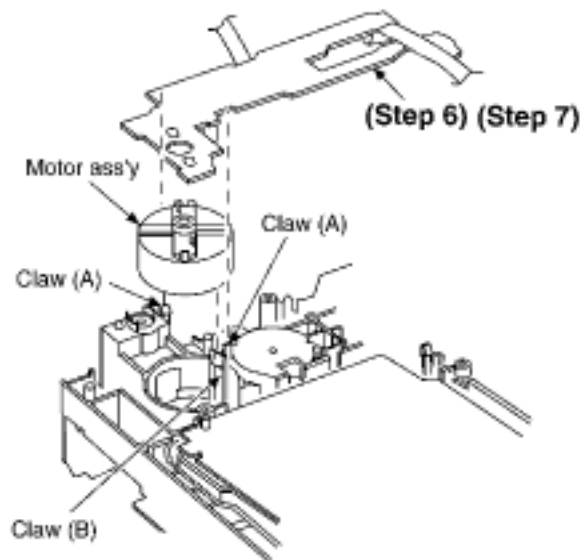
Step 2 Upset the CD loading unit.

Step 3 Remove 3 screws.



[Step 4](#) Unsolder the plunger terminals (2 points).

[Step 5](#) Unsolder the motor terminals (2 points).

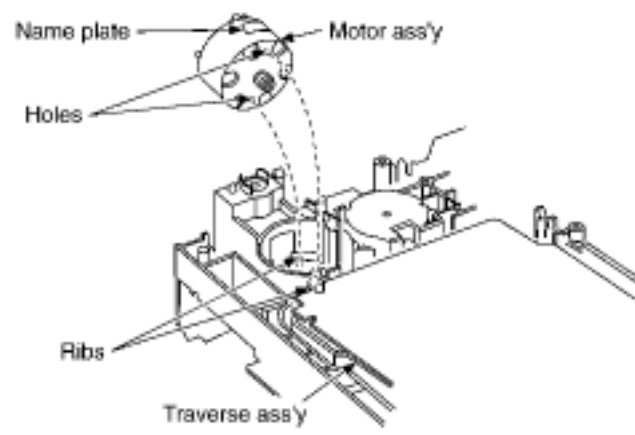


[Step 6](#) Release the 2 claws (A), and then remove the Motor P.C.B.

[Step 7](#) Release the claw (B), and then remove the motor ass'y.

[\[Notice for motor ass'y installation\]](#)

1. Locate the name plate of motor to the traverse ass'y.
2. Align the hole of motor with the ribs.



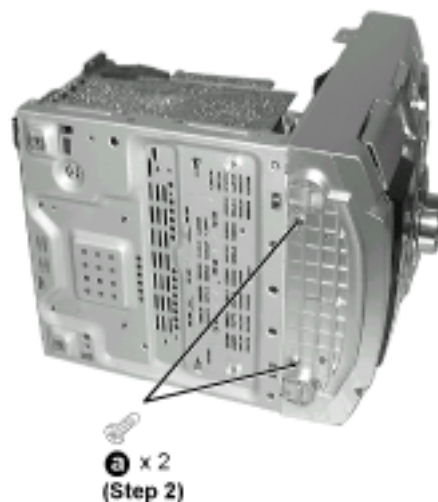
[TOP](#) [PREVIOUS](#) [NEXT](#)

17.8 Replacement for the pinch roller ass'y and head block

[TOP](#) [PREVIOUS](#) [NEXT](#)

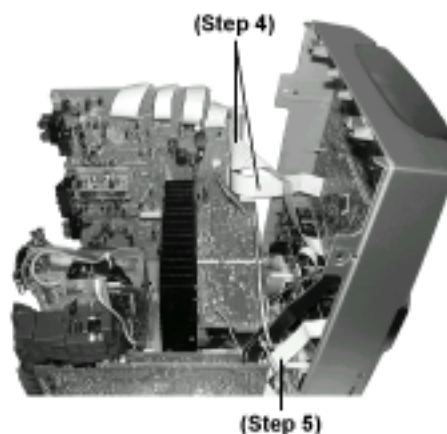
- Follow the (Step 1) - (Step 2) of Item 17.1.
- Follow the Disassembly for the CD Lid of Item 17.2.1.
- Follow the disassembly for the CD changer unit of Item 17.2.2.
- Follow the (Step 1) - (Step 14) of Item 17.4

Step 1 Remove the connector.



Step 2 Remove 2 screws.

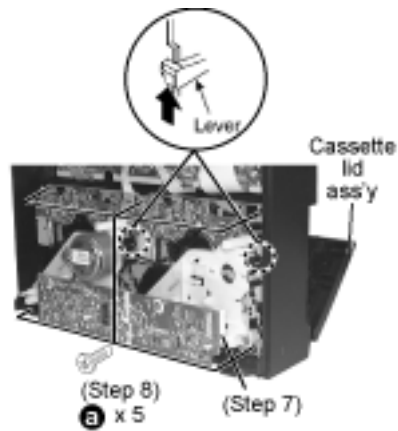
Step 3 Remove the 2 claws, and then draw the front panel ass'y.



Step 4 Pull out the FFC.

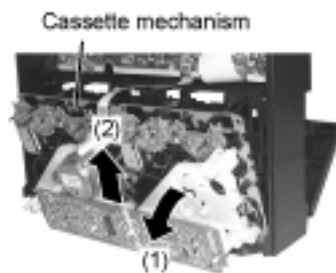
Step 5 Remove the flat cable from the connector.

Step 6 Push the lever upward, and then open the cassette lid ass'y (For DECK1 and DECK2).

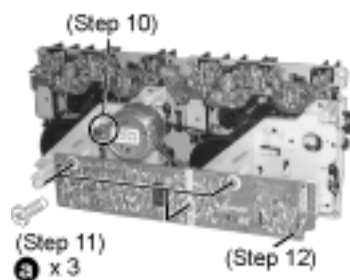


Step 7 Remove the flat cable from the connector (CN1001).

Step 8 Remove the 5 screw.



Step 9 Tilt the cassette mechanism in the direction of arrow (1), and then remove it in the direction of arrow (2).



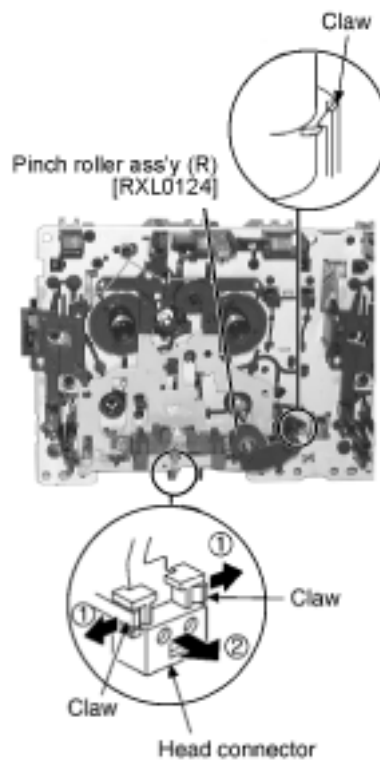
Step 10 Unsolder the motor terminals.

Step 11 Remove 4 screws.

Step 12 Remove mechanism Deck P.C.B.

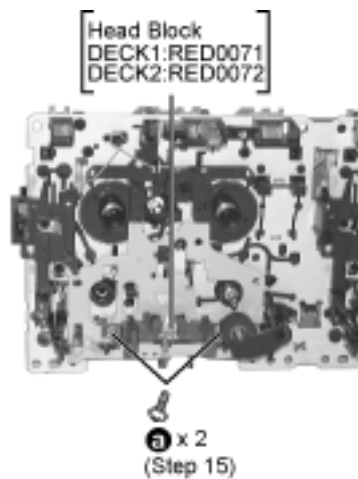
* The mechanism as shown below is for DECK1. For the one of DECK 2, perform the same

procedures.



Step 13 Release the 2 claws, and then remove the pinch roller (R), (F).

Step 14 Release the 2 claws, and then remove the head connector.



Step 15 Remove 2 screws.

[TOP](#) [PREVIOUS](#) [NEXT](#)

17.9 Replacement for the CD motor ass'y, capstan belt A, capstan belt B and winding belt

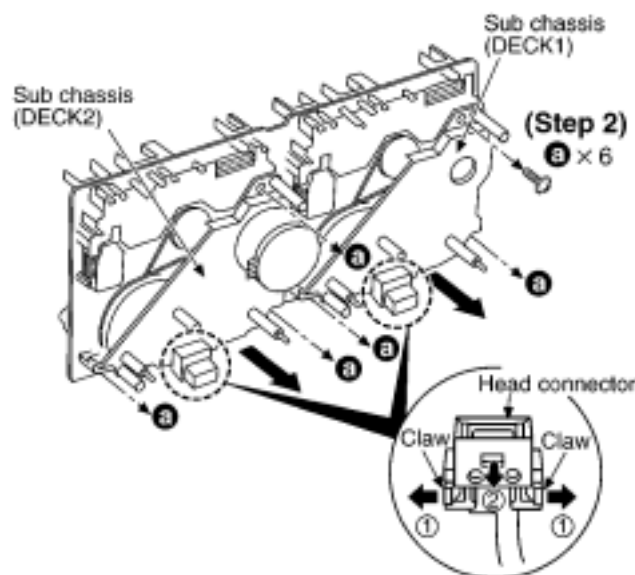
[TOP](#) [PREVIOUS](#) [NEXT](#)

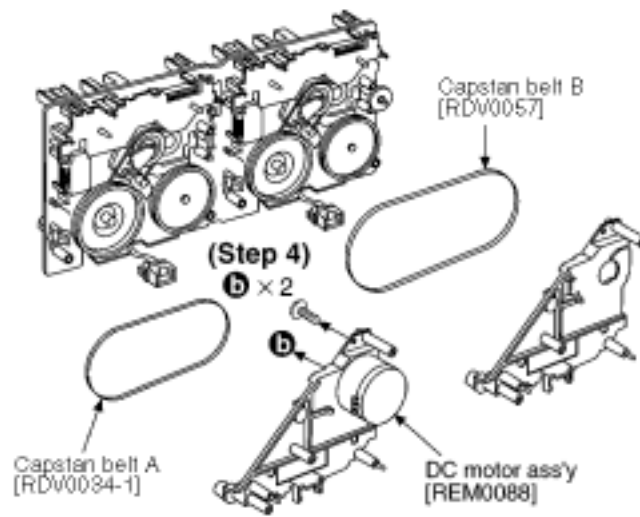
- Follow the (Step 1) - (Step 2) of Item 17.1.
- Follow the Disassembly for the CD Lid of Item 17.2.1.
- Follow the Disassembly for the CD changer unit of Item 17.2.2.
- Follow the (Step 1) - (Step 14) of Item 17.4
- Follow the (Step 1) - (Step 11) of Item 17.9

Step 1 Release the 2 claws, and then remove the head connector.

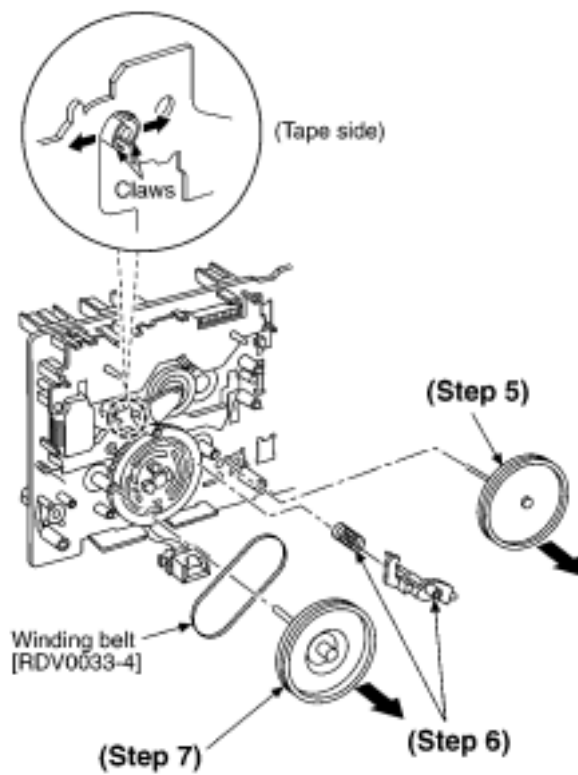
Step 2 Remove 6 screws.

Step 3 Remove the sub chassis.





[Step 4](#) Remove 2 screws.



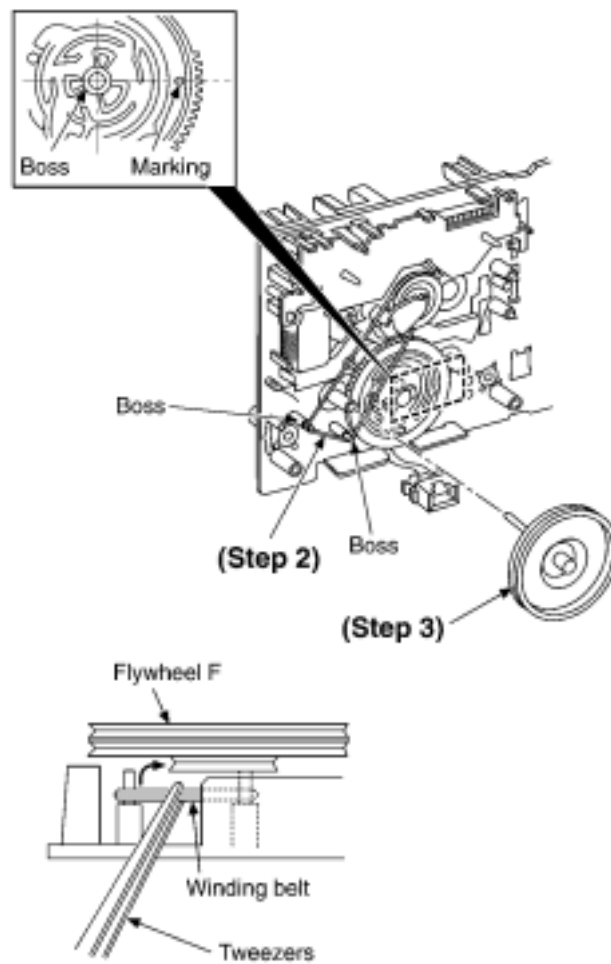
[Step 5](#) Remove the flywheel R.

[Step 6](#) Release the claw of tape side, and then remove the winding lever and spring.

[Step 7](#) Remove the flywheel F.

[\[Installation of the belt\]](#)

[Step 1](#) The boss and marking should be positioned horizontally.



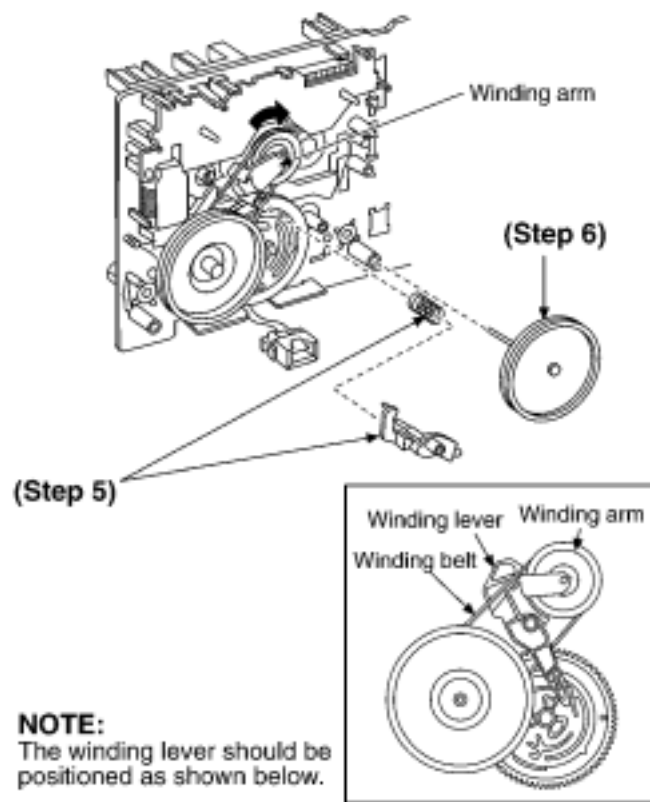
Step 2 Put the winding belt on the pulley temporarily.

Step 3 Install the flywheel F.

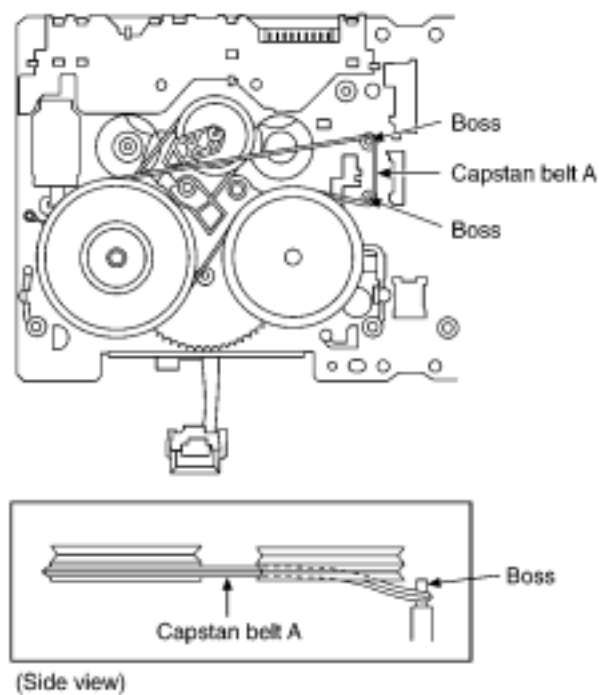
Step 4 Put the winding belt on the flywheel F.

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

Step 6 Install the flywheel R.

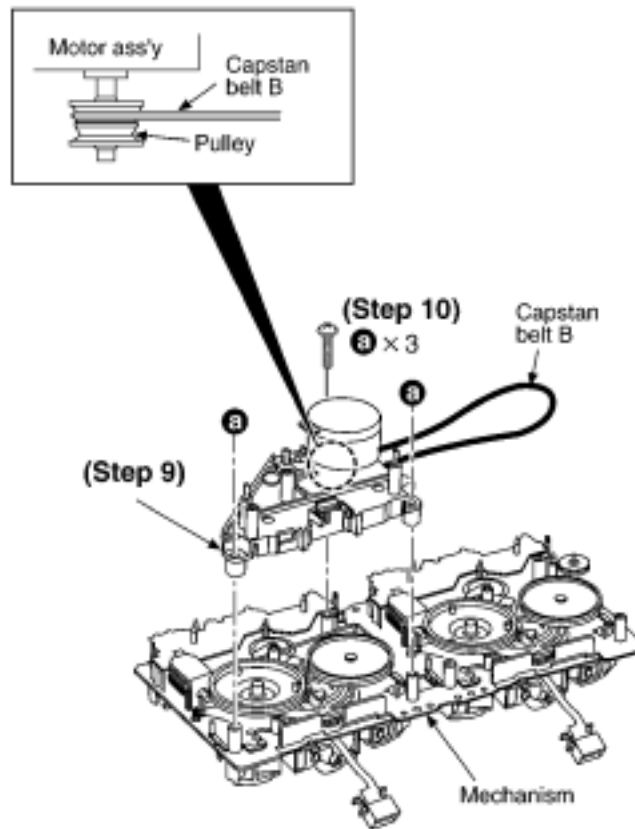


[Step 7](#) Put the capstan belt A temporarily as shown below.



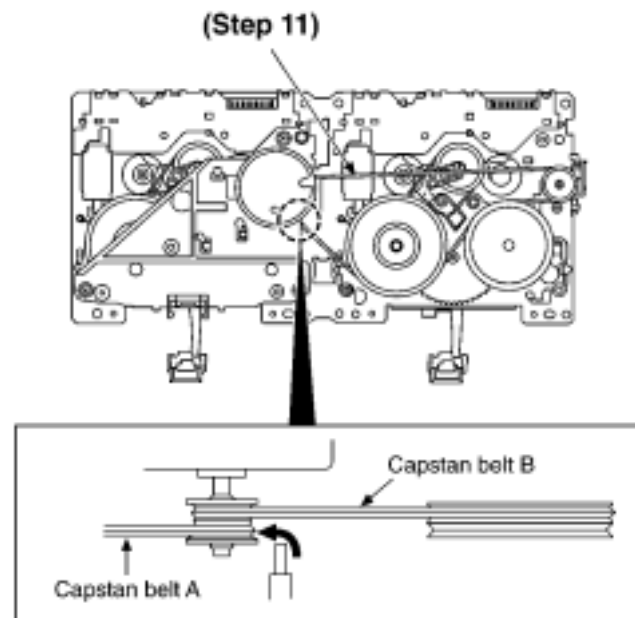
[Step 8](#) Put the capstan belt B on the motor ass'y pulley.

[Step 9](#) Install the sub chassis to the mechanism, and then tighten screws.



[Step 10](#) Remove 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.

[TOP](#) [PREVIOUS](#) [NEXT](#)

17.10 Replacement for the CD motor ass'y, capstan belt A, capstan belt B and winding belt

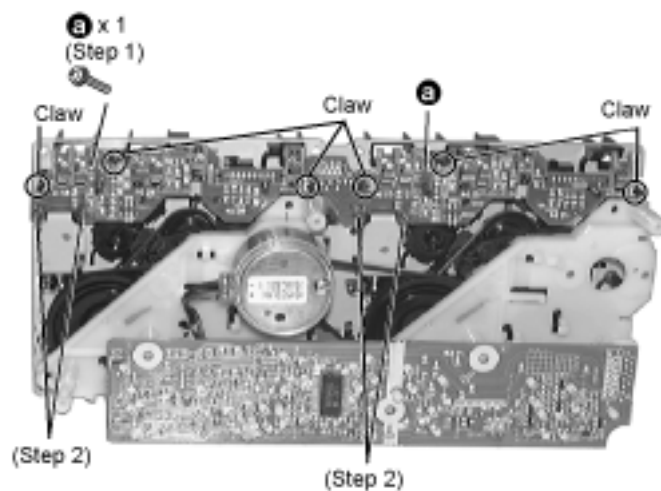
[TOP](#) [PREVIOUS](#) [NEXT](#)

- Follow the (Step 1) - (Step 2) of Item 17.1.
- Follow the Disassembly for the CD Lid of Item 17.2.1.
- Follow the Disassembly for the CD changer unit of Item 17.2.2.
- Follow the (Step 1) - (Step 14) of Item 17.4
- Follow the (Step 1) - (Step 11) of Item 17.9

Step 1 Remove 2 screws.

Step 2 Unsolder the plunger terminals (2 points).

Step 3 Release the 3 claws, and then remove the mechanism P.C.B.



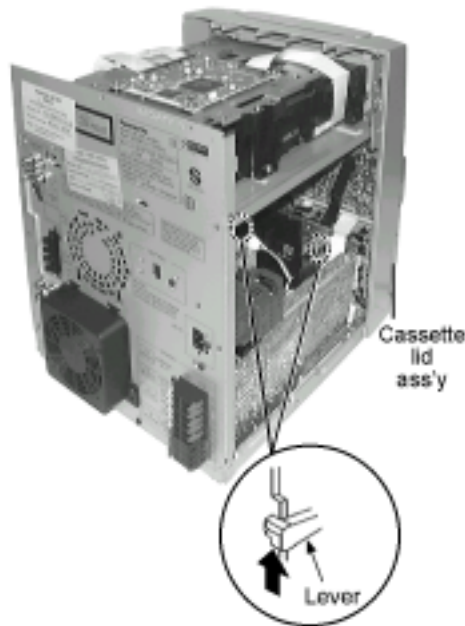
[TOP](#) [PREVIOUS](#) [NEXT](#)

17.11 Replacement for the cassette lid ass'y

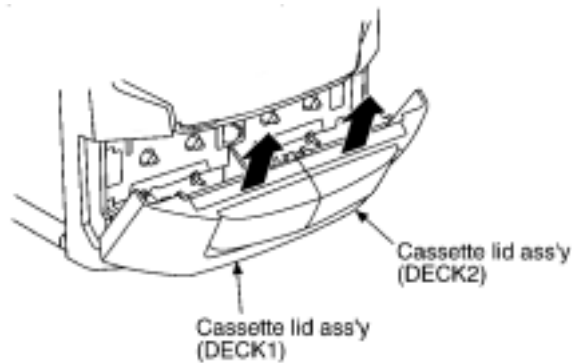
[TOP](#) [PREVIOUS](#) [NEXT](#)

- Follow the (Step 1) - (Step 2) of Item 17.1.

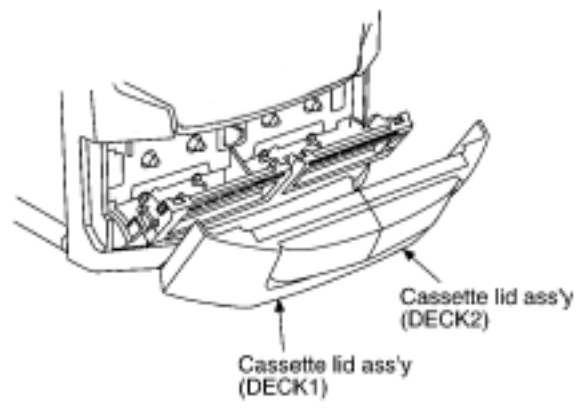
Step 1 Force the lever upward, open the cassette lid ass'y. (For DECK1 and DECK2)



Step 2 Lift up the cassette lid ass'y in the direction of arrow. (For DECK1 and DECK2).



Step 3 Remove the cassette lid ass'y. (For DECK1 and DECK2).



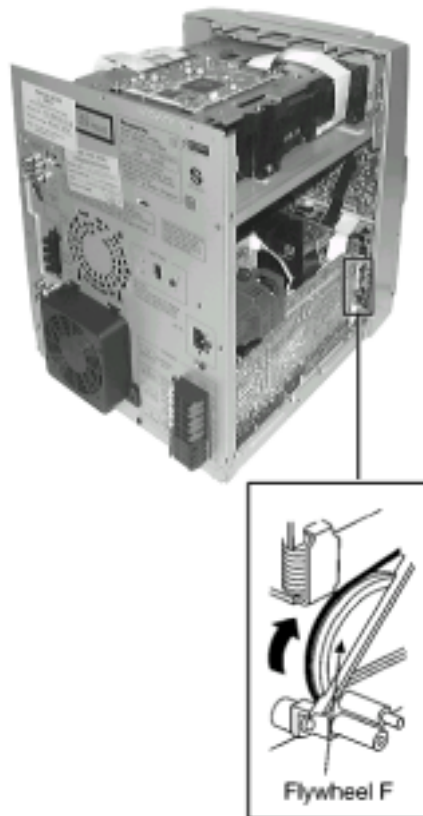
[TOP](#) [PREVIOUS](#) [NEXT](#)

17.12 Measure for tape trouble

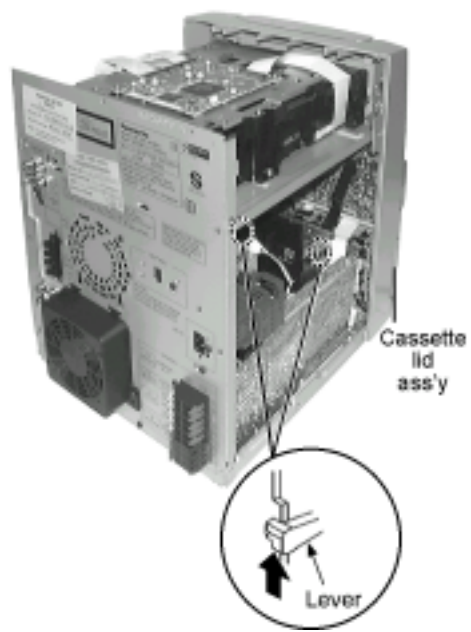
[TOP](#) [PREVIOUS](#) [NEXT](#)

- Follow the (Step 1) - (Step 2) of Item 17.1.

Step 1 If a cassette tape cannot be removed from the deck since 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 the tape.



Step 2 Force the lever upward and open the cassette lid ass'y. Take the cassette tape off.



[TOP](#) [PREVIOUS](#) [NEXT](#)

18 Measurements and Adjustments

[TOP](#) [PREVIOUS](#) [NEXT](#)

[18.1 Cassette Deck Section](#)

[18.1.1 Head Azimuth Adjustment \(Deck 1 / 2\)](#)

[18.1.2 Tape Speed Adjustment \(Deck 1 / 2\)](#)

[18.1.3 Bias and Erase Voltage Check](#)

[18.1.4 Bias Frequency Adjustment \(Deck 1 / 2\)](#)

[18.2 Tuner Section](#)

[18.2.1 AM-IF Alignment](#)

[18.2.2 AM RF Adjustment](#)

[18.3 Alignment Points](#)

[18.3.1 Cassette Deck Section](#)

[18.3.2 Adjustment Point](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

18.1 Cassette Deck Section

[TOP](#) [PREVIOUS](#) [NEXT](#)

- Measurement Condition
 - Reverse-mode selector switch:

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

[18.1.1 Head Azimuth Adjustment \(Deck 1 / 2\)](#)

[18.1.2 Tape Speed Adjustment \(Deck 1 / 2\)](#)

[18.1.3 Bias and Erase Voltage Check](#)

[18.1.4 Bias Frequency Adjustment \(Deck 1 / 2\)](#)

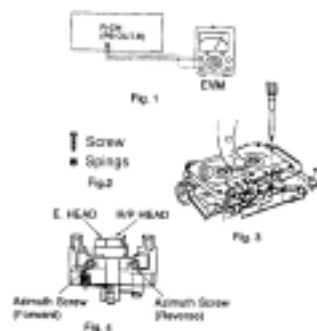
[TOP](#) [PREVIOUS](#) [NEXT](#)

18.1.1 Head Azimuth Adjustment (Deck 1/2)

[TOP](#) [PREVIOUS](#) [NEXT](#)

Caution:

- Please replace both azimuth adjustment screw and springs simultaneously when readjusting the head azimuth. (shown in Fig. 2) Even if you wish to readjust the head azimuth without replacing the screws and springs, a fine adjustment to the azimuth screw and spring.
 - Please remove the screw-locking bond left on the head base when replacing the azimuth screw.
 - If you wish to readjust the head azimuth, be sure to adjust with adhering the cassette tape closely to the mechanism by pushing the center of cassette tape with your finger. (shown in Fig. 3)
1. Playback the azimuth adjustment portion (8 kHz, -20dB) of the test tape (QZZCFM) in the forward play mode. Vary the azimuth adjustment screw until the output of the R-CH (PB OUT-R) are maximized.
 2. Perform the same adjustment in the reverse play mode.
 3. After the adjustment, apply screwlock to the azimuth adjusting screw.



[TOP](#) [PREVIOUS](#) [NEXT](#)

18.1.2 Tape Speed Adjustment (Deck 1/2)

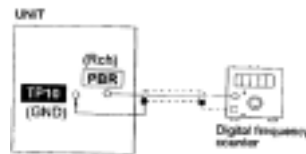
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Set the tape edit button to “NORMAL” position.
2. Insert the test tape (QZZCWAT) to DECK 2 and playback (FWD side) the middle portion of it.
3. Adjust Motor VR (DECK 2) for the output value shown below.

Adjustment target: 2940 ~ 3060 Hz (NORMAL speed)
--

4. 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



[TOP](#) [PREVIOUS](#) [NEXT](#)

18.1.3 Bias and Erase Voltage Check

[TOP](#) [PREVIOUS](#) [NEXT](#)

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

Bias voltage for Deck 2 $14 \pm 4\text{mV}$ (Normal)

Erase voltage for Deck 2 80mV (Normal)

Fig. 2

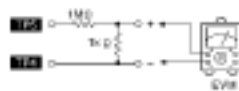
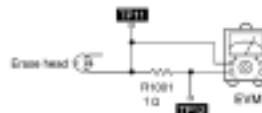


Fig. 3



[TOP](#) [PREVIOUS](#) [NEXT](#)

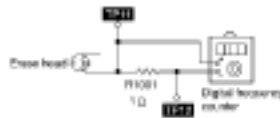
18.1.4 Bias Frequency Adjustment (Deck 1/2)

[TOP](#) [PREVIOUS](#) [NEXT](#)

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

Standard Value: 97 ± 8 kHz

Fig. 4



[TOP](#) [PREVIOUS](#) [NEXT](#)

18.2 Tuner Section

[TOP](#) [PREVIOUS](#) [NEXT](#)

[18.2.1 AM-IF Alignment](#)

[18.2.2 AM RF Adjustment](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

18.2.1 AM-IF Alignment

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Connect the instrument as shown in Fig. 5.
2. Set the unit to AM mode.
3. Apply signal as shown in Fig. 5 from AM-SG.
4. Adjust Z102 so that the output frequency is maximized in Fig. 6.

Fig. 5

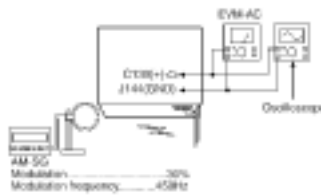


Fig. 6



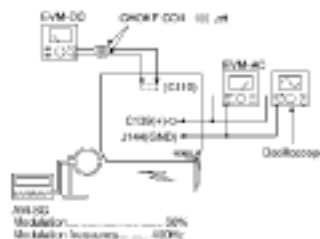
[TOP](#) [PREVIOUS](#) [NEXT](#)

18.2.2 AM RF Adjustment

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Connect the instrument as shown in Fig. 7.
2. Set the unit to AM mode.
3. Set AM-SG to 520kHz.
4. Receive 520kHz in the unit.
5. Adjust Z101 (OSC) so that the EVM-AC is maximized.
6. Set AM-SG to 600Hz.
7. Receive 600Hz in the unit.
8. Adjust Z101 (ANT) so that the EVM-SG is maximized.
9. Set AM-SG to 520kHz.
10. Receive 520kHz in the unit.
11. Adjust Z101 (OSC) so that the EVM-DC value is with $1.1 \pm 0.5V$.

Fig. 7



[TOP](#) [PREVIOUS](#) [NEXT](#)

18.3 Alignment Points

[TOP](#) [PREVIOUS](#) [NEXT](#)

[18.3.1 Cassette Deck Section](#)

[18.3.2 Adjustment Point](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

18.3.1 Cassette Deck Section

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

18.3.2 Adjustment Point

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

19 Illustration of ICs, Transistors and Diodes

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

20 Terminal Function of IC

[TOP](#) [PREVIOUS](#) [NEXT](#)

[20.1 IC600 \(C2BBHF000070 \) System Microprocessor](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

20.1 IC600 (C2BBHF000070) System Microprocessor

[TOP](#) [PREVIOUS](#) [NEXT](#)

Pin No.	Mark	I/O	Function
1	EECS	O	EEPROM Chip Select
2	SERA	O	EXP_DECK_CK/EXP2_CK/EE_CK
3	CHG_HALF	O	Changer Half Output
4	CHG_CW	O	Changer Motor CW
5	CHG_CCW	O	Changer Motor CCW
6	CHG_PLGR	O	Changer Plunger Output
7	DCDET	I	DC Detect Input
8	NJU_LAT	O	NJU LAT Output
9	PCNT	O	Main Transformer Control Output
10	KARA_LA/REGIN	I/O	Karaoke LSI Strobe/ Region In
11	RESET	I	Reset
12	XCin	I	32.768 khz Sub Clock
13	XCout	O	32.768 khz Sub Clock
14	VSS	-	GND
15	CF1	I	Main Clock
16	CF2	O	Main Clock
17	VDD	-	VDD (+5V)
18	KEY3	I	KEY3 input
19	KEY2	I	KEY2 input
20	KEY1	I	KEY1 input
21	CHG_AD1	I	Open/Clamp Chnager Input
22	CHG_AD2	I	Position/Bottom Changer Input
23	SPE	I	Speana Input
24	DECK2	I	Deck Condition Input (RINHf/MODE2/RINHR/HALF2)
25	DECK1	I	Deck Condition Input (MODE1/HALF1)
26	DECK3	I	Deck Condition Input (PHOTO1/PHOTO2)
27	CHG_SW	I	Changer SW1 and SW2 Input
28	SYNC	I	AC Failure Detect Input
29	RMT	I	Remote Control Input

30-40	GRD1-11	O	FL Display
41-45	SEG1-5	O	FL Display
46	VDD	-	(+5V)
47-50	SEG6-9	O	FL Display
51	VP	-	FL Display
52-62	SER10/REG1-SEG20/REG11	O	FL Display/Region Setting Control 1
63-71	SEG21-SEG29	O	FL Display
72	VDD	-	(+5v)
73-76	SEG30-SEG33	O	FL Display
77	PLLD_IF (PLL_DA_IN/ST)	I	PLL Data Input/Tuner Stereo
78	VOL_A	I	Volume Jog A Input
79	VOL_B	I	Volume Jog B Input
80	SD (TU_SIG_DEC_IN)	I	Tuner Signal Detect Input
81	SP_C	O	Speana Control Output C
82	SP_B	O	Speana Control Output B
83	SP_A	O	Speana Control Output A
84	DVD_MUTE	I	DVD Mute Output
85	SERB (EX3CK/PLLCK)	O	EXP3 CK/PLL_CK
86	SERC (EXDECK_DA/EX1_DA/EX3_DA)	O	EXP DECK DA/EXP1 DA/EXP3 DA
87	SERD (EX1CK/EX2_DA/EE_DA)	O	EXP1 CK/EXP2 DA/EE_DATA
88	PLLDA	O	PLL DATA Output
89	VSS	-	GND
90	VDD	-	+5V
91	MUTE_A	O	Audio Mute Output
92	PLLCE	O	PLL CE
93	DSP_CS	O	DSP CS
94	DSP_RST	O	DSP IC Reset Output
95	SERE	O	DSP/6CH VOL/NJU/KARAOKE LSI Data Output
96	VOL_CS+	O	6CH VOL CS
97	SERF	O	DSP/6CH VOL/NJU KARAOKE LSI CK Output
98	DVD_CMD	O	DVD CMD Data Output
99	DVD_STA	I	DVD Status Data Input
100	DVDCLK	O	DVD CLK Output

21 Block Diagram

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

22 Schematic Diagram

[TOP](#) [PREVIOUS](#) [NEXT](#)

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

Note:

- [S501](#)
: Voltage Selector Switch
- [S601](#)
: Power Switch
- [S602](#)
: Double Remaster Switch
- [S603](#)
: Super Surround Switch
- [S604](#)
: Deck 1/2 Switch
- [S605](#)
: Rec Switch
- [S606](#)
: CD Open/Close Switch
- [S607](#)
: Disc 1 Switch
- [S608](#)

: Disc 2 Switch

- [S609](#)

: Disc 3 Switch

- [S610](#)

: Disc 4 Switch

- [S611](#)

: Disc 5 Switch

- [S612](#)

: S.S.EQ Switch

- [S613](#)

: Superwoofer Switch

- [S614](#)

: Super EQ Switch

- [S901](#)

: Rew Switch

- [S902](#)

: CD Play Switch

- [S903](#)

: Tuner Switch

- [S904](#)

: FF Switch

- [S905](#)

: Stop Switch

- [S906](#)

: Deck 2 Open Switch

- [S907](#)

: Tape Switch

- [S908](#)

: AUX Switch

- [S909](#)

: Deck 1 Open Switch

- [S910](#)

: Display Switch

- [S951](#)

: Mode Switch

- [S952](#)

: Half Switch

- [S971](#)

: Mode Switch

- [S972](#)

: Half Switch

- [S974](#)

: Recinh_r Switch

- [S975](#)

: Recinh_f Switch

- SW1

: Tray Pos 1 Detect Switch

- SW2

: Tray Pos 2 Detect Switch

- SW3

: Open Switch

- SW4

: Clamp Switch

- SW5

: Bottom Switch

- SW2501

: In Switch

- VR600

: VR Volume Jog

- VR602

: Mic Volumer

- 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.

(()) : CD < : FM
>

- 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.

22.1 (A) DVD Module (1) Circuit

22.2 (B) DVD Module (2) Circuit

22.3 (C) Main Circuit & (D) Tuner Extent Circuit

22.4 (E) Panel Circuit, (F) LED Circuit & (G) Tact Switch Circuit

22.5 (H) Tuner Circuit

22.6 (J) Deck Circuit & (K) Deck Mechanism Circuit

22.7 (L) Power Supply Circuit

22.8 (M) Power AMP Circuit

22.9 (N) Power Circuit

22.10 (O) Transformer Circuit, (P) AC Inlet Circuit, (Q) Voltage Selector Circuit, (R) CD Loading Circuit, (S) CD Detect Circuit, (T) Spindle Position Circuit

22.1 (A) DVD Module (1) Circuit

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

22.2 (B) DVD Module (2) Circuit

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

22.3 (C) Main Circuit& (D) Tuner Extent Circuit

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

22.4 (E) Panel Circuit, (F) LED Circuit& (G) Tact Switch Circuit

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

22.5 (H) Tuner Circuit

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

22.6 (J) Deck Circuit& (K) Deck Mechanism Circuit

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

22.7 (L) Power Supply Circuit

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

22.8 (M) Power AMP Circuit

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

22.9 (N) Power Circuit

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

22.10 (O) Transformer Circuit, (P) AC Inlet Circuit, (Q) Voltage Selector Circuit, (R) CD Loading Circuit, (S) CD Detect Circuit, (T) Spindle Position Circuit

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

23 Printed Circuit Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

[23.1 \(A\) DVD Module \(1\) P.C.B. \(Component & Foil Side\)](#)

[23.2 \(B\) DVD Module \(2\) P.C.B. \(Side A & B\)](#)

[23.3 \(C\) Main P.C.B.](#)

[23.4 \(D\) Tuner Extent P.C.B. , \(F\) LED P.C.B. \(I\) Tuner Pack P.C.B., \(R\) CD Loading P.C.B., \(T\) Spindle Position P.C.B. & \(S\) CD Detect P.C.B.](#)

[23.5 \(E\) Panel P.C.B.](#)

[23.6 \(G\) Tact Switch P.C.B. & \(H\) Tuner P.C.B.](#)

[23.7 \(J\) Deck P.C.B. & \(K\) Deck Mechanism P.C.B.](#)

[23.8 \(L\) Power Supply P.C.B. & \(M\) Power AMP P.C.B.](#)

[23.9 \(N\) Power P.C.B.](#)

[23.10 \(O\) Transformer P.C.B.](#)

[23.11 \(Q\) Voltage Selector P.C.B. & \(P\) AC Inlet P.C.B.](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

23.1 (A) DVD Module (1) P.C.B. (Component& Foil Side)

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

23.2 (B) DVD Module (2) P.C.B. (Side A& B)

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

23.3 (C) Main P.C.B.

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

23.4 (D) Tuner Extent P.C.B. , (F) LED P.C.B. (I) Tuner Pack P.C.B., (R) CD Loading P.C.B., (T) Spindle Position P.C.B.& (S) CD Detect P.C.B.

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

23.5 (E) Panel P.C.B.

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

23.6 (G) Tact Switch P.C.B.& (H) Tuner P.C.B.

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

23.7 (J) Deck P.C.B.& (K) Deck Mechanism P.C.B.

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

23.8 (L) Power Supply P.C.B.& (M) Power AMP P.C.B.

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

23.9 (N) Power P.C.B.

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

23.10 (O) Transformer P.C.B.

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

23.11 (Q) Voltage Selector P.C.B.& (P) AC Inlet P.C.B.

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

24 Wiring Connection Diagram

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

25 Parts Location and Replacement Parts List

[TOP](#) [PREVIOUS](#) [NEXT](#)

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".

ACHTUNG:

- Die Lasereinheit nicht zerlegen.
- Die Lasereinheit darf nur gegen eine vom Hersteller spezifizierte Einheit ausgetauscht werden.

- Capacitor values are in microfarads (μ F) 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 column indicates parts supplied by [PAVCSG](#).
- The “(SF)” mark denotes the standard part.
- 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			

[25.1 Deck Mechanism \(RAA3412-S\)](#)

[25.1.1 Deck Mechanism Parts Location](#)

[25.1.2 Deck Mechanism Parts List](#)

[25.2 CD Loading Mechanism \(RD-DAC036-S\)](#)

[25.2.1 CD Loading Mechanism Parts Location](#)

[25.2.2 CD Loading Mechanism Parts List](#)

[25.3 Cabinet](#)

[25.3.1 Cabinet Parts Location](#)

[25.3.2 Cabinet Parts List](#)

[25.4 Electrical Parts List](#)

[25.5 Packing Materials & Accessories Parts List](#)

[25.6 Packaging](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

25.1 Deck Mechanism (RAA3412-S)

[TOP](#) [PREVIOUS](#) [NEXT](#)

[25.1.1 Deck Mechanism Parts Location](#)

[25.1.2 Deck Mechanism Parts List](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

25.1.1 Deck Mechanism Parts Location

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

25.1.2 Deck Mechanism Parts List

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
		CASSETTE DECK	
101	RED0071	R/P HEAD BLOCK UNIT	[M]
102	RED0072	P/B HEAD BLOCK UNIT	[M]
103	RDG0300	REEL BASE GEAR	[M]
104	RDG0301	WINDING RELAY GEAR	[M]
105	RDK0026	MAIN GEAR	[M]
106	RDR0029-3	RELAY PULLEY	[M]
107	RDV0033-4	WINDING BELT	[M]
108	RDV0034-1	CAPSTAN BELT A	[M]
109	RDV0057	MAIN BELT B	[M]
110	RMB0312	TRIGGER LEVER SPRING	[M]
111	RMB0400	REEL SPRING	[M]
112	RMB0403	HEAB PANEL SPRING	[M]
113	RMB0404	BRAKE ROD SPRING	[M]
114	RMB0406	FR LEVER SPRING	[M]
115	RMB0408	THRUST SPRING	[M]
116	RML0370	TRIGGER LEVER	[M]
117	RML0371	FR LEVER	[M]
118	RML0372	WINDING LEVER	[M]
119	RML0374	EJECT LEVER	[M]
120	RMM0131	BRAKE ROD	[M]
121	RMM0133-1	EJECT ROD	[M]
122	RMQ0519	REEL HUB	[M]
123	RMS0398-1	MOVING CORE	[M]
124	RSJ0003	PLUNGER ASS'Y	[M]
125	RMC0061	PACK SPRING	[M]
126	RXF0049	FLYWHEEL F ASS'Y	[M]

<u>127</u>	RXF0050	FLYWHEEL R ASS'Y	[M]
<u>128</u>	RXG0040	FF RELAY GEAR ASS'Y	[M]
<u>129</u>	RMK0283A-J	SUB-CHASSIS	[M]
<u>130</u>	RXL0124	PINCH ROLLER F ASS'Y	[M]
<u>130-1</u>	RMB0401	PINCH ARM SPRING F	[M]
<u>131</u>	RXL0125	PINCH ROLLER R ASS'Y	[M]
<u>131-1</u>	RMB0402	PINCH ARM SPRING R	[M]
<u>132</u>	RXL0126	WINDING ARM ASS'Y	[M]
<u>133</u>	RXQ0412	HEAD PANEL ASS'Y	[M]
<u>133-1</u>	RMB0405	FR ROD SPRING	[M]
<u>133-2</u>	RMM0132	FR ROD	[M]
<u>134</u>	REM0088	CAP MOTOR ASS'Y	[M]
<u>135</u>	RHD26022	MOTOR SCREW	[M]
<u>136</u>	XTW2+5L	HEAD BLOCK UNIT SC.	[M]
<u>137</u>	XTW26+10S	SUB-CHASSIS SCREW	[M]
<u>138</u>	XYC2+JF17	PCB EARTH SCREW	[M]
<u>139</u>	RFKJXED70-K	MAIN CHASSIS	[M]

[TOP](#) [PREVIOUS](#) [NEXT](#)

25.2 CD Loading Mechanism (RD-DAC036-S)

[TOP](#) [PREVIOUS](#) [NEXT](#)

[25.2.1 CD Loading Mechanism Parts Location](#)

[25.2.2 CD Loading Mechanism Parts List](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

25.2.1 CD Loading Mechanism Parts Location

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

25.2.2 CD Loading Mechanism Parts List

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
		TRAVERSE DECK	
301	RML0517	TIMING LEVER	[M]
302	RML0516	PLUNGER LEVER	[M]
303	RMB0551	UPPER SPINDLE SPRING	[M]
304	RMQ0744	LOWER HOOK	[M]
305	RDV0056	BELT	[M]
306	RML0525	FRONT LOCK	[M]
307	RML0526	DISC LEVER	[M]
308	RDG0424	DRIVE GEAR	[M]
309	RDG0425	CHANGE GEAR	[M]
310	RDG0427	TRV CAM GEAR	[M]
311	RDG0428	TRV RELAY GEAR	[M]
312	RDG0426	UP/DOWN GEAR	[M]
313	RDG0429	PULLEY GEAR	[M]
314	RMB0549-1	CHANGR GEAR SPRING	[M]
315	RMQ0748	PITCH PLATE	[M]
316	RMB0553	PUSH SPRING	[M]
317	RML0530	ASSIST LEVER	[M]
318	RML0518	CONNECTION LEVER	[M]
319	RMM0201	SLIDE PLATE 1	[M]
320	RME0258	REAR LOCK SPRING	[M]
321	RML0521	REAR LOCK LEVER	[M]
322	RME0257	TRAY LOCK LEVER SPRI	[M]
323	RML0520	TRAY LOCK	[M]
324	RMM0202	SLIDE PLATE 2	[M]
325	XTB3+10J	SCREW	[M]
326	RMR1367-K	FIXED PLATE	[M]

<u>327</u>	RMR0624-W	CLAMPER	[M]
<u>328</u>	RMB0561	ASSIST LEVER SPRING	[M]
<u>329</u>	RMR1121-K	MECHA COVER	[M]
<u>330</u>	RMA1110-2	TRAY ANGLE	[M]
<u>331</u>	RMR1122-H1	TRAY BASE	[M]
<u>332</u>	RMM0204	CARRIER	[M]
<u>333</u>	RMM0203	DRIVE RACK	[M]
<u>334</u>	RDG0432	SPEED UP GEAR	[M]
<u>335</u>	RML0524	SLIDE LOCK	[M]
<u>336</u>	RML0523	CARRIER LOCK	[M]
<u>337</u>	RME0260-1	SLIDE LOCK SPRING	[M]
<u>338</u>	RMR1123-H	TRAY	[M]
<u>339</u>	RXQ0595	MOTOR ASS'Y	[M]
<u>341</u>	RSJ0003	SOLENOID ASS'Y	[M]
<u>344</u>	RML0519	8CD LEVER	[M]
<u>345</u>	RFKNAAK27GCS	MECHA BASE ASS'Y	[M]
<u>346</u>	RML0522	TURNING STOPPER	[M]
<u>347</u>	RMQ0745	LOWER SPINDLE	[M]
<u>348</u>	RMQ0746	UP/DOWN BASE	[M]
<u>349</u>	RMB0550	LOWER SPINDLE SPRING	[M]
<u>350</u>	RMQ0747	UPPER HOOK	[M]
<u>351</u>	RME0263	CLICK SPRING	[M]
<u>352</u>	RMQ0743	SPINDLE SHAFT	[M]
<u>353</u>	RMB0552	CUSHION SPRING	[M]
<u>354</u>	RDG0430	RELAY GEAR A	[M]
<u>355</u>	RDG0431	RELAY GEAR B	[M]
<u>356</u>	RME0262	DISK LEVER SPRING	[M]
<u>357</u>	RMA1105	SUPPORT PLATE	[M]
<u>369</u>	RMX0141	PUSH SPACER	[M]
<u>370</u>	RMQ0749	UPPER SPINDLE	[M]
<u>371</u>	RHM0001	MAGNET	[M]
<u>372</u>	RMX0140	DISC SPACER	[M]
<u>373</u>	RME0261	FRONT LOCK SPRING	[M]
<u>374</u>	RMQ0742	SPINDLE BASE	[M]

375	RMA1435	PB ANGLE	[M]
376	RMC0387	SUPPORT SPRING	[M]
377	RMA1003	BACK YOKE	[M]
378	XTV2+6G	PCB SCREW	[M]
379	XTW3+10T	SCREW	[M]
401	RMG0558-K	P.C.B. RUBBER	[M]
402	RHD20060	PCB SCREW	[M]
403	RDG0499	TRAVERSE GEAR A	[M]
404	RDG0500	TRAVERSE GEAR B	[M]
405	RDG0501	TRAVERSE GEAR C	[M]
406	RHD17044	DRIVE RACK SCREW	[M]
407	RMC0415	ADJUST SPRING HOLDER	[M]
409	RME0319	TRV GEAR SPRING	[M]
413	RME0320	ADJUSTMENT SPRING	[M]
414	RMM0234-1	TRV DRIVE RACK	[M]
415	RMR1366-K1	UNIT CHASSIS	[M]
416	RMG0545-A	FLOATING RUBBER	[M]
417	RMS0711	GUIDE SHAFT	[M]
418	RMS0712-1	FIXED PIN	[M]
420	RXQ1077	OPU UNIT	[M]
421	VHD1224	ADJ SPRING HOLDER SCREW	[M]
423	XQN17+C28	MOTOR SCREW	[M]
424	RMS0710	DRIVE SHAFT	[M]
425	RAF3023A-2S	OPU UNIT	[M]
426	RHD14095	FPC SCREW	[M]
427	RJB2308A-1	INTERFACE FPC	[M]
428	RMG0561-T	CUSHION RUBBER	[M]
429	RHD17029	SHAFT ADJUST SCREW	[M]

[TOP](#) [PREVIOUS](#) [NEXT](#)

25.3 Cabinet

[TOP](#) [PREVIOUS](#) [NEXT](#)

[25.3.1 Cabinet Parts Location](#)

[25.3.2 Cabinet Parts List](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

25.3.1 Cabinet Parts Location

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

25.3.2 Cabinet Parts List

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	REEX0202	10P FFC	[M]
2	REEX0273	30P FFC WIRE	[M]
3	REEX0274	19P FFC WIRE	[M]
4	REEX0275	14P FFC WIRE	[M]
5	REEX0276	17P FFC WIRE	[M]
6	REEX0277	15P FFC WIRE	[M]
7	REEX0278	26P FFC WIRE	[M]
8	REEX0279-1J	50P FFC WIRE	[M]
9	REEX0280	14P FFC WIRE	[M]
11	RGKX0211A2S1	CONTROL PANEL	[M]
12	RGLX0069-Q	POWER LIGHT CHIP	[M]
13	L6FALEFH0020	FAN COVER UNIT	[M]
14	RGPX0110A-S2	FRONT PANEL	[M]
15	RGRX0029A-C1	REAR PANEL	[M]
16	RGUX0527-S	POWER BUTTON	[M]
17	RGUX0528-S	DECK 1/2 CONTROL BTN	[M]
18	RGUX0529-S	CONTROL BTN (L)	[M]
19	RGUX0530-S	CONTROL BTN (R)	[M]
20	RGUX0531-S	FUNCTION BTN L	[M]
21	RGUX0532A-S	FUNCTION BTN R	[M]
22	RGUX0533-S	PRESET EQ BUTTON	[M]
23	RGUX0535-S	CD EJECT BUTTON	[M]
24	RGUX0537-Q	DPL BUTTON	[M]
25	RGWX0056-S	MIC VOL KNOB	[M]
26	RGWX0080-S	VOLUME KNOB	[M]
27	RHD30004-1S	SCREW	[M]

<u>28</u>	RHD30078	SCREW	[M]
<u>29</u>	RJFX0003	PCB HOLDER	[M]
<u>30</u>	RKA0059-K	LEG RUBBER	[M]
<u>31</u>	RKFX0093-K	CASS. HOLDER (L)	[M]
<u>32</u>	RKFX0094-K	CASS. HOLDER (R)	[M]
<u>33</u>	SHE187-5J	PCB SUPPORT	[M]
<u>34</u>	XTW3+8T	SCREW	[M]
<u>35</u>	RKMX0077B-S	TOP CABINET (BEND)	[M]
<u>37</u>	RKWX0210A-V	FL WINDOW	[M]
<u>38</u>	RYFX0127-S	CASS LID UNIT (L)	[M]
<u>39</u>	RYFX0128-S	CASS LID UNIT (R)	[M]
<u>40</u>	REM0072-3	FAN	[M]
<u>41</u>	RMBX0021	CASS OPEN SPRING	[M]
<u>42</u>	RMCX0020	REGULATOR IC CLIP	[M]
<u>43</u>	RMKX0062	BOTTOM CHASSIS	[M]
<u>44</u>	RMKX0075-1	DVD CHASSIS	[M]
<u>45</u>	RMNX0019	PCB SPACER	[M]
<u>46</u>	RMNX0029C-A	SUB TRANS HOLDER	[M]
<u>47</u>	RMNX0110	FL HOLDER	[M]
<u>48</u>	RSCX0084	TUNER SHIELD PLATE	[M]
<u>49</u>	RSQX0005-1	D/SHIELD PLATE UNIT	[M]
<u>50</u>	RUS757ZAA	CASS HALF SPRING	[M]
<u>51</u>	RXGX0002	DAMPER GEAR	[M]
<u>52</u>	RXXX0035-1	HEAT SINK UNIT	[M]
<u>53</u>	RYQX0093A-S1	CD LID UNIT	[M]
<u>53-1</u>	RKWX0209A-V2	CD LID COVER	[M]
<u>54</u>	RYQX0094-S	TOP ORNAMENT UNIT	[M]
<u>55</u>	RYQX0109	SS EQ BUTTON UNIT	[M]
<u>56</u>	RYQX0110	5 CD CONTROL BUTTON	[M]
<u>57</u>	XTB3+10J	SCREW	[M]
<u>58</u>	XTB3+10JFZ	SCREW	[M]
<u>59</u>	XTB3+20J	SCREW	[M]
<u>60</u>	XTBS26+10J	SCREW	[M]
<u>61</u>	XTBS3+8JFZ1	SCREW	[M]

62	XTW3+15T	SCREW	[M]
65	RMC0158-S	TR-FIXTURE	[M]

[TOP](#) [PREVIOUS](#) [NEXT](#)

25.4 Electrical Parts List

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
		PRINTED CIRCUIT BOARD	
	REP3406B-N	DVD MODULE (1) P.C.B. (SIDE:A)	[M](RTL)
	REP3406B-N	DVD MODULE (1) P.C.B. (SIDE:B)	[M](RTL)
	REP3587E	DVD MODULE (2) P.C.B. (SIDE:A)	[M](RTL)
	REP3587E	DVD MODULE (2) P.C.B. (SIDE:B)	[M](RTL)
	REPX0376A	MAIN P.C.B.	[M](RTL)
	REPX0378D	PANEL P.C.B.	[M](RTL)
	REPX0378D	TACT SWITCH P.C.B.	[M](RTL)
	REPX0373C	TUNER P.C.B.	[M](RTL)
	REPX0376A	TUNER EXTENT P.C.B.	[M](RTL)
	REPX0378D	LED P.C.B.	[M](RTL)
	REP1999B	TUNER PACK P.C.B.	[M](RTL)
	REP2578A-N	CD LOADING P.C.B.	[M](RTL)
	REP2578A-N	CD DETECT P.C.B.	[M](RTL)
	REP2578A-N	SPINDLE POSITION P.C.B.	[M](RTL)
	REPX0331A	DECK P.C.B.	[M](RTL)
	REPX0321B	DECK MECHANISM P.C.B.	[M](RTL)
	REPX0377A	POWER SUPPLY P.C.B.	[M](RTL)
	REPX0377A	POWER AMP P.C.B.	[M](RTL)
	REPX0377A	POWER P.C.B.	[M](RTL)
	REPX0379A	TRNASFORMER P.C.B.	[M](RTL)
	REPX0379A	VOLTAGE SELECTOR P.C.B.	[M](RTL)
	REPX0379A	AC INLET P.C.B.	[M](RTL)
		INTEGRATED CIRCUITS	
IC1	C0GAM0000005	IC DRIVE	[M]
IC2	C0CBADG00005	IC 5V REGULATOR	[M]
IC3	C0DBAMH00009	IC POWER SUPPLY	[M]
IC4	C0DBAMH00009	IC POWER SUPPLY	[M]
IC5	C0DBZHE00011	1C POWER SUPPLY	[M]

IC6	C0CBADG00005	IC 5V REGULATOR	[M]
IC7	C0CBADG00005	IC 5V REGULATOR	[M]
IC8	C0DBCFCG00004	IC 1.5V REGULATOR	[M]
IC9	C0CBADG00005	IC 5V REGULATOR	[M]
IC50	C9ZB00000377	IC VIDEO BUFFER	[M]
IC101	LA1833NMNTLM	IC IF & MPX	[M]
IC102	LC72131MDTRM	IC PLL	[M]
IC301	C0JZAS000004	IC ANALOG SWITCH	[M]
IC302	KIA4558FEL	IC DUAL OP-AMP	[M]
IC303	KIA4558FEL	IC DUAL OP-AMP	[M]
IC304	C0JBAR000326	IC 4 CHANNEL SW	[M]
IC305	C0ABCB000040	IC QUAD OP AMP	[M]
IC306	KIA4558FEL	IC DUAL OP-AMP	[M]
IC307	C1BB00000782	IC 6 CHANNEL VOLUME	[M]
IC308	C0AABB000085	IC OP AMP	[M]
IC309	C0ABCB000040	IC QUAD OP AMP	[M]
IC500	RSN309W44B	IC HIC	[M]
IC501	C5BA00000105	IC VOLTAGE REGULATOR	[M]
IC502	RSN312H24-P	IC P0WER AMP	[M]
IC503	RSN312H24-P	IC POWER AMP	[M]
IC600	C2BBHF000070	IC MICRO-P	[M]
IC601	C1BB00000574	IC I/O EXPANDER	[M]
IC603	C1BB00000086	IC SPE ANA	[M]
IC604	C1BB00000574	IC I/O EXPANDER	[M]
IC700	C2HBZC000013	IC DSP	[M]
IC701	C1BB00000389	IC BLT	[M]
IC702	C1BB00000801	IC KARAOKE	[M]
IC703	C1BB00000574	IC I/O EXPANDER	[M]
IC951	CNB13030R2AU	IC PHOTO INTERRUPTOR	[M]
IC971	CNB13030R2AU	IC PHOTO INTERRUPTOR	[M]
IC1001	AN7348S-E1	IC TAPE PB	[M]
IC1004	C1AA00000612	IC SW	[M]
IC2501	C0GBG0000033	IC MOTOR DRIVER	[M]
IC3001	MN2DS0002AP1	IC AV DECORDER	[M]
IC3051	C3ABPJ000017	IC 64M SDRAM	[M]
IC4211	C0FBBK000036	IC AUDIO DAC	[M]
IC6201	C0EBE0000070	IC RESET	[M]

IC6251	C0CBCBE00003	IC REGULATOR	[M]
IC6261	C0JBAA000001	IC INVERTER	[M]
IC6262	C0JBAA000001	IC INVERTER	[M]
IC6301	RFKFMV71W160	IC 16M FROM	[SPC]
IC6561	C1DB00000980	IC CLOCK GENERATOR	[M]
		TRANSISTORS	
Q1	2SK544F-AC	TRANSISTOR	[M]
Q1	B1GACFGG0004	TRANSISTOR	[M]
Q1	RVTDTTC143EST	TRANSISTOR	[M]
Q2	2SC2786MTA	TRANSISTOR	[M]
Q3	2SC2787FL1TA	TRANSISTOR	[M]
Q4	2SC2787FL1TA	TRANSISTOR	[M]
Q5	B1ADCF000001	TRANSISTOR	[M]
Q6	KRA102STA	TRANSISTOR	[M]
Q7	KRC102STA	TRANSISTOR	[M]
Q15	KRC107STA	TRANSISTOR	[M]
Q16	KRC107STA	TRANSISTOR	[M]
Q17	KRC107STA	TRANSISTOR	[M]
Q18	KRC107STA	TRANSISTOR	[M]
Q52	KRC107STA	TRANSISTOR	[M]
Q100	KRC102MTA	TRANSISTOR	[M]
Q101	2SC2058SPTA	TRANSISTOR	[M]
Q101	KTA12710YTA	TRANSISTOR	[M]
Q106	KRA102MTA	TRANSISTOR	[M]
Q300	B1GFGCAA0001	TRANSISTOR	[M]
Q301	KRA110STA	TRANSISTOR	[M]
Q302	KRA110STA	TRANSISTOR	[M]
Q304	KRA110STA	TRANSISTOR	[M]
Q305	KRA110STA	TRANSISTOR	[M]
Q307	B1GFGCAA0001	TRANSISTOR	[M]
Q308	B1GFGCAA0001	TRANSISTOR	[M]
Q310	B1GFGCAA0001	TRANSISTOR	[M]
Q312	B1GFGCAA0001	TRANSISTOR	[M]
Q314	KRA110STA	TRANSISTOR	[M]
Q315	KRA110STA	TRANSISTOR	[M]

Q317	KRA110STA	TRANSISTOR	[M]
Q320	KTD1304TA	TRANSISTOR	[M]
Q321	KTC3875GRTA	TRANSISTOR	[M]
Q370	B1ADCF000001	TRANSISTOR	[M]
Q371	2SD0592ARA	TRANSISTOR	[M]
Q372	B1ADCF000001	TRANSISTOR	[M]
Q373	2SD0592ARA	TRANSISTOR	[M]
Q374	B1ADCF000001	TRANSISTOR	[M]
Q375	B1ABCF000011	TRANSISTOR	[M]
Q376	B1ADCF000001	TRANSISTOR	[M]
Q377	2SD0592ARA	TRANSISTOR	[M]
Q378	B1ADCF000001	TRANSISTOR	[M]
Q379	2SD0592ARA	TRANSISTOR	[M]
Q380	B1ADCF000001	TRANSISTOR	[M]
Q381	B1ABCF000011	TRANSISTOR	[M]
Q520	KTC3199GRTA	TRANSISTOR	[M]
Q521	KTC3199GRTA	TRANSISTOR	[M]
Q522	B1AAGC000007	TRANSISTOR	[M]
Q540	KTA1046	TRANSISTOR	[M]
Q541	2SD1859QRTV2	TRANSISTOR	[M]
Q542	KTC2026	TRANSISTOR	[M]
Q543	KTA1267GRTA	TRANSISTOR	[M]
Q544	KTA1267GRTA	TRANSISTOR	[M]
Q545	B1ACCL000012	TRANSISTOR	[M]
Q546	B1ACCL000010	TRANSISTOR	[M]
Q547	KTC3199GRTA	TRANSISTOR	[M]
Q548	KTC3199GRTA	TRANSISTOR	[M]
Q549	KTC3199GRTA	TRANSISTOR	[M]
Q550	KRA102MTA	TRANSISTOR	[M]
Q600	KRC103MTA	TRANSISTOR	[M]
Q601	KTC3199GRTA	TRANSISTOR	[M]
Q602	KTC3199GRTA	TRANSISTOR	[M]
Q603	KTA1267GRTA	TRANSISTOR	[M]
Q604	KTA1267GRTA	TRANSISTOR	[M]
Q605	KRC102MTA	TRANSISTOR	[M]
Q606	KTC3199GRTA	TRANSISTOR	[M]
Q607	2SC1740SSTA	TRANSISTOR	[M]

Q608	KRA102MTA	TRANSISTOR	[M]
Q609	KRA102MTA	TRANSISTOR	[M]
Q610	KTC3199GRTA	TRANSISTOR	[M]
Q611	KTC3199GRTA	TRANSISTOR	[M]
Q612	KTC3199GRTA	TRANSISTOR	[M]
Q613	KTC3199GRTA	TRANSISTOR	[M]
Q614	KTA12710YTA	TRANSISTOR	[M]
Q615	KTA12710YTA	TRANSISTOR	[M]
Q616	KRC102MTA	TRANSISTOR	[M]
Q801	KRC111STA	TRANSISTOR	[M]
Q900	2SC1740SSTA	TRANSISTOR	[M]
Q950	2SB621ARSTA	TRANSISTOR	[M]
Q951	2SD21370PA	TRANSISTOR	[M]
Q952	B1AAGC000007	TRANSISTOR	[M]
Q953	B1AAGC000007	TRANSISTOR	[M]
Q1001	KTC3875GRTA	TRANSISTOR	[M]
Q1003	B1AAGC000007	TRANSISTOR	[M]
Q1004	B1AAGC000007	TRANSISTOR	[M]
Q1005	B1AAGC000007	TRANSISTOR	[M]
Q1006	KRC114STA	TRANSISTOR	[M]
Q1007	KTC3875GRTA	TRANSISTOR	[M]
Q1012	KTD1304TA	TRANSISTOR	[M]
Q1013	KTD1304TA	TRANSISTOR	[M]
Q1014	B1ABCF000011	TRANSISTOR	[M]
Q1015	B1ABCF000011	TRANSISTOR	[M]
Q1016	KRA102STA	TRANSISTOR	[M]
Q1017	KTD1146YTA	TRANSISTOR	[M]
Q1020	KTD1304TA	TRANSISTOR	[M]
Q1021	KTD1304TA	TRANSISTOR	[M]
Q5111	B1BDBF000004	TRANSISTOR	[M]
Q5115	B1BDBF000004	TRANSISTOR	[M]
Q5211	UNR212100L	TRANSISTOR	[M]
Q5221	2SD1819A0L	TRANSISTOR	[M]
Q5225	2SD1819A0L	TRANSISTOR	[M]
QR2045	UNR511M00L	TRANSISTOR	[M]

		DIODES	
D1	SVC211SPA-AL	DIODE	[M]
D1	GP1S94	PHOTO INTERRUPTOR	[M]
D2	B0BA4R600003	DIODE	[M]
D2	SVC211SPA-AL	DIODE	[M]
D3	SVC211SPA-AL	DIODE	[M]
D6	B0JCPC000004	DIODE	[M]
D7	B0JCPC000004	DIODE	[M]
D8	B0BC7R500001	DIODE	[M]
D9	B0BC7R500001	DIODE	[M]
D10	B0EAKM000117	DIODE	[M]
D20	B0ACCK000005	DIODE	[M]
D21	B0ACCK000005	DIODE	[M]
D22	B0ACCK000005	DIODE	[M]
D100	B0EAKM000117	DIODE	[M]
D101	B0BC5R000009	DIODE	[M]
D201	B0ACCK000005	DIODE	[M]
D301	B0BC7R500001	DIODE	[M]
D302	B0BC5R000009	DIODE	[M]
D303	B0BC5R000009	DIODE	[M]
D306	B0ACCK000005	DIODE	[M]
D307	B0ACCK000005	DIODE	[M]
D308	B0ACCK000005	DIODE	[M]
D309	B0ACCK000005	DIODE	[M]
D310	B0ACCK000005	DIODE	[M]
D311	B0ACCK000005	DIODE	[M]
D312	B0ACCK000005	DIODE	[M]
D313	B0ACCK000005	DIODE	[M]
D314	B0ACCK000005	DIODE	[M]
D315	B0ACCK000005	DIODE	[M]
D370	B0ACCK000005	DIODE	[M]
D371	UDZSTE1710B	DIODE	[M]
D372	B0ACCK000005	DIODE	[M]
D373	UDZSTE1710B	DIODE	[M]
D374	B0EAKM000117	DIODE	[M]
D375	B0ACCK000005	DIODE	[M]

D376	B0ACCK000005	DIODE	[M]
D377	B0ACCK000005	DIODE	[M]
D378	B0ECKM000016	DIODE	[M]
D379	B0ACCK000005	DIODE	[M]
D380	B0ACCK000005	DIODE	[M]
D381	B0ACCK000005	DIODE	[M]
D401	B0ACCK000005	DIODE	[M]
D500	B0JAPG000019	DIODE	[M]
D501	B0JAPG000019	DIODE	[M]
D520	B0BA01900005	DIODE	[M]
D521	B0BA01900005	DIODE	[M]
D522	B0BA01900005	DIODE	[M]
D523	B0BA01900005	DIODE	[M]
D524	B0EAKM000117	DIODE	[M]
D525	B0EAKM000117	DIODE	[M]
D526	B0AACK000004	DIODE	[M]
D527	B0AACK000004	DIODE	[M]
D528	B0EAKM000117	DIODE	[M]
D529	B0EAKM000117	DIODE	[M]
D530	B0EAKM000117	DIODE	[M]
D540	MTZJ24DTA	DIODE	[M]
D541	B0BA01100004	DIODE	[M]
D542	B0BA01100004	DIODE	[M]
D543	B0AACK000004	DIODE	[M]
D544	B0AACK000004	DIODE	[M]
D545	B0AACK000004	DIODE	[M]
D580	B0JAPG000019	DIODE	[M]
D581	B0JAPG000019	DIODE	[M]
D590	B0JAPG000019	DIODE	[M]
D591	B0JAPG000019	DIODE	[M]
D600	B3AAA0000583	DIODE	[M]
D603	B0AACK000004	DIODE	[M]
D606	B0AACK000004	DIODE	[M]
D607	B0AACK000004	DIODE	[M]
D609	B0AACK000004	DIODE	[M]
D610	MA2C72300F	DIODE	[M]
D611	1SS380TE-17	DIODE	[M]

D612	1SS380TE-17	DIODE	[M]
D613	B0BA5R600016	DIODE	[M]
D614	1SS380TE-17	DIODE	[M]
D615	1SS380TE-17	DIODE	[M]
D616	MA2C700A0F	DIODE	[M]
D617	B0AACK000004	DIODE	[M]
D620	B0AACK000004	DIODE	[M]
D621	B3ACA0000234	DIODE	[M]
D622	B3ACA0000234	DIODE	[M]
D623	B3ACA0000234	DIODE	[M]
D624	B3ACA0000234	DIODE	[M]
D625	B3ACA0000234	DIODE	[M]
D626	B3ACA0000234	DIODE	[M]
D627	B3ACA0000234	DIODE	[M]
D628	B3ACA0000234	DIODE	[M]
D629	B3ACA0000234	DIODE	[M]
D630	B3ACA0000234	DIODE	[M]
D631	B3ACA0000234	DIODE	[M]
D632	B0AACK000004	DIODE	[M]
D633	B0BA5R000004	DIODE	[M]
D805	B0ACCK000005	DIODE	[M]
D806	B0ADCJ000020	DIODE	[M]
D807	B0ACCK000005	DIODE	[M]
D950	RL1N4003S-P	DIODE	[M]
D951	B0HARM000017	DIODE	[M]
D951	MA2C16500E	DIODE	[M]
D952	B0HARM000017	DIODE	[M]
D953	B0HARM000017	DIODE	[M]
D954	B0HARM000017	DIODE	[M]
D957	B0FBAM000009	DIODE	[M]
D958	B0FBAM000009	DIODE	[M]
D959	RL1N4003S-P	DIODE	[M]
D960	RL1N4003S-P	DIODE	[M]
D961	B0BA03100002	DIODE	[M]
D962	1T3T	DIODE	[M]
D963	1T3T	DIODE	[M]
D964	1T3T	DIODE	[M]

D965	B0BA7R000005	DIODE	[M]
D966	1T3T	DIODE	[M]
D967	B0AACK000004	DIODE	[M]
D968	1T3T	DIODE	[M]
D969	B0HARM000017	DIODE	[M]
D970	B0EBNL000004	DIODE	[M]
D971	B0HARM000017	DIODE	[M]
D971	MA2C16500E	DIODE	[M]
D972	B0HARM000017	DIODE	[M]
D973	B0HARM000017	DIODE	[M]
D976	B0AACK000004	DIODE	[M]
D977	B0AACK000004	DIODE	[M]
D978	B0AACK000004	DIODE	[M]
D979	B0AACK000004	DIODE	[M]
D980	B0AACK000004	DIODE	[M]
D981	B0AACK000004	DIODE	[M]
D982	B0AACK000004	DIODE	[M]
D983	B0AACK000004	DIODE	[M]
D984	B0AACK000004	DIODE	[M]
D985	B0AACK000004	DIODE	[M]
D986	B0AACK000004	DIODE	[M]
D987	B0AACK000004	DIODE	[M]
D1003	B0ACCK000005	DIODE	[M]
D1004	B0BC3R700004	DIODE	[M]
D5151	MA2J72800L	DIODE	[M]
		CHIP INDUCTOR	
LB3001	J0JHC0000045	CHIP INDUCTOR	[M]
LB3002	J0JHC0000045	CHIP INDUCTOR	[M]
LB3201	D0GB101JA002	100 1/16W	[M]
LB3202	D0GB101JA002	100 1/16W	[M]
LB3203	D0GB101JA002	100 1/16W	[M]
LB3204	J0JCC0000119	CHIP INDUCTOR	[M]
LB3205	J0JCC0000119	CHIP INDUCTOR	[M]
LB3206	J0JCC0000119	CHIP INDUCTOR	[M]
LB3207	J0JCC0000119	CHIP INDUCTOR	[M]

LB3208	J0JCC0000119	CHIP INDUCTOR	[M]
LB3209	D0GB101JA002	100 1/16W	[M]
LB4200	J0JBC0000015	CHIP INDUCTOR	[M]
LB4201	J0JCC0000119	CHIP INDUCTOR	[M]
LB4207	J0JCC0000119	CHIP INDUCTOR	[M]
LB4208	J0JCC0000119	CHIP INDUCTOR	[M]
LB4209	J0JCC0000119	CHIP INDUCTOR	[M]
LB4210	J0JCC0000119	CHIP INDUCTOR	[M]
LB4211	J0JCC0000119	CHIP INDUCTOR	[M]
LB4212	J0JCC0000119	CHIP INDUCTOR	[M]
LB4214	J0JCC0000119	CHIP INDUCTOR	[M]
LB4215	J0JCC0000119	CHIP INDUCTOR	[M]
LB4216	J0JBC0000015	CHIP INDUCTOR	[M]
LB4217	J0JBC0000015	CHIP INDUCTOR	[M]
LB5101	J0JHC0000045	CHIP INDUCTOR	[M]
LB5105	J0JBC0000015	CHIP INDUCTOR	[M]
LB5106	J0JBC0000015	CHIP INDUCTOR	[M]
LB5201	J0JBC0000015	CHIP INDUCTOR	[M]
LB5204	J0JCC0000119	CHIP INDUCTOR	[M]
LB5205	J0JCC0000119	CHIP INDUCTOR	[M]
LB5206	J0JBC0000015	CHIP INDUCTOR	[M]
LB5207	J0JCC0000119	CHIP INDUCTOR	[M]
LB5208	J0JBC0000015	CHIP INDUCTOR	[M]
LB5209	J0JBC0000015	CHIP INDUCTOR	[M]
LB5210	J0JCC0000119	CHIP INDUCTOR	[M]
LB5211	J0JCC0000119	CHIP INDUCTOR	[M]
LB5212	J0JCC0000119	CHIP INDUCTOR	[M]
LB5213	J0JCC0000119	CHIP INDUCTOR	[M]
LB5214	J0JHC0000045	CHIP INDUCTOR	[M]
LB5215	J0JCC0000119	CHIP INDUCTOR	[M]
LB5217	J0JCC0000119	CHIP INDUCTOR	[M]
LB5219	J0JCC0000119	CHIP INDUCTOR	[M]
LB5220	J0JBC0000015	CHIP INDUCTOR	[M]
LB5222	ERJ3GEY0R00V	0 1/16W	[M]
LB5228	J0JBC0000015	CHIP INDUCTOR	[M]
LB5229	J0JBC0000015	CHIP INDUCTOR	[M]
LB5231	J0JHC0000045	CHIP INDUCTOR	[M]

LB5233	J0JHC0000045	CHIP INDUCTOR	[M]
LB5235	J0JBC0000015	CHIP INDUCTOR	[M]
LB6261	J0JBC0000015	CHIP INDUCTOR	[M]
LB6301	J0JHC0000045	CHIP INDUCTOR	[M]
LB6561	J0JBC0000015	CHIP INDUCTOR	[M]
LB6562	J0JCC0000167	CHIP INDUCTOR	[M]
LB6564	J0JCC0000077	CHIP BEEZ	[M]
LB6566	J0JBC0000015	CHIP INDUCTOR	[M]
LB6567	J0JCC0000119	CHIP INDUCTOR	[M]
		VARIABLE RESISTORS	
VR600	EVEKE2F3524M	VOLUME JOG	[M]
VR602	EVUF2AF25B14	MIC VOLUMER	[M]
		SWITCHES	
S501	K0AFZA000005	SW VOLTAGE SELECTOR	[M] 
S601	EVQ21405R	SW POWER	[M]
S602	EVQ21405R	SW DOUBLE REMASTER	[M]
S603	EVQ21405R	SW SUPER SURROUND	[M]
S604	EVQ21405R	SW DECK 1/2	[M]
S605	EVQ21405R	SW REW	[M]
S606	EVQ21405R	SW CD OPEN/CLOSE	[M]
S607	EVQ21405R	SW DISC 1	[M]
S608	EVQ21405R	SW DISC 2	[M]
S609	EVQ21405R	SW DISC 3	[M]
S610	EVQ21405R	SW DISC 4	[M]
S611	EVQ21405R	SW DISC 5	[M]
S612	EVQ21405R	SW S.S EQ	[M]
S613	EVQ21405R	SW SUPER WOOFER	[M]
S614	EVQ21405R	SW SUPER EQ	[M]
S901	EVQ21405R	SW REW	[M]
S902	EVQ21405R	SW CD PLAY	[M]
S903	EVQ21405R	SW TUNER	[M]
S904	EVQ21405R	SW FF	[M]
S905	EVQ21405R	SW STOP	[M]

S906	EVQ21405R	SW DECK 2 OPEN	[M]
S907	EVQ21405R	SW TAPE	[M]
S908	EVQ21405R	SW AUX	[M]
S909	EVQ21405R	SW DECK 1 OPEN	[M]
S910	EVQ21405R	SW DISPLAY	[M]
S951	RSH1A018-3U	SW MODE	[M]
S952	RSH1A019-2U	SW LEAF	[M]
S971	RSH1A018-3U	SW MODE	[M]
S972	RSH1A019-2U	SW LEAF	[M]
S974	RSH1A019-2U	SW LEAF	[M]
S975	RSH1A019-2U	SW LEAF	[M]
		SWITCHES	
SW1	RSH1A032-U	SW PUSH	[M]
SW2	RSH1A032-U	SW PUSH	[M]
SW3	RSH1A005-1U	SW	[M]
SW4	RSH1A91ZA-A	SW CD	[M]
SW5	K0L1BB000005	SW LOCK	[M]
SW5	RSP1A017-A	SW LOCK	[M]
SW2501	RSH1A048-A	SW LEAF	[M]
		CONNECTORS	
CN1	K1MN14A00049	14P FFC CONNECTOR	[M]
CN300	K1KB12B00036	12P CONNECTOR	[M]
CN301	K1KB12B00036	12P CONNECTOR	[M]
CN302	RJT029W03VT	CONNECTOR	[M]
CN303	RJS2A5626	26P FFC CONNECTOR	[M]
CN304	RJS2A5615	15P FFC CONNECTOR	[M]
CN305	K1KA02A00008	CONNECTOR	[M]
CN306	K1MN17A00025	CONNECTOR	[M]
CN307	K1KA11A00093	11P CONNECTOR	[M]
CN308	K1KA02A00010	2P CONNECTOR	[M]
CN309	RJS1A9414-1	14P CONNECTOR	[M]
CN601	K1MN19A00026	FFC CONNECTOR	[M]
CN602	K1MN30A00046	30P FFC CONNECTOR	[M]

CN900	K1KA02A00010	2P CONNECTOR	[M]
CN900	RJT066H08B	8P CONNECTOR	[M]
CN902	K1KA02A00010	2P CONNECTOR	[M]
CN950	RJT119W10V	10P CONNECTOR	[M]
CN951	RJT119W07V	7P CONNECTOR	[M]
CN953	RJT029W03VT	CONNECTOR	[M]
CN954	K1KA07A00058	7P CONNECTOR	[M]
CN955	RJT119W08V	CONNECTOR	[M]
CN956	K1KB12B00036	12P CONNECTOR	[M]
CN957	K1KB12B00036	12P CONNECTOR	[M]
CN958	RJT119W15V	15P WIRE HOLDER	[M]
CN959	RJT119W15V	15P WIRE HOLDER	[M]
CN971	K1MN10B00104	10P FFC CONNECTOR	[M]
CN1001	K1MN14B00058	14P CONNECTOR	[M]
CP100	K1KB11A00020	CONNECTOR	[M]
CP500	K1KA12A00184	12P CONNECTOR	[M]
CP501	K1KA12A00184	12P CONNECTOR	[M]
CP502	K1KA12A00184	12P CONNECTOR	[M]
CP503	K1KA12A00184	12P CONNECTOR	[M]
CP600	K1MN10B00104	10P FFC CONNECTOR	[M]
CP601	K1MN19A00026	FFC CONNECTOR	[M]
CP602	K1MN30A00046	30P FFC CONNECTOR	[M]
CP603	K1MN14A00049	14P FFC CONNECTOR	[M]
CP702	K1KB11A00020	CONNECTOR	[M]
CP703	K1KA11A00093	11P CONNECTOR	[M]
CP900	RJU066H08	8P CONNECTOR	[M]
CS1001	RJS1A6805-J	5P CONNECTOR	[M]
CS1002	RJS1A6805-J	5P CONNECTOR	[M]
FP2501	K1MN04B00036	CONNECTOR	[M]
FP3202	K1MN17B00041	CONNECTOR	[M]
FP3203	K1MN15B00037	CONNECTOR	[M]
FP4202	K1MN26B00037	CONNECTOR	[M]
FP5101	K1MN30B00098	F/E CONNECTOR	[M]
FP5102	K1MN50B00010	CONNECTOR	[M]

FP5201	K1MN50B00010	CONNECTOR	[M]
		COILS & TRANSFORMERS	
L1	RLQZP1R2KT-Y	COIL	[M]
L2	RLQZPR47KT-Y	COIL	[M]
L4	G0A100G00005	INDUCTOR	[M]
L6	G0A101G00022	COIL	[M]
L7	G0A100G00005	INDUCTOR	[M]
L8	G0A100G00005	INDUCTOR	[M]
L9	G0A101G00022	COIL	[M]
L10	G0A100G00005	INDUCTOR	[M]
L11	G0A100G00005	INDUCTOR	[M]
L12	G0A100G00005	INDUCTOR	[M]
L13	J0JBC0000019	CHIP INDUCTOR	[M]
L14	G0A100G00005	INDUCTOR	[M]
L50	ELESN220JA	COIL	[M]
L51	ELJFCR39KF	CHIP INDUCTOR	[M]
L52	J0JCC0000120	CHIP INDUCTOR	[M]
L53	J0JCC0000120	CHIP INDUCTOR	[M]
L54	J0JCC0000120	CHIP INDUCTOR	[M]
L55	J0JCC0000120	CHIP INDUCTOR	[M]
L56	J0JCC0000120	CHIP INDUCTOR	[M]
L57	J0JCC0000120	CHIP INDUCTOR	[M]
L60	J0JBC0000019	CHIP INDUCTOR	[M]
L61	J0JBC0000019	CHIP INDUCTOR	[M]
L370	G0C221KA0007	COIL	[M]
L500	RLQZ371	LINE FILTER	[M] 
L600	RLQB3R3KT-1Y	COIL	[M]
L601	G0C100JA0030	INDUCTOR	[M]
L602	RLQZP101KT-Y	AXIAL COIL	[M]
L603	RLQZP101KT-Y	AXIAL COIL	[M]
L604	RLQZP100KT-Y	AXIAL COIL	[M]
L605	RLQZP100KT-Y	AXIAL COIL	[M]
L607	G0C3R3JA0030	COIL	[M]
L608	G0C100JA0030	INDUCTOR	[M]
L609	RLQZP100KT-Y	AXIAL COIL	[M]

L1001	G0C470JA0030	RF CHOKE COIL	[M]
L1002	7L1A62N	BIAS OSC COIL	[M]
L2001	G1C100K00020	CHIP INDUCTOR	[M]
L2002	G1C100K00020	CHIP INDUCTOR	[M]
L3101	G1C100K00020	CHIP INDUCTOR	[M]
L4211	G1C220KA0038	CHIP INDUCTOR	[M]
L5101	ELJEA100KF	CHIP INDUCTOR	[M]
L5221	G1C100K00020	CHIP INDUCTOR	[M]
L6561	G1C220KA0038	CHIP INDUCTOR	[M]
L6562	G1C220KA0038	CHIP INDUCTOR	[M]
T501	G4C8AHC00001	MAIN TRANS	[M] ⚠
T502	G4C2AAJ00005	BACK-UP TRANSFORMER	[M] ⚠
		COMPONENT COMBINATION	
Z101	RLA2Z007-T	COIL	[M]
Z102	G2BAE0000003	AM IF BLOCK	[M]
Z501	ERZV10V511CS	ZENER	[M] ⚠
Z600	B3RAB0000025	REMOTE SENSOR	[M]
Z971	RGSD12A1445T	RADA RESISTOR	[M]
BS4	RMBX0031	GROUNDING SPRING	[M]
		CERAMIC FILTERS	
CF201	RLFFETWND01M	FM CF	[M]
CF202	RLFFETWND01M	FM CF	[M]
		RELAY	
RL502	RSY0040M-0	PRIMARY RELAY	[M] ⚠
		OSCILLATORS	
X102	RLFDFT22DD	DISCRIMINATOR	[M]
X103	RSXC7M20S05T	CRYSTAL OSCILLATOR	[M]

X601	H2A100500006	RESONATOR	[M]
X602	H0A327200073	CRYSTAL OSCILLATOR	[M]
X700	H0H368600001	CRYSTAL OSCILLATOR	[M]
X6501	H0J368600003	CRYSTAL OSCILLATOR	[M]
		DISPLAY TUBE	
FL600	A2BD00000071	FL DISPLAY	[M]
FL4201	F1H0J1050018	1 6.3V	[M]
FL6251	F1J1E1040022	0.1 25V	[M]
FL6252	F1H0J1050018	1 6.3V	[M]
FL6253	F1H0J1050018	1 6.3V	[M]
FL6254	F1H0J1050018	1 6.3V	[M]
		FUSES	
F1	K5D502BK0006	5A CURRENT FUSE	[M] 
F2	K5D252BK0007	CURRENT FUSE	[M] 
F3	K5D632BK0007	FUSE	[M] 
F4	K5D632BK0007	FUSE	[M] 
		FUSE HOLDERS	
FC1	EYF52BC	FUSE HOLDER	[M]
FC2	EYF52BC	FUSE HOLDER	[M]
FC3	EYF52BC	FUSE HOLDER	[M]
FC4	EYF52BC	FUSE HOLDER	[M]
FC5	EYF52BC	FUSE HOLDER	[M]
FC6	EYF52BC	FUSE HOLDER	[M]
FC7	EYF52BC	FUSE HOLDER	[M]
FC8	EYF52BC	FUSE HOLDER	[M]
		FUSE PROTECTOR	
FP950	K5G402AA0002	FUSE PROTECTOR	[M] 
FP951	K5G102AA0002	FUSE PROTECTOR	[M] 

		HOLDERS	
H500	K1YF15000004	15P WIRE HOLDER	[M]
H502	K1YF15000004	15P WIRE HOLDER	[M]
H503	RJS1A5508	WIRE HOLDER	[M]
H600	RMR0316	7P CABLE HOLDER	[M]
H901	RMR0311	HOLDER	[M]
H950	K1YF10000006	10P WIRE HOLDER	[M]
H951	K1YF07000003	7P WIRE HOLDER	[M]
		JACKS	
JK101	RJH5414-1	JK ANTENNA	[M]
JK301	K1CB105B0039	JK S-VIDEO	[M]
JK302	K2HA408B0061	JK COMP/VIDEO	[M]
JK304	RJH2405L	JK 4P RCA	[M]
JK500	K2AA2B000004	JK AC INLET	[M] ⚠
JK600	K2HC103A0023	JK SMALL SIGN	[M]
JK601	K2HC103A0023	JK SMALL SIGN	[M]
JK900	K2HC103A0023	JK SMALL SIGN	[M]
JK951	K4BC04B00073	JK SPEAKER	[M]
JK952	K4BC04B00073	JK SPEAKER	[M]
JK953	K4BC04B00074	JK SPEAKER	[M]
JK954	K4BC06B00027	JK 6P SPEAKER	[M]
		EARTH TERMINAL	
E500	SNE1004-2	EARTH TERMINAL	[M]
		CHIP JUMPER	
W8	ERJ3GEY0R00V	0 1/16W	[M]
W9	ERJ3GEY0R00V	0 1/16W	[M]
W10	ERJ3GEY0R00V	0 1/16W	[M]
W11	ERJ3GEY0R00V	0 1/16W	[M]
W14	ERJ3GEY0R00V	0 1/16W	[M]
W15	ERJ3GEY0R00V	0 1/16W	[M]

W18	J0JBC0000041	CHIP INDUCTOR	[M]
W19	J0JBC0000041	CHIP INDUCTOR	[M]
W20	ERJ3GEY0R00V	0 1/16W	[M]
W21	ERJ3GEY0R00V	0 1/16W	[M]
W22	ERJ3GEY0R00V	0 1/16W	[M]
W23	ERJ3GEY0R00V	0 1/16W	[M]
W25	ERJ3GEY0R00V	0 1/16W	[M]
W26	ERJ3GEY0R00V	0 1/16W	[M]
W27	ERJ3GEY0R00V	0 1/16W	[M]
W30	ERJ3GEY0R00V	0 1/16W	[M]
		WIRES	
W1	REE0971	WIRE (YELLOW)	[M]
W1	REZ1023-1	4P WIRE	[M]
W2	ERJ3GEY0R00V	0 1/16W	[M]
W2	REE0972	WIRE (VIOLET)	[M]
W2	REZ1024	3P WIRE	[M]
W3	REEX0059	WIRE (BLUE)	[M]
W4	ERJ3GEY0R00V	0 1/16W	[M]
W4	REEX0061	WIRE (BLACK)	[M]
W5	ERJ3GEY0R00V	0 1/16W	[M]
W5	REEX0057	WIRE (ORANGE)	[M]
W6	ERJ3GEY0R00V	0 1/16W	[M]
W6	REE0973	WIRE (BROWN)	[M]
W7	REE0974	WIRE (LIGHT BLUE)	[M]
W500	REXX0304	15P FLAT WIRE	[M]
W502	REXX0304	15P FLAT WIRE	[M]
W503	REXX0302	8P FLAT WIRE	[M]
W600	REXX0295	7P FLAT WIRE	[M]
W601	REXX0346	2P WIRE	[M]
W901	REXX0315	2P FLAT WIRE	[M]
W950	REXX0297	10P FLAT WIRE	[M]
W951	REXX0296	7P FLAT WIRE	[M]
W952	REXX0206	2P STANDBY WIRE	[M]
W953	REXX0382-1	2P WIRE	[M]

W954	REXX0383	2P WIRE	[M]
W1002	RWJ0102050CK	MAIN-MECHA MOTOR WIR	[M]
W3001	ERJ14Y0R00H	0 1/16W	[M]
W3002	ERJ14Y0R00H	0 1/16W	[M]
W3003	ERJ14Y0R00H	0 1/16W	[M]
		JUMPER PLATE	
PL1	RJR0199	JUMPER PLATE	[M]
		RESISTORS	
R1	ERDS2TJ102T	1K 1/4W	[M]
R1	ERDS2TJ104T	100K 1/4W	[M]
R2	ERDS2TJ104T	100K 1/4W	[M]
R2	ERJ3GEY0R00V	0 1/16W	[M]
R3	ERDS2TJ221T	220 1/4W	[M]
R4	ERDS2TJ104T	100K 1/4W	[M]
R4	ERJ3GEY0R00V	0 1/16W	[M]
R5	ERDS2TJ564T	560K 1/4W	[M]
R5	ERJ3GEY0R00V	0 1/16W	[M]
R6	D0GB1R0JA002	1 1/16W	[M]
R6	ERDS2TJ391T	390 1/4W	[M]
R7	D0GB1R0JA002	1 1/16W	[M]
R7	ERDS2TJ272T	2.7K 1/4W	[M]
R8	D0GB1R0JA002	1 1/16W	[M]
R8	ERDS2TJ684T	680K 1/4W	[M]
R9	D0GB1R0JA002	1 1/16W	[M]
R9	ERDS2TJ391T	390 1/4W	[M]
R10	D0GB1R0JA002	1 1/16W	[M]
R10	ERDS2TJ391T	390 1/4W	[M]
R11	ERDS2TJ684T	680K 1/4W	[M]
R14	ERJ3GEYJ102V	1K 1/16W	[M]
R15	ERJ3GEYJ102V	1K 1/16W	[M]
R16	ERJ3GEYJ102V	1K 1/16W	[M]
R17	D0GB392JA002	3.9K 1/16W	[M]
R18	ERJ3GEYJ472V	4.7K 1/16W	[M]

R19	ERJ3GEYJ472V	4.7K 1/16W	[M]
R21	D0GB1R0JA002	1 1/16W	[M]
R22	D0GB1R0JA002	1 1/16W	[M]
R35	ERJ3GEYJ103V	10K 1/16W	[M]
R36	ERJ3GEYJ103V	10K 1/16W	[M]
R54	ERJ3GEYJ222V	2.2K 1/16W	[M]
R55	ERJ3GEYJ103V	10K 1/16W	[M]
R56	D0HB750ZA003	75 3W	[M]
R57	D0HB750ZA003	75 3W	[M]
R58	D0HB750ZA003	75 3W	[M]
R59	D0HB750ZA003	75 3W	[M]
R60	D0HB750ZA003	75 3W	[M]
R61	ERJ3GEYD750V	75 1/16W	[M]
R62	D0GB1R0JA002	1 1/16W	[M]
R63	D0GB1R0JA002	1 1/16W	[M]
R64	ERJ3GEY0R00V	0 1/16W	[M]
R65	ERJ3GEYJ104V	100K 1/16W	[M]
R66	ERJ3GEYJ104V	100K 1/16W	[M]
R67	ERJ3GEYJ104V	100K 1/16W	[M]
R68	ERJ3GEYJ104V	100K 1/16W	[M]
R69	ERJ3GEYJ104V	100K 1/16W	[M]
R70	ERJ3GEYJ104V	100K 1/16W	[M]
R72	ERJ3GEYJ103V	10K 1/16W	[M]
R73	D0GB1R0JA002	1 1/16W	[M]
R74	D0GB1R0JA002	1 1/16W	[M]
R75	ERJ3GEYJ471V	470 1/16W	[M]
R100	ERJ3GEYJ103V	10K 1/16W	[M]
R101	ERJ3GEY0R00V	0 1/16W	[M]
R101	ERJ3GEYJ103V	10K 1/16W	[M]
R102	ERJ3GEYJ472V	4.7K 1/16W	[M]
R103	D0GB271JA002	270 1/16W	[M]
R103	ERJ3GEYJ103V	10K 1/16W	[M]
R104	ERJ3GEYJ102V	1K 1/16W	[M]
R104	ERJ3GEYJ123V	12K 1/16W	[M]
R105	ERJ3GEYJ223V	22K 1/16W	[M]
R105	ERJ3GEYJ471V	470 1/16W	[M]
R106	D0GB474JA002	470K 1/16W	[M]

R106	ERJ3GEYJ102V	1K 1/16W	[M]
R107	ERJ3GEYJ103V	10K 1/16W	[M]
R107	ERJ3GEYJ331V	330 1/16W	[M]
R108	ERJ3GEYJ223V	22K 1/16W	[M]
R109	ERJ3GEYJ123V	12K 1/16W	[M]
R110	ERJ3GEYJ102V	1K 1/16W	[M]
R110	ERJ3GEYJ221V	220 1/16W	[M]
R111	ERJ3GEYJ223V	22K 1/16W	[M]
R111	ERJ3GEYJ391V	390 1/16W	[M]
R112	ERJ3GEYJ104V	100K 1/16W	[M]
R112	ERJ3GEYJ123V	12K 1/16W	[M]
R113	ERJ3GEYJ103V	10K 1/16W	[M]
R114	D0GB562JA002	5.6K 1/16W	[M]
R115	ERJ3GEYJ561V	560 1/16W	[M]
R116	ERJ3GEYJ102V	1K 1/16W	[M]
R117	ERJ3GEYJ473V	47K 1/16W	[M]
R118	D0GB332JA002	3.3K 1/16W	[M]
R119	D0GB332JA002	3.3K 1/16W	[M]
R120	ERJ3GEYJ473V	47K 1/16W	[M]
R121	ERJ3GEYJ223V	22K 1/16W	[M]
R122	D0GB272JA002	2.7K 1/16W	[M]
R123	D0GB683JA002	68K 1/16W	[M]
R124	ERJ3GEYJ330V	33 1/16W	[M]
R125	ERJ3GEYJ471V	470 1/16W	[M]
R126	ERJ3GEYJ102V	1K 1/16W	[M]
R127	ERJ3GEYJ471V	470 1/16W	[M]
R128	D0GB820JA019	82 1/16W	[M]
R129	D0GB273JA002	27K 1/16W	[M]
R130	ERJ3GEYJ103V	10K 1/16W	[M]
R131	D0GB121JA002	120 1/16W	[M]
R132	ERJ3GEYJ103V	10K 1/16W	[M]
R133	ERJ3GEYJ102V	1K 1/16W	[M]
R134	ERJ3GEYJ471V	470 1/16W	[M]
R135	ERJ3GEYJ102V	1K 1/16W	[M]
R136	ERJ3GEYJ102V	1K 1/16W	[M]
R137	ERJ3GEYJ102V	1K 1/16W	[M]
R138	D0GB332JA002	3.3K 1/16W	[M]

R141	ERJ3GEYJ682V	6.8K 1/16W	[M]
R142	ERJ3GEYJ682V	6.8K 1/16W	[M]
R143	ERJ3GEYJ223V	22K 1/16W	[M]
R144	D0GB121JA002	120 1/16W	[M]
R145	ERJ3GEYJ104V	100K 1/16W	[M]
R146	ERJ3GEYJ104V	100K 1/16W	[M]
R151	D0GB820JA019	82 1/16W	[M]
R152	ERJ3GEY0R00V	0 1/16W	[M]
R201	ERJ3GEYJ473V	47K 1/16W	[M]
R202	D0GB101JA002	100 1/16W	[M]
R203	ERJ3GEYJ103V	10K 1/16W	[M]
R204	D0GB562JA002	5.6K 1/16W	[M]
R205	ERJ3GEYJ473V	47K 1/16W	[M]
R206	ERJ3GEYJ471V	470 1/16W	[M]
R209	ERJ3GEY0R00V	0 1/16W	[M]
R210	ERJ3GEYJ104V	100K 1/16W	[M]
R211	ERJ3GEYJ102V	1K 1/16W	[M]
R212	D0GB272JA002	2.7K 1/16W	[M]
R213	ERJ3GEY0R00V	0 1/16W	[M]
R214	ERJ3GEYJ103V	10K 1/16W	[M]
R215	ERJ3GEYJ104V	100K 1/16W	[M]
R216	ERJ3GEYJ473V	47K 1/16W	[M]
R217	ERJ3GEYJ104V	100K 1/16W	[M]
R219	ERJ3GEYJ103V	10K 1/16W	[M]
R220	D0GB183JA002	18K 1/16W	[M]
R221	ERJ3GEYJ123V	12K 1/16W	[M]
R222	ERJ3GEYJ822V	8.2K 1/16W	[M]
R223	ERJ3GEYJ103V	10K 1/16W	[M]
R224	ERJ3GEYJ103V	10K 1/16W	[M]
R225	D0GB333JA002	33K 1/16W	[M]
R226	ERJ3GEYJ103V	10K 1/16W	[M]
R227	ERJ3GEYJ102V	1K 1/16W	[M]
R228	D0GB333JA002	33K 1/16W	[M]
R229	D0GB332JA002	3.3K 1/16W	[M]
R230	D0GB273JA002	27K 1/16W	[M]
R231	ERJ3GEYJ182V	1.8K 1/16W	[M]
R232	ERJ3GEYJ102V	1K 1/16W	[M]

R233	D0GB271JA002	270 1/16W	[M]
R234	D0GB392JA002	3.9K 1/16W	[M]
R235	ERJ3GEYJ223V	22K 1/16W	[M]
R236	D0GB272JA002	2.7K 1/16W	[M]
R237	D0GB333JA002	33K 1/16W	[M]
R238	D0GB122JA019	1.2K 1/16W	[M]
R239	ERJ3GEYJ102V	1K 1/16W	[M]
R240	ERJ3GEYJ221V	220 1/16W	[M]
R241	D0GB272JA002	2.7K 1/16W	[M]
R242	D0GB563JA002	56K 1/16W	[M]
R243	D0GB563JA002	56K 1/16W	[M]
R244	ERJ3GEYJ104V	100K 1/16W	[M]
R245	D0GB152JA002	1.5K 1/16W	[M]
R246	ERJ3GEYJ123V	12K 1/16W	[M]
R247	ERJ3GEYJ103V	10K 1/16W	[M]
R248	ERJ3GEYJ473V	47K 1/16W	[M]
R249	D0GB820JA019	82 1/16W	[M]
R250	D0GB820JA019	82 1/16W	[M]
R251	D0GB820JA019	82 1/16W	[M]
R252	D0GB820JA019	82 1/16W	[M]
R253	ERJ3GEYJ472V	4.7K 1/16W	[M]
R254	D0GB100JA002	10 1/16W	[M]
R255	ERJ3GEYJ182V	1.8K 1/16W	[M]
R256	D0GB273JA002	27K 1/16W	[M]
R257	ERJ3GEYJ223V	22K 1/16W	[M]
R258	ERJ3GEYJ102V	1K 1/16W	[M]
R259	ERJ3GEYJ473V	47K 1/16W	[M]
R260	ERJ3GEYJ472V	4.7K 1/16W	[M]
R261	ERJ3GEYJ473V	47K 1/16W	[M]
R262	ERJ3GEYJ472V	4.7K 1/16W	[M]
R263	ERJ3GEYJ472V	4.7K 1/16W	[M]
R264	ERJ3GEYJ102V	1K 1/16W	[M]
R265	D0GB332JA002	3.3K 1/16W	[M]
R266	D0GB334JA002	330K 1/16W	[M]
R267	ERJ3GEYJ102V	1K 1/16W	[M]
R268	ERJ3GEYJ102V	1K 1/16W	[M]
R269	ERJ3GEYJ222V	2.2K 1/16W	[M]

R270	ERJ3GEYJ104V	100K 1/16W	[M]
R272	ERJ3GEYJ104V	100K 1/16W	[M]
R273	ERJ3GEYJ104V	100K 1/16W	[M]
R274	ERJ3GEYJ104V	100K 1/16W	[M]
R301	D0GB273JA002	27K 1/16W	[M]
R302	ERJ3GEYJ102V	1K 1/16W	[M]
R303	ERJ3GEYJ102V	1K 1/16W	[M]
R304	D0GB563JA002	56K 1/16W	[M]
R305	ERJ3GEYJ223V	22K 1/16W	[M]
R306	D0GB101JA002	100 1/16W	[M]
R307	D0GB273JA002	27K 1/16W	[M]
R308	D0GB332JA002	3.3K 1/16W	[M]
R309	ECJ1VB1H561K	1.HM 1/8W	[M]
R310	D0GB333JA002	33K 1/16W	[M]
R311	D0GB273JA002	27K 1/16W	[M]
R312	D0GB183JA002	18K 1/16W	[M]
R313	ERJ3GEYJ182V	1.8K 1/16W	[M]
R314	ERJ3GEY0R00V	0 1/16W	[M]
R315	ERJ3GEYJ102V	1K 1/16W	[M]
R316	ERJ3GEYJ102V	1K 1/16W	[M]
R317	ERJ3GEYJ103V	10K 1/16W	[M]
R318	ERJ3GEYJ102V	1K 1/16W	[M]
R319	D0GB271JA002	270 1/16W	[M]
R320	D0GB271JA002	270 1/16W	[M]
R321	D0GB332JA002	3.3K 1/16W	[M]
R322	ERJ3GEYJ472V	4.7K 1/16W	[M]
R323	ERJ3GEYJ822V	8.2K 1/16W	[M]
R324	ERJ3GEYJ822V	8.2K 1/16W	[M]
R325	ERJ3GEYJ104V	100K 1/16W	[M]
R326	D0GB563JA002	56K 1/16W	[M]
R327	ERJ3GEYJ682V	6.8K 1/16W	[M]
R328	D0GB563JA002	56K 1/16W	[M]
R329	ERJ3GEYJ104V	100K 1/16W	[M]
R330	ERJ3GEYJ103V	10K 1/16W	[M]
R331	ERJ3GEYJ182V	1.8K 1/16W	[M]
R332	ERJ3GEYJ104V	100K 1/16W	[M]
R333	ERJ3GEYJ822V	8.2K 1/16W	[M]

R334	D0GB683JA002	68K 1/16W	[M]
R335	D0GB563JA002	56K 1/16W	[M]
R336	ERJ3GEYJ104V	100K 1/16W	[M]
R337	ERJ3GEYJ102V	1K 1/16W	[M]
R338	ERJ3GEY0R00V	0 1/16W	[M]
R339	ERJ3GEY0R00V	0 1/16W	[M]
R340	ERJ3GEY0R00V	0 1/16W	[M]
R341	ERJ3GEYJ104V	100K 1/16W	[M]
R342	ERJ3GEYJ103V	10K 1/16W	[M]
R343	ERJ3GEYJ473V	47K 1/16W	[M]
R344	ERJ3GEYJ473V	47K 1/16W	[M]
R345	ERJ3GEYJ473V	47K 1/16W	[M]
R346	ERJ3GEYJ391V	390 1/16W	[M]
R347	ERJ3GEYJ472V	4.7K 1/16W	[M]
R348	ERJ3GEYJ222V	2.2K 1/16W	[M]
R349	ERJ3GEYJ222V	2.2K 1/16W	[M]
R350	ERJ3GEYJ102V	1K 1/16W	[M]
R351	D0GB563JA002	56K 1/16W	[M]
R352	D0GB563JA002	56K 1/16W	[M]
R353	ERJ3GEYJ391V	390 1/16W	[M]
R354	ERJ3GEY0R00V	0 1/16W	[M]
R355	D0GB563JA002	56K 1/16W	[M]
R357	D0GB563JA002	56K 1/16W	[M]
R358	D0GB563JA002	56K 1/16W	[M]
R359	D0GB563JA002	56K 1/16W	[M]
R360	D0GB563JA002	56K 1/16W	[M]
R361	D0GB563JA002	56K 1/16W	[M]
R362	D0GB563JA002	56K 1/16W	[M]
R363	D0GB563JA002	56K 1/16W	[M]
R364	ERJ3GEYJ103V	10K 1/16W	[M]
R365	ERJ3GEY0R00V	0 1/16W	[M]
R366	D0GB563JA002	56K 1/16W	[M]
R367	D0GB563JA002	56K 1/16W	[M]
R368	ERJ3GEYJ102V	1K 1/16W	[M]
R369	D0GB563JA002	56K 1/16W	[M]
R370	ERJ3GEYJ102V	1K 1/16W	[M]
R371	ERJ3GEYJ472V	4.7K 1/16W	[M]

R372	ERJ3GEYJ472V	4.7K 1/16W	[M]
R373	D0GB332JA002	3.3K 1/16W	[M]
R374	ERJ3GEYJ104V	100K 1/16W	[M]
R375	ERJ3GEYJ103V	10K 1/16W	[M]
R376	ERDS1FVJ220T	22 1/2W	[M]
R377	ERJ3GEYJ224V	220K 1/16W	[M]
R378	D0GB101JA002	100 1/16W	[M]
R379	ERJ3GEYJ104V	100K 1/16W	[M]
R380	ERJ3GEYJ225V	2.2M 1/16W	[M]
R381	ERJ3GEYJ225V	2.2M 1/16W	[M]
R382	ERJ3GEYJ472V	4.7K 1/16W	[M]
R383	ERJ3GEYJ472V	4.7K 1/16W	[M]
R384	D0GB332JA002	3.3K 1/16W	[M]
R385	ERJ3GEY0R00V	0 1/16W	[M]
R386	ERJ3GEYJ104V	100K 1/16W	[M]
R387	ERJ3GEYJ103V	10K 1/16W	[M]
R388	ERJ3GEYJ181V	180 1/16W	[M]
R389	ERJ3GEYJ104V	100K 1/16W	[M]
R390	ERJ3GEYJ224V	220K 1/16W	[M]
R391	D0GB101JA002	100 1/16W	[M]
R392	ERJ3GEYJ104V	100K 1/16W	[M]
R393	ERJ3GEYJ103V	10K 1/16W	[M]
R394	ERJ3GEY0R00V	0 1/16W	[M]
R395	ERJ3GEYJ181V	180 1/16W	[M]
R396	ERJ3GEYJ181V	180 1/16W	[M]
R397	ERJ3GEYJ181V	180 1/16W	[M]
R398	ERJ3GEYJ103V	10K 1/16W	[M]
R399	ERJ3GEYJ103V	10K 1/16W	[M]
R400	ERJ3GEYJ181V	180 1/16W	[M]
R401	ERJ3GEYJ473V	47K 1/16W	[M]
R402	D0GB101JA002	100 1/16W	[M]
R403	ERJ3GEYJ103V	10K 1/16W	[M]
R404	D0GB562JA002	5.6K 1/16W	[M]
R405	ERJ3GEYJ473V	47K 1/16W	[M]
R406	ERJ3GEYJ471V	470 1/16W	[M]
R408	ERJ3GEYJ181V	180 1/16W	[M]
R409	ERJ3GEY0R00V	0 1/16W	[M]

R410	ERJ3GEYJ104V	100K 1/16W	[M]
R411	ERJ3GEYJ102V	1K 1/16W	[M]
R412	D0GB272JA002	2.7K 1/16W	[M]
R413	ERJ3GEY0R00V	0 1/16W	[M]
R414	ERJ3GEYJ103V	10K 1/16W	[M]
R415	ERJ3GEYJ104V	100K 1/16W	[M]
R416	ERJ3GEYJ473V	47K 1/16W	[M]
R417	ERJ3GEYJ181V	180 1/16W	[M]
R418	ERJ3GEYJ181V	180 1/16W	[M]
R419	ERJ3GEYJ103V	10K 1/16W	[M]
R420	D0GB183JA002	18K 1/16W	[M]
R421	ERJ3GEYJ123V	12K 1/16W	[M]
R422	ERJ3GEYJ822V	8.2K 1/16W	[M]
R423	ERJ3GEYJ103V	10K 1/16W	[M]
R424	ERJ3GEYJ103V	10K 1/16W	[M]
R425	D0GB333JA002	33K 1/16W	[M]
R426	ERJ3GEYJ103V	10K 1/16W	[M]
R427	ERJ3GEYJ102V	1K 1/16W	[M]
R428	D0GB333JA002	33K 1/16W	[M]
R429	D0GB332JA002	3.3K 1/16W	[M]
R430	D0GB273JA002	27K 1/16W	[M]
R431	ERJ3GEYJ182V	1.8K 1/16W	[M]
R432	ERJ3GEYJ102V	1K 1/16W	[M]
R433	D0GB271JA002	270 1/16W	[M]
R434	D0GB392JA002	3.9K 1/16W	[M]
R435	ERJ3GEYJ223V	22K 1/16W	[M]
R436	D0GB272JA002	2.7K 1/16W	[M]
R437	D0GB333JA002	33K 1/16W	[M]
R438	D0GB122JA019	1.2K 1/16W	[M]
R439	ERJ3GEYJ102V	1K 1/16W	[M]
R440	ERJ3GEYJ221V	220 1/16W	[M]
R441	D0GB272JA002	2.7K 1/16W	[M]
R442	D0GB563JA002	56K 1/16W	[M]
R443	D0GB563JA002	56K 1/16W	[M]
R444	ERJ3GEYJ104V	100K 1/16W	[M]
R445	D0GB152JA002	1.5K 1/16W	[M]
R446	ERJ3GEYJ123V	12K 1/16W	[M]

R447	ERJ3GEYJ103V	10K 1/16W	[M]
R448	ERJ3GEYJ473V	47K 1/16W	[M]
R449	D0GB820JA019	82 1/16W	[M]
R450	D0GB820JA019	82 1/16W	[M]
R451	D0GB820JA019	82 1/16W	[M]
R452	D0GB820JA019	82 1/16W	[M]
R453	ERJ3GEYJ472V	4.7K 1/16W	[M]
R454	D0GB100JA002	10 1/16W	[M]
R455	ERJ3GEYJ182V	1.8K 1/16W	[M]
R456	D0GB273JA002	27K 1/16W	[M]
R457	ERJ3GEYJ223V	22K 1/16W	[M]
R458	ERJ3GEYJ102V	1K 1/16W	[M]
R459	ERJ3GEYJ473V	47K 1/16W	[M]
R460	ERJ3GEYJ472V	4.7K 1/16W	[M]
R461	ERJ3GEYJ473V	47K 1/16W	[M]
R462	ERJ3GEYJ472V	4.7K 1/16W	[M]
R463	ERJ3GEYJ472V	4.7K 1/16W	[M]
R464	ERJ3GEYJ102V	1K 1/16W	[M]
R465	D0GB332JA002	3.3K 1/16W	[M]
R466	D0GB334JA002	330K 1/16W	[M]
R467	ERJ3GEYJ102V	1K 1/16W	[M]
R468	ERJ3GEYJ102V	1K 1/16W	[M]
R469	ERJ3GEYJ222V	2.2K 1/16W	[M]
R470	ERJ3GEYJ104V	100K 1/16W	[M]
R472	ERJ3GEYJ104V	100K 1/16W	[M]
R477	ERJ3GEYJ104V	100K 1/16W	[M]
R479	ERJ3GEYJ104V	100K 1/16W	[M]
R480	ERJ3GEYJ104V	100K 1/16W	[M]
R500	ERDS2TJ153T	15K 1/4W	[M]
R501	ERDS2TJ153T	15K 1/4W	[M]
R502	ERDS2TJ153T	15K 1/4W	[M]
R503	ERDS2TJ472T	4.7K 1/4W	[M]
R504	ERDS2TJ472T	4.7K 1/4W	[M]
R505	ERDS2TJ472T	4.7K 1/4W	[M]
R506	ERDS2TJ472T	4.7K 1/4W	[M]
R507	ERDS2TJ563T	56K 1/4W	[M]
R508	ERDS2TJ563T	56K 1/4W	[M]

R509	ERDS2TJ563T	56K 1/4W	[M]
R510	ERDS2TJ563T	56K 1/4W	[M]
R511	ERDS2TJ474T	470K 1/4W	[M]
R512	ERDS2TJ102T	1K 1/4W	[M]
R513	ERDS2TJ681T	680 1/4W	[M]
R514	ERDS2TJ153T	15K 1/4W	[M]
R516	ERDS2TJ393T	39K 1/4W	[M]
R517	ERDS2TJ103T	10K 1/4W	[M]
R518	ERDS2TJ104T	100K 1/4W	[M]
R520	ERDS1FVJ2R2T	2.2 1/2W	[M]
R521	ERDS1FVJ2R2T	2.2 1/2W	[M]
R522	ERDS2TJ152T	1.5K 1/4W	[M]
R523	ERDS2TJ152T	1.5K 1/4W	[M]
R524	ERDS2TJ473T	47K 1/4W	[M]
R525	ERDS2TJ473T	47K 1/4W	[M]
R526	ERDS2TJ473T	47K 1/4W	[M]
R527	ERDS2TJ473T	47K 1/4W	[M]
R528	ERDS2TJ104T	100K 1/4W	[M]
R529	ERDS2TJ104T	100K 1/4W	[M]
R530	ERDS2TJ223T	22K 1/4W	[M]
R531	ERDS2TJ223T	22K 1/4W	[M]
R540	ERD2FCVJ4R7T	4.7 1/4W	[M]
R541	ERDS2TJ272T	2.7K 1/4W	[M]
R542	ERDS2TJ473T	47K 1/4W	[M]
R543	ERDS2TJ822T	8.2K 1/4W	[M]
R544	ERDS2TJ562T	5.6K 1/4W	[M]
R545	ERDS2TJ473T	47K 1/4W	[M]
R546	ERDS2TJ272T	2.7K 1/4W	[M]
R547	ERDS2TJ272T	2.7K 1/4W	[M]
R548	ERD2FCVJ4R7T	4.7 1/4W	[M]
R549	ERDS2TJ223T	22K 1/4W	[M]
R550	ERDS2TJ103T	10K 1/4W	[M]
R551	ERDS2TJ223T	22K 1/4W	[M]
R552	ERDS2TJ332T	3.3K 1/4W	[M]
R553	ERDS2TJ103T	10K 1/4W	[M]
R554	ERDS2TJ103T	10K 1/4W	[M]
R555	ERDS2TJ103T	10K 1/4W	[M]

R556	ERDS2TJ333T	33K 1/4W	[M]
R557	ERDS2TJ101T	100 1/4W	[M]
R559	ERDS2TJ103T	10K 1/4W	[M]
R560	ERDS2TJ393T	39K 1/4W	[M]
R561	ERDS2TJ472T	4.7K 1/4W	[M]
R562	ERDS2TJ563T	56K 1/4W	[M]
R563	ERDS2TJ101T	100 1/4W	[M]
R564	ERDS2TJ104T	100K 1/4W	[M]
R565	ERDS2TJ331T	330 1/4W	[M]
R580	ERDS2TJ153T	15K 1/4W	[M]
R581	ERDS2TJ392T	3.9K 1/4W	[M]
R582	ERDS2TJ153T	15K 1/4W	[M]
R583	ERDS2TJ392T	3.9K 1/4W	[M]
R584	ERDS2TJ563T	56K 1/4W	[M]
R585	ERDS2TJ563T	56K 1/4W	[M]
R586	ERDS2TJ474T	470K 1/4W	[M]
R587	ERDS2TJ102T	1K 1/4W	[M]
R590	ERDS2TJ153T	15K 1/4W	[M]
R591	ERDS2TJ472T	4.7K 1/4W	[M]
R592	ERDS2TJ472T	4.7K 1/4W	[M]
R594	ERDS2TJ563T	56K 1/4W	[M]
R595	ERDS2TJ563T	56K 1/4W	[M]
R596	ERDS2TJ474T	470K 1/4W	[M]
R597	ERDS2TJ102T	1K 1/4W	[M]
R600	ERDS2TJ472T	4.7K 1/4W	[M]
R601	ERDS2TJ102T	1K 1/4W	[M]
R602	ERDS2TJ102T	1K 1/4W	[M]
R603	ERDS2TJ122T	1.2K 1/4W	[M]
R604	ERDS2TJ182T	1.8K 1/4W	[M]
R605	ERDS2TJ222T	2.2K 1/4W	[M]
R612	ERDS2TJ101T	100 1/4W	[M]
R613	ERDS2TJ102T	1K 1/4W	[M]
R614	ERDS2TJ102T	1K 1/4W	[M]
R617	ERDS2TJ472T	4.7K 1/4W	[M]
R620	ERJ3GEYJ472V	4.7K 1/16W	[M]
R622	ERDS2TJ472T	4.7K 1/4W	[M]
R622	ERJ3GEYJ472V	4.7K 1/16W	[M]

R623	ERDS2TJ472T	4.7K 1/4W	[M]
R623	ERJ3GEYJ472V	4.7K 1/16W	[M]
R624	ERJ3GEYJ472V	4.7K 1/16W	[M]
R625	ERJ3GEYJ103V	10K 1/16W	[M]
R626	ERDS2TJ103T	10K 1/4W	[M]
R626	ERJ3GEYJ153V	15K 1/16W	[M]
R627	ERDS2TJ223T	22K 1/4W	[M]
R627	ERJ3GEYJ472V	4.7K 1/16W	[M]
R628	ERDS2TJ101T	100 1/4W	[M]
R628	ERJ3GEYJ102V	1K 1/16W	[M]
R629	ERDS2TJ101T	100 1/4W	[M]
R629	ERJ3GEYJ472V	4.7K 1/16W	[M]
R630	ERDS2TJ681T	680 1/4W	[M]
R630	ERJ3GEYJ102V	1K 1/16W	[M]
R631	ERDS2TJ473T	47K 1/4W	[M]
R631	ERJ3GEYJ472V	4.7K 1/16W	[M]
R632	ERDS2TJ103T	10K 1/4W	[M]
R632	ERJ3GEYJ472V	4.7K 1/16W	[M]
R633	D0GB101JA002	100 1/16W	[M]
R633	ERDS2TJ101T	100 1/4W	[M]
R634	ERDS2TJ103T	10K 1/4W	[M]
R635	ERDS2TJ102T	1K 1/4W	[M]
R636	ERDS2TJ103T	10K 1/4W	[M]
R637	ERDS2TJ102T	1K 1/4W	[M]
R638	ERDS2TJ472T	4.7K 1/4W	[M]
R639	ERDS2TJ223T	22K 1/4W	[M]
R640	ERDS2TJ681T	680 1/4W	[M]
R643	ERDS2TJ106T	10M 1/4W	[M]
R644	ERDS2TJ331T	330 1/4W	[M]
R645	ERDS2TJ103T	10K 1/4W	[M]
R647	ERDS2TJ101T	100 1/4W	[M]
R648	ERDS2TJ562T	5.6K 1/4W	[M]
R649	ERDS2TJ561T	560 1/4W	[M]
R650	ERDS2TJ474T	470K 1/4W	[M]
R651	ERDS2TJ103T	10K 1/4W	[M]
R652	ERDS2TJ101T	100 1/4W	[M]
R653	ERDS2TJ472T	4.7K 1/4W	[M]

R654	ERDS2TJ474T	470K 1/4W	[M]
R655	ERDS2TJ220T	22 1/4W	[M]
R656	ERD2FCVG470T	47 1/4W	[M]
R657	ERD2FCVG470T	47 1/4W	[M]
R658	ERDS2TJ104T	100K 1/4W	[M]
R659	ERDS2TJ103T	10K 1/4W	[M]
R660	ERDS2TJ101T	100 1/4W	[M]
R661	ERDS2TJ102T	1K 1/4W	[M]
R662	ERDS2TJ102T	1K 1/4W	[M]
R663	ERDS2TJ122T	1.2K 1/4W	[M]
R664	ERDS2TJ182T	1.8K 1/4W	[M]
R665	ERDS2TJ222T	2.2K 1/4W	[M]
R666	ERDS2TJ272T	2.7K 1/4W	[M]
R667	ERDS2TJ472T	4.7K 1/4W	[M]
R668	ERDS2TJ682T	6.8K 1/4W	[M]
R669	ERDS2TJ103T	10K 1/4W	[M]
R670	ERDS2TJ103T	10K 1/4W	[M]
R671	ERDS2TJ101T	100 1/4W	[M]
R672	ERDS2TJ101T	100 1/4W	[M]
R673	ERDS2TJ223T	22K 1/4W	[M]
R674	ERDS2TJ223T	22K 1/4W	[M]
R675	ERDS2TJ222T	2.2K 1/4W	[M]
R676	ERDS2TJ1R0T	1 1/4W	[M]
R677	ERDS2TJ1R0T	1 1/4W	[M]
R678	ERDS2TJ102T	1K 1/4W	[M]
R679	ERDS2TJ221T	220 1/4W	[M]
R680	ERDS2TJ104T	100K 1/4W	[M]
R681	ERDS2TJ103T	10K 1/4W	[M]
R682	ERDS2TJ334T	330K 1/4W	[M]
R683	ERDS2TJ470T	47 1/4W	[M]
R684	ERDS2TJ822T	8.2K 1/4W	[M]
R685	ERDS2TJ101T	100 1/4W	[M]
R686	ERDS2TJ102T	1K 1/4W	[M]
R687	ERDS2TJ221T	220 1/4W	[M]
R688	ERDS2TJ2R7T	2.7 1/4W	[M]
R689	ERDS2TJ223T	22K 1/4W	[M]
R690	ERDS2TJ334T	330K 1/4W	[M]

R691	ERDS2TJ102T	1K 1/4W	[M]
R692	ERDS2TJ2R7T	2.7 1/4W	[M]
R693	ERDS2TJ223T	22K 1/4W	[M]
R694	ERDS2TJ331T	330 1/4W	[M]
R695	ERDS2TJ101T	100 1/4W	[M]
R696	ERDS2TJ822T	8.2K 1/4W	[M]
R697	ERDS2TJ472T	4.7K 1/4W	[M]
R698	ERDS2TJ102T	1K 1/4W	[M]
R699	ERDS2TJ220T	22 1/4W	[M]
R700	ERDS2TJ332T	3.3K 1/4W	[M]
R700	ERJ3GEYJ153V	15K 1/16W	[M]
R701	ERDS2TJ332T	3.3K 1/4W	[M]
R701	ERJ3GEYJ472V	4.7K 1/16W	[M]
R702	ERDS1FVJ270T	27 1/2W	[M]
R702	ERDS2TJ332T	3.3K 1/4W	[M]
R703	D0GB392JA002	3.9K 1/16W	[M]
R703	ERDS2TJ332T	3.3K 1/4W	[M]
R704	D0GB562JA002	5.6K 1/16W	[M]
R704	ERDS2TJ332T	3.3K 1/4W	[M]
R705	D0GB273JA002	27K 1/16W	[M]
R705	ERDS2TJ272T	2.7K 1/4W	[M]
R706	ERDS2TJ182T	1.8K 1/4W	[M]
R706	ERJ3GEYJ470V	47 1/16W	[M]
R707	ERDS2TJ272T	2.7K 1/4W	[M]
R707	ERJ3GEYJ102V	1K 1/16W	[M]
R708	D0GB105JA002	1M 1/16W	[M]
R708	ERDS2TJ182T	1.8K 1/4W	[M]
R709	ERDS2TJ223T	22K 1/4W	[M]
R709	ERJ3GEYJ104V	100K 1/16W	[M]
R710	ERDS2TJ123T	12K 1/4W	[M]
R710	ERJ3GEYJ472V	4.7K 1/16W	[M]
R711	ERDS2TJ103T	10K 1/4W	[M]
R711	ERJ3GEYJ331V	330 1/16W	[M]
R712	ERDS2TJ104T	100K 1/4W	[M]
R712	ERJ3GEYJ331V	330 1/16W	[M]
R713	ERDS2TJ104T	100K 1/4W	[M]
R713	ERJ3GEYJ331V	330 1/16W	[M]

R714	ERDS2TJ104T	100K 1/4W	[M]
R714	ERJ3GEYJ103V	10K 1/16W	[M]
R715	ERDS2TJ104T	100K 1/4W	[M]
R715	ERJ3GEYJ472V	4.7K 1/16W	[M]
R716	ERDS2TJ104T	100K 1/4W	[M]
R716	ERJ3GEYJ103V	10K 1/16W	[M]
R717	ERDS2TJ104T	100K 1/4W	[M]
R717	ERJ3GEYJ153V	15K 1/16W	[M]
R718	ERDS2TJ104T	100K 1/4W	[M]
R718	ERJ3GEY0R00V	0 1/16W	[M]
R719	ERDS2TJ104T	100K 1/4W	[M]
R719	ERJ3GEYJ123V	12K 1/16W	[M]
R720	D0GB100JA002	10 1/16W	[M]
R720	ERDS2TJ104T	100K 1/4W	[M]
R721	ERDS2TJ104T	100K 1/4W	[M]
R721	ERJ3GEY0R00V	0 1/16W	[M]
R722	D0GB393JA002	39K 1/16W	[M]
R722	ERDS2TJ104T	100K 1/4W	[M]
R723	D0GB333JA002	33K 1/16W	[M]
R723	ERDS2TJ104T	100K 1/4W	[M]
R724	D0GB332JA002	3.3K 1/16W	[M]
R724	ERDS2TJ104T	100K 1/4W	[M]
R725	ERDS2TJ104T	100K 1/4W	[M]
R726	ERDS2TJ104T	100K 1/4W	[M]
R726	ERJ3GEYJ103V	10K 1/16W	[M]
R727	ERDS2TJ104T	100K 1/4W	[M]
R727	ERJ3GEYJ102V	1K 1/16W	[M]
R728	ERDS2TJ104T	100K 1/4W	[M]
R728	ERJ3GEYJ224V	220K 1/16W	[M]
R729	ERDS2TJ104T	100K 1/4W	[M]
R729	ERJ3GEYJ153V	15K 1/16W	[M]
R730	ERDS2TJ104T	100K 1/4W	[M]
R730	ERJ3GEYJ822V	8.2K 1/16W	[M]
R731	ERDS2TJ101T	100 1/4W	[M]
R731	ERJ3GEYJ184V	180K 1/16W	[M]
R732	ERDS2TJ101T	100 1/4W	[M]
R732	ERJ3GEYJ473V	47K 1/16W	[M]

R733	ERJ3GEYJ102V	1K 1/16W	[M]
R734	ERJ3GEYJ472V	4.7K 1/16W	[M]
R735	ERJ3GEYJ472V	4.7K 1/16W	[M]
R736	ERJ3GEYJ153V	15K 1/16W	[M]
R737	ERJ3GEYJ223V	22K 1/16W	[M]
R738	ERJ3GEYJ472V	4.7K 1/16W	[M]
R739	ERJ3GEYJ104V	100K 1/16W	[M]
R740	ERJ3GEYJ153V	15K 1/16W	[M]
R741	ERJ3GEYJ103V	10K 1/16W	[M]
R742	ERJ3GEY0R00V	0 1/16W	[M]
R743	ERJ3GEY0R00V	0 1/16W	[M]
R744	ERJ3GEY0R00V	0 1/16W	[M]
R896	D0GB393JA002	39K 1/16W	[M]
R897	ERJ3GEYJ153V	15K 1/16W	[M]
R900	ERDS2TJ103T	10K 1/4W	[M]
R901	ERDS2TJ102T	1K 1/4W	[M]
R902	ERDS2TJ102T	1K 1/4W	[M]
R903	ERDS2TJ122T	1.2K 1/4W	[M]
R904	ERDS2TJ182T	1.8K 1/4W	[M]
R905	ERDS2TJ222T	2.2K 1/4W	[M]
R906	ERDS2TJ272T	2.7K 1/4W	[M]
R907	ERDS2TJ472T	4.7K 1/4W	[M]
R908	ERDS2TJ682T	6.8K 1/4W	[M]
R909	ERDS2TJ103T	10K 1/4W	[M]
R911	ERDS2TJ104T	100K 1/4W	[M]
R912	ERDS2TJ473T	47K 1/4W	[M]
R913	ERDS2TJ473T	47K 1/4W	[M]
R914	ERDS2TJ563T	56K 1/4W	[M]
R915	ERDS2TJ470T	47 1/4W	[M]
R916	ERDS2TJ104T	100K 1/4W	[M]
R917	ERDS2TJ563T	56K 1/4W	[M]
R918	ERDS2TJ470T	47 1/4W	[M]
R921	ERDS2TJ103T	10K 1/4W	[M]
R922	ERDS2TJ101T	100 1/4W	[M]
R923	ERDS2TJ223T	22K 1/4W	[M]
R924	ERDS2TJ123T	12K 1/4W	[M]
R925	ERDS2TJ101T	100 1/4W	[M]

R937	ERDS2TJ222T	2.2K 1/4W	[M]
R938	ERDS2TJ474T	470K 1/4W	[M]
R939	ERDS2TJ472T	4.7K 1/4W	[M]
R950	ERDS2TJ122T	1.2K 1/4W	[M]
R951	ERDS2TJ152T	1.5K 1/4W	[M]
R952	ERDS1FVJ220T	22 1/2W	[M]
R952	ERDS2TJ821T	820 1/4W	[M]
R953	ERDS1FVJ180T	18 1/2W	[M]
R953	ERDS2TJ393T	39K 1/4W	[M]
R954	ERDS1FVJ120T	12 1/2W	[M]
R955	ERDS2TJ223T	22K 1/4W	[M]
R956	ERDS2TJ223T	22K 1/4W	[M]
R957	ERDS2TJ151T	150 1/4W	[M]
R958	ERD2FCVJ4R7T	4.7 1/4W	[M]
R959	ERDS2TJ472T	4.7K 1/4W	[M]
R960	ERDS2TJ332T	3.3K 1/4W	[M]
R962	ERDS2TJ824T	820K 1/4W	[M]
R964	ERDS1FVJ100T	10 1/2W	[M]
R965	ERDS1FVJ100T	10 1/2W	[M]
R966	ERDS2TJ104T	100K 1/4W	[M]
R967	ERDS2TJ184T	180K 1/4W	[M]
R968	ERDS2TJ394T	390K 1/4W	[M]
R969	ERDS2TJ394T	390K 1/4W	[M]
R969	ERDS2TJ681T	680 1/4W	[M]
R970	ERDS1FVJ100T	10 1/2W	[M]
R970	ERDS2TJ681T	680 1/4W	[M]
R971	ERDS1FVJ100T	10 1/2W	[M]
R972	ERDS2TJ561T	560 1/4W	[M]
R972	ERDS2TJ821T	820 1/4W	[M]
R973	ERDS2TJ393T	39K 1/4W	[M]
R976	ERDS2TJ184T	180K 1/4W	[M]
R977	ERDS2TJ683T	68K 1/4W	[M]
R978	ERDS2TJ393T	39K 1/4W	[M]
R979	ERDS2TJ393T	39K 1/4W	[M]
R980	ERDS1FVJ100T	10 1/2W	[M]
R981	ERDS1FVJ100T	10 1/2W	[M]
R982	ERDS2TJ393T	39K 1/4W	[M]

R983	ERDS2TJ393T	39K 1/4W	[M]
R984	ERDS2TJ103T	10K 1/4W	[M]
R985	ERDS2TJ103T	10K 1/4W	[M]
R986	ERDS2TJ394T	390K 1/4W	[M]
R987	ERDS2TJ104T	100K 1/4W	[M]
R988	ERDS2TJ394T	390K 1/4W	[M]
R989	ERDS2TJ394T	390K 1/4W	[M]
R990	ERDS1FVJ100T	10 1/2W	[M]
R991	ERDS1FVJ100T	10 1/2W	[M]
R992	ERDS2TJ393T	39K 1/4W	[M]
R993	ERDS2TJ393T	39K 1/4W	[M]
R994	ERDS2TJ103T	10K 1/4W	[M]
R995	ERDS2TJ103T	10K 1/4W	[M]
R996	ERDS2TJ104T	100K 1/4W	[M]
R997	ERDS2TJ184T	180K 1/4W	[M]
R998	ERDS2TJ394T	390K 1/4W	[M]
R999	ERDS2TJ394T	390K 1/4W	[M]
R1001	D0GB1R0JA002	1 1/16W	[M]
R1003	ERJ3GEYJ103V	10K 1/16W	[M]
R1004	D0GB152JA002	1.5K 1/16W	[M]
R1005	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1006	ERJ3GEYJ102V	1K 1/16W	[M]
R1007	ERD25FVJ4R7T	4.7 1/4W	[M]
R1008	ERJ3GEYJ223V	22K 1/16W	[M]
R1009	D0GB183JA002	18K 1/16W	[M]
R1010	D0GB183JA002	18K 1/16W	[M]
R1011	ERJ3GEYJ103V	10K 1/16W	[M]
R1012	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1013	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1014	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1015	ERJ3GEYJ470V	47 1/16W	[M]
R1016	ERJ3GEYJ470V	47 1/16W	[M]
R1017	ERJ3GEYJ822V	8.2K 1/16W	[M]
R1018	D0GB392JA002	3.9K 1/16W	[M]
R1019	D0GB392JA002	3.9K 1/16W	[M]
R1022	ERJ3GEYJ103V	10K 1/16W	[M]
R1026	ERJ3GEYJ102V	1K 1/16W	[M]

R1028	ERJ3GEYJ822V	8.2K 1/16W	[M]
R1029	D0GB475JA008	4.7M 1/16W	[M]
R1030	D0GB101JA002	100 1/16W	[M]
R1031	D0GB273JA002	27K 1/16W	[M]
R1032	ERJ3GEYJ103V	10K 1/16W	[M]
R1035	ERJ3GEYJ103V	10K 1/16W	[M]
R1038	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1039	ERJ3GEYJ153V	15K 1/16W	[M]
R1040	ERJ3GEY0R00V	0 1/16W	[M]
R1045	ERJ3GEYJ104V	100K 1/16W	[M]
R1046	ERJ3GEYJ104V	100K 1/16W	[M]
R1047	ERJ3GEYJ102V	1K 1/16W	[M]
R1048	ERJ3GEYJ102V	1K 1/16W	[M]
R1049	D0GB105JA002	1M 1/16W	[M]
R1050	D0GB105JA002	1M 1/16W	[M]
R1051	ERJ3GEYJ221V	220 1/16W	[M]
R1052	ERJ3GEYJ221V	220 1/16W	[M]
R1053	ERJ3GEYJ681V	680 1/16W	[M]
R1054	ERJ3GEYJ681V	680 1/16W	[M]
R1055	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1056	ERJ3GEYJ221V	220 1/16W	[M]
R1057	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1058	D0GB272JA002	2.7K 1/16W	[M]
R1059	ERJ3GEYJ103V	10K 1/16W	[M]
R1060	ERJ3GEYJ391V	390 1/16W	[M]
R1061	ERJ3GEY0R00V	0 1/16W	[M]
R1084	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1085	ERJ3GEYJ473V	47K 1/16W	[M]
R1086	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1087	ERJ3GEYJ473V	47K 1/16W	[M]
R1090	ERJ3GEYJ221V	220 1/16W	[M]
R1091	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1092	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1093	ERJ3GEYJ102V	1K 1/16W	[M]
R1094	ERJ3GEYJ102V	1K 1/16W	[M]
R1095	ERJ3GEYJ104V	100K 1/16W	[M]
R1096	ERJ3GEYJ104V	100K 1/16W	[M]

R1097	ERJ3GEYJ103V	10K 1/16W	[M]
R1098	ERJ3GEYJ103V	10K 1/16W	[M]
R2011	J0JBC0000015	INDUCTOR	[M]
R2012	D0GB752JA008	7.5K 1/16W	[M]
R2013	J0JBC0000015	INDUCTORW	[M]
R2014	D0GB752JA008	7.5K 1/16W	[M]
R2015	J0JBC0000015	INDUCTOR	[M]
R2016	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2017	J0JBC0000015	INDUCTOR	[M]
R2018	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2021	ERJ3GEYJ153V	15K 1/16W	[M]
R2022	ERJ3GEYJ103V	10K 1/16W	[M]
R2023	ERJ3GEYJ153V	15K 1/16W	[M]
R2031	D0GB683JA002	68K 1/16W	[M]
R2032	ERJ3GEYJ102V	1K 1/16W	[M]
R2033	ERJ3RBD153V	15K 3W	[M]
R2041	ERJ3GEYJ473V	47K 1/16W	[M]
R2045	ERJ3GEYJ823V	82K 1/16W	[M]
R2046	ERJ3GEYJ221V	220 1/16W	[M]
R2051	ERJ3RBD392V	3.9K 3W	[M]
R2501	D0GB101JA002	100 1/16W	[M]
R2502	ERJ3GEYJ153V	15K 1/16W	[M]
R2503	ERJ3GEYJ153V	15K 1/16W	[M]
R2504	ERJ3GEYJ823V	82K 1/16W	[M]
R2505	ERJ3GEYJ823V	82K 1/16W	[M]
R2507	D0GF6R8JA017	6.8 1/16W	[M]
R3001	J0JCC0000119	INDUCTOR	[M]
R3002	ERJ3GEYJ103V	10K 1/16W	[M]
R3003	ERJ3GEYJ103V	10K 1/16W	[M]
R3011	ERJ3GEYJ103V	10K 1/16W	[M]
R3013	ERJ3GEY0R00V	0 1/16W	[M]
R3041	D0GB101JA002	100 1/16W	[M]
R3042	D0GB101JA002	100 1/16W	[M]
R3043	D0GB101JA002	100 1/16W	[M]
R3101	ERJ3RBD153V	15K 3W	[M]
R3102	ERJ3RBD272V	2.7K 3W	[M]
R3103	ERJ3RBD203V	20K 3W	[M]

R3104	ERJ3RBD222V	2.2K 3W	[M]
R3105	ERJ3RBD152V	1.5K 3W	[M]
R3111	ERJ3RED620V	62 3W	[M]
R3112	ERJ3RED150V	15 3W	[M]
R3116	ERJ3RED620V	62 3W	[M]
R3117	ERJ3RED150V	15 3W	[M]
R3121	ERJ3RBD101V	100 3W	[M]
R3122	ERJ3RED160V	16 3W	[M]
R3126	ERJ3RED560V	56 3W	[M]
R3131	ERJ3RED560V	56 3W	[M]
R4201	ERJ3GEYJ470V	47 1/16W	[M]
R4213	ERJ3GEYJ470V	47 1/16W	[M]
R5101	D0GB560JA002	56 1/16W	[M]
R5102	D0GB560JA002	56 1/16W	[M]
R5103	D0GB560JA002	56 1/16W	[M]
R5105	ERJ12Y0R00H	0 1/2W	[M]
R5107	ERJ3GEY0R00V	0 1/16W	[M]
R5108	ERJ3GEY0R00V	0 1/16W	[M]
R5109	ERJ3GEY0R00V	0 1/16W	[M]
R5111	ERJ3GEYJ2R2V	2.2 1/16W	[M]
R5112	ERJ12YJ270H	27 1/2W	[M]
R5113	ERJ3GEYJ473V	47K 1/16W	[M]
R5114	ERJ3GEYJ223V	22K 1/16W	[M]
R5115	ERJ3GEYJ2R2V	2.2 1/16W	[M]
R5116	ERJ12YJ270H	27 1/2W	[M]
R5117	ERJ3GEYJ473V	47K 1/16W	[M]
R5120	ERJ3GEY0R00V	0 1/16W	[M]
R5121	D0GB560JA002	56 1/16W	[M]
R5122	D0GB560JA002	56 1/16W	[M]
R5123	D0GB560JA002	56 1/16W	[M]
R5124	ERJ3GEYJ472V	4.7K 1/16W	[M]
R5152	ERJ3GEYJ102V	1K 1/16W	[M]
R5201	ERJ3GEY0R00V	0 1/16W	[M]
R5202	ERJ3GEY0R00V	0 1/16W	[M]
R5221	ERJ3GEY0R00V	0 1/16W	[M]
R5222	ERJ3GEYJ102V	1K 1/16W	[M]
R5223	ERJ3GEYJ331V	330 1/16W	[M]

R5225	ERJ3GEY0R00V	0 1/16W	[M]
R5226	ERJ3GEYJ102V	1K 1/16W	[M]
R5227	ERJ3GEYJ331V	330 1/16W	[M]
R5231	J0JCC0000119	INDUCTOR	[M]
R5232	J0JCC0000119	INDUCTOR	[M]
R5233	ERJ3GEYJ222V	2.2K 1/16W	[M]
R5234	ERJ3GEYJ222V	2.2K 1/16W	[M]
R5235	ERJ3GEYJ102V	1K 1/16W	[M]
R6201	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6203	ERJ3GEY0R00V	0 1/16W	[M]
R6261	ERJ3GEYJ103V	10K 1/16W	[M]
R6351	D0GB101JA002	100 1/16W	[M]
R6562	ERJ3GEYJ221V	220 1/16W	[M]
R6563	ERJ3GEYJ103V	10K 1/16W	[M]
R6564	D0GB100JA002	10 1/16W	[M]
R6565	ERJ3GEYJ470V	47 1/16W	[M]
K2041	ERJ3GEY0R00V	0 1/16W	[M]
K3111	ERJ3GEY0R00V	0 1/16W	[M]
K3116	ERJ3GEY0R00V	0 1/16W	[M]
K3121	ERJ3GEY0R00V	0 1/16W	[M]
K3126	ERJ3GEY0R00V	0 1/16W	[M]
K3131	ERJ3GEY0R00V	0 1/16W	[M]
K5201	ERJ6GEY0R00V	0 1/10W	[M]
K5202	ERJ3GEY0R00V	0 1/16W	[M]
K5203	ERJ3GEY0R00V	0 1/16W	[M]
K5204	ERJ3GEY0R00V	0 1/16W	[M]
K6301	ERJ3GEY0R00V	0 1/16W	[M]
K6302	ERJ3GEY0R00V	0 1/16W	[M]
RA2025	EXBV4V473JV	47K 1/16W	[M]
RA2501	EXBV8V473JV	47K 1/16W	[M]
RA3001	EXBV8V820JV	82 1/16W	[M]
RA3002	EXBV8V820JV	82 1/16W	[M]
RA3003	EXBV8V820JV	82 1/16W	[M]
RA3004	EXBV8V820JV	82 1/16W	[M]
RA3005	EXBV4V220JV	22 1/16W	[M]

RA3009	EXBV8V820JV	82 1/16W	[M]
RA3010	EXBV8V820JV	82 1/16W	[M]
RA3011	EXBV8V820JV	82 1/16W	[M]
RA3012	EXBV8V820JV	82 1/16W	[M]
RA3025	EXBV4V472JV	4.7K 1/16W	[M]
RA3042	EXBV4V101JV	100 1/16W	[M]
RA5101	EXBV4V560JV	56 1/16W	[M]
RA5102	EXBV8V560JV	56 1/16W	[M]
RA5103	EXBV4V560JV	56 1/16W	[M]
RA6201	EXBV4V472JV	4.7K 1/16W	[M]
RA6261	EXBV4V103JV	10K 1/16W	[M]
RA6351	EXBV4V472JV	4.7K 1/16W	[M]
		CAPACITORS	
C1	ECBT1H5R6KC5	5.6P 50V	[M]
C1	ECEA1CKA101B	100 16V	[M]
C2	ECBT1E103ZF5	0.01 25V	[M]
C2	RCBS1H102KBY	1000P 50V	[M]
C3	ECBT1H2R2KC5	2.2P 50V	[M]
C4	ECBT1H181KB5	180P 50V	[M]
C5	ECBT1H5R6KC5	5.6P 50V	[M]
C6	ECBT1H3R3KC5	3.3P 50V	[M]
C7	ECBT1H4R7KC5	4.7P 50V	[M]
C7	ECEA1CKA100B	10 16V	[M]
C8	ECBT1H3R3KC5	3.3P 50V	[M]
C8	EEUFC0J821B	820P 6.3V	[M]
C9	ECA1EM221B	220 25V	[M]
C9	ECBT1H2R2KC5	2.2P 50V	[M]
C10	ECBT1H180JC5	18P 50V	[M]
C10	ECUVNA105KBV	1 10V	[M]
C11	ECUVNA105KBV	1 10V	[M]
C11	RCBS1H102KBY	1000P 50V	[M]
C12	ECEA0JKA221B	220 6.3V	[M]
C13	ECUVNA105KBV	1 10V	[M]
C14	ECUVNA105KBV	1 10V	[M]
C15	ECA1EM221B	220 25V	[M]

C16	EEUFC0J821B	820P 6.3V	[M]
C17	ECEA1CKA100B	10 16V	[M]
C18	ECUVNA105KBV	1 10V	[M]
C19	ECUVNA105KBV	1 10V	[M]
C20	ECEA1AKA101B	100 10V	[M]
C21	EEAFC0J101B	100P 6.3V	[M]
C22	ECUV1C104KBV	0.1 16V	[M]
C25	ECUVNA105KBV	1 10V	[M]
C26	ECEA0JKA221B	220 6.3V	[M]
C27	ECUVNA105KBV	1 10V	[M]
C28	ECEA0JKA221B	220 6.3V	[M]
C29	ECUVNA105KBV	1 10V	[M]
C30	ECEA1AKA101B	100 10V	[M]
C50	ECEA1AKA221B	220 10V	[M]
C51	ECEA1CKA470B	47 16V	[M]
C52	ECEA1CKA470B	47 16V	[M]
C53	ECJ1VB1H103K	0.01 50V	[M]
C54	ECJ1VC1H220J	22P 50V	[M]
C55	ECEA1CKA470B	47 16V	[M]
C56	ECJ1VB1H103K	0.01 50V	[M]
C57	ECEA1CKA470B	47 16V	[M]
C58	ECJ1VB1H103K	0.01 50V	[M]
C59	ECJ1VB1H103K	0.01 50V	[M]
C60	ECA0JM102B	1000 6.3V	[M]
C61	ECEA0JKA101B	100 6.3V	[M]
C62	ECA0JM102B	1000 6.3V	[M]
C63	ECEA0JKA101B	100 6.3V	[M]
C64	ECA0JM102B	1000 6.3V	[M]
C65	ECEA0JKA101B	100 6.3V	[M]
C66	ECEA0JKA331B	330 6.3V	[M]
C67	ECEA0JKA331B	330 6.3V	[M]
C72	ECUVNA105KBV	1 10V	[M]
C73	ECUVNA105KBV	1 10V	[M]
C77	ECJ1VB1H102K	1000P 50V	[M]
C78	ECJ1VB1H102K	1000P 50V	[M]
C79	ECJ1VB1H471K	470P 50V	[M]
C80	ECJ1VB1H102K	1000P 50V	[M]

C100	ECJ1VF1C474Z	0.47 16V	[M]
C101	ECJ1VB1E103K	0.01 25V	[M]
C102	ECEA1CKA100B	10 16V	[M]
C103	ECJ1VB1E103K	0.01 25V	[M]
C104	ECJ1VB1H102K	1000P 50V	[M]
C106	ECJ1VB1E103K	0.01 25V	[M]
C107	F1H1E473A062	0.047 25V	[M]
C108	F1H1H8R0A787	8P 50V	[M]
C109	ECJ1VB1H102K	1000P 50V	[M]
C110	ECJ1VB1E103K	0.01 25V	[M]
C111	ECEA1HKA4R7B	4.7 50V	[M]
C112	ECJ1VB1E103K	0.01 25V	[M]
C113	ECJ1VB1H102K	1000P 50V	[M]
C114	ECEA1HKA3R3B	3.3 50V	[M]
C115	ECEA1HKA4R7B	4.7 50V	[M]
C116	ECUV1C333KBV	0.033 16V	[M]
C117	ECJ1VB1E103K	0.01 25V	[M]
C118	ECJ1VB1E103K	0.01 25V	[M]
C119	F0A2A681A010	680P 100V	[M]
C120	ECEA1CKA100B	10 16V	[M]
C121	ECEA1HKAR47B	0.47 50V	[M]
C122	ECEA1HKA010B	1 50V	[M]
C123	ECEA1HKA010B	1 50V	[M]
C124	ECJ1VC1H101K	100P 50V	[M]
C125	ECEA1CKA220B	22 16V	[M]
C126	ECUV1C105ZFN	1 16V	[M]
C127	ECEA1CKA220B	22 16V	[M]
C128	ERJ3GEY0R00V	0 1/16W	[M]
C129	ECEA0JKA101B	100 6.3V	[M]
C130	ECEA0JKA101B	100 6.3V	[M]
C131	ECJ1VC1H151J	150P 50V	[M]
C132	ECJ1VB1H102K	1000P 50V	[M]
C133	ECJ1VC1H270J	27P 50V	[M]
C134	ECJ1VC1H270J	27P 50V	[M]
C136	ECJ1VB1H102K	1000P 50V	[M]
C137	ECJ1VB1H332K	3300P 50V	[M]
C138	ECJ1VB1E103K	0.01 25V	[M]

C139	ECEA1HKA4R7B	4.7 50V	[M]
C141	ECEA1HKA010B	1 50V	[M]
C142	ECEA1HKA010B	1 50V	[M]
C143	ECJ1VB1H472K	4700P 50V	[M]
C144	ECJ1VB1H472K	4700P 50V	[M]
C147	ECJ1VB1H102K	1000P 50V	[M]
C148	ECJ1VB1E103K	0.01 25V	[M]
C149	ECUV1C104ZFB	0.1 16V	[M]
C150	ECJ1VB1H103K	0.01 50V	[M]
C201	ECJ1VB1H102K	1000P 50V	[M]
C202	ECJ1VB1H102K	1000P 50V	[M]
C203	ECEA1HKA4R7B	4.7 50V	[M]
C205	ECA1HAD3R3XI	3.3 50V	[M]
C207	ECJ1VB1H332K	3300P 50V	[M]
C209	ECA1CAD100XI	10 16V	[M]
C210	ECJ1VC1H101K	100P 50V	[M]
C211	ECJ1VB1H471K	470P 50V	[M]
C214	ECJ1VC1H101K	100P 50V	[M]
C215	ECEA1HKA010B	1 50V	[M]
C217	ECEA1CKA100B	10 16V	[M]
C218	ECEA1HKA010B	1 50V	[M]
C219	ECEA1CKA100B	10 16V	[M]
C220	ECJ1VB1H471K	470P 50V	[M]
C221	ECJ1VC1H101K	100P 50V	[M]
C222	ECEA1CKA100B	10 16V	[M]
C223	ECJ1VB1H471K	470P 50V	[M]
C224	ECJ1VB1H471K	470P 50V	[M]
C225	ECA1HAD010XI	1 50V	[M]
C226	ECJ1VC1H101K	100P 50V	[M]
C227	ECJ1VC1H151J	150P 50V	[M]
C228	ECA1HAD4R7XI	4.7 50V	[M]
C229	ECJ1VB1H222K	2200P 50V	[M]
C230	ECEA1HKA4R7B	4.7 50V	[M]
C231	ECJ1VB1H102K	1000P 50V	[M]
C232	ECEA1CKA100B	10 16V	[M]
C233	ECJ1VC1H101K	100P 50V	[M]
C234	ECJ1VC1H470J	47P 50V	[M]

C235	ECA1HAD4R7XI	4.7 50V	[M]
C237	ECJ1VB1H822K	8200P 50V	[M]
C238	ECJ2VB1H153K	0.015 50V	[M]
C239	ECA1HADR33XI	0.33 50V	[M]
C240	ECEA1HKS2R2I	2.2 50V	[M]
C241	ECA1HAD4R7XI	4.7 50V	[M]
C242	ECA1HAD4R7XI	4.7 50V	[M]
C243	ECJ1VC1H101K	100P 50V	[M]
C244	ECA1CAD100XI	10 16V	[M]
C245	ECJ1VC1H101K	100P 50V	[M]
C246	ECJ1VC1H330J	33P 50V	[M]
C247	ECA1CAD470XI	47 16V	[M]
C248	ECJ1VB1H102K	1000P 50V	[M]
C249	ECEA1HKA2R2B	2.2 50V	[M]
C250	ECJ1VC1H101K	100P 50V	[M]
C251	ECJ1VC1H330J	33P 50V	[M]
C252	ECEA1CKA100B	10 16V	[M]
C253	ECUV1C333KBV	0.033 16V	[M]
C254	ECUV1C104KBV	0.1 16V	[M]
C255	ECJ1VC1H101K	100P 50V	[M]
C256	ECEA1HKA4R7B	4.7 50V	[M]
C257	ECA1CAD100XI	10 16V	[M]
C258	ECJ1VC1H330J	33P 50V	[M]
C260	ECA1HAD010XI	1 50V	[M]
C261	ECUVNA105KBV	1 10V	[M]
C263	ECEA1CKA100B	10 16V	[M]
C264	ECJ1VB1H102K	1000P 50V	[M]
C265	ECA1HAD010XI	1 50V	[M]
C270	ECEA1CKA100B	10 16V	[M]
C272	ECEA1HKA010B	1 50V	[M]
C301	ECEA1HKN4R7B	4.7 50V	[M]
C302	ECEA1CKA100B	10 16V	[M]
C303	ECJ1VB1E103K	0.01 25V	[M]
C304	ECJ1VB1E103K	0.01 25V	[M]
C305	ECEA1CKA100B	10 16V	[M]
C306	ECEA1HKA100B	10 50V	[M]
C307	ECJ1VB1E103K	0.01 25V	[M]

C308	ECJ1VB1H471K	470P 50V	[M]
C310	ECJ1VB1H471K	470P 50V	[M]
C311	ECA1HAD010XI	1 50V	[M]
C312	ECJ1VC1H151J	150P 50V	[M]
C313	ECJ1VC1H101K	100P 50V	[M]
C314	ECA1CAD100XI	10 16V	[M]
C315	ECA1HAD010XI	1 50V	[M]
C316	ECJ1VC1H101K	100P 50V	[M]
C317	ECA1HAD010XI	1 50V	[M]
C318	ECA1HAD010XI	1 50V	[M]
C322	ECJ1VB1H222K	2200P 50V	[M]
C324	ECJ1VB1H222K	2200P 50V	[M]
C325	ECEA1HKA010B	1 50V	[M]
C326	ECA1CAD100XI	10 16V	[M]
C327	ECEA1HKA010B	1 50V	[M]
C328	ECEA1HKA010B	1 50V	[M]
C329	ECUV1H271KBV	270P 50V	[M]
C330	ECEA1CKA100B	10 16V	[M]
C331	ECEA1HKA010B	1 50V	[M]
C332	ECJ1VB1H102K	1000P 50V	[M]
C333	ECJ1VC1H101K	100P 50V	[M]
C334	ECJ1VB1E103K	0.01 25V	[M]
C335	ECEA1CKA100B	10 16V	[M]
C336	ECJ1VC1H101K	100P 50V	[M]
C337	ECJ1VC1H330J	33P 50V	[M]
C338	ECEA1HKA010B	1 50V	[M]
C339	ECJ1VC1H470J	47P 50V	[M]
C340	ECJ1VC1H470J	47P 50V	[M]
C341	ECJ1VC1H470J	47P 50V	[M]
C342	ECJ1VB1E103K	0.01 25V	[M]
C343	ECJ2VB1C224K	0.22 16V	[M]
C344	ECJ1VB1E103K	0.01 25V	[M]
C345	F1H1H561A765	560P 50V	[M]
C346	ECJ1VB1E103K	0.01 25V	[M]
C347	ECJ2VB1C224K	0.22 16V	[M]
C348	ECJ1VB1E103K	0.01 25V	[M]
C349	ECJ1VB1E103K	0.01 25V	[M]

C350	ECJ1VB1E103K	0.01 25V	[M]
C351	ECJ1VB1E103K	0.01 25V	[M]
C352	ECJ1VB1E103K	0.01 25V	[M]
C353	ECUV1C104KBV	0.1 16V	[M]
C354	ECJ1VC1H470J	47P 50V	[M]
C355	ECJ1VC1H470J	47P 50V	[M]
C356	ECUV1C104KBV	0.1 16V	[M]
C357	ECUV1C104KBV	0.1 16V	[M]
C358	ECEA1HKA4R7B	4.7 50V	[M]
C359	ECJ2VB1C224K	0.22 16V	[M]
C360	ECEA1HKA4R7B	4.7 50V	[M]
C361	ECEA1HKA4R7B	4.7 50V	[M]
C362	ECEA1HKA220B	22 50V	[M]
C363	ECEA1HKA4R7B	4.7 50V	[M]
C364	ECJ2VB1C224K	0.22 16V	[M]
C365	ECEA1HKA4R7B	4.7 50V	[M]
C370	ECJ1VB1E103K	0.01 25V	[M]
C371	ECJ1VB1C103K	0.01 16V	[M]
C374	ECJ1VB1E103K	0.01 25V	[M]
C375	ECEA0JKA331B	330 6.3V	[M]
C376	ECJ1VB1E103K	0.01 25V	[M]
C377	ECJ1VB1E103K	0.01 25V	[M]
C378	ECUVNA105KBV	1 10V	[M]
C379	ECUVNA105KBV	71 10V	[M]
C380	ECJ1VB1H102K	1000P 50V	[M]
C381	ECJ1VB1E103K	0.01 25V	[M]
C382	ECJ1VB1E103K	0.01 25V	[M]
C383	ECA1CAD100XI	10 16V	[M]
C384	ECA1CAD100XI	10 16V	[M]
C385	ECA1CM331B	330 16V	[M]
C386	ECJ1VB1C103K	0.01 16V	[M]
C387	ECEA1CKS101B	100 16V	[M]
C388	ECJ1VB1E103K	0.01 25V	[M]
C389	ECJ1VB1E103K	0.01 25V	[M]
C390	RCE1HKN100BG	10P 50V	[M]
C391	ECEA1CKA221B	220 16V	[M]
C392	ECEA1CKA100B	10 16V	[M]

C394	ECEA1CKS101B	100 16V	[M]
C401	ECJ1VB1H102K	1000P 50V	[M]
C402	ECJ1VB1H102K	1000P 50V	[M]
C403	ECEA1HKA4R7B	4.7 50V	[M]
C405	ECA1HAD3R3XI	3.3 50V	[M]
C407	ECJ1VB1H332K	3300P 50V	[M]
C409	ECA1CAD100XI	10 16V	[M]
C410	ECJ1VC1H101K	100P 50V	[M]
C411	ECJ1VB1H471K	470P 50V	[M]
C412	ECJ1VB1H102K	1000P 50V	[M]
C413	ECJ1VB1H102K	1000P 50V	[M]
C414	ECJ1VC1H101K	100P 50V	[M]
C415	ECEA1HKA010B	1 50V	[M]
C417	ECEA1CKA100B	10 16V	[M]
C418	ECEA1HKA010B	1 50V	[M]
C419	ECEA1CKA100B	10 16V	[M]
C420	ECJ1VB1H471K	470P 50V	[M]
C421	ECJ1VC1H101K	100P 50V	[M]
C422	ECEA1CKA100B	10 16V	[M]
C423	ECJ1VB1H471K	470P 50V	[M]
C424	ECJ1VB1H471K	470P 50V	[M]
C425	ECA1HAD010XI	1 50V	[M]
C426	ECJ1VC1H101K	100P 50V	[M]
C427	ECJ1VC1H151J	150P 50V	[M]
C428	ECEA1HKA4R7B	4.7 50V	[M]
C429	ECJ1VB1H222K	2200P 50V	[M]
C430	ECEA1HKA4R7B	4.7 50V	[M]
C431	ECJ1VB1H102K	1000P 50V	[M]
C432	ECEA1CKA100B	10 16V	[M]
C433	ECJ1VC1H101K	100P 50V	[M]
C434	ECJ1VC1H470J	47P 50V	[M]
C435	ECA1HAD4R7XI	4.7 50V	[M]
C437	ECJ1VB1H822K	8200P 50V	[M]
C438	ECJ2VB1H153K	0.015 50V	[M]
C439	ECA1HADR33XI	0.33 50V	[M]
C440	ECEA1HKS2R2I	2.2 50V	[M]
C441	ECA1HAD4R7XI	4.7 50V	[M]

C442	ECA1HAD4R7XI	4.7 50V	[M]
C443	ECJ1VC1H101K	100P 50V	[M]
C444	ECA1CAD100XI	10 16V	[M]
C445	ECJ1VC1H101K	100P 50V	[M]
C446	ECJ1VC1H330J	33P 50V	[M]
C447	ECEA1CKA470B	47 16V	[M]
C448	ECJ1VB1H102K	1000P 50V	[M]
C449	ECEA1HKA2R2B	2.2 50V	[M]
C450	ECJ1VC1H101K	100P 50V	[M]
C451	ECJ1VC1H330J	33P 50V	[M]
C452	ECEA1CKA100B	10 16V	[M]
C453	ECUV1C333KBV	0.033 16V	[M]
C454	ECUV1C104KBV	0.1 16V	[M]
C455	ECJ1VC1H101K	100P 50V	[M]
C456	ECEA1HKA4R7B	4.7 50V	[M]
C457	ECA1CAD100XI	10 16V	[M]
C458	ECJ1VC1H330J	33P 50V	[M]
C460	ECA1HAD010XI	1 50V	[M]
C461	ECUVNA105KBV	1 10V	[M]
C463	ECEA1CKA100B	10 16V	[M]
C464	ECJ1VB1H102K	1000P 50V	[M]
C465	ECA1HAD010XI	1 50V	[M]
C470	ECEA1CKA100B	10 16V	[M]
C472	ECEA1HKA010B	1 50V	[M]
C500	ECBT1H821KB5	820P 50V	[M]
C501	ECBT1H821KB5	820P 50V	[M]
C502	ECBT1H821KB5	820P 50V	[M]
C503	ECBT1H821KB5	820P 50V	[M]
C504	ECKR1H103ZF5	0.01 50V	[M]
C505	ECKR1H103ZF5	0.01 50V	[M]
C506	ECBT1E103ZF5	0.01 25V	[M]
C507	ECBT1H101KB5	100P 50V	[M]
C508	ECBT1H101KB5	100P 50V	[M]
C509	ECBT1H101KB5	100P 50V	[M]
C510	ECBT1H101KB5	100P 50V	[M]
C511	ECBT1H473ZF5	0.047 50V	[M]
C512	ECBT1H102KB5	1000P 50V	[M]

C517	ECA1CM221B	220 16V	[M]
C519	ECEA1HKA2R2B	2.2 50V	[M]
C520	ECA1EM331B	330 25V	[M]
C521	ECA1HM470B	47 50V	[M]
C522	ECA1HM470B	47 50V	[M]
C523	ECA1HM470B	47 50V	[M]
C525	ECA1HM470B	47 50V	[M]
C526	ECEA0JKA221B	220 6.3V	[M]
C527	ECBT1H102KB5	1000P 50V	[M]
C531	F2A1V472A082	4700P 35V	[M]
C532	F2A1V562A157	5600P 35V	[M]
C533	F2A1V562A157	5600P 35V	[M]
C534	F2A1V472A082	4700P 35V	[M]
C536	ECQV1H184JL3	0.18 50V	[M]
C540	ECKR1H103ZF5	0.01 50V	[M]
C541	ECKR1H103ZF5	0.01 50V	[M]
C542	ECBT1H103KB5	0.01 50V	[M]
C543	ECEA1HKA2R2B	2.2 50V	[M]
C544	ECA0JM471B	470 6.3V	[M]
C580	ECBT1H821KB5	820P 50V	[M]
C581	ECBT1H821KB5	820P 50V	[M]
C582	ECKR1H103ZF5	0.01 50V	[M]
C583	ECKR1H103ZF5	0.01 50V	[M]
C584	ECBT1H101KB5	100P 50V	[M]
C585	ECBT1H101KB5	100P 50V	[M]
C586	ECBT1H473ZF5	0.047 50V	[M]
C587	ECBT1E103ZF5	0.01 25V	[M]
C588	F2A1V472A082	4700P 35V	[M]
C589	F2A1V562A157	5600P 35V	[M]
C590	ECBT1H821KB5	820P 50V	[M]
C591	ECBT1H821KB5	820P 50V	[M]
C592	ECKR1H103ZF5	0.01 50V	[M]
C593	ECKR1H103ZF5	0.01 50V	[M]
C594	ECBT1H101KB5	100P 50V	[M]
C595	ECBT1H101KB5	100P 50V	[M]
C596	ECBT1H473ZF5	0.047 50V	[M]
C597	ECBT1E103ZF5	0.01 25V	[M]

C598	F2A1V562A157	5600P 35V	[M]
C599	F2A1V472A082	4700P 35V	[M]
C600	RCE1AM102B	1000 10V	[M]
C603	ECBT1H331KB5	330P 50V	[M]
C605	ECEA0JKA101B	100 6.3V	[M]
C606	ECBT1H104ZF5	0.1 50V	[M]
C607	ECBT1H103ZF5	0.01 50V	[M]
C608	ECEA1HKA0R1B	0.1 50V	[M]
C609	ECBT1H103KB5	0.01 50V	[M]
C610	ECEA1HKA4R7B	4.7 50V	[M]
C611	ECBT1H390J5	39P 50V	[M]
C612	ECBT1H390J5	39P 50V	[M]
C614	ECBT1H102KB5	1000P 50V	[M]
C615	ECBT1H102KB5	1000P 50V	[M]
C617	ECBT1H220JC5	22P 50V	[M]
C618	ECBT1H220JC5	22P 50V	[M]
C619	F1D1H473A012	0.047 50V	[M]
C620	ECBT1E223ZF5	0.022 25V	[M]
C620	ECJ1VC1H470J	47P 50V	[M]
C621	ECBT1E223ZF5	0.022 25V	[M]
C621	ECJ1VC1H470J	47P 50V	[M]
C622	ECBT1E223ZF5	0.022 25V	[M]
C622	ECUV1C104KBV	0.1 16V	[M]
C623	ECBT1H331KB5	330P 50V	[M]
C624	ECBT1H331KB5	330P 50V	[M]
C625	ECEA1VKA4R7B	4.7 35V	[M]
C627	ECBT1H103ZF5	0.01 50V	[M]
C634	ECBT1H101KB5	100P 50V	[M]
C635	ECBT1H101KB5	100P 50V	[M]
C636	ECBT1H104ZF5	0.1 50V	[M]
C637	ECBT1E103ZF5	0.01 25V	[M]
C638	ECBT1H102KB5	1000P 50V	[M]
C639	ECEA0JKA470B	47 6.3V	[M]
C640	ECEA1HKA3R3B	3.3 50V	[M]
C641	ECEA1HKA220B	22 50V	[M]
C642	ECEA1HKA220B	22 50V	[M]
C643	ECEA1AKA220B	22 10V	[M]

C645	ECBT1H561KB5	560P 50V	[M]
C646	ECBT1H101KB5	100P 50V	[M]
C647	ECBT1H561KB5	560P 50V	[M]
C648	ECBT1H101KB5	100P 50V	[M]
C651	ECBT1H102KB5	1000P 50V	[M]
C653	ECBT1H561KB5	560P 50V	[M]
C654	ECBT1H561KB5	560P 50V	[M]
C656	ECBT1E103ZF5	0.01 25V	[M]
C657	ECBT1E103ZF5	0.01 25V	[M]
C658	ECEA1HKA0R1B	0.1 50V	[M]
C659	ECEA1HKA0R1B	0.1 50V	[M]
C660	ECEA1HKA0R1B	0.1 50V	[M]
C661	ECEA1HKA0R1B	0.1 50V	[M]
C662	ECBT1H473ZF5	0.047 50V	[M]
C663	ECEA1HKA010B	1 50V	[M]
C664	ECBT1H102KB5	1000P 50V	[M]
C665	ECBT1H101KB5	100P 50V	[M]
C666	ECBT1H102KB5	1000P 50V	[M]
C667	ECEA1AKA101B	100 10V	[M]
C668	ECEA1HKA010B	1 50V	[M]
C669	ECBT1E103ZF5	0.01 25V	[M]
C670	ECEA1HKAR33B	0.33 50V	[M]
C671	ECBT1E223ZF5	0.022 25V	[M]
C672	ECBT1H561KB5	560P 50V	[M]
C673	ECBT1H101KB5	100P 50V	[M]
C674	F1D1H1040002	0.1 50V	[M]
C675	ECBT1H561KB5	560P 50V	[M]
C676	ECBT1H561KB5	560P 50V	[M]
C677	ECBT1H561KB5	560P 50V	[M]
C678	ECBT1H101KB5	100P 50V	[M]
C679	ECBT1H104ZF5	0.1 50V	[M]
C680	ECBT1H561KB5	560P 50V	[M]
C700	ECEA1HKA2R2B	2.2 50V	[M]
C701	ECJ1VB1H472K	4700P 50V	[M]
C702	ECJ1VB1H561K	560P 50V	[M]
C703	ECJ1VB1H102K	1000P 50V	[M]
C704	ECJ1VB1E103K	0.01 25V	[M]

C705	ECEA1HKA4R7B	4.7 50V	[M]
C706	ECEA1AKA221Q	220 10V	[M]
C707	ECEA1HKA4R7B	4.7 50V	[M]
C708	ECUV1C104KBV	0.1 16V	[M]
C709	ECJ1VC1H120J	12P 50V	[M]
C710	ECJ1VC1H120J	12P 50V	[M]
C711	ECUVNA105KBV	1 10V	[M]
C712	ECUVNA105KBV	1 10V	[M]
C713	ECUVNA105KBV	1 10V	[M]
C714	ECUVNA105KBV	1 10V	[M]
C715	ECEA1CKA101B	100 16V	[M]
C716	ECEA1CKA470B	47 16V	[M]
C717	ECEA1CKA101B	100 16V	[M]
C718	ECUVNA105KBV	1 10V	[M]
C719	ECUV1C104KBV	0.1 16V	[M]
C720	ECUV1C104KBV	0.1 16V	[M]
C721	ECUVNA105KBV	1 10V	[M]
C722	ECUV1C104KBV	0.1 16V	[M]
C723	F1H1H223A761	0.022 50V	[M]
C724	ECUV1C104KBV	0.1 16V	[M]
C725	ECEA1CKA101B	100 16V	[M]
C726	J0JBC0000041	0 6.3V	[M]
C727	ECJ1VB1H102K	1000P 50V	[M]
C728	ECJ1VB1H102K	1000P 50V	[M]
C729	ECJ1VC1H101K	100P 50V	[M]
C730	ECJ1VB1H821K	820P 50V	[M]
C731	ECJ1VB1E103K	0.01 25V	[M]
C732	ECEA1CKA100B	10 16V	[M]
C733	ECUV1C104KBV	0.1 16V	[M]
C734	F1H1C473A088	0.047 16V	[M]
C735	ECUVNA154KBV	0.15 10V	[M]
C736	ECJ1VB1H562K	5600P 50V	[M]
C737	ECJ2VB1H333K	0.033 50V	[M]
C738	F1H1E473A062	0.047 25V	[M]
C739	ECEA1CKA470B	47 16V	[M]
C740	ECEA1CKA470B	47 16V	[M]
C741	ECEA1CKA100B	10 16V	[M]

C742	ECJ1VB1E103K	0.01 25V	[M]
C743	F1H1C683A075	0.068 16V	[M]
C744	F1H1C683A075	0.068 16V	[M]
C745	F1H1C683A075	0.068 16V	[M]
C746	F1H1E473A062	0.047 25V	[M]
C747	ECEA1CKA470B	47 16V	[M]
C748	ECEA1CKA101B	100 16V	[M]
C749	ECUV1C104KBV	0.1 16V	[M]
C750	ECUV1C104KBV	0.1 16V	[M]
C751	ECJ1VB1H102K	1000P 50V	[M]
C752	ECJ1VB1H472K	4700P 50V	[M]
C753	F1H1C683A075	0.068 16V	[M]
C754	ECUV1C104KBV	0.1 16V	[M]
C755	ECUV1C104KBV	0.1 16V	[M]
C756	F1H1C683A075	0.068 16V	[M]
C757	ECJ1VB1H102K	1000P 50V	[M]
C758	ECJ1VB1H472K	4700P 50V	[M]
C759	ECEA1HKA010B	1 50V	[M]
C760	ECEA1CKA101B	100 16V	[M]
C761	ECUV1C104KBV	0.1 16V	[M]
C762	ECEA1HKA2R2B	2.2 50V	[M]
C763	ECJ1VB1H332K	3300P 50V	[M]
C765	ECUV1C104KBV	0.1 16V	[M]
C766	ECJ2VB1C154K	0.15 16V	[M]
C767	ECEA1HKA010B	1 50V	[M]
C768	ECEA1HKA010B	1 50V	[M]
C769	ECEA1HKA010B	1 50V	[M]
C770	ECUV1C104KBV	0.1 16V	[M]
C773	ECEA1CKA100B	10 16V	[M]
C823	ECEA1HKN4R7B	4.7 50V	[M]
C901	ECBT1H101KB5	100P 50V	[M]
C902	ECBT1H101KB5	100P 50V	[M]
C916	ECEA1HKA4R7B	4.7 50V	[M]
C917	ECBT1H102KB5	1000P 50V	[M]
C918	ECEA1HKA3R3B	3.3 50V	[M]
C919	ECBT1H471KB5	470P 50V	[M]
C950	ECA1HM101B	100 50V	[M]

C951	ECQE1104KF3	0.1 100V	[M]
C952	ECQE1104KF3	0.1 100V	[M]
C953	ECKR2H103ZF5	0.01 500V	[M]
C954	F2A1V472A155	4700P 35V	[M]
C955	ECA1JM101B	100 63V	[M]
C956	ECKR1H103MD5	0.01 50V	[M]
C957	ECA2AM100B	10 100V	[M]
C958	ECKR1H103ZF5	0.01 50V	[M]
C959	ECA1CM102B	1000 16V	[M]
C960	ECA1CM102B	1000 16V	[M]
C961	ECKR1H102ZF5	1000P 50V	[M]
C962	ECKR1H103MD5	0.01 50V	[M]
C963	ECEA1AKA470B	47 10V	[M]
C964	F1D1H1040002	0.1 50V	[M]
C965	F1D1H1040002	0.1 50V	[M]
C966	F1D1H1040002	0.1 50V	[M]
C967	F1D1H1040002	0.1 50V	[M]
C970	F1D1H473A012	0.047 50V	[M]
C971	F1D1H473A012	0.047 50V	[M]
C980	F1D1H1040002	0.1 50V	[M]
C981	F1D1H1040002	0.1 50V	[M]
C982	F1D1H1040002	0.1 50V	[M]
C983	F1D1H1040002	0.1 50V	[M]
C990	F1D1H1040002	0.1 50V	[M]
C991	F1D1H1040002	0.1 50V	[M]
C992	F1D1H1040002	0.1 50V	[M]
C993	F1D1H1040002	0.1 50V	[M]
C1001	F1H1H103A753	0.01 50V	[M]
C1002	ECEA1HKN2R2B	2.2 50V	[M]
C1003	ECUV1H152KBV	1500P 50V	[M]
C1006	ECEA1HKA010B	1 50V	[M]
C1007	F0A2A472A015	4700P 100V	[M]
C1008	ECEA1HKA010B	1 50V	[M]
C1009	ECEA1AKA470B	47 10V	[M]
C1010	ECA1EM101B	100 25V	[M]
C1011	ECQV1H473JZ3	0.047 50V	[M]
C1012	ECJ1VB1H102K	1000P 50V	[M]

C1013	ECJ1VB1H102K	1000P 50V	[M]
C1014	ECJ1VB1H102K	1000P 50V	[M]
C1015	ECJ1VB1H102K	1000P 50V	[M]
C1016	ECJ1VB1H222K	2200P 50V	[M]
C1017	ECJ1VB1H222K	2200P 50V	[M]
C1018	ECJ1VB1H103K	0.01 50V	[M]
C1019	ECJ1VB1H102K	1000P 50V	[M]
C1020	ECJ1VB1H471K	470P 50V	[M]
C1021	ECJ1VB1H471K	470P 50V	[M]
C1022	ECJ1VB1H102K	1000P 50V	[M]
C1023	ECJ1VB1H102K	1000P 50V	[M]
C1026	ECEA0JKA470B	47 6.3V	[M]
C1027	ECJ1VB1H102K	1000P 50V	[M]
C1030	ECEA1AKA101B	100 10V	[M]
C1031	ECEA1AKA101B	100 10V	[M]
C1032	F1C1C183A001	0.018 16V	[M]
C1033	F1C1C183A001	0.018 16V	[M]
C1034	ECEA1HKA3R3B	3.3 50V	[M]
C1035	ECEA1HKA3R3B	3.3 50V	[M]
C1036	ECUV1C333KBV	0.033 16V	[M]
C1037	ECEA1HKA3R3B	3.3 50V	[M]
C1038	ECJ1VB1H221K	220P 50V	[M]
C1039	ECJ1VB1H221K	220P 50V	[M]
C1040	ECEA1CKA100B	10 16V	[M]
C1041	ECEA1CKA100B	10 16V	[M]
C1042	ECEA1CKA220B	22 16V	[M]
C1043	ECEA1HKA4R7B	4.7 50V	[M]
C1044	ECEA1AKA330B	33 10V	[M]
C1045	ECEA1AKA220B	22 10V	[M]
C1046	ECEA1AKA221Q	220 10V	[M]
C1047	ECEA1HKA010B	1 50V	[M]
C1048	ECEA1HKA010B	1 50V	[M]
C1049	ECJ1VB1H102K	1000P 50V	[M]
C1050	ECJ1VB1H102K	1000P 50V	[M]
C1051	ECEA1HKA010B	1 50V	[M]
C1052	ECEA1HKA010B	1 50V	[M]
C1053	ECA1CM221B	220 16V	[M]

C1054	ECEA1HKA3R3B	3.3 50V	[M]
C1055	ECEA1HKA0R1B	0.1 50V	[M]
C1056	ECEA1CKA100B	10 16V	[M]
C1057	ECJ1VB1H102K	1000P 50V	[M]
C1058	ECJ1VB1H102K	1000P 50V	[M]
C1064	ECEA1HKA3R3B	3.3 50V	[M]
C2001	F2G0J1010013	100P 6.3V	[M]
C2002	EEVFC0J101P	100P 6.3V	[M]
C2003	ECUVNC104ZFV	0.1 16V	[M]
C2004	ECUVNC104ZFV	0.1 16V	[M]
C2005	ECUVNC104ZFV	0.1 16V	[M]
C2006	ECUVNC104ZFV	0.1 16V	[M]
C2011	ECUV1C104KBV	0.1 16V	[M]
C2012	ECUV1C104KBV	0.1 16V	[M]
C2015	ECJ1VC1H102J	1000P 50V	[M]
C2016	ECUV1H821JCV	820P 50V	[M]
C2021	ECJ1VB1H472K	4700P 50V	[M]
C2023	ECJ1VC1H102J	1000P 50V	[M]
C2031	ECJ1VF1A105Z	1 10V	[M]
C2032	ECJ1VF1A105Z	1 10V	[M]
C2033	F1H0J1050013	1 6.3V	[M]
C2034	ECJ1VB1C153K	0.015 16V	[M]
C2035	ECJ1VC1H221J	220P 50V	[M]
C2036	ECUV1C104KBV	0.1 16V	[M]
C2037	ECJ1VB1C103K	0.01 16V	[M]
C2051	ECUV1C333KBV	0.033 16V	[M]
C2052	ECJ1VC1H330J	33P 50V	[M]
C2053	ECUVNC104ZFV	0.1 16V	[M]
C2054	ECUVNC104ZFV	0.1 16V	[M]
C2055	ECUVNC104ZFV	0.1 16V	[M]
C2056	ECJ1VB1C103K	0.01 16V	[M]
C2057	ECJ1VC1H181J	180P 50V	[M]
C2058	ECJ1VB1C183K	0.018 16V	[M]
C2059	ECJ1VB1H562K	5600P 50V	[M]
C2060	ECUV1C104KBV	0.1 16V	[M]
C2501	EEVFC0J221P	220P 6.3V	[M]
C2502	ECEV1CA101WP	100 16V	[M]

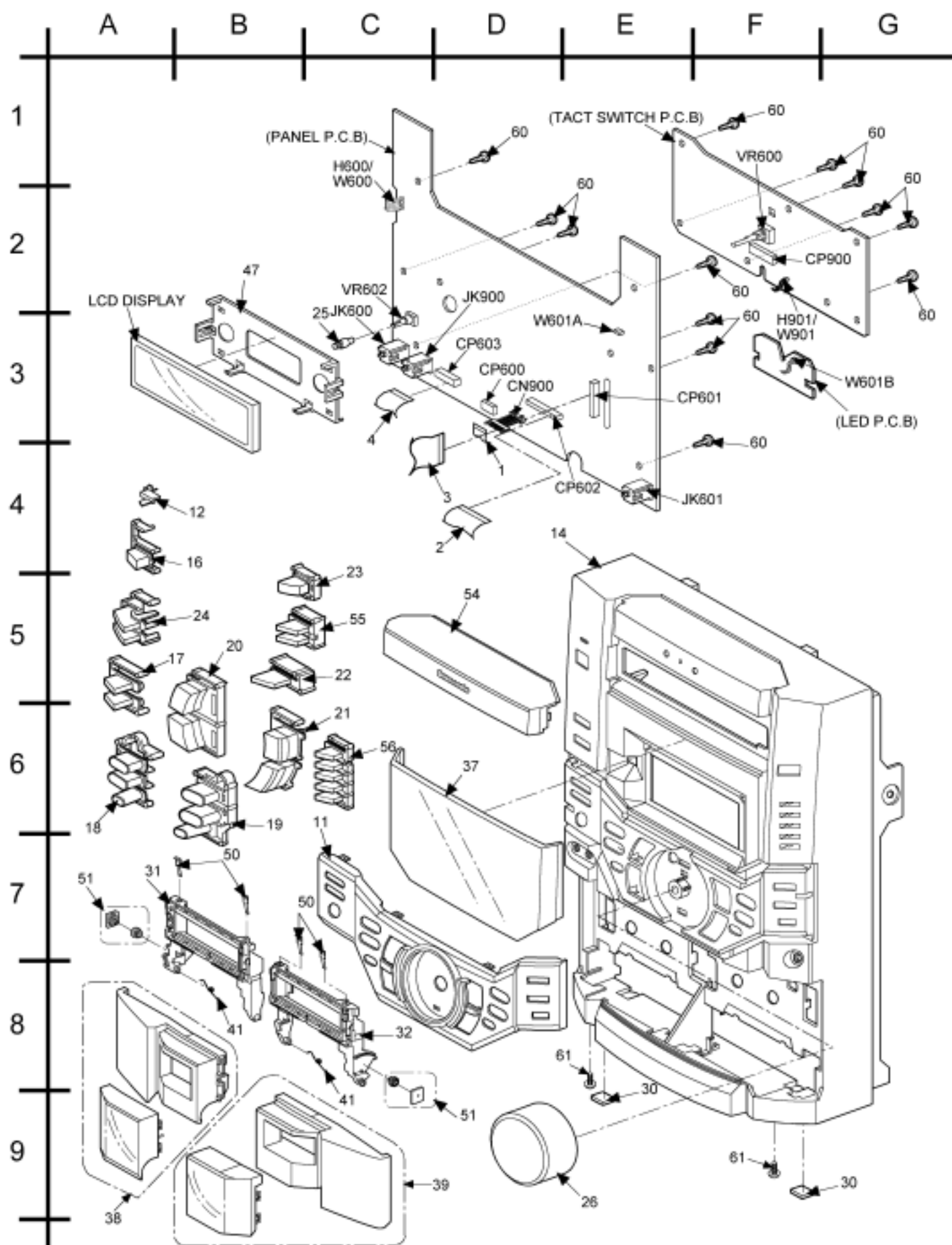
C2503	ECEV1CA220WR	22 16V	[M]
C2504	ECUVNC104ZFV	0.1 16V	[M]
C2505	ECUVNC104ZFV	0.1 16V	[M]
C2506	ECUVNC104ZFV	0.1 16V	[M]
C2507	ECUVNC104ZFV	0.1 16V	[M]
C2508	ECUVNC104ZFV	0.1 16V	[M]
C2509	EEVFC1C100R	10P 16V	[M]
C2510	ECUVNC104ZFV	0.1 16V	[M]
C2511	ECUVNC104ZFV	0.1 16V	[M]
C2512	ECUVNC104ZFV	0.1 16V	[M]
C2513	ECUVNC104ZFV	0.1 16V	[M]
C3001	F2G0J331A015	330P 6.3V	[M]
C3002	F2G0J331A015	330P 6.3V	[M]
C3003	ECUVNC104ZFV	0.1 16V	[M]
C3004	ECUVNC104ZFV	0.1 16V	[M]
C3005	ECUVNC104ZFV	0.1 16V	[M]
C3006	ECUVNC104ZFV	0.1 16V	[M]
C3007	ECUVNC104ZFV	0.1 16V	[M]
C3008	ECUVNC104ZFV	0.1 16V	[M]
C3009	ECUVNC104ZFV	0.1 16V	[M]
C3010	ECUVNC104ZFV	0.1 16V	[M]
C3011	ECUVNC104ZFV	0.1 16V	[M]
C3012	ECUVNC104ZFV	0.1 16V	[M]
C3013	ECUVNC104ZFV	0.1 16V	[M]
C3014	ECUVNC104ZFV	0.1 16V	[M]
C3015	ECUVNC104ZFV	0.1 16V	[M]
C3016	ECUVNC104ZFV	0.1 16V	[M]
C3017	ECUVNC104ZFV	0.1 16V	[M]
C3018	ECUVNC104ZFV	0.1 16V	[M]
C3019	ERJ3GEYJ331V	330 1/16W	[M]
C3020	ECUVNC104ZFV	0.1 16V	[M]
C3021	ECUVNC104ZFV	0.1 16V	[M]
C3022	ECUVNC104ZFV	0.1 16V	[M]
C3023	ECUVNC104ZFV	0.1 16V	[M]
C3024	ECUVNC104ZFV	0.1 16V	[M]
C3025	ECUVNC104ZFV	0.1 16V	[M]
C3026	ECUVNC104ZFV	0.1 16V	[M]

C3027	ECUVNC104ZFV	0.1 16V	[M]
C3028	ECUVNC104ZFV	0.1 16V	[M]
C3029	ECUVNC104ZFV	0.1 16V	[M]
C3031	ECUVNC104ZFV	0.1 16V	[M]
C3032	ECUVNC104ZFV	0.1 16V	[M]
C3033	ECUVNC104ZFV	0.1 16V	[M]
C3041	ECJ1VC1H220J	22P 50V	[M]
C3051	ECUVNC104ZFV	0.1 16V	[M]
C3052	ECUVNC104ZFV	0.1 16V	[M]
C3053	ECUVNC104ZFV	0.1 16V	[M]
C3054	ECUVNC104ZFV	0.1 16V	[M]
C3055	ECUVNC104ZFV	0.1 16V	[M]
C3056	ECUVNC104ZFV	0.1 16V	[M]
C3057	ECUVNC104ZFV	0.1 16V	[M]
C3058	ECUVNC104ZFV	0.1 16V	[M]
C3059	ECUVNC104ZFV	0.1 16V	[M]
C3060	ECUVNC104ZFV	0.1 16V	[M]
C3061	ECUVNC104ZFV	0.1 16V	[M]
C3062	ECUVNC104ZFV	0.1 16V	[M]
C3101	F2G0J331A015	330P 6.3V	[M]
C3102	ECUVNC104ZFV	0.1 16V	[M]
C3103	ECUVNC104ZFV	0.1 16V	[M]
C3104	ECUVNC104ZFV	0.1 16V	[M]
C3105	F1H0J1050013	1 6.3V	[M]
C3106	F1H0J1050013	1 6.3V	[M]
C3107	ECUVNC104ZFV	0.1 16V	[M]
C4201	F2G0J331A015	330P 6.3V	[M]
C4208	ECUVNC104ZFV	0.1 16V	[M]
C4209	ECUVNC104ZFV	0.1 16V	[M]
C4210	ECUVNC104ZFV	0.1 16V	[M]
C4211	F3F1A106A001	10 10V	[M]
C4212	ECUVNC104ZFV	0.1 16V	[M]
C4213	F3F1A106A001	10 10V	[M]
C4215	ECUVNC104ZFV	0.1 16V	[M]
C4216	F2G0J101A015	100P 6.3V	[M]
C4217	ECUVNC104ZFV	0.1 16V	[M]
C4219	F3F1A106A001	10 10V	[M]

C4220	F3F1A106A001	10 10V	[M]
C4222	F2G0J331A015	330P 6.3V	[M]
C5101	EEVHB1C100R	10P 16V	[M]
C5102	ECUVNC104ZFV	0.1 16V	[M]
C5103	ECUVNC104ZFV	0.1 16V	[M]
C5111	EEVHB0J470R	47P 6.3V	[M]
C5115	EEVHB0J470R	47P 6.3V	[M]
C5123	ECUVNC104ZFV	0.1 16V	[M]
C5151	ECUVNC104ZFV	0.1 16V	[M]
C5152	F3F1A106A001	10 10V	[M]
C5201	ECUVNC104ZFV	0.1 16V	[M]
C5202	ECUVNC104ZFV	0.1 16V	[M]
C5203	ECUVNC104ZFV	0.1 16V	[M]
C5221	EEE0JA330WR	33P 6.3V	[M]
C5222	ECUVNC104ZFV	0.1 16V	[M]
C5223	EEE1EA4R7SR	4.7P 25V	[M]
C5225	ECUVNC104ZFV	0.1 16V	[M]
C5226	EEE1EA4R7SR	4.7P 25V	[M]
C5231	ECUV1C104KBV	0.1 16V	[M]
C5232	ECUV1C104KBV	0.1 16V	[M]
C6201	ECUVNC104ZFV	0.1 16V	[M]
C6202	ECUV1H101JCV	100P 50V	[M]
C6251	ECUV1C104KBV	0.1 16V	[M]
C6252	F1H0J1050013	1 6.3V	[M]
C6253	ECJ1VB1C103K	0.01 16V	[M]
C6255	EEE0JA101SP	100P 6.3V	[M]
C6261	ECUVNC104ZFV	0.1 16V	[M]
C6262	ECUVNC104ZFV	0.1 16V	[M]
C6301	ECUVNC104ZFV	0.1 16V	[M]
C6302	ECUVNC104ZFV	0.1 16V	[M]
C6351	ECUVNC104ZFV	0.1 16V	[M]
C6561	EEE0JA330WR	33P 6.3V	[M]
C6562	EEE0JA330WR	33P 6.3V	[M]
C6563	ECUVNC104ZFV	0.1 16V	[M]
C6564	ECUVNC104ZFV	0.1 16V	[M]
C6565	ECJ1VC1H150J	15P 50V	[M]
C6566	ECJ1VC1H150J	15P 50V	[M]

C6567	ECUVNC104ZFV	0.1 16V	[M]
C6568	ECJ1VC1H150J	15P 50V	[M]

[TOP](#) [PREVIOUS](#) [NEXT](#)



A B C D E F G

1

2

3

4

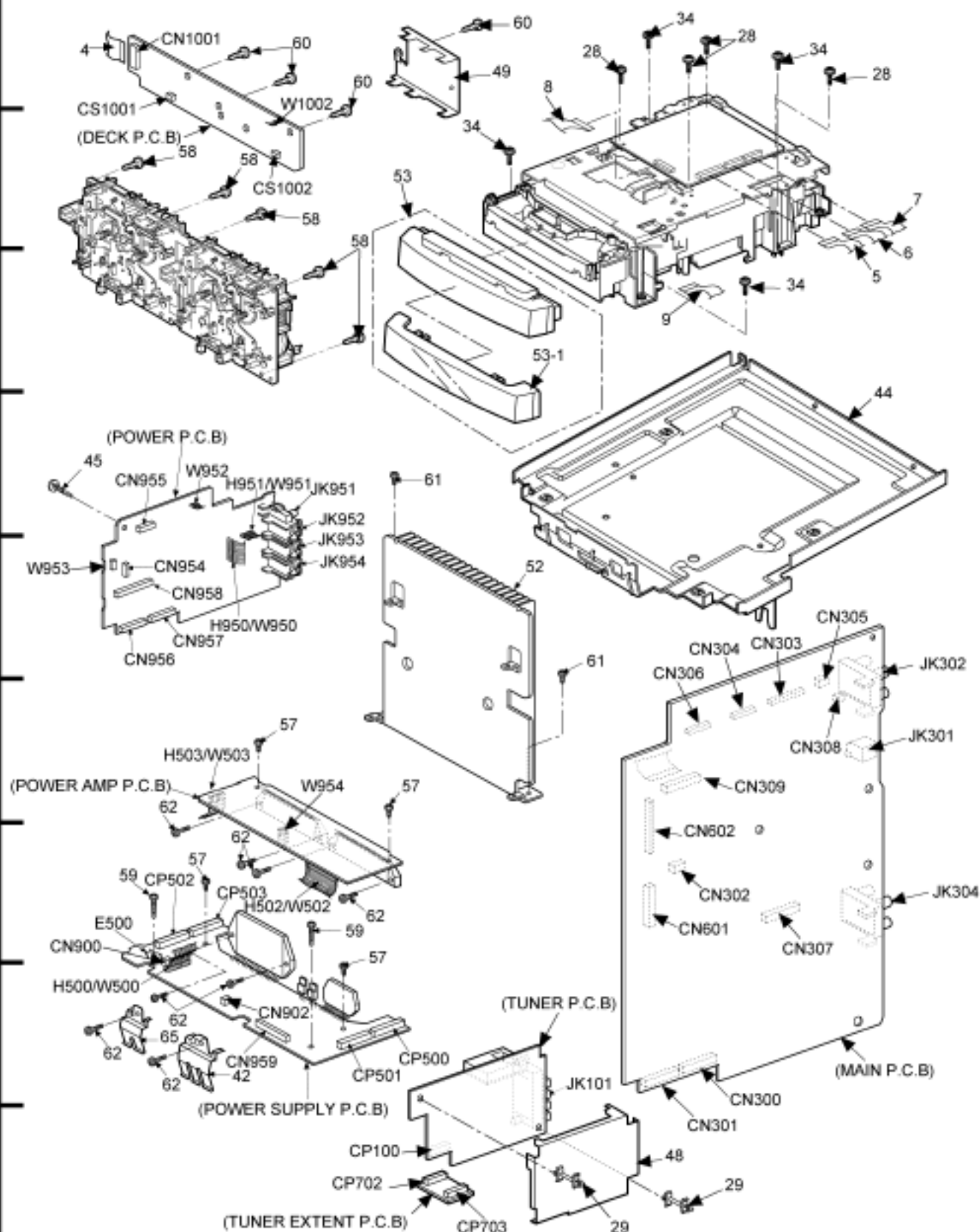
5

6

7

8

9



A B C D E F G

1

2

3

4

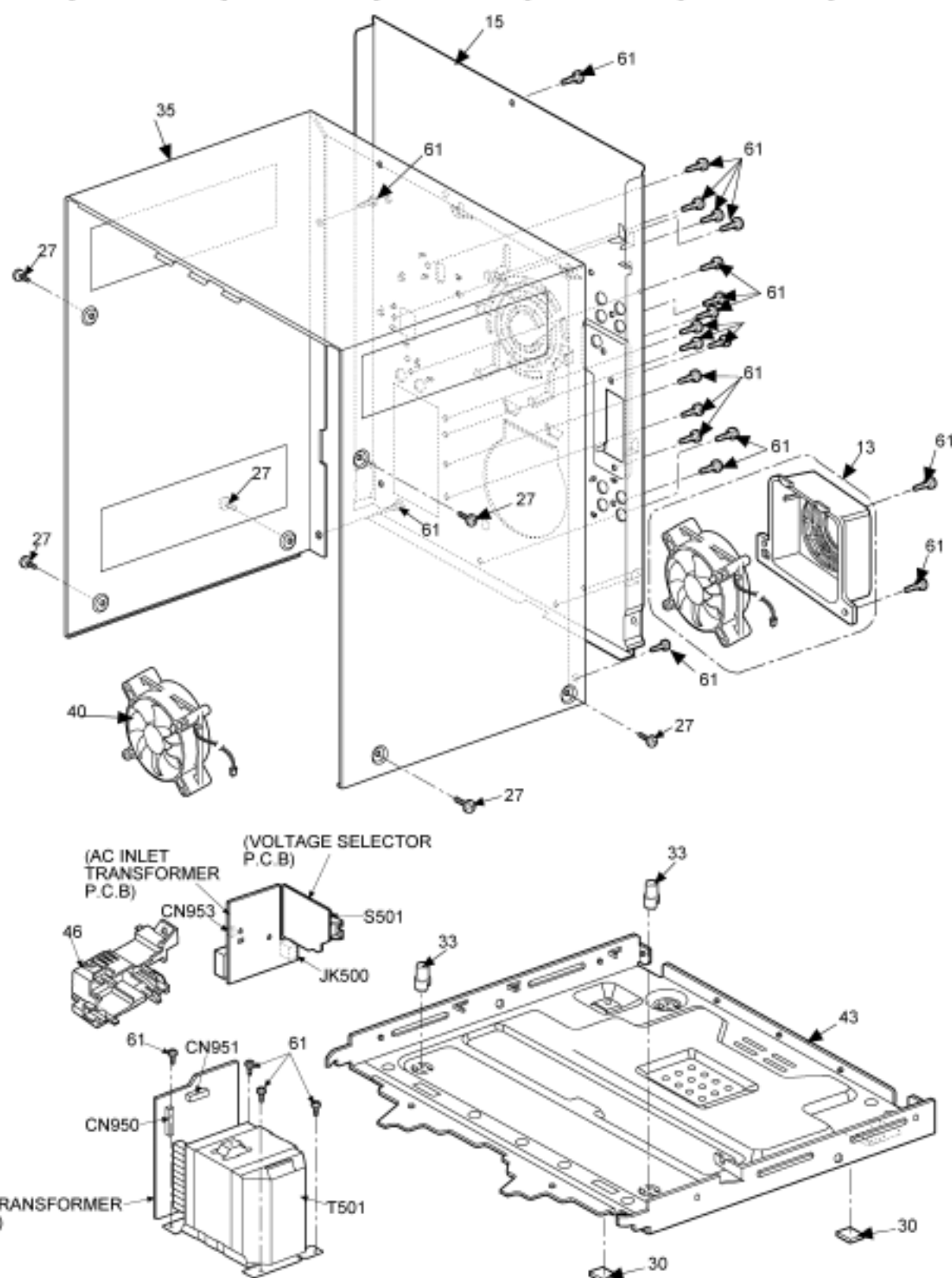
5

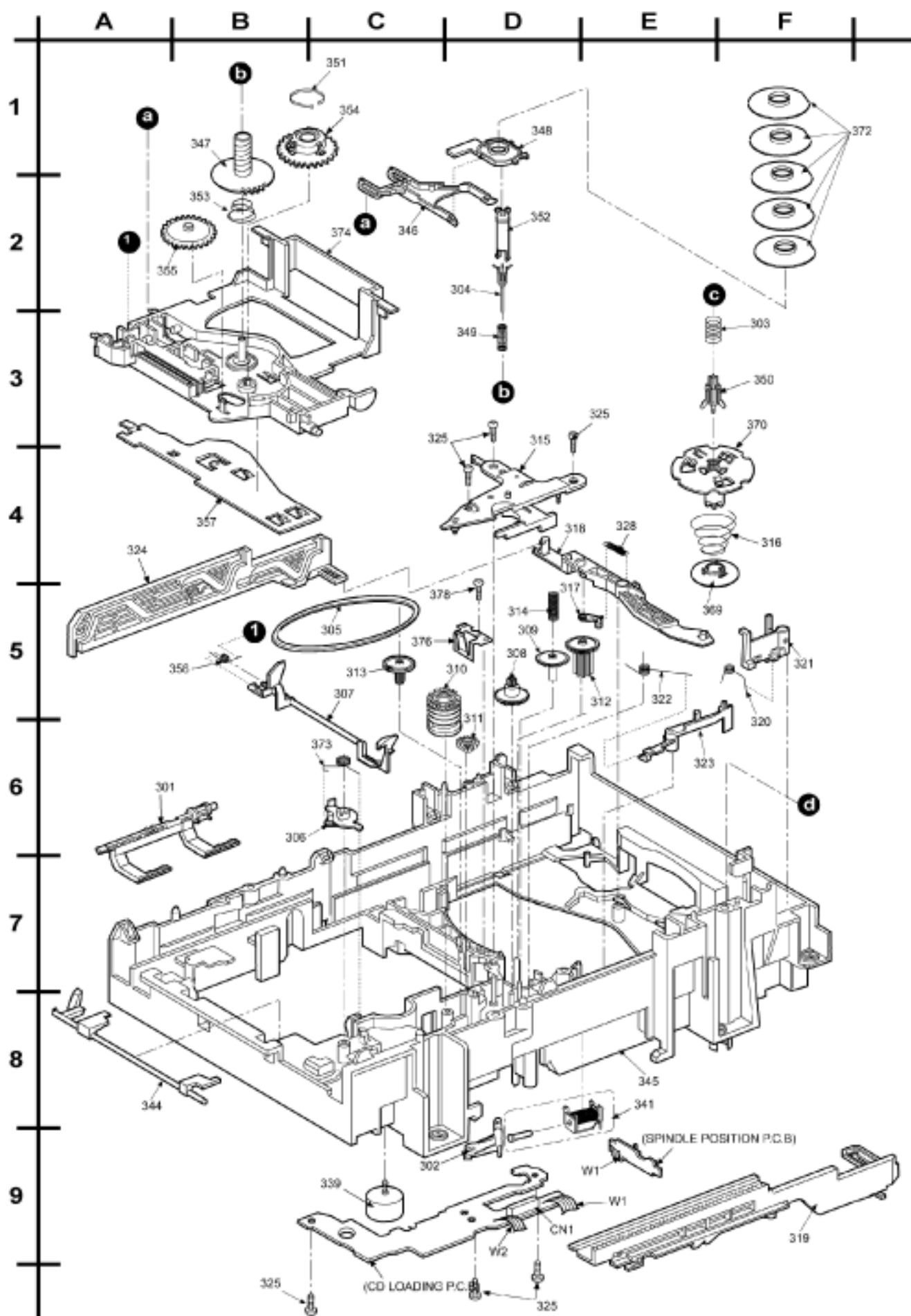
6

7

8

9





H

I

J

K

L

M

N

1

2

3

4

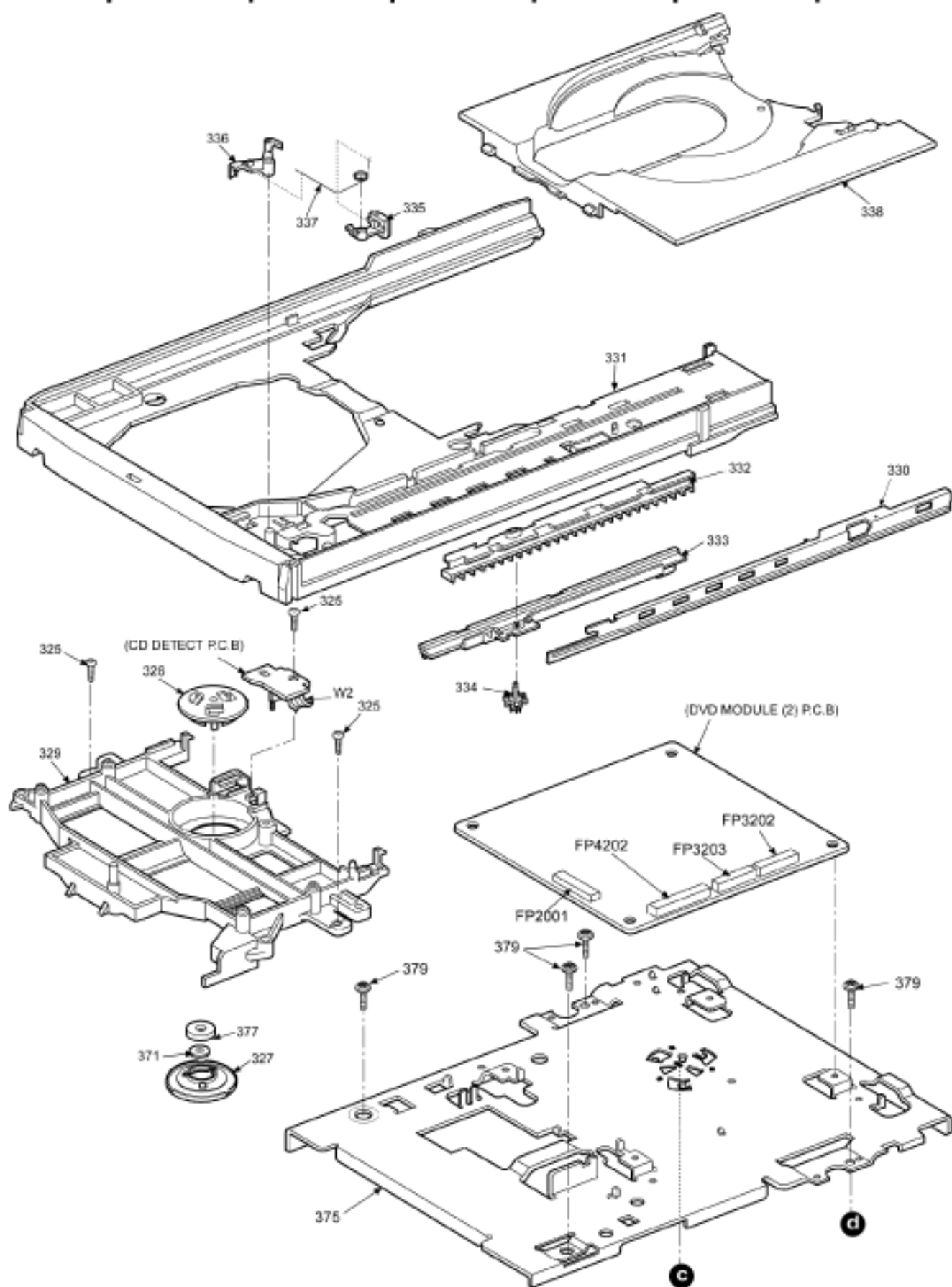
5

6

7

8

9



O P R Q S T U

1

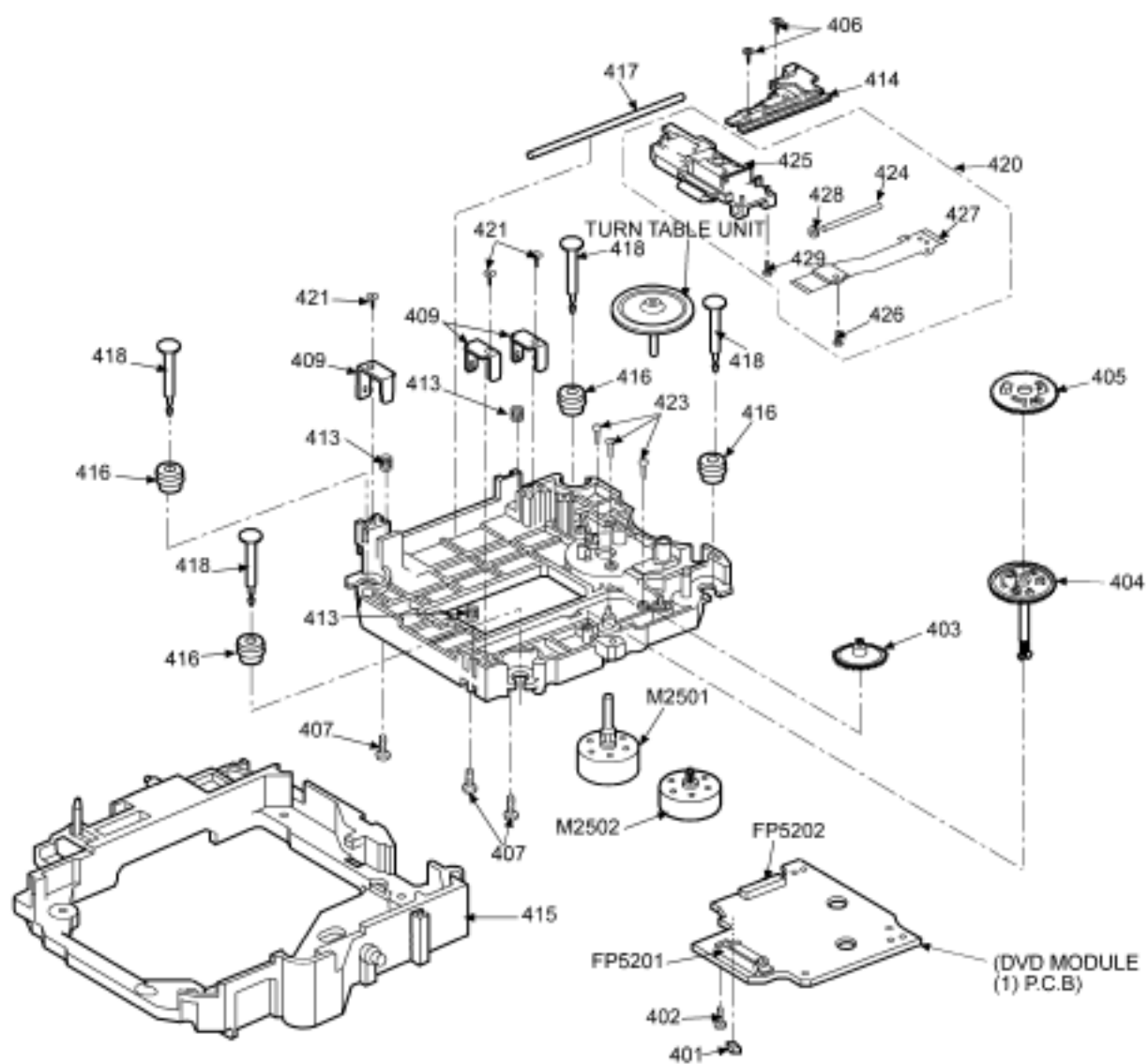
2

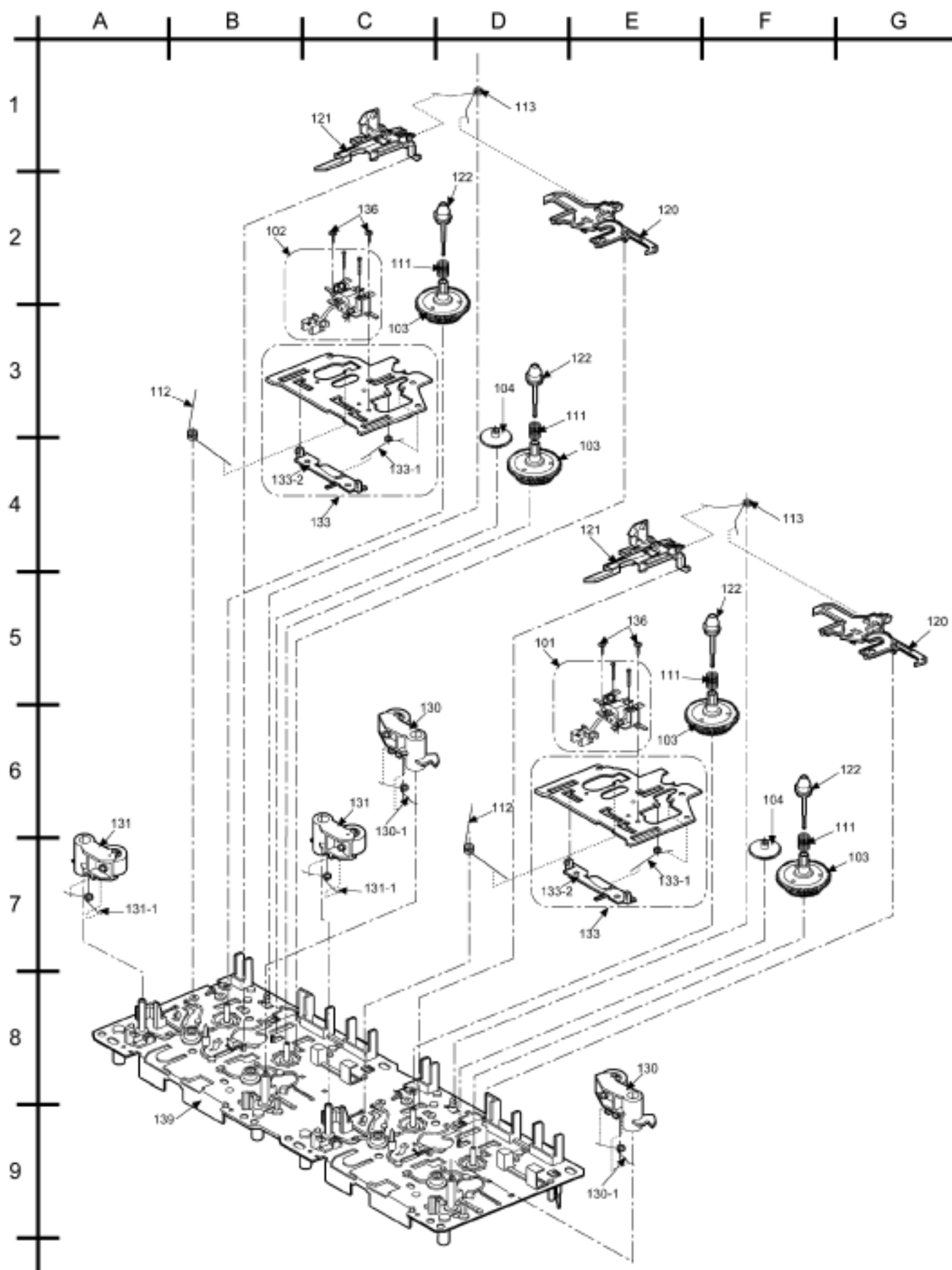
3

4

5

6





H

I

J

L

M

N

O

1

2

3

4

5

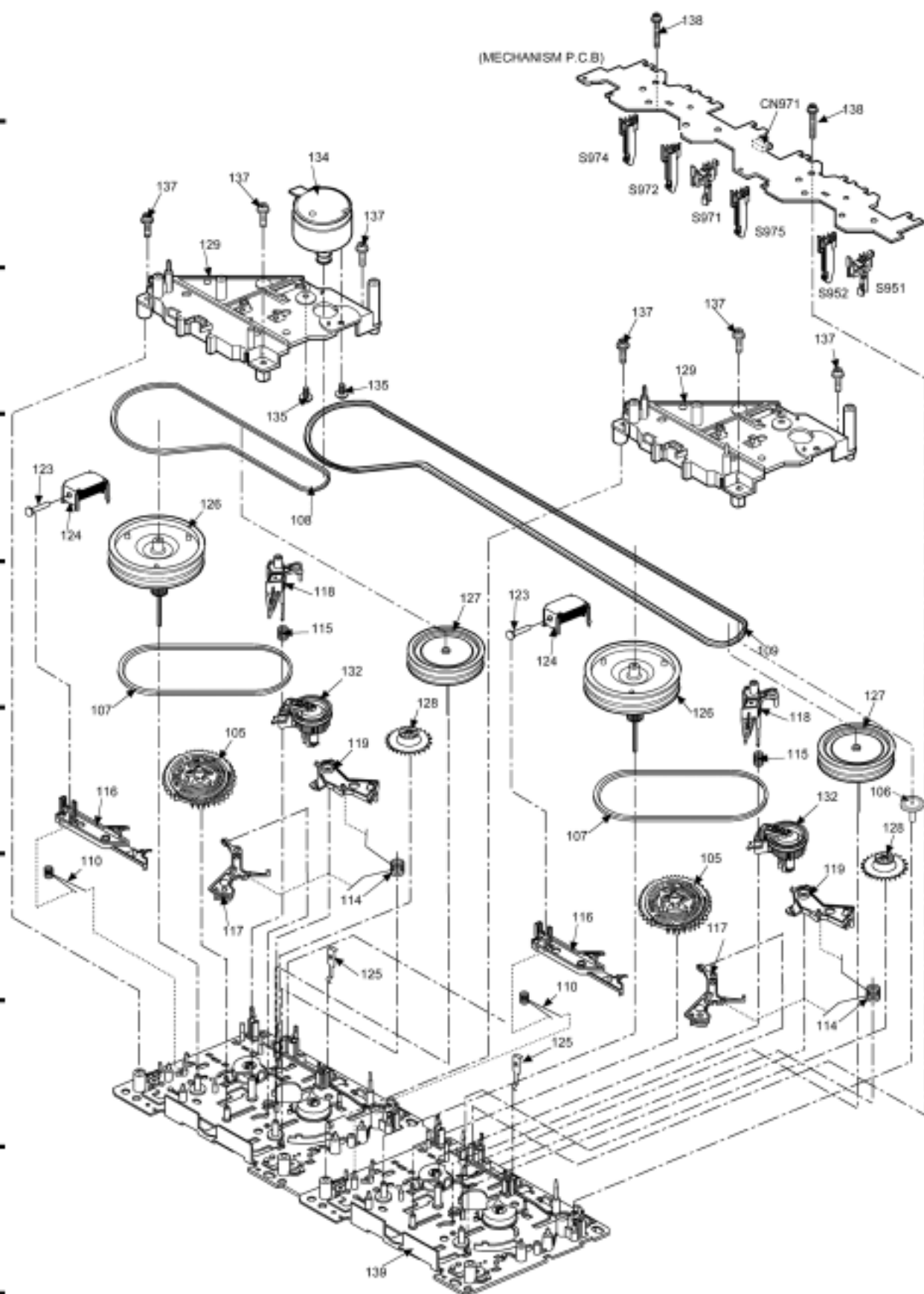
6

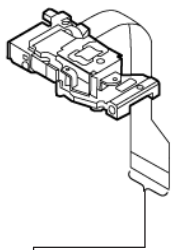
7

8

9

(MECHANISM P.C.B.)



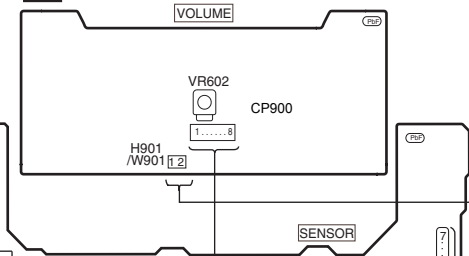


OPTICAL PICKUP
UNIT

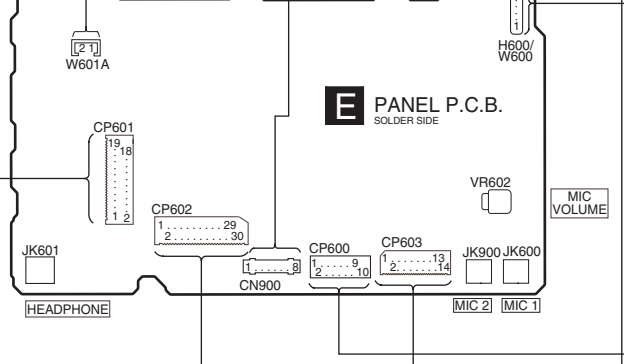
F LED P.C.B.
SOLDER SIDE



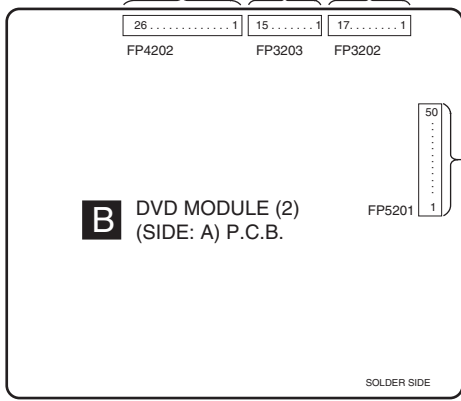
G TACT SWITCH P.C.B.
SOLDER SIDE



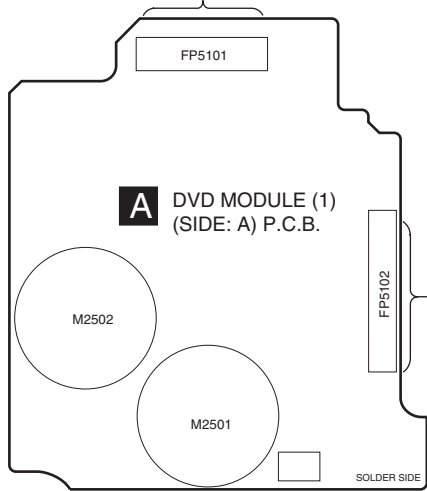
E PANEL P.C.B.
SOLDER SIDE



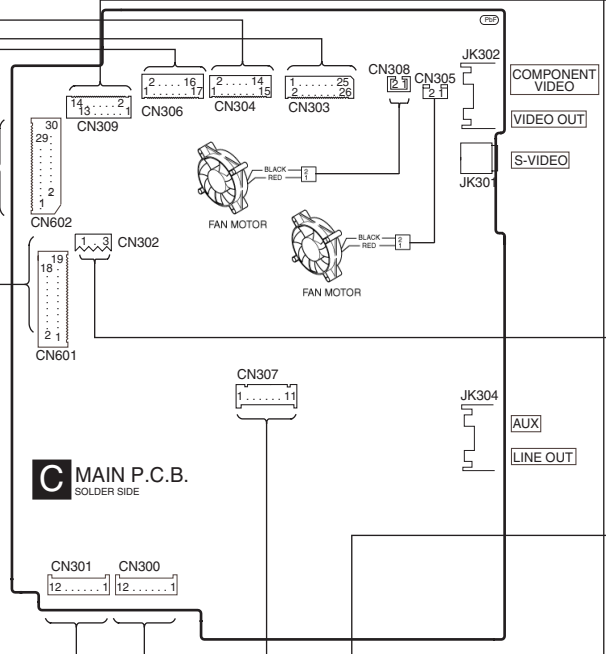
B DVD MODULE (2)
(SIDE: A) P.C.B.



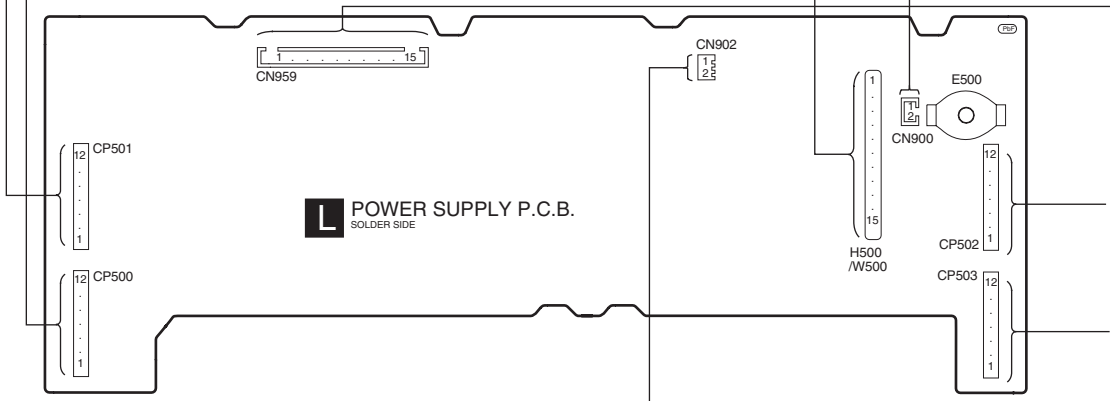
A DVD MODULE (1)
(SIDE: A) P.C.B.



C MAIN P.C.B.
SOLDER SIDE



L POWER SUPPLY P.C.B.
SOLDER SIDE



R CD LOADING P.C.B.

Q VOLTAGE SELECTOR P.C.B.

S CD DETECT P.C.B.

P AC INLET P.C.B.
SOLDER SIDE

T502
SUB-TRANSFORMER

AC IN ~
110V
127V
220-230V
240V
50/60HZ

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

J DECK P.C.B.
SOLDER SIDE

MOTOR

K DECK MECHANISM P.C.B.
SOLDER SIDE

T SPINDLE POSITION P.C.B.

O TRANSFORMER P.C.B.
SOLDER SIDE

N POWER P.C.B.
SOLDER SIDE

H TUNER P.C.B.
SOLDER SIDE

TUNER PACK (RAL0029)

CF201 Z101

CF202

CP100

JK101

FM LOOP ANTENNA

AM LOOP ANTENNA

D TUNER EXTENT P.C.B.
SOLDER SIDE

CP702

CP703

M POWER AMP P.C.B.
SOLDER SIDE

H502/W502

W954

H503
/W503

A

B

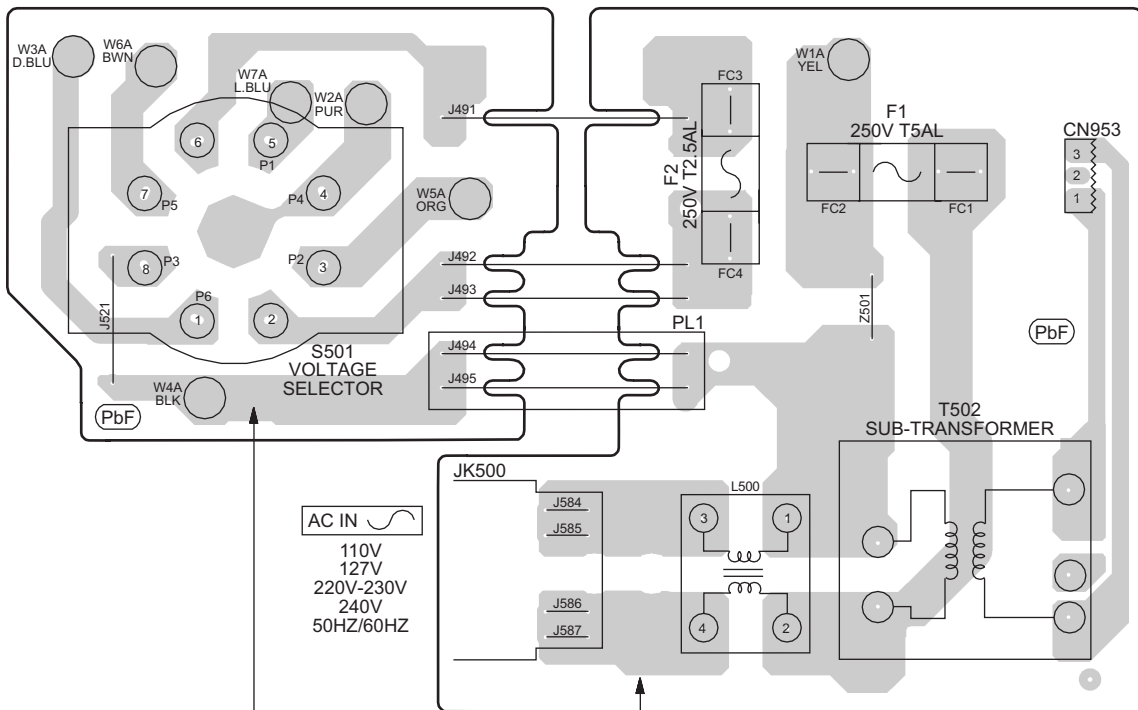
C

D

E

F

G

Q VOLTAGE SELECTOR
P.C.B (REPX0379A)**P** AC INLET
P.C.B (REPX0379A)

O TRANSFORMER CIRCUIT

—— : +B SIGNAL LINE

Q VOLTAGE SELECTOR CIRCUIT

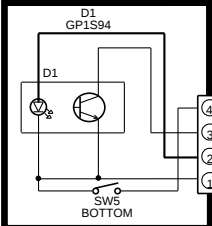
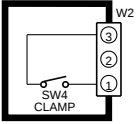
TO POWER CIRCUIT (H950/W950) ON SCHEMATIC DIAGRAM - 38

TO POWER CIRCUIT (H951/W951) ON SCHEMATIC DIAGRAM - 38

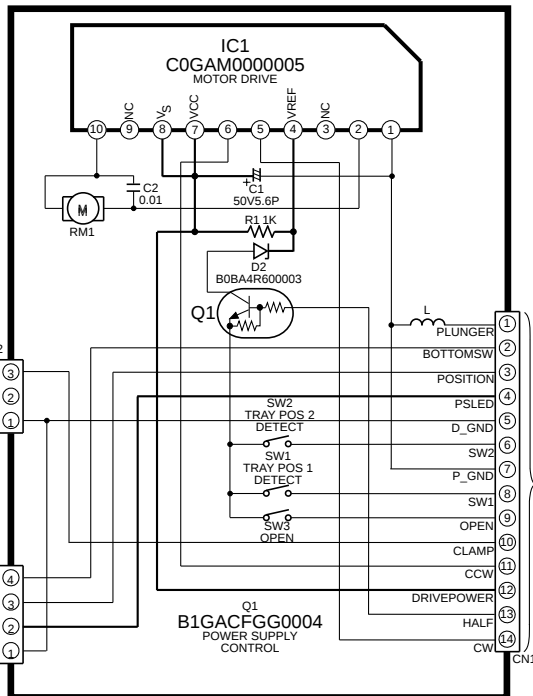
TO POWER CIRCUIT (W952) ON SCHEMATIC DIAGRAM - 38

P AC INLET CIRCUIT

S CD DETECT CIRCUIT



T SPINDLE POSITION CIRCUIT



R CD LOADING CIRCUIT

TO MAIN CIRCUIT (CN309) ON SCHEMATIC DIAGRAM - 23

C MAIN CIRCUIT

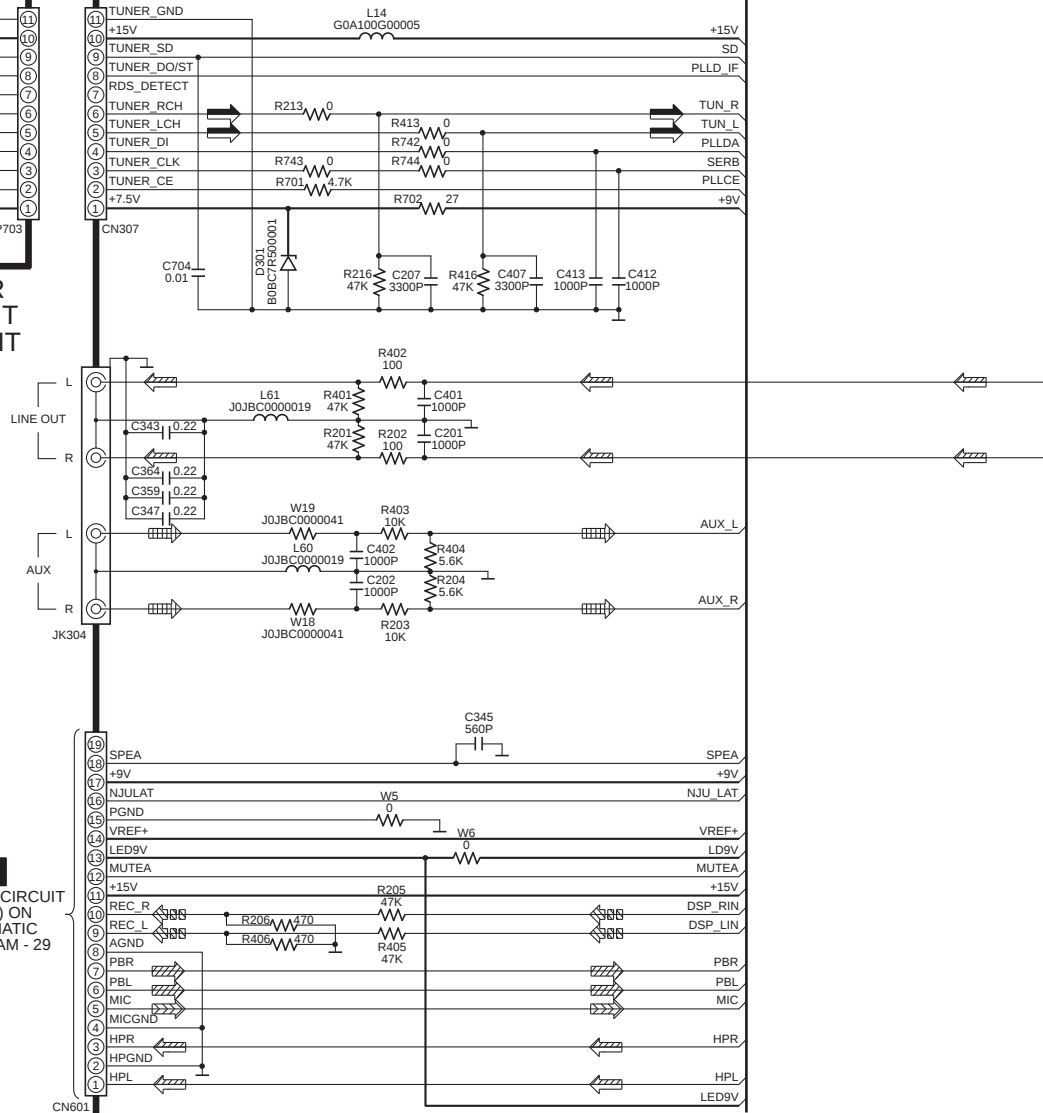
 : MIC SIGNAL LINE
 : AM/FM SIGNAL LINE
 : MAIN SIGNAL LINE
 : +B SIGNAL LINE

 : AUX SIGNAL LINE
 : PLAYBACK SIGNAL LINE
 : RECORD SIGNAL LINE

TO **H**
TUNER CIRCUIT
(CP100) ON
SCHEMATIC
DIAGRAM - 31

D TUNER EXTENT CIRCUIT

TO **E**
PANEL CIRCUIT
(CP601) ON
SCHEMATIC
DIAGRAM - 29



C MAIN CIRCUIT

--- : -B SIGNAL LINE
 --- : +B SIGNAL LINE

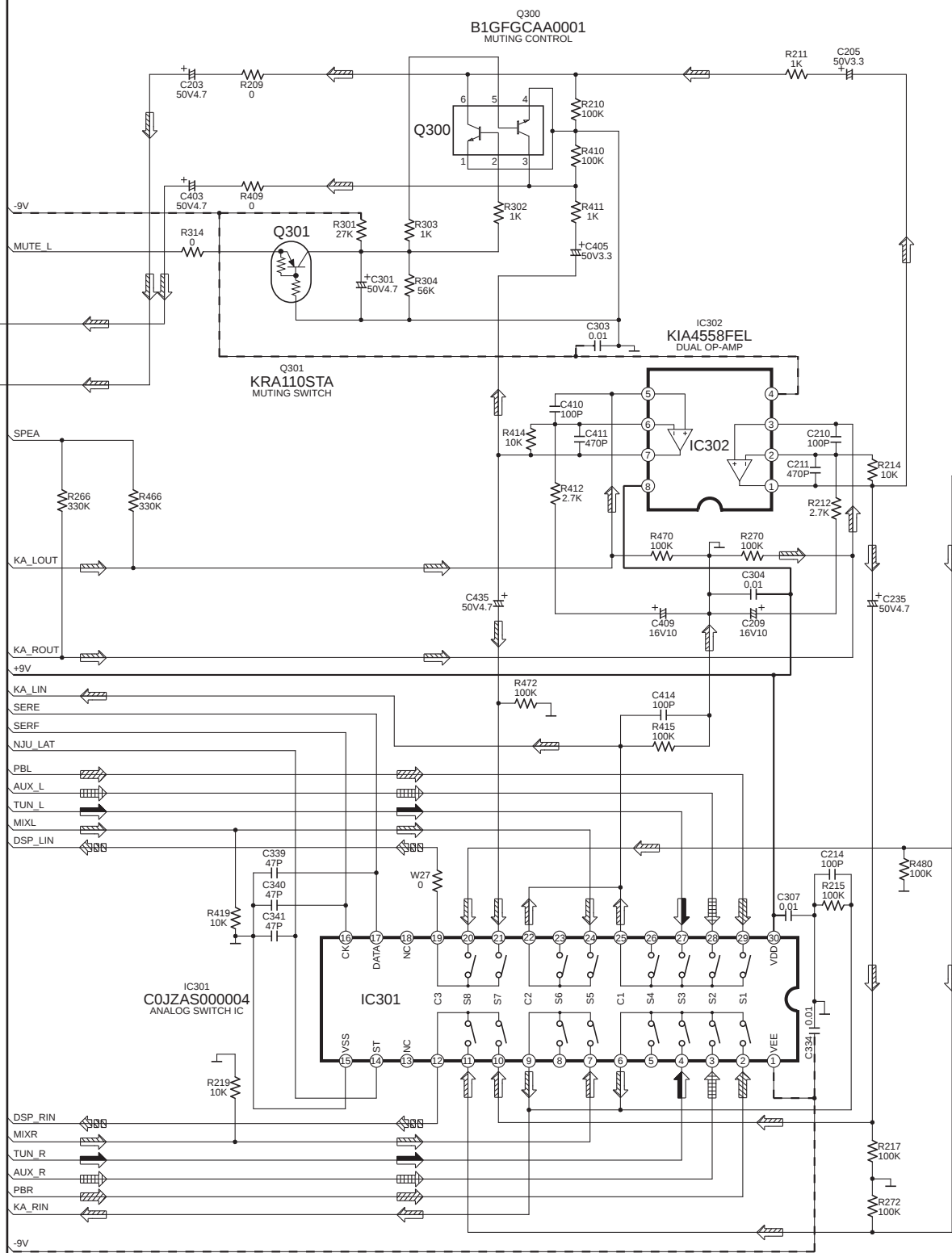
▨ : AUX SIGNAL LINE

▨ : PLAYBACK SIGNAL LINE

▨ : RECORD SIGNAL LINE

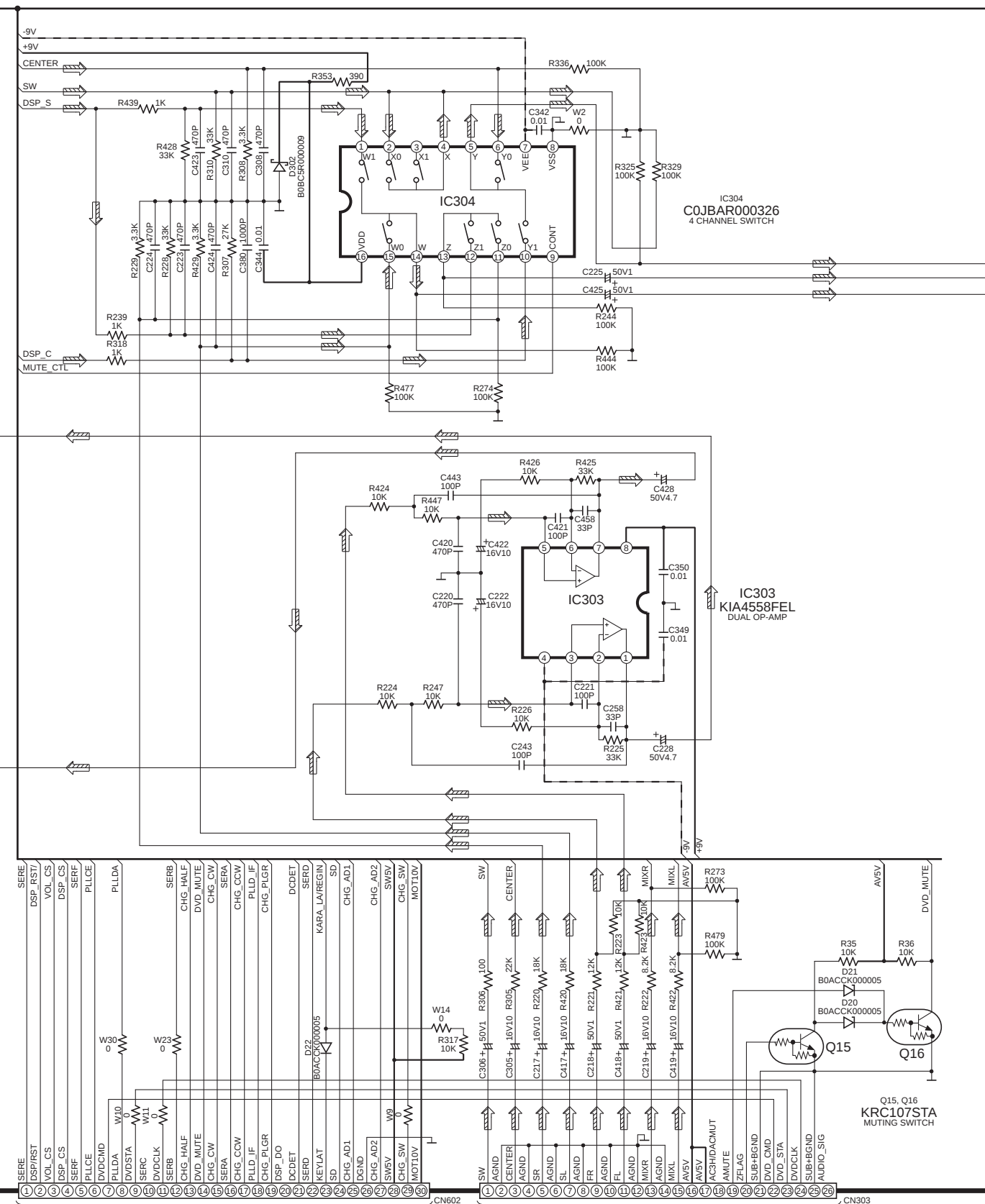
▨ : MAIN SIGNAL LINE

▨ : AM/FM SIGNAL LINE



— — — : -B SIGNAL LINE

—— : +B SIGNAL LINE

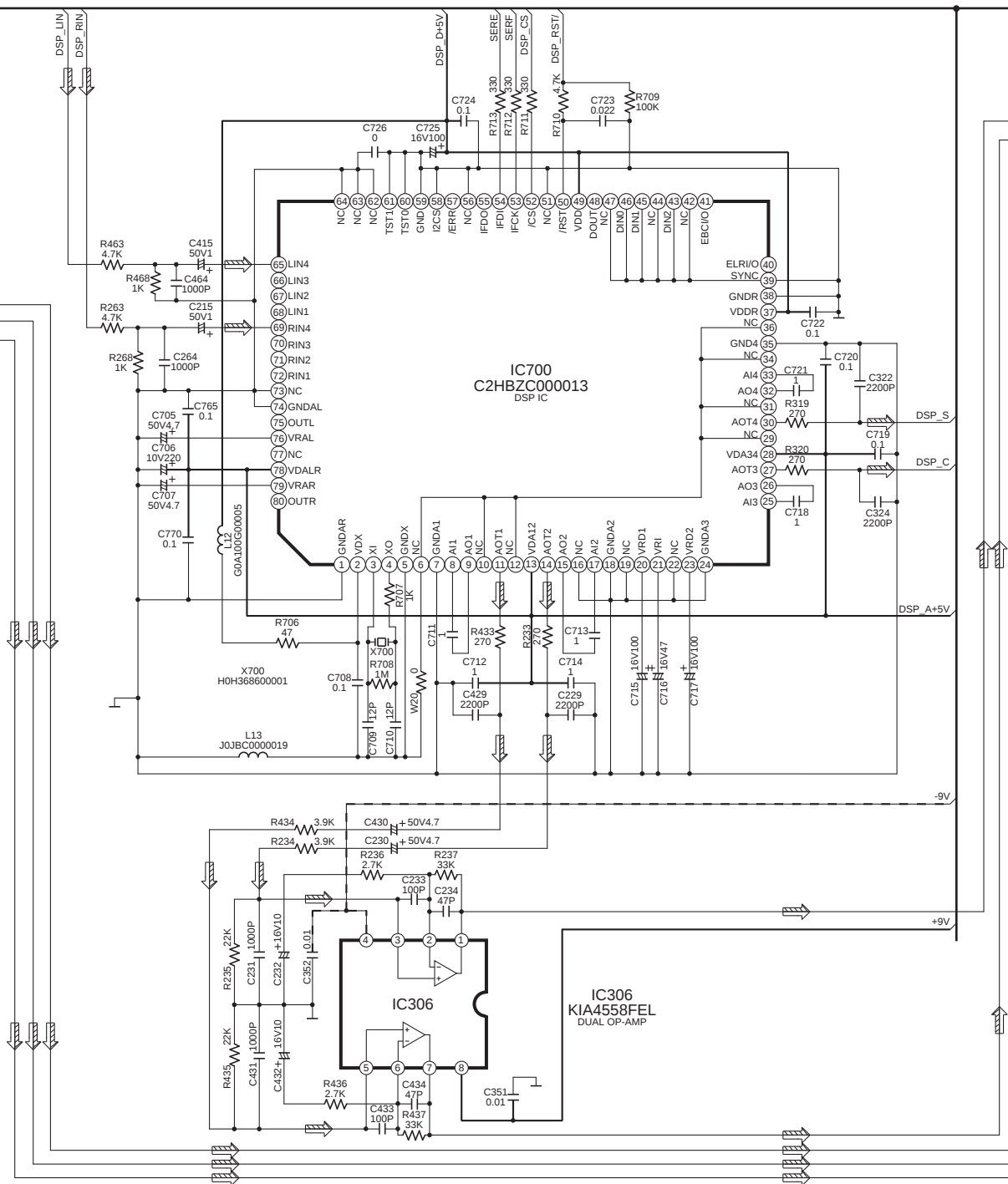


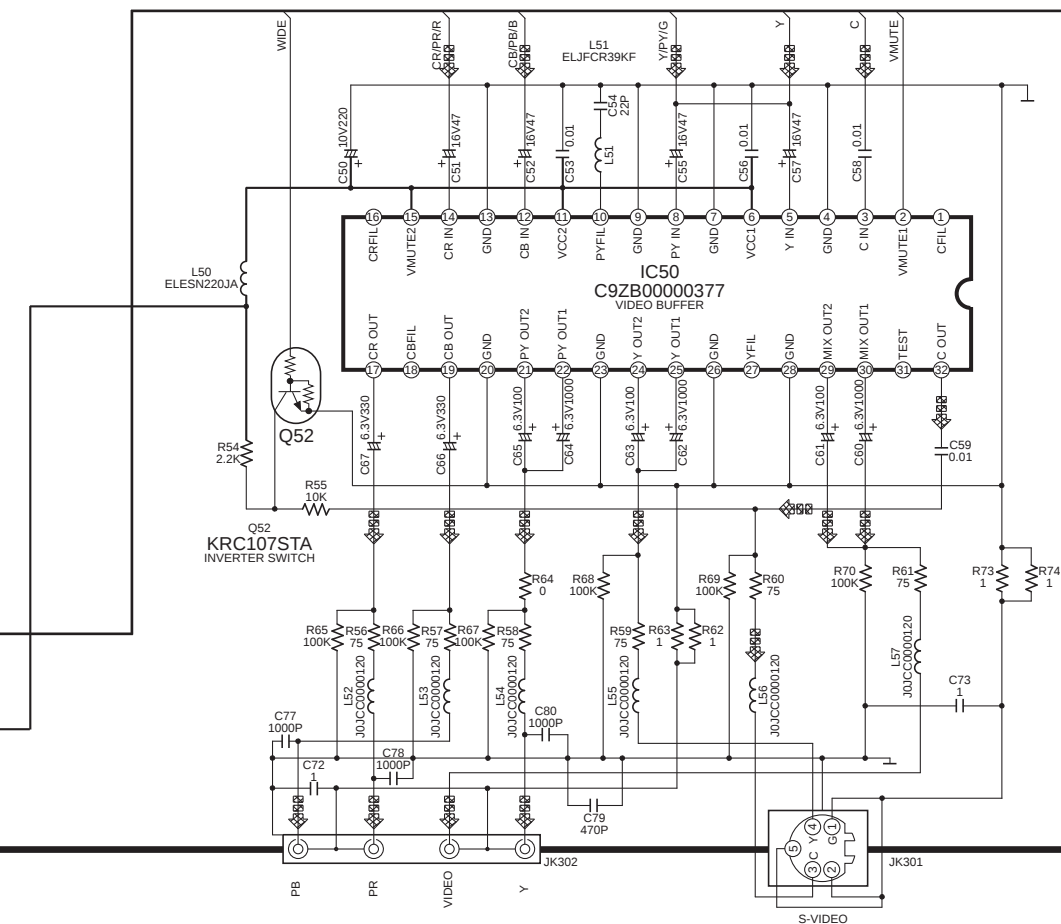
TO **E**
PANEL CIRCUIT
(CP602) ON
SCHEMATIC DIAGRAM - 29

TO DVD MODULE 2 CIRCUIT (FP4202) ON SCHEMATIC DIAGRAM - 13

C MAIN CIRCUIT

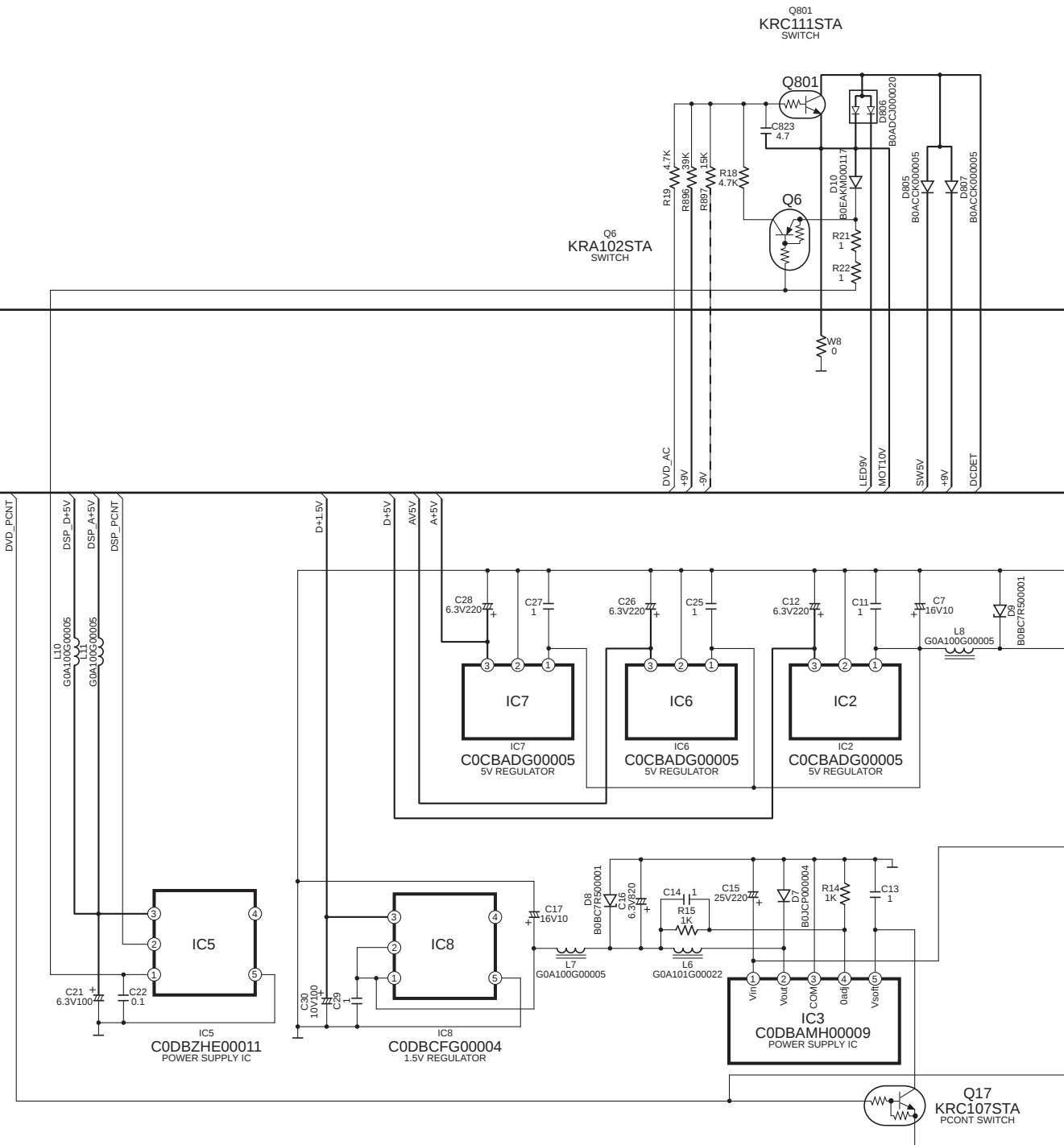
--- : -B SIGNAL LINE
 — : +B SIGNAL LINE
 : MAIN SIGNAL LINE







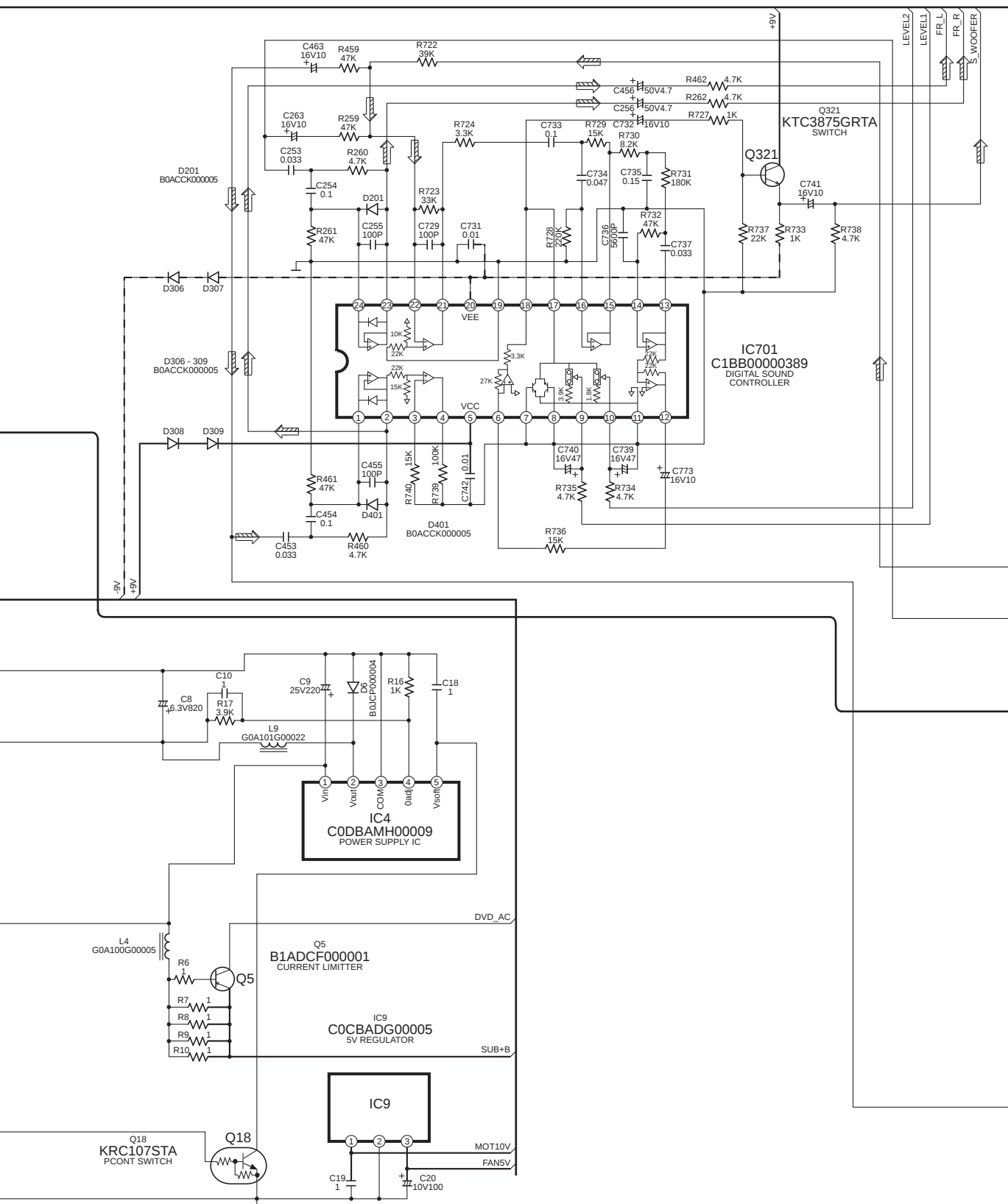
--- : -B SIGNAL LINE
 — : +B SIGNAL LINE



— — — : -B SIGNAL LINE

— : +B SIGNAL LINE

— : +B SIGNAL LINE  : MAIN SIGNAL LINE

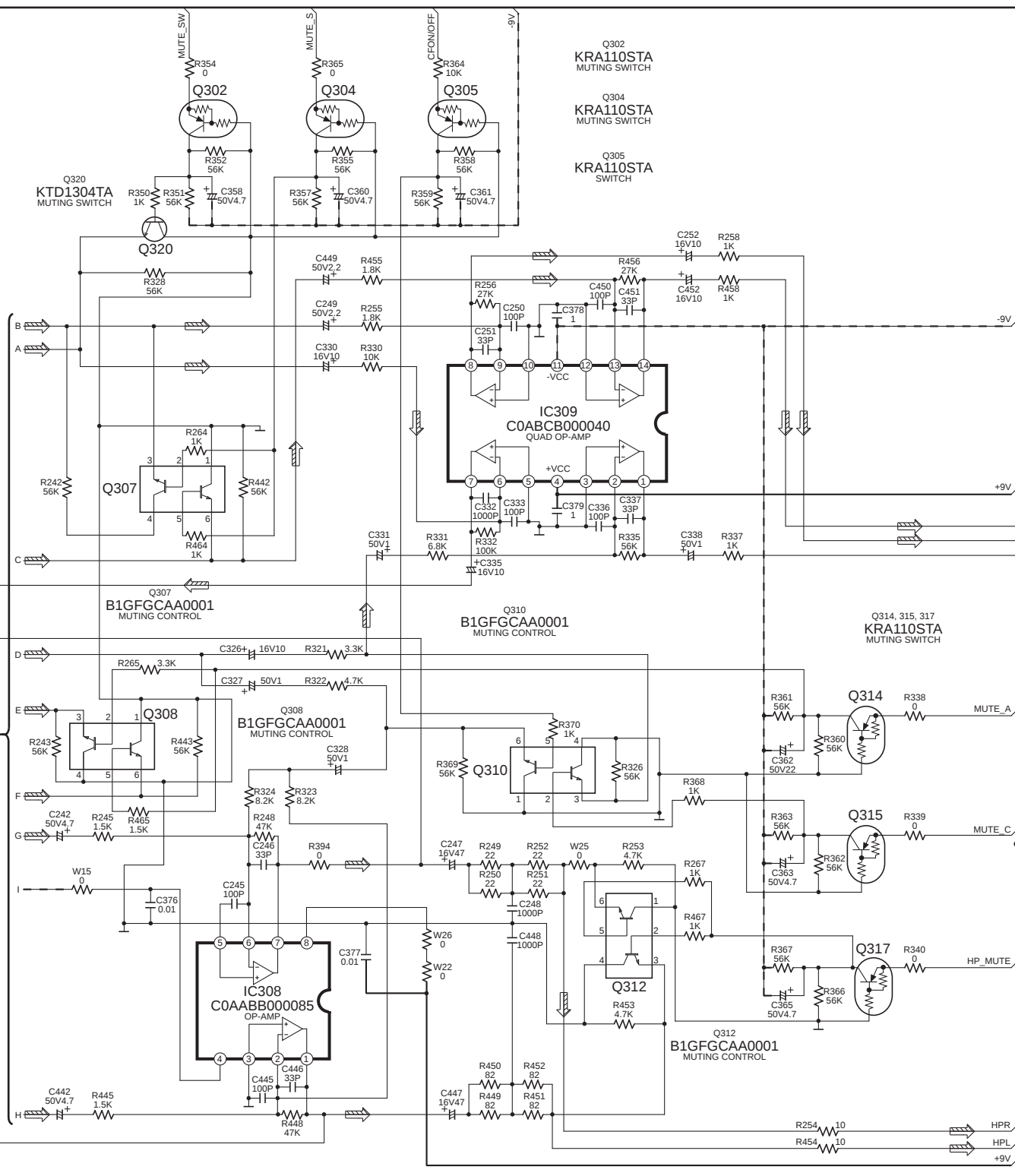


C MAIN CIRCUIT

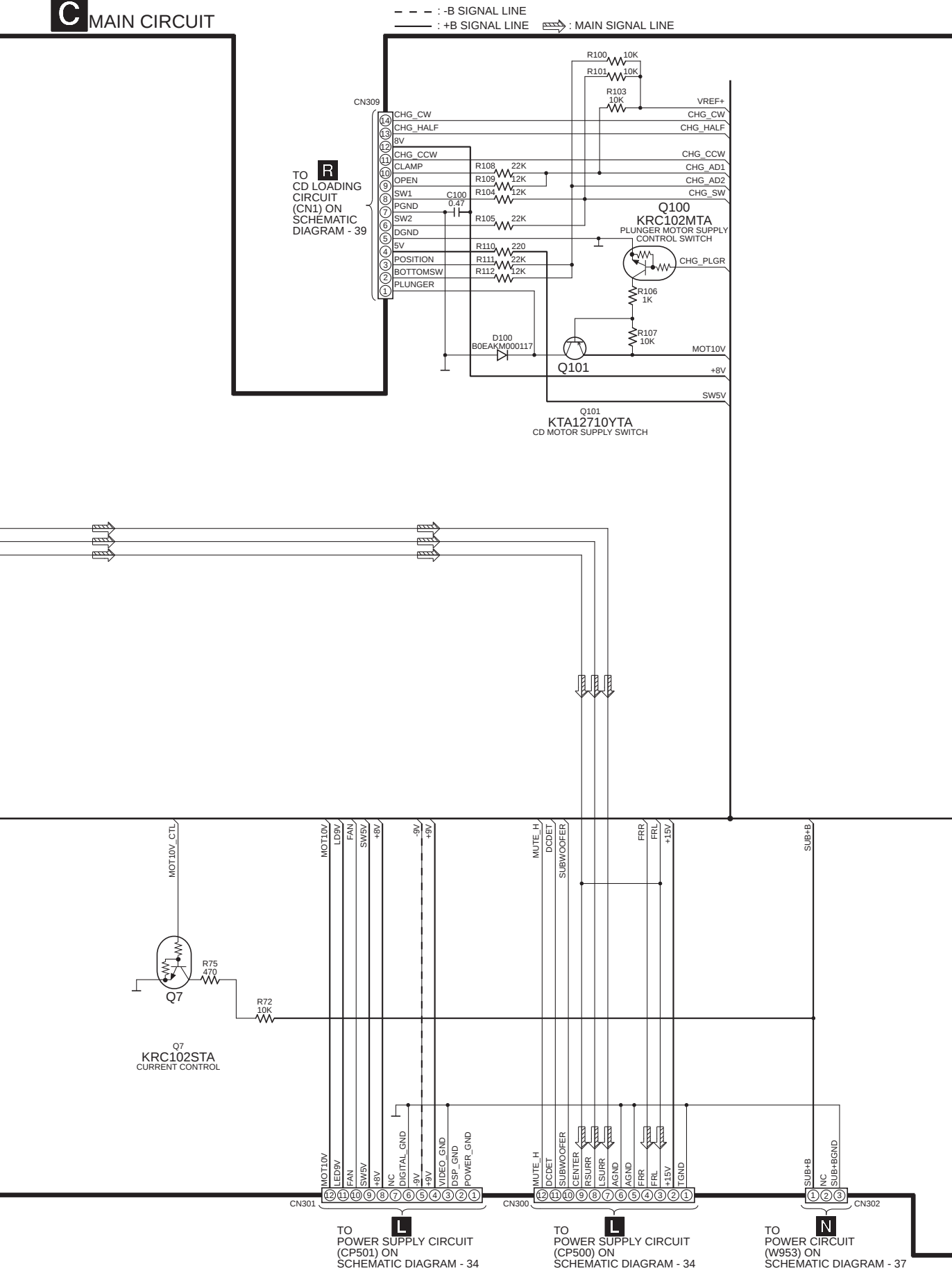
- - - : -B SIGNAL LINE

— : +B SIGNAL LINE

⇒ : MAIN SIGNAL LINE

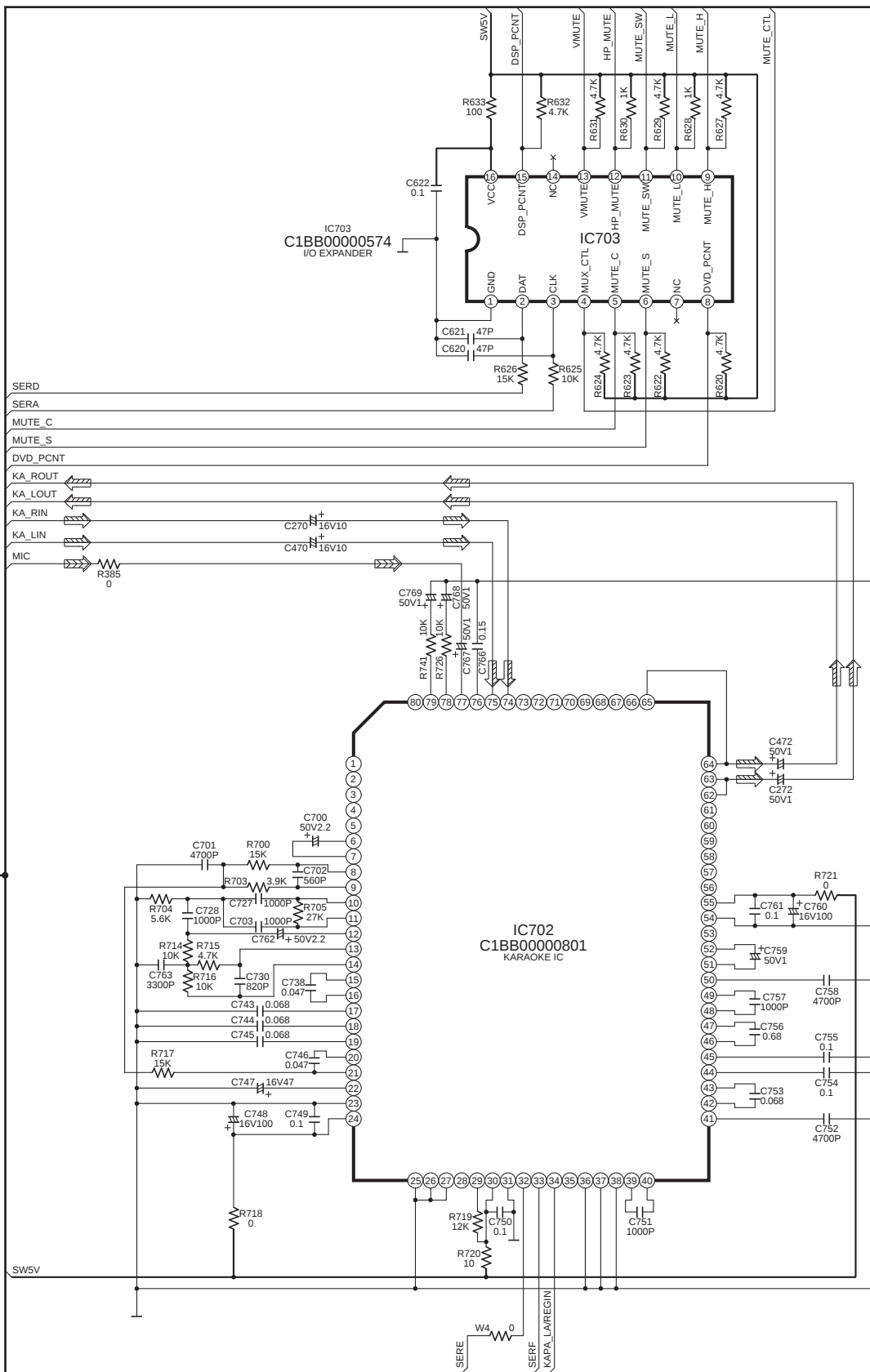


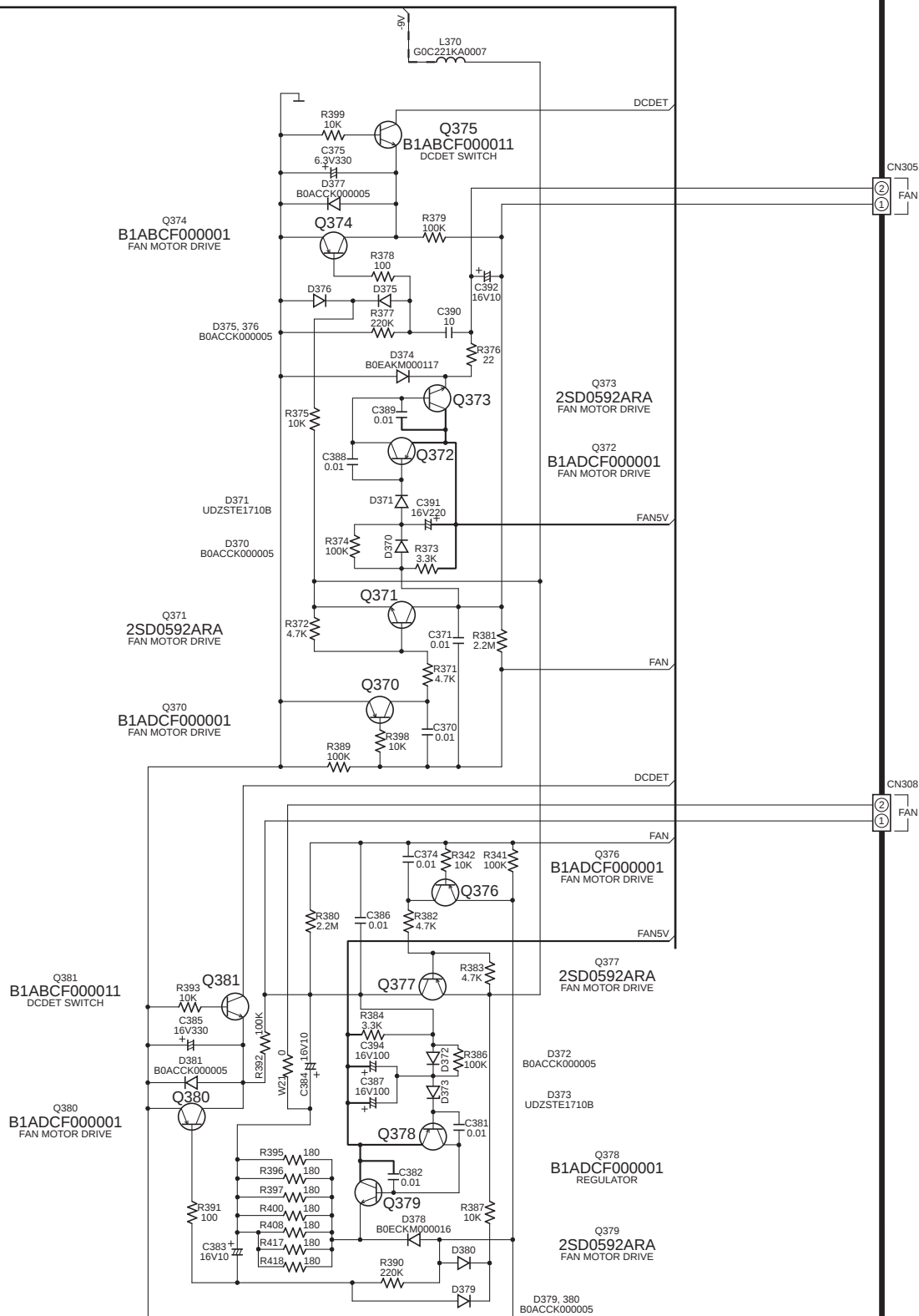
C MAIN CIRCUIT



 : MIC SIGNAL LINE

 : +B SIGNAL LINE

 : MAIN SIGNAL LINE




A

B

C

D

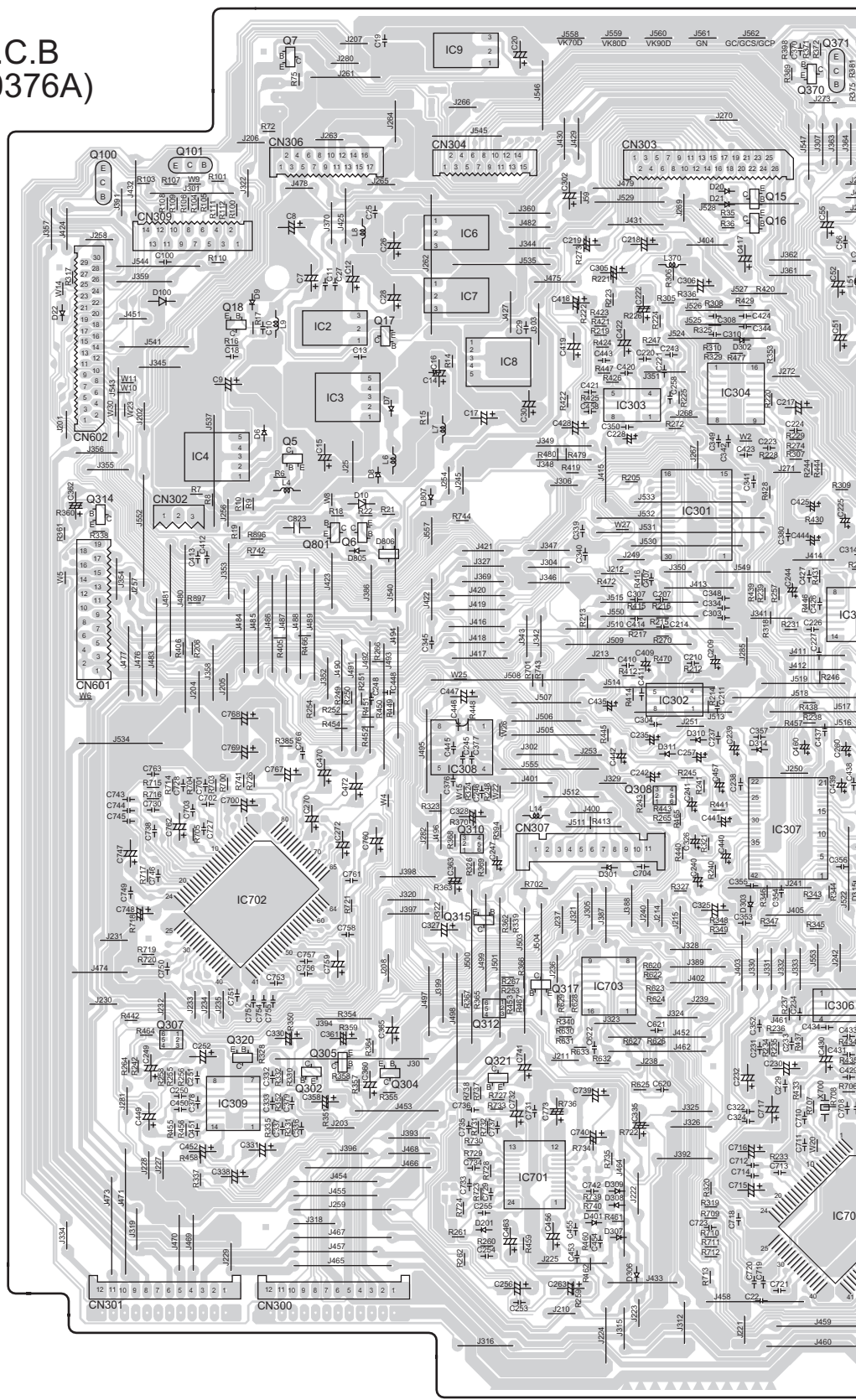
E

F

G

C

MAIN P.C.B (REPX0376A)



G

H

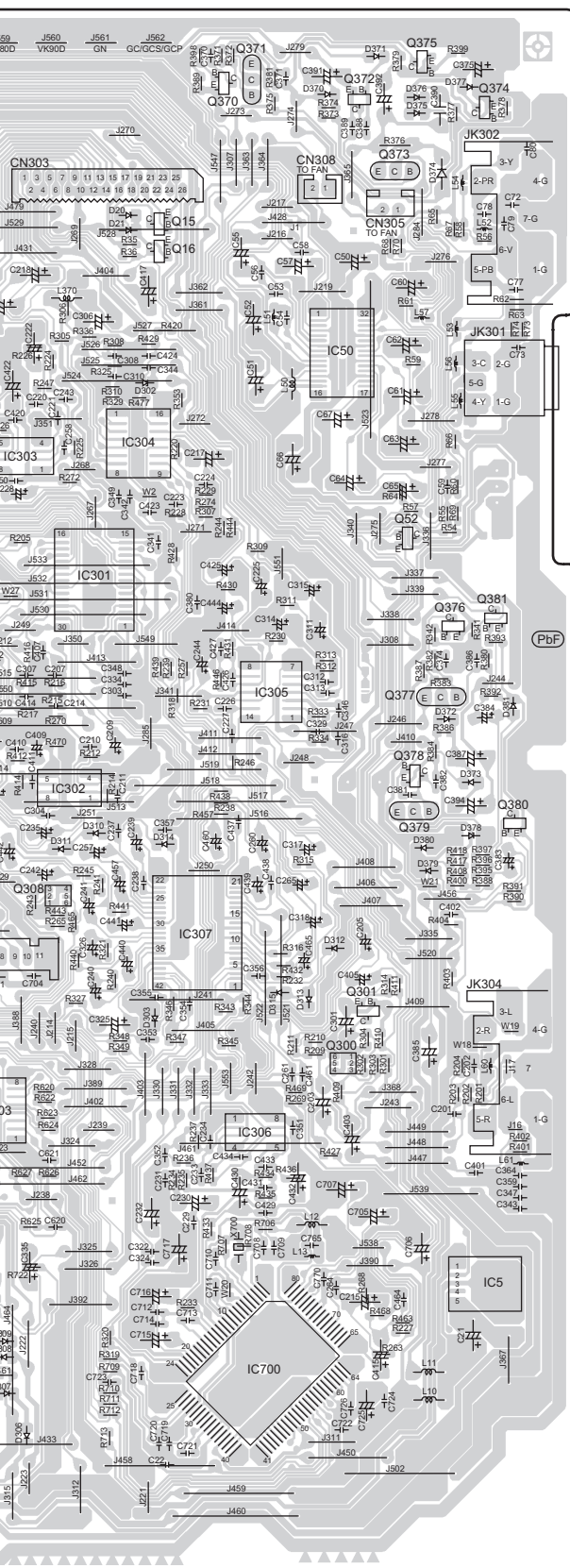
I

J

K

L

M

COMPONENT
VIDEO

VIDEO OUT

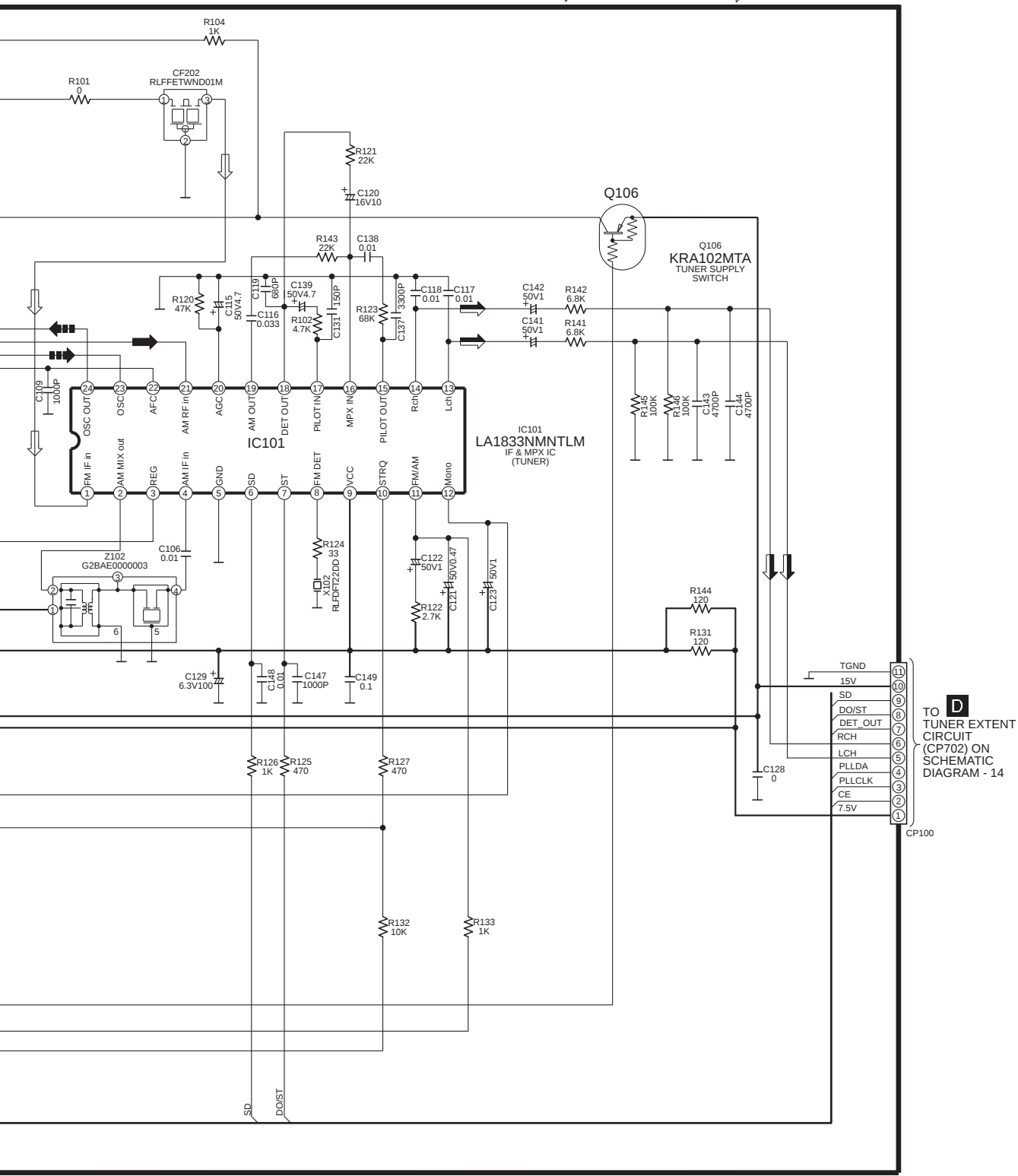
S-VIDEO

AUX

LINE OUT

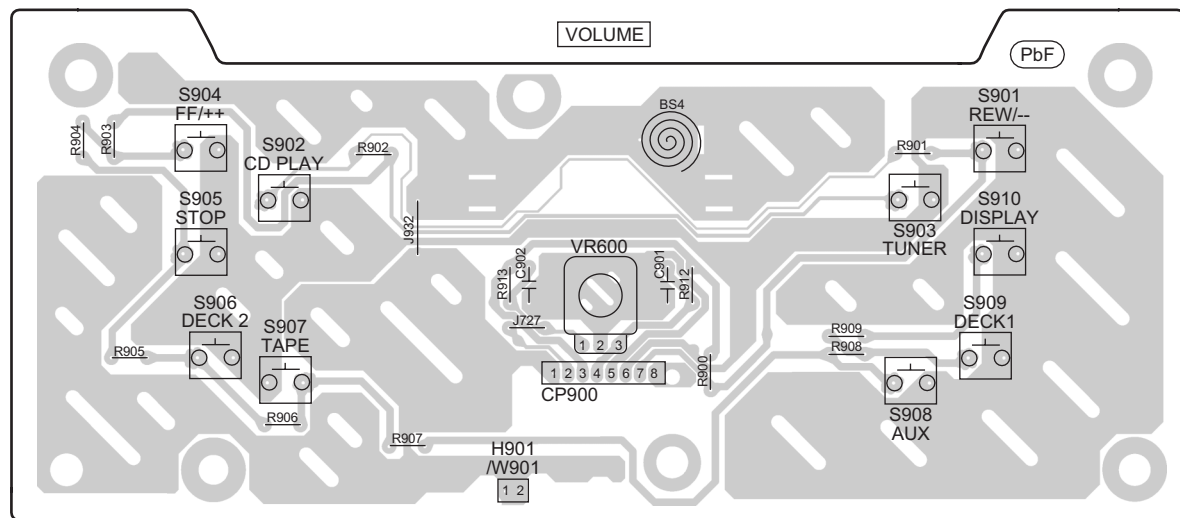
H TUNER CIRCUIT

— : +B SIGNAL LINE ➡ : AM SIGNAL LINE ➡➡ : AM OSC SIGNAL LINE
⇨ : FM SIGNAL LINE ➡➡➡ : FM/AM SIGNAL LINE

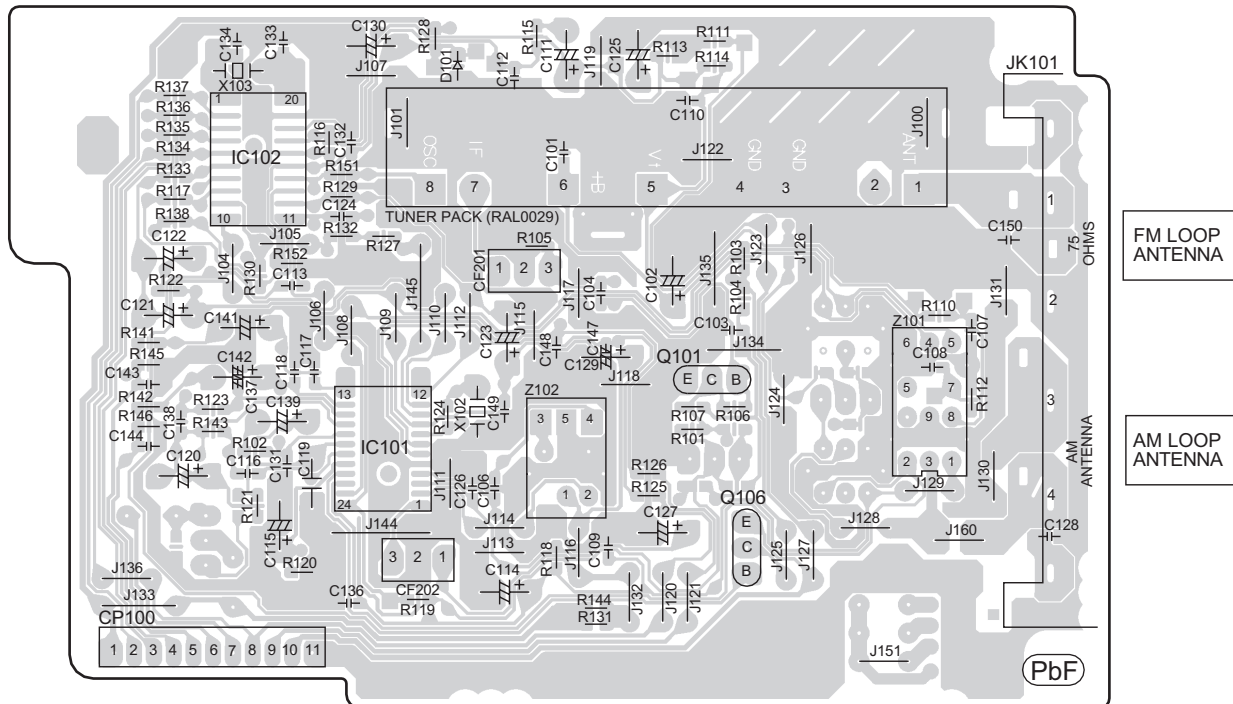


A B C D E F G

G TACT SWITCH P.C.B (REPX0378D)



H TUNER P.C.B (REPX0373C)



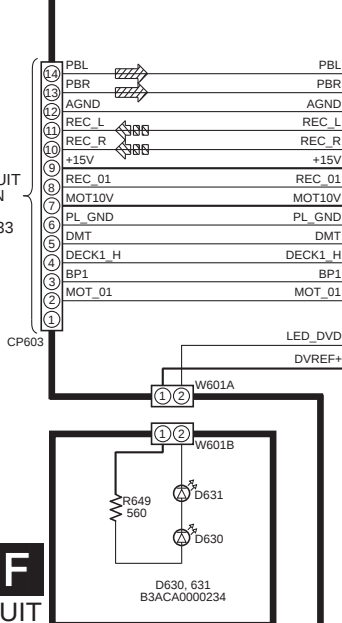
SCHEMATIC DIAGRAM - 26

E PANEL CIRCUIT

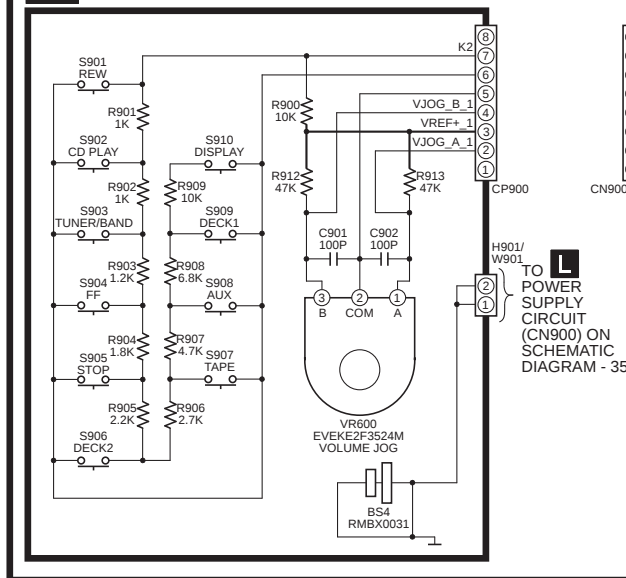
 : MIC SIGNAL LINE
 : +B SIGNAL LINE
 : PLAYBACK SIGNAL LINE
 : RECORD SIGNAL LINE

TO DECK CIRCUIT (CN1001) ON SCHEMATIC DIAGRAM - 33

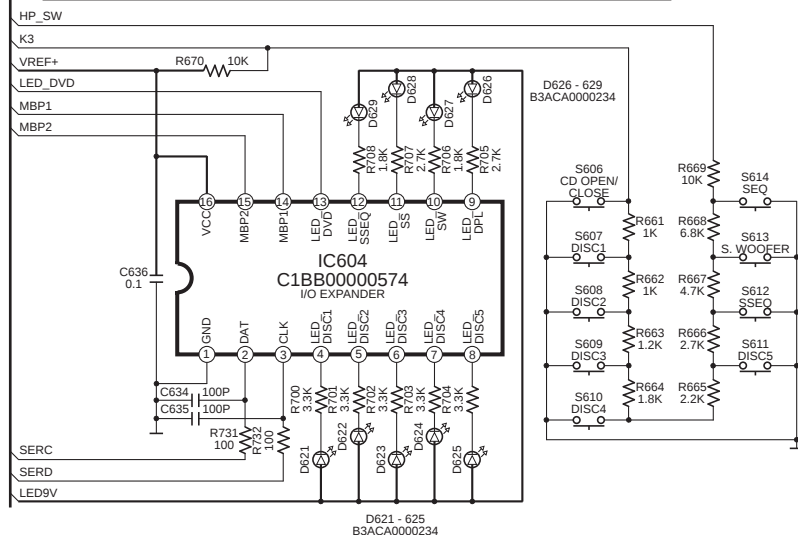
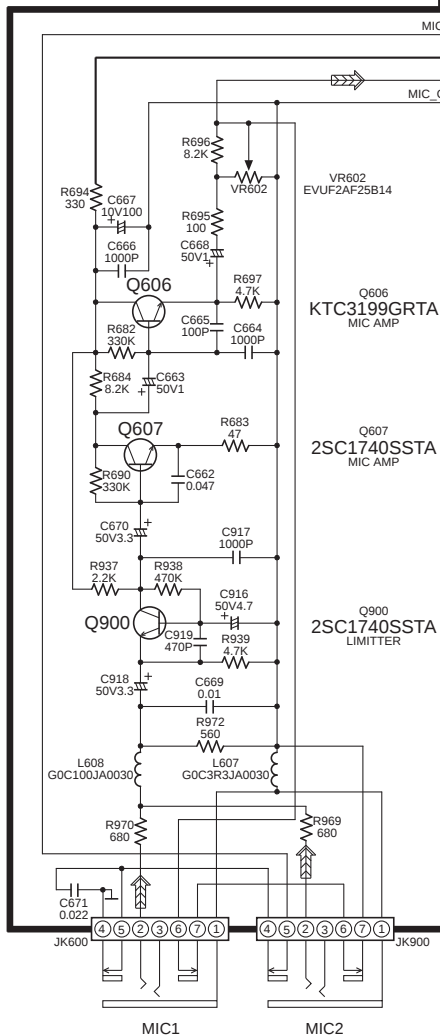
F LED CIRCUIT



G TACT SWITCH CIRCUIT

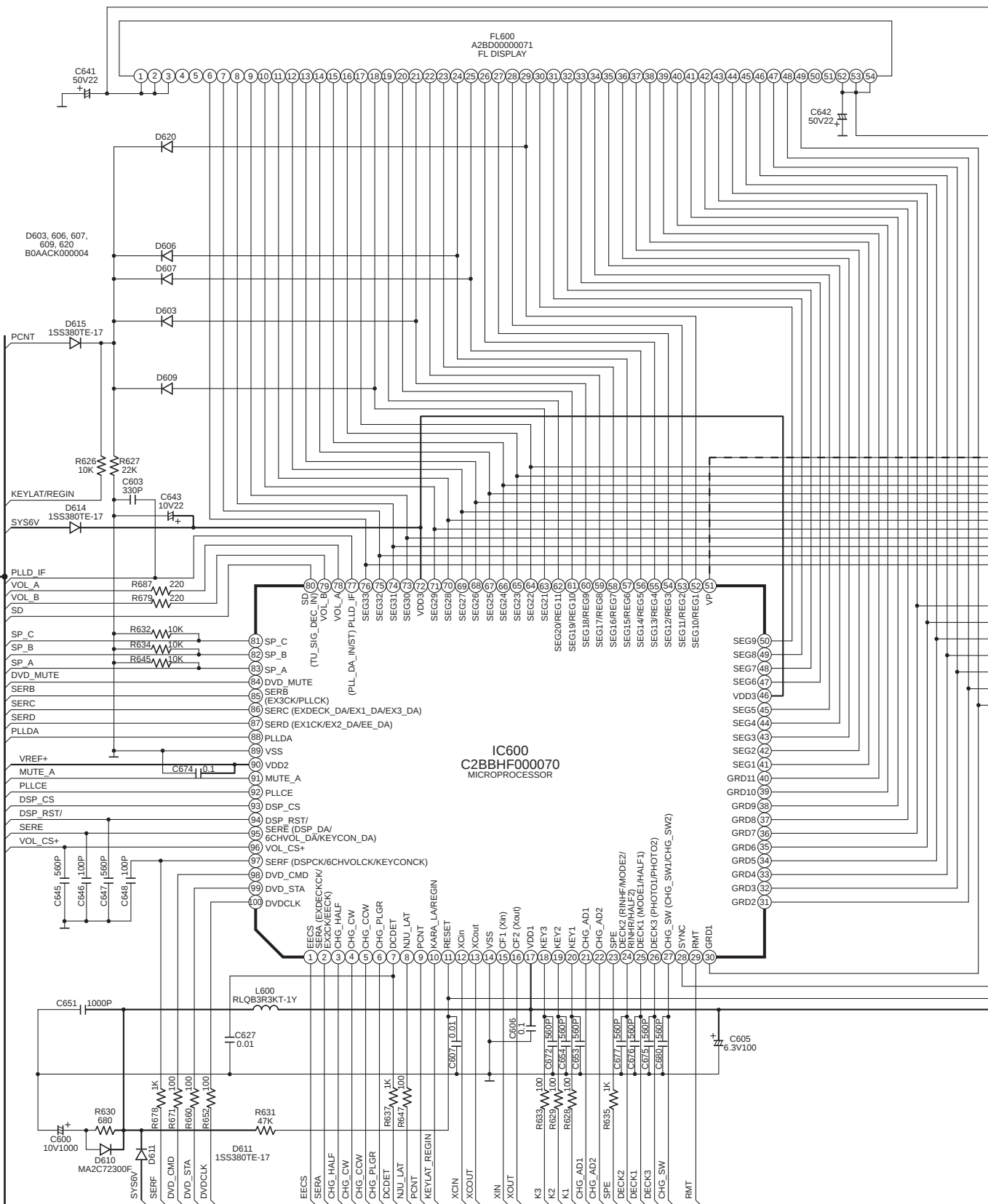


TO POWER SUPPLY CIRCUIT (CN900) ON SCHEMATIC DIAGRAM - 35



E

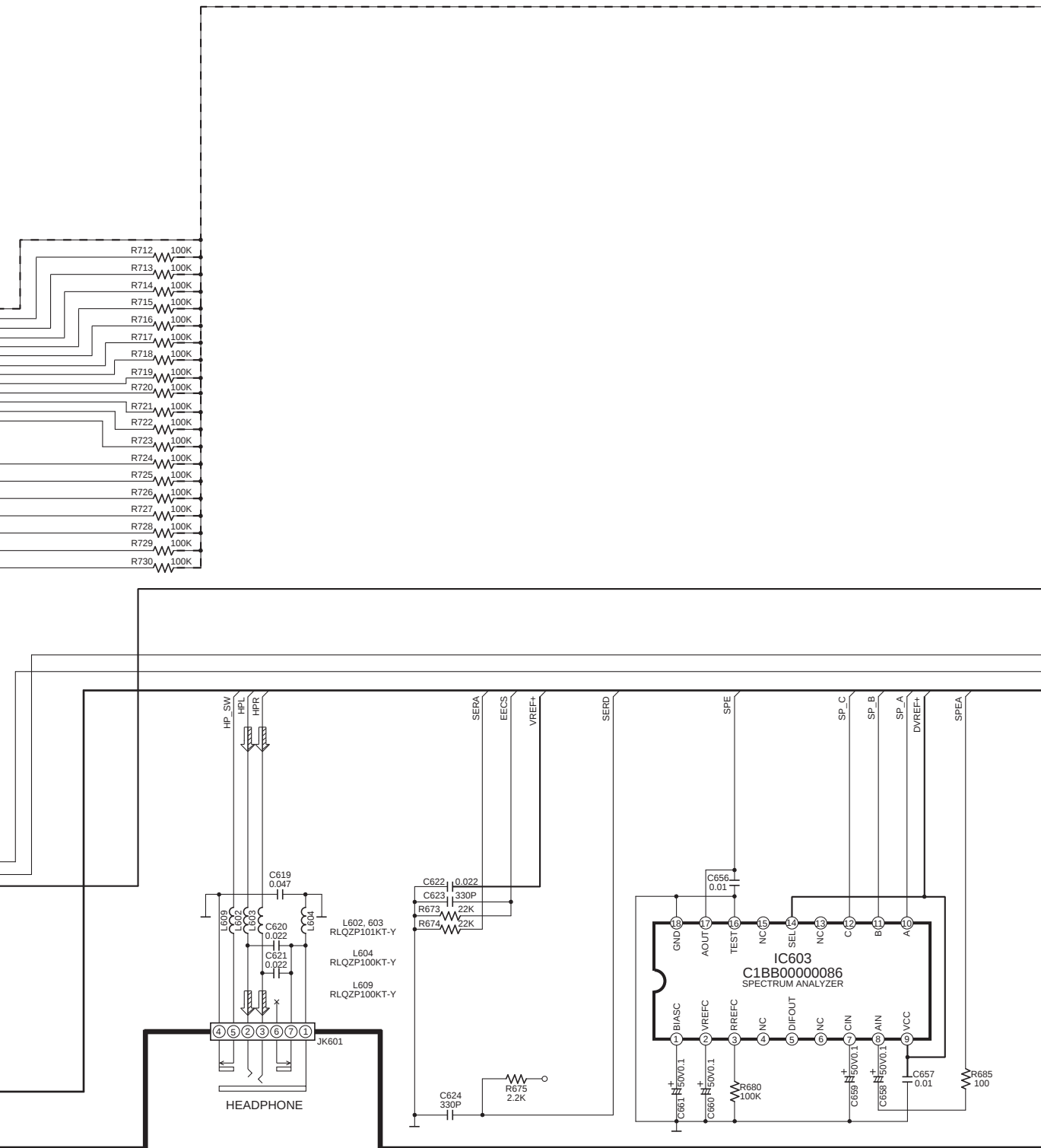
- - - : -B SIGNAL LINE
 ——— : +B SIGNAL LINE



SCHEMATIC DIAGRAM - 28

E PANEL CIRCUIT

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

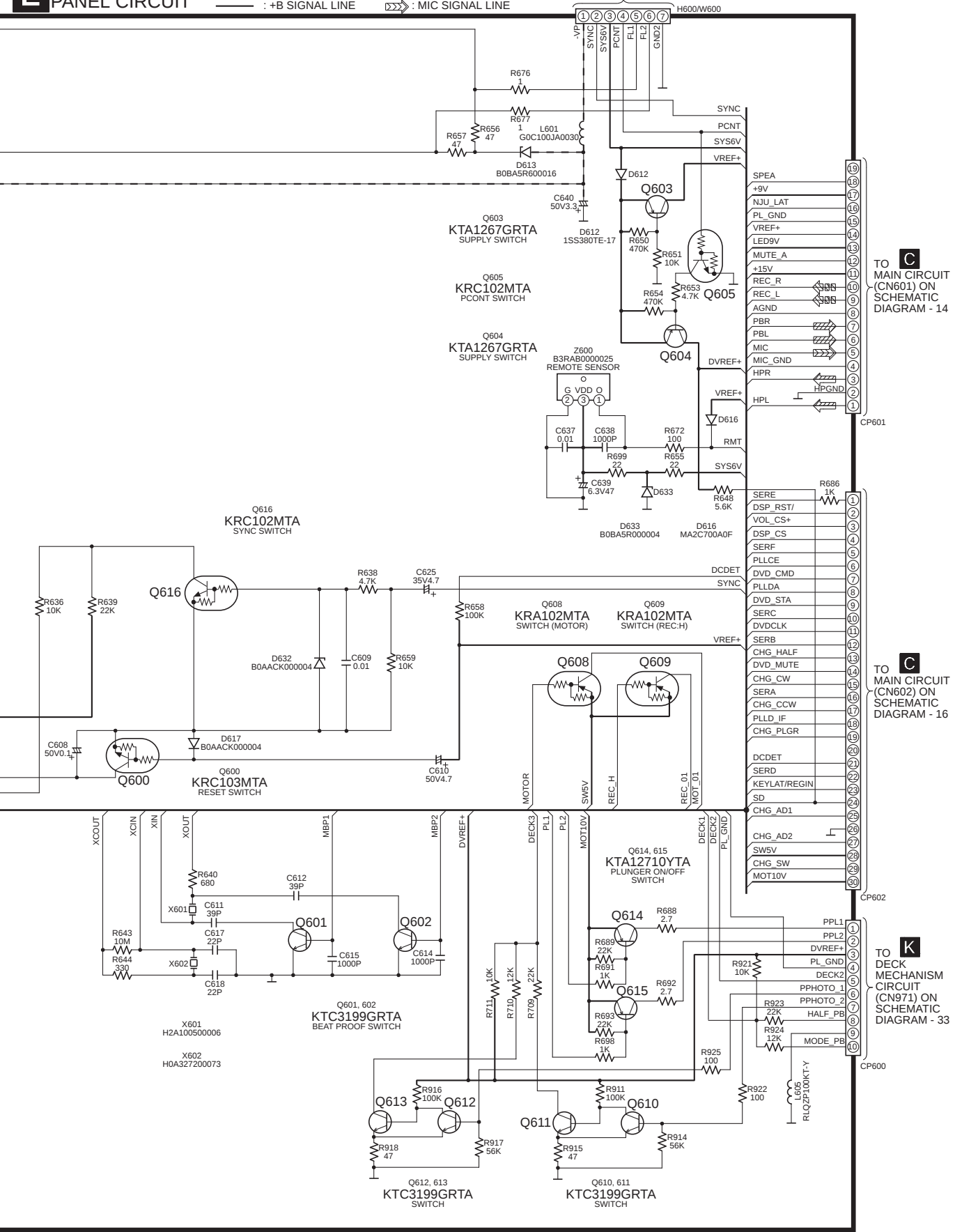


SCHEMATIC DIAGRAM - 29

E PANEL CIRCUIT

→ : MAIN SIGNAL LINE
--- : -B SIGNAL LINE
--- : +B SIGNAL LINE
▨ : PLAYBACK SIGNAL LINE
▨ : RECORD SIGNAL LINE
▨ : MIC SIGNAL LINE

TO POWER CIRCUIT
(CN954) ON
SCHEMATIC DIAGRAM - 38



G

H

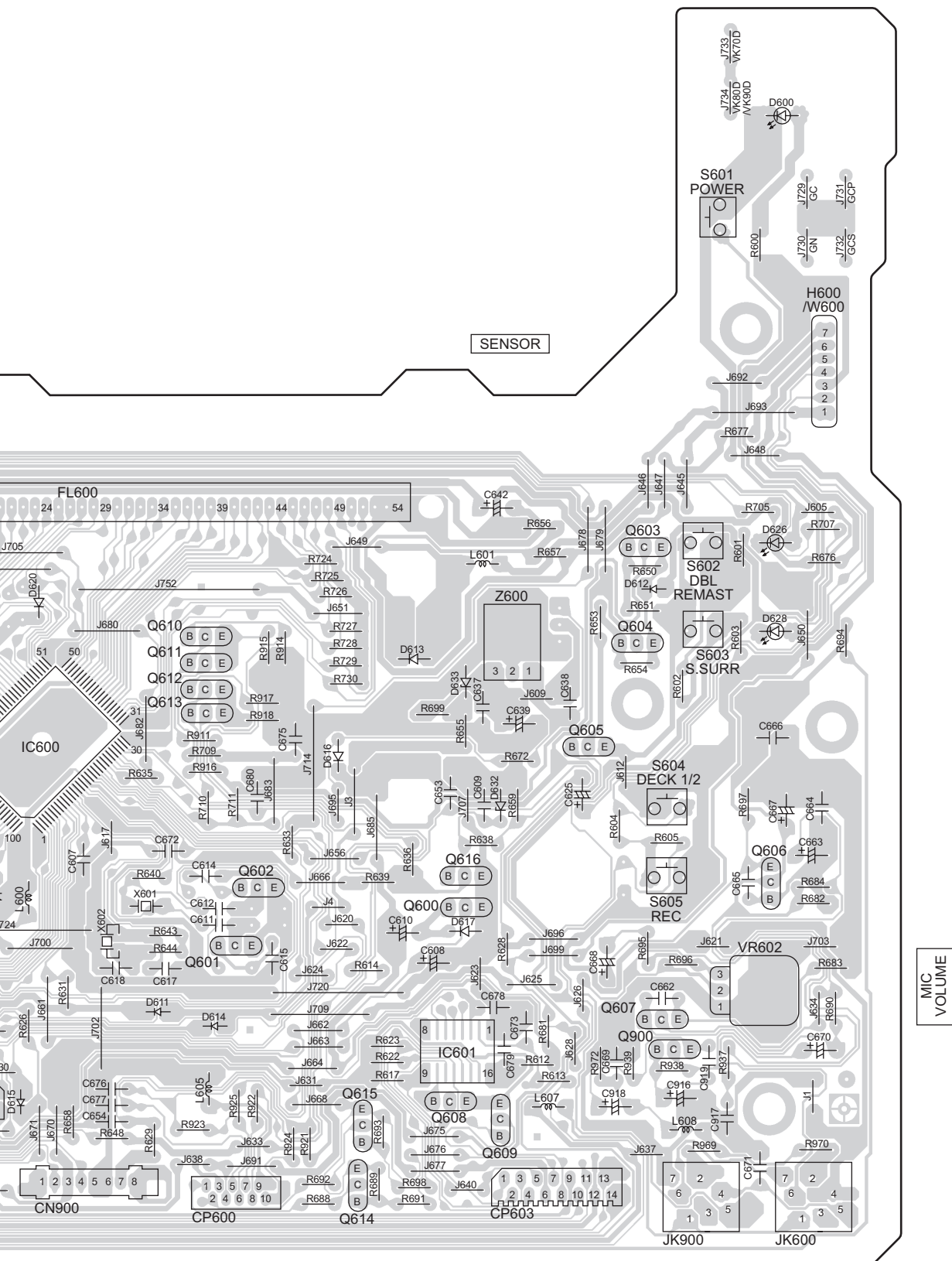
I

J

K

L

M



MIC 2

MIC 1

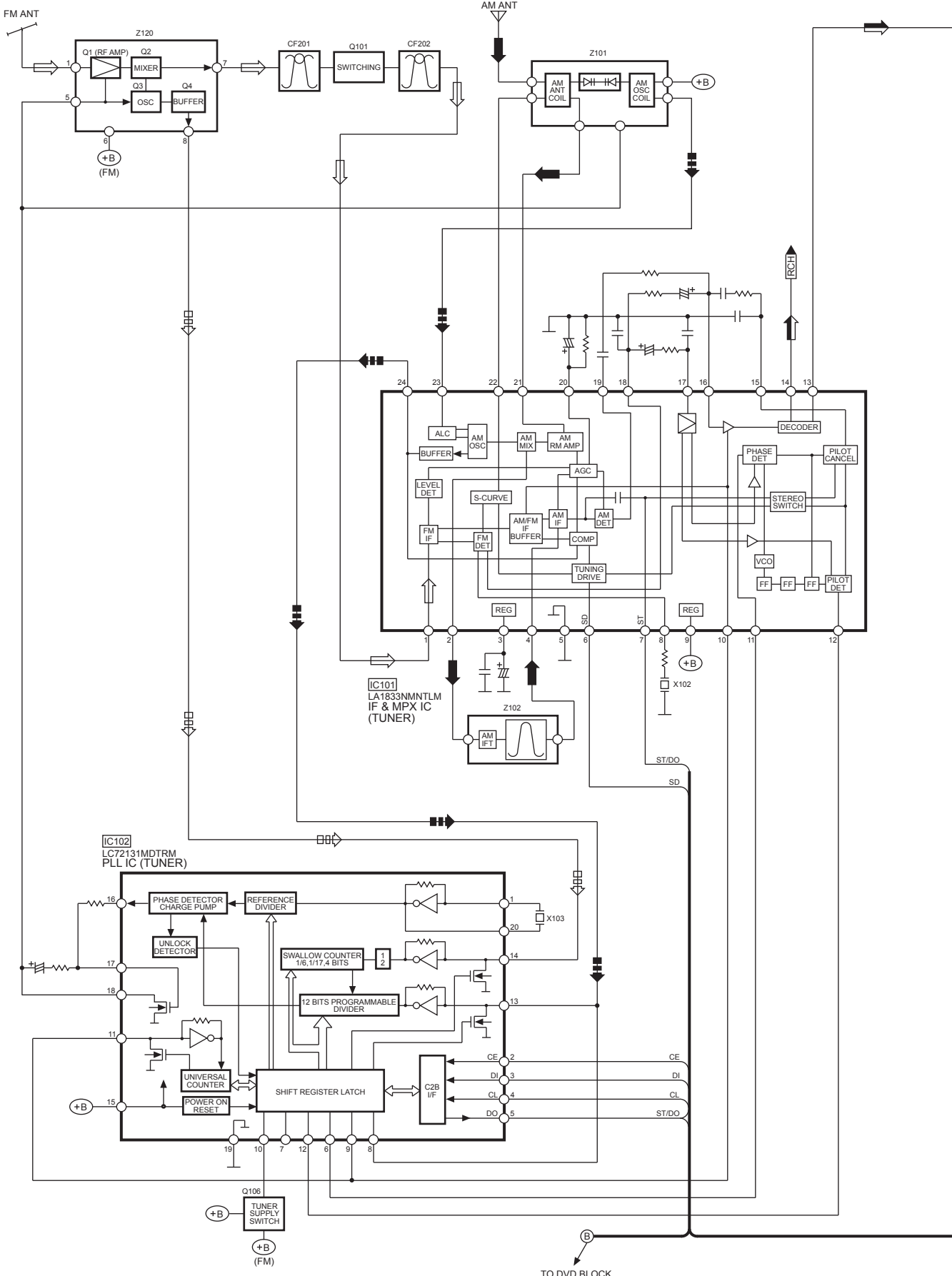
G

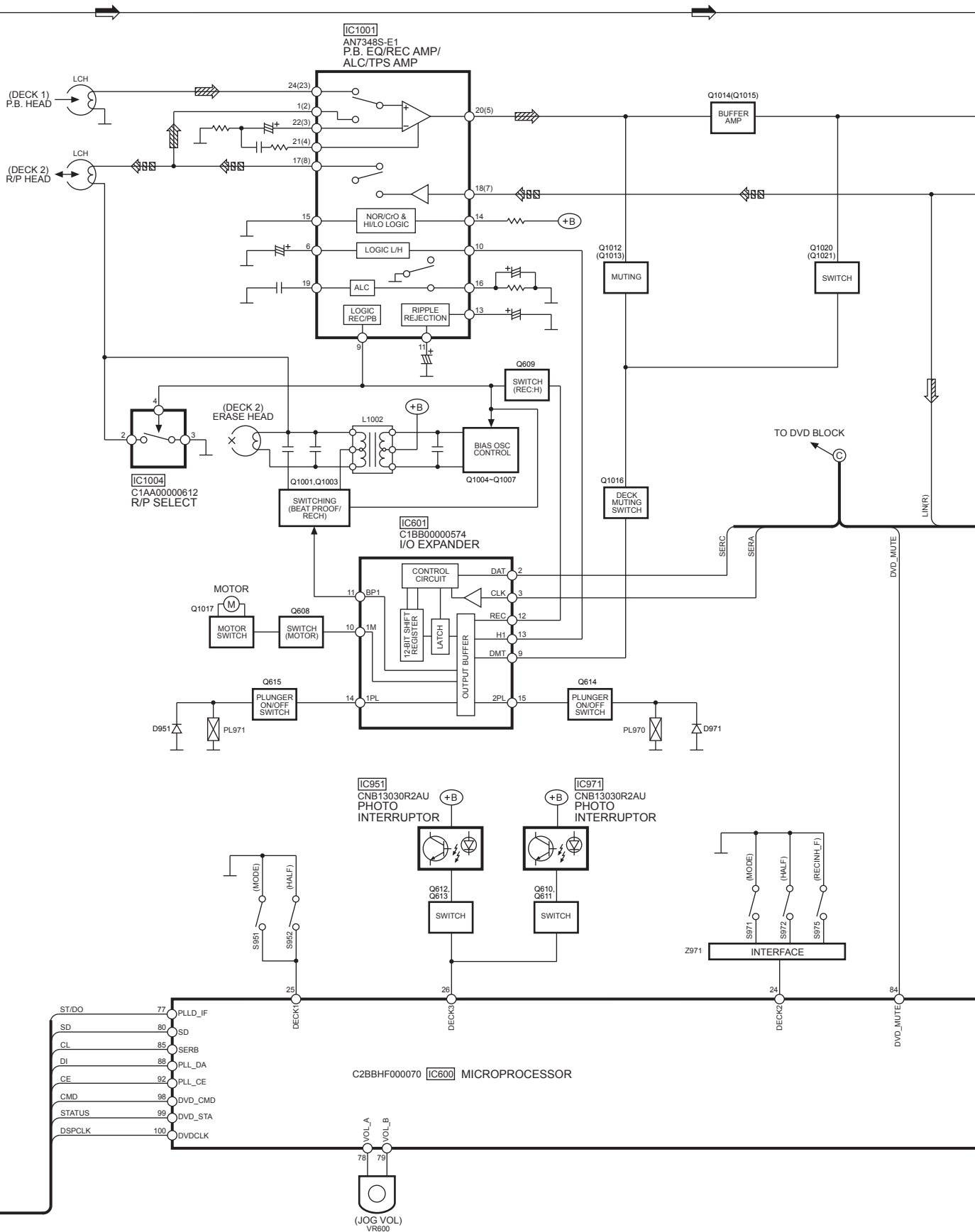
1
2
3
4
5
6
7
8
9

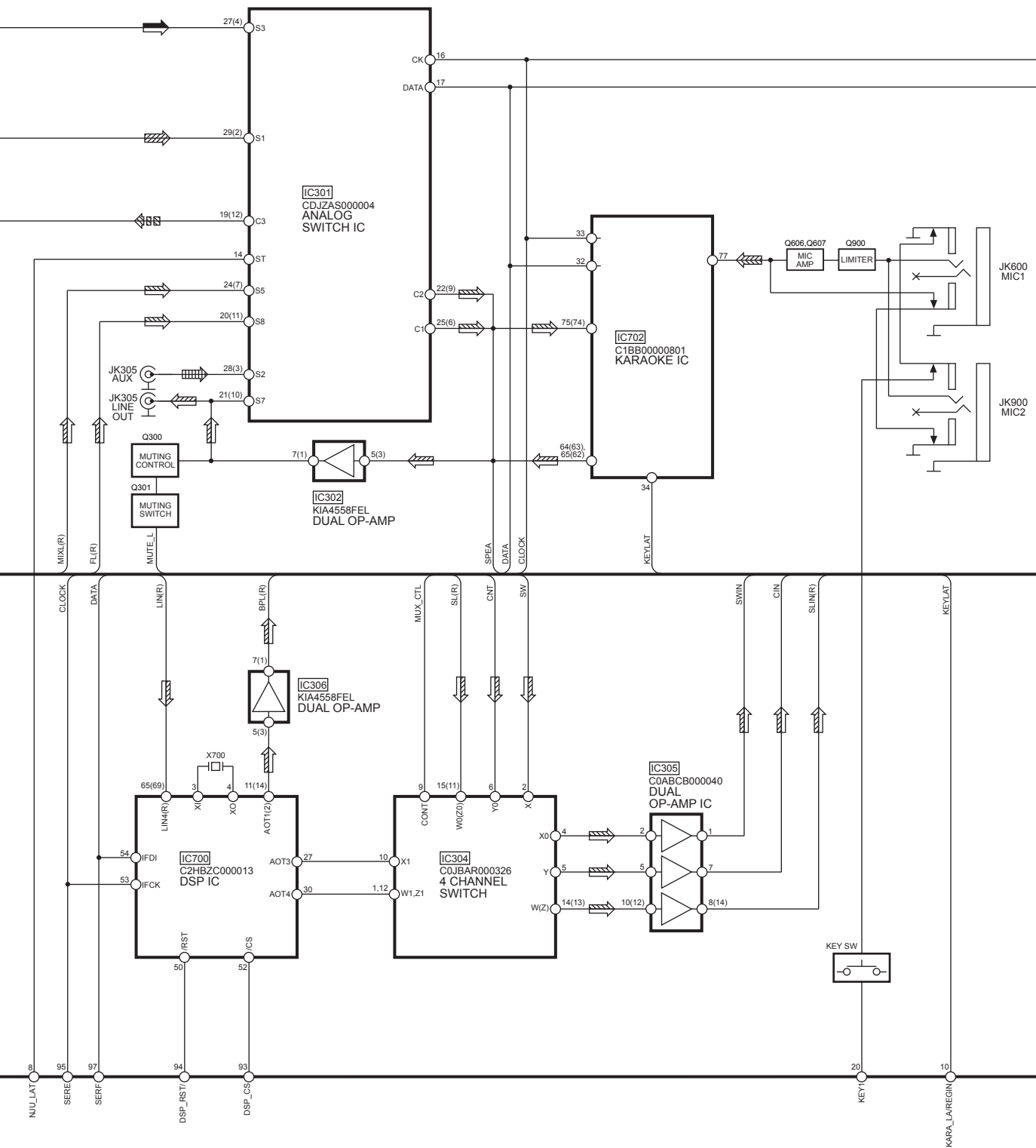


PbF

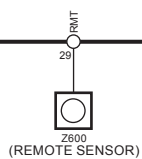
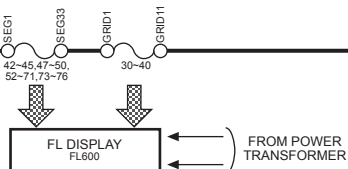
CP600

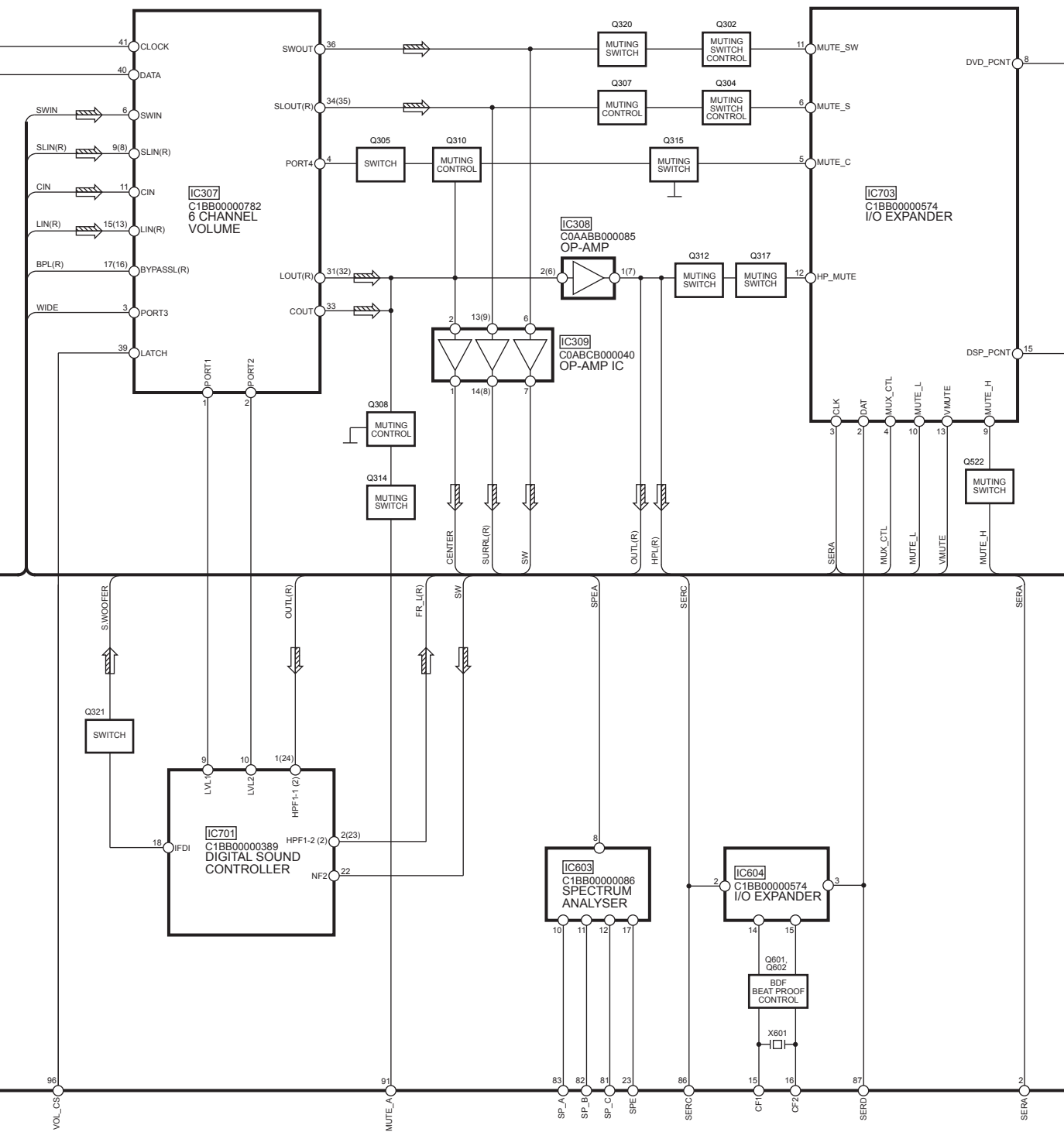




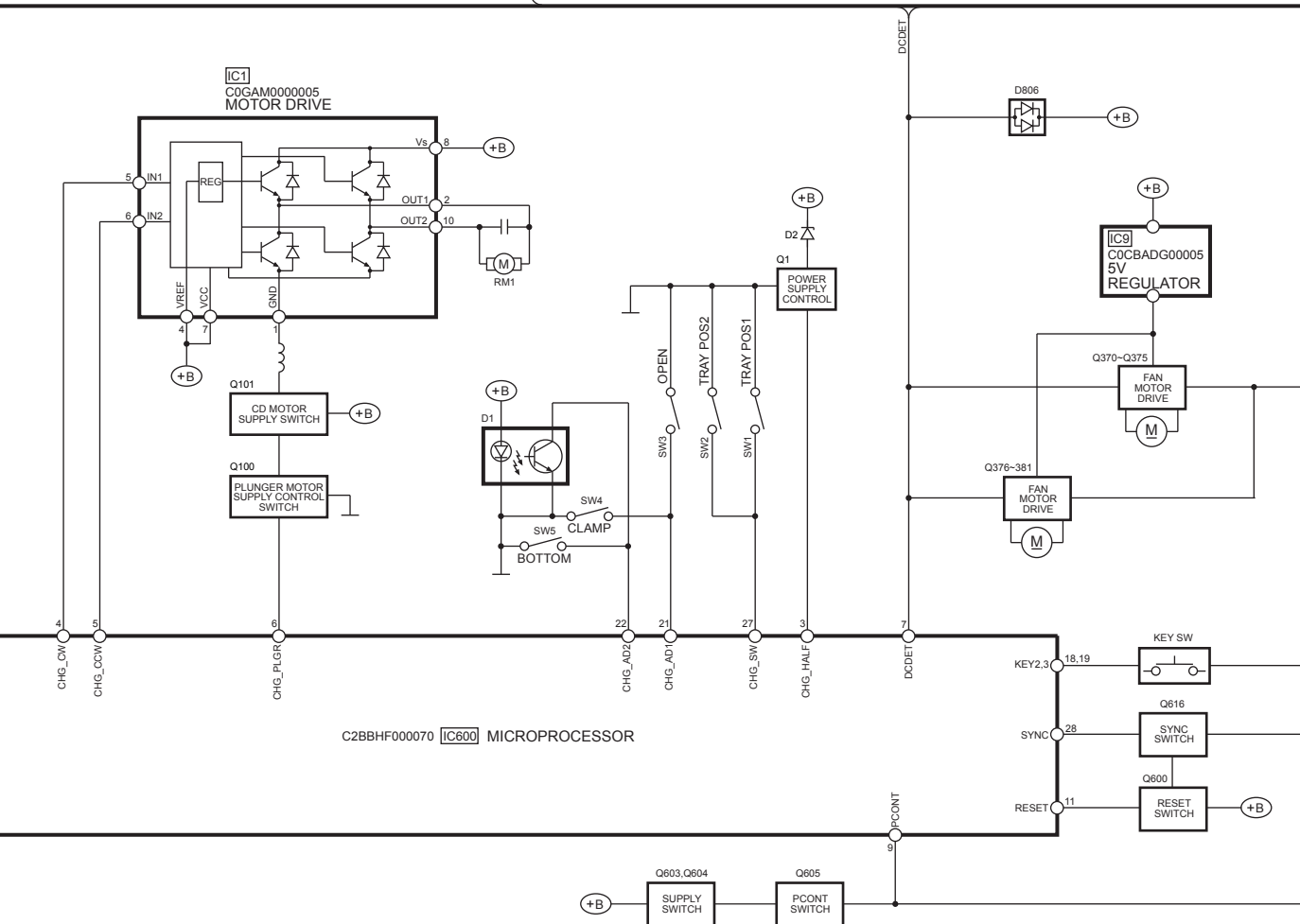
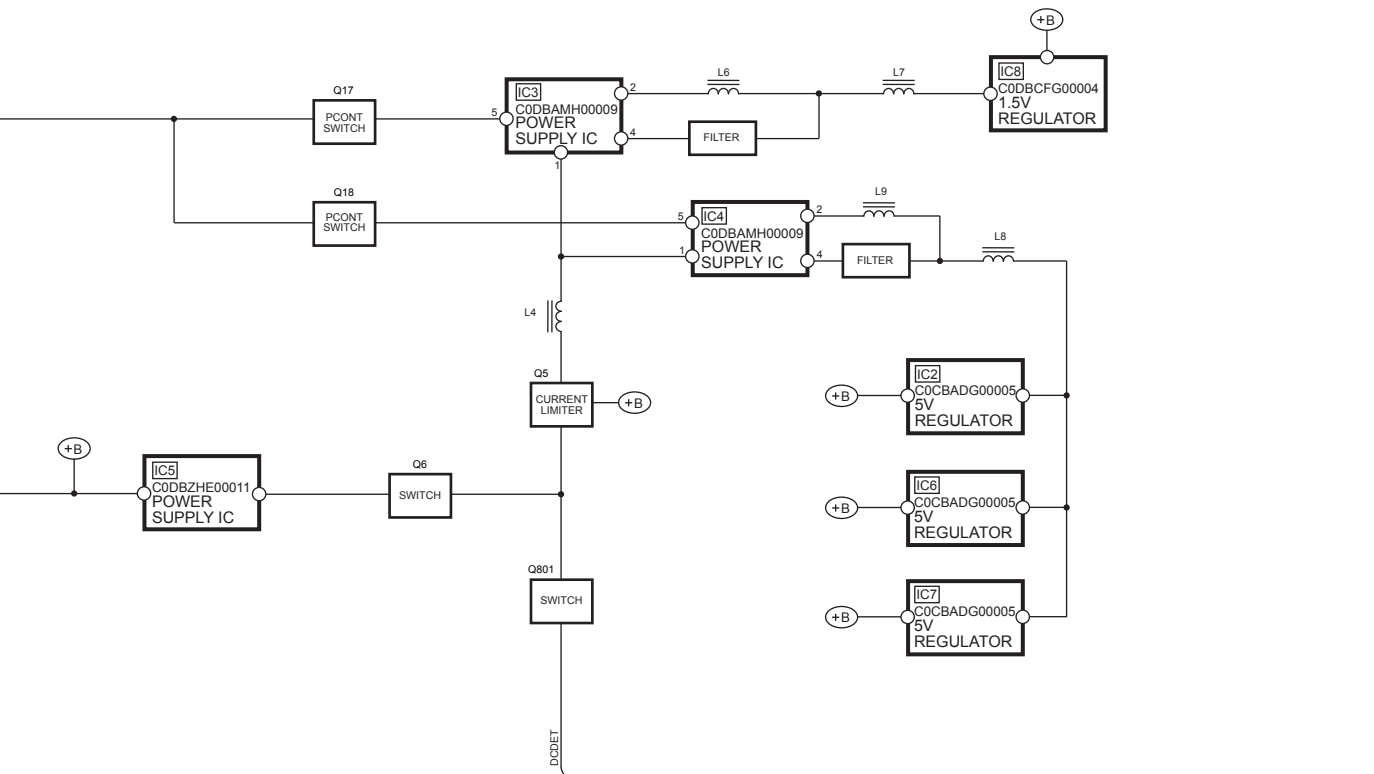


C2BBHF000070 **IC600** MICROPROCESSOR

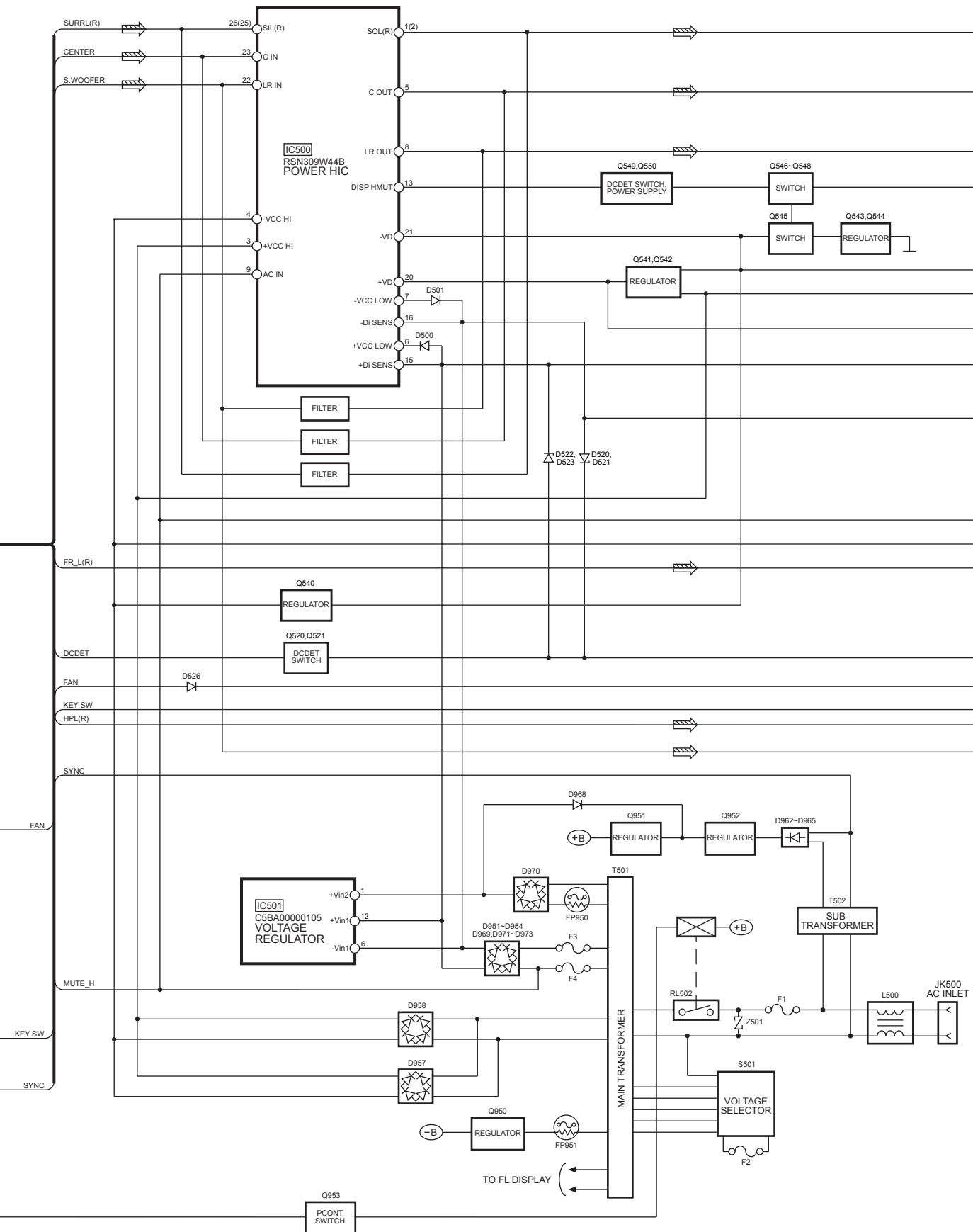


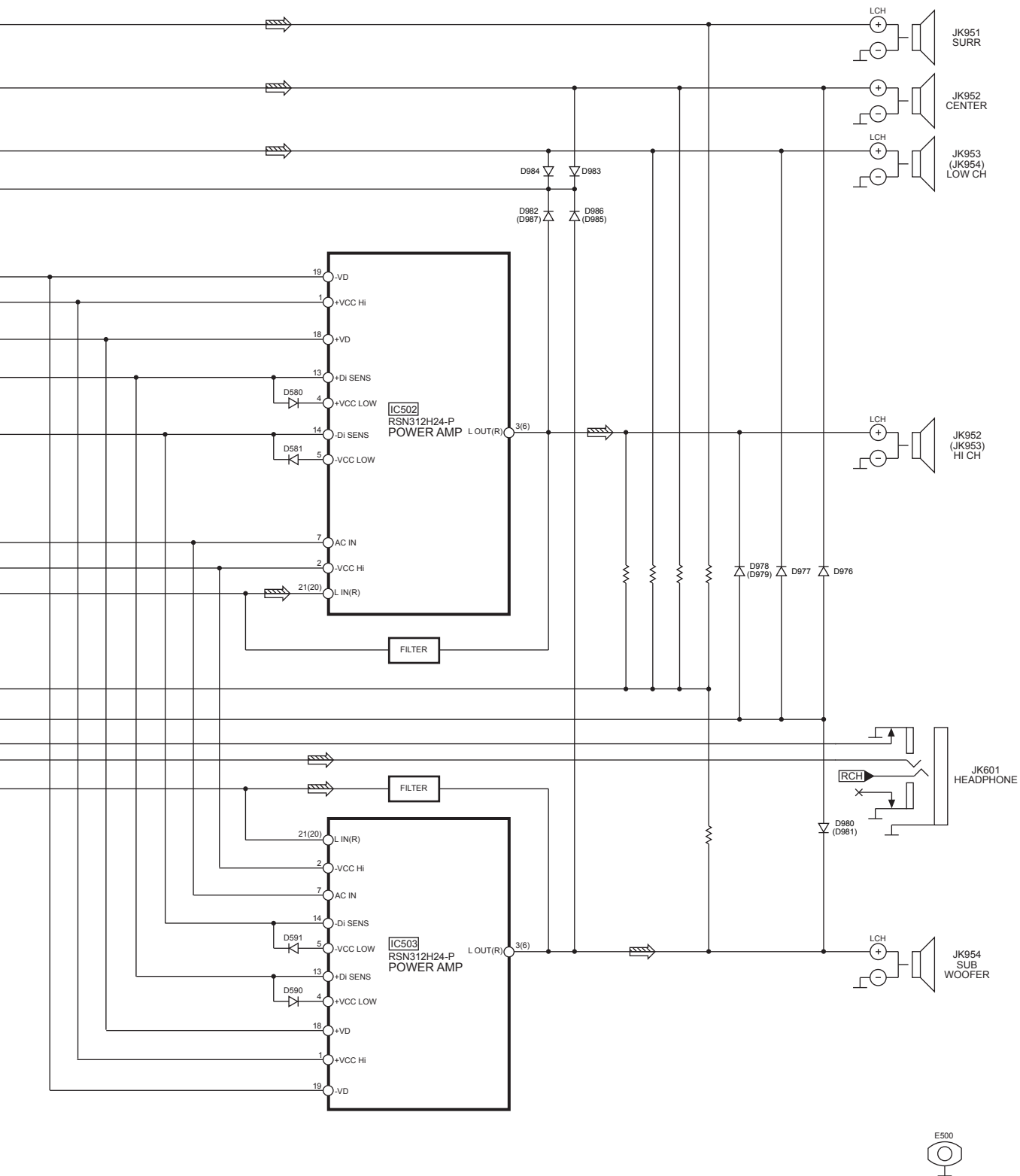


C2BBHF000070 IC600 MICROPROCESSOR



C2BBHF000070 [IC600] MICROPROCESSOR



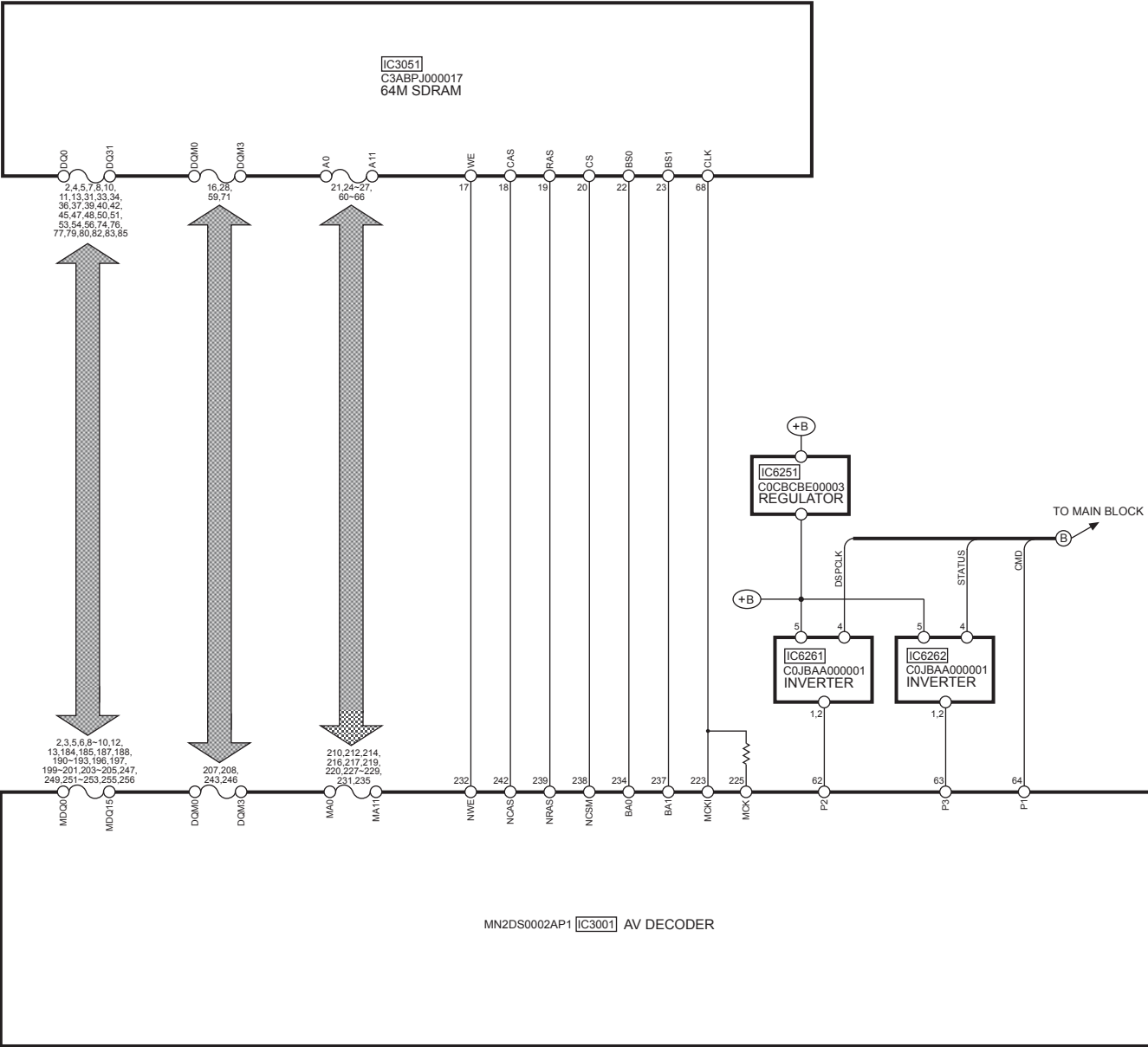


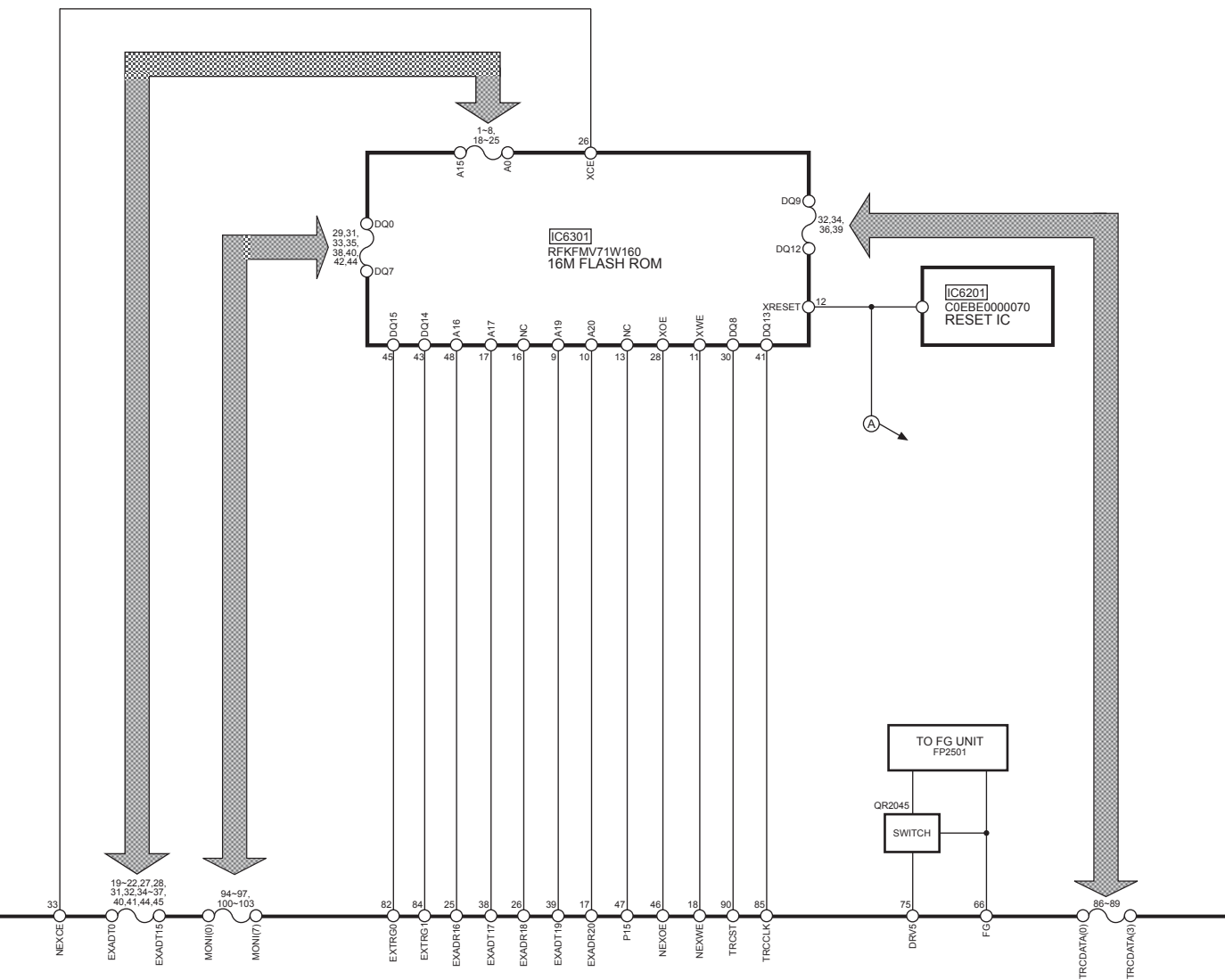
SIGNAL LINES

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

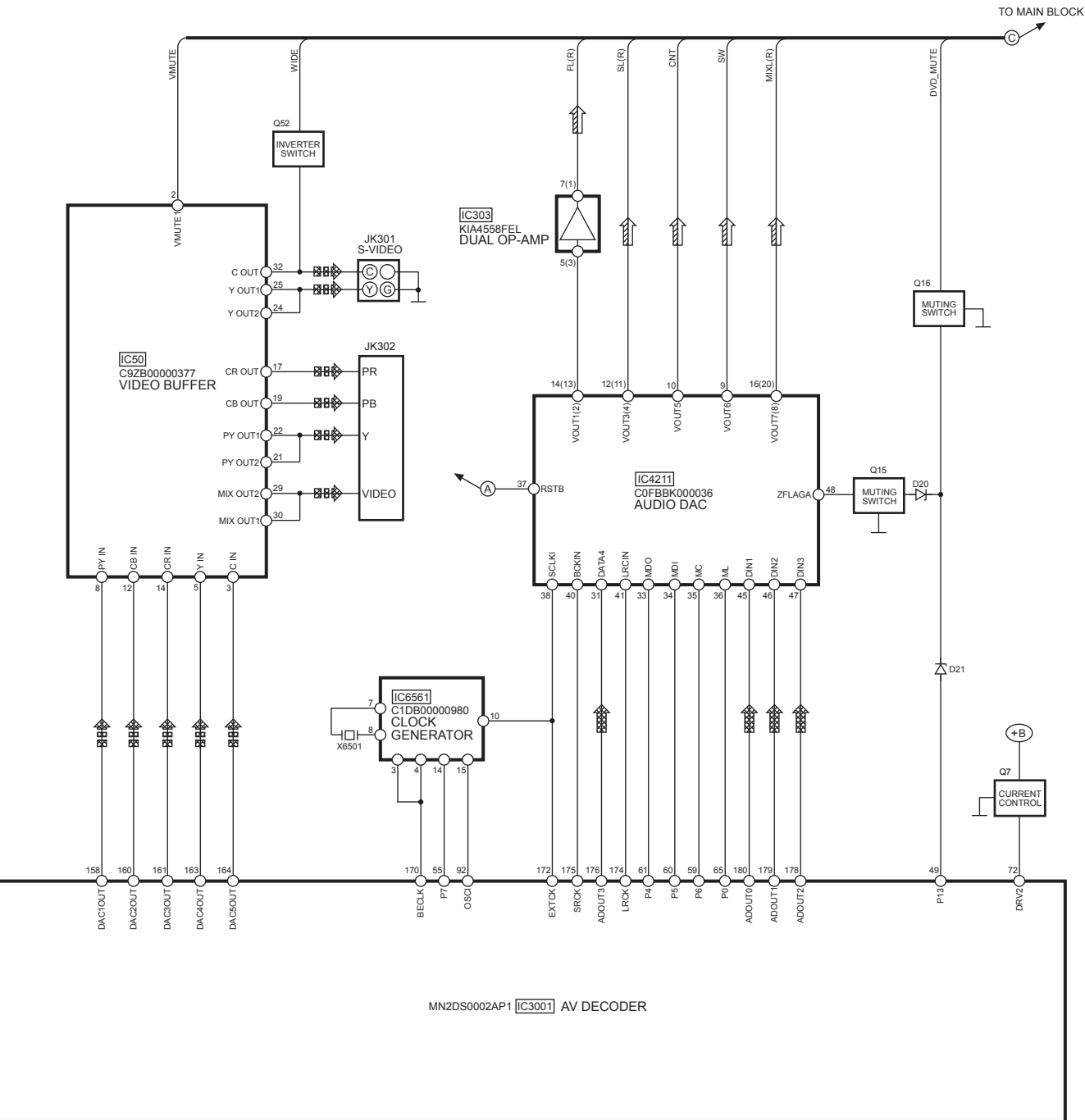
() Indicates the Pin No. of Right Channel.

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



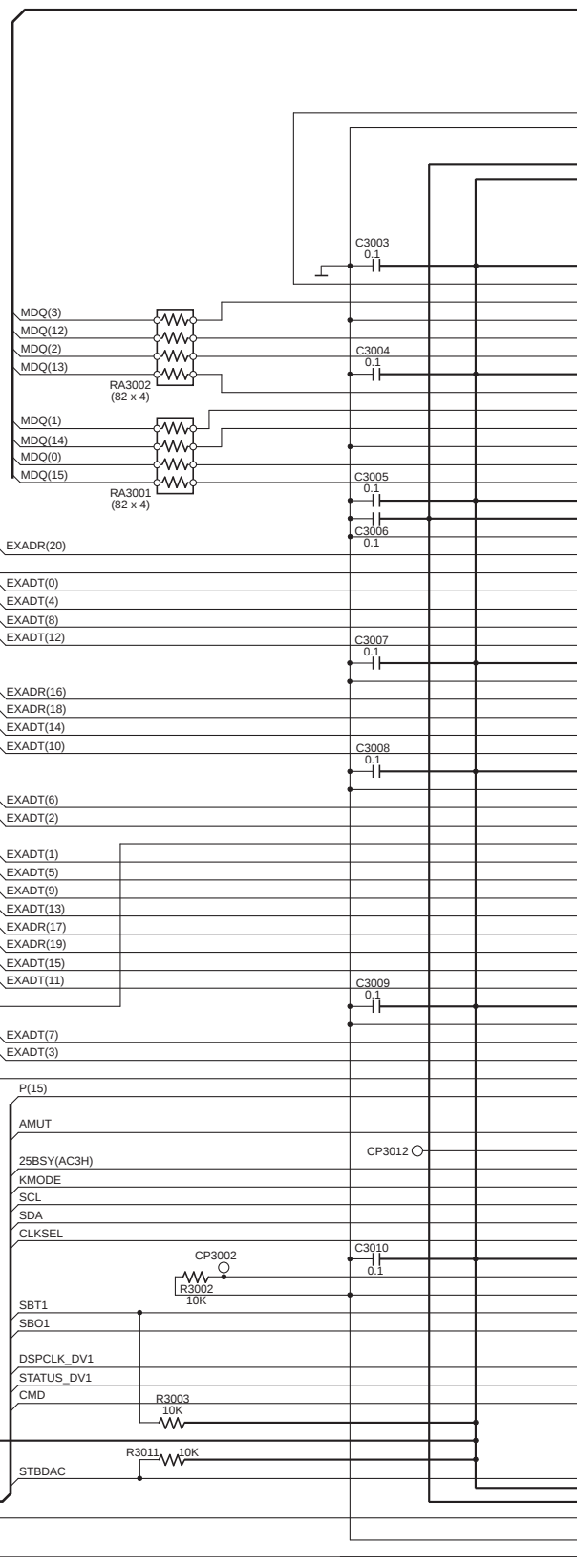
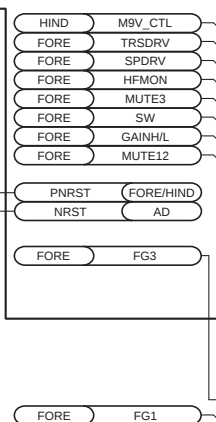
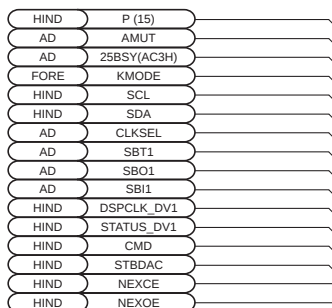
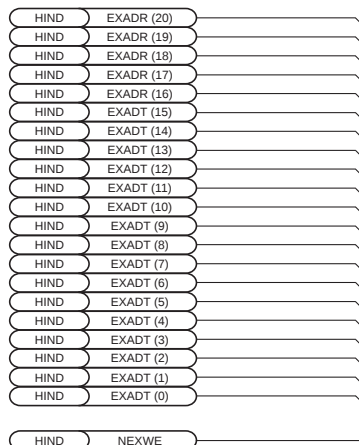
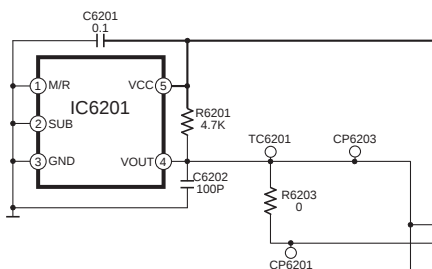


MN2DS0002AP1 **IC3001** AV DECODER



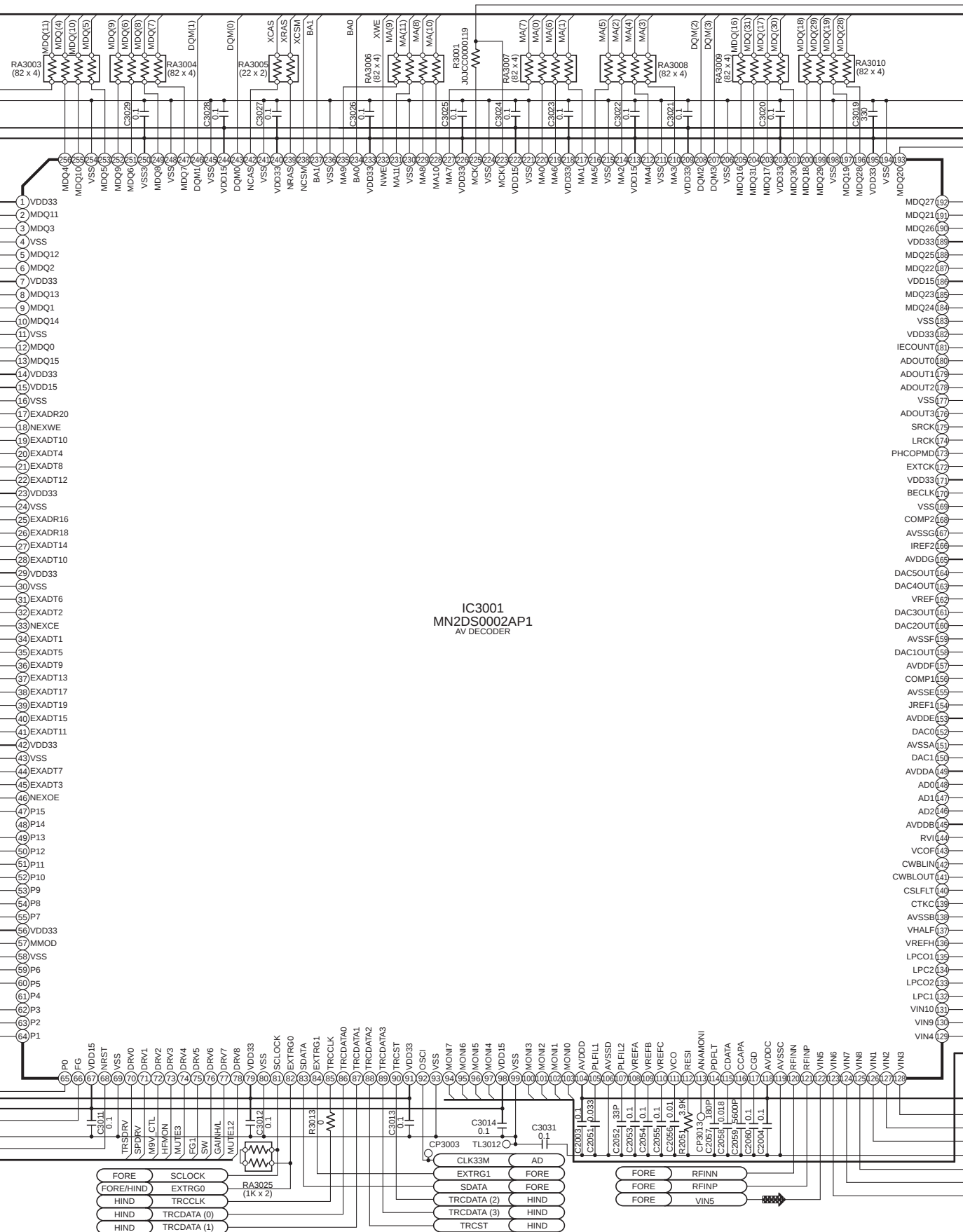
MN2DS0002AP1 **IC3001** AV DECODER

IC6201
C0EBE0000070
RESET IC



B DVD MODULE 2 (DV1) CIRCUIT

CD-DA SIGNAL LINE
+B SIGNAL LINE



SCHEMATIC DIAGRAM - 7

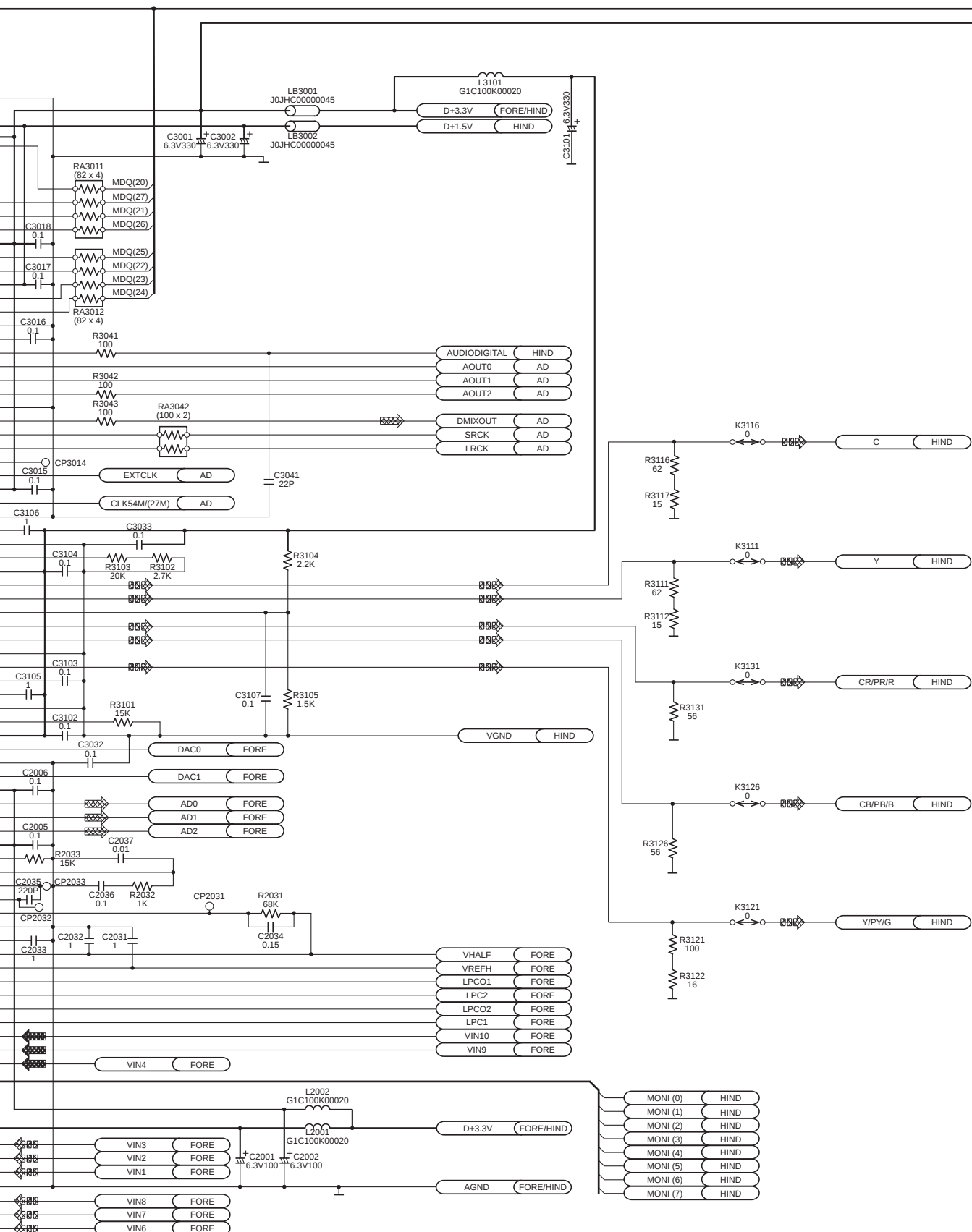
DVD MODULE 2 (DV1) CIRCUIT

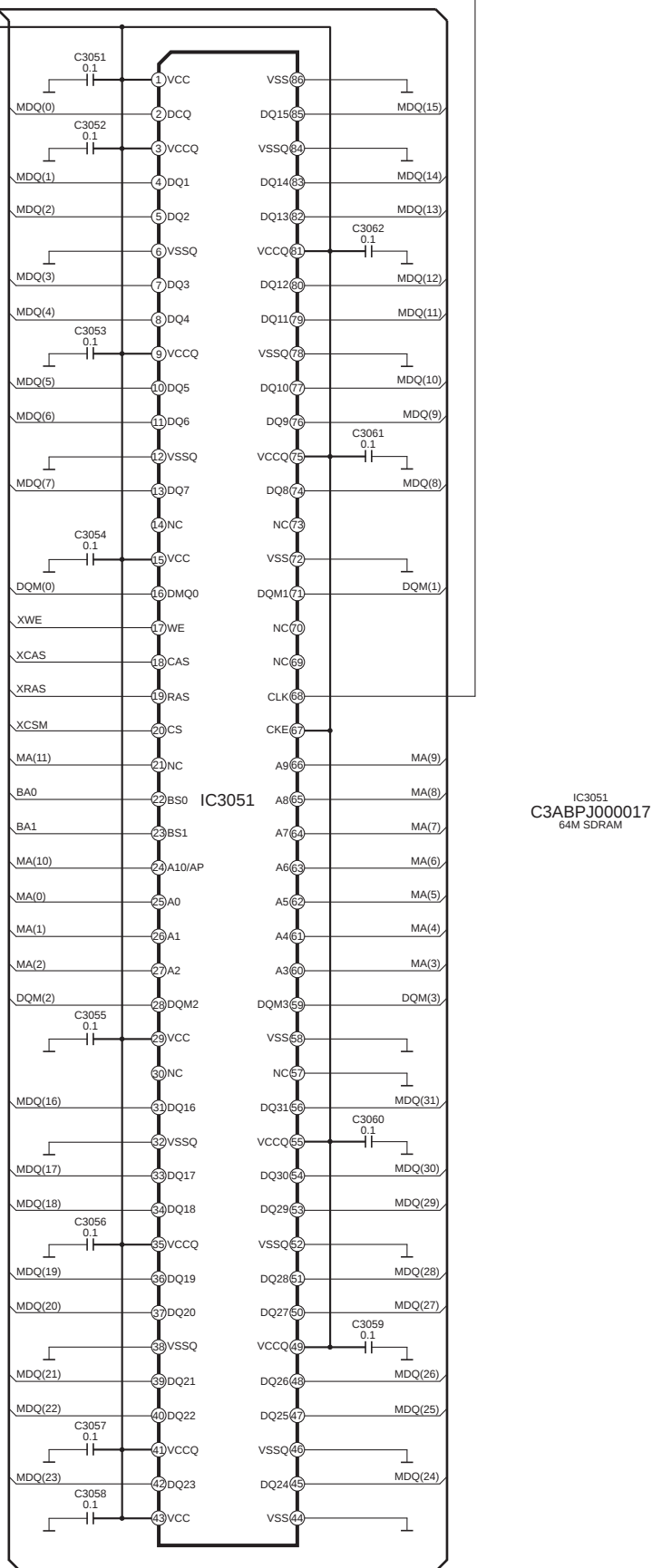
CD-DA SIGNAL LINE

DVD (AUDIO) SIGNAL LINE

+B SIGNAL LINE

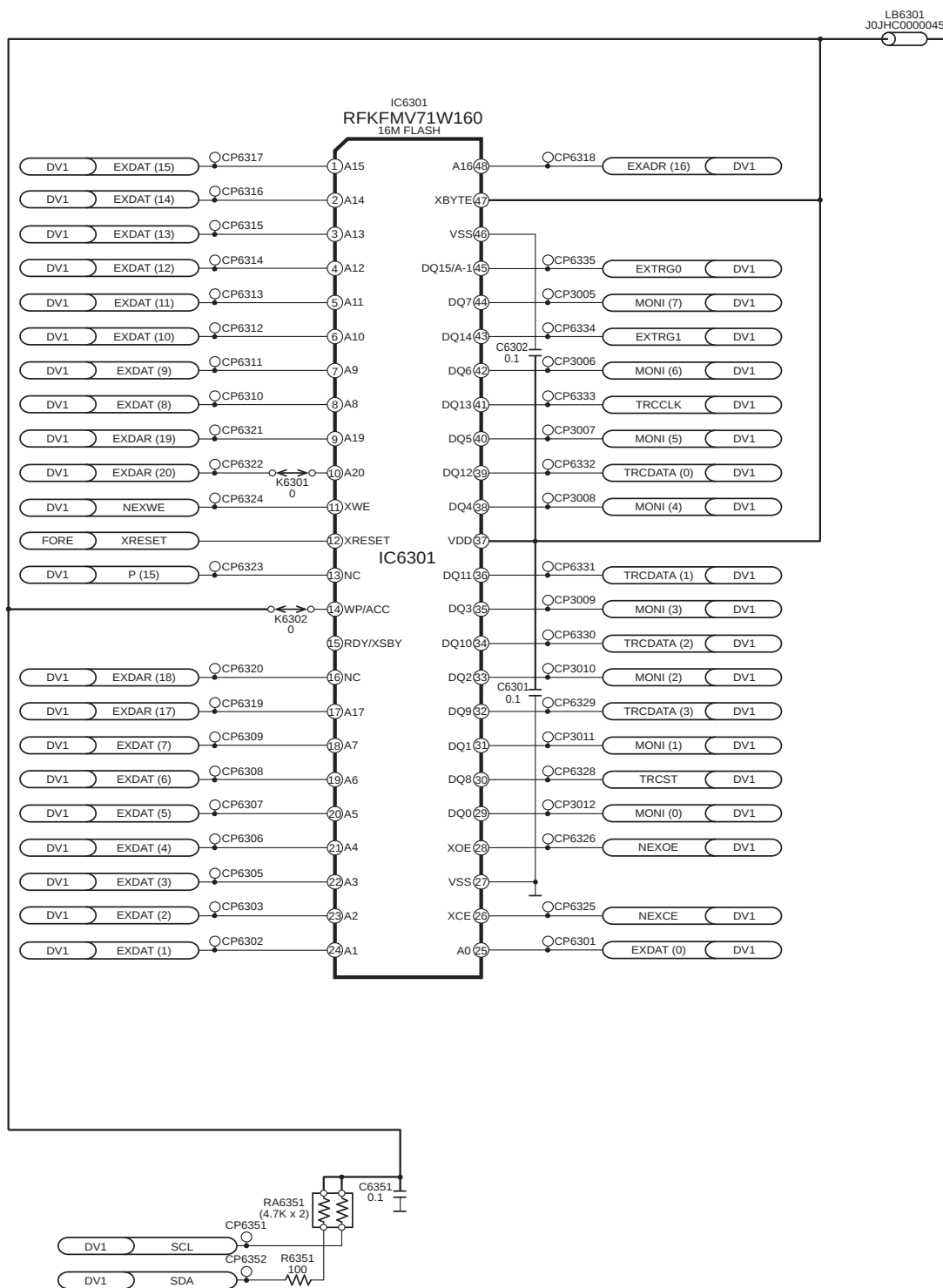
DVD (VIDEO) SIGNAL LINE

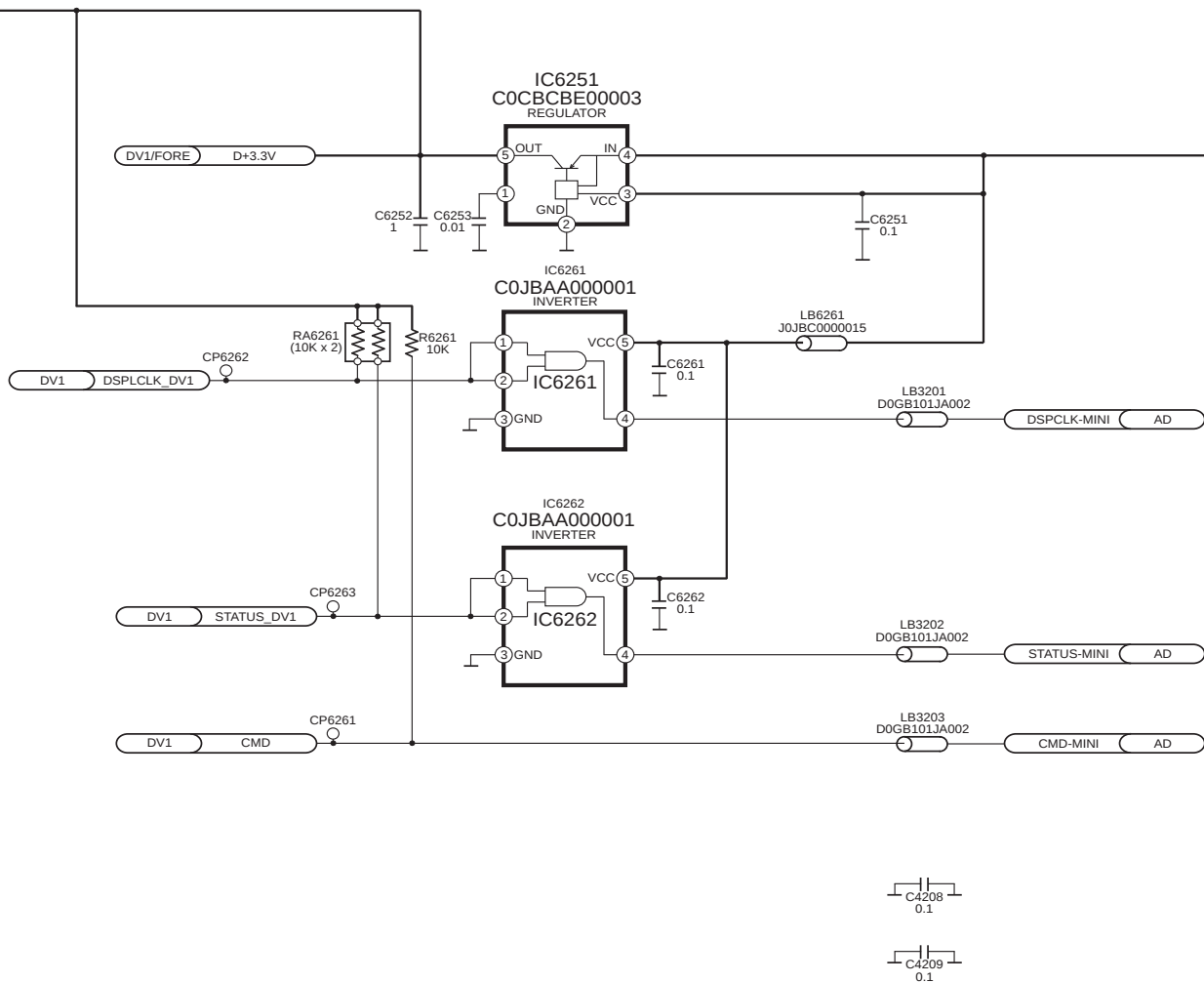




B DVD MODULE 2 (HIND) CIRCUIT

: +B SIGNAL LINE

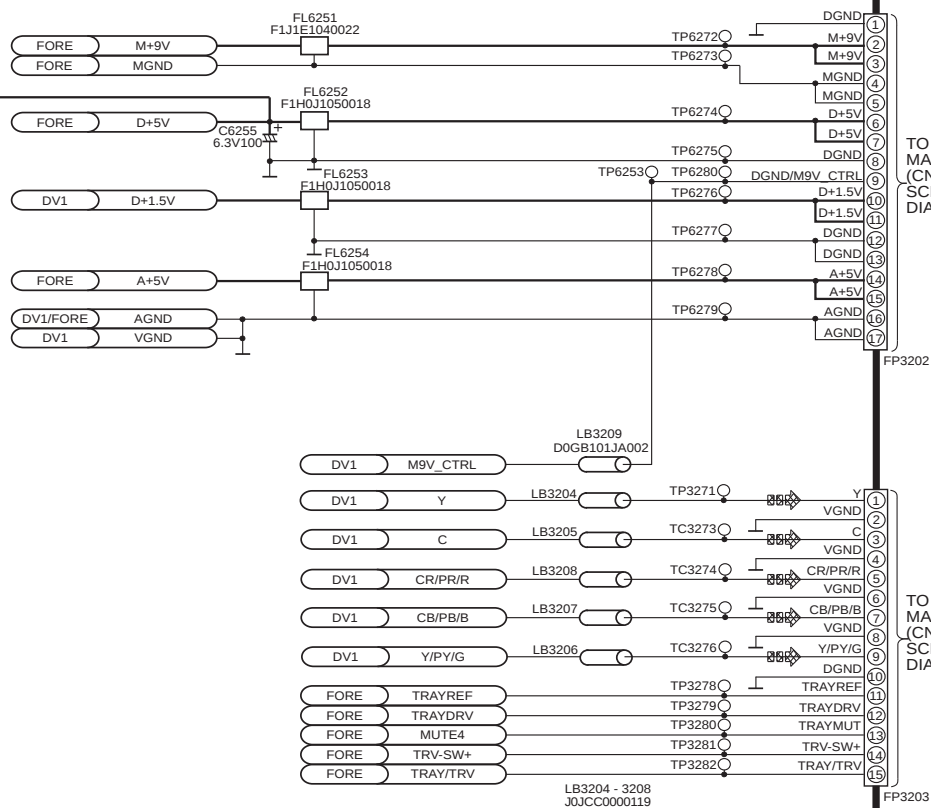




B DVD MODULE 2 (HIND) CIRCUIT

— : +B SIGNAL LINE

: DVD (VIDEO) SIGNAL LINE



A

B

C

D

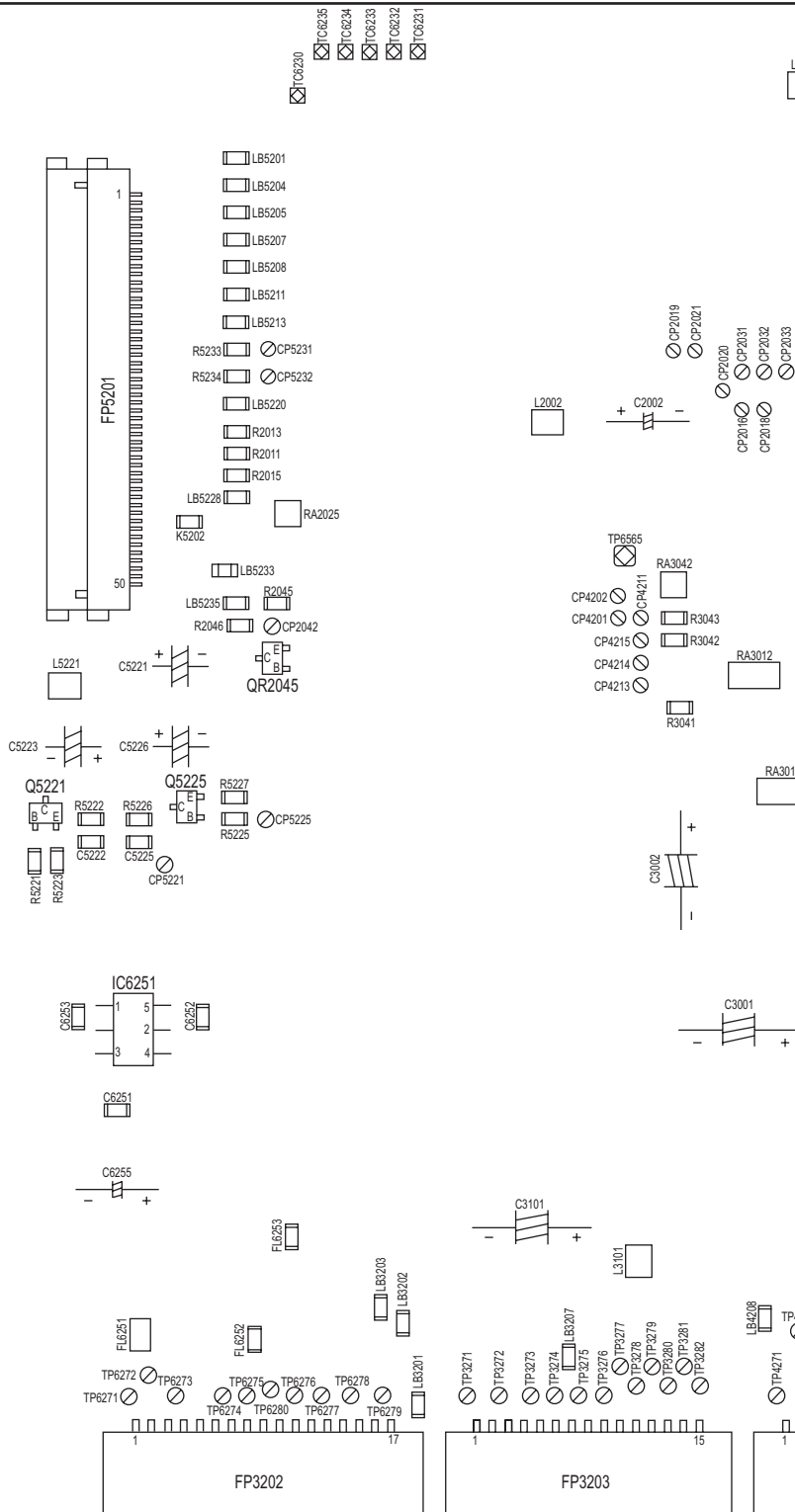
E

F

G

B

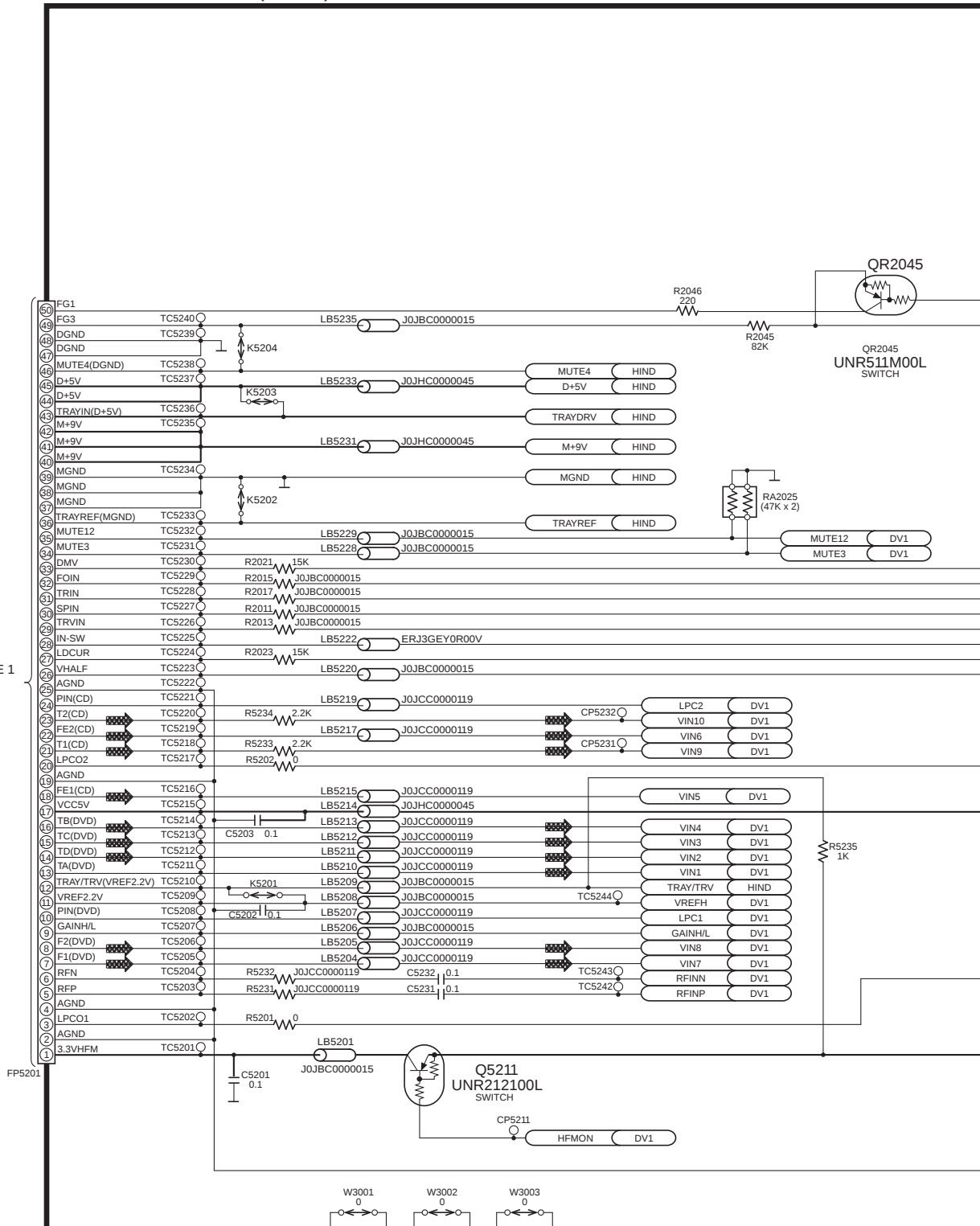
DVD MODULE(2) P.C.B (REP3587E)



(SIDE A)

B DVD MODULE 2 (FORE) CIRCUIT

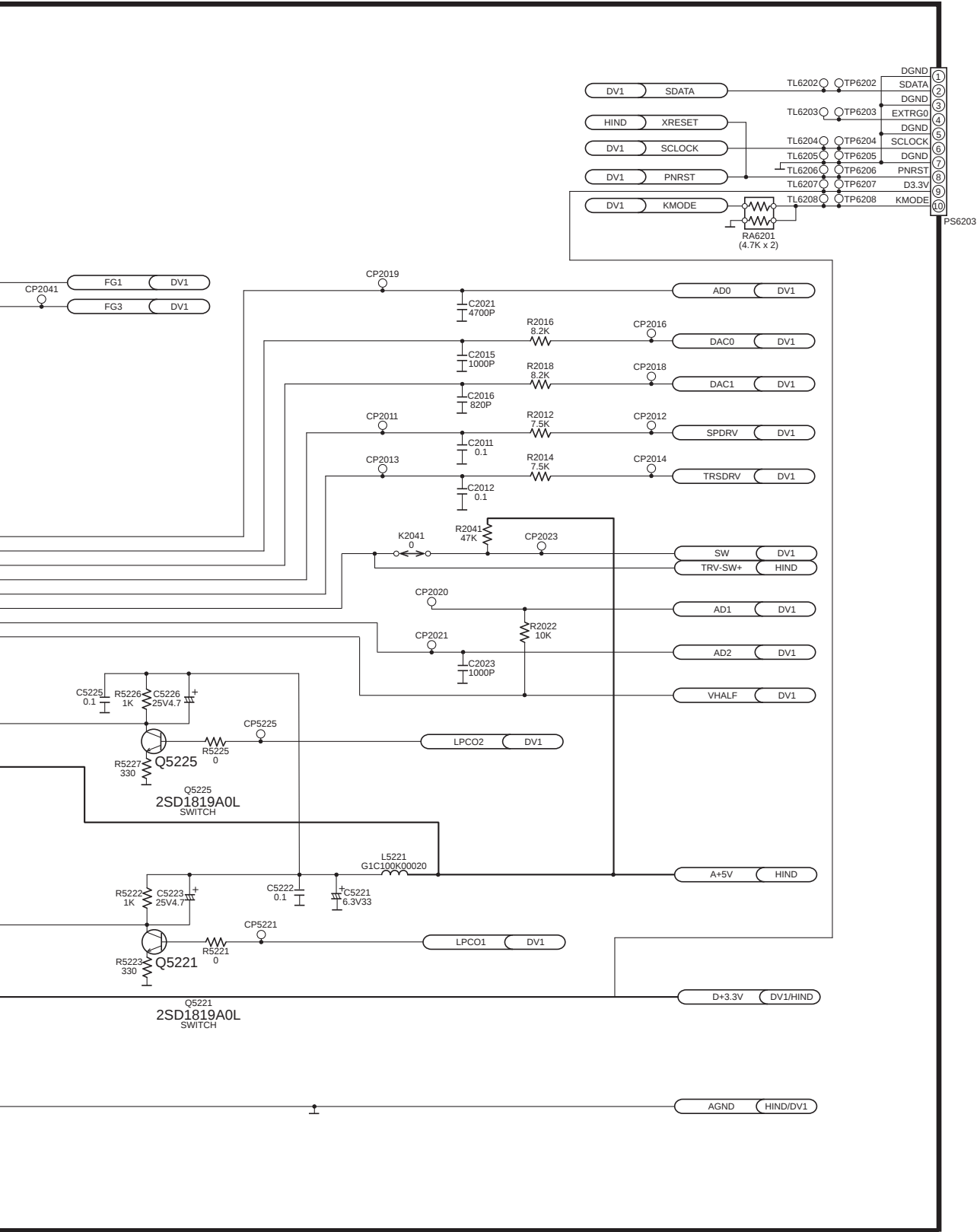
- : +B SIGNAL LINE



SCHEMATIC DIAGRAM - 4

B DVD MODULE 2 (FORE) CIRCUIT

—— : +B SIGNAL LINE

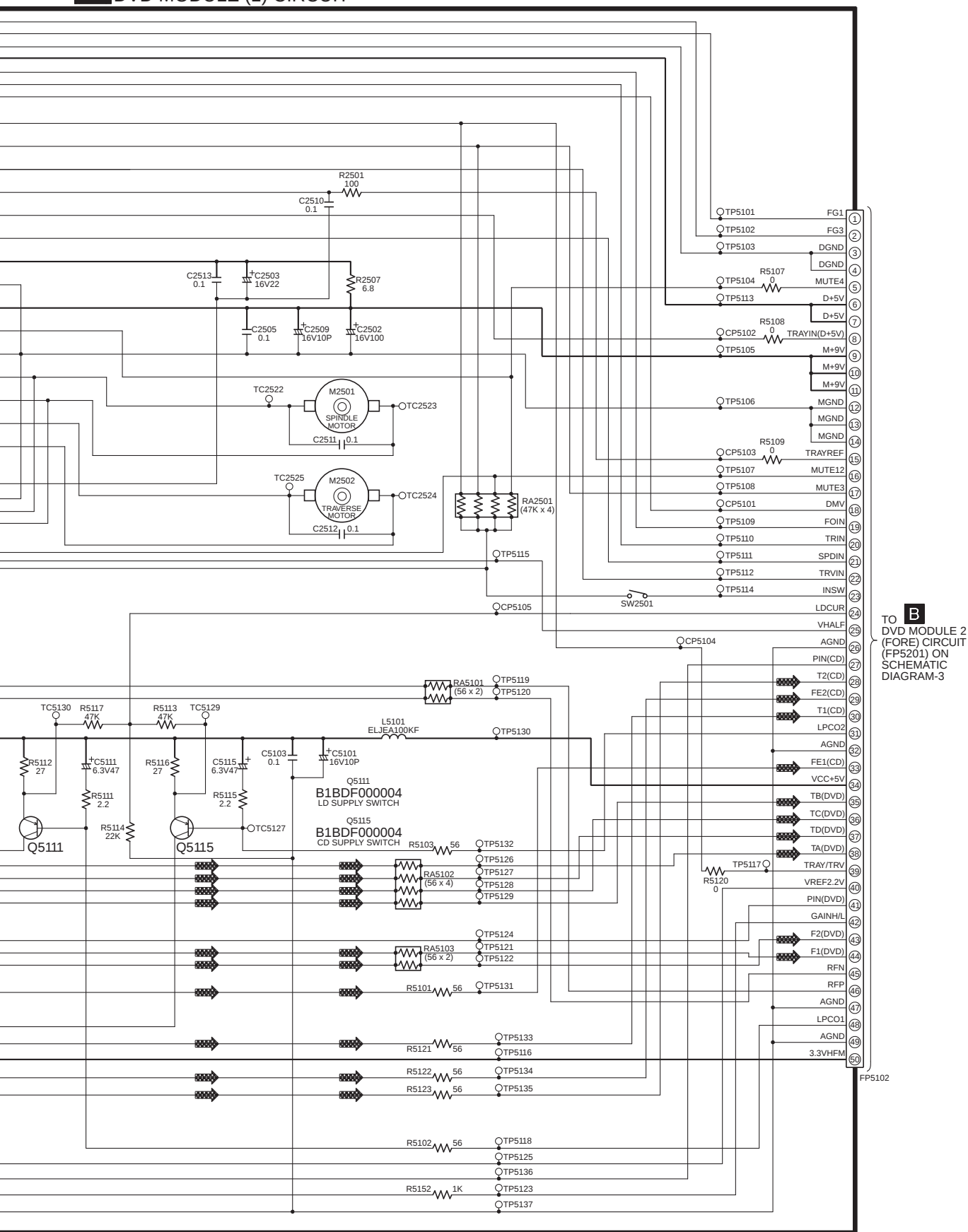


SCHEMATIC DIAGRAM-2

A DVD MODULE (1) CIRCUIT

→ : CD-DA SIGNAL LINE

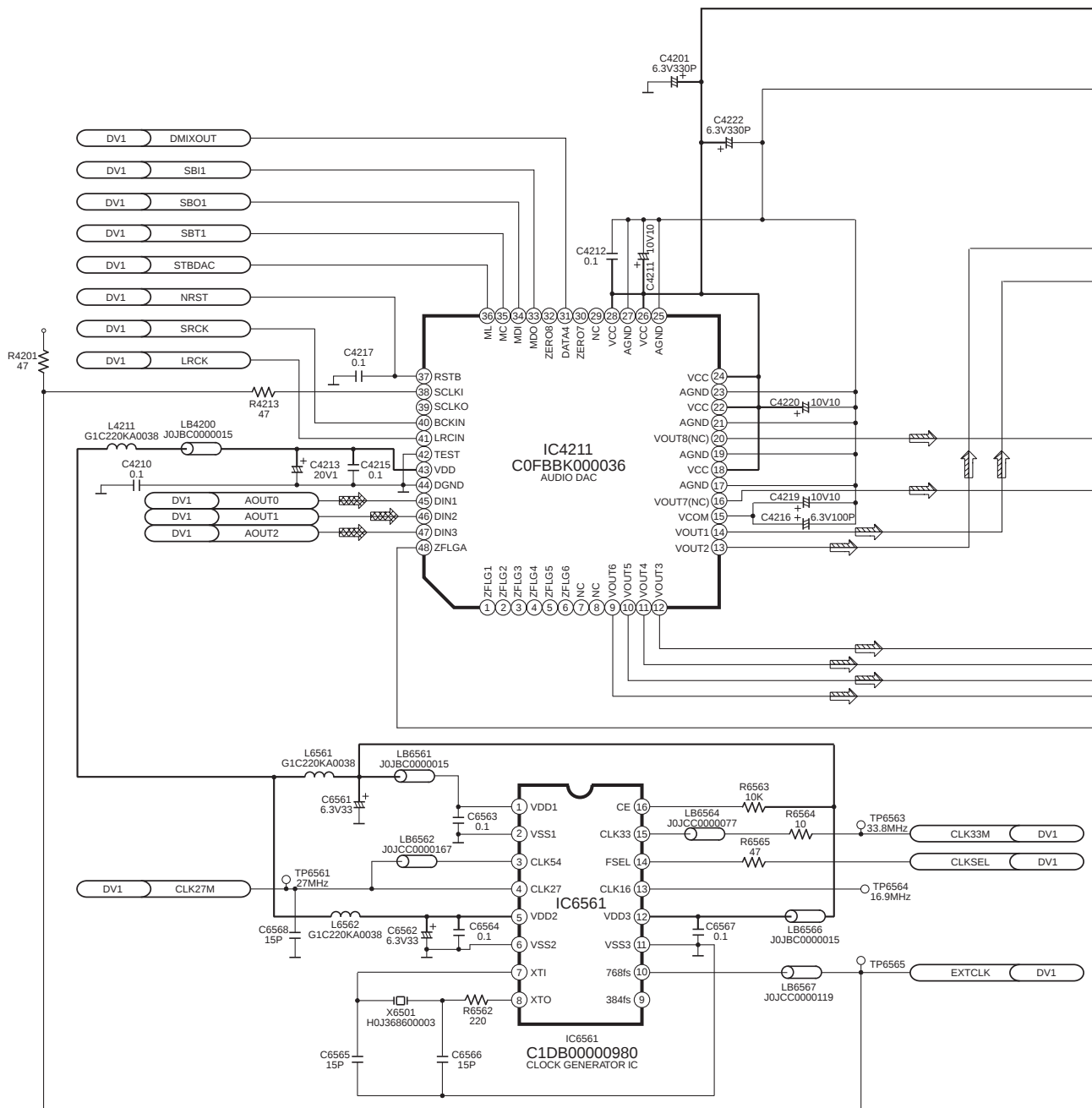
— : +B SIGNAL LINE



TO DVD MODULE 2
(FORE) CIRCUIT
(FP5201) ON
SCHEMATIC
DIAGRAM-3

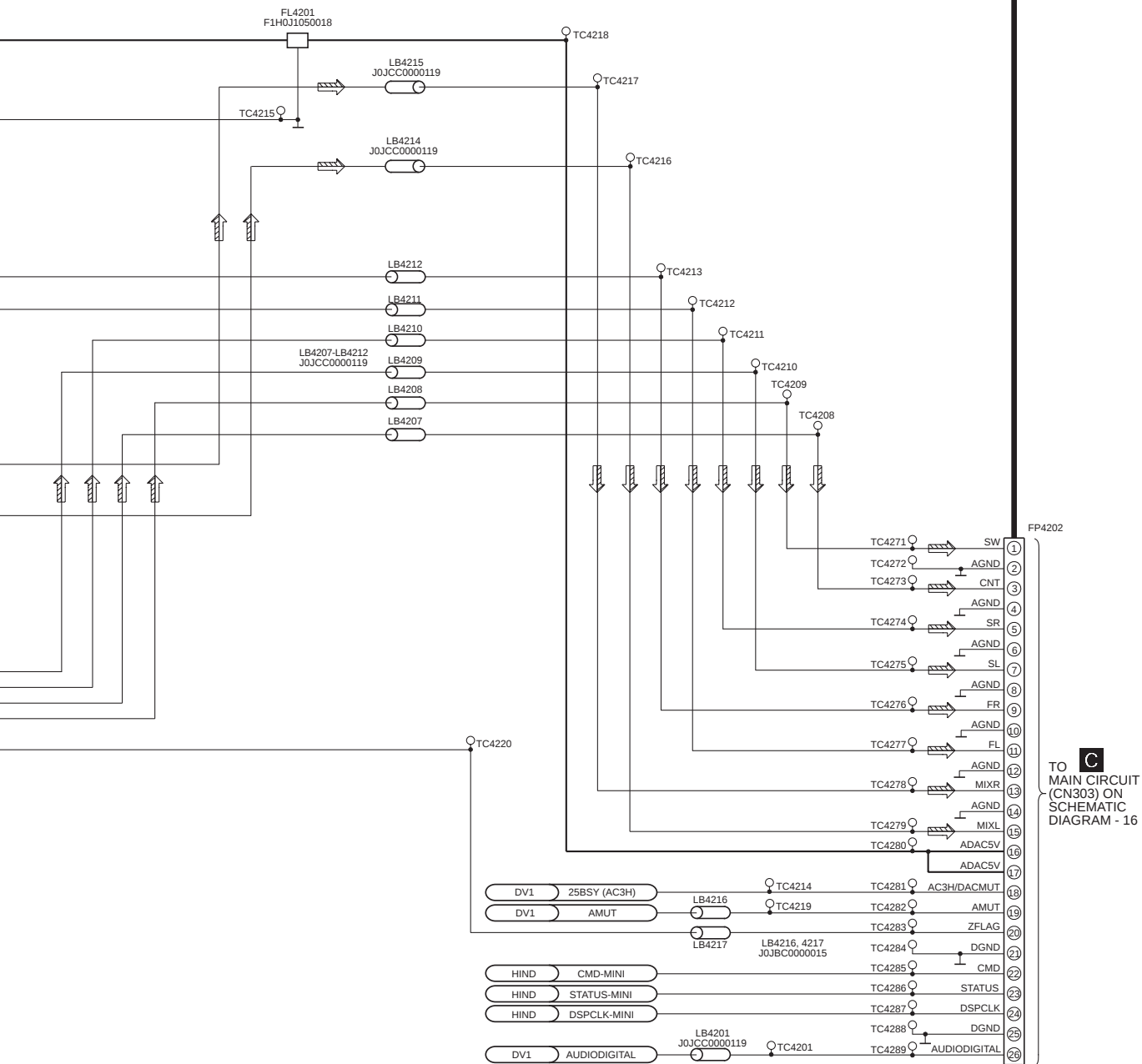
B DVD MODULE (2) (AUDIO DAC) CIRCUIT

 : MAIN SIGNAL LINE
 : +B SIGNAL LINE
 : DVD AUDIO SIGNAL LINE



B DVD MODULE (2) (AUDIO DAC) CIRCUIT

— : +B SIGNAL LINE
 : MAIN SIGNAL LINE

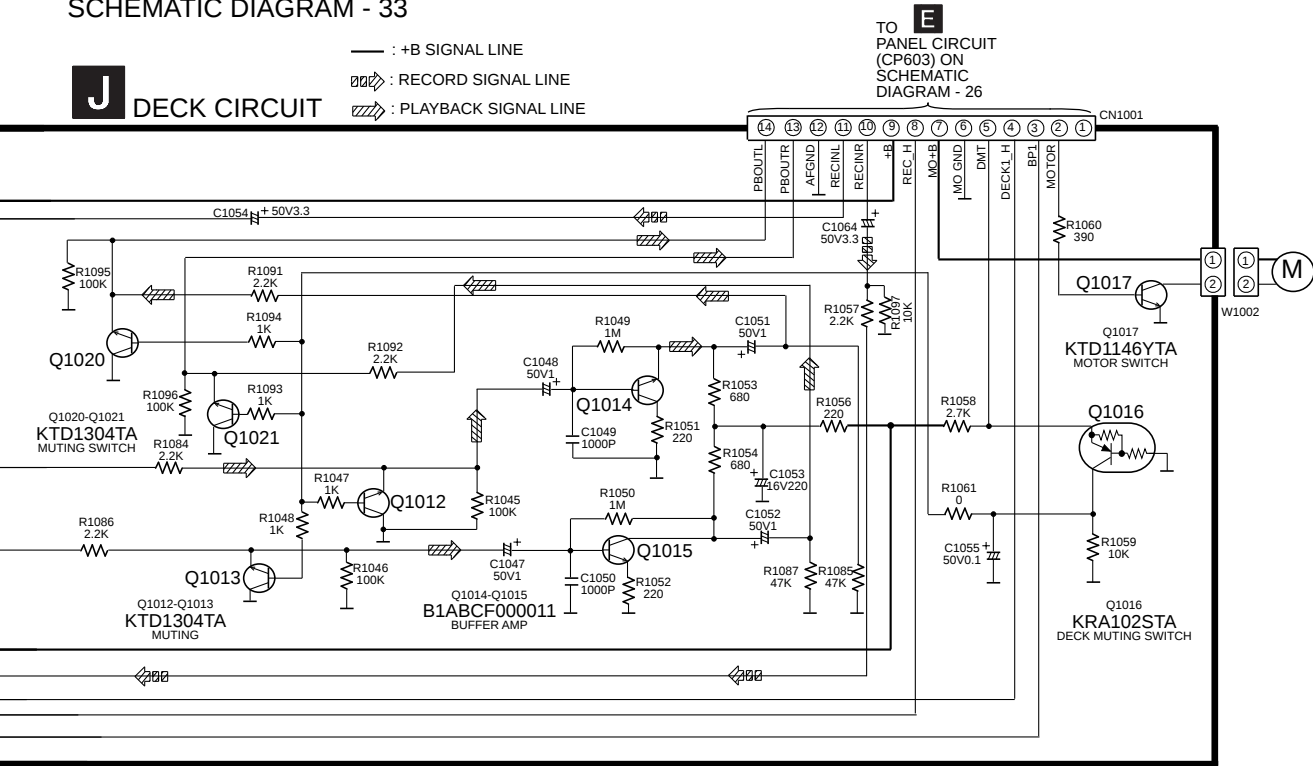


SCHEMATIC DIAGRAM - 33

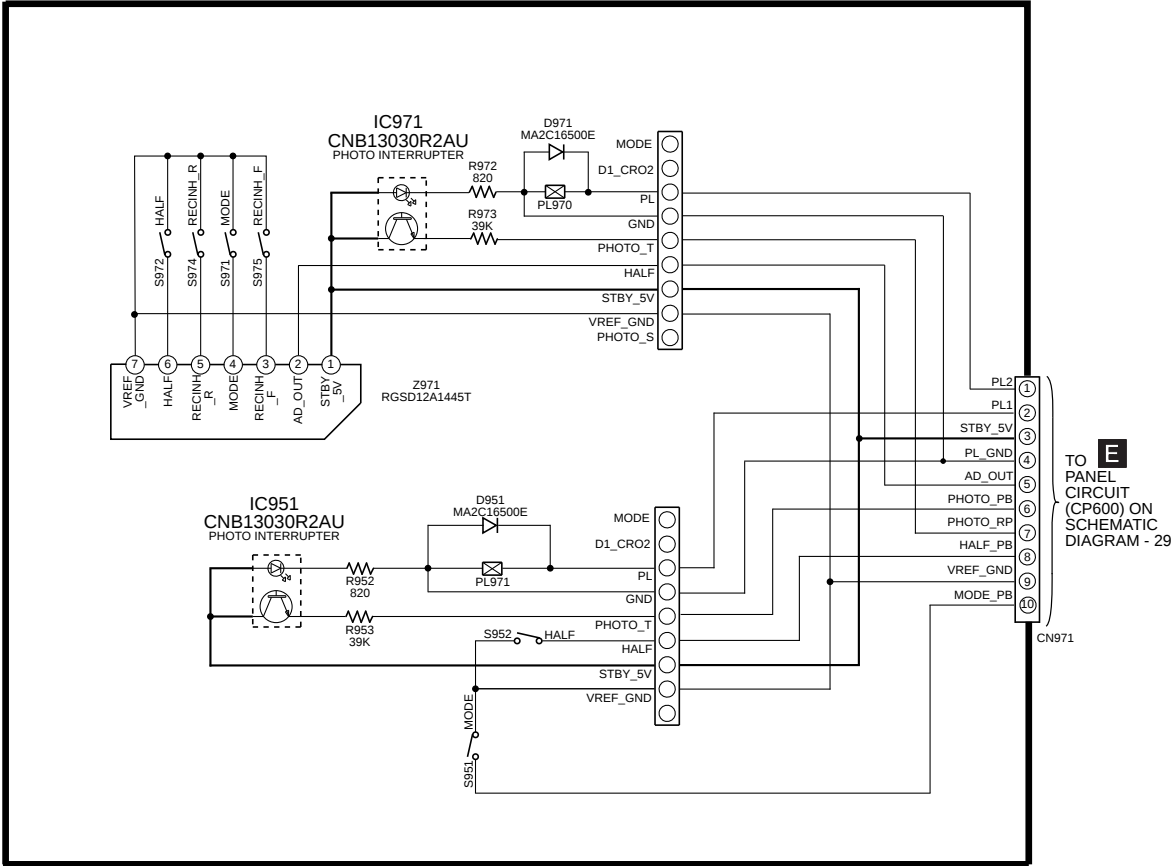
J DECK CIRCUIT

— : +B SIGNAL LINE
▨ : RECORD SIGNAL LINE
▧ : PLAYBACK SIGNAL LINE

TO PANEL CIRCUIT (CP603) ON SCHEMATIC DIAGRAM - 26

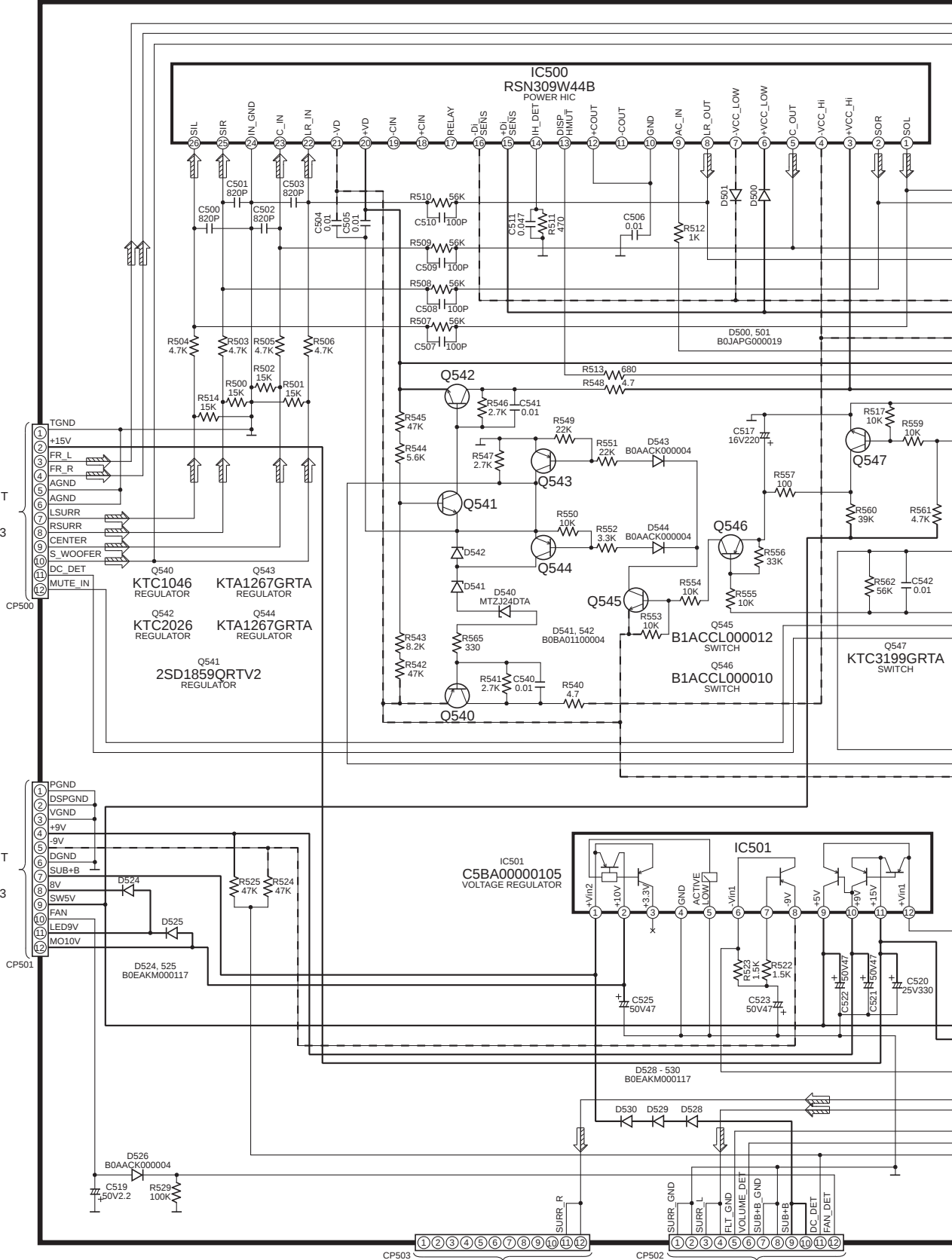


K DECK MECHANISM CIRCUIT



TO MAIN CIRCUIT (CN300) ON SCHEMATIC DIAGRAM - 23

TO MAIN CIRCUIT (CN301) ON SCHEMATIC DIAGRAM - 23



TO POWER CIRCUIT (CN957) ON SCHEMATIC DIAGRAM - 37

TO POWER CIRCUIT (CN956) ON SCHEMATIC DIAGRAM - 37

SCHEMATIC DIAGRAM - 35

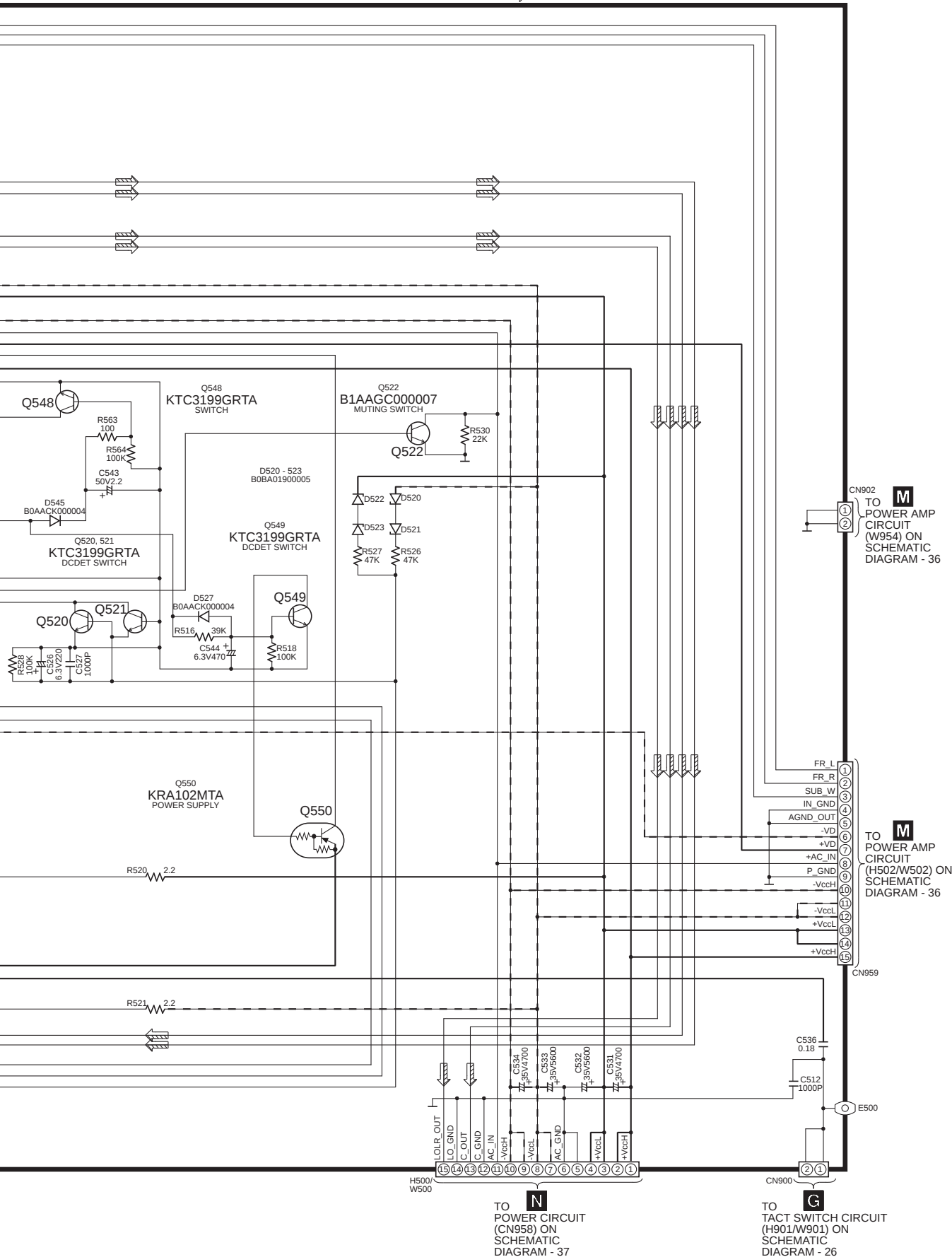


POWER SUPPLY CIRCUIT

— : +B SIGNAL LINE

- - - : -B SIGNAL LINE

⇒ : MAIN SIGNAL LINE



G

H

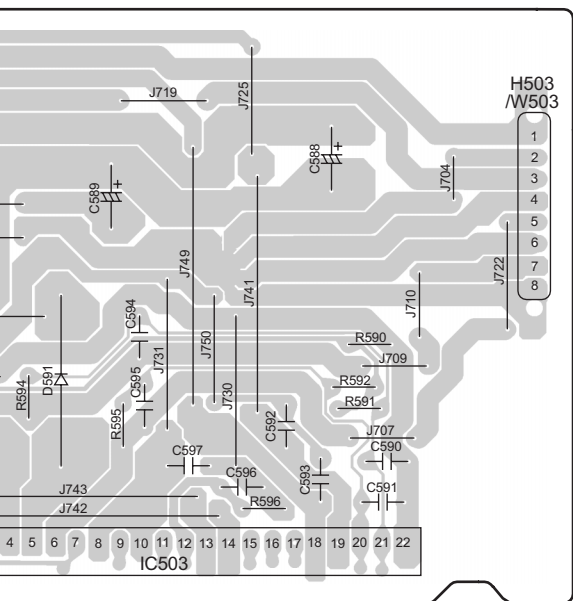
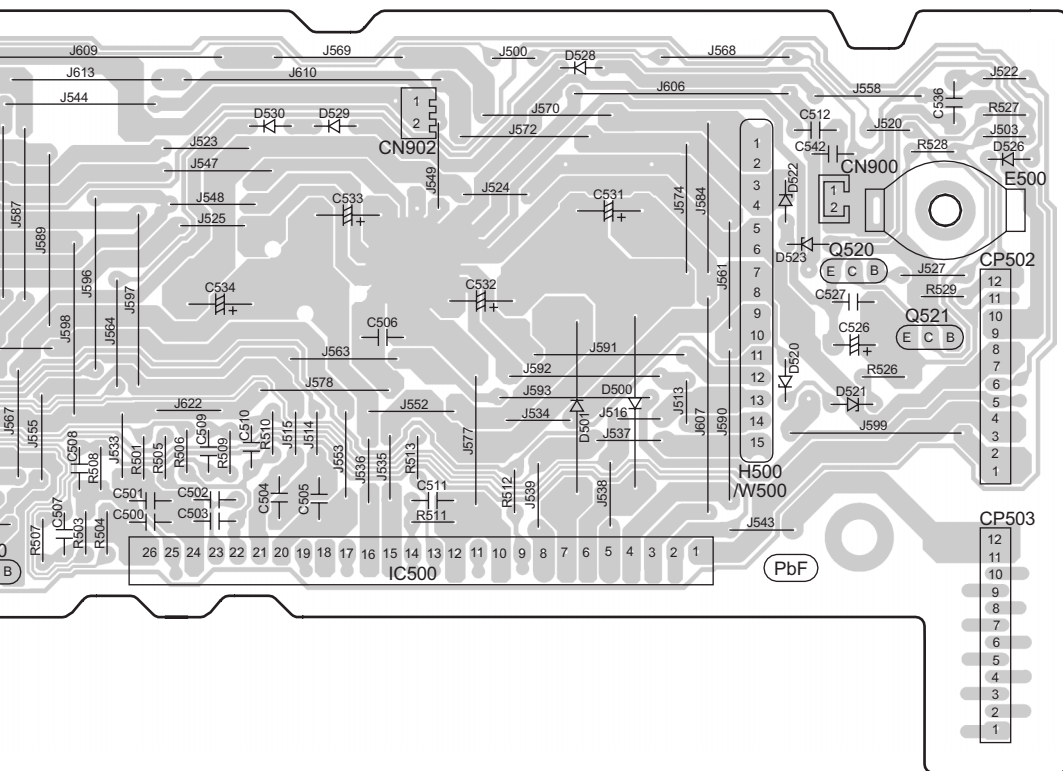
I

J

K

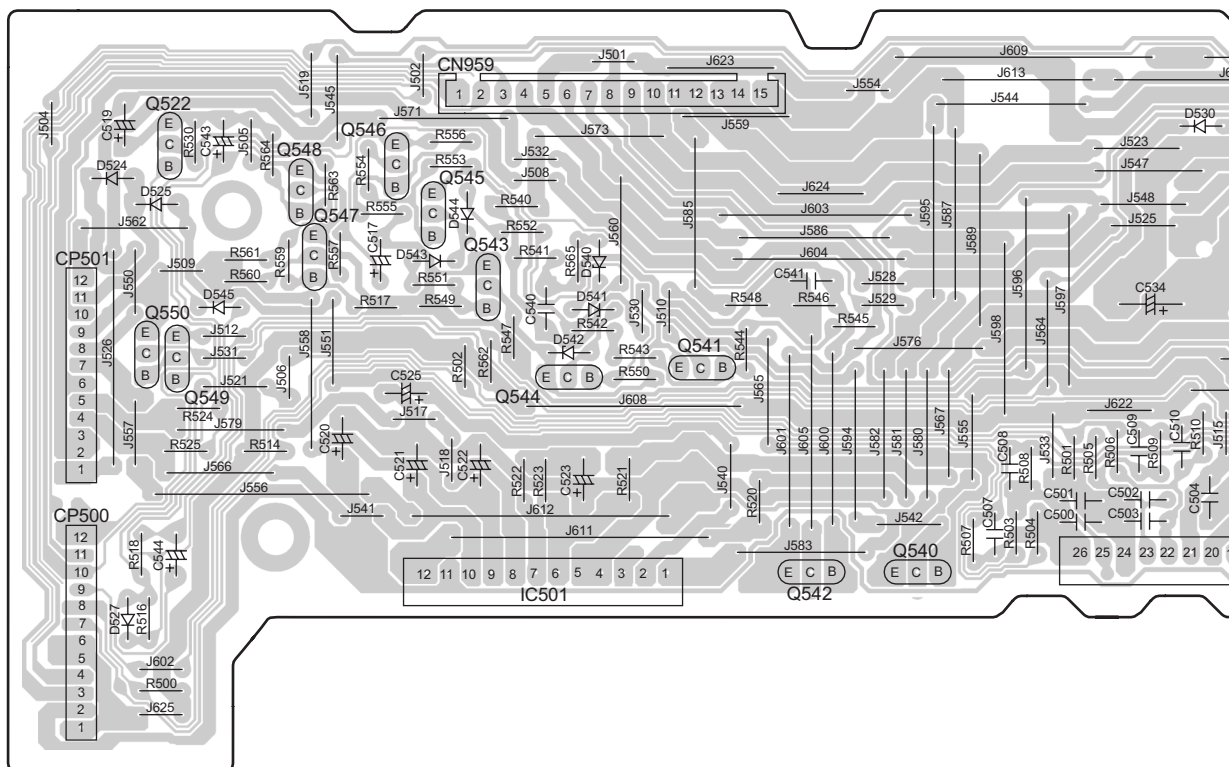
L

M

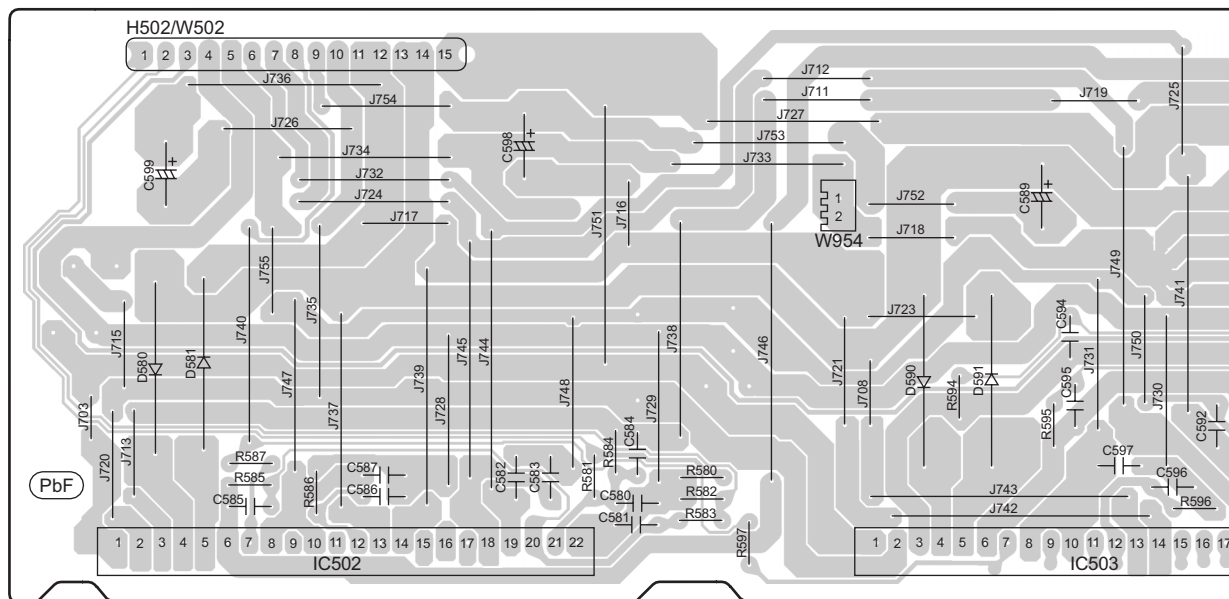


A B C D E F G

L POWER SUPPLY P.C.B (REPX0377A)



M POWER AMP P.C.B (REPX0377A)



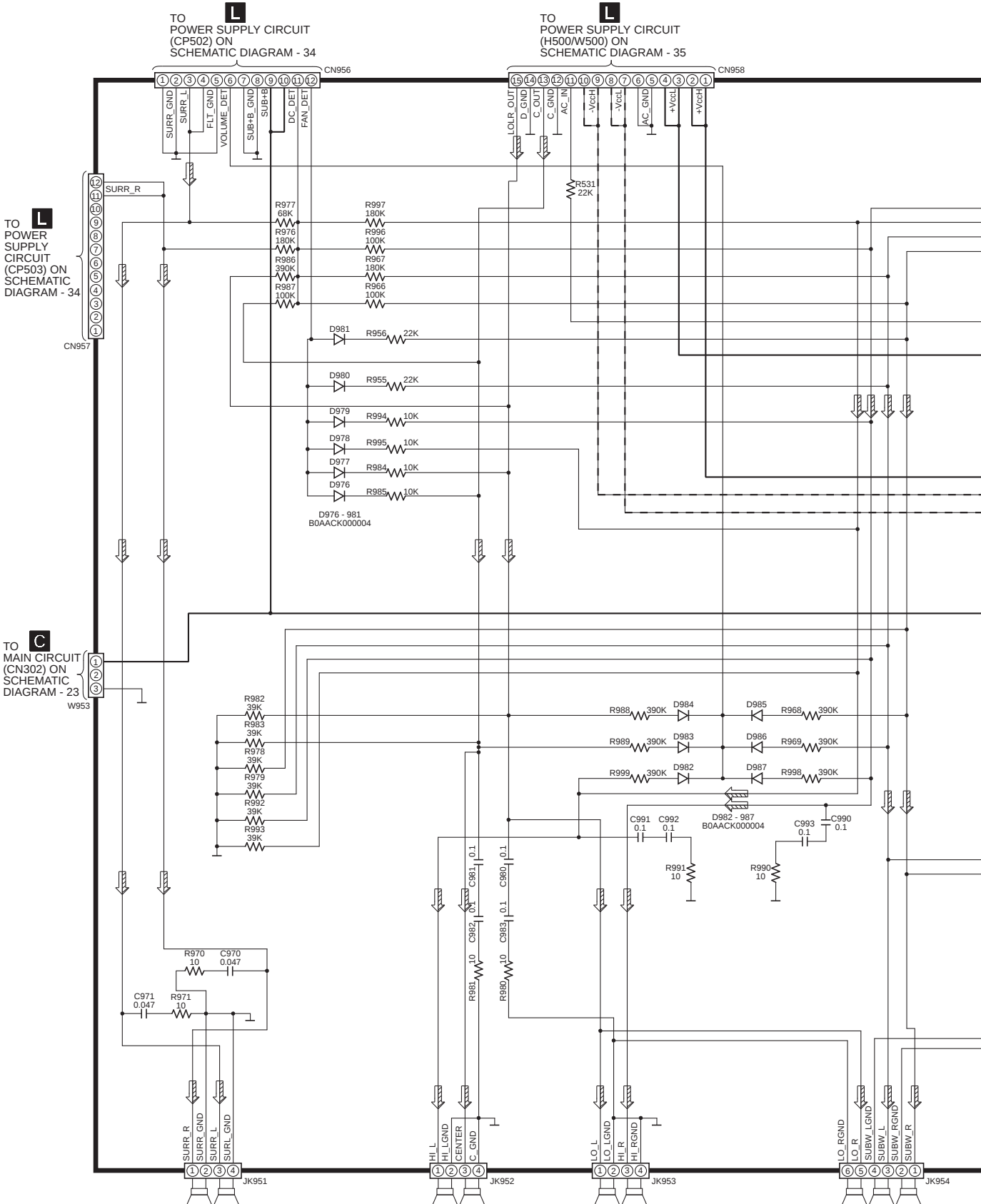
SCHEMATIC DIAGRAM - 37

POWER CIRCUIT

— : +B SIGNAL LINE

- - - : -B SIGNAL LINE

⇒ : MAIN SIGNAL LINE



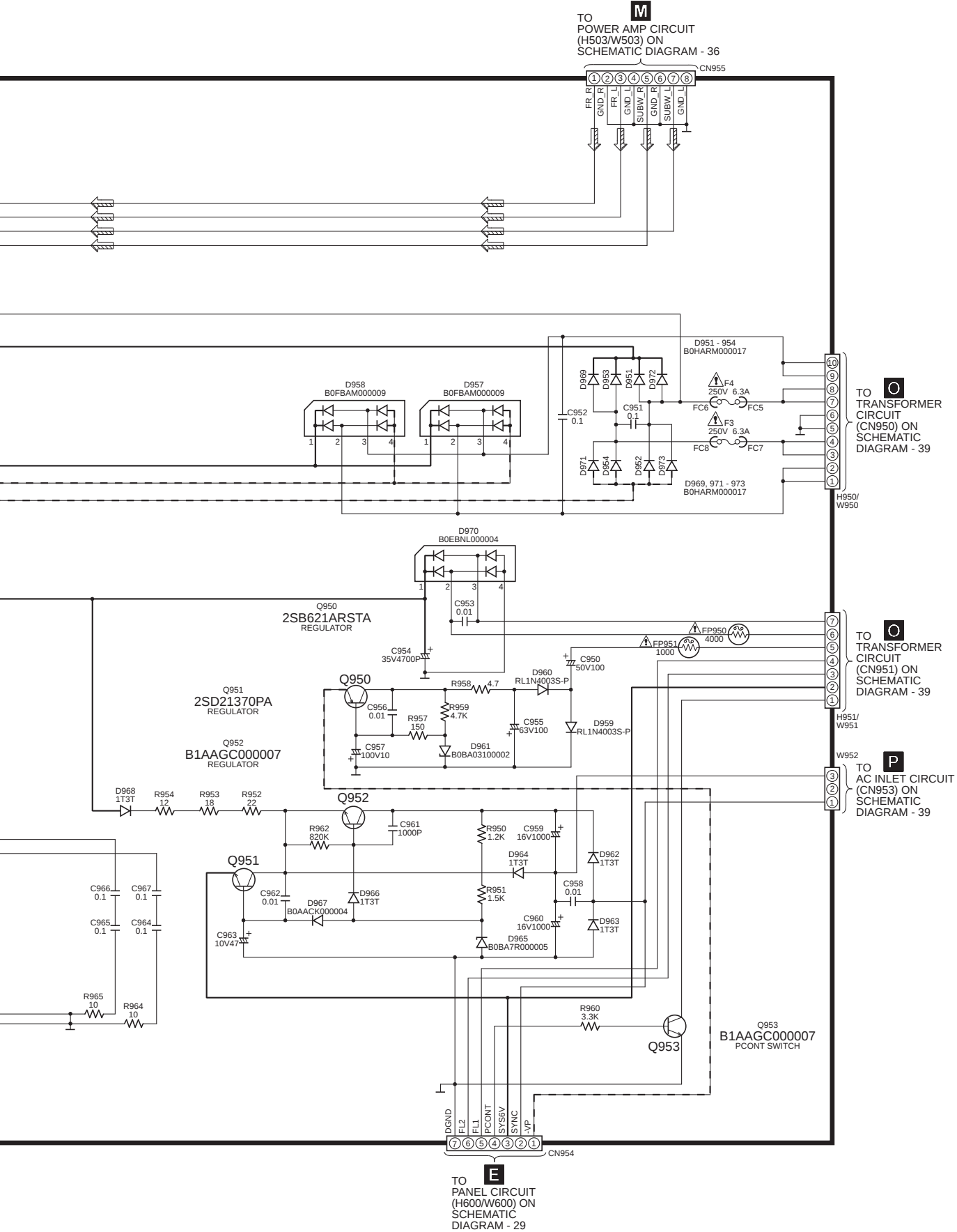
SCHEMATIC DIAGRAM - 38

N POWER CIRCUIT

— : +B SIGNAL LINE

- - - : -B SIGNAL LINE

⇒ : MAIN SIGNAL LINE



A B C D E F G

N POWER P.C.B (REPX0377A)

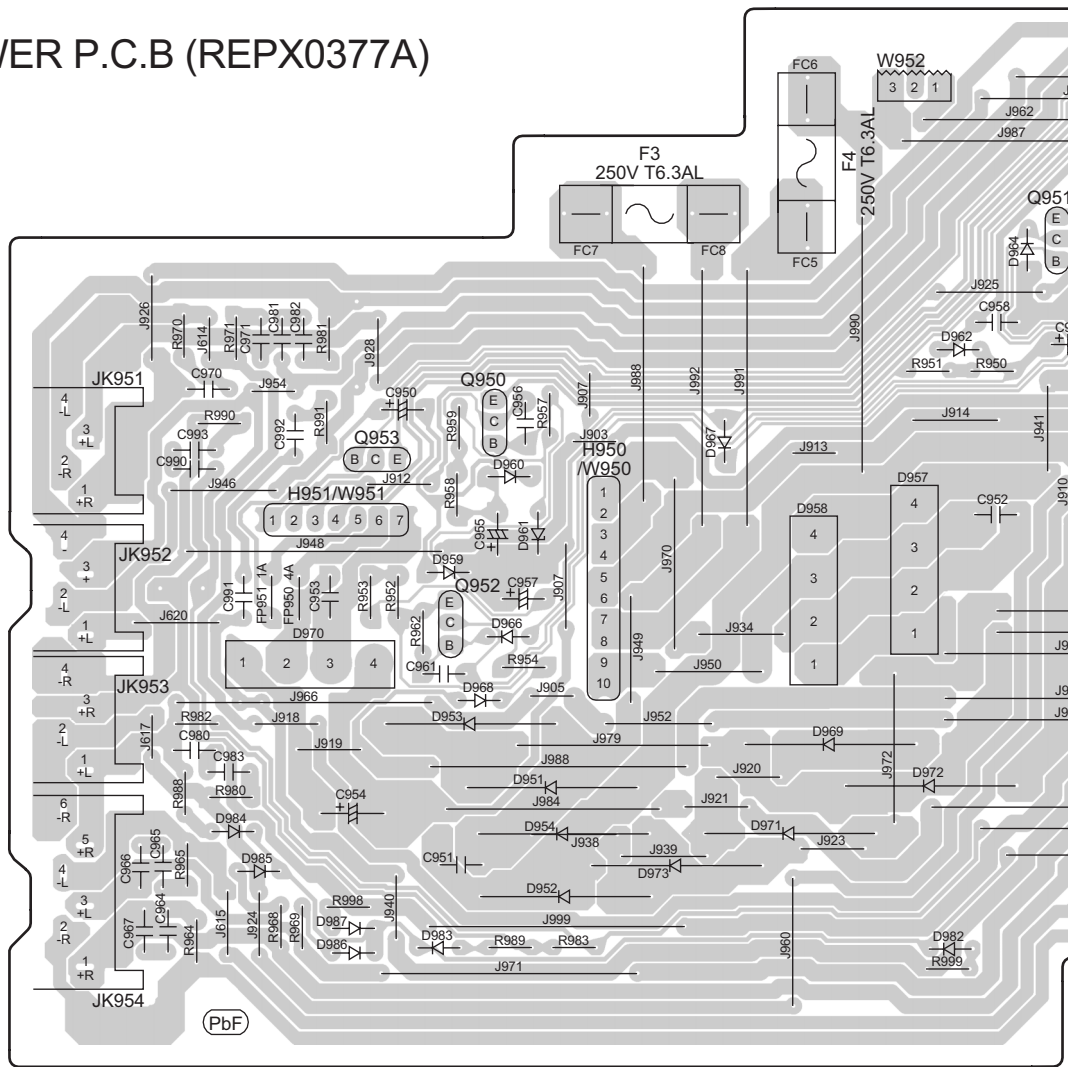
SURROUND
SPEAKER

CENTER
SPEAKER

HIGH
CHANNEL
SPEAKER

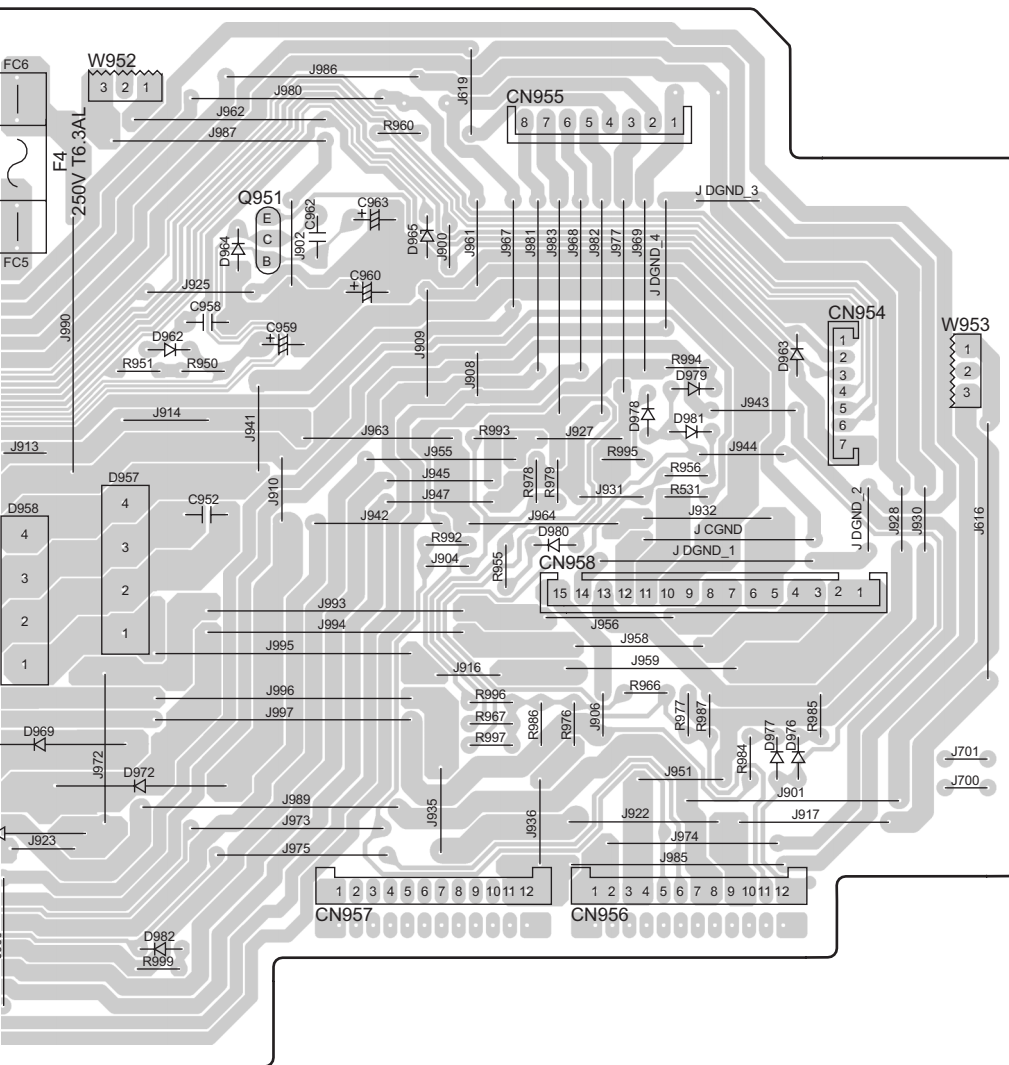
LOW
CHANNEL
SPEAKER

SUBWOOFER
SPEAKER



(PbF)

M



M

POWER AMP CIRCUIT

— : +B SIGNAL LINE

- - - : -B SIGNAL LINE

⇒ : MAIN SIGNAL LINE

TO POWER SUPPLY CIRCUIT (CN959) ON SCHEMATIC DIAGRAM - 35

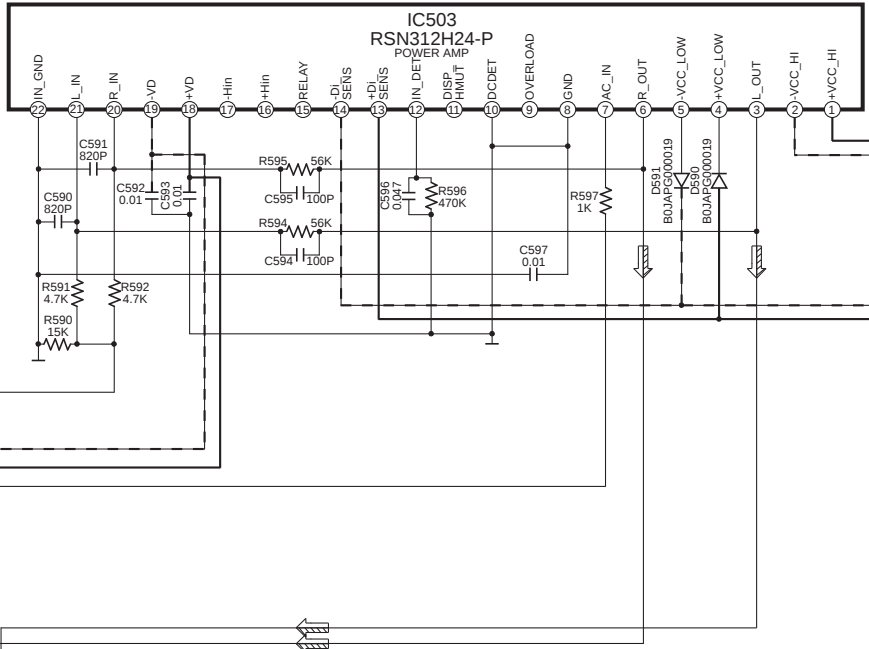
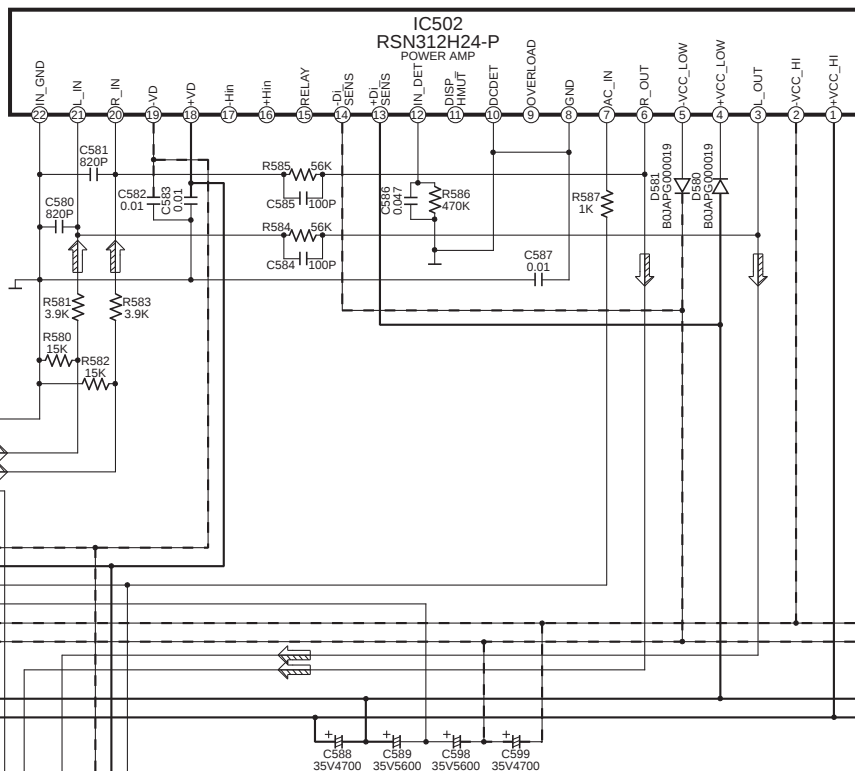
H502/
W502

TO POWER SUPPLY CIRCUIT (CN902) ON SCHEMATIC DIAGRAM - 35

W954

H503/
W503

TO POWER CIRCUIT (CN955) ON SCHEMATIC DIAGRAM - 38



A

B

C

D

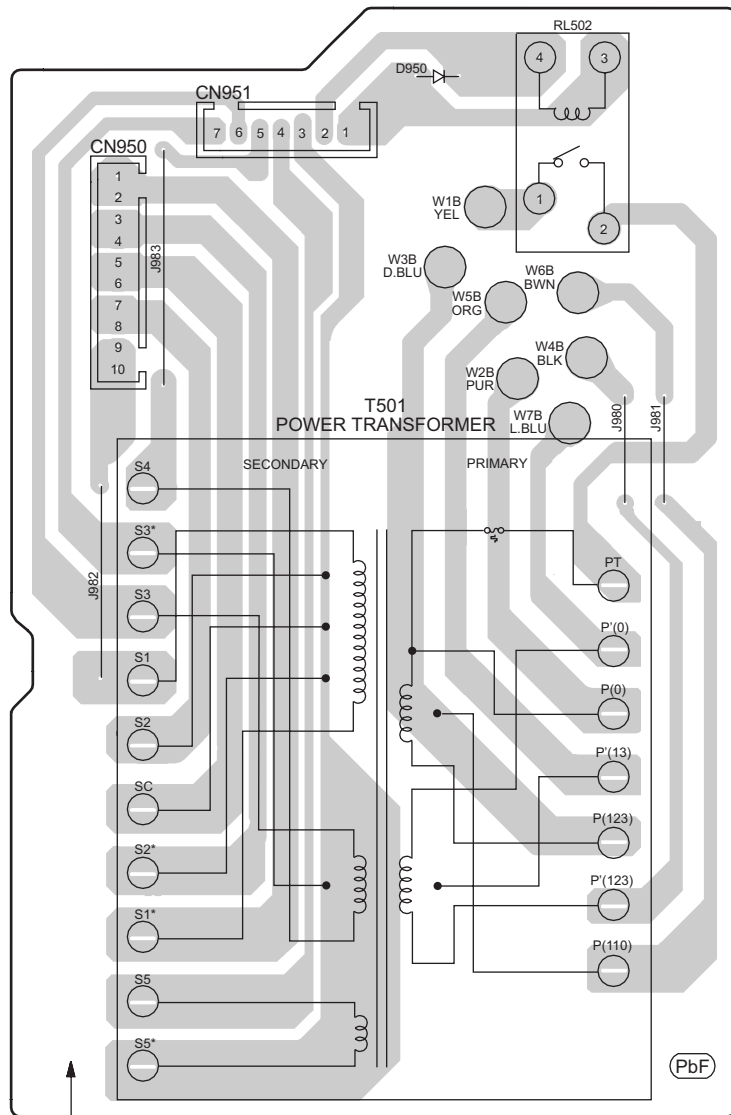
E

F

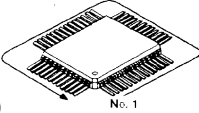
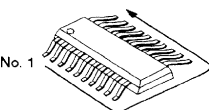
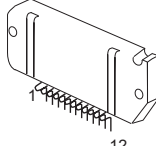
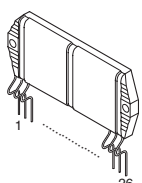
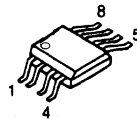
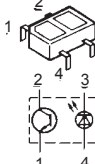
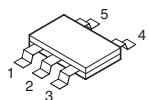
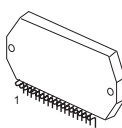
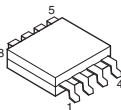
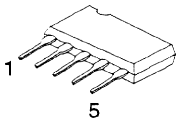
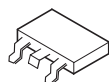
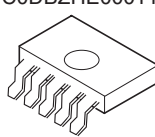
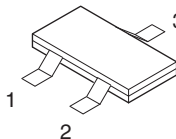
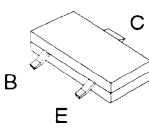
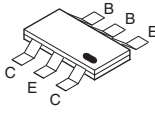
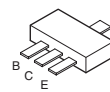
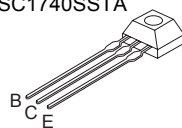
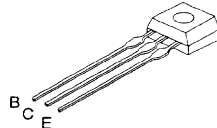
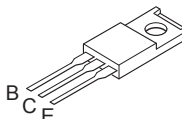
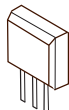
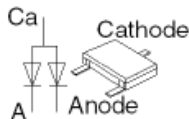
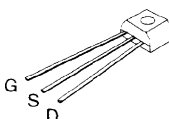
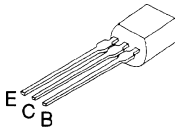
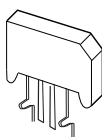
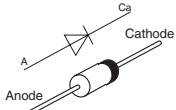
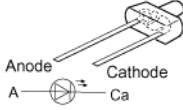
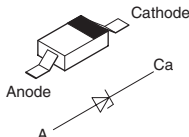
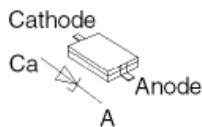
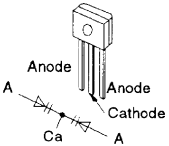
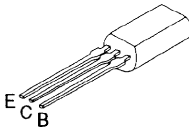
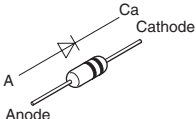
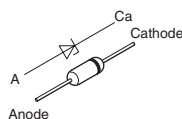
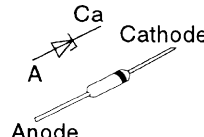
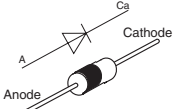
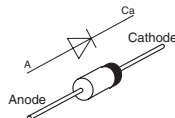
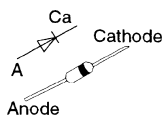
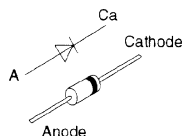
G



TRANSFORMER P.C.B (REPX0379A)



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

C0EBE0000070(100P) C0FBBK000036(48P) C1BB00000801(80P) C2BBHF000070(100P) C2HBZC000013(80P) MN2DS0002AP1(208P)		AN7348S-E1 (24P) C1BB00000574 (16P) KIA4558FEL(8P) LA1833NMNTLM (24P) LC72131MDTRM (20P) C3FBMG000011 C1BB00000389(24P) C0J2AS000004(30P) C1BB0000086(18P)	C0ABCB000040(14P) C0JBAS000326(16P) C1BB00000782(42P) C9ZB00000377(32P) C0GBG0000033(28P) C0JBAZ001251A(20P) C1DB00000980(16P) C3ABPG000063(54P)	No. 1 	RSN312H24-P 
RSN304W44B-P 	BR93LC46FE2 C0AABB000085 	CNB13030R2AU 	C0JBAA000001 C0CBCBE00003 	C5BA00000105 	C3EBGZ000001 
C1AA00000612 	C0CBADG000005 	C0DBCFCG00004 C0DBAMH00009 C0DBZHE00011 	2SD1819A0L 	B1ADCF000001 B1ABCF000011 KRA102STA KRA110STA KRA111STA KRC102STA KRC103STA	KTC3875GRTA KTD1304TA 
B1GFGCAA0001 	B1BDBF000004 	KRA102MTA KRC102MTA KRC103MTA 2SC1740SSTA 	B1GACFCGG0004 KTC3199GRTA B1AAGC000007 2SC2786MTA 2SC2787FL1TA 	KTC2026 KTA1046 	
2SD1859QRTV2 	B0ADCJ000020 	2SK544F-AC 	KTA1267GRTA KTA12710YTA KTD1146YTA 2SB621ARSTA 	2SC2058SPTA 	
B0FBM000009 	B0JAPG000019 	B3AAA0000583 	B0BC7R500001 B0BC5R000009 	1SS380TE-17 UDZSTE1710B B0ACCK000005 B0BC3R700004 	
SVC211SPA-AL 	KRC114STA 2SD21370PA 	MA2C700A0F 	B0BA4R600003 	B0BA03100002 B0BA5R6000016 B0BA01100004 B0BA019000005 MTZJ24DTA 	
B0HARM000017 	1T3T 	B0AACK00004 MA2J72800L MA2C16500E MA2C72300F 	RL1N4003S-P 		

■ Discs that can be played

DVD-RAM	DVD-Audio	DVD-Video	DVD-R	SVCD	Video CD	CD	CD-R/RW
 Shown as "DVD-VR" on the display			 Conforming to IEC62107	 Conforming to IEC62107			—
RAM	DVD-A	DVD-V		VCD		CD	WMA ® MP3 JPEG ®

Use discs with the above logos and that conform to specifications. The unit cannot play other discs correctly. Do not use irregularly shaped discs (e.g. heart-shaped), as these can damage the unit.

It may not be possible to play CD-R, CD-RW, DVD-R and DVD-RAM in all cases due to the type of disc or condition of the recording.

■ Discs that cannot be played

DVD-ROM, CD-ROM, CDV, CD-G, +RW, DVD-RW, CVD, SACD, Divx Video Discs, Photo CD, DVD-RAM that cannot be removed from their cartridge, 2.6-GB and 5.2-GB DVD-RAM, and "Chaoji VCD" available on the market including CVD, DVCD and SVCD that do not conform to IEC62107.

■ Region number

The player plays DVD-Video marked with labels containing the region number or "ALL".

Region	Number	Example
U.S.A. and Canada	1	  
Asia	3	  
Australia and N.Z.	4	  

■ Built-in decoders

This unit has Dolby Digital and DTS decoders so you can enjoy these systems in stereo without connecting a separate decoder.



■ Video systems

Units for Asia, Australia and N.Z.:

- This unit can play PAL and NTSC, but your television must match the system used on the disc.
- PAL discs cannot be correctly viewed on an NTSC television.
- This unit can convert NTSC signals to PAL 60 for viewing on a PAL television (→ page 18, Video—NTSC Disc Output).
- Output is interlace (576i) when playing PAL discs.

Units for the U.S.A. and Canada:

NTSC is used. This unit converts still pictures on PAL system DVD-Audio discs for play on NTSC video systems. The picture is compressed to show it in its entirety, but this may cause it to be stretched vertically.

■ Playing DVDs and Video CDs

The producer of these discs can control how they are played so you may not always be able to control play as described in these operating instructions (for example if the play time is not displayed or if a Video CD has menus). Read the disc's instructions carefully.

■ DVD-RAM discs

The DVD-RAM you can play on this unit are those recorded with DVD video recorders, DVD video cameras, personal computers, etc. using Version 1.1 of the Video Recording Format (a unified video recording standard).

- Remove discs from their cartridges before use and return them when you are finished, making sure that the labels of the disc and cartridge face the same way.
- Some parts of the disc, for example where one program ends and another begins, may not play smoothly.

■ DVD-R discs

Panasonic DVD-R recorded and finalized on a Panasonic DVD video recorder or DVD video camera are played as DVD-Video on this unit.

■ CD-R and CD-RW discs

This unit can play CD-R/RW (audio recording disc) recorded with CD-DA, video CD, SVCD (conforming to IEC62107), WMA, MP3, or JPEG. Close the session or finalize after recording.

See page 11 for more information about WMA, MP3, and JPEG.

■ HighMAT discs

This unit is compatible with HighMAT discs containing WMA, MP3, and/or JPEG files.

■ Disc structure

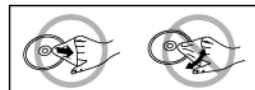
Disc structure and the labels given to the items on discs depend on the disc type.

- Track:** the smallest division on DVD-Audio, CDs, and Video CDs, or a single WMA/MP3 file.
- Chapter:** the smallest division on DVD-Video.
- Group:** collections of tracks on DVD-Audio and equivalent to folders or albums on data discs.
- Title:** the largest division on DVD-Video, usually an entire movie.
- Program:** the division on DVD-RAM equivalent to a single recording.
- Picture:** a single JPEG file.
- Play list:** the largest grouping on a HighMAT disc, or a group of scenes on DVD-RAM.
- Scene:** DVD-RAM program sections specified and grouped into play lists on a DVD video recorder.
- Content:** covers tracks and pictures on HighMAT discs.

■ To clean discs

DVD-Audio, DVD-Video, Video CD, CD

Wipe with a damp cloth and then wipe dry.



DVD-RAM, DVD-R

- Clean only with an optional DVD-RAM/PD disc cleaner (LF-K200DCA1, where available).
- Never use cloths or cleaners for CDs etc.

■ Handling precautions

- Do not write on the label side with a ball-point pen or other writing instrument.
- Do not use record cleaning sprays, benzene, thinner, static electricity prevention liquids or any other solvent.
- Do not attach labels or stickers to discs. (Do not use discs with exposed adhesive from tape or left over peeled-off stickers.)
- Do not use scratch-proof protectors or covers.
- Do not use discs printed with label printers available on the market.

Decoder

A decoder restores the coded audio signals on DVDs to normal. This is called decoding.

Dolby Digital

This is a method of coding digital signals developed by Dolby Laboratories. Apart from stereo (2-channel) audio, these signals can also be multi-channel audio. A large amount of audio information can be recorded on one disc using this method.

DTS (Digital Theater Systems)

This surround system is used in many movie theaters around the world. There is good separation between the channels, so realistic sound effects are possible.

Dynamic range

Dynamic range is the difference between the lowest level of sound that can be heard above the noise of the equipment and the highest level of sound before distortion occurs.

Film and video

DVD-Videos are recorded using either film or video. Usually, film is recorded at 24 frames per second, the rate movies are filmed at, while video is recorded at 30 frames per second.

Frame still and field still

Frames are the still pictures that go together to make a moving picture. There are about 30 frames shown each second. One frame is made up of two fields. A regular television shows these fields one after the other to create frames. A still is shown when you pause a moving picture. A frame still is made up of two alternating fields, so the picture may appear blurred, but overall quality is high. A field still is not blurred, but it has only half the information of a frame still so picture quality is lower.

Interlace and progressive output

NTSC, the video signal standard, has 480 interlaced (I) scan lines, whereas progressive scanning uses twice the number of scan lines. This is called 480P. The video signals output from this unit's COMPONENT VIDEO OUT terminals (Y, Pb, Pr) allow you to enjoy higher quality pictures than if the signals were output from the VIDEO OUT terminal or S-VIDEO OUT terminal.

I/P/B

MPEG 2, the video compression standard adopted for use with DVD-Video, codes frames using these 3 picture types.

I: Intra coded picture

This picture has the best quality and is the best to use when adjusting the picture.

P: Predictive coded picture

This picture is calculated based on past I or P-pictures.

B: Bidirectionally-predictive coded picture

This picture is calculated by comparing past and future I and P-pictures so it has the lowest volume of information.

Linear PCM (pulse code modulation)

These are uncompressed digital signals, similar to those found on CDs.

Playback control (PBC)

If a Video CD has playback control, you can select scenes and information with menus.

WMA, MP3, CD text and JPEG information

- Discs must conform to ISO9660 level 1 or 2 (except for extended formats).
- This unit is compatible with multi-session but if there are a lot of sessions it takes more time for play to start. Keep the number of sessions to a minimum to avoid this.
- The order tracks appear in the menus may differ to the order shown on your computer.

WMA

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

MP3

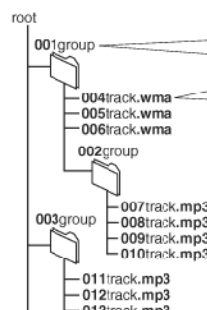
- This unit is not compatible with ID3 tags.
- If you play an MP3 track that includes still picture data, it will take some time before the music itself starts playing and the elapsed time will not be displayed during this time. Even after the track starts, the correct play time will not be displayed.

JPEG

- To view JPEG files on this unit:
 - Take them on a digital camera that meets the DCF (Design rule for Camera File System) standard. Some digital cameras have functions that are not supported by the DCF standard like automatic picture rotation which may render a picture unviewable.
 - Do not alter the files in any way or save them under a different name.
- This unit cannot display moving pictures, Motion JPEG and other such formats, still pictures other than JPEG (i.e. TIFF) or play associated sound.

Order of play

WMA MP3 JPEG



Naming folders and files

Prefix folder and file names with 3-digit numbers in the order you want to play them.

Extension
004track.wma (or .WMA)

The extension for MP3 is “.mp3” or “.MP3”.

The extension for JPEG is “.JPG”, “.jpg”, “.JPEG” or “.jpeg”.

CD (CD text only)

When making your own CD text discs

The unit plays the tracks in the order you record them so you do not have to prefix the titles with numbers.

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

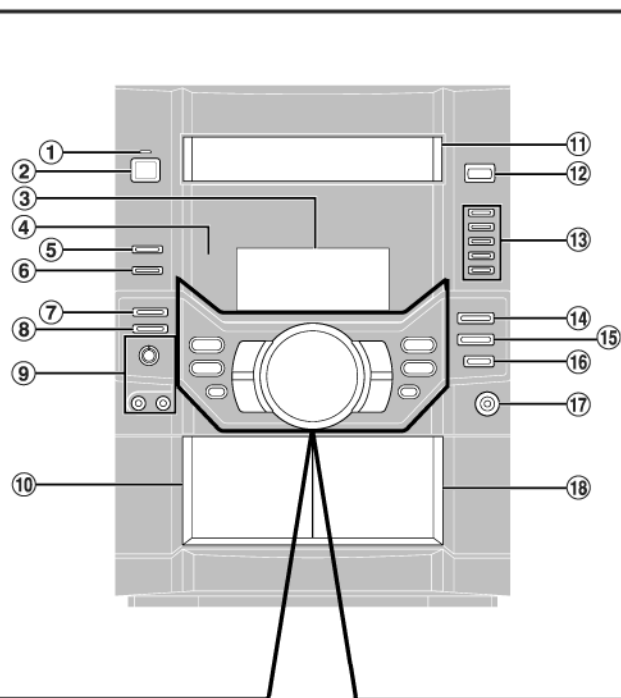
WMA is a compression format developed by Microsoft Corporation. It achieves the same sound quality as MP3 with a file size that is smaller than that of MP3.



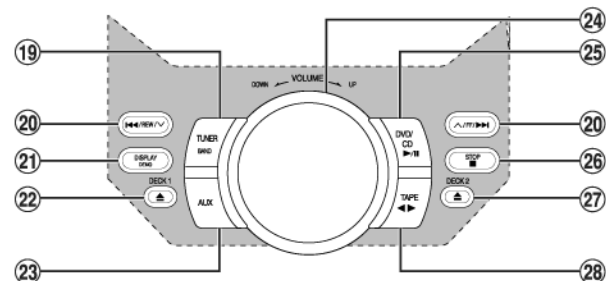
MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Thomson multimedia.

Control reference guide

Main unit



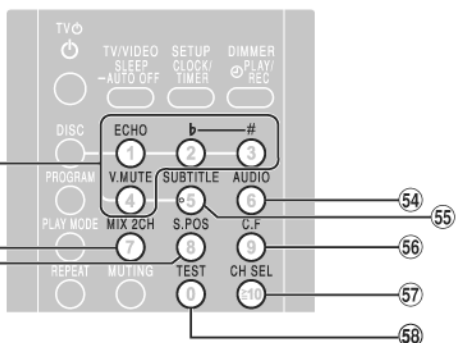
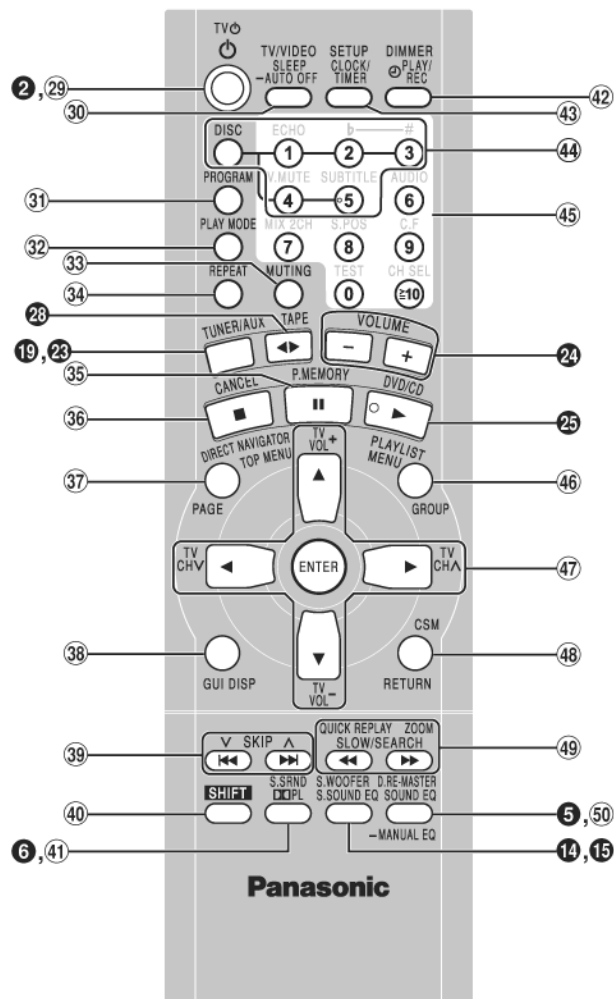
- ① **AC supply indicator [AC IN]**
This indicator lights when the unit is connected to the AC mains supply.
- ② **Standby/on switch [⏻/⏻]**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- ③ **Display**
- ④ **Remote control signal sensor**
- ⑤ **Double re-master button [DOUBLE RE-MASTER]**
- ⑥ **Super surround button [SUPER SURROUND]**
- ⑦ **Deck 1/2 selection button [DECK 1/2]**
- ⑧ **Record button [● REC]**
- ⑨ **Microphone volume control [MIC VOL MIN, MAX]**
Microphone jacks [MIC 1, 2]
- ⑩ **Deck 1 cassette holder**
- ⑪ **Disc tray**
- ⑫ **Disc tray open/close button [⏏ OPEN/CLOSE]**
- ⑬ **Disc direct play buttons [1]–[5]**
- ⑭ **Super sound EQ button [SUPER SOUND EQ]**
- ⑮ **Subwoofer button [SUBWOOFER]**
- ⑯ **Sound EQ button [SOUND EQ]**
- ⑰ **Headphones jack [PHONES]**
- ⑱ **Deck 2 cassette holder**



Center console

- ⑲ **Tuner/band select button [TUNER BAND]**
- ⑳ **Disc skip/search/slow-motion play, tape fast-forward/rewind, tune/preset channel select, time adjust buttons [◀◀/REW/V, /FF▶▶]**
- ㉑ **Display, demonstration button [DISPLAY, -DEMO]**
- ㉒ **Deck 1 open button [⏏ DECK 1]**
- ㉓ **AUX button [AUX]**
- ㉔ **Volume control [VOLUME DOWN, UP]**
- ㉕ **DVD/CD play/pause button [▶/⏏ DVD/CD]**
- ㉖ **Stop button [■ STOP]**
- ㉗ **Deck 2 open button [⏏ DECK 2]**
- ㉘ **Tape play/direction button [◀▶ TAPE]**

Remote control



Buttons such as ② function in exactly the same way as the buttons on the main unit.

- ②, ②⑨ TV power on/off button [TV ⏻]
- ③⑩ Sleep timer, Auto off, TV/Video input mode select button [SLEEP, -AUTO OFF, TV/VIDEO]
- ③① Program button [PROGRAM]
- ③② Play mode select button [PLAY MODE]
- ③③ Muting button [MUTING]
- ③④ Repeat button [REPEAT]
- ③⑤ Pause, Position memory button [II, P. MEMORY]
- ③⑥ Stop, Cancel button [■, CANCEL]
- ③⑦ Top menu, Direct navigator, Page button [TOP MENU, DIRECT NAVIGATOR, PAGE]
- ③⑧ GUI display button [GUI DISP]
- ③⑨ Disc skip, tape fast-forward/rewind, preset channel select, time adjust buttons [I◀◀, ▶▶I, ∨ SKIP ^]
- ④⑩ Shift button [SHIFT]
To use functions labeled in orange:
While pressing [SHIFT], press the corresponding button.
- ④① Dolby Pro Logic, Super Surround button [DOLBY, S. SRND]
- ④② Play timer/record timer, Dimmer button [⌚PLAY/REC, DIMMER]
- ④③ Clock/timer, Setup button [CLOCK/TIMER, SETUP]
- ④④ Disc select button [DISC], Disc button [1] – [5]
- ④⑤ Numbered buttons [0 – 9, ≥10]
- ④⑥ Menu, Playlist, Group button [MENU, PLAYLIST, GROUP]
- ④⑦ Cursor buttons [▲, ▼, ◀, ▶], Enter button [ENTER]
These buttons have the following functions.
[▲, ▼]: TV volume buttons [TV VOL +, -]
[◀, ▶]: TV channel select buttons [TV CH ^, ∨]
- ④⑧ Return, Custom sound memory button [RETURN, CSM]
- ④⑨ Slow/search, Tuning buttons [◀◀, ▶▶ SLOW/SEARCH]
These buttons have the following functions.
[◀◀]: Quick replay button [QUICK REPLAY]
[▶▶]: Zoom button [ZOOM]
- ⑤⑩ Sound EQ, Manual EQ button [SOUND EQ, -MANUAL EQ]
- ⑤① Echo button [ECHO]
Key control buttons [b, #]
Vocal mute button [V. MUTE]
- ⑤② 2 channel down-mixing button [MIX 2CH]
- ⑤③ Seat position button [S.POS]
- ⑤④ Audio button [AUDIO]
- ⑤⑤ Subtitle button [SUBTITLE]
- ⑤⑥ Center focus button [C.F]
- ⑤⑦ Channel select button [CH SEL]
- ⑤⑧ Test signal button [TEST]