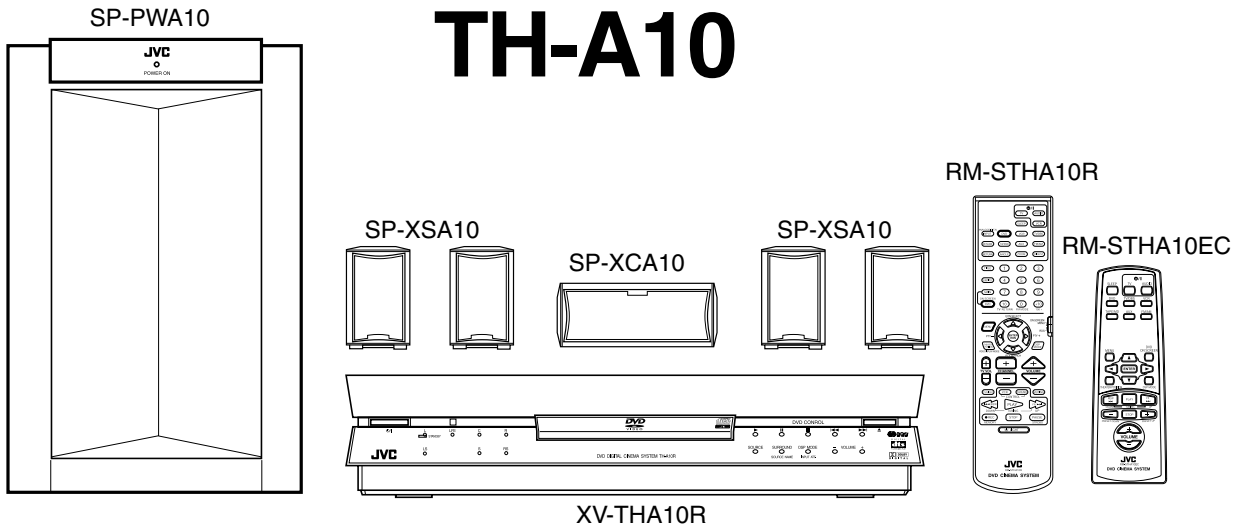


JVC

SERVICE MANUAL

DVD DIGITAL THEATER SYSTEM

TH-A10R TH-A10



**Area Suffix
TH-A10R**
 B U.K.
 EN Northern Europe
 EE Russia

**Area Suffix
TH-A10**
 E Continental Europe

TH-A10R TH-A10	XV-THA10R (DVD player)/XV-TH-A10	
	SP-THA10 (Speaker section)	SP-PWA10 (Powered subwoofer)
		SP-XCA10 (Center speaker)
		SP-XSA10 (Satellite speaker) x 4

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Safety precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (Δ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)
After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this check.

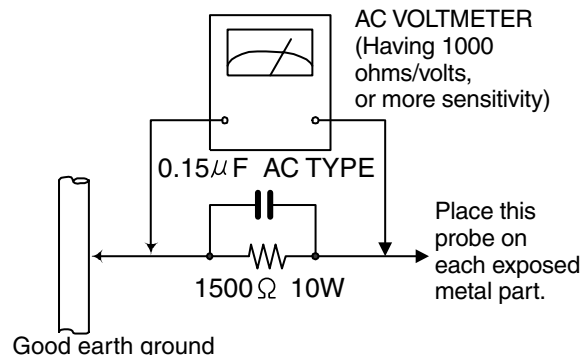
- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.)

- Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a $1,500\Omega$ 10W resistor paralleled by a $0.15\mu\text{F}$ AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. voltage measured Any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

CAUTION Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of performing repair of this system.

Preventing static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

1.1. Grounding to prevent damage by static electricity

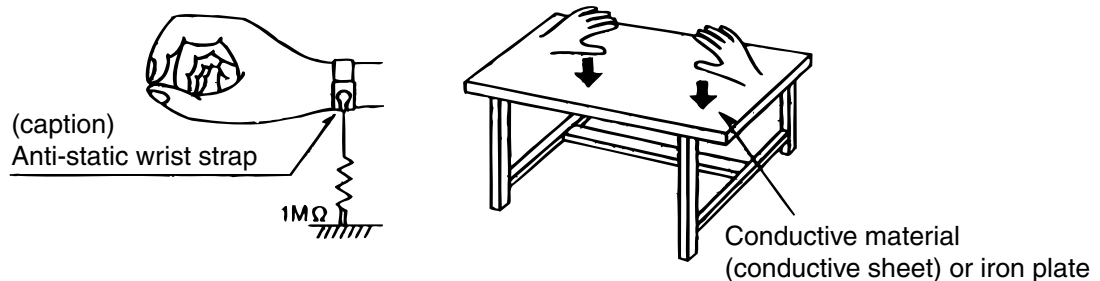
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as DVD players. Be careful to use proper grounding in the area where repairs are being performed.

1.1.1. Ground the workbench

1. Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

1.1.2. Ground yourself

1. Use an anti-static wrist strap to release any static electricity built up in your body.



1.1.3. Handling the optical pickup

1. In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)
2. Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

1.2. Handling the traverse unit (optical pickup)

1. Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.
2. Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.
3. Handle the flexible cable carefully as it may break when subjected to strong force.
4. It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it

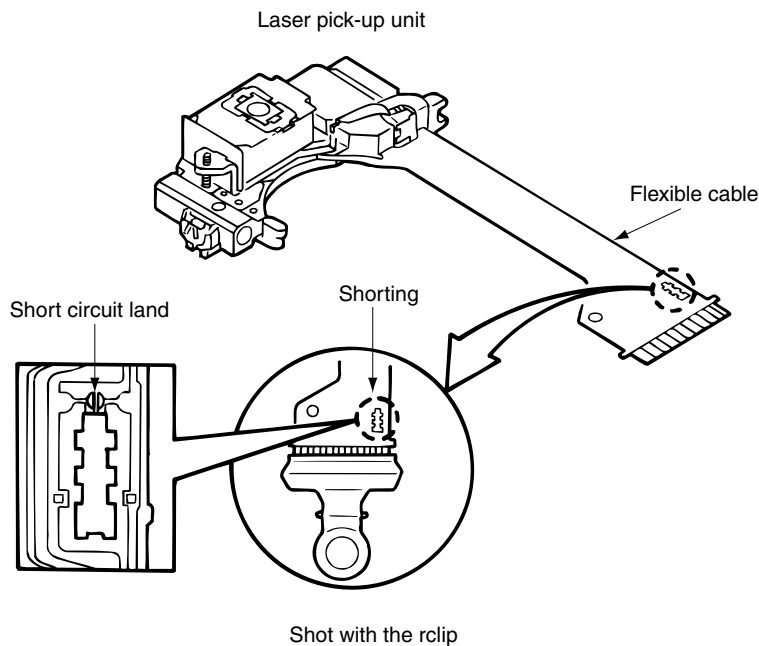
Dismantling and assembling the traverse unit

1. Notice regarding replacement of optical pickup

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs to the optical pickup or connected devices.

(Refer to the section regarding anti-static measures.)

1. Do not touch the area around the laser diode and actuator.
2. Do not check the laser diode using a tester, as the diode may easily be destroyed.
3. It is recommended that you use a grounded soldering iron when shorting or removing the laser diode.
Recommended soldering iron: HAKKO ESD-compatible product
4. Solder the land on the optical pickup's flexible cable.
 - Note : Short the land after shorting the terminal on the flexible cable using a clip, etc., when using an ungrounded soldering iron.
 - Note : After shorting the laser diode according to the procedure above, remove the solder according to the text explanation.



Disassembly method

<Main body>

■ Removing the top cover

(See Fig.1 and 2)

1. Remove the four screws A attaching the top cover (Use an Allen wrench).
2. Lift up the front part of the top cover to release the two joints a and remove the top cover toward the front.

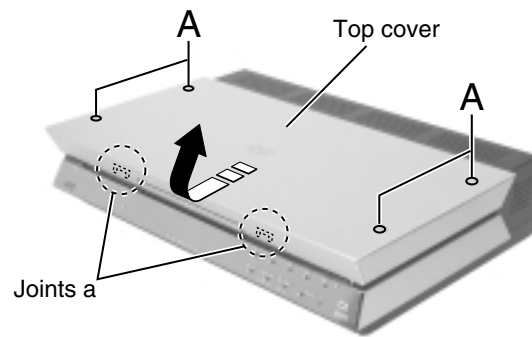


Fig.1

■ Removing the rear cover (See Fig. 3)

- Prior to performing the following procedure, remove the top cover.

1. Remove the four screws B attaching the rear cover on the back of the body. Pull out the rear cover backward.

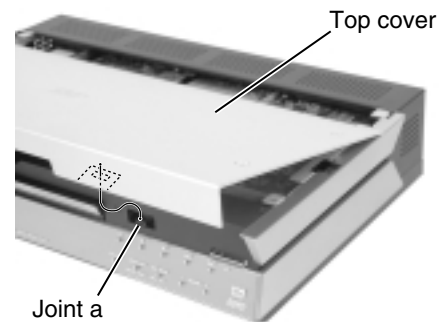


Fig.2

■ Removing the right and left side covers (See Fig. 4 and 5)

- Prior to performing the following procedure, remove the top cover and the rear cover.

1. Move the left side cover backward to release the five joint hooks b and remove the left side cover outward.
2. Remove the right side cover in the same way.

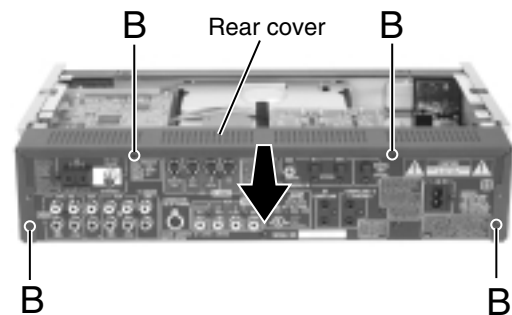


Fig.3

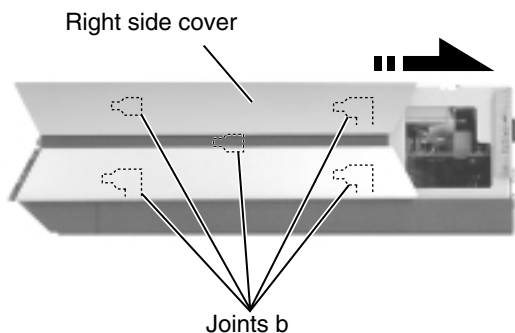


Fig.5

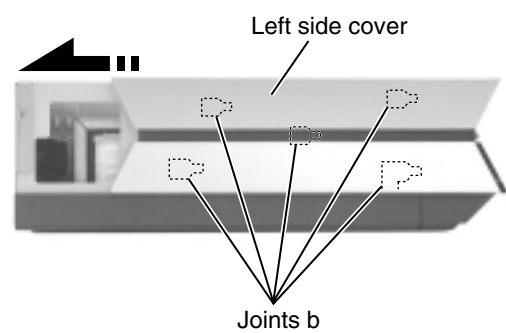


Fig.4

**■Removing the front panel assembly
(See Fig. 6 to 9)**

- Prior to performing the following procedure, remove the top cover, the rear cover and the side covers.
1. Disconnect the harness from connector CN802 on the main board on the upper side of the body.
 2. Remove the two screws C on the upper side of the body.
 3. Remove the three screws D on the bottom of the body.
 4. Release the five joints c and detach the front panel assembly toward the front.

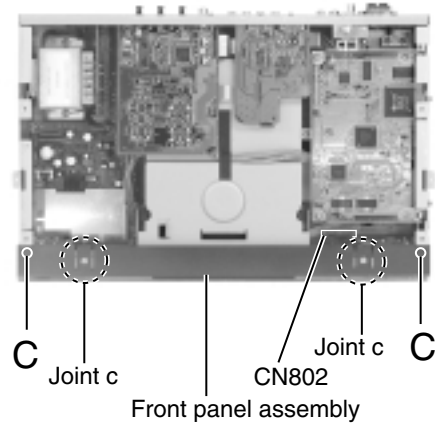


Fig.6

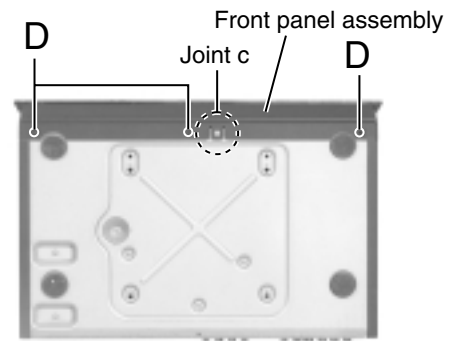


Fig.7

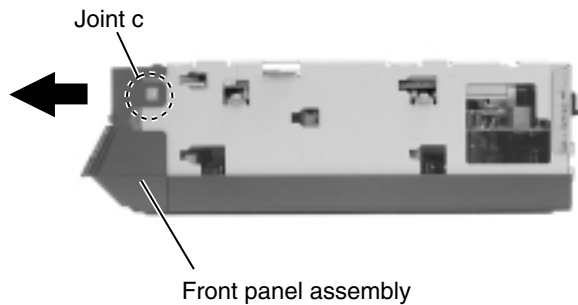


Fig.9

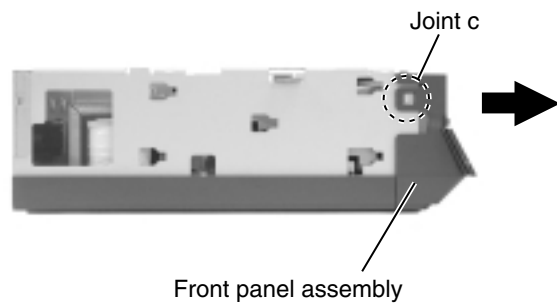


Fig.8

■Removing the right and left corner covers (See Fig.10 and 11)

- Prior to performing the following procedure, remove the top cover, the rear cover, the side covers and the front panel assembly.
- It is not necessary to remove the front panel assembly.

1. Move the left corner cover backward to release the three joint hooks d.
2. Remove the right corner cover in the same way.

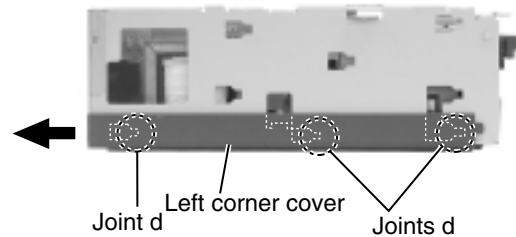


Fig.10

■Removing the rear panel (See Fig.12 to 14)

- Prior to performing the following procedure, remove the top cover and the rear cover.

1. Remove the eighteen screws E and the one screw F attaching the rear panel.
2. Release the two joints e on both sides of the body.

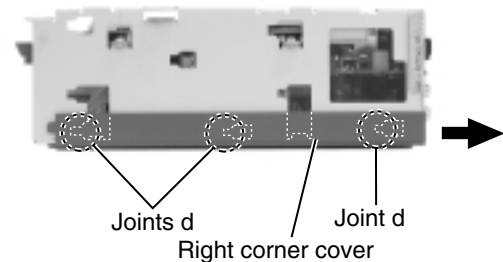


Fig.11

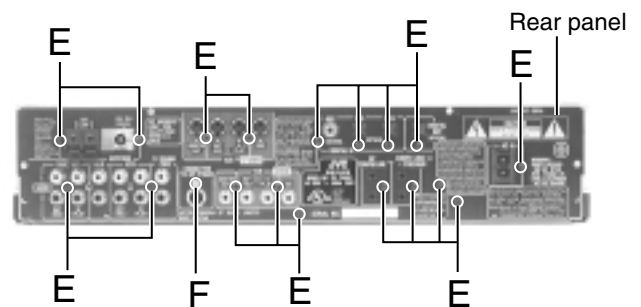


Fig.12

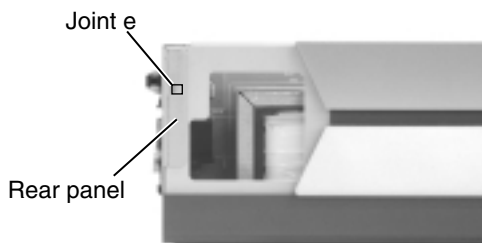


Fig.12

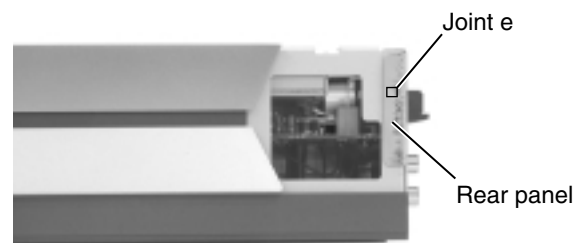
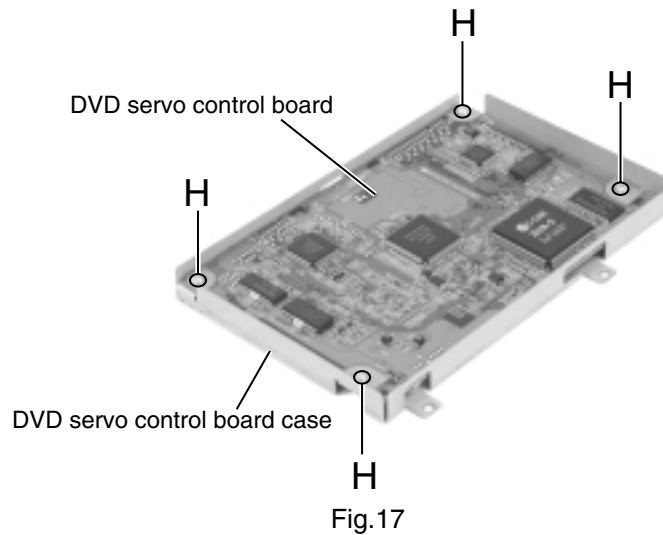
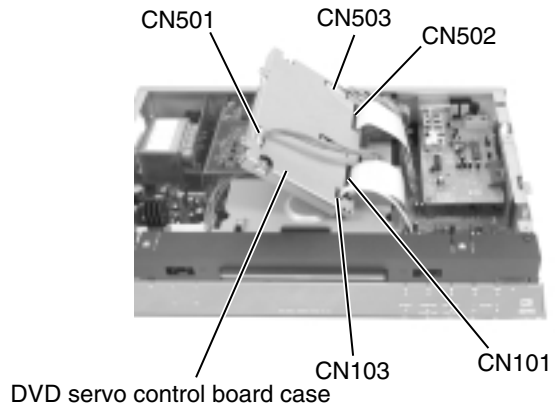
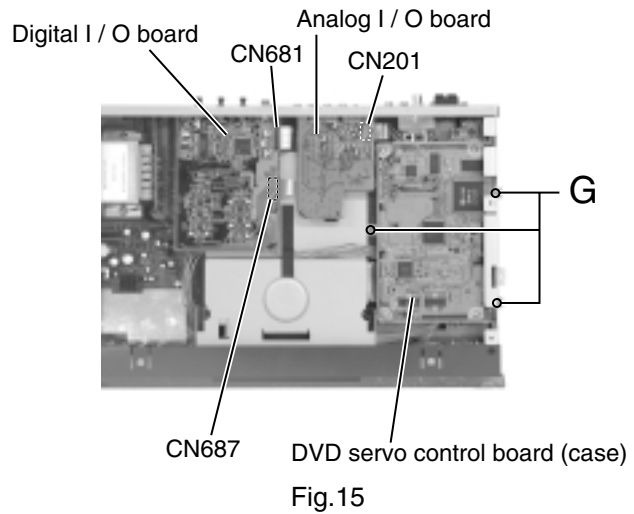


Fig.12

**■Removing the DVD servo control board
(See Fig.15 to 17)**

• Prior to performing the following procedure, remove the right side cover, the top cover, and the rear cover.

1. Remove the three screws G and pull the DVD servo control board case upward.
2. Disconnect the harness from connector CN501 and CN503, and the card wire from CN101, CN103 and CN502 of the DVD servo control board on the underside of the DVD servo control board case.
3. Remove the four screws H attaching the DVD servo control board.



■ Removing the analog I / O board / the digital I / O board (See Fig.18 and 19)

- Prior to performing the following procedure, remove the top cover and the rear cover.
1. Remove the two screws E attaching the analog I / O board on the back of the body.
 2. Disconnect the card wire from connector CN201 on the analog I / O board.
 3. Remove the four screws E attaching the digital I / O board on the back of the body.
 4. Disconnect the card wire from connector CN681 and CN687 on the digital I / O board.

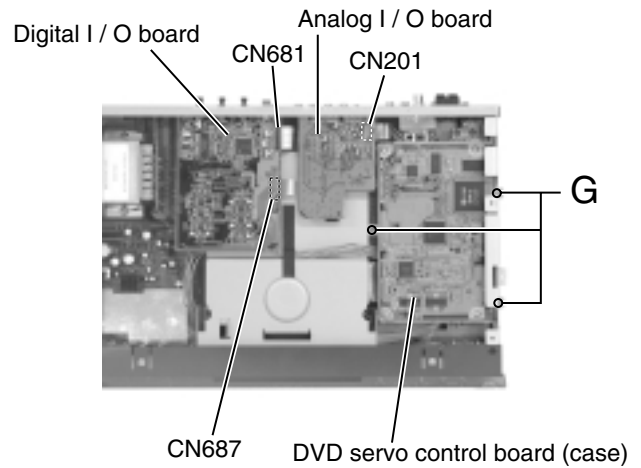


Fig.18

■ Removing the tuner board / the sub board (See Fig.20 and 21)

- Prior to performing the following procedure, remove the top cover, the rear cover and the DVD servo control board case.
1. Remove the two screws E attaching the tuner board on the back of the body.
 2. Disconnect connector CN111 on the tuner board from the sub board.
 3. Disconnect connector CN131 on the sub board from the main board.

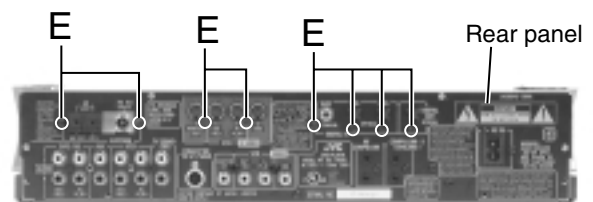


Fig.19

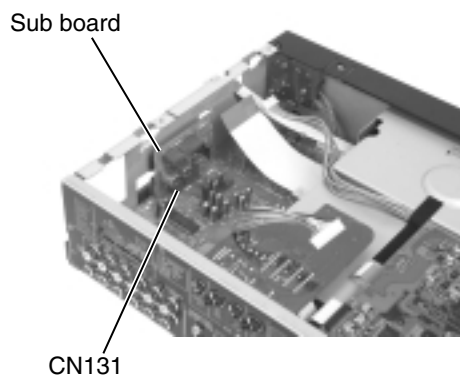


Fig.21

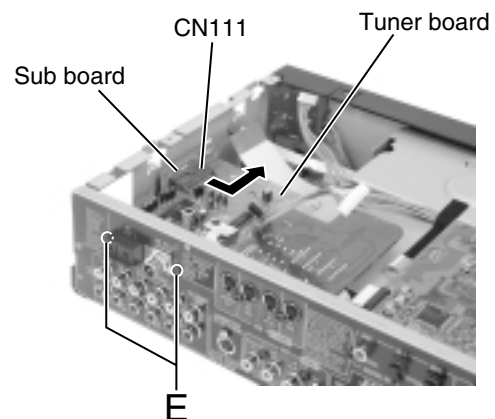


Fig.20

**■Removing the DVD mechanism assembly
(See Fig.22 and 23)**

- Prior to performing the following procedure, remove the top cover, the rear cover, the front panel assembly, the DVD servo control board case, the analog I / O board, the digital I / O board and the tuner board.
1. Disconnect the harnesses from the spacer on the upper side of the DVD mechanism cover.
 2. Remove the two screws I and the one screw J attaching the DVD mechanism cover.
 3. Remove the two screws K attaching the DVD mechanism assembly.
 4. Remove the DVD mechanism assembly upward while pulling it backward.

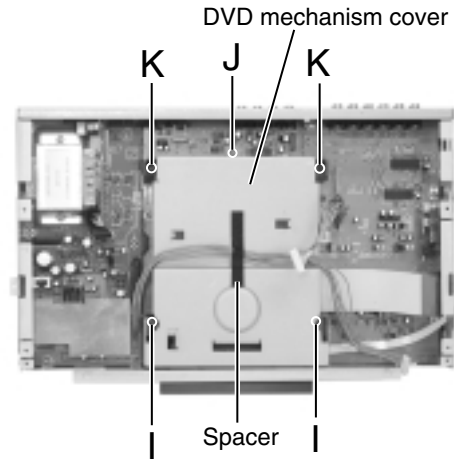


Fig.22

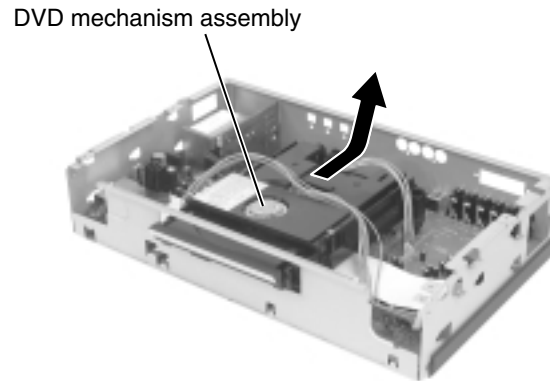


Fig.23

**■Removing the power board
(See Fig.24 and 25)**

- Prior to performing the following procedure, remove the top cover, the rear cover, the front panel assembly, the DVD servo control board case and the digital I / O board.
1. Disconnect the harness from the spacer on the upper side of the DVD mechanism cover.
 2. Remove the two screws E attaching the power board on the back of the body.
 3. Disconnect the harness from connector CN911 and CN912 on the power board.
 4. Remove the four screws L attaching the power board.
 5. Disconnect connector CN913 and CN914 of the power board from the main board by pulling out them respectively.

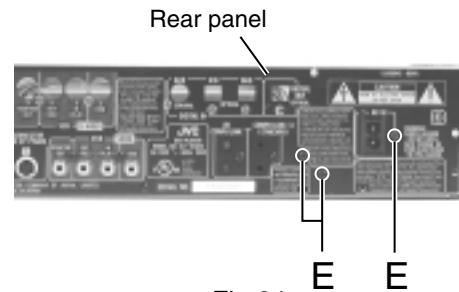


Fig.24

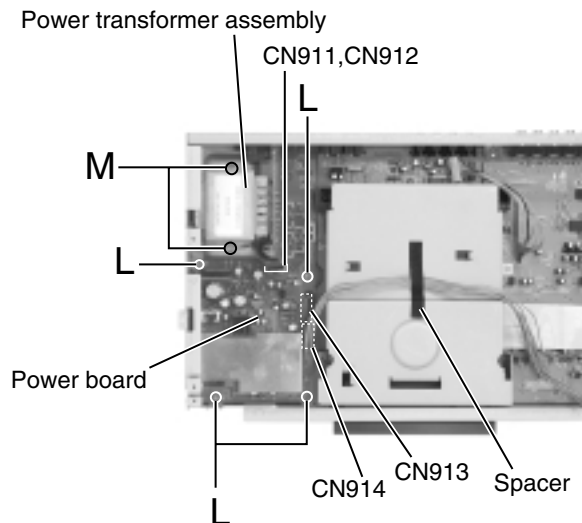


Fig.25

■ Removing the power transformer assembly (See Fig.24 and 25)

• Prior to performing the following procedures, remove the top cover and the rear cover.

1. Disconnect the harnesses from connector CN911 and CN912 on the power board.
2. Remove the two screws M attaching the power transformer assembly.
3. Remove the screw E attaching the power transformer assembly on the back of the body.

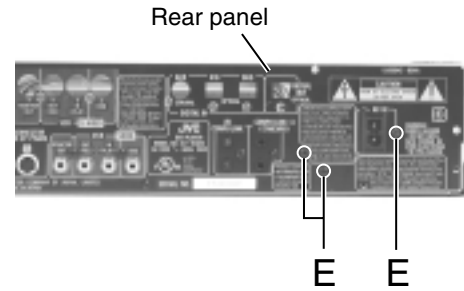


Fig.24

■ Removing the main board (See Fig.26)

• Prior to performing the following procedure, remove the top cover, the rear cover, the front panel assembly, the rear panel, the DVD mechanism assembly, the power board and the sub board.

1. Remove the four DVD spacers on the upper side of the main board.
2. Remove the five screws N attaching the main board.

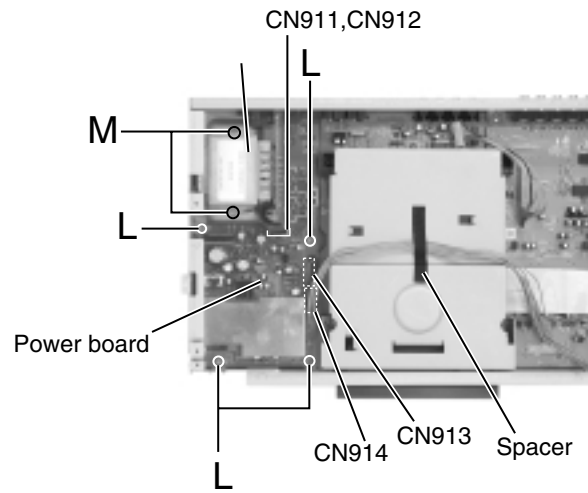


Fig.25

<Front panel assembly>

• Prior to performing the following procedure, remove the top cover, the rear cover, the side covers and the front panel assembly.

■ Removing the power switch board (See Fig.27)

1. Disconnect the harness from connector CN705 on the power switch board.
2. Remove the three screws O attaching the power switch board.

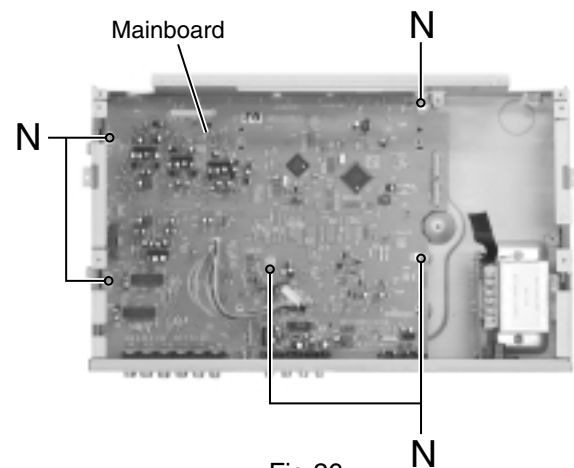


Fig.26

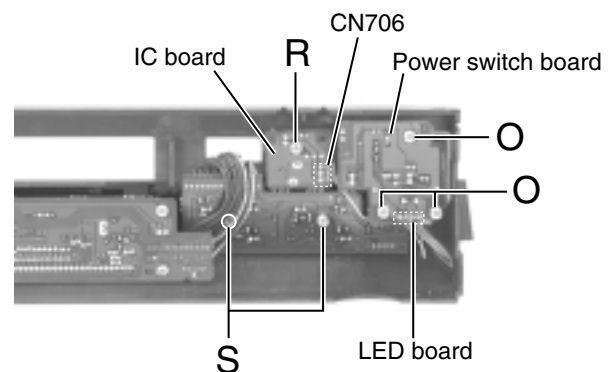


Fig.27

■Removing the eject board (See Fig.28)

1. Disconnect the harness from connector CN702 on the eject board.
2. Remove the three screws P attaching the eject board.

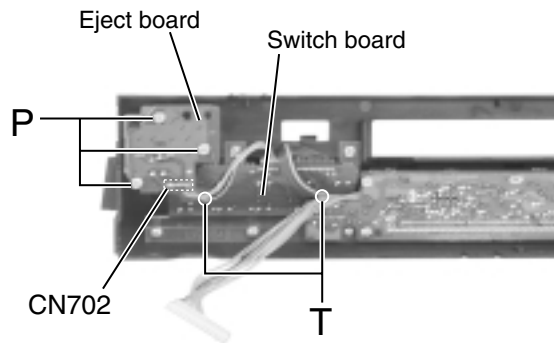


Fig.28

■Removing the LCD board (See Fig.29)

1. Remove the four screws Q attaching the LCD board.
2. Unsolder WA701, WA703 and WA704 on the LCD board.

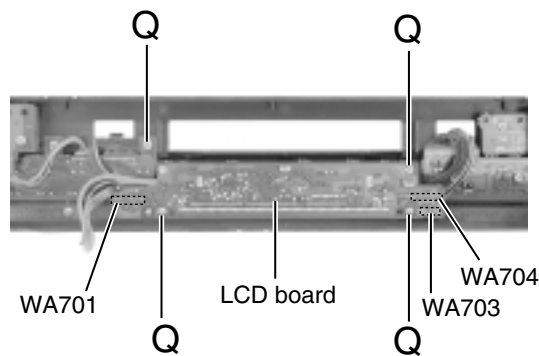


Fig.29

■Removing the IC board (See Fig.27)

1. Remove the screw R attaching the IC board.
2. Disconnect the harness from connector CN706 on the IC board.

■Removing the LED board (See Fig.27)

- Prior to performing the following procedure, remove the LCD board and the IC board.

1. Disconnect the harness from connector CN705 on the power switch board.
2. Remove the two screws S attaching the LED board.

■Removing the switch board (See Fig.28)

- Prior to performing the following procedure, remove the LCD board.

1. Disconnect the harness from connector CN702 on the eject board.
2. Remove the two screws T attaching the switch board.

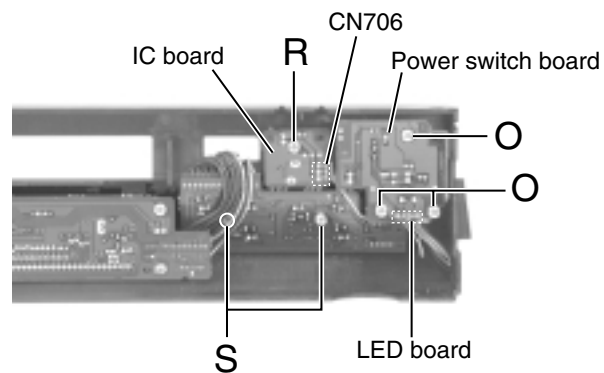


Fig.27

<Removing DVD mechanism unit>

■ Removing the clamper base (refer to Figure 1)

- o Remove the top cover.
 - o Remove the DVD mechanism unit.
1. Remove the two screws at A fixing the clamper base.

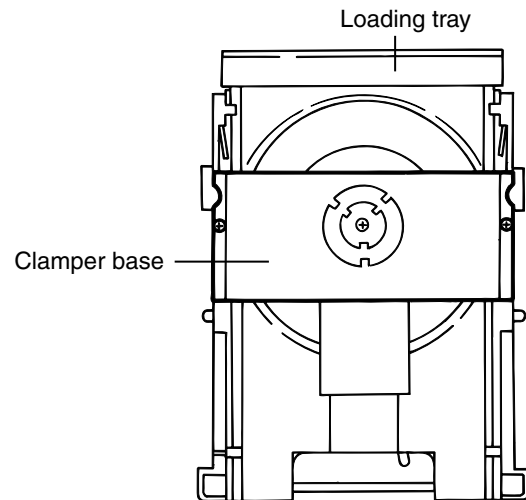


Figure 1

■ Removing the loading tray (refer to Figures 2 - 4)

- o Remove the clamper base.
1. Turn the up-down cam lever clockwise (in the direction of the arrow in Figure 2) to lower the position of the mechanism.
 2. Manually set the loading tray to the fully-open position.
 3. Stretch the tray stoppers on both sides of the loading base outward and pull out the tray.

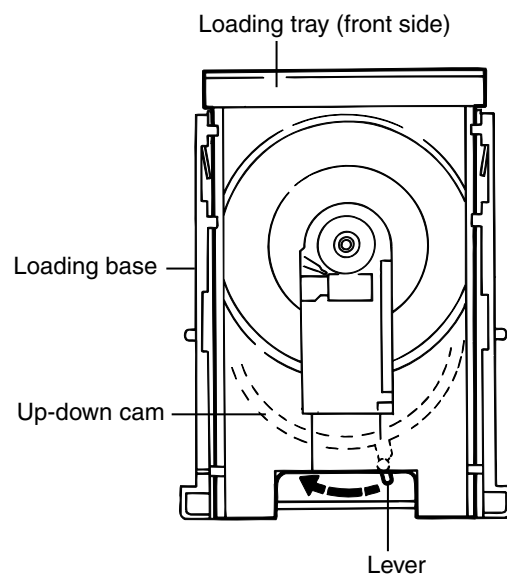


Figure 2

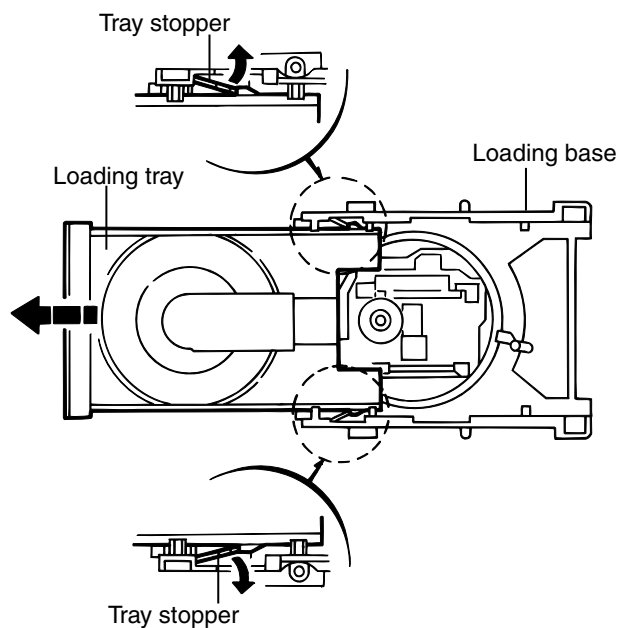


Figure 4

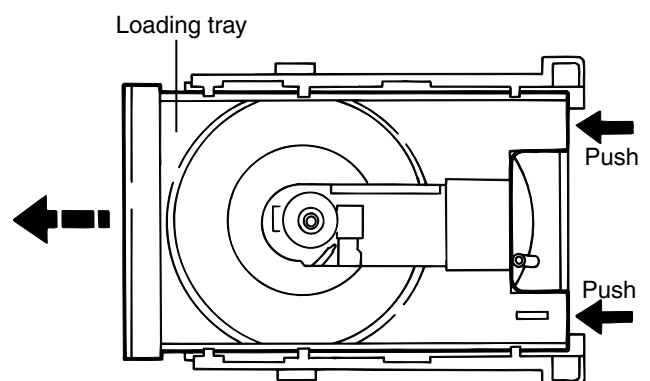


Figure 3

■ **Removing the traverse mechanism unit** (refer to Figure 5)

o Remove the loading tray.

1. Remove the three screws at B fixing the traverse mechanism unit.

■ **Protecting the optical pickup**

o Solder the flexible ground point on the optical pickup when replacing the pickup or before detaching the mechanism control board. When assembling the unit, remove the solder last.

■ **Removing the mechanism control board**

(refer to Figures 6 - 7)

o Remove the traverse unit. (Can be detached without detaching the T-mechanism unit.)

1. Remove the two screws at C fixing the mechanism control base from the bottom of the traverse unit.
2. Pull out the CN12 connector and detach the mechanism control board.
3. Remove the card wire from the CN13 connector on the mechanism control board.
4. Pull out the FPC holder from the CN12 connector on the reverse side of the mechanism control board and remove the flexible harness, referring to Figure 7.

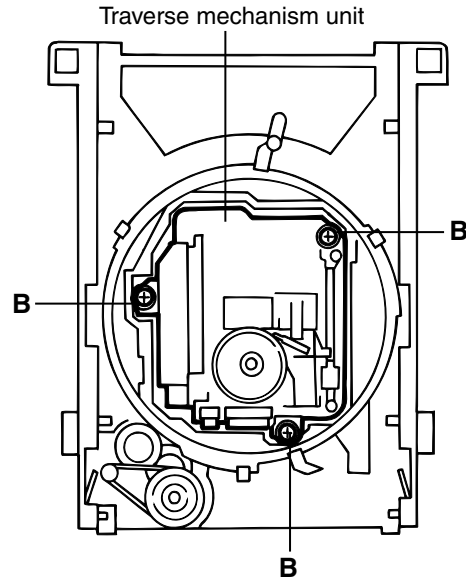


Figure 5

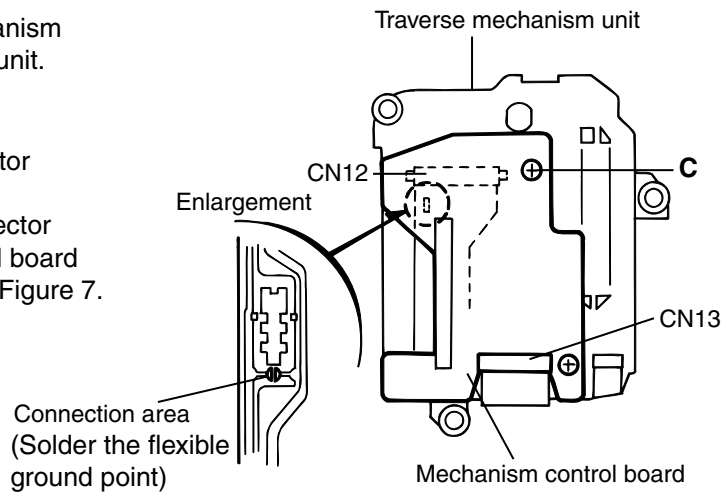


Figure 6

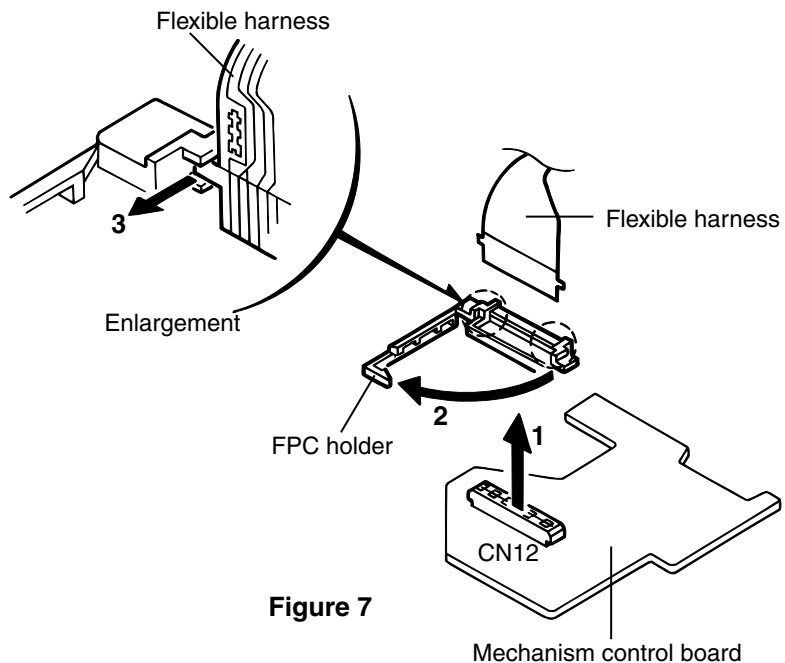


Figure 7

■ Removing the turntable and spindle motor assembly

(refer to Figures 8 - 9)

- o Remove the traverse mechanism unit.
 - o Solder the flexible ground point on the optical pickup. (Figure 6)
 - o Remove the mechanism control board.
1. Remove the flexible harness from the feed motor connector on the spindle motor board assembly.
 2. Remove the three screws at D fixing the spindle motor from the bottom of the traverse chassis.

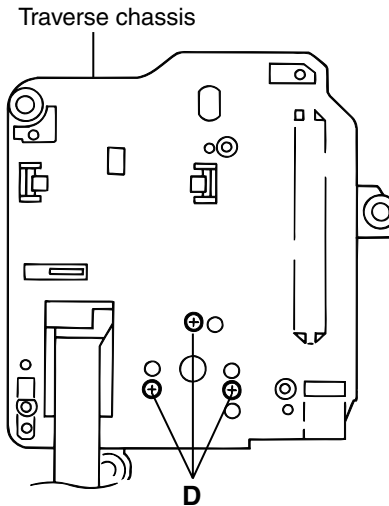


Figure 8

■ Removing the feed motor unit (refer to Figure 9)

- o Remove the traverse mechanism unit.
 - o Remove the mechanism control board.
1. Remove the FPC from the feed motor connector on the turntable spindle motor board.
 2. Remove the two screws at E fixing the feed motor unit.

■ Removing the optical pickup unit (refer to Figure 9)

- o Remove the traverse mechanism unit.
 - o Remove the mechanism control board.
 - o Remove the feed motor unit.
1. Remove the screw at F fixing the guide shaft holder at B, then simultaneously remove the guide shaft at B and the optical pickup unit. While doing so, slide the unit horizontally away from the guide shaft at A.

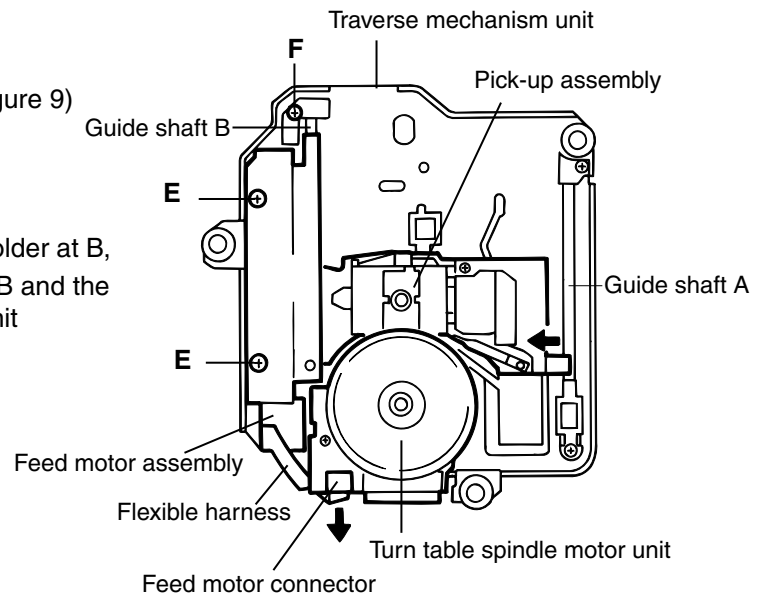


Figure 9

■ **Removing the loading mechanism parts**

(refer to Figures 10 - 11)

- o Remove the clamper base.
- o Remove the disk tray.
- 1. Turn the lever counterclockwise until it stops (position 1), while pushing the switch lever in the direction of the arrow and pushing up the pawl at A using a screwdriver.
- 2. Stretch the two pawls at B outward using a screwdriver and remove the chassis.
- 3. Turn the lever clockwise (position 2) to remove the up-down cam.
- 4. Remove the pulley gear and the pulley gear belt after removing the screw at G fixing the pulley gear.
- 5. Pull out drive gear 2 then drive gear 1.

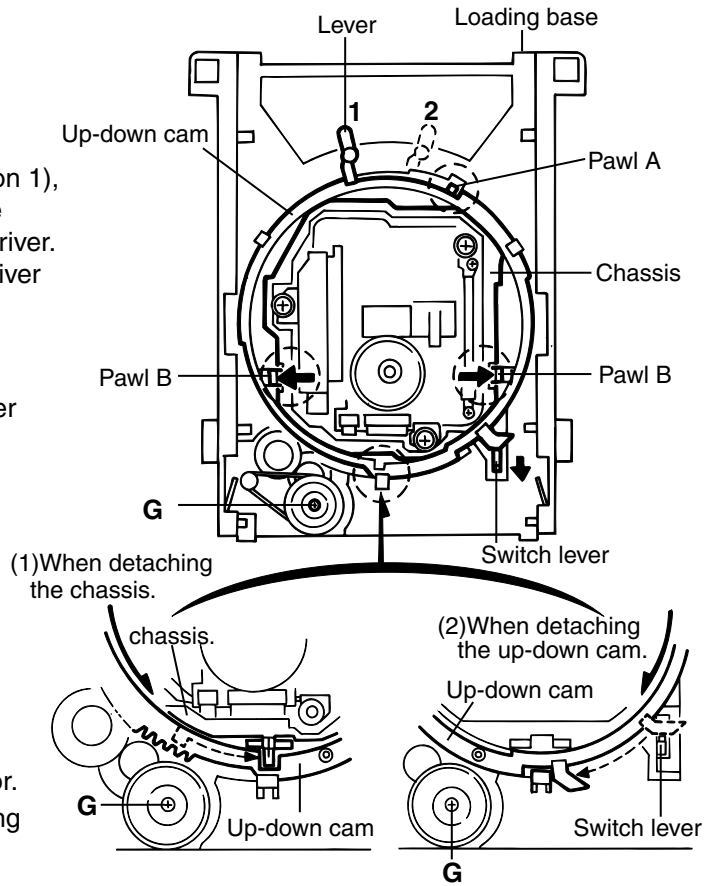


Figure 10

■ **Removing the loading motor board**

(refer to Figures 11 - 12)

- o Remove the clamper base.
- o Remove the disk tray.
- 1. Remove the loading belt.
- 2. Remove the two screws at H fixing the loading motor.
- 3. Remove the screw at I and the three pawls at C fixing the loading motor base from the reverse side of the loading base.

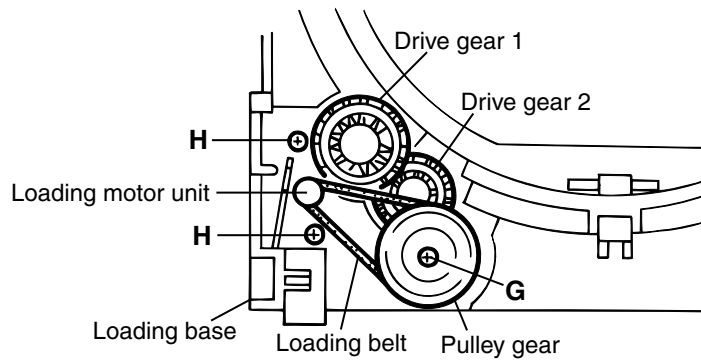


Figure 11

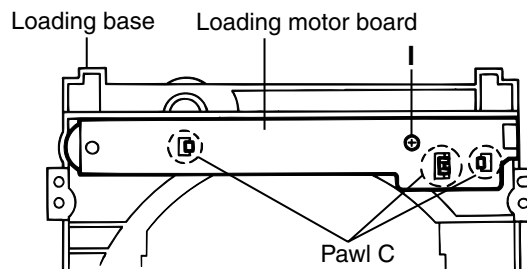


Figure 12

Disassembly method

<Speaker>

■ Removing the amplifier assembly (See Fig.1)

1. Remove the twelve screws A attaching the amplifier assembly on the back of the body.
2. Move the amplifier assembly backward and disconnect the harness from connector CN109 in the lower part of the amplifier assembly.

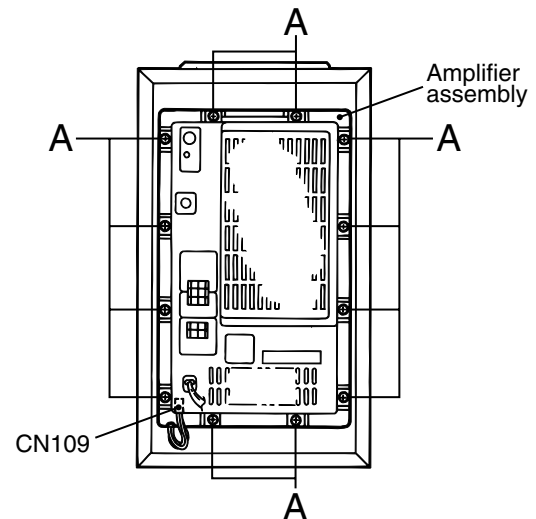


Fig.1

■ Removing the heat sink cover and the amplifier cover (See Fig.2 and 3)

- Prior to performing the following procedure, remove the amplifier assembly.

1. Pull out the volume knob.
2. Remove the four screws B attaching the heat sink cover.
3. Remove the twenty screws C and the one screw D attaching the amplifier cover.

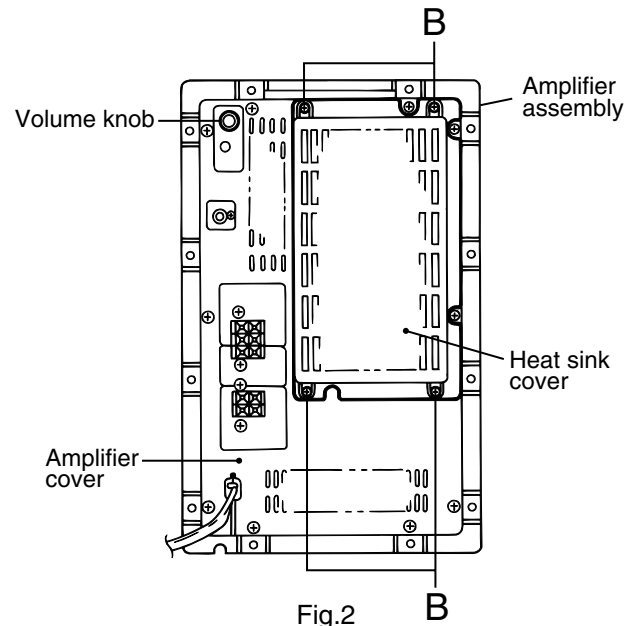


Fig.2

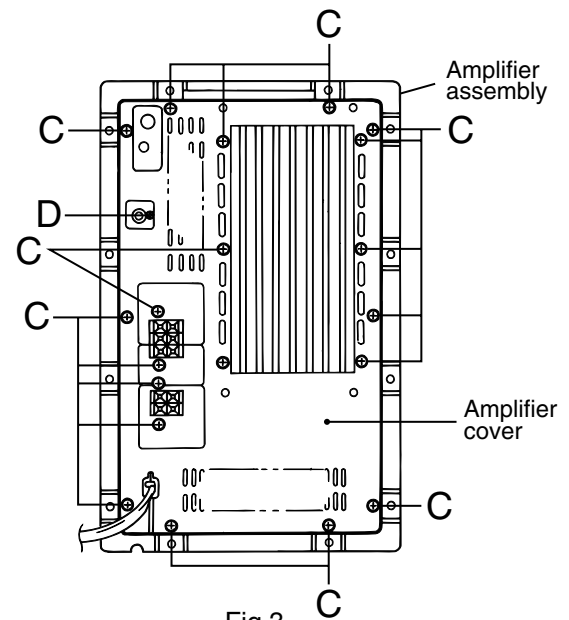


Fig.3

■ Removing the front panel assembly (See Fig. 6 to 9)

- Prior to performing the following procedure, remove the top cover, the rear cover and the side covers.
1. Disconnect the harness from connector CN802 on the main board on the upper side of the body.
 2. Remove the two screws C on the upper side of the body.
 3. Remove the three screws D on the bottom of the body.
 4. Release the five joints c and detach the front panel assembly toward the front.

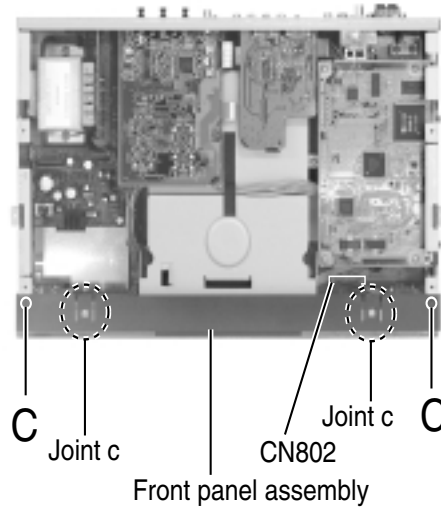


Fig.6

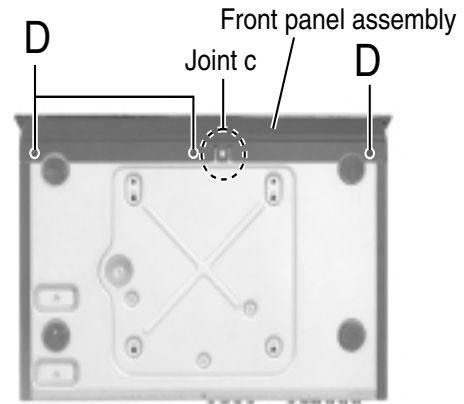


Fig.7

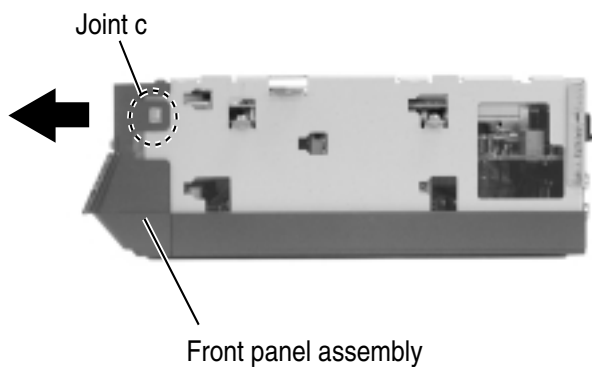


Fig.9

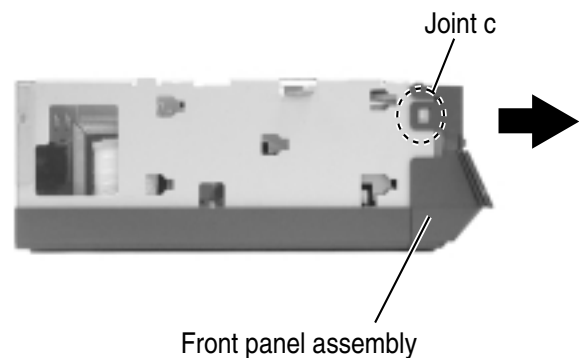


Fig.8

■Removing the right and left corner covers (See Fig.10 and 11)

- Prior to performing the following procedure, remove the top cover, the rear cover, the side covers and the front panel assembly.
 - It is not necessary to remove the front panel assembly.
1. Move the left corner cover backward to release the three joint hooks d.
 2. Remove the right corner cover in the same way.

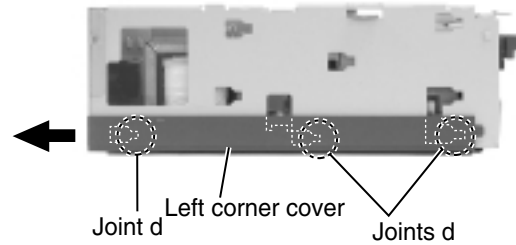


Fig.10

■Removing the rear panel (See Fig.12 to 14)

- Prior to performing the following procedure, remove the top cover and the rear cover.
1. Remove the eighteen screws E and the one screw F attaching the rear panel.
 2. Release the two joints e on both sides of the body.

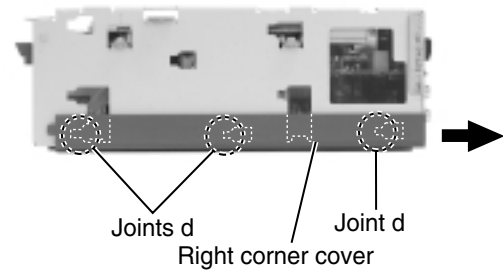


Fig.11

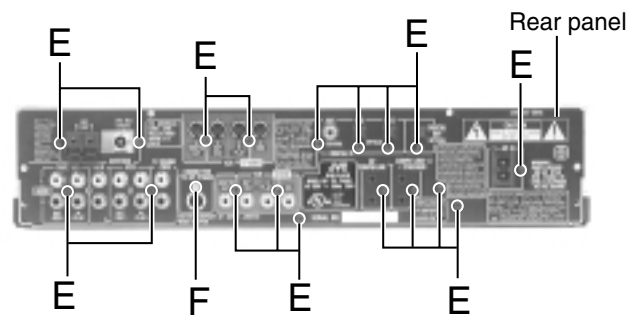


Fig.12

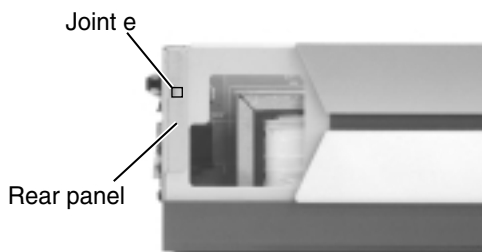


Fig.12

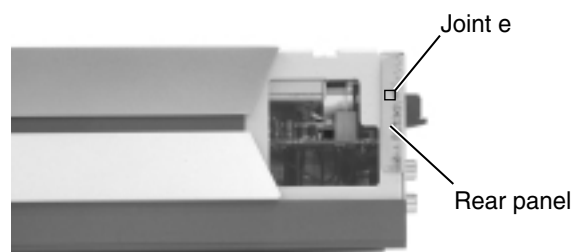


Fig.12

**■Removing the DVD servo control board
(See Fig.15 to 17)**

- Prior to performing the following procedure, remove the top cover, the rear cover and the right side cover.
1. Remove the three screws G and pull the DVD servo control board case upward.
 2. Disconnect the harness from connector CN501 and CN503, and the card wire from CN101, CN103 and CN502 of the DVD servo control board on the underside of the DVD servo control board case.
 3. Remove the four screws H attaching the DVD servo control board.

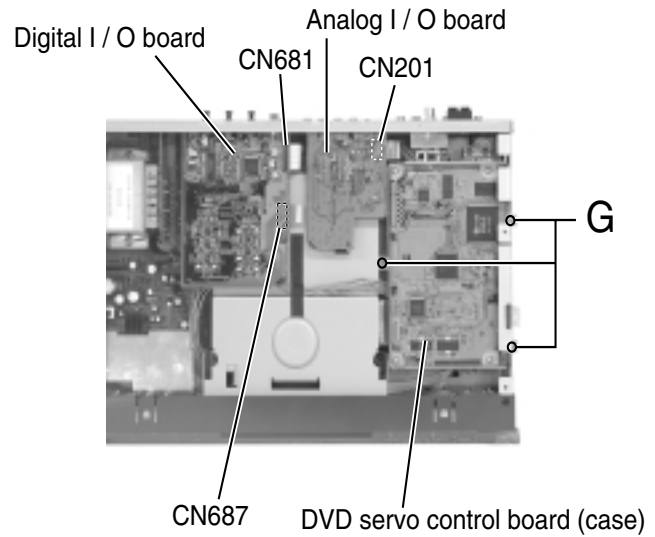


Fig.15

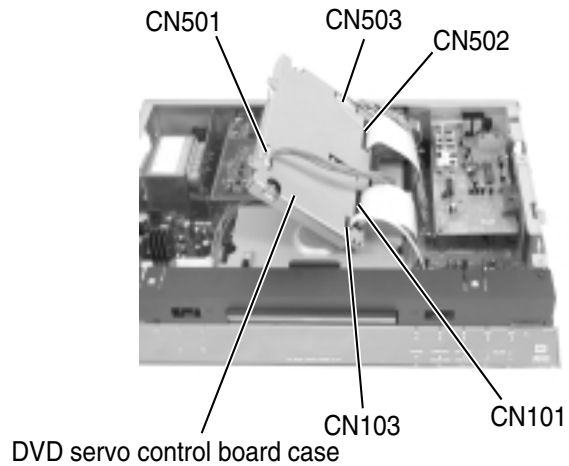


Fig.16

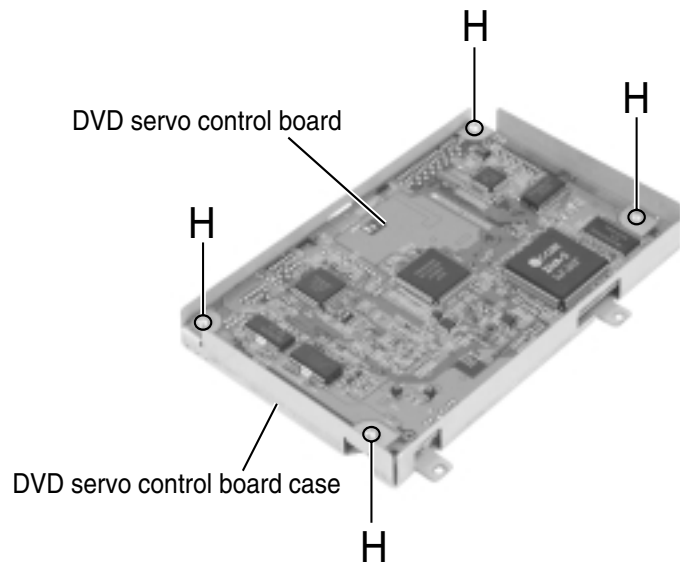


Fig.17

Main Adjustment

Adjustment and confirmation matter

(1) Auto adjustment method

If microprocessor (IC401, IC402, IC714, IC716) or DVD Prek-up is replaced, initialize the DVD player in the following matter:

1. Initialize the DVD player in the following matter:

- 1) Make sure that no disc is on the tray.
- 2) Insert the power pulag to the outlet while pressing "PLAY" and "OPEN/CLOSE" button at the same time.
FL Display indicate ¥ ; Region cord.
- 3) Press Enter button. And EEPROM initialize start.
- 4) When indicate "96kHz EEPROM" on the display , initialize finished.

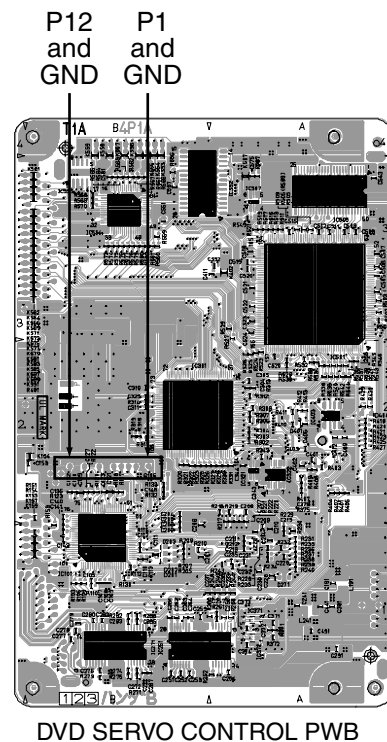
**Note : During the EEPROM initialization the keys may not be operated.
Press the "POWER" key to initiate the STAND-BY mode and the test mode will then be cancelled.**

(2) Confirmation of DVD RF level

- 1.The oscilloscope is connected between "1"(RFOP) of CN104 and "2"(GND).
- 2.Reproduction of the test disc (VT-501) made by JVC.
- 3.It is confirmed that RF LEVEL is $350\text{mVp-p} \pm 150\text{mVp-p}$.
- 4.When there is disorder in the waveform road cuts etc, test disk is exchanged and measured.

(3) Confirmation of CD jitter level and RF level

1. The CD jitter meter is connected between "11"(GND) of CN104 and "12"(FLTOUT).
The RF level is observed at the same time.
- 2.The first test disk(CTS-1000) made of JVC is reproduced.
- 3.It is confirmed that RF LEVEL is $360 \pm 100\text{mVp-p}$.
5. When there is disorder in the waveform road cuts etc, test disk is exchanged and measured.



FRONT SIDE

(4) Flap adjustment of the Pick-up guide shaft

- 1) Make sure that there is no disc on the tray.
- 2) Press both the "PLAY" and "OPEN/CLOSE" keys of the main unit to activate the primary power and **¥(** ; Version3, ¥; Region cord) will be displayed on the FL indicator.

Note: If the FL indicator display stops and remains at "TEST 0", unplug the power cord from the outlet and after waiting at least 1 second, plug it in again. After the tray open/close procedure has completed, unplug it again and then perform the initialization procedure again.

- 3) Press the "OPEN/CLOSE" key of the main unit to draw the tray out.
*Place the test disk (VT-501) on the tray and then press the "OPEN/CLOSE" key.
(Note: Pushing the tray to close it is not possible.)
- 4) Press the "PLAY" key of the main unit.
- 5) The "JIT 0000" is displayed on the FL indicator.
Set the FL indicator figure value to its minimum by adjusting the pickup guide shaft flap.
* The test mode is cancelled when the power is turned off.

Measurement	Adjustment point	Mode	Disc
—	Refer to Fig.2	Reproduction part	VT-501
Measurement machine	connections	Extension cord No.	
No need	Refer to Fig.1	QUQ110-3740AM	
General tool : Hex-head wrench (1.27 mm)			

"Flap adjustment" of the Pick-up guide shaft adjusts "Tangential adjustment machine screw" A and "Tilt adjustment machine screw" B from the DVD Mechanism A'ssy bottom.

1. The part at the center on the DVD test disc is reproduced.
2. The flap adjustment screws is turned alternately and adjusted like clearly seeing the waveform of CN104"1" to the way.

Note

1. The tangential adjustment is done finish and, then, tilt is adjusted.
2. The repeat the adjustment 2-3 times, for best result.
3. The final adjustment should be tilt adjustment.

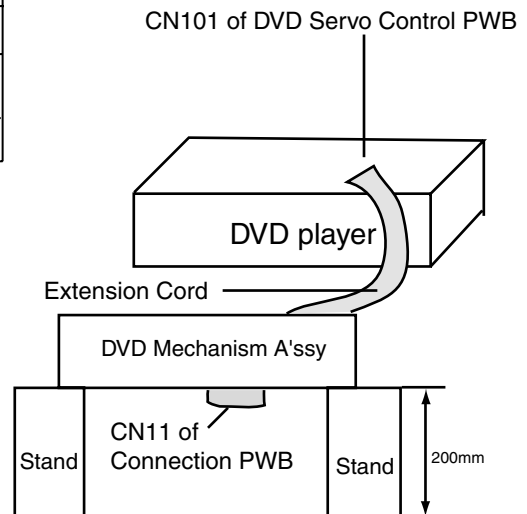
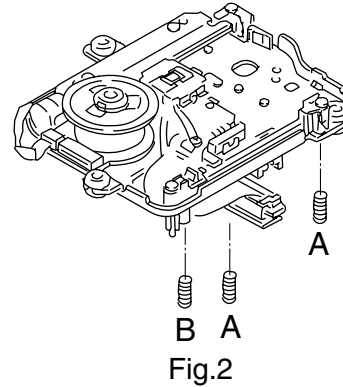


Fig.1



Confirmation after adjustment.

Confirm to reproduce video CD and CD after the DVD test disc is adjusted and to find abnormality.

(5) About keeping the disc

As for the DVD test disc, plane accuracy is demanded. Please note the keeping place on the disc.

1. Please do not put the disc directly on the work desk etc. after uses .
2. To keep the planarity of the disc, politely handle ,and please put in a special case and keep the disc vertically after uses .
Please keep keeping the disc in a cool place where direct sunshine and the air-conditioning wind do not drive.
3. When the disc curves,an accurate adjustment cannot be done.
Please exchange for a new test disc and adjust optics.
4. Other discs might not be able to be reproduced when adjusting on a curved disc.

Point of adjustment

- * Please execute the static electricity protection measures before starting the adjustment.
- * When the following parts are exchanged,optical adjustment "Adjust the flap of the disc motor" is necessary.
 - 1.The disc motor was exchanged.
 - 2.The laser pick up was exchanged.
 - 3.The traverse motor unit was exchanged.

Note

Additionally, please adjust the flap of the disc motor when the picture quality deterioration is seen .The basic adjustment though, is unnecessary for part exchange in the traverse.

An optical adjustment in the laser pick up cannot be done.

Please adjust the flap of the disc motor after exchanging the laser pick up.

- * When the traverse unit is exchanged, the adjustment is basically unnecessary.

Precautions for Service

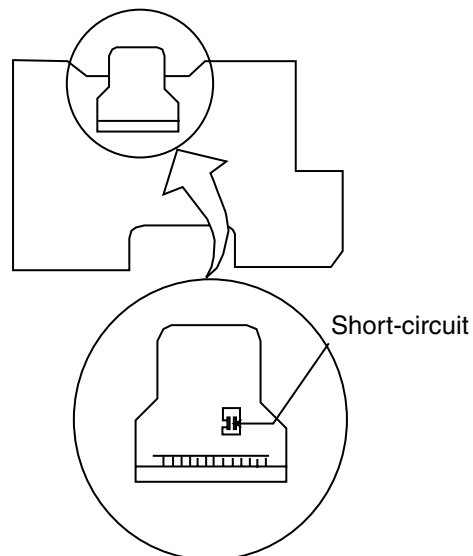
Handling of Traverse Unit and Laser Pickup

1. Do not touch any peripheral element of the pickup or the actuator.
2. The traverse unit and the pickup are precision devices and therefore must not be subjected to strong shock.
3. Do not use a tester to examine the laser diode. (The diode can easily be destroyed by the internal power supply of the tester.)
4. To replace the traverse unit, pull out the metal short pin for protection from charging.
5. When replacing the pickup, after mounting a new pickup, remove the solder on the short land which is provided at the center of the flexible wire to open the circuit.
6. Half-fixed resistors for laser power adjustment are adjusted in pairs at shipment to match the characteristics of the optical block.
Do not change the setting of these half-fixed resistors for laser power adjustment.

Destruction of Traverse Unit and Laser Pickup by Static Electricity

Laser diodes are easily destroyed by static electricity charged on clothing or the human body. Before repairing peripheral elements of the traverse unit or pickup, be sure to take the following electrostatic protection:

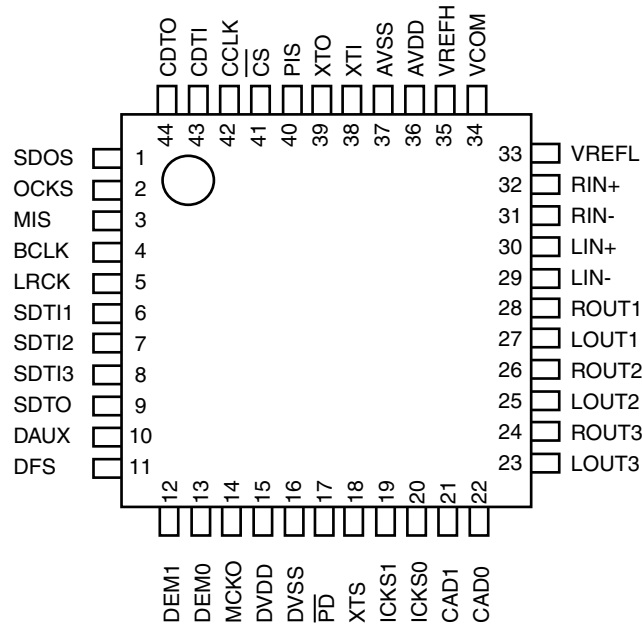
1. Wear an antistatic wrist wrap.
2. With a conductive sheet or a steel plate on the workbench on which the traverse unit or the pick up is to be repaired, ground the sheet or the plate.
3. After removing the flexible wire from the connector (CN101), short-circuit the flexible wire by the metal clip.
4. Short-circuit the laser diode by soldering the land which is provided at the center of the flexible wire for the pickup.
After completing the repair, remove the solder to open the circuit.



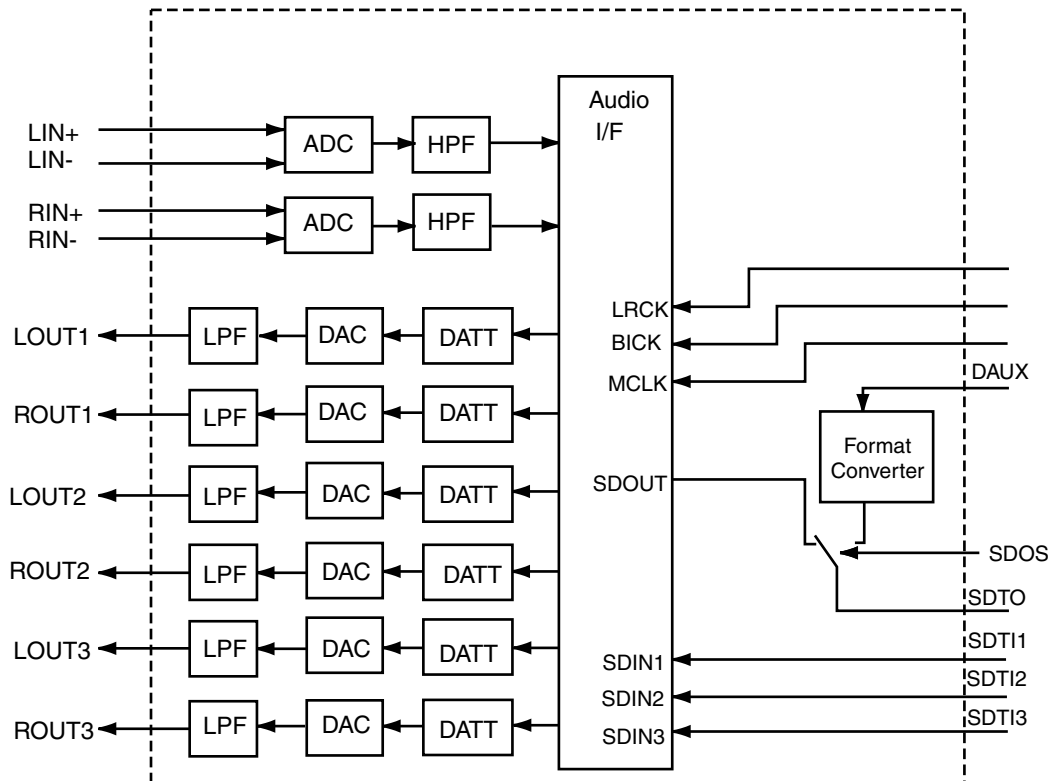
Discription of major IC's

■ AL4527 (IC601): A/D, D/A Converters

1. Terminal layout



2. Block diagram

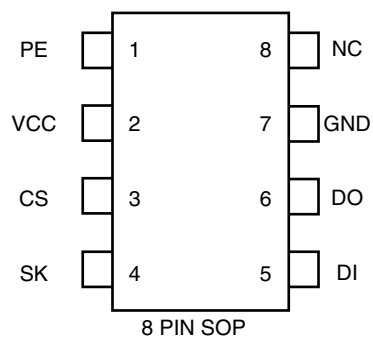


3. Pin function

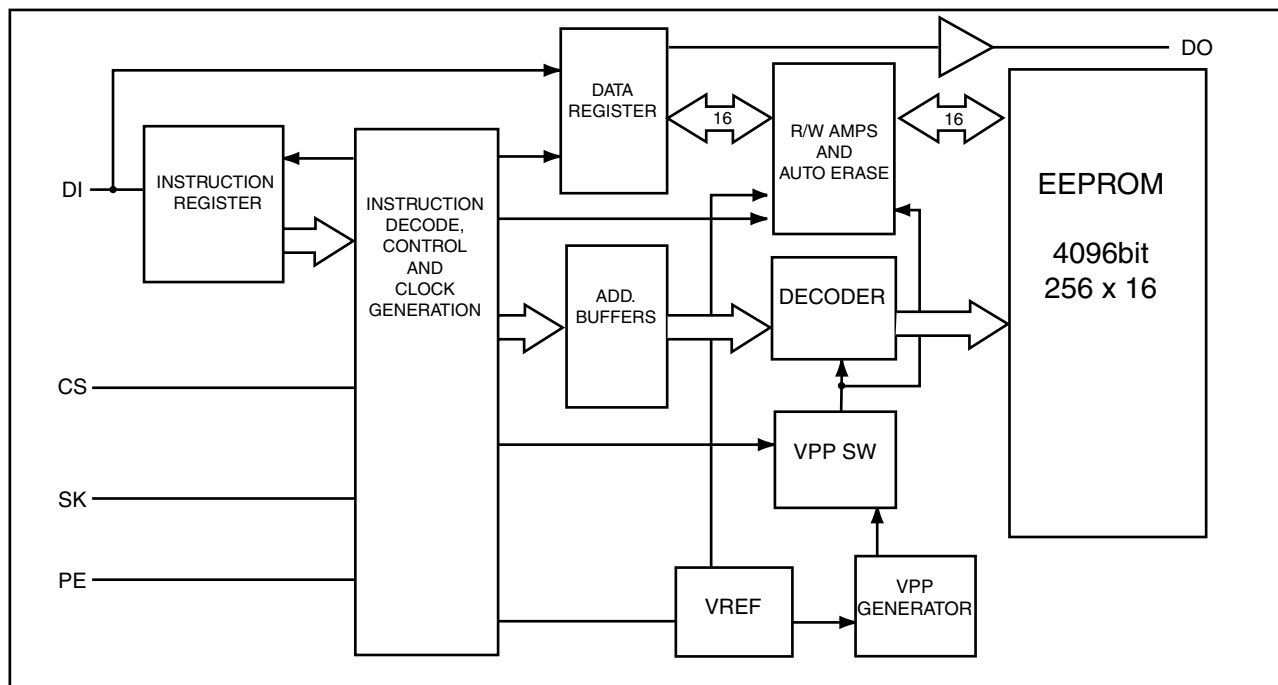
Pin No.	Symbol	I/O	Functions
1	SDOS	I	SDTO source select terminal L: Internal ADC output H: DAUX input
2	OCKS	I	Serial control mode select terminal L: 3-wire serial H: IC bus
3	MIS	I	Soft mute terminal H: Starting Soft mute L: Cancel
4	BCLK	I	Audio serial data clock terminal
5	LRCK	I/O	Input channel clock terminal
6	SDTI1	I	DAC1 audio serial data input terminal
7	SDTI2	I	DAC2 audio serial data input terminal
8	SDTI3	I	DAC3 audio serial data input terminal
9	SDTO	O	Audio serial data output terminal
10	DAUX	I	Auxiliary audio serial data input terminal
11	DFS	I	2x sampling mode terminal L: Ordinal speed H: 2x speed
12	DEM1	I	De-emphasize 1 terminal
13	DEM0	I	De-emphasize 2 terminal
14	MCKO	-	Power terminal for output buffer 2.7 5.5 V
15	DVDD	-	Digital power supply terminal 4.5 5.5 V
16	DVSS	-	Digital ground terminal 0 V
17	PD	I	Power down & reset terminal L: Power is down and register is initialized.
18	XTS	I	Input clock selection 2 terminals
19	ICKS1	I	Input clock selection 1 terminals
20	ICKS0	I	Input clock selection 0 terminals
21	CAD1	I	Chip address 1 terminal
22	CAD0	I	Chip address 0 terminal
23	LOUT3	O	DAC3 L channel analog output terminal
24	ROUT3	O	DAC3 R channel analog output terminal
25	LOUT2	O	DAC2 L channel analog output terminal
26	ROUT2	O	DAC2 R channel analog output terminal
27	LOUT1	O	DAC1 L channel analog output terminal
28	ROUT1	O	DAC1 R channel analog output terminal
29	LIN-	I	L channel analog reverse input terminal
30	LIN+	I	L channel analog non-reverse input terminal
31	RIN-	I	R channel analog reverse input terminal
32	RIN+	I	R channel analog non-reverse input terminal
33	VREF	O	Zero input detection terminal L: P/S = H
34	VCOM	O	COMMON voltage output terminal
35	VREFH	-	Reference voltage input terminal
36	AVDD	-	Analog power supply terminal 4.5 5.5 V
37	AVSS	-	Analog ground terminal 0 V
38	XTI	O	Zero input detection terminal L: P/S = H
39	XTO	I	Master clock input terminal
40	PIS	I	Parallel/serial select terminal L: Serial control mode H: Parallel control mode
41	CS	I I	Audio data interface format 0 terminal (with parallel control mode) Chip select terminal (with 3-wire serial control mode)
42	CCLK	I I	Audio data interface format 0 terminal (with parallel control mode) Control data clock terminal (with serial control mode)
43	CDTI	I I/O	Loopback mode 0 terminal (with parallel control mode) Control data input terminal (with serial control mode)
44	CDTO	I	Loopback mode 1 terminal

■ AK93C65AF-X (IC403) : EEPROM

1. Terminal layout



2. Block diagram



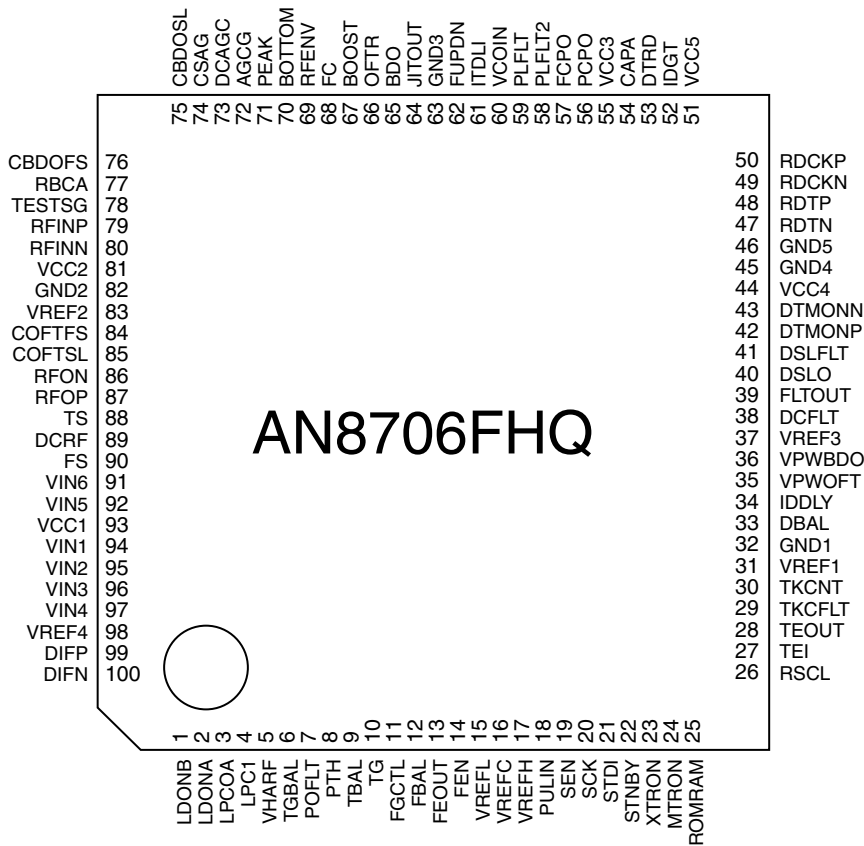
3. Pin function

Pin no.	Symbol	Function
1	PE	Program enable (With built-in pull-up resistor)
2	VCC	Power supply
3	CS	Chip selection
4	SK	Cereal clock input
5	DI	Cereal data input
6	DO	Cereal data output
7	GND	Ground
8	NC	No connection

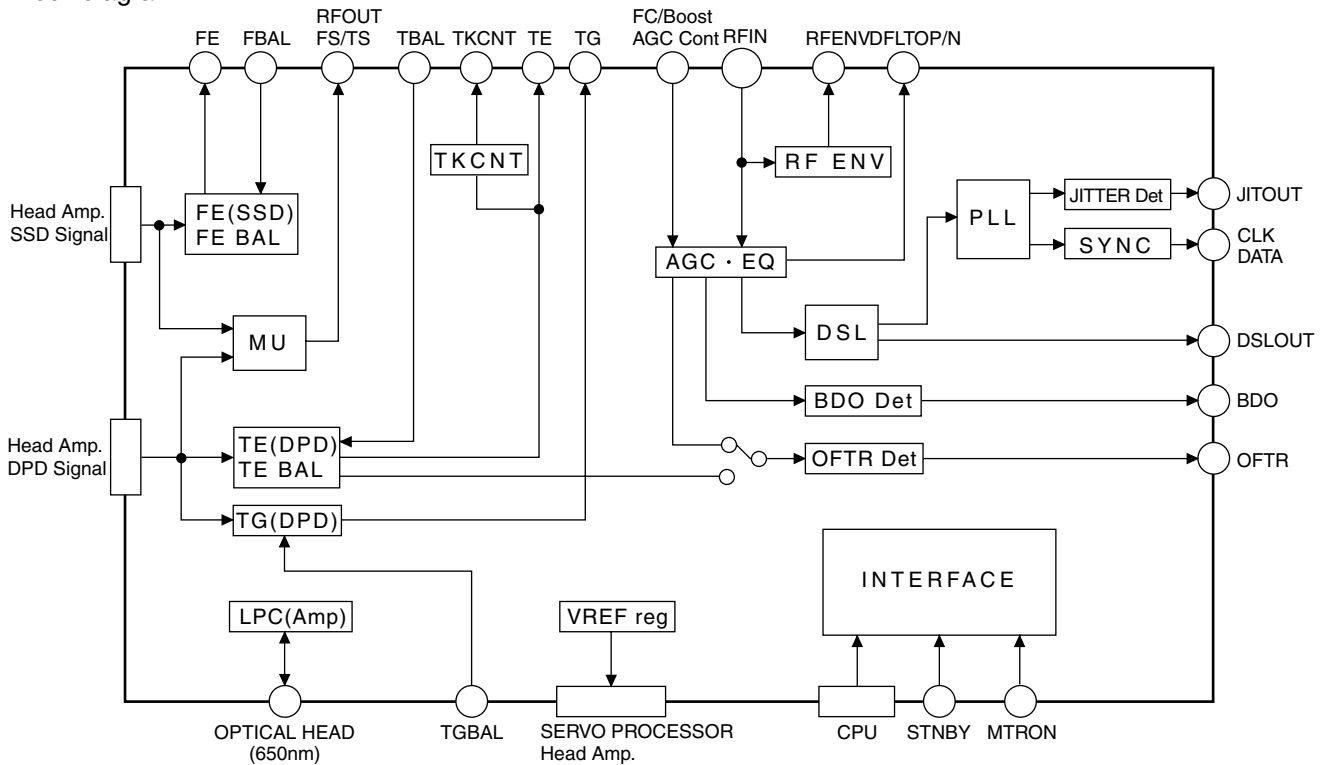
NOTE : The pull-up resistor of the PE pin is about 2.5M Ω (VCC=5V)

■ AN8706FHQ (IC101) : Front end processor

1.Pin layout



2.Block diagram



3.Pin function

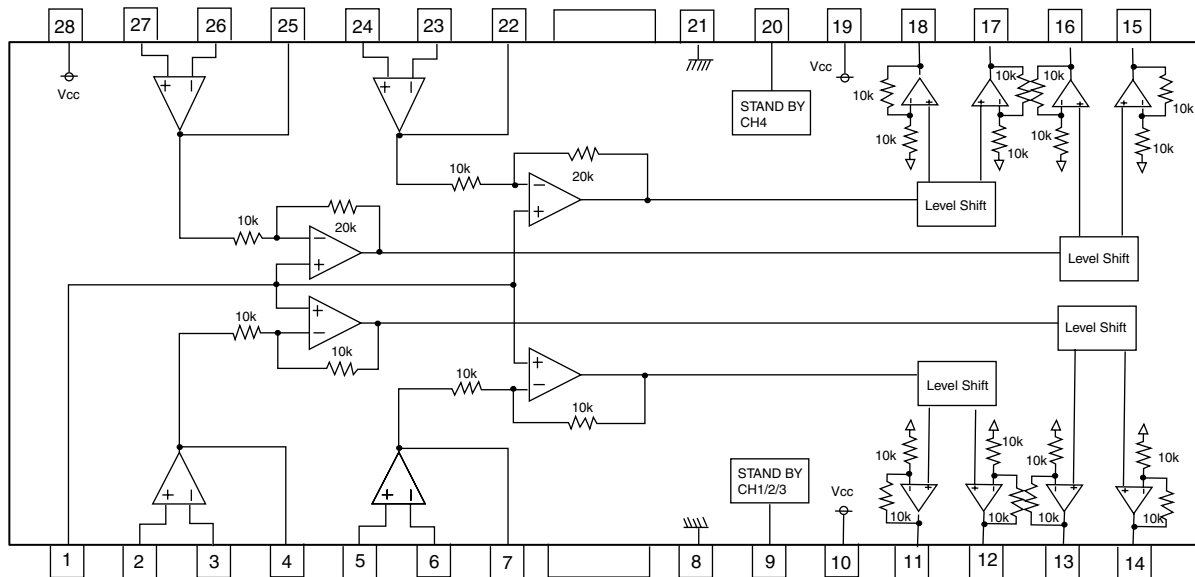
AN8706FHQ (1/2)

Pin No.	Symbol	I/O	Functions
1	LDONB	I	Laser ON (CD Head) terminal
2	LDONA	I	Laser ON (DVD Head) terminal
3	LPCOA	O	Laser drive output terminal
4	LPC1	I	Laser PIN input terminal
5	VHARF	O	VHALF voltage output terminal
6	TGBAL	I	Tangential phase balance control terminal
7	POFLT	O	Track detection Threshold value level terminal
8	PTH	I	Track detection Threshold value level terminal
9	TBAL	I	Tracking balance control terminal
10	TG	O	Tangential phase error signal output terminal
11	FGCTL	I	Focus amplifier Gain control terminal
12	FBAL	I	Focus balance control terminal
13	FEOUT	O	Focus error signal output terminal
14	FEN	I	Focus error output amplifier reversing input terminal
15	VREFL	O	VREFL voltage output terminal
16	VREFC	O	VREFC voltage output terminal
17	VREFH	O	VREFH voltage output terminal
18	PULIN	I	DSL,PLL drawing mode switch terminal
19	SEN	I	SEN(Cereal data input terminal)
20	SCK	I	SCK(Cereal data input terminal)
21	STDI	I	STDI(Cereal data input terminal)
22	STNBY	I	Standby mode control terminal
23	XTRON	I	Tracking OFF holding input terminal
24	MTRON	I	Monitor output ON/OFF switch terminal
25	ROMRAM	I	ROM · RAM switch terminal
26	RSCL	O	Standard current source terminal
27	TEI	I	Tracking error output Amp reversing input terminal
28	TEOUT	O	Tracking error signal output terminal
29	TKCFLT	O	Track count detection filter terminal
30	TKCNT	O	Track count output terminal
31	VREF1	O	VREF1 voltage output terminal
32	GND1	O	Earth terminal 1
33	DBAL	I	Data slice offset adjustment terminal
34	IDDLY	I	Data slice delay adjustment terminal
35	VPWOFT	I	OFTR detection level setting terminal
36	VPWBDO	I	BDO detection level setting terminal
37	VREF3	O	VREF3 voltage output terminal
38	DCFLT	O	Capacity connection terminal for data slice input filter
39	FLTOUT	O	Filter amplifier output terminal
40	DSLO	O	Data slice single data output terminal
41	DSLFLT	O	Constant filter terminal when data is sliceddelly
42	DTMONP	O	PLL differential motion 2 making to value edge signal moniter output (+)
43	DTMONN	O	PLL differential motion 2 making to value edge signal moniter output (-)
44	VCC4	I	Power terminal 4 (5V)
45	GND4	O	Earth terminal 4
46	GND5	O	Earth terminal 5
47	RDTN	O	PLL differential motion making to synchronization RF signal reversing output
48	RDTP	O	PLL differential motion making to synchronization RF signal rotation output
49	RDCKN	O	PLL differential motion making synchronization clock reversing output
50	RDCKP	O	PLL differential motion making synchronization clock rotation output

Pin No.	Symbol	I/O	Functions
51	VCC5	I	Power terminal 5 (3.3V)
52	IDGT	I	Data slice part address part gate signal input terminal (For RAM)
53	DTRD	I	Data slice data read signal input terminal(For RAM)
54	CAPA	I	Data slice CAPA(Address)signal input terminal (For RAM)
55	VCC3	I	Power terminal 3 (5V)
56	PCPO	O	PLL phase gain set terminal
57	FCPO	O	PLL frequency gain set terminal
58	PLFLT2	O	PLL low region filter terminal
59	PLFLT	O	PLL high region filter terminal
60	VCOIN	I	PLL VCO input terminal
61	ITDLI	O	PLL jitter free current ripple removal filter terminal
62	FUPDN	I	PLL frequency control input terminal
63	GND3	O	Earth terminal 3
64	JITOUT	O	Detection signal output of jitter
65	BDO	O	BDO output terminal
66	OFTR	O	OFTR output terminal
67	BOOST	I	Booth control terminal for filter
68	FC	I	FC control terminal for filter
69	RFENV	O	RF enve output terminal
70	BOTTOM	O	Bottom enve detection filter terminal
71	PEAK	O	Peak enve detection filter terminal
72	AGCG	O	AGC amplifier gain control terminal
73	DCAGC	O	AGC amp filter terminal
74	CSAG	O	Sag cancellation circuit filter terminal
75	CBDOSL	O	BDO detection capacitor terminal
76	CBDOSF	O	BDO detection capacitor terminal
77	RBCA	O	BCA detection level setting terminal
78	TESTSG	I	TEST signal input terminal
79	RFINP	I	RF signal positive moving input terminal
80	RFINN	I	RF signal reversing input terminal
81	VCC2	I	Power terminal 2 (5V)
82	GND2	O	Earth terminal 2
83	VREF2	O	VREF2 voltage output terminal
84	COFTFS	O	OFTR detection capacitor terminal
85	COFTFL	O	OFTR detection capacitor terminal
86	RFON	O	RF signal output terminal P
87	RFOP	O	RF signal output terminal N
88	TS	O	All addition amplifier (DVD) output terminal
89	DCRF	O	All addition amplifier capacitor terminal
90	FS	O	All addition amplifier (CD) output terminal
91	VIN6	I	Focus input of external division into two terminal
92	VIN5	I	Focus input of external division into two terminal
93	VCC1	I	Power terminal 1 (5V)
94	VIN1	I	External division into four (DVD/CD) RF input terminal 1
95	VIN2	I	External division into four (DVD/CD) RF input terminal 2
96	VIN3	I	External division into four (DVD/CD) RF input terminal 3
97	VIN4	I	External division into four (DVD/CD) RF input terminal 4
98	VREF4	O	VREF4 voltage output terminal
99	DIFP	O	RF signal (RAM) output terminal P
100	DIFN	O	RF signal (RAM) output terminal N

■ BA5983FM (IC271) : 4CH DRIVER

1. Block Diagram



2. Pin Function

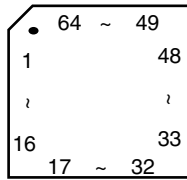
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	BLAS IN	I	Input for Bias-amplifier	15	VO4(+)	O	Non inverted output of CH4
2	OPIN1(+)	I	Non inverting input for CH1 OP-AMP	16	VO4(-)	O	Inverted output of CH4
3	OPIN1(-)	I	Inverting input for CH1 OP-AMP	17	VO3(+)	O	Non inverted output of CH3
4	OPOUT1	O	Output for CH1 OP-AMP	18	VO3(-)	O	Inverted output of CH3
5	OPIN2(+)	I	Non inverting input for CH2 OP-AMP	19	PowVcc2	-	Vcc for CH3/4 power block
6	OPIN2(-)	I	Inverting input for CH2 OP-AMP	20	STBY2	I	Input for Ch4 stand by control
7	OPOUT2	O	Output for CH2 OP-AMP	21	GND	-	Substrate ground
8	GND	-	Substrate ground	22	OPOUT3	O	Output for CH3 OP-AMP
9	STBY1	I	Input for CH1/2/3 stand by control	23	OPIN3(-)	I	Inverting input for CH3 OP-AMP
10	PowVcc1	-	Vcc for CH1/2 power block	24	OPIN3(+)	I	Non inverting input for CH3 OP-AMP
11	VO2(-)	O	Inverted output of CH2	25	OPOUT4	O	Output for CH4 OP-AMP
12	VO2(+)	O	Non inverted output of CH2	26	OPIN4(-)	I	Inverting input for CH4 OP-AMP
13	VO1(-)	O	Inverted output of CH1	27	OPIN4(+)	I	Non inverting input for CH4 OP-AMP
14	VO1(+)	O	Non inverted output of CH1	28	PreVcc	-	Vcc for pre block

■ JCE8011(IC551):GRAPHIC CONTROLLER

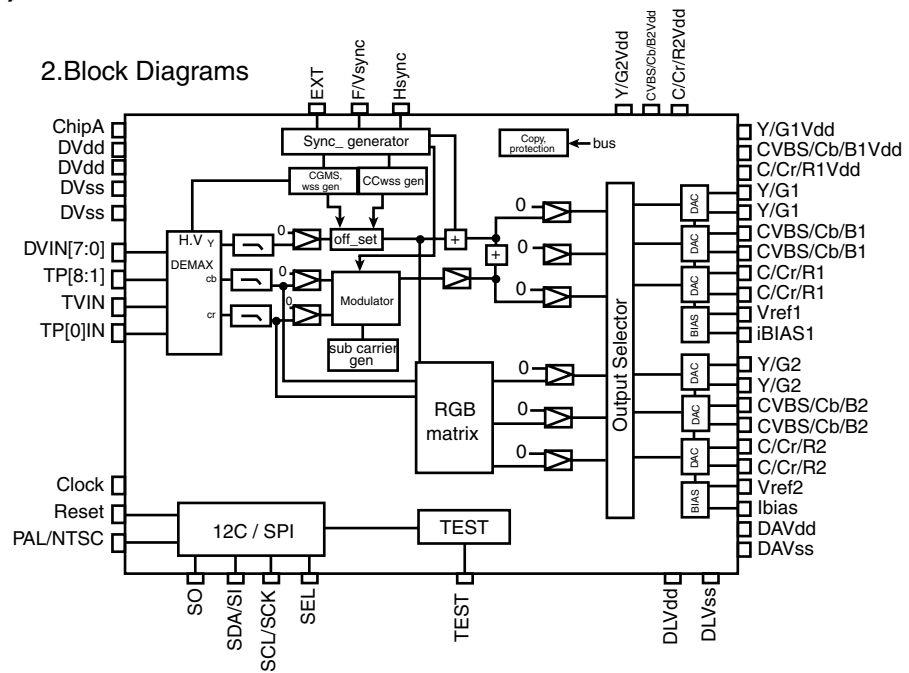
Pin No.	Symbol	I/O	Function
1~8	VD0~7	I	DVD Image signal input (Multi plex data Y,Cr,Cb)
9	VCLKI	I	Dot clock signal input (27MHz)
10	HSYNCI	I	The horizontal synchronous signal input
11	VSYNCI	I	Vertical synchronous signal input
12	VCC	-	Power supply
13	VCLKD	O	Dot clock signal output (27MHz)
14	HSYNCO	O	'H' blanking output
15	VSYNCO	O	'V' blanking output
16~23	DOUT0~7	O	Digital data output
24	TEST	-	Test terminal (Uses as GND usually)
25	RESETB	I	System reset signal
26	GND	-	Connect to GND
27	NTB	I	Mode switching NTSC(low) / PAL(high)
28	DTSF0	I	Taking timing shift of VD input
29	DTSF1	I	Taking timing shift of VD input
30	VIDEG	I	Taking edge specification of VD input (0:up , 1:down)
31	DOSF0	I	Timing shift input of output data
32	DOSF1	I	Timing shift input of output data
33	XVRST	O	Non connect
34	F1	O	Field Identification signal output
35	HBL	O	'H' blanking output
36	VBL	O	'V' blanking output
37	VOEDG	I	Output timing setting of DOUT (0:up , 1:down)
38	VCC	-	Power supply
39~46	FRD7~0	I	Field memory read data input
47	GND	-	Connect to GND
48	FRCK	O	Field memory read clock
49	FWCK	O	Field memory write clock
50	FREB	O	Field memory read enable
51	FWEB	O	Field memory write enable
52	FRRSTB	O	Field memory read address reset
53	FWRSTB	O	Field memory write address reset
54~61	FWD7~0	O	Field memory write data output
62	VCC	-	Power supply
63~70	CHD7~0	I	Character ROM data
71	GND	-	Connect to GND
72	CHOEB	O	Character ROM output enable
73~82	CHA19~10	O	Character ROM address output
83	VCC	-	Power supply
84~93	CHA9~0	O	Character ROM address output
94	GND	-	Connect to GND
95	ACK	O	
96	CS1B	I	Serial data chip select for graphic control
97	CS2B	I	Serial data chip select for encoder control
98	SCK	I	Serial clock input
99	RXD	I	Serial input data
100	TXD	O	Serial output data

MC44724AVFU(IC554):VIDEO ENCODER

1.Terminal Layout



2.Block Diagrams

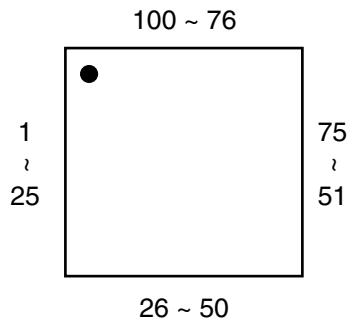


3.Pin function

No.	Symbol	I/O	Function	No.	Symbol	I/O	Function
1	CVBS/Cb/B1	O	Analog composite drive signal (+)	33	SO	-	Non connect
2	CVBS/Cb/B1	O	Analog composite drive signal (-)	34	SDA/SI	I	SPI Mode : Serial data input
3	CVBS/Cb/B1Vdd	-	Power supply for CVBS/Cb/B DAC1	35	SCL/SCK	I	Serial clock input
4	Y/G1	O	Analog brightness signal/G drive signal (+)	36	SEL	I	Power supply for serial data,chip select,digital
5	$\overline{Y/G1}$	O	Analog brightness signal/G drive signal (-)	37	DVdd	--	Power supply for digital circuit
6	Y/G1/Vdd	-	Power supply for Y/G DAC	38	DVss	--	Digital ground
7	C/Cr/R1	O	Analog chroma signal (+)	39	DVIN7	I/O	Y data input / test data I/O
8	$\overline{C/Cr/R1}$	O	Analog chroma signal (-)	40	DVIN6	I/O	Y data input / test data I/O
9	C/Cr/R1Vdd	-	Power supply for C/Cr/RDAC	41	DVIN5	I/O	Y data input / test data I/O
10	DAVss	-	Connect to ground for DAC	42	DVIN4	I/O	Y data input / test data I/O
11	TBIAS1	O	Standard BIAS for DAC1	43	DVIN3	I/O	Y data input / test data I/O
12	Vref1	-	Standard voltage for DAC1	44	DVIN2	I/O	Y data input / test data I/O
13	DAVdd	-	Power supply for DAC	45	DVIN1	I/O	Y data input / test data I/O
14	Vref2	-	Standard voltage for DAC2	46	DVIN0	I/O	Y data input / test data I/O
15	TBIAS2	O	Standard BIAS for DAC2	47	TVIN	I	VIDEO mote on Reset(0:nomal, 1:mute)
16	NC	-	Non connect	48	EXT	I/O	Frame output / VBI information input
17	CVBS/Cb/B2	O	Analog composite drive signal (+)	49	F/Vsyac	I/O	Frame / Vertical, synchronous I/O
18	CVBS/Cb/B2	O	Analog composite drive signal (-)	50	Chsyac	I/O	The horizontal, synchronous I/O
19	CVBS/Cb/B2Vdd	-	Power supply for CVBS/Cb/B DAC2	51	DATST	I	Data input
20	Y/G2	O	Analog brightness signal/G drive signal (+)	52	TP-8	I/O	Multiplex data input
21	$\overline{Y/G2}$	O	Analog brightness signal/G drive signal (-)	53	TP7	I/O	Multiplex data input
22	Y/GVdd	-	Power supply for Y/G DAC	54	TP6	I/O	Multiplex data input
23	C/Cr/R2	O	Analog chroma signal (+)	55	TP5	I/O	Multiplex data input
24	$\overline{C/Cr/R2}$	O	Analog chroma signal (-)	56	DVss	-	Ground for digital circuit
25	C/Cr/R2Vdd	-	Power supply for C/Cr/RDAC2	57	DVdd	-	Power supply for digital circuit
26	ChipA	-	Chip address selection	58	TP4	I/O	Data input / Test data I/O
27	TEST	I	Connect to test pin	59	TP3	I/O	Data input / Test data I/O
28	DVdd	-	Digital ground	60	TP2	I/O	Data input / Test data I/O
29	CLOCK	I	Clock signal input (27MHz)	61	TP1	I/O	Data input / Test data I/O
30	DVss	-	Power supply for digital circuit	62	TP0	I/O	Data input / Test data I/O
31	Reset	I	Reset signal input L:ON	63	DLVdd	-	Power supply for D/A converter
32	PAL/NTSC	I	Selection NTSC/PAL NTSC:L PAL:H	64	DLVss	-	Ground for D/A converter

■ MN101C12G (IC701): System micom

1. Terminal layout



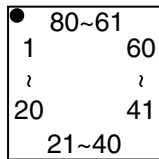
2. Pin function

Pin No.	Symbol	I/O	Function
1	GND	-	GND
2	CS0	I	A set bit0 (It is effective in the U.E version)
3	CS1	I	A set bit1 (It is effective in the U.E version)
4	CS2	I	A set bit2 (It is effective in the U.E version)
5	NTSEL	I	NTSC/PAL switch SW input
6	POWER SW	I	Power key input
7	SHUT1	I	JOG shuttle inout (AD)
8	KEY1-5	I	10 Key input (1~5)
9	KEY6-10	I	10 Key input (6~10, +10)
10	VREF	-	+B (Apply 5V)
11	VDD	-	+B (Apply 5V)
12	OSC2	O	10MHz OSC
13	OSC1	I	10MHz OSC
14	VSS	-	GND
15	-	I	Unused, Connects with GND
16	-	O	Unused
17	MMOD	I	Connects with GND
18	OSDCS3	O	V.ENCODER chip selection
19	RSTE	O	V.ENCOSER reset
20	OSDDO	O	V.ENCODER communication DATA
21	S2UDT	O	Communication between unit microcomputers DATA OUT
22	U2SDT	I	Communication between unit microcomputers DATA IN
23	SCLK	O	Communication between unit microcomputers CLK
24	BUSY	O	Communication between unit microcomputers BUSY
25	CPURST	O	Unit microcomputer reset
26	REQ	I	Communication between unit microcomputers REQ
27	REMO	I	Remote control interruption
28	CS3	I	Set password change judgment bit(H:Change, L:Usual)
29	TEST	I	
30	TEST	I	H:Checkers mode, L:Normal mode
31	TEST	I	H:Running mode, L:Normal mode
32	NC	I	Un used
33	RESET	I	Reset input
34	NC	O	Un used
35	NC	O	Un used
36	VDD	-	Un used
37	OSDCK	O	V.ENCODER communication CK
38	NT	O	

Pin No.	Symbol	I/O	Function
39	FS2	O	48kHz, 96kHz switch
40	CHREQ	I	Changer communication REQUEST
41	CHST	O	Changer communication STROBE
42	CHDATAIO	O	Changer communication DATAI/O
43	NC	-	
44	CHCK	O	Changer communication CLOCK
45	FLDATAO	O	FL driver communication DATAO
46	FLDATAI	I	FL driver communication DATAI
47	FLCK	O	FL driver communication CLOCK
48	FLCS	O	FL driver communication CS
49	FLRST	O	FL reset output
50	EEDO	O	EEPROM communication DATAO
51	EEDI	I	EEPROM communication DATAI
52	EECK	O	EEPROM communication CLOCK
53	EECS	O	EEPROM communication CS
54	VS1	O	S1 control
55	VS3	O	S3 control(STBY:H, P.ON:L)
56	DMUT1	-	Un used
57	DMUT2	-	Un used
58	PDB2	-	Un used
59	PDB2	-	Un used
60	DEMP2	-	Un used
61	DEMP1	-	Un used
62	DENA	-	Un used
63	KARAOKE	O	KARAOKE gain control(At KARAOKE : H)
64	POWERON	O	Power ON output
65	VS2	O	S2 control
66~76	NC	O	Un used
77	AVCI	I	AV COMPULINK input
78	AVCO	O	AV COMPULINK output
79	NC	O	Un used
80	STANBYIND	O	Standby LED output
81~85	NC	O	Un used
86	CS4	O	Un used
87	MA	O	DAC control MA
88	MB	O	DAC control MB
89	M1M3	O	DAC control M1M3
90	MD	O	DAC control MD
91	MC	O	DAC control MC
92	GAIN2	-	Un used
93	GAIN1	-	Un used
94	HPMUT	O	Un used
95	DAVSS	-	Un used
96	LMUTE	O	Un used
97	CMUTE	O	Un used
98	SMUTE	O	Un used
99	MUTE	O	Front mute output
100	DAVDD	-	Apply 5V

■ MN101C15FDD (IC401) : System controller

1. Terminal layout



2. Pin function

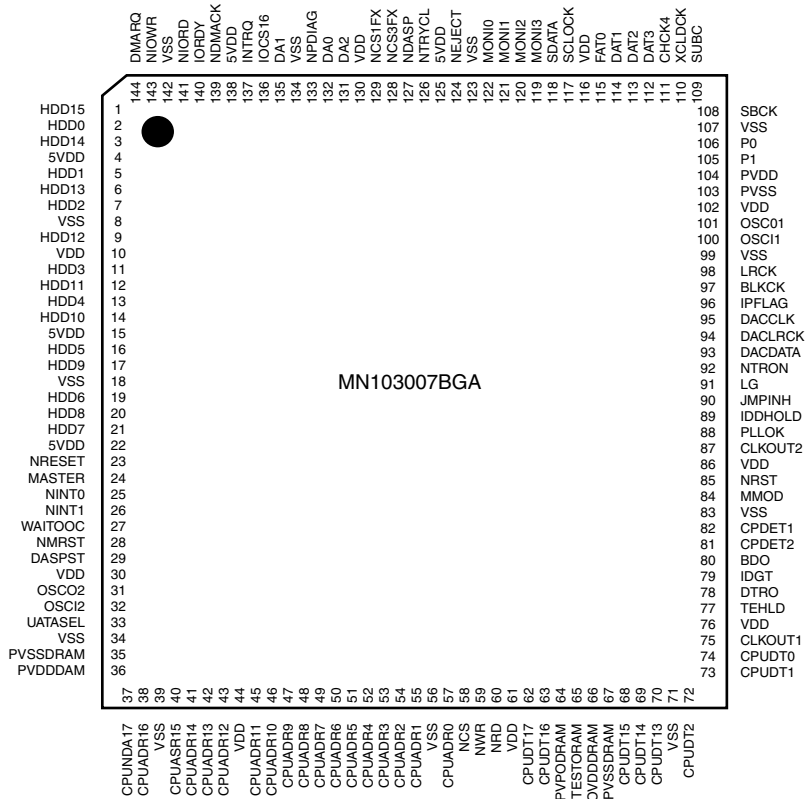
Pin No	Symbol	Function	Pin No	Symbol	Function
1		Ground connection	41	S-MUTE	System mute
2	DVD-S/C	DVD S/C selection terminal	42		Terminal (unused)
3	VCR-S/C	VCR S/C selection terminal	43	T-MUTE	Tuner mute
4		Ground connection	44		Terminal (unused)
5		Ground connection	45		Terminal (unused)
6		Ground connection	46		Terminal (unused)
7		Ground connection	47	RDS-DATA	RDS control signal terminal
8		Ground connection	48		Terminal (unused)
9	PROTECTOR IN	Protector input	49	INHIBIT IN	Inhibit signal input
10	VREF+	Ground connection	50	DSP-READY	DSP control signal
11	VDD	Power supply terminal	51	DSP-RESET	DSP reset signal
12	OSC 2	Quartz oscillation terminal (8 MHz)	52	M/CS	Control signal from IC400
13	OSC 1	Quartz oscillation terminal (8 MHz)	53	M-RESET	Reset signal from IC400
14	VSS	Ground connection	54	M-STATUS	Status signal from IC400
15	X1	Ground connection	55	M-COMMAND	Command signal from IC400
16	X0	Terminal (unused)	56	M-CLK	Clock signal from IC400
17	MMOD	Ground connection	57		Terminal (unused)
18		Terminal (unused)	58		Terminal (unused)
19		Ground connection	59		Terminal (unused)
20		Ground connection	60		Terminal (unused)
21	DSP-COMMAND	DSP control signal terminal	61	SW-DATA	Data signal for source selector
22	DSP-STATUS	DSP control signal terminal	62	SW-CLK	Clock signal for source selector
23	DSP-CLK	DSP control signal terminal	63	VOL-STB	Strop signal for controlling volume
24		Ground connection	64	VOL-DATA	Data signal for controlling volume
25	RESET-IN	Reset signal input terminal	65	VOL-CLK	Clock signal for controlling volume
26	TUNER-CE	Tuner chip enable	66	SW-STB	Strop signal for source selector
27	TUNER-CLK	Tuner clock signal input	67		Terminal (unused)
28		Ground connection	68	SWF MUTE	Sub woofer mute
29	TUNER-DATA	Tuner control terminal	69	SURR	Terminal (unused)
30	RDS SCL	Clock signal (RDS)	70	FR-RELAY	Front speaker relay control
31	TUNER-IN	Tuner signal input terminal	71	CNTR-RELAY	Center speaker relay control
32	STEREO-IN	Stereo signal input terminal	72	SUR-RELAY	Rear speaker relay control
33	RDS-ST	Terminal (unused)	73		Terminal (unused)
34	M-BUSY	Busy signal from IC400 input	74		Ground connection
35	RDSCLOCKIN	Ground connection	75		Ground connection
36		Terminal (unused)	76		Ground connection
37		Terminal (unused)	77		Ground connection
38		Terminal (unused)	78	LED	Terminal (unused)
39	VIDEO1	VIDEO 1 signal	79	D.AUT LED	Indicate control (DIGITAL AUTO)
40	VIDEO2	VIDEO 2 signal	80	SURR LED	Indicate control (SURROUND)

■ MN102L25GCY(IC401):UNIT CPU

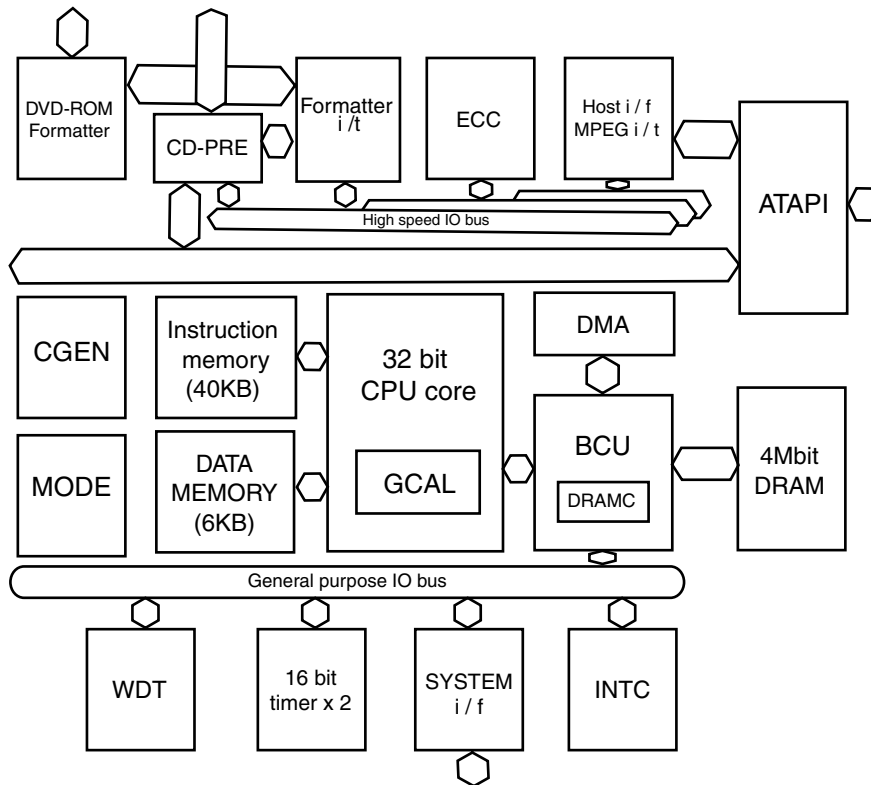
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	WAIT	I	Micon wait signal input	51	FGIN	I	Photo input
2	RE	O	Read enable	52	-		Non connect
3	MUTE	O	Driver mute	53	ADSCEN	O	Serial enable signal for ADSC
4	WEM	O	Write enable	54	VDD	-	Non connect
5	CS0	O	Non connect	55	FEPEN	O	Serial enable signal for FEP
6	CS1	O	Chip select for ODC	56	SLEEP	O	Standby signal for FEP
7	CS2	O	Chip select for ZIVA	57	BUSY	I	Communication busy
8	CS3	O	Chip select for outer ROM	58	REQ	O	Communication Request
9	FGCONT	O	Photo control	59	CIRCEN	O	CIRC command select
10	/SPKICK	O	Spin kick	60	HSSEEK	O	Seek select
11	LSIRST	O	LSI reset	61	VSS	-	Power supply
12	WORD	O	Bus selection input	62	EPCS	O	EEPROM chip select
13	A0	O	Address bus 0 for CPU	63	EPSK	O	EEPROM clock
14	A1	O	Address bus 1 for CPU	64	DPDI	I	EEPROM data input
15	A2	O	Address bus 2 for CPU	65	EPDO	O	EEPROM data output
16	A3	O	Address bus 3 for CPU	66	VDD	-	Power supply
17	VDD	-	Power supply	67	SCLK0	I	Communication clock
18	SYSCLK	O	System clock signal output	68	S2UDT	I	Communication input data
19	VSS	-	Power supply	69	U2SDT	O	Communication output data
20	XI	-	Non connect	70	CPSCK	O	Clock for ADSC serial
21	XO	-	Non connect	71	SDIN	I	ADSC serial data input
22	VDD	-	Power supply	72	SDOUT	O	ADSC serial data output
23	OSCI	I	Clock signal input(13.5MHz)	73	-	-	Non connect
24	OSCO	-	Non connect	74	-	-	Non connect
25	MODE	I	CPU Mode selection input	75	NMI	-	Non connect
26	A4	O	Address bus 4 for CPU	76	ADSCIRQ	I	Interrupt input of ADSC
27	A5	O	Address bus 5 for CPU	77	ODCIRQ	I	Interrupt input of ODC
28	A6	O	Address bus 6 for CPU	78	DECIRQ	I	Interrupt input of ZIVA
29	A7	O	Address bus 7 for CPU	79	WAKEUP	O	Non connect
30	A8	O	Address bus 8 for CPU	80	ODCIRQ2	I	Non connect
31	A9	O	Address bus 9 for CPU	81	ADSEP	I	Address data selection input
32	A10	O	Address bus 10 for CPU	82	RST	I	Reset input
33	A11	O	Address bus 11 for CPU	83	VDD	-	Power supply
34	VDD	-	Power supply	84	TEST1	I	Test signal 1 input
35	A12	O	Address bus 12 for CPU	85	TEST2	I	Test signal 2 input
36	A13	O	Address bus 13 for CPU	86	TEST3	I	Test signal 3 input
37	A14	O	Address bus 14 for CPU	87	TEST4	I	Test signal 4 input
38	A15	O	Address bus 15 for CPU	88	TEST5	I	Test signal 5 input
39	A16	O	Address bus 16 for CPU	89	TEST6	I	Test signal 6 input
40	A17	O	Address bus 17 for CPU	90	TEST7	I	Test signal 7 input
41	A18	O	Address bus 18 for CPU	91	TEST8	I	Test signal 8 input
42	A19	O	Address bus 19 for CPU	92	VSS	-	Power supply
43	VSS	-	Power supply	93	D0	I/O	Data bus 0 of CPU
44	A20	O	Address bus 20 for CPU	94	D1	I/O	Data bus 1 of CPU
45	TXSEL	O	TX Select	95	D2	I/O	Data bus 2 of CPU
46	TMPSN	O	Non connect	96	D3	I/O	Data bus 3 of CPU
47	-		Non connect	97	D4	I/O	Data bus 4 of CPU
48	ADPD	O	AD Power down	98	D5	I/O	Data bus 5 of CPU
49	-		Non connect	99	D6	I/O	Data bus 6 of CPU
50	TRVSW	I	Detection switch of traverse inside	100	D7	I/O	Data bus 7 of CPU

MN103007BGA (IC301) : Optical disc controller

1. Terminal layout



2. Block diagram



3.Function

MN103007BGA(1/2)

Pin NO.	Symbol	I/O	Function	Pin NO.	Symbol	I/O	Function
1	HDD15	I/O	ATAPI data	48	CPUADR8	I	System control address
2	HDD0	I/O	ATAPI data	49	CPUADR7	I	System control address
3	HDD14	I/O	ATAPI data	50	CPUADR6	I	System control address
4	5VDD			51	CPUADR5	I	System control address
5	HDD1	I/O	ATAPI data	52	CPUADR4	I	System control address
6	HDD13	I/O	ATAPI data	53	CPUADR3	I	System control address
7	HDD2	I/O	ATAPI data	54	CPUADR2	I	System control address
8	VSS			55	CPUADR1	I	System control address
9	HDD12	I/O	ATAPI data	56	VSS		GND
10	VDD			57	CPUADR0	I	System control address
11	HDD3	I/O	ATAPI data	58	NCS	I	System control chip selection
12	HDD11	I/O	ATAPI data	59	NWR	I	System control wright
13	HDD4	I/O	ATAPI data	60	NRD	I	System control lead
14	HDD10	I/O	ATAPI data	61	VDD		Apply 3V
15	5VDD			62	CPUDT7		System control data
16	HDD5	I/O	ATAPI data	63	CPUDT6		System control data
17	HDD9	I/O	ATAPI data	64	PVPPDRAM	O	C=10000PF is connected between VSS
18	VSS						
19	HDD6	I/O	ATAPI data	65	PTESTDRAM	I	VSS connected
20	HDD8	I/O	ATAPI data	66	OVDDDRAM		
21	HDD7	I/O	ATAPI data	67	PVSSDRAM		
22	5VDD			68	CPUDT5		System control data
23	NRESET	I	ATAPI reset	69	CPUDT4		System control data
24	MASTER	I/O	ATAPI master / slave selection	70	CPUDT3		System control data
25	NINT0	O	System control interruption 0	71	VSS		GND
26	NINT1	O	System control interruption 1	72	CPUDT2		System control data
27	WAITODC	O	System control weight control	73	CPUDT1	I/O	System control data
28	NMRST	O	System control reset	74	CPUDT0	I/O	System control data
29	DASPST	I	DASP signal initializing	75	CLKOUT1	O	16.9/11.2/8.45MHz clock
30	VDD			76	VDD	-	Apply 3V
31	OSCO2	I,O	VSS connection, OPEN	77	TEHLD	O	Mirror gate
32	OSCI2	I,O	VSS connection, OPEN	78	DTRO	O	Data part frequency control switch
33	UATASEL	I	VSS connection				
34	VSS			79	IDGT	O	Part CAPA switch
35	PVSSDRAM			80	BDO	I	RF dropout / BCA data of making to binary
36	PVDODRAM						
37	CPUADR17	I	System control address	81	CPDET2	I	Outer side CAPA detection
38	CPUADR18	I	System control address	82	CPDET1	I	Side of surroundings on inside
39	VSS			83	VSS		GND
40	CPUADR15	I	System control address	84	MMOD	I	VSS connected
41	CPUADR14	I	System control address	85	NRST	I	System reset
42	CPUADR13	I	System control address	86	VDD	-	Apply 3V
43	CPUADR12	I	System control address	87	CLKOUT2	O	16.9MHz clock
44	VDD		System control address	88	PLLOK	O	Frame mark detection
45	CPUADR11	I	System control address	89	IDOHOLD	O	ID gate for tracking holding
46	CPUADR10	I	System control address	90	JMPINH	O	Jump prohibition
47	CPUADR9	I	System control address				

Pin NO.	Symbol	I/O	Function	Pin NO.	Symbol	I/O	Function
91	LG	O	Land / group switch	133	NPDIAG	I/O	ATAPI slave master diagnosis input
92	NTRON	I	Tracking ON	134	VSS		
93	DACDATA	O	Cereal output	135	DA1	I/O	ATAPI host address
94	DACLCK	O	L and R identification output	136	IOCS16	O	ATAPI output of selection of width of host data bus
95	DACCLK	I	Clock for cereal output				
96	IPFLAG	I	Interpolation flag input	137	INTRQ	O	ATAPI host interruption output
97	BLKCK	I	Sub-code,Block clock input	138	5VDD		
98	LRCK	I	L and R identification signal output	139	NDMACK	I	ATAPI host DMA response
99	VSS			140	IORDY	O	ATAPI host ready output
100	OSCI1	I,O	16.9MHz oscillation	141	NIORD	I	ATAPI host read
101	OSCO1	I,O	16.9MHz oscillation	142	VSS		
102	VDD			143	NIOWR	I/O	ATAPI host writes
103	PVSS			144	DMARQ	O	ATAPI host DMA demand
104	PVDD						
105	P1	I/O	Terminal MASTER polarity switch input				
106	P0	I/O	CIRC-RAM OVER/UNDER Interruption signal input				
107	VSS						
108	SBCK	O	Sub-code, Clock output for serial input				
109	SUBC	I	Sub-code, Cereal input				
110	XCLDCK	I	Sub-code, Frame clock input				
111	CHCK4	I	Read clock to DAT3~0(Output of dividing frequency four from ADSC)				
112	DAT3	I	Read data from DISC (PARalle output from ADSC)				
113	DAT2	I					
114	DAT1	I					
115	DAT0	I					
116	VDD						
117	SCLOCK	I/O	Debugging cereal clock (270 Ω pull up)				
118	SDATA	I/O	Debugging cereal data (270 Ω pull up)				
119~122	MONI3~0	O	Internal goods title monitor				
123	VSS						
124	NEJECT	I	Eject detection				
125	5VDD						
126	NTRYCL	I	Tray close detection				
127	NDASP	I/O	ATAPI Drive active/ Sulave connection I/O				
128	NCS3FX	I	ATAPI host chip selection				
129	NCS1FX	I	ATAPI host chip selection				
130	VDD						
131	DA2	I/O	ATAPI host address				
132	DA0	I/O	ATAPI host address				

Pin NO.	Symbol	I/O	Function
91	LG	O	Land / group switch
92	NTRON	I	Tracking ON
93	DACDATA	O	Cereal output
94	DACLCK	O	L and R identification output
95	DACCLK	I	Clock for cereal output
96	IPFLAG	I	Interpolation flag input
97	BLKCK	I	Sub-code,Block clock input
98	LRCK	I	L and R identification signal output
99	VSS		
100	OSC11	I,O	16.9MHz oscillation
101	OSCO1	I,O	16.9MHz oscillation
102	VDD		
103	PVSS		
104	PVDD		
105	P1	I/O	Terminal MASTER polarity switch input
106	P0	I/O	CIRC-RAM OVER/UNDER Interruption signal input
107	VSS		
108	SBCK	O	Sub-code, Clock output for serial input
109	SUBC	I	Sub-code, Cereal input
110	XCLDCK	I	Sub-code, Frame clock input
111	CHCK4	I	Read clock to DAT3~0 (Output of dividing frequency four from ADSC)
112	DAT3	I	Read data from DISC (PARalle output from ADSC)
113	DAT2	I	
114	DAT1	I	
115	DAT0	I	
116	VDD		
117	SCLOCK	I/O	Debugging cereal clock (270Ω pull up)
118	SDATA	I/O	Debugging cereal data (270Ω pull up)
119	MONI3	O	Internal goods title monitor
120	MONI2	O	
121	MONI1	O	
122	MONI0	O	
123	VSS		
124	NEJECT	I	Eject detection
125	5VDD		
126	NTRYCL	I	Tray close detection
127	NDASP	I/O	ATAPI Drive active/ Sulave connection I/O
128	NCS3FX	I	ATAPI host chip selection
129	NCS1FX	I	ATAPI host chip selection
130	VDD		
131	DA2	I/O	ATAPI host address
132	DA0	I/O	ATAPI host address

Pin NO.	Symbol	I/O	Function
133	NPDIAG	I/O	ATAPI slave master diagnosis input
134	VSS		
135	DA1	I/O	ATAPI host address
136	IOCS16	O	ATAPI output of selection of width of host data bus
137	INTRQ	O	ATAPI host interruption output
138	5VDD		
139	NDMACK	I	ATAPI host DMA response
140	IORDY	O	ATAPI host ready output
141	NIORD	I	ATAPI host read
142	VSS		
143	NIOWR	I/O	ATAPI host writes
144	DMARQ	O	ATAPI host DMA demand

■ MN173222DF (IC400): Operation Switches and Fluorescent Display Controller

1. Key matrix

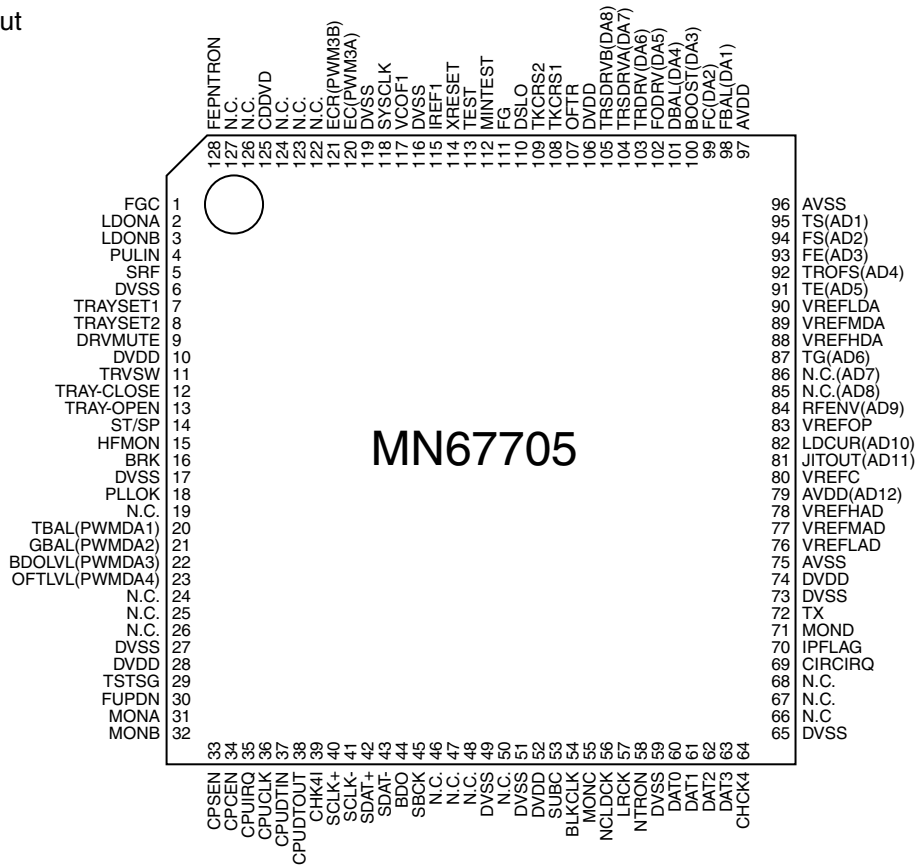
	KEY OUT 0	KEY OUT1	KEY OUT 2	KEY OUT 3	KEY OUT 4
KEY IN 0	POWER	DSP MODE	DVD	←	CD
KEY IN 1	ADJUST	SURROUND	TV SOUND/DBS	→	PHONE
KEY IN 2	SETTING	ANALOG/DIGITAL	VCR	↑	TAPE/MD
KEY IN 3	MEMORY	—————	ONE TOUCH OP. /INPUT ATT.	↓	FM/AM

2. Pin function

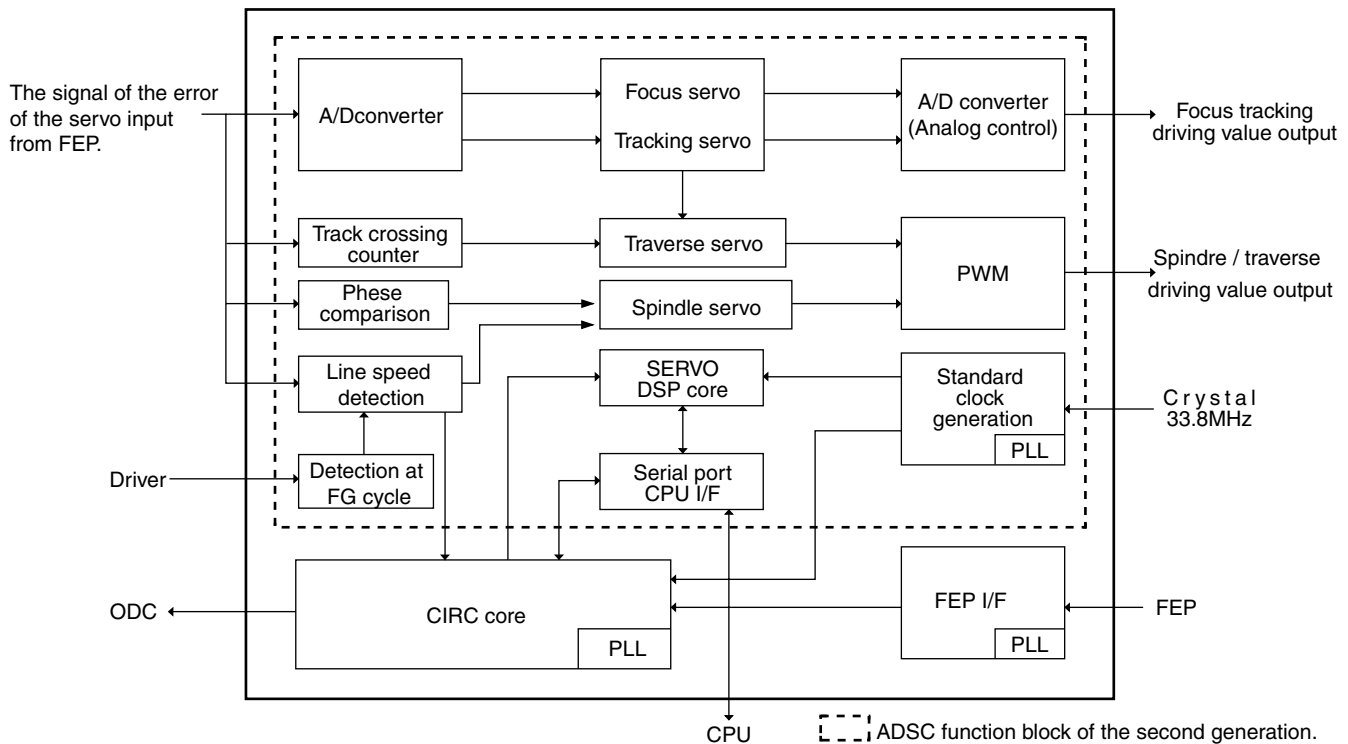
Pin No.	Symbol	I/O	Functions
1-22	S22-S1	O	Segment control signal output
23	VPP	-	Power supply terminal
24-29	KO0-5/G14-9	O	Key matrix output/grid control signal output
30,31	G8,G7	O	Grid control signal output
32,33	SW0,1/G6,5	O	Grid control signal output
34-36	G4-G2	O	Grid control signal output
37-39	G16,15,1	O	Grid control signal output
40,41		-	Ground connection
42	JOG1,2	I	JOG volume control input
44	MBUSY	I	Busy signal from IC401
45	MCLK	I	Clock signal from IC401
46	COMMAND	I	Command data input from IC401
47	STATUS	O	Status signal output to IC401
48	M/CS	I	Chip select signal input from IC401
49	RM	I	Remote control signal input
50	VCRI	I	AV COMPULINK input (VCR)
51	DCSI	I	COMPULINK signal input
52	DCSO	O	COMPULINK signal output
53	VCRO	O	AV COMPULINK output (VCR)
54	TVO	O	AV COMPULINK output (TV)
55	TVC	O	AV COMPULINK control output
56,57		-	Ground connection
58	POWER	-	Power supply terminal
59	STANDBY	O	Stand-by indicator control
60-63	KI3-KI0	I	Key matrix input
64-67	S36-S33	O	Segment control signal output
68	RST	I	Reset signal input
69	X1		Ground connection
70	X2		Terminal (unused)
71	VSS	-	Ground connection
72,73	OSC2,1	-	Quartz oscillation terminal (6 MHz)
74	VDD	-	Power supply terminal
75-84	S32-S23	O	Segment control signal output

MN67705EA (IC201) : Digital servo controller

1. Terminal layout



2. Block diagram



3.Pin function

MN67705EA (1/3)

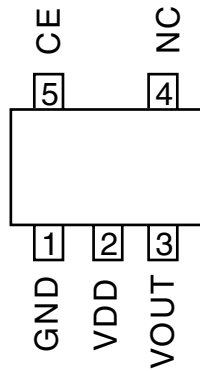
PinNo.	Symbol	I/O	Function
1	FGC	0	H fixation
2	LDONA	O	Laser drive controlA (ON / OFF)
3	LDONB	O	Laser drive controlB (ON / OFF)
4	PULIN	O	DSL and PLL high boost signal (FEP)
5	SRF	O	Head amplifier gain H/L selection
6	DVSS	—	Ground for digital circuit
7	TRAYSET1	O	Tray drive ON/OFF and direction control
8	TRAYSET2	O	Tray drive ON/OFF and direction control
9	DRVMUTE	O	Drive IC mute control
10	DVDD	—	Power supply for digital circuit
11	TRVSW	I	Surroundings position detection in traverse
12	TRAY-CLOSE	I	Tray close detection SW
13	TRAY-OPEN	I	Tray opening detection SW
14	ST/SP	O	Spindle motor drive switch (START /STOP)
15	HFMON	O	High cycle module control
16	BRK	O	Spindle motor IC short brake control
17	DVSS	—	Ground for digital circuit
18	PLLOK	I	SYNC detection (DVD : 18T / CD : 22T)
19	N.C.	O	
20	TBAL(PWMDA1)	O	Tracking balance (FEP)
21	GBAL(PWMDA2)	O	Tangential balance (FEP)
22	BDOLVL(PWMDA3)	O	BDO slice level (FEP)
23	OFTLVL(PWMDA4)	O	Off-track error slice level (FEP)
24	N.C.	O	
25	N.C.	O	
26	N.C.	O	
27	DVSS	—	Ground for digital circuit
28	DVDD	—	Power supply for digital circuit
29	TSTSG	O	Self calibration signal (FEP)
30	FUPDN	O	Signal of frequency UP/DOWN of PLL (FEP)
31	MONA	O	Monitor terminal A
32	MONB	O	Monitor terminal B
33	CPSEN	I	Servo DSP cereal I/F chip selection (SYSCOM)
34	CPCEN	I	CIRC cereal I/F chip selection (SYSCOM)
35	CPUIRQ	O	Interrupt request to silicon (SYSCOM)
36	CPUCLK	I	Silicon cereal I/F clock (SYSCOM)
37	CPUDTIN	I	Silicon cereal I/F data input (SYSCOM)
38	CPUDTOUT	O	Silicon cereal I/F data output (SYSCOM)
39	CHK4I	I	Connects with unused DVSS
40	SCLK+	I	Lead channel clock differential motion signal (positive)
41	SCLK-	I	Lead channel clock differential motion signal (negative)
42	SDAT+	I	Lead channel data differential motion signal (positive)
43	SDAT-	I	Lead channel data differential motion signal (negative)
44	BDO	I	BDO + BCA (FEP)
45	SBCK	I	CD sub-code data shift clock (ODC)
46	IREF2	—	Connects with unused DVSS

Pin No.	Symbol	I/O	Function
47	IREF3	—	Connects with unused DVSS
48	VCOF2	—	Connects with unused DVSS
49	DVSS	—	Ground for digital circuit
50	VCOE3	—	Connects with unused DVSS
51	DVSS	—	Ground for digital circuit
52	DVDD	—	Power supply for digital circuit
53	SUBC	O	CD sub-code (ODC)
54	BLKCLK	O	CD sub-code synchronous signal (ODC)/Jump output of one at DVD
55	MONC	O	Monitor terminal C
56	NCLDCK	O	Sub-code data frame clock (ODC)
57	LRCK	O	LR channel data strobe circCIRC(ODC)
58	NTRON	O	L: Tracking ON (ODC)
59	DVSS	—	Ground for digital circuit
60	DAT0	O	CIRC / Binary making DVD data output
61	DAT1	O	CIRC / Binary making DVD data output
62	DAT2	O	CIRC / Binary making DVD data output
63	DAT3	O	CIRC / Binary making DVD data output
64	CHCK4	O	Synchronous clock of DAT0~3
65	DVSS	—	Ground for digital circuit
66	DACCLK	O	
67	DACLCK	I	Connects with unused DVSS
68	DACDATA	I	Connects with unused DVSS
69	CIRCIRQ	O	RAM with built-in CIRC exceeds / Underflow interrupt
70	IPFLAG	O	CIRC error flag
71	MOND	O	Monitor terminal D
72	TX	O	Digital audio interface
73	DVSS	—	Ground for digital circuit
74	DVDD	—	Power supply for digital circuit
75	AVSS	—	Ground for analog circuit
76	VREFLAD	—	AD subordinate position standard voltage ($0.6 \pm 0.1\text{v}$)
77	VREFMAD	—	It is a place standard voltage in AD ($1.4 \pm 0.1\text{V}$)
78	VREFHAD	—	High-ranking AD standard voltage ($2.2 \pm 0.1\text{V}$)
79	AVDD	—	Power supply for analog circuit
80	VREFC(AD12)	I	
81	JIOUT(AD11)	I	Jitter signal(FEP)
82	LDCUR(AD10)	I	Laser drive current signal
83	VREFOP	—	Operation amplifier standard voltage(VREFC)
84	RFENV(AD9)	I	RFENV(FEP)
85	N.C.(AD8)	I	Connects with VREFC
86	N.C.(AD7)	I	Connects with VREFC
87	TG(AD6)	I	Tangential Phase difference (FEP)
88	VREFHDA	—	High-ranking AD standard voltage ($2.2 \pm 0.1\text{V}$)
89	VREFMDA	—	It is a place standard voltage in AD ($1.4 \pm 0.1\text{V}$)
90	VREFLDA	—	AD subordinate position standard voltage ($0.6 \pm 0.1\text{v}$)
91	TE(AD5)	I	Tracking error (FEP)
92	TROFS(AD4)	I	Tracking drive IC input offset
93	FE(AD3)	I	Focus error (FEP)

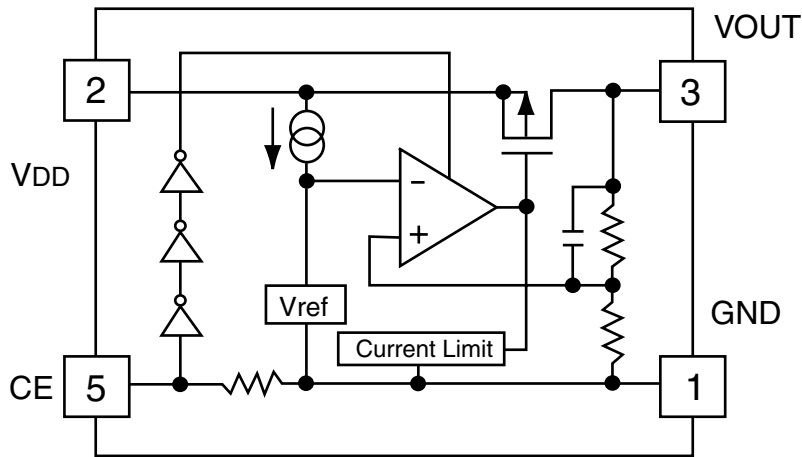
PinNo.	Symbol	I/O	Function
94	FS(AD2)	I	FS (FEP)
95	TS(AD1)	I	TS (FEP)
96	AVSS	—	Ground for analog circuit
97	AVDD	—	Power supply for analog circuit
98	FBAL(DA1)	O	Focus balance(FEP)
99	FC(DA2)	O	Cutting off frequency (FEP)
100	BOOST(DA3)	O	Amount of boost (FEP)
101	TBAL(DA4)	O	DSL offset balance (FEP)
102	FODRV(DA5)	O	Focus drive
103	TRDRV(DA6)	O	Tracking drive
104	TRSDRVA(DA7)	O	Traverse drive A aspect
105	TRSDRVB(DA8)	O	Traverse drive B aspect
106	DVDD	—	Power supply for digital circuit
107	OFTR	I	Off-track error signal (FEP)
108	TKCRS1	I	Track crossing signal 1 (FEP)
109	TKCRS2	I	Track crossing signal 2 (FEP)
110	DSLO	I	Binary making data slice signal (FEP)
111	FG	I	FG signal input (spindle motor driver)
112	MINTEST	—	Connects with DVSS
113	TEST	—	Connects with DVSS
114	XRESET	I	Reset L : Reset
115	IREF1	—	VCO reference current 1(for SYSCLK)
116	DVSS	—	Ground for digital circuit)
117	VCOF1	—	VCO control voltage 1 (for SYSCLK)
118	SYSCLK	I	33.8MHz system clock input
119	DVSS	—	Ground for digital circuit
120	EC(PWM3A)	O	Spindle motor drive
121	ECR(PWM3B)	O	
122	N.C.(PWM3A)	O	
123	N.C.(PWM2B)	O	
124	N.C.(PWM1A)	O	
125	CDDVD	O	CD/DVD control signal (FEP) CD : H DVD : L
126	N.C.(PWM0A)	O	
127	N.C.(PWM0B)	O	
128	FEPNTRON	O	Tracking ON (FEP)

■ RN5RZ20BA-X(IC102) : High cycle module

1.Terminal layout



2.Block diagram

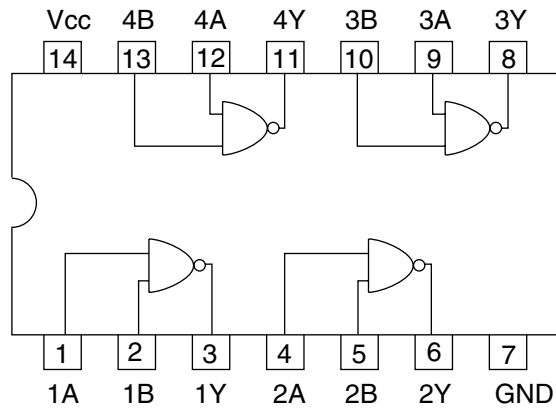


3.Pin function

Pin No.	Pin name	Function
1	GND	Ground terminal
2	VDD	Input terminal
3	VOUT	Output terminal
4	NC	No connection
5	CE	Chip enable terminal

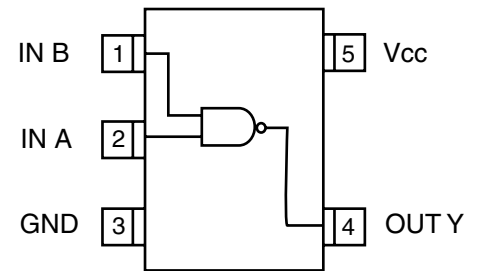
■ **TC74VHC00FT-X(IC503) : Wright timing control**

1.Terminal layout / Block diagram



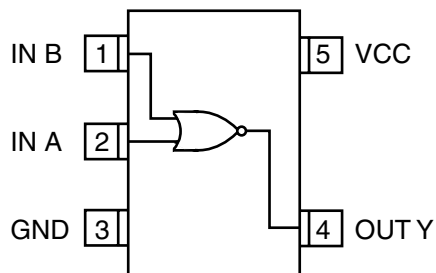
■ **TC7SH04FU (IC107) :**

1. Terminal layout



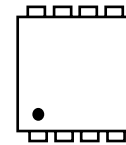
■ **TC7SH32FU-X(IC312) : Timing control**

1.Terminal layout

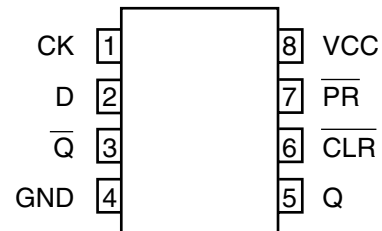


■ **TC7WH74FU-X(IC374) : Clock buffer**

1.Terminal layout

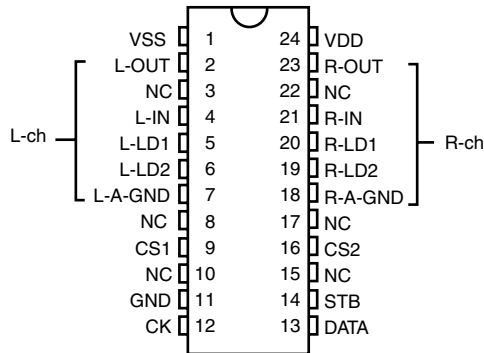


2.Block diagram

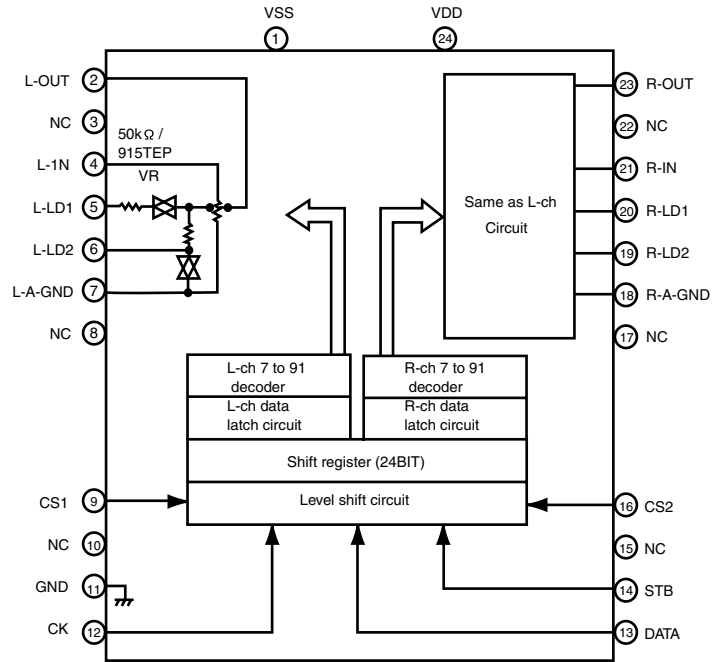


■ TC9459F (IC331,IC332,IC333) : Electronic volume control

1. Terminal layout



2. Block diagram



3. Pin function

Pin No.	Symbol	Function	Pin No.	Symbol	Function
1	VSS	Negative power supply pin	13	DATA	Data input pin
2	L-OUT	Volume output pin	14	STB	Strobe input pin
3	NC	No connection	15	NC	No connection
4	NC	No connection	16	CS2	Chip select input pin
5	L-LD1	Loudness tap output pin	17	NC	No connection
6	L-LD2	Loudness tap output pin	18	R-A-GND	Analog GND pin
7	L-A-GND	Analog GND pin	19	R-LD2	Loudness tap output pin
8	NC	No connection	20	R-LD1	Loudness tap output pin
9	CS1	Chip select input pin	21	R-IN	Volume input pin
10	NC	No connection	22	NC	No connection
11	NC	No connection	23	R-OUT	Volume output pin
12	CK	Clock input pin	24	VDD	Positive power supply pin

■ UPD42280GU-30-X(IC552):2M RAM

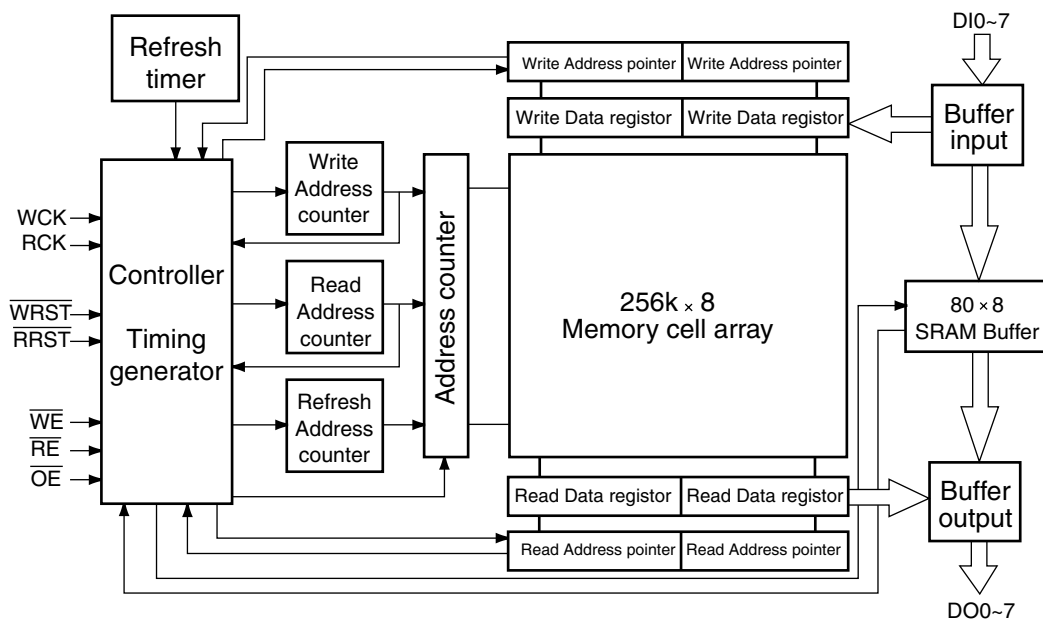
1. Terminal Layout

DI0	1	28	DO0
DI1	2	27	DO1
DI2	3	26	DO2
DI3	4	25	DO3
WE	5	24	RE
GND	6	23	GND
TEST	7	22	OE
WRST	8	21	RRST
WCK	9	20	RCK
VDD	10	19	VDD
DI4	11	18	DO4
DI5	12	17	DO5
DI6	13	16	DO6
DI7	14	15	DO7

2. Pin Function

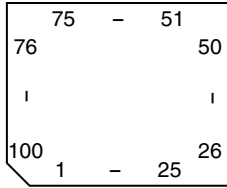
Pin No.	Symbol	I/O	Pin Function
1~4	DI0~3	I	Data input
5	WE	I	Write enable signal input
6	GND	-	Connect to GND
7	TEST	-	Connect to GND
8	WRST	I	Write reset signal input
9	WCK	I	Write clock signal input
10	VDD	-	Power supply +5V
11~14	DI4~7	I	Data input
15~18	DO7~4	O	Data output
19	VDD	-	Power supply +5V
20	RCK	I	Read clock signal input
21	RRST	I	Read reset signal input
22	OE	-	Connect to GND
23	GND	-	Connect to GND
24	RE	I	Read enable signal input
25~28	DO3~0	O	Data output

3. Block Diagrams



■ UPD784215AGC102(IC671): DSP Controller

1. Terminal layout

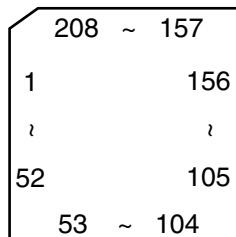


2. Pin function

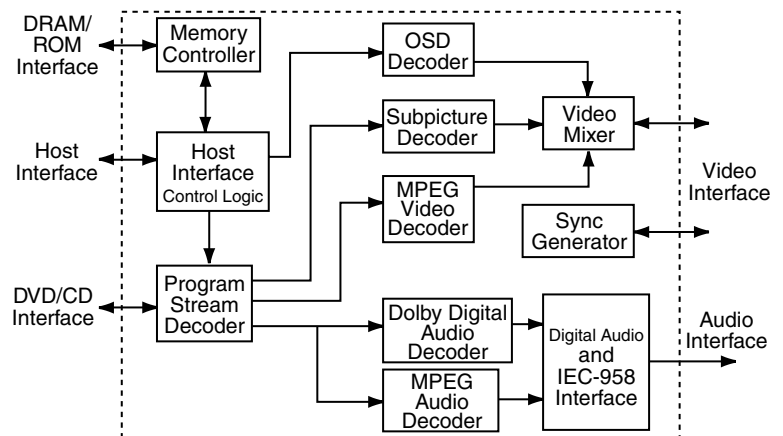
Pin No.	Symbol	I/O	Functions
1-8		-	Terminal (unused)
9	VDD	-	Power supply terminal
10	X2	O	Quartz oscillation terminal 6.14 MHz (Main clock)
11	X1	I	Quartz oscillation terminal 6.14 MHz (Main clock)
12	VSS	-	Ground connection
13	XT2	-	Terminal (unused)
14	XT1	-	Terminal (unused)
15	RESET	I	Reset signal input
16	AUTODATA	I	DSP general-purpose port output interruption
17	LOCK	I	DSP general-purpose port output interruption
18	DIGITAL0	I	DSP general-purpose port output interruption
19	FORMAT	I	DSP general-purpose port output interruption
20	CHANNEL	I	DSP general-purpose port output interruption
21	ERR	I	DSP general-purpose port output interruption
22	RSTDET	I	DSP general-purpose port output interruption
23	AVDD	-	Power supply terminal
24	AVREF0	-	Ground connection
25-32		-	Ground connection
33	AVSS	-	Ground connection
34,35		-	Terminal (unused)
36		-	Power supply terminal
37,38	RX,TX	-	Terminal (unused)
39		-	Terminal (unused)
40	DSPCOM	I	Communication port with IC401
41	DSPSTS	O	Status communication port to IC401
42	DSPCLK	I	Clock input from IC401
43	DSPRDY	I	Ready signal input from IC401
44		-	Terminal (unused)
45,46	MIDIO_IN/OUT	I/O	DSP-microcomputer I/F
47	MICK	O	Clock signal to IC631
48	MICS	O	Chip select to IC631
49	MILP	O	DSP-microcomputer I/F
50	MIACK	O	DSP-microcomputer I/F
51,52		-	Terminal (unused)
53	DSPRST	O	DSP reset signal output
54-63		-	Terminal (unused)
64,65	CDTI/CDTO	I/O	CODEC-Microcomputer I/F
66	CCLK	O	Clock signal to IC601
67	CS	O	Chip select to IC601
68	XTS	O	OSC select
69,70		-	Terminal (unused)
71	PD	O	Reset signal input
72	GND	-	Ground connection
73-80		-	Terminal (unused)
81	VDD	-	Power supply terminal
82	3D-ON	-	Terminal (unused)
83	3D-ON	O	Switching terminal to where the surround channel is output
84	ANA/T-TONE	O	Test tone control
85	REF-MIX	O	Controlling terminal to where the LFE channel is output
86		-	Terminal (unused)
87	D.MUTE	O	MUTE for the digital OUT terminal
88	S.MUTE	O	MUTE for the audio signal
89		-	Terminal (unused)
90-93	ASW1-4	O	Digital input selection
94	TEST	-	Test terminal
95-100		-	Terminal (unused)

■ ZIVA3-PA1(IC501):AV DECODER

1.Terminal Layout



2.Block Diagrams



3.Pin Function (1/3)

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	TEST PIN0	-	Test pin	26	ARAM-DATA5	I/O	Non used
2	HDATA0	I/O	System control data I/O (IC301)	27	E-VDD	-	Power supply
3	HDATA1	I/O	System control data I/O (IC301)	28	ARAM-DATA6	I/O	Non used
4	HDATA2	I/O	System control data I/O (IC301)	29	E-VSS	-	Connect to GND
5	E-VDD	-	Power supply	30	ARAM-DATA7	I/O	Non used
6	HDATA3	I/O	System control data I/O (IC301)	31	ARAM-ADDR0	-	Connect to TP550
7	E-VSS	-	Connect to GND	32	ARAM-ADDR1	-	Connect to TP551
8	HDATA4	I/O	System control data I/O (IC301)	33	ARAM-ADDR2	-	Connect to TP552
9	HDATA5	I/O	System control data I/O (IC301)	34	ARAM-ADDR3	-	Connect to TP553
10	HDATA6	I/O	System control data I/O (IC301)	35	ARAM-ADDR4	-	Connect to TP554
11	HDATA7	I/O	System control data I/O (IC301)	36	E-VDD	-	Power supply
12	I-VDD	-	Power supply	37	ARAM-ADDR5	-	Connect to TP555
13	RST	I	Reset signal input	38	E-VSS	-	Connect to GND
14	I-VSS	-	Connect to GND	39	ARAM-ADDR6	-	Connect to TP556
15	WAIT	I	Wait control for IC509	40	I-VDD	-	Power supply
16	INT	O	Host interrupt output for ATAPI	41	ARAM-ADDR7	-	Connect to TP557
17	E-VDD	-	Power supply	42	I-VSS	-	Connect to GND
18	ARAM-OE	-	Connect to TP540	43	ARAM-ADDR8	-	Connect to TP558
19	E-VSS	-	Connect to GND	44	ARAM-ADDR9	-	Connect to TP559
20	ARAM-WE	-	Connect to TP541	45	ARAM-ADDR10	-	Connect to TP560
21	ARAM-DATA0	I/O	Non used	46	ARAM-ADDR11	-	Connect to TP561
22	ARAM-DATA1	I/O	Non used	47	E-VDD	-	Power supply
23	ARAM-DATA2	I/O	Non used	48	ARAM-ADDR12	-	Connect to TP562
24	ARAM-DATA3	I/O	Non used	49	E-VSS	-	Connect to GND
25	ARAM-DATA4	I/O	Non used	50	ARAM-ADDR13	-	Connect to TP563

Pin Function (2/3)

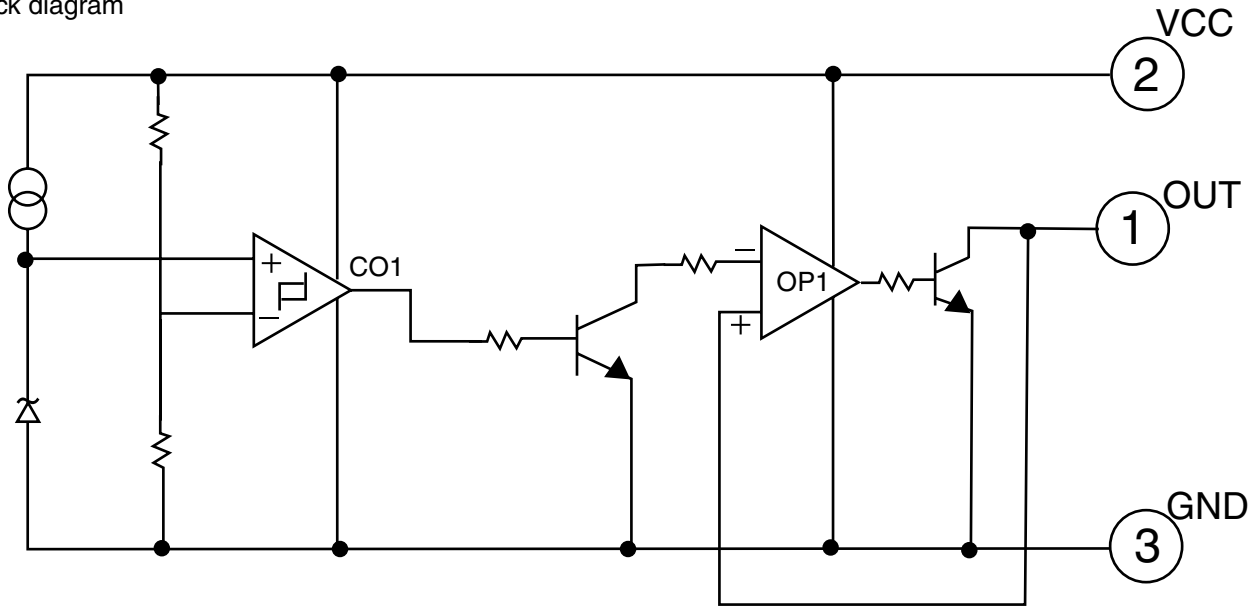
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
51	ARAM-ADDR14	-	Connect to TP564	97	E-VSS	-	Connect to GND
52	TEST-PIN1	-	Test pin	98	M-ADDR11	O	Address output to IC508,504
53	M-DATA15	I/O	Data bus I/O to IC508,IC504	99	M-ADDR8	O	Address output to IC508,504
54	M-DATA0	I/O	Data bus I/O to IC508,IC504	100	M-ADDR10	O	Address output to IC508,504
55	E-VDD	-	Power supply	101	E-VDD	-	Power supply
56	M-DATA14	I/O	Data bus I/O to IC508,IC504	102	M-ADDR7	O	Address output to IC508,504
57	E-VSS	-	Connect to GND	103	E-VSS	-	Connect to GND
58	M-DATA1	I/O	Data bus I/O to IC508,IC504	104	M-ADDR0	O	Address output to IC508,504
59	M-DATA13	I/O	Data bus I/O to IC508,IC504	105	M-ADDR6	O	Address output to IC508,504
60	M-DATA2	I/O	Data bus I/O to IC508,IC504	106	M-ADDR1	O	Address output to IC508,504
61	E-VDD	-	Power supply	107	E-VDD	-	Power supply
62	M-DATA12	I/O	Data bus I/O to IC508,IC504	108	M-ADDR5	O	Address output to IC508,504
63	E-VSS	-	Connect to GND	109	E-VSS	-	Connect to GND
64	M-DATA3	I/O	Data bus I/O to IC508,IC504	110	M-ADDR2	O	Address output to IC508,504
65	I-VDD	-	Power supply	111	M-ADDR4	O	Address output to IC508,504
66	M-DATA11	I/O	Data bus I/O to IC508,IC504	112	M-ADDR3	O	Address output to IC508,504
67	I-VSS	-	Connect to GND	113	E-VDD	-	Power supply
68	M-DATA14	I/O	Data bus I/O to IC508,IC504	114	M-ADDR12	-	Connect to TP513
69	E-VDD	-	Power supply	115	E-VSS	-	Connect to GND
70	M-DATA10	I/O	Data bus I/O to IC508,IC504	116	M-ADDR13	-	Connect to TP514
71	E-VSS	-	Connect to GND	117	I-VDD	-	Power supply
72	M-DATA5	I/O	Data bus I/O to IC508,IC504	118	M-ADDR14	-	Connect to TP515
73	M-DATA9	I/O	Data bus I/O to IC508,IC504	119	I-VSS	-	Connect to GND
74	M-DATA6	I/O	Data bus I/O to IC508,IC504	120	M-ADDR15	-	Connect to TP516
75	E-VDD	-	Power supply	121	M-ADDR16	-	Connect to TP517
76	M-DATA8	I/O	Data bus I/O to IC508,IC504	122	M-ADDR17	-	Connect to TP518
77	E-VSS	-	Connect to GND	123	E-VDD	-	Power supply
78	M-DATA7	I/O	Data bus I/O to IC508,IC504	124	M-ADDR18	-	Connect to TP519
79	LDQM	O	Lower DQ mask enable	125	E-VSS	-	Connect to GND
80	UDQM	O	Upper DQ mask enable	126	M-ADDR19	-	Connect to TP520
81	E-VDD	-	Power supply	127	M-ADDR20	-	Connect to TP521
82	$\overline{\text{MWE}}$	O	Write enable	128	$\overline{\text{ROM-CS}}$	-	Connect to TP522
83	E-VSS	-	Connect to GND	129	TEST-PIN2	-	Test pin
84	SD-CLK	O	System clock signal output	130	OSD-CLK	-	Connect to TP523
85	$\overline{\text{SD-CAS}}$	O	column address strobe	131	OSD-DATA0	-	Connect to TP525
86	$\overline{\text{SD-RAS}}$	O	Row address strobe	132	OSD-DATA1	-	Connect to TP526
87	E-VDD	-	Power supply	133	TEST-PIN3	-	Test pin
88	$\overline{\text{SD-CS1}}$	O	Chip select output to IC508	134	E-VDD	-	Power supply
89	E-VSS	-	Connect to GND	135	OSD-DATA2	-	Connect to TP528
90	$\overline{\text{SD-CS0}}$	O	Chip select output to IC504	136	E-VSS	-	Connect to GND
91	I-VDD	-	Power supply	137	OSD-DATA3	-	Connect to TP529
92	$\overline{\text{EDO-CAS}}$	-	Connect to TP511	138	TEST-PIN4	-	Test pin
93	I-VSS	-	Connect to GND	139	OSD-BLK1	-	Connect to TP531
94	$\overline{\text{EDO-RAS}}$	-	Connect to TP512	140	OSDVC1	-	Connect to TP532
95	E-VDD	-	Power supply	141	TEST-PIN5	-	Test pin
96	M-ADDR9	O	Address output to IC508,504	142	VDATA0	O	DVD image signal output

Pin Function (3/3)

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
143	VDATA1	O	DVD image signal output	176	A-VDD	-	Connect to TP507
144	I-VDD	-	Power supply	177	VCLK	I/O	Dot clock signal output (27MHz)
145	VDATA2	O	DVD image signal output	178	SYCLK	-	Connect to TP505
146	I-VSS	-	Connect to GND	179	A-VSS	-	Connect to GND
147	TEST-PIN6	-	Test pin	180	DVD-DATA0	I	ATAPI data I/O to IC301
148	VDATA3	O	DVD image signal output	181	E-VDD	-	Power supply
149	E-VDD	-	Power supply	182	DVD-DATA1	I	ATAPI data I/O to IC301
150	VDATA4	O	DVD image signal output	183	E-VSS	-	Connect to GND
151	E-VSS	-	Connect to GND	184	DVD-DATA2	I	ATAPI data I/O to IC301
152	VDATA5	O	DVD image signal output	185	DVD-DATA3	I	ATAPI data I/O to IC301
153	TEST-PIN7	-	Test pin	186	DVD-DATA4	I	ATAPI data I/O to IC301
154	VDATA6	O	DVD image signal output	187	DVD-DATA5	I	ATAPI data I/O to IC301
155	VDATA7	O	DVD image signal output	188	DVD-DATA6	I	ATAPI data I/O to IC301
156	TEST-PIN8	-	Test pin	189	DVD-DATA7	I/O	ATAPI data I/O to IC301
157	HSYNC	I/O	Horizontal synchronous signal output	190	TEST-PIN10	-	Test pin
158	VSYNC	I/O	Vertical synchronous signal output	191	V-REQUEST	O	Master/Sleeve Selection for ATAPI
159	IEC-958	O	Digital audio data output	192	V-STROBE	I	Host address for ATAPI
160	E-VDD	-	Power supply	193	I-VDD	-	Power supply
161	DA-DATA0	O	Data output to IC702	194	A-REQUEST	-	Connect to TP539
162	E-VSS	-	Connect to GND	195	I-VSS	-	Connect to GND
163	DA-DATA1	O	Data output to IC702	196	V-DACK	I	Host interrupt input for ATAPI
164	DA-DATA2	O	Data output to IC702	197	E-VDD	-	Power supply
165	DA-DATA3	O	Data output to IC702	198	SECT-SYNC	I	Host write for ATAPI
166	DA-LRCK	O	L/R clock output to IC702	199	E-VSS	-	Connect to GND
167	DA-BCK	O	Bit clock output to IC702	200	ERROR	-	Connect to GND
168	I-VDD	-	Power supply	201	HOST-SEL	-	Connect to GND
169	DA-XCK	-	Non connect	202	HADDR0	I	System control address input
170	I-VSS	-	Connect to GND	203	HADDR1	I	System control address input
171	DAI-DATA	-	Connect to TP501	204	HADDR2	I	System control address input
172	DAI-LRCK	I	L/R clock input from IC702	205	DTACK-SEL	-	Connect to GND
173	DAI-BCK	I	Bit clock input from IC702	206	$\overline{\text{CS}}$	I	Chip select for ZIVA
174	TEST-PIN9	-	Test pin	207	$\overline{\text{R/W}}$	I	Write enable
175	CLK-SEL	-	Connect to GND	208	$\overline{\text{RD}}$	I	Read enable

■ IC-PST9140-T (IC717) : RESET IC

1. block diagram

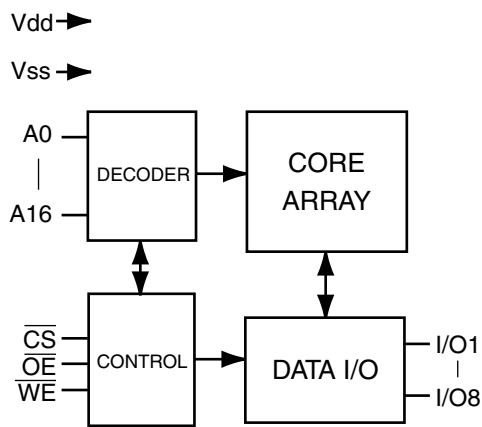


■ W24L011AJ-15(IC641): SDRAM

1. Terminal layout

A0	1	32	A16
A1	2	31	A15
A2	3	30	A14
A3	4	29	A13
CS	5	28	OE
I/O1	6	27	I/O8
I/O2	7	26	I/O7
VDD	8	25	VSS
VSS	9	24	VDD
I/O3	10	23	I/O6
I/O4	11	22	I/O5
WE	12	21	A12
A4	13	20	A11
A5	14	19	A10
A6	15	18	A9
A7	16	17	A8

2. Block diagram

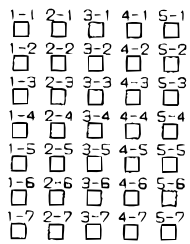
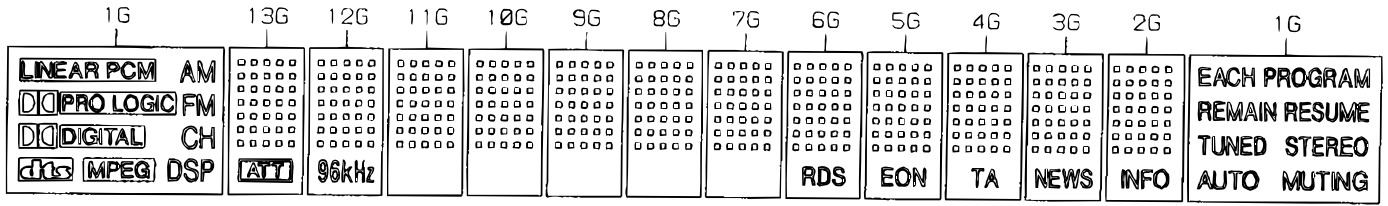


3. Pin function

Symbol	Description
A0-A16	Address input
I/O1-I/O8	Data input/output
CS	Chip select input
WE	Write enable input
OE	Output enable input
Vdd	Power supply terminal
Vss	Ground connection

Internal connection of FL display tube

■ QLF0049-001(DI831):FL DISPLAY TUBE



(13G~2G)

PIN CONNECTION

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50				
CONNECTION	F	F	N	N	N	N	N	N	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

PIN NO.	51	52	53	54	55	56	57	58	59	60	61	62
CONNECTION	8	7	6	5	4	3	2	1	N	N	F	F

- NOTE
- 1) F1, F2 --- Filament
 - 2) NP ----- No pin
 - 3) NC ----- No connection
 - 4) DL ----- Datum Line
 - 5) 1G~13G --- Grid

ANODE CONNECTION

	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	EACH
P2	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	PROGRAM
P3	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	REMAIN
P4	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	RESUME
P5	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	TUNED
P6	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	STEREO
P7	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	AUTO
P8	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	MUTING
P9	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	LINEAR PCM
P10	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	AM
P11	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	DIGI PRO LOGIC
P12	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	FM
P13	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	DIGITAL
P14	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	CH
P15	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	dts
P16	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	MPEG
P17	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	DSP
P18	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	-
P19	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	-
P20	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	-
P21	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	-
P22	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	-
P23	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	-
P24	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	-
P25	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	-
P26	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	-
P27	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	-
P28	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	-
P29	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	-
P30	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	-
P31	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	-
P32	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	-
P33	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	-
P34	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	-
P35	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	-
P36	ATT	96kHz	-	-	-	-	-	-	RDS EON	TA	NEWS	INFO	-

JVC

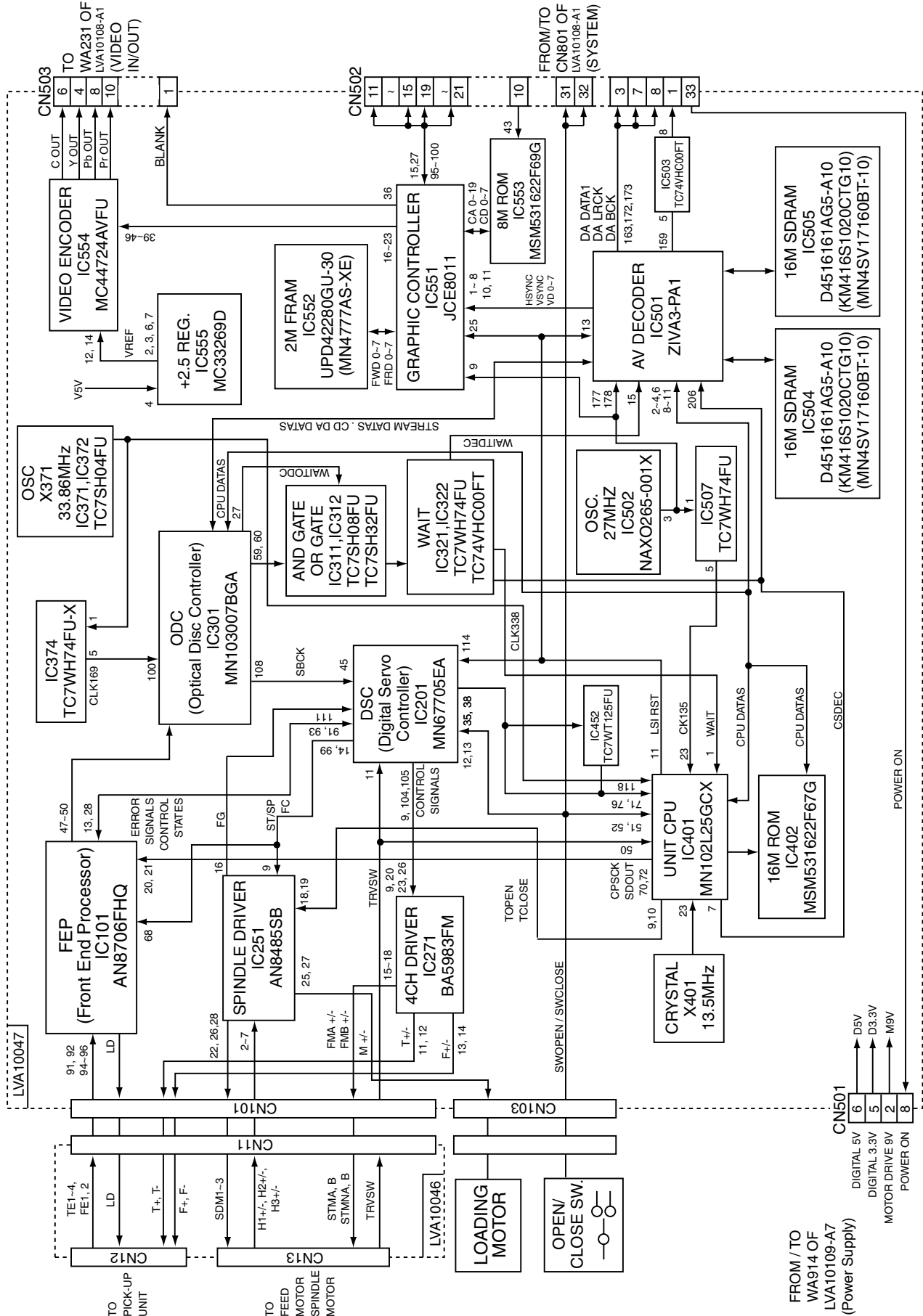
VICTOR COMPANY OF JAPAN, LIMITED

OPTICAL DISC BUSINESS DIV. PERSONAL & MOBILE NETWORK BUSINESS UNIT

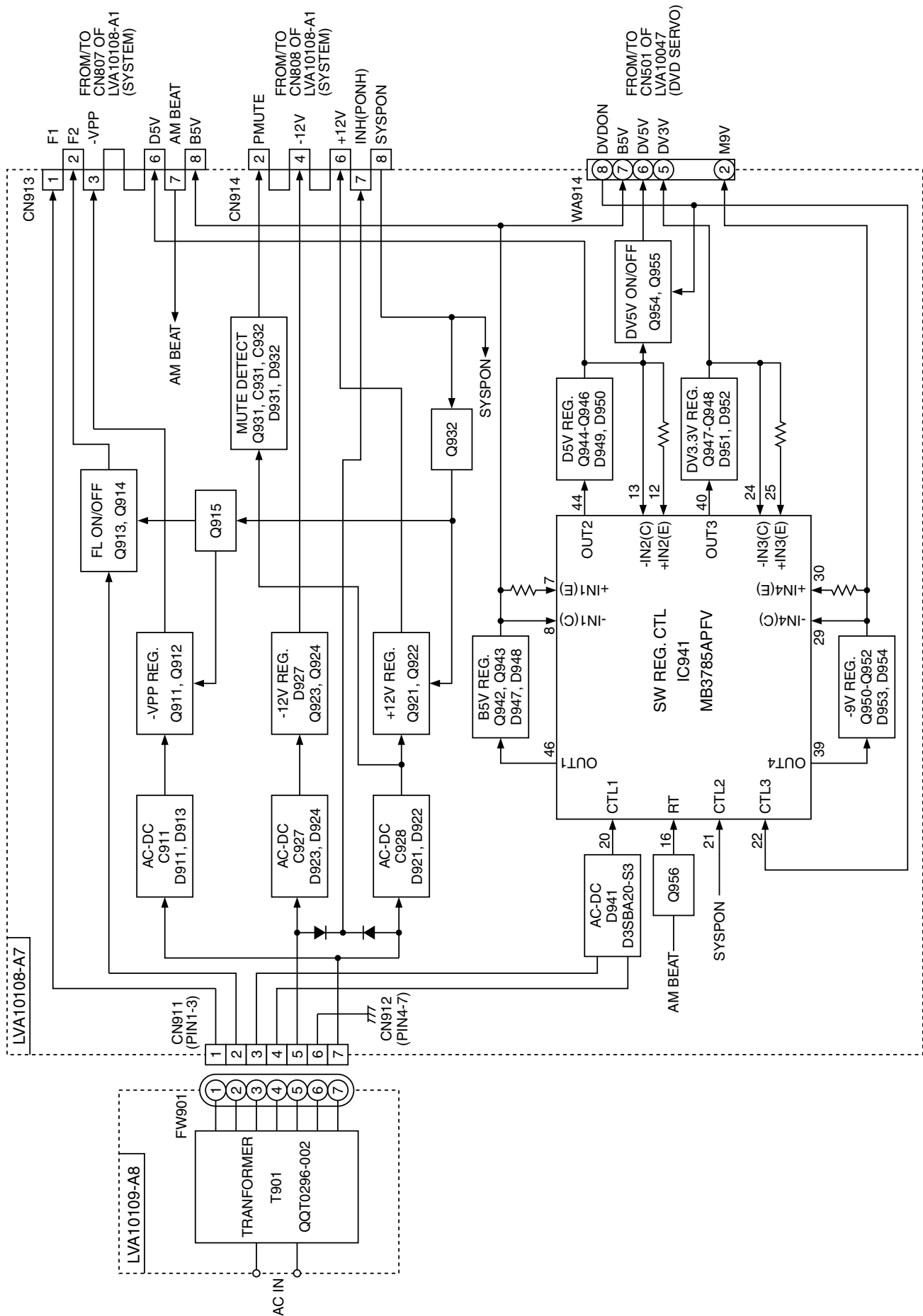
AV & MULTIMEDIA COMPANY 1644, Shimotsuruma, Yamato, Kanagawa 242-8514, Japan

Block diagrams

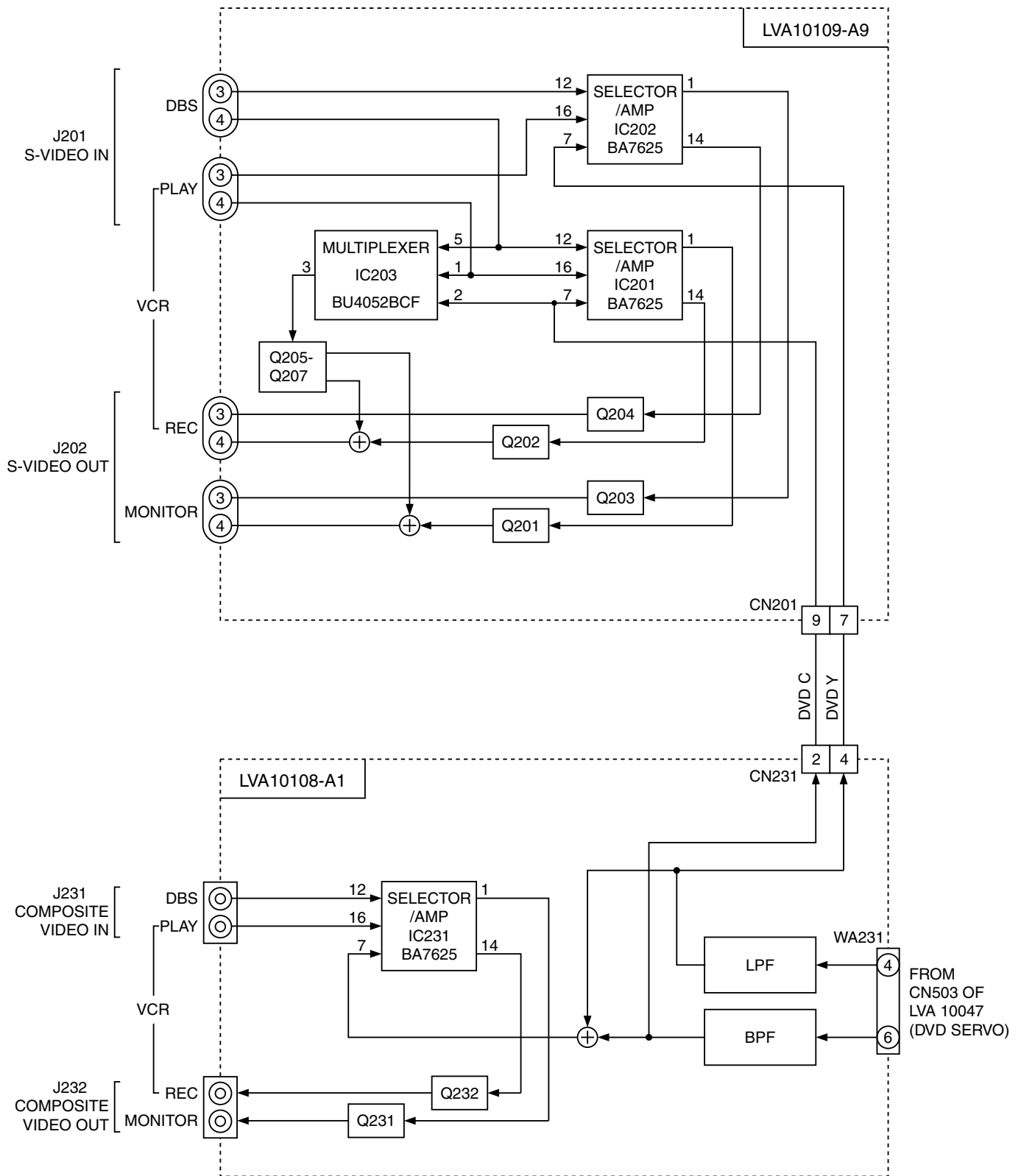
Block diagrams (DVD servo control Section)



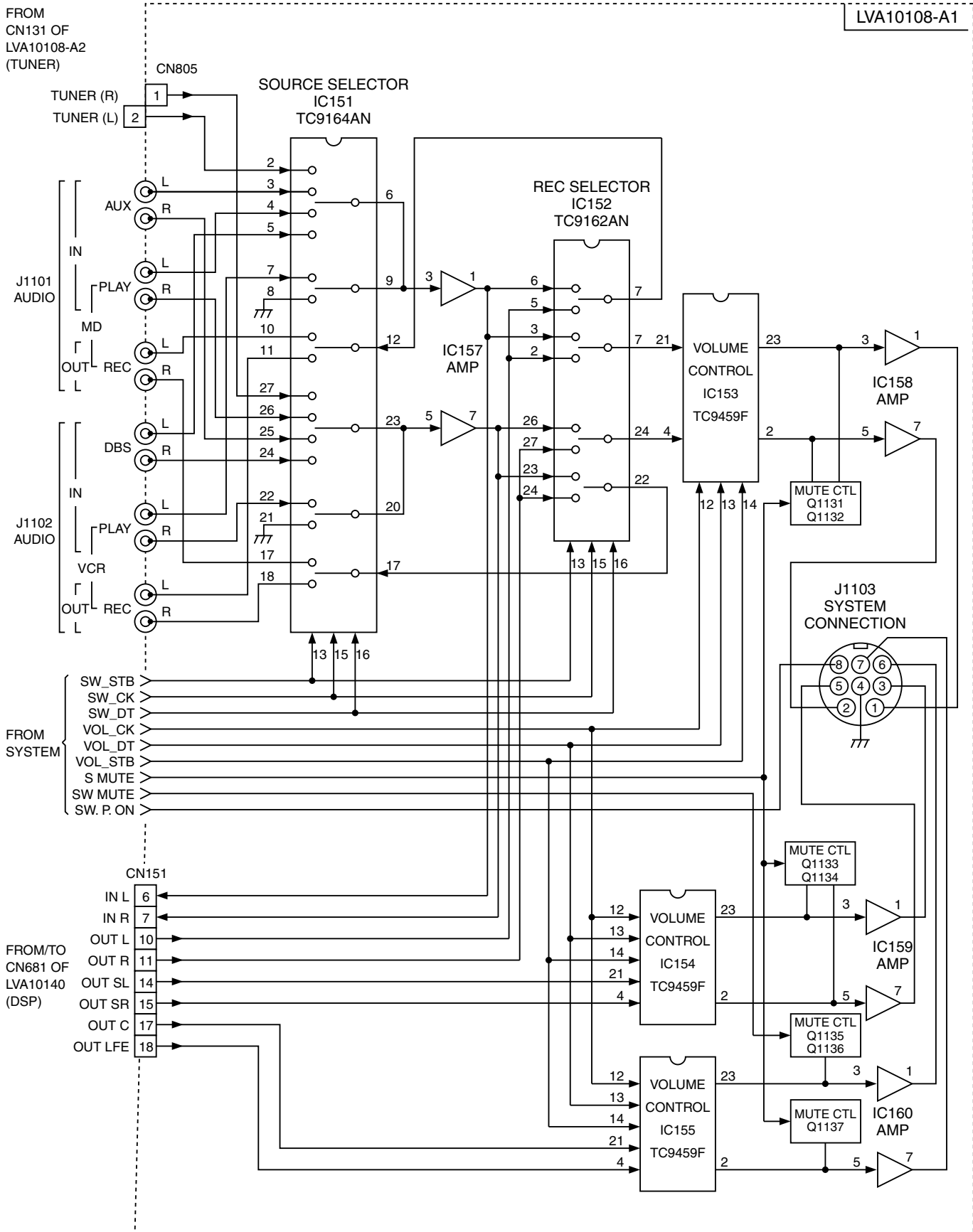
■ Block diagrams (Power supply Section)



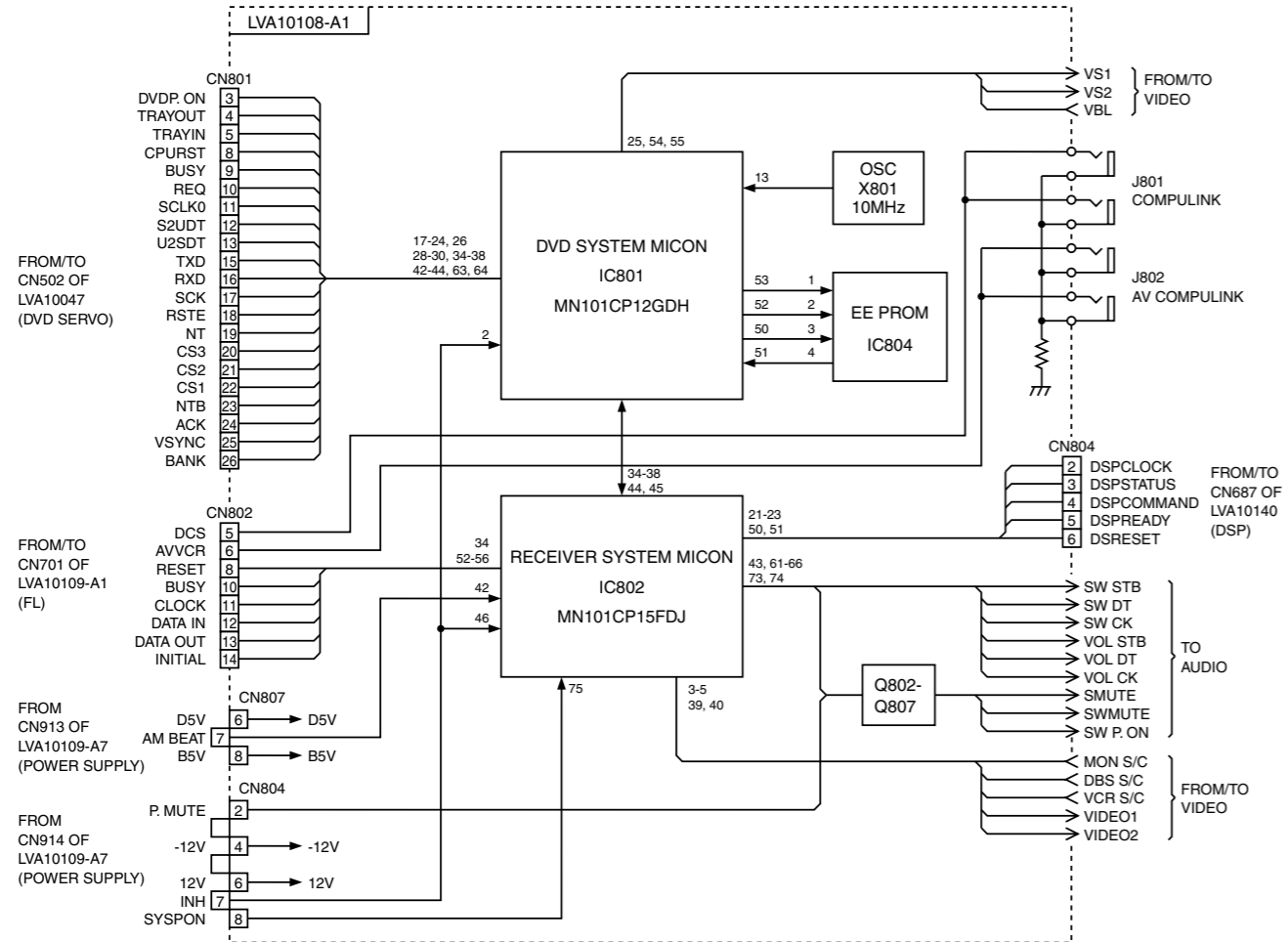
■ Block diagrams (Video out Section)



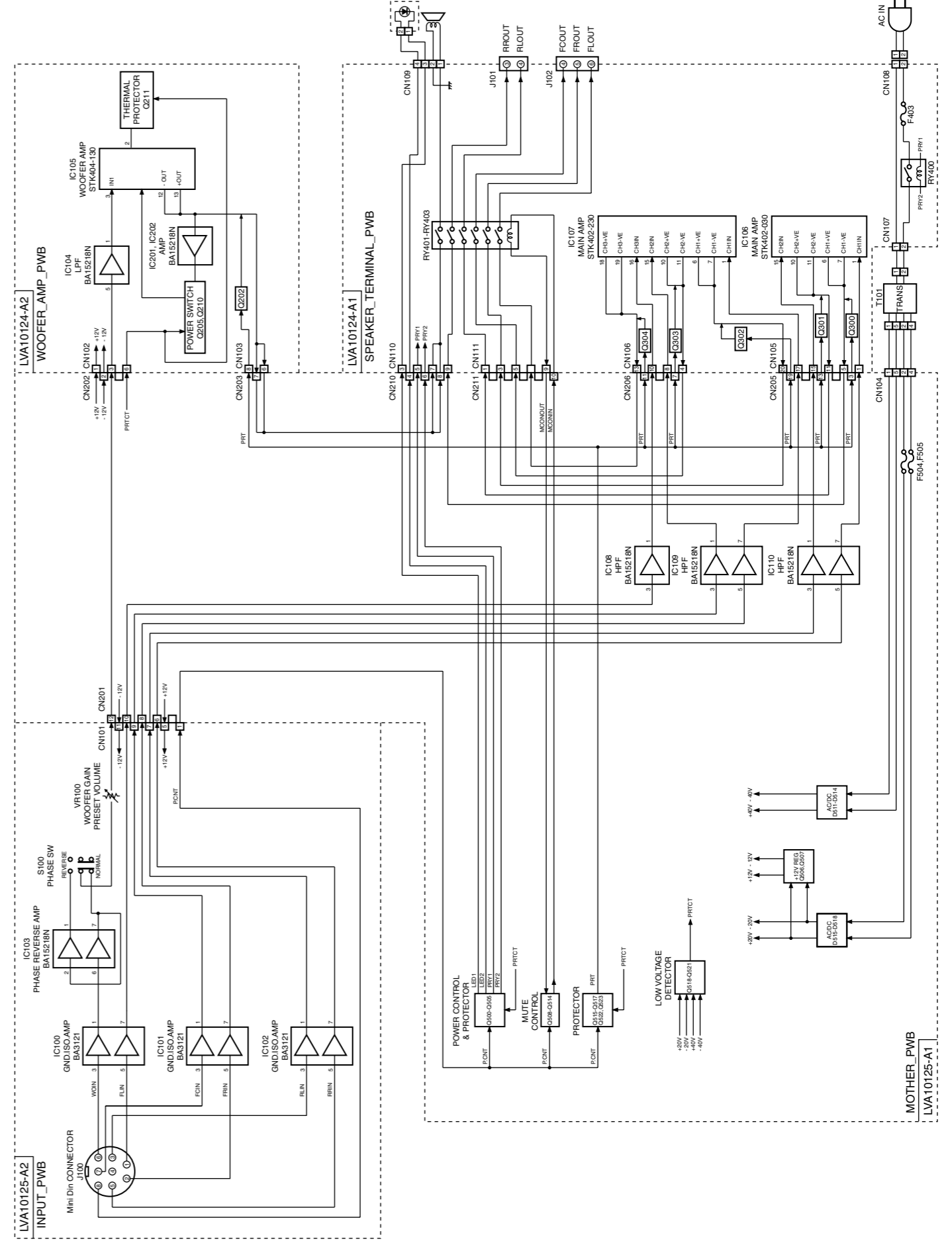
■ Block diagrams (Audio out section)



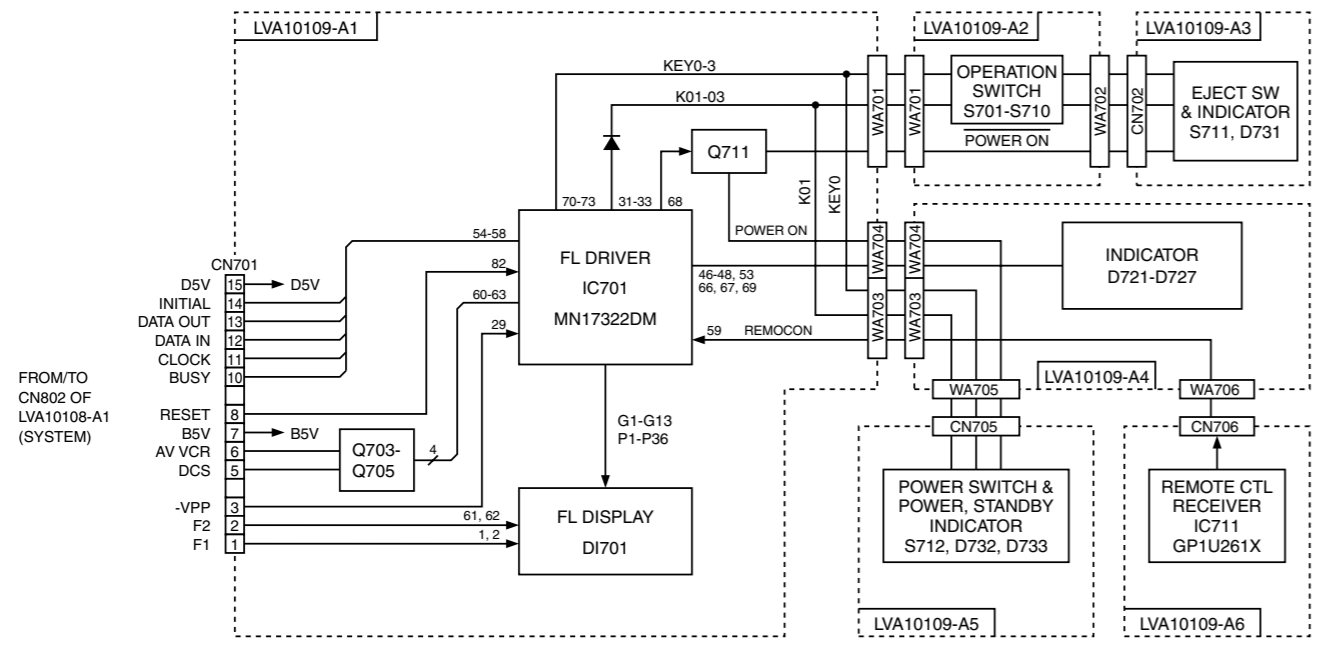
■ Block diagrams (System section)



■ Block diagrams (SP-PW10 Powered subwoofer section)



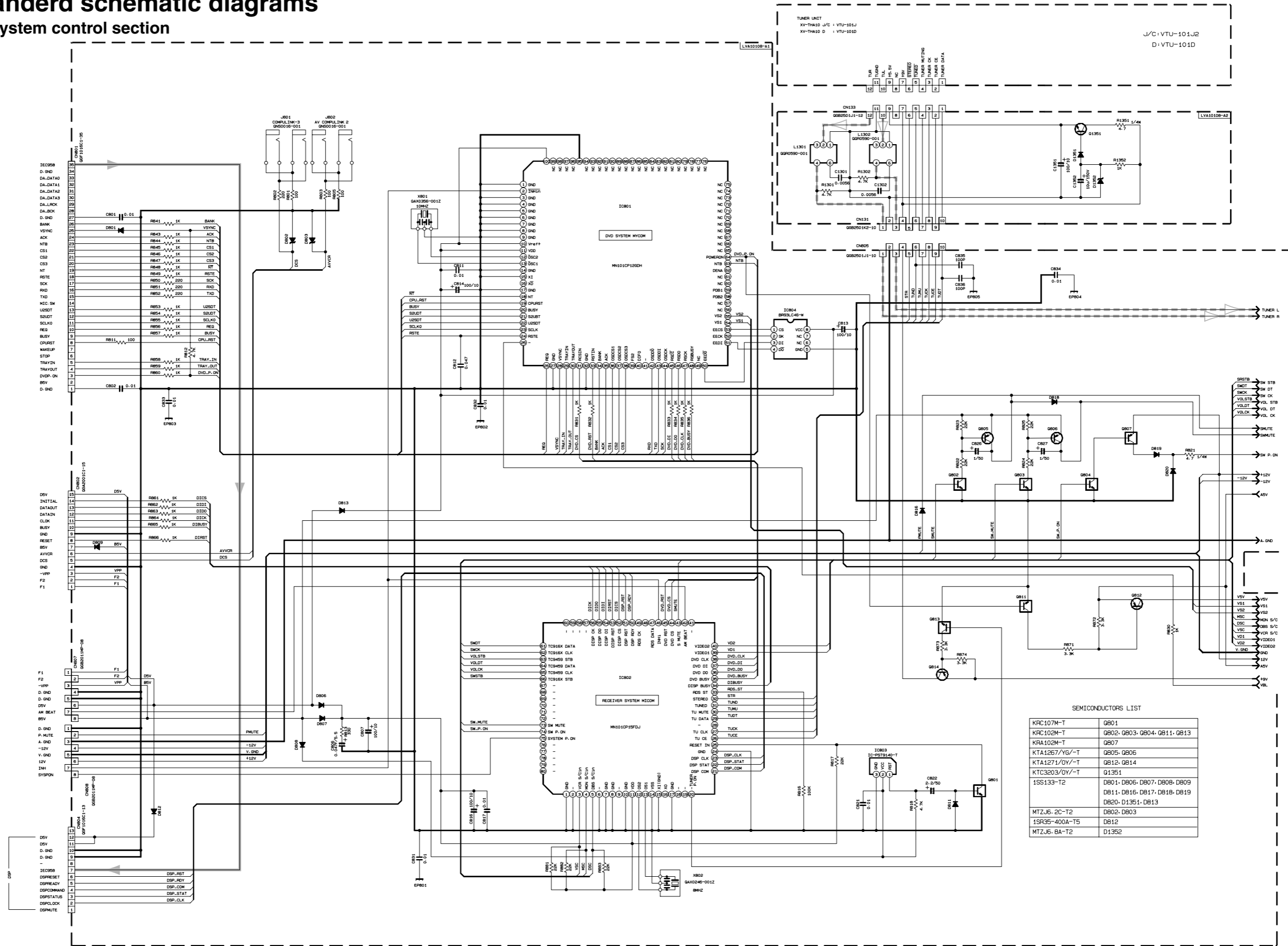
■ Block diagrams (FL section)



Standard schematic diagrams

System control section

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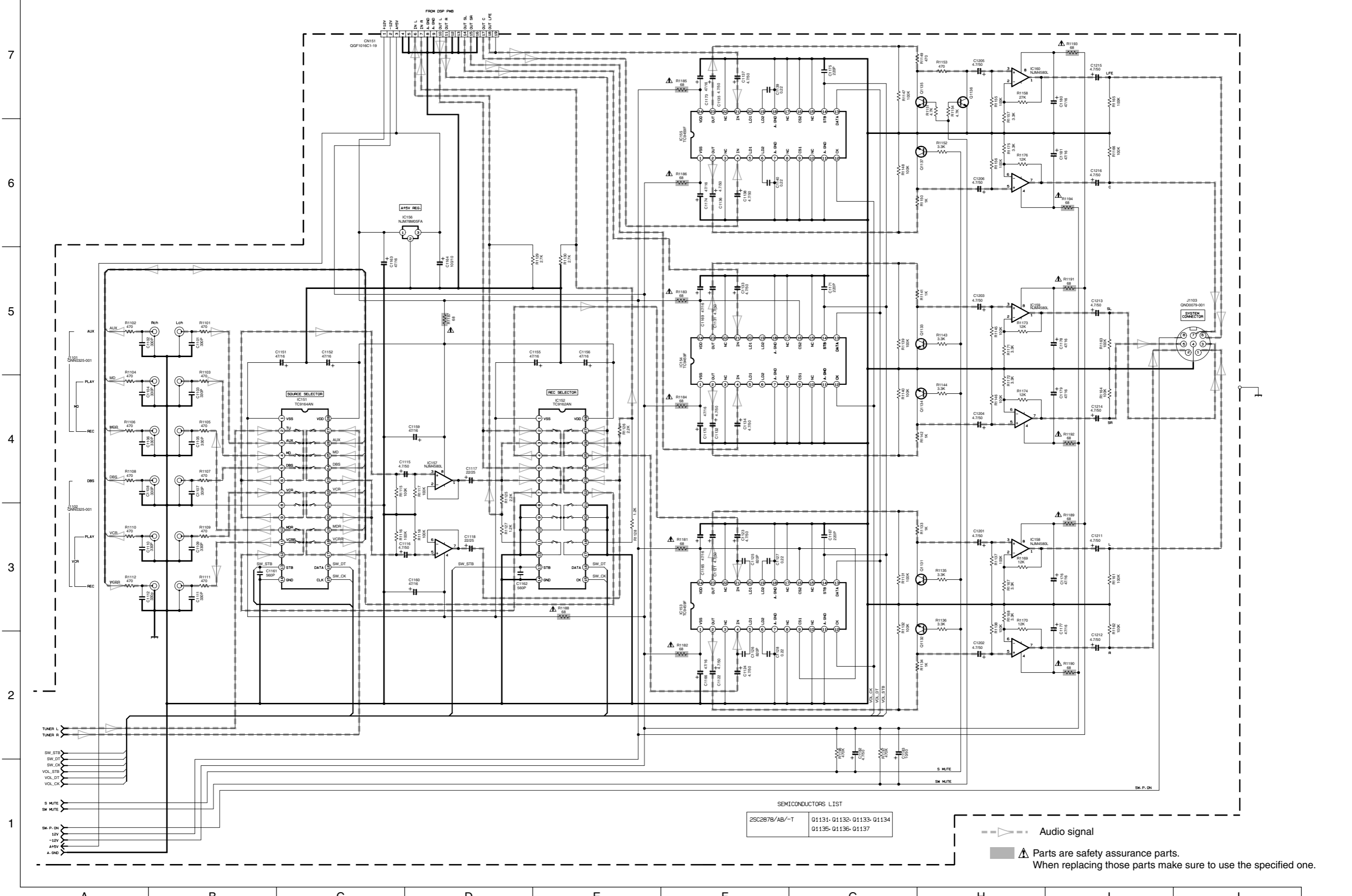
SEMICONDUCTORS LIST

KRC107M-T	Q801
KRA102M-T	Q802, Q803, Q804, Q811, Q813
KRA102M-T	Q807
KTA1267/YG/-T	Q805, Q806
KTA1271/OV/-T	Q812, Q814
KTC3203/OV/-T	Q1351
1S133-T2	DB01, DB06, DB07, DB08, DB09
	DB11, DB16, DB17, DB18, DB19
	DB20, D1351, D813
MTZJ6-2C-T2	DB02, DB03
1SR35-400A-T5	DB12
MTZJ6-8A-T2	D1352

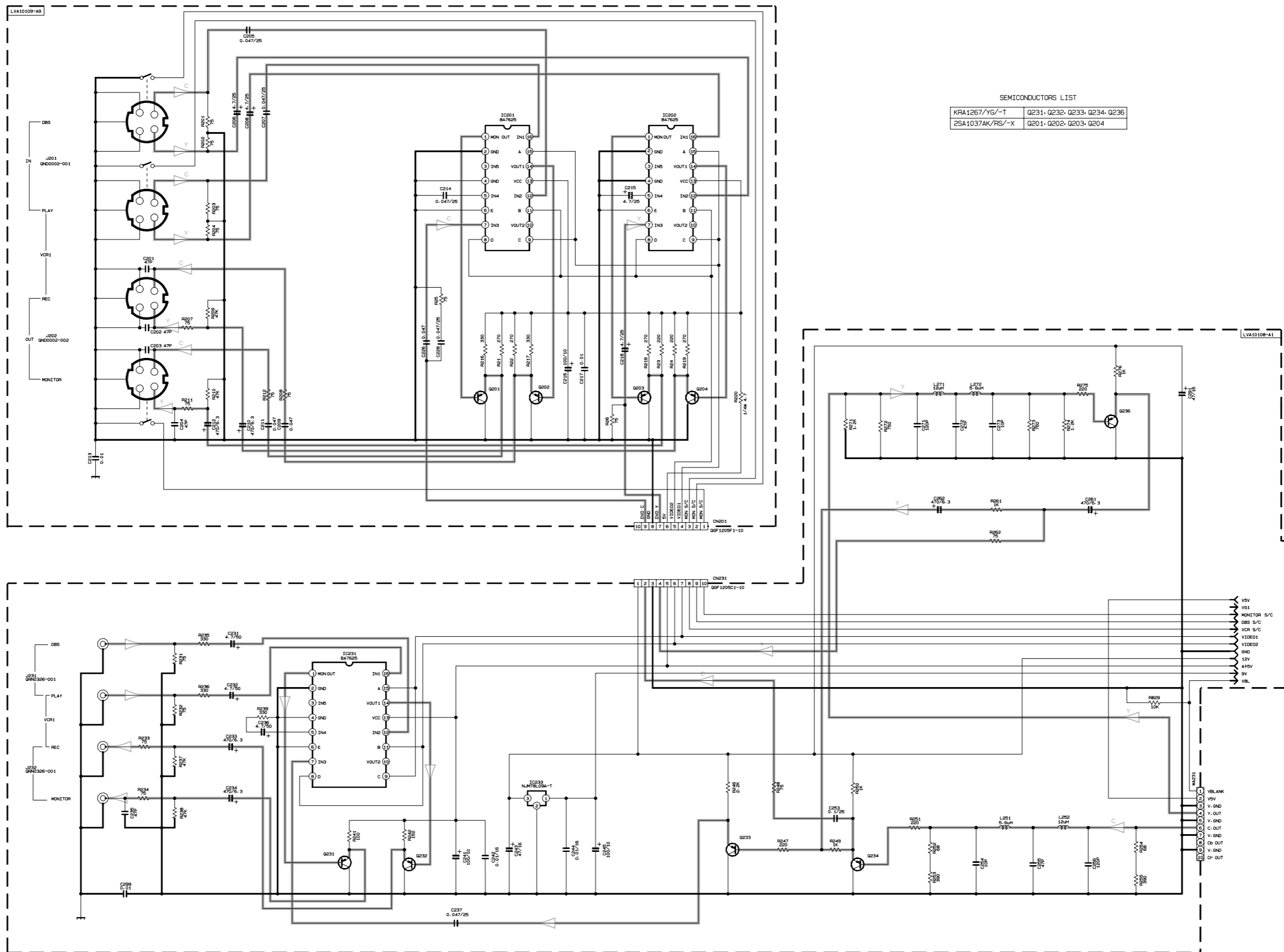
▲ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.
 —▶ Digital (Audio) signal
 - - -▶ Audio signal

A B C D E F G H I J

■ Audio input/output section



Video input/output section



SEMICONDUCTORS LIST

KRA1267/YG/-T	Q231, Q232, Q233, Q234, Q236
2SA1037AK/RS/-X	Q201, Q202, Q203, Q204

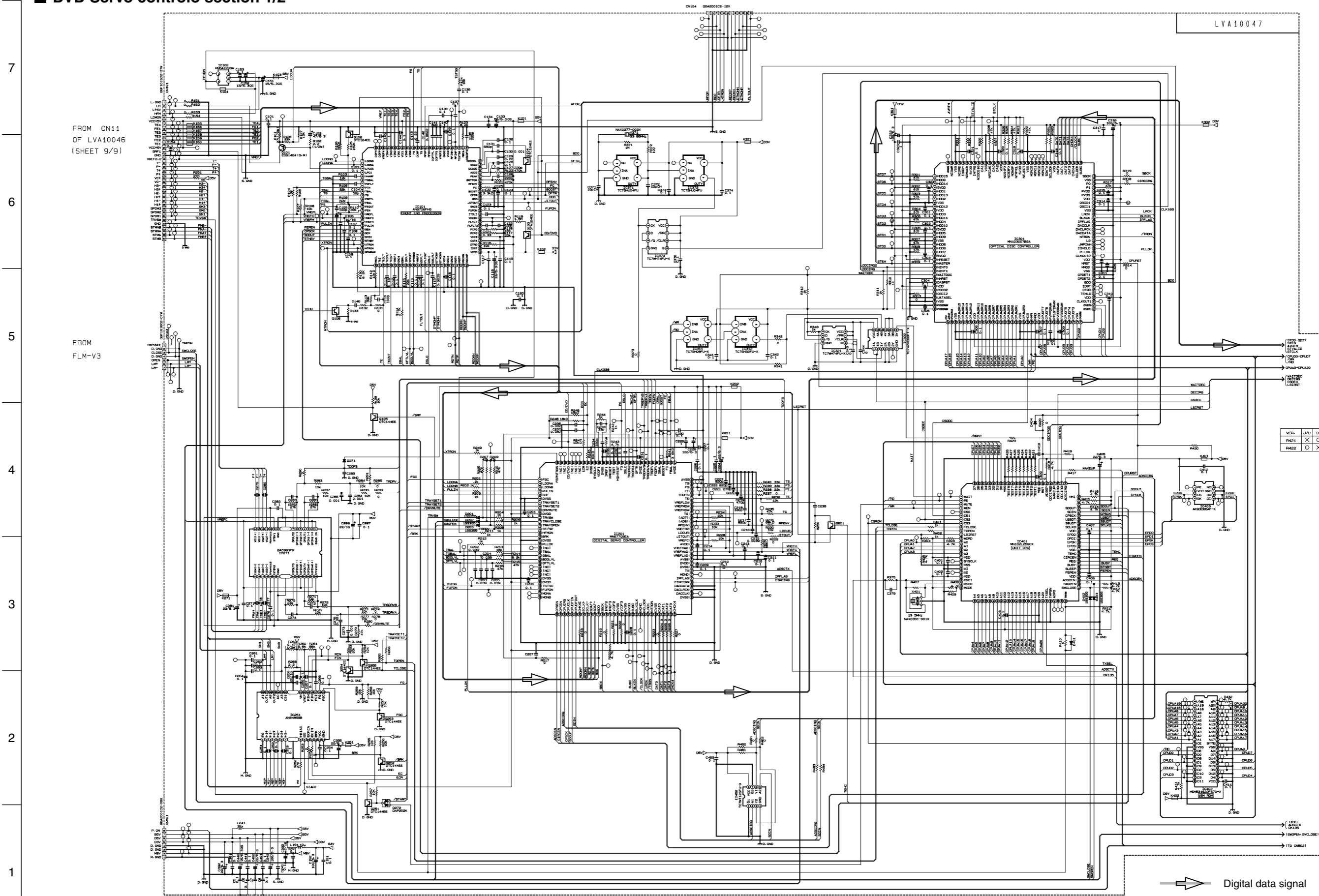
▲ Parts are safety assurance parts.
When replacing those parts make sure to use the specified one.

Video (Composite) signal Video (Luminance) signal Video (Color) signal

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A B C D E F G H I J

DVD Servo controlo section 1/2



FROM CN11 OF LVA10046 (SHEET 9/9)

FROM FLM-V3

LVA10047

VER.	J/C	D
R421	X	○
R422	○	X

➡ Digital data signal

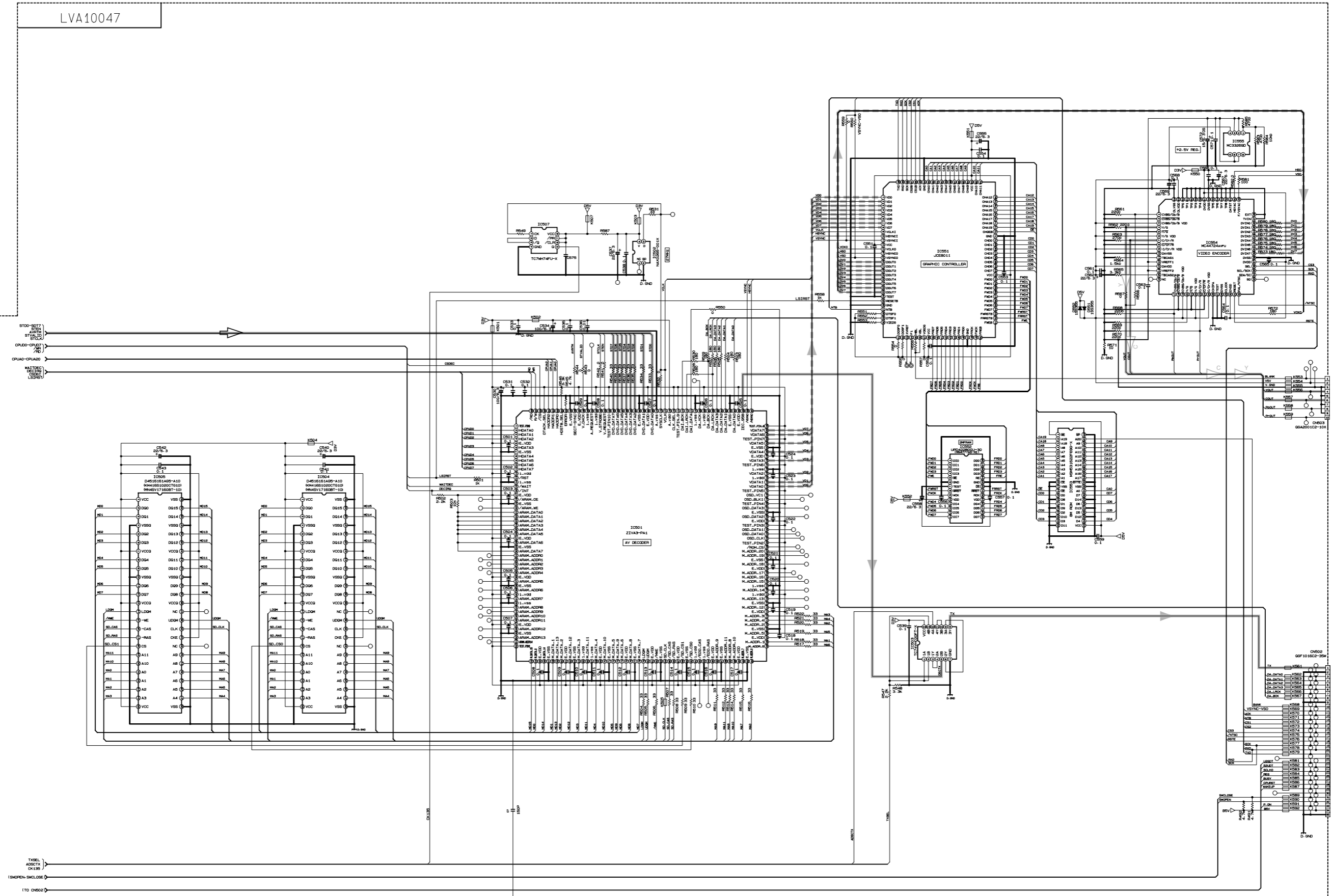
▲ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

A B C D E F G H I J

DVD Servo control section 2/2

LVA10047

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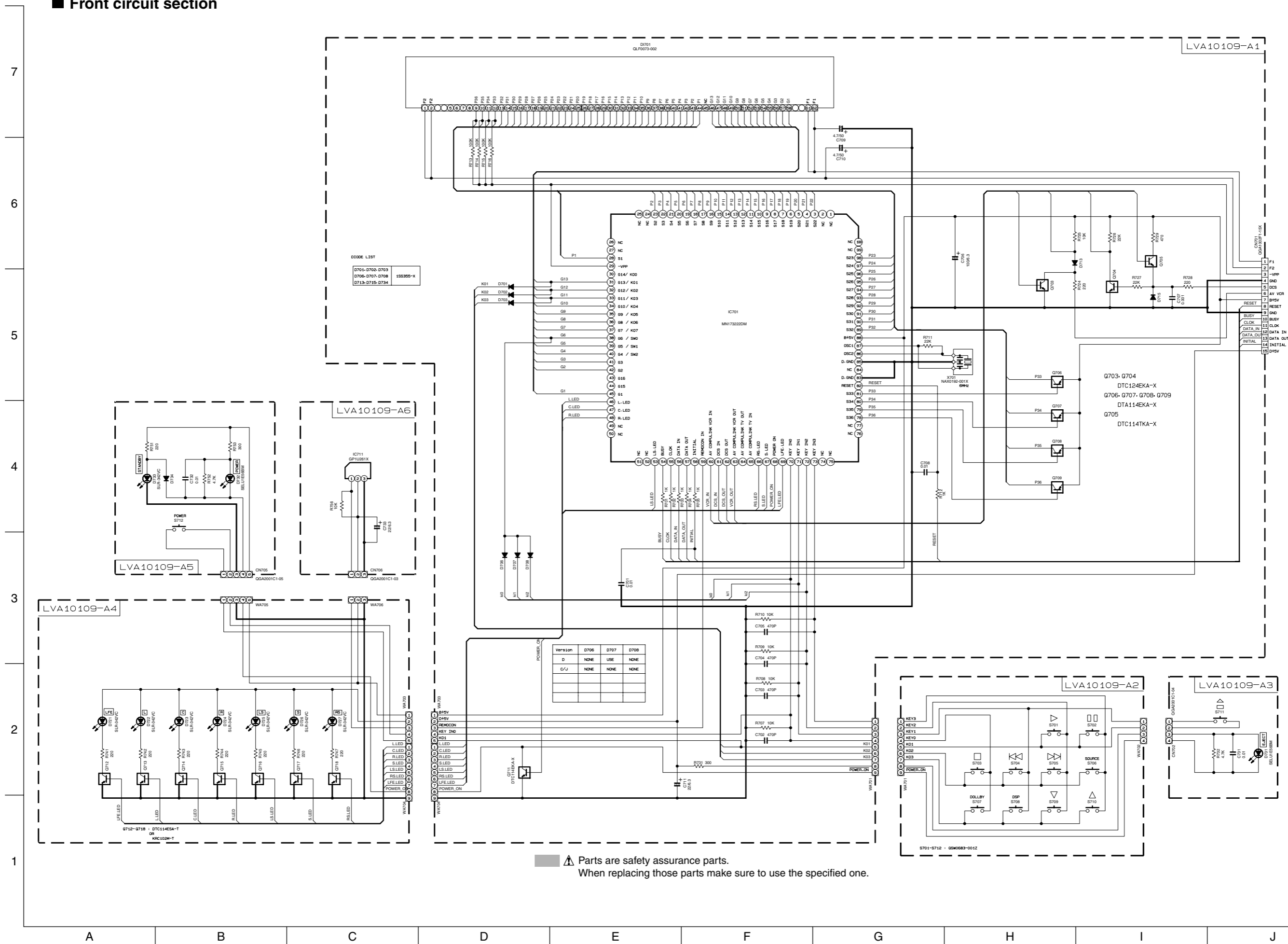


Parts are safety assurance parts.
When replacing those parts make sure to use the specified one.

Digital (Audio) signal
 Video (Luminance) signal
 Video (Color) signal
 Digital (Video) signal
 Digital data signal

A B C D E F G H I J

■ Front circuit section

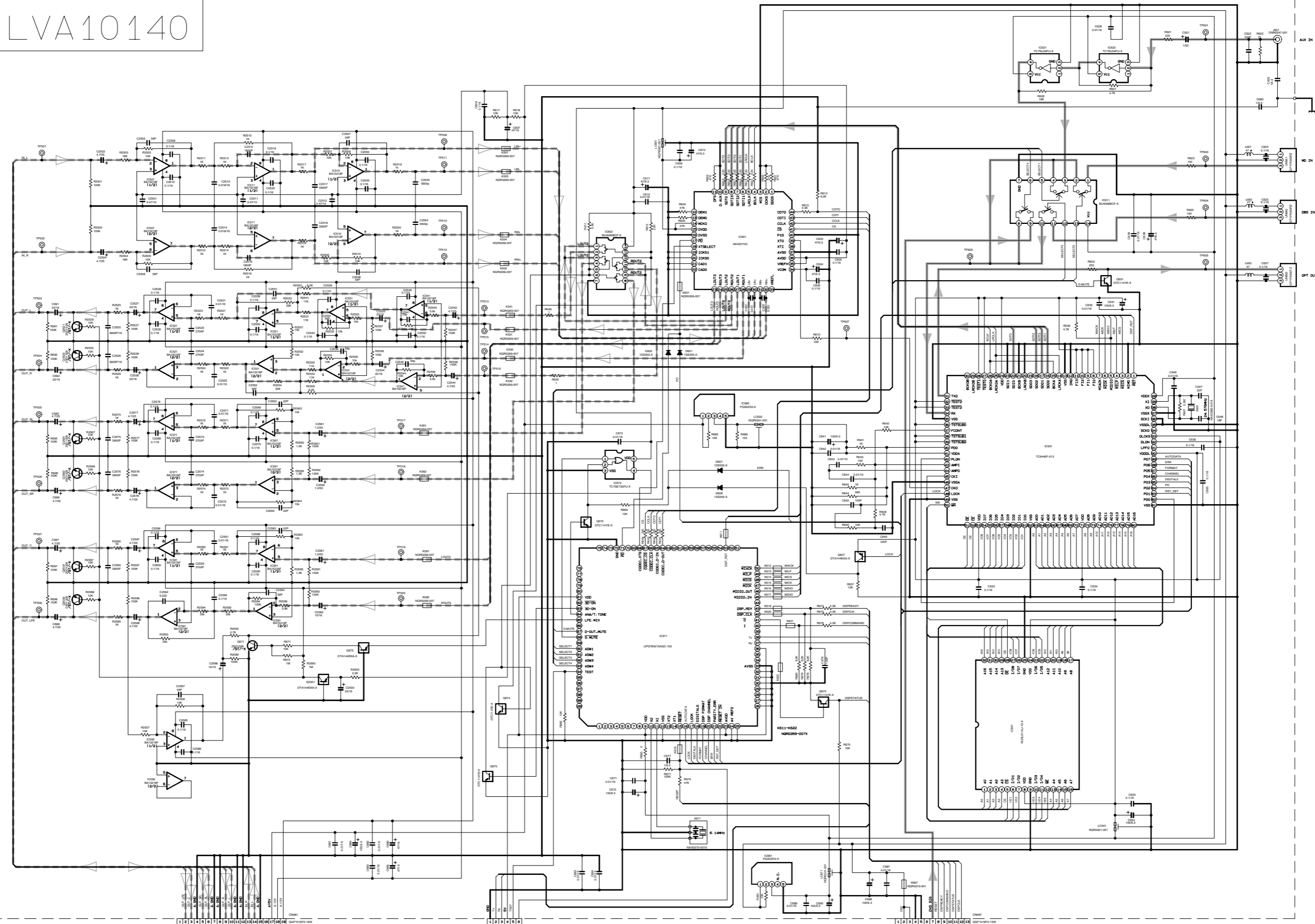


▲ Parts are safety assurance parts.
When replacing those parts make sure to use the specified one.

DSP control section

LVA10140

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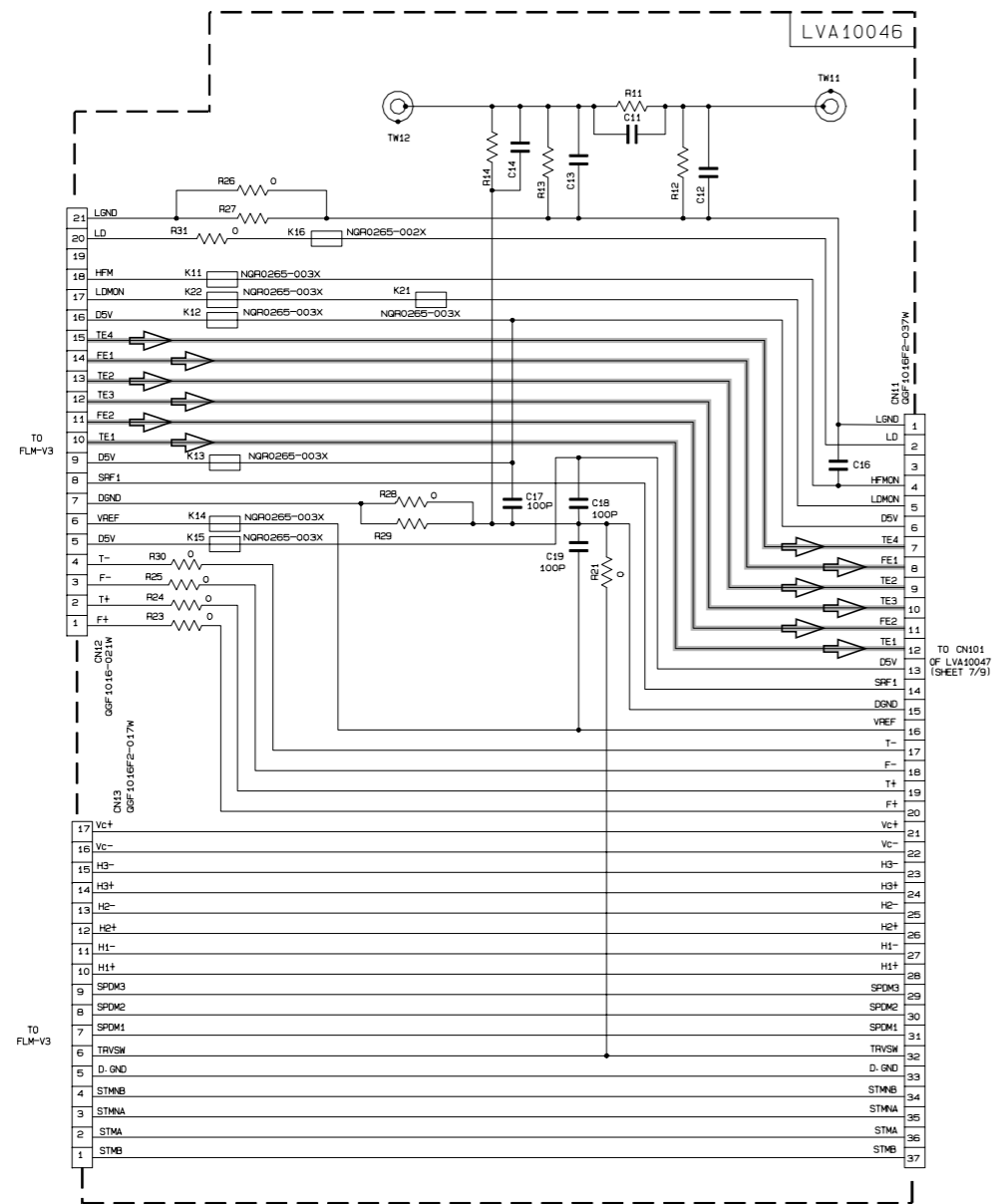


▲ Parts are safety assurance parts.
When replacing those parts make sure to use the specified one.

— Digital (Audio) signal - - - Audio signal

A B C D E F G H I J

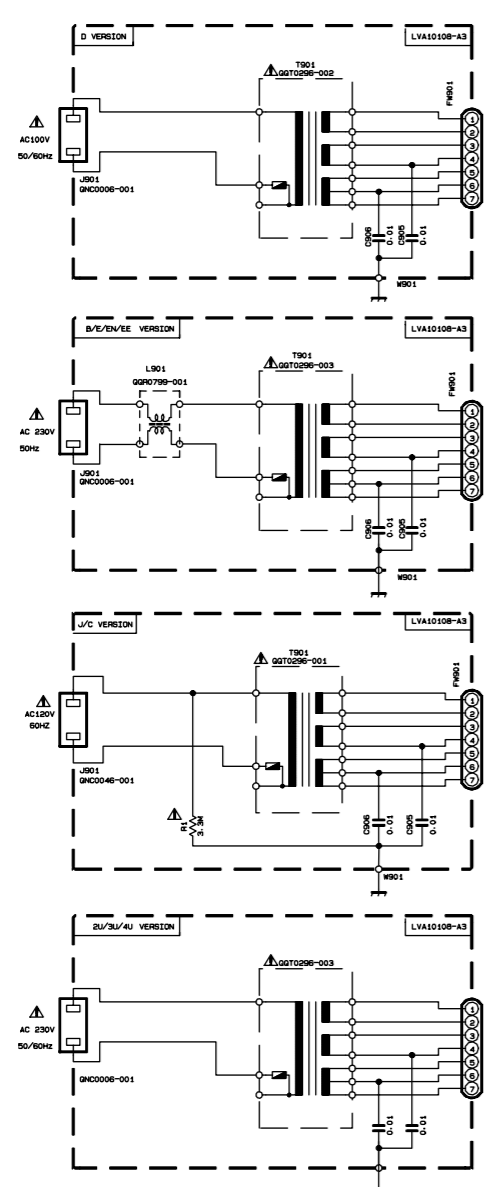
■ Connection circuit section



- Digital data signal
- Parts are safety assurance parts.
When replacing those parts make sure to use the specified one.

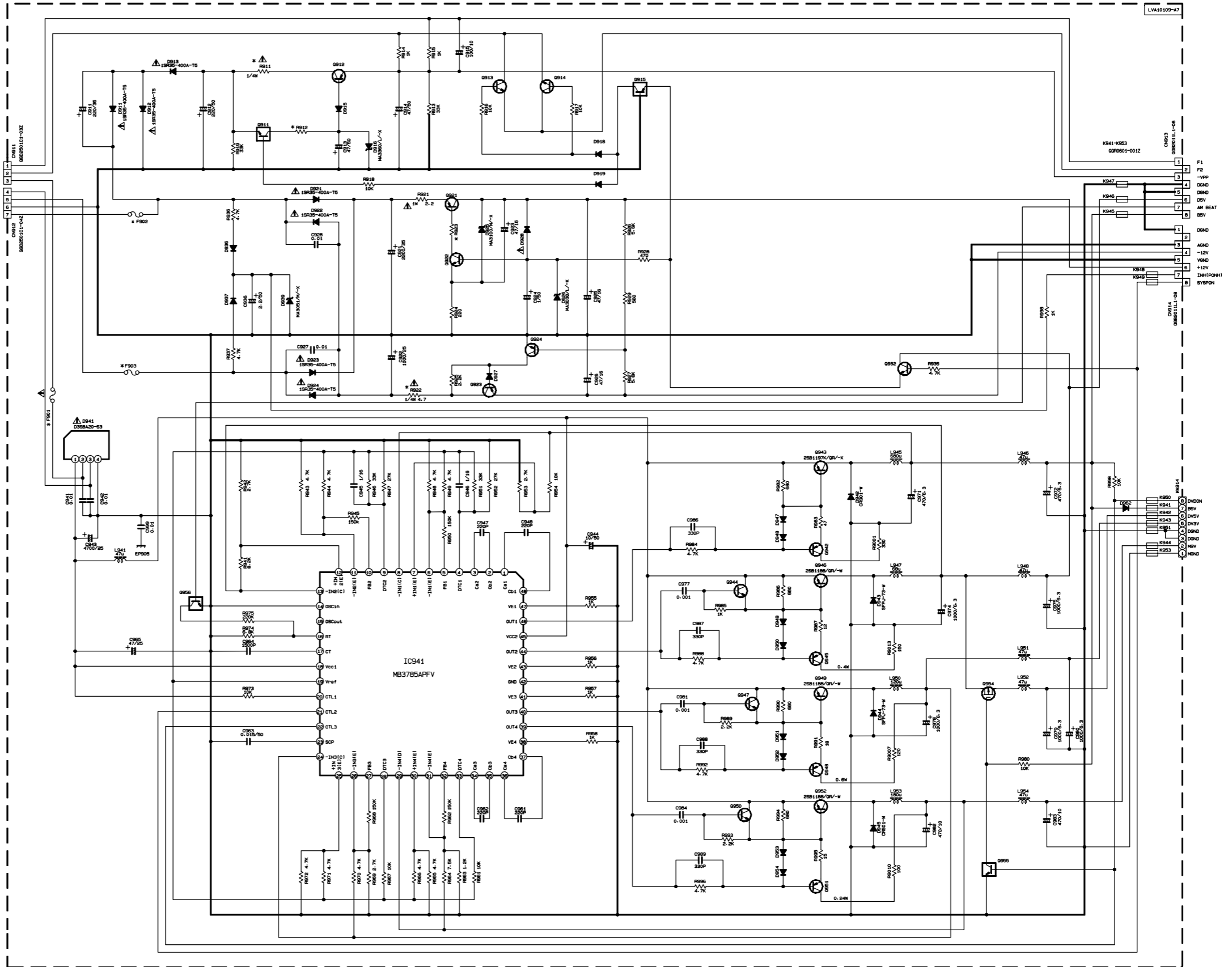
Power supply section

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TRANSISTOR & DIODE LIST

Q911	KRC102M-T
Q955-Q956	DTC124EKA-X
Q915	DTA114EKA-X
Q912	2SB647/CD/-T
Q913-Q914	2SD2144S/VN/-T
Q921-Q923	2SB1566/EF/
Q924-Q942	2SA1037AK/RS/-X
Q945-Q948-Q951	2SC2412K/RS/-X
Q943	2SB1197K/QR/-X
Q946-Q949-Q952	2SB1188/QR/-W
D915-D918-D919-D927	
D936-D937-D947	1SS355-X
D948-D949-D950-D951-D952	
D953-D954-D962	
Q954	SI2305DS-X
D928	1SS388-X



VERSION	R922	F902-F903	F901	R923	R911	R912
D-C-J	UNF RESISTOR	BUS WIRE	2A/125V	680	4.7 UNF RESISTOR	1K
B-E-EN-EE-2U-3U-4U	FUSIBLE RESISTOR	T500mA	T2A	330	68 FUSIBLE RESISTOR	2.2K

A B C D E F G H I J

Voltage value section

7
6
5
4
3
2
1

IC101 table with columns NO, DC(V), NO, DC(V) and rows 1-50.

IC102 table with columns NO, DC(V) and rows 1-5.

IC201 table with columns NO, DC(V), NO, DC(V), NO, DC(V) and rows 1-50.

IC205 table with columns NO, DC(V) and rows 1-5.

IC271 table with columns NO, DC(V) and rows 1-5.

IC301 table with columns NO, DC(V), NO, DC(V), NO, DC(V) and rows 1-50.

IC311 table with columns NO, DC(V) and rows 1-5.

IC371 table with columns NO, DC(V) and rows 1-5.

IC401 table with columns NO, DC(V), NO, DC(V) and rows 1-50.

IC402 table with columns NO, DC(V) and rows 1-5.

IC403 table with columns NO, DC(V) and rows 1-5.

IC402 table with columns NO, DC(V) and rows 1-5.

IC402 table with columns NO, DC(V) and rows 1-5.

IC312 table with columns NO, DC(V) and rows 1-5.

IC372 table with columns NO, DC(V) and rows 1-5.

IC301 table with columns NO, DC(V) and rows 1-5.

IC374 table with columns NO, DC(V) and rows 1-5.

IC302 table with columns NO, DC(V) and rows 1-5.

IC501 table with columns NO, DC(V), NO, DC(V), NO, DC(V), NO, DC(V) and rows 1-52.

IC502 table with columns NO, DC(V) and rows 1-4.

IC504 table with columns NO, DC(V) and rows 1-4.

IC505 table with columns NO, DC(V) and rows 1-4.

IC551 table with columns NO, DC(V), NO, DC(V) and rows 1-50.

IC552 table with columns NO, DC(V) and rows 1-4.

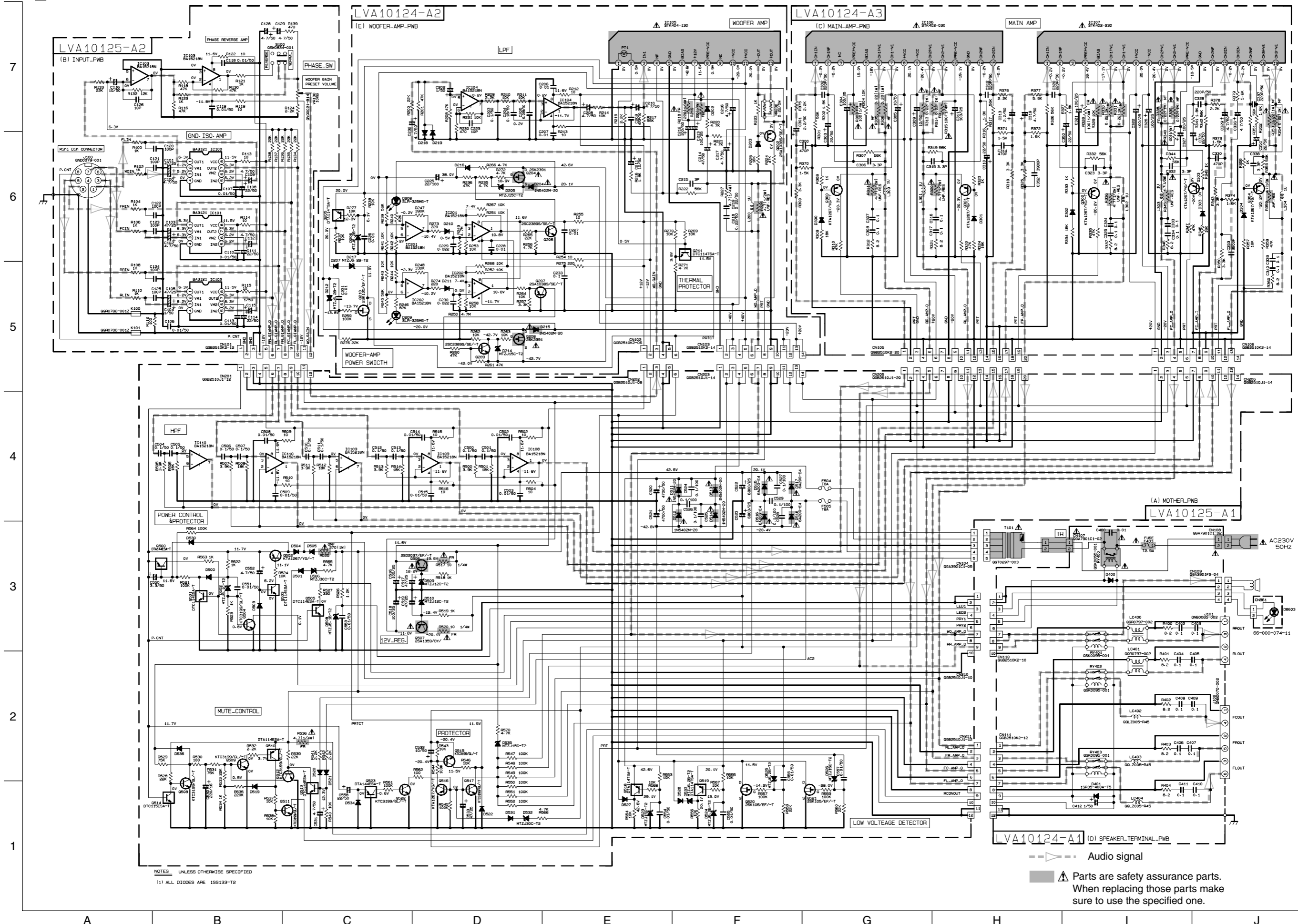
IC553 table with columns NO, DC(V) and rows 1-4.

IC554 table with columns NO, DC(V), NO, DC(V) and rows 1-50.

IC555 table with columns NO, DC(V) and rows 1-4.

A B C D E F G H I J

Powered subwoofer section



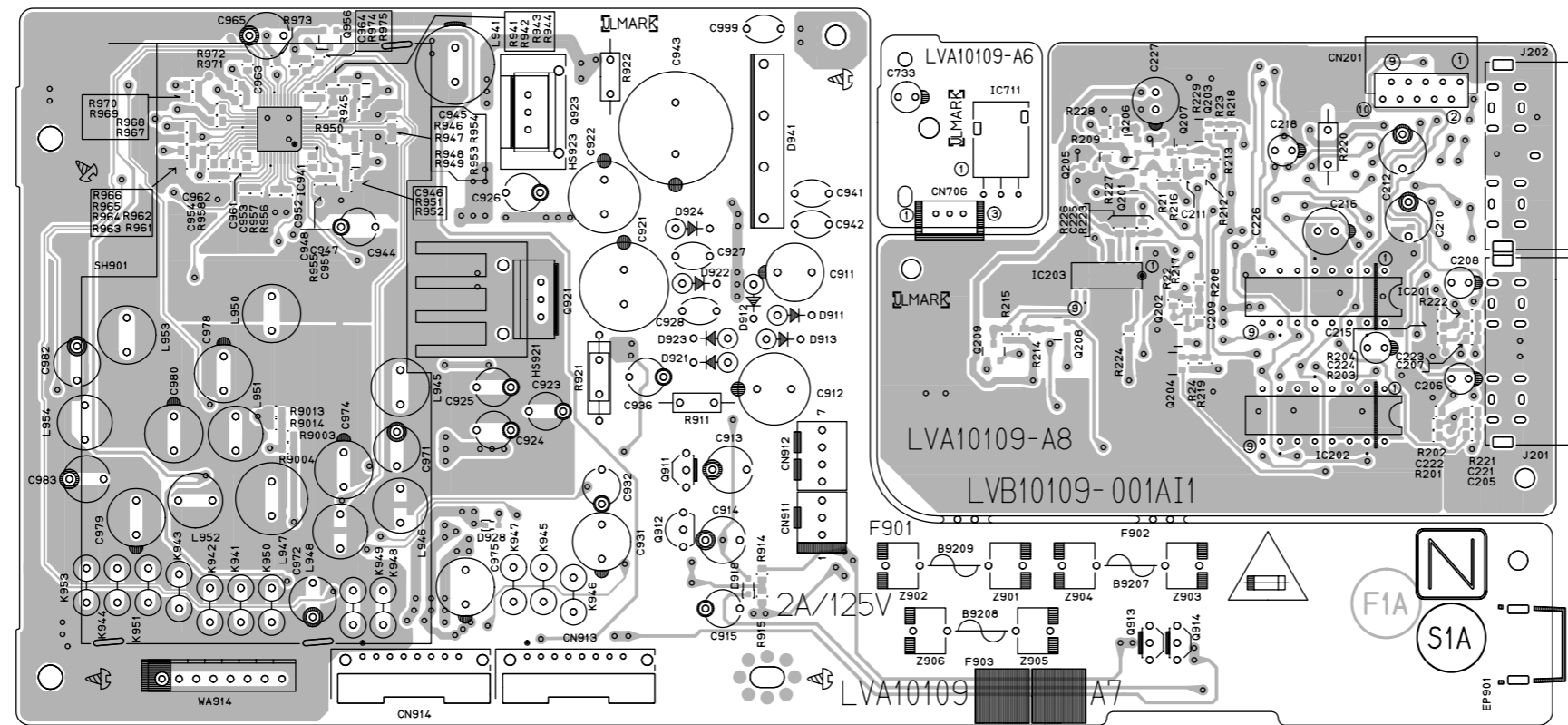
NOTES: UNLESS OTHERWISE SPECIFIED
 (1) ALL DIODES ARE 1S8133-T2

---> Audio signal
 ⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

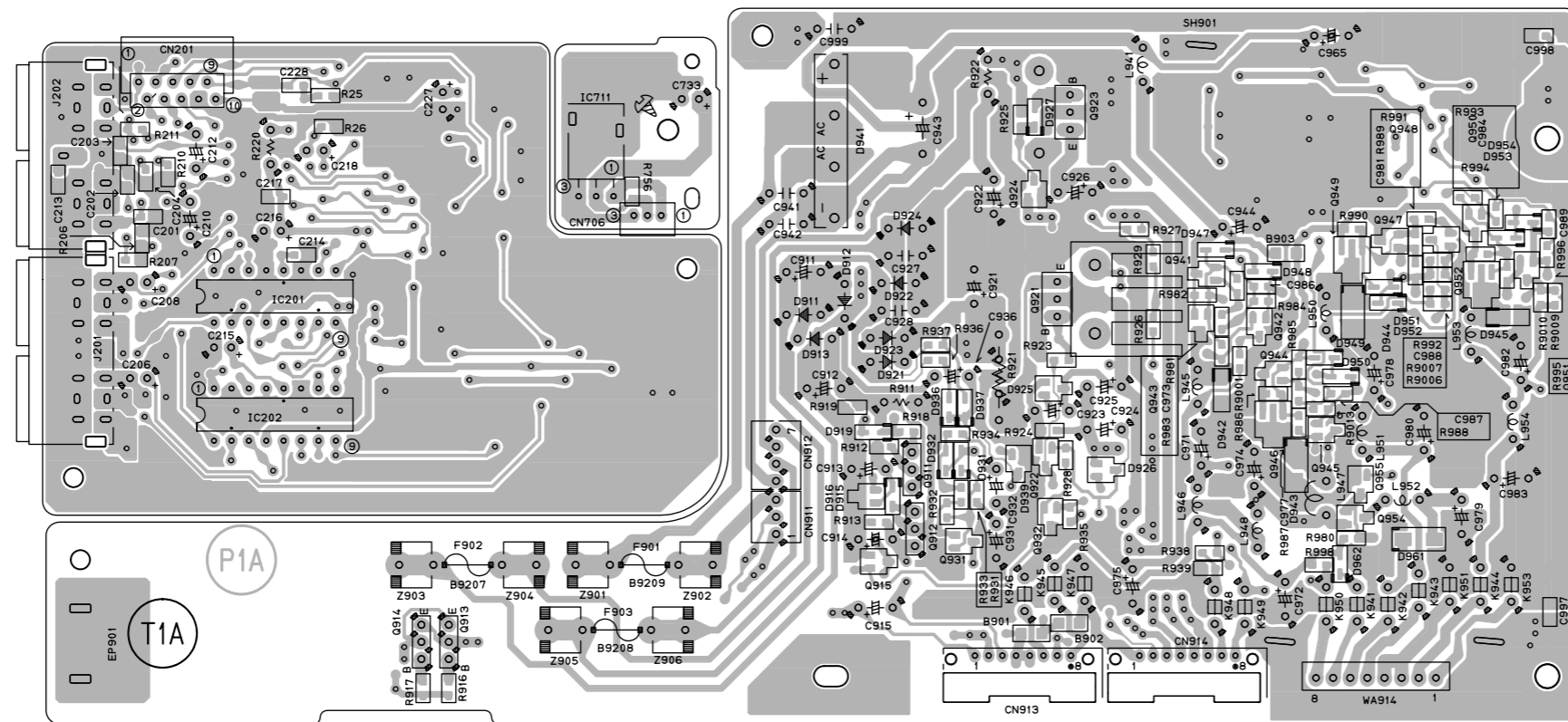
Printed circuit boards

■ Power supply board

(Surface side view)



(Bottom side view)



A

B

C

D

E

F

G

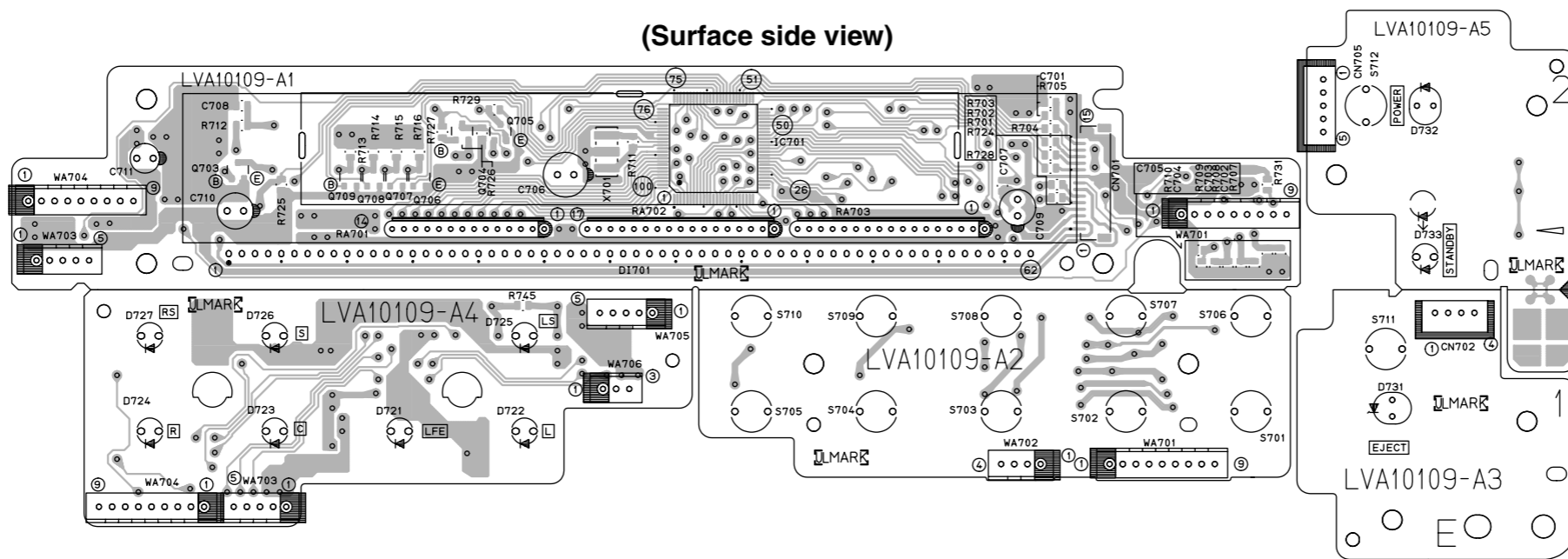
H

I

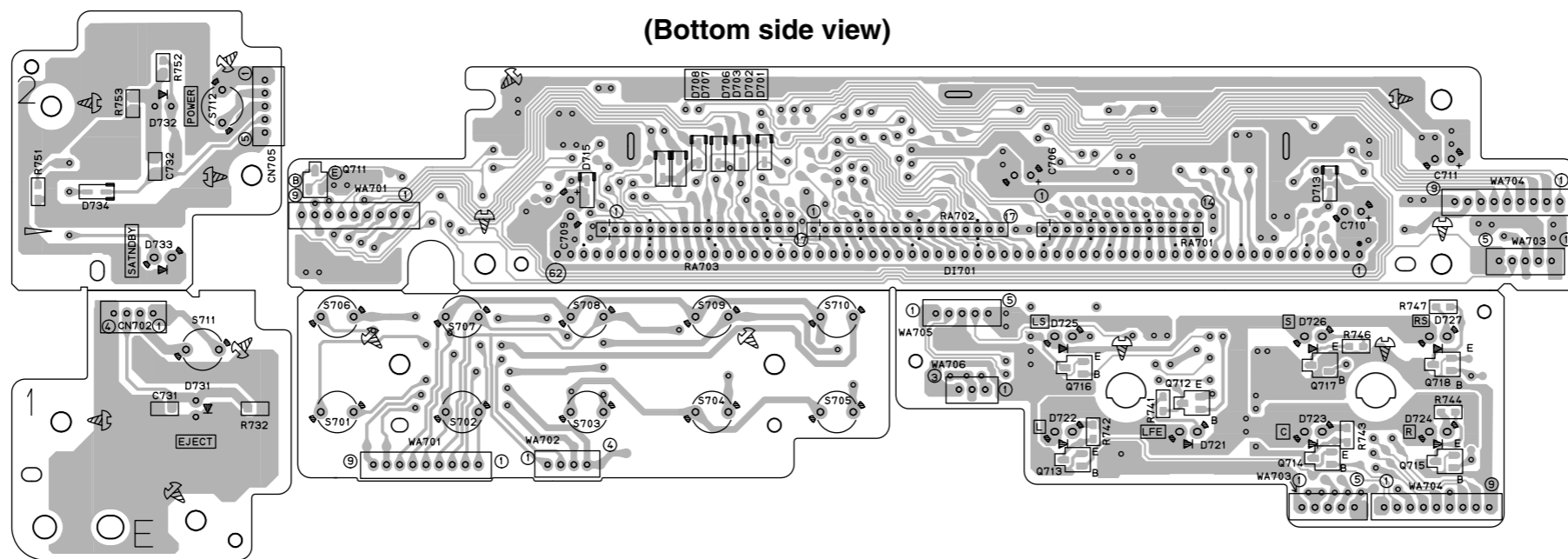
J

■ Front panel board

(Surface side view)



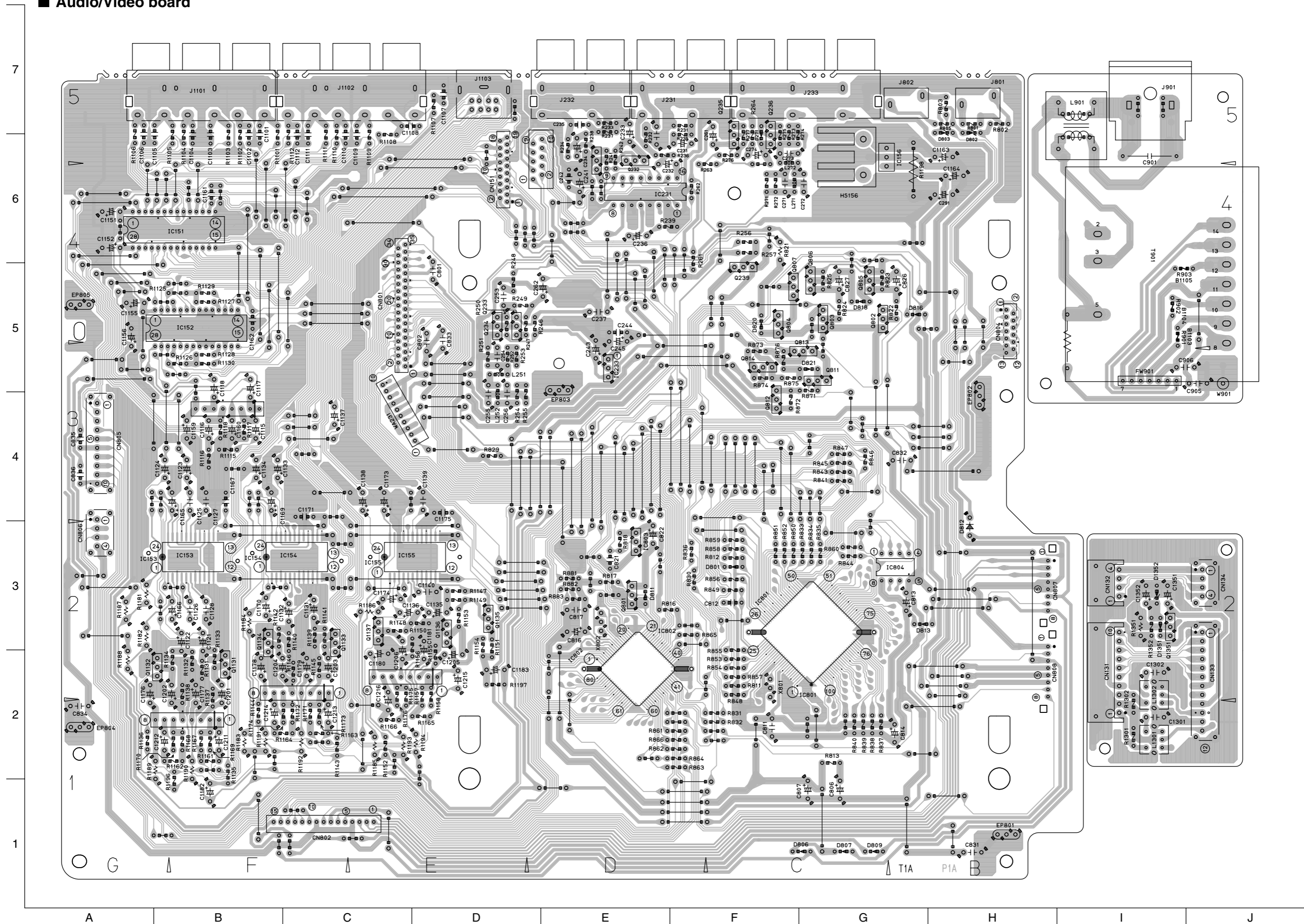
(Bottom side view)



7
6
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4
3
2
1

A B C D E F G H I J

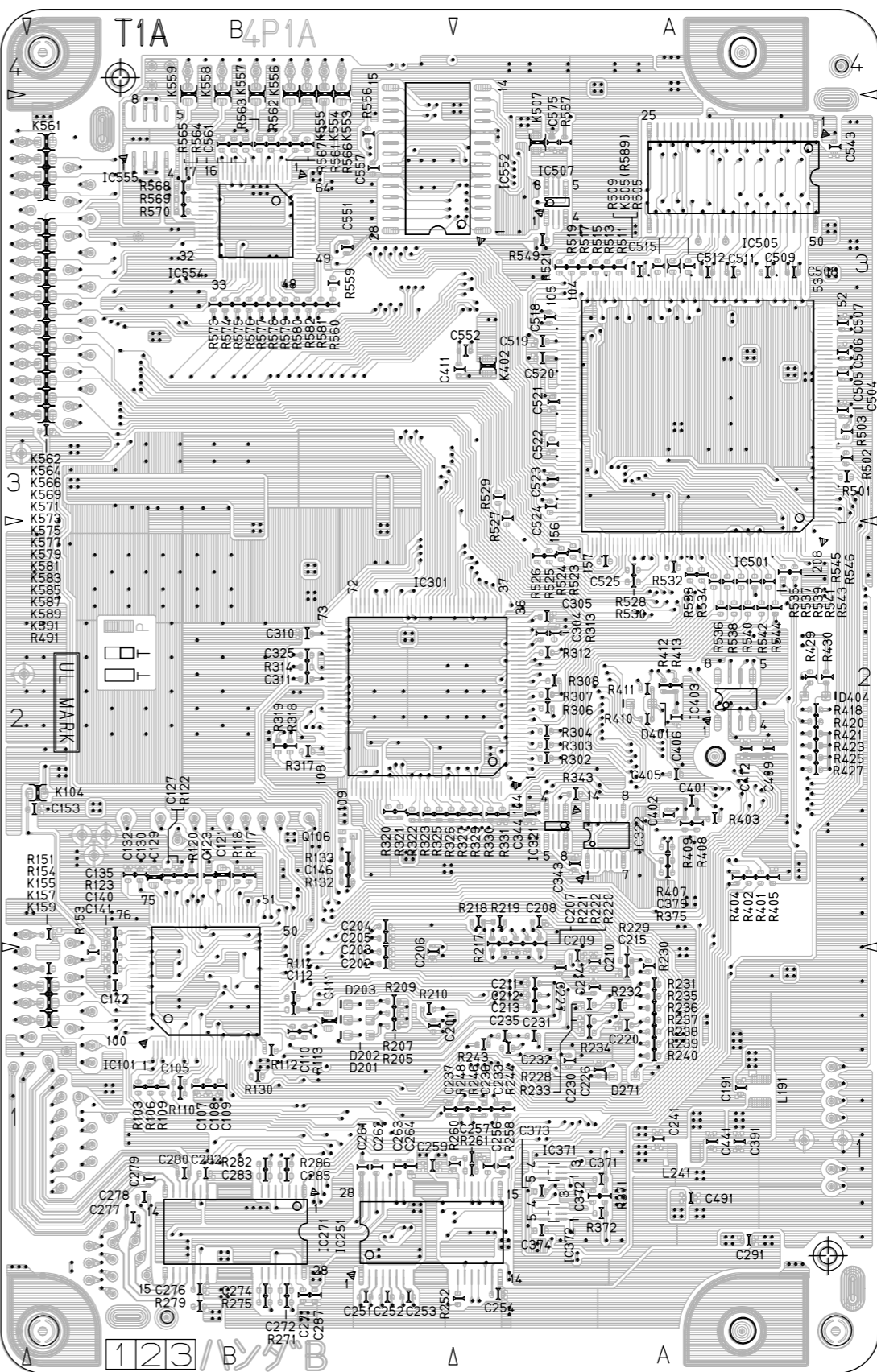
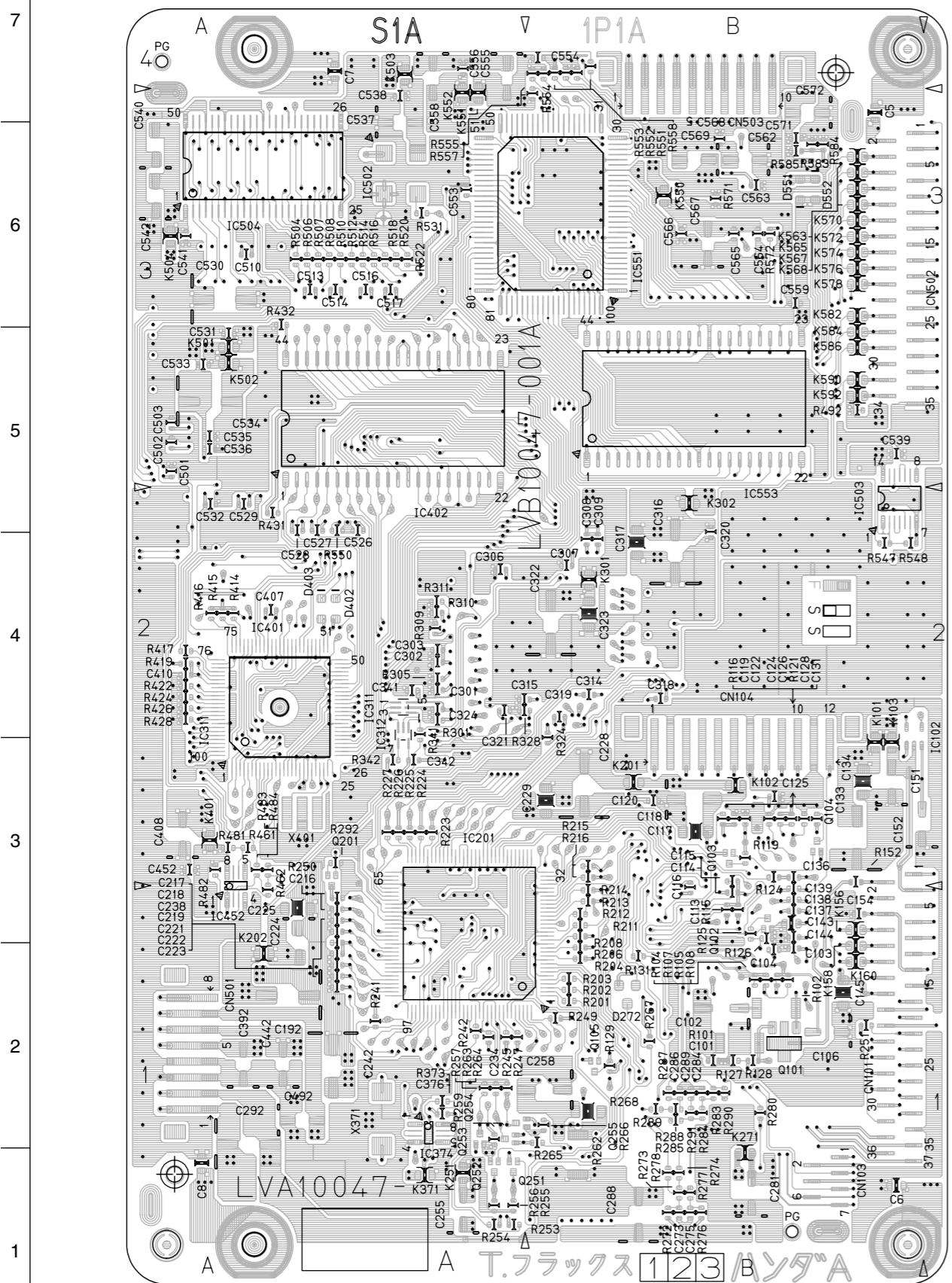
■ Audio/Video board



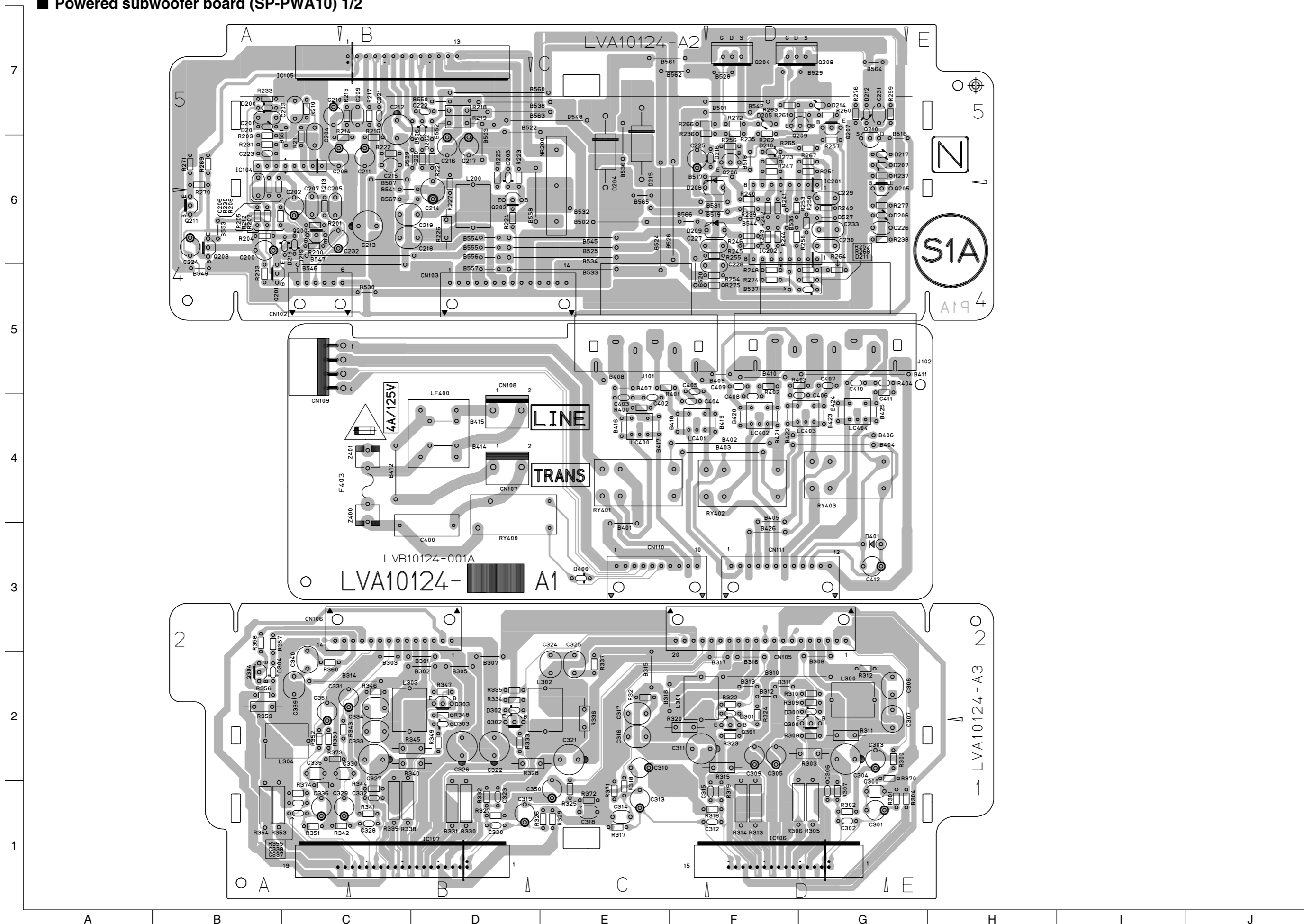
■ Main board

(Surface side view)

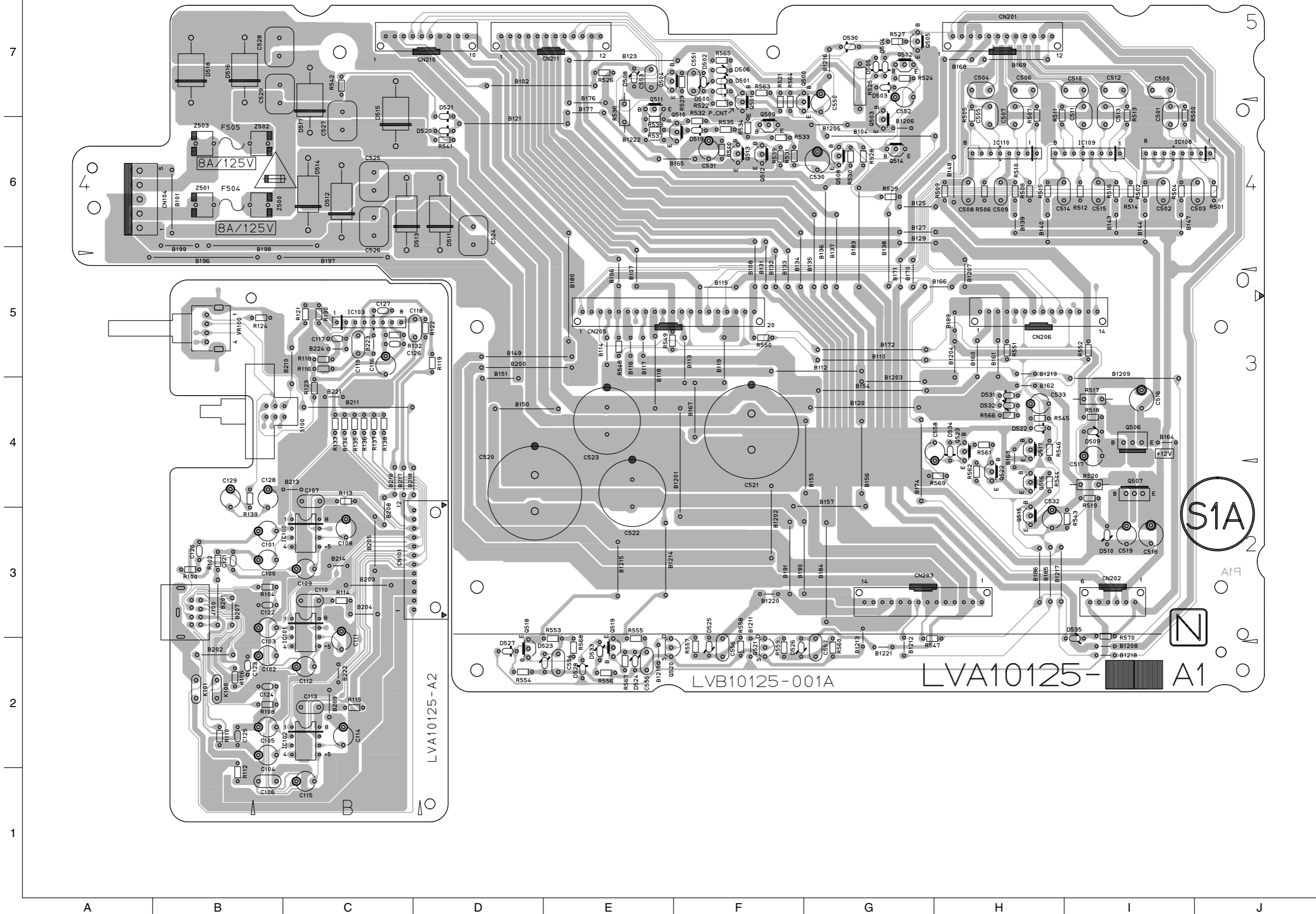
(Bottom side view)



■ Powered subwoofer board (SP-PWA10) 1/2



■ Powered subwoofer board (SP-PWA10) 2/2



PARTS LIST

[XV-THA10R]

* All printed circuit boards and its assemblies are not available as service parts.

Area suffix

B ----- U.K.
 E ----- Continental Europe
 EN ----- Northern Europe
 EE ----- Russian Federation

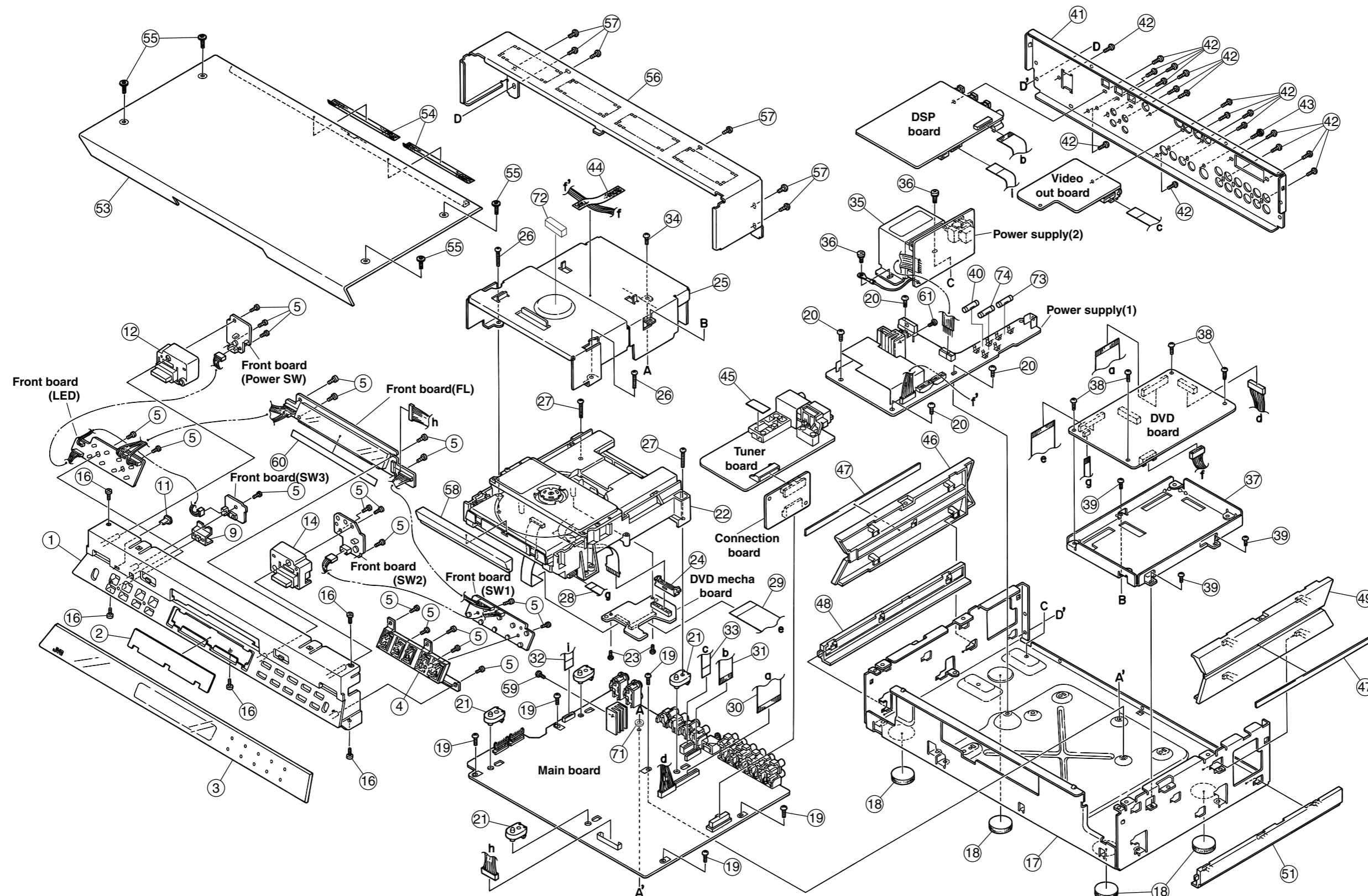
- Contents -

Exploded view of general assembly and parts list	3-3
DVD mechanism assembly and parts list.....	3-5
Electrical parts list	3-7
Packing materials and accessories parts list	3-24

— MEMO —

Exploded view of general assembly and parts list

Block No. **M 1 M M**



■ Parts list (General assembly)

Block No. M1MM

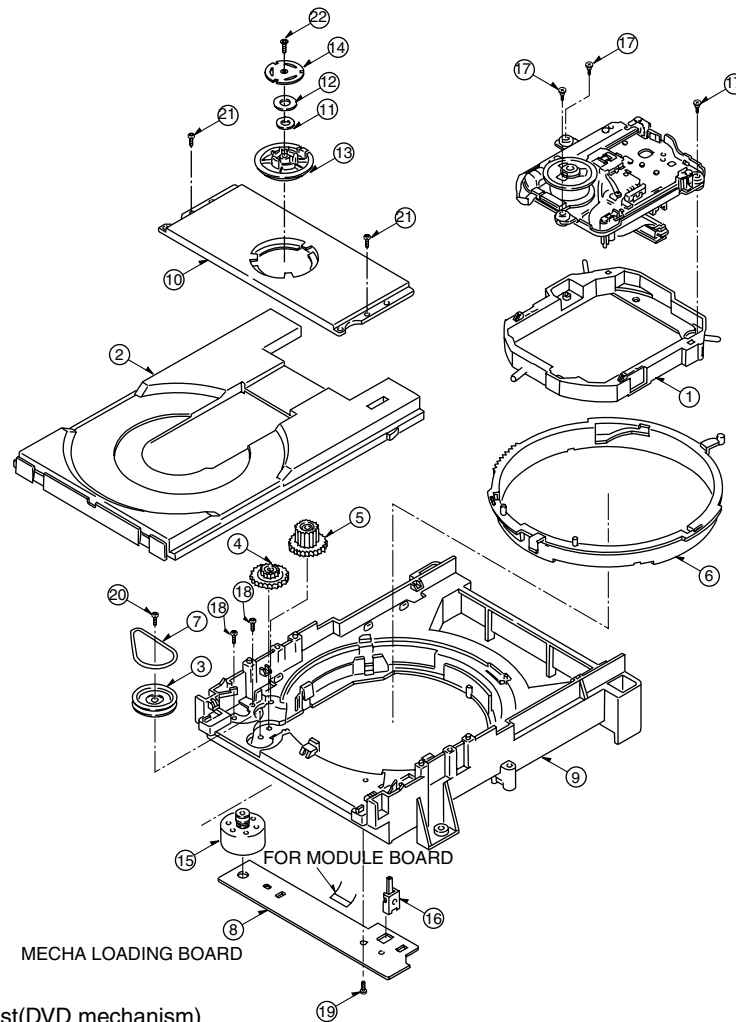
△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV10334-005A	FRONT BASE	1		
	2	LV41540-001A	FL SCREEN	1	FRONT BASE	
	3	LV20644-003A	LENS	1		
	4	LV20648-001A	PUSH BUTTON	1		
	5	QYSDSF2606Z	SCREW	20		
	9	LV41541-001A	REMOTE LENS	1		
	11	FSJD4001-002	INDICATOR	1		
	12	LV31711-001A	P.BUTTON ASSY	1		
	14	LV31714-001A	EJECT B.ASSY	1		
	16	QYSDSG3008M	SCREW	5	FRONT+CHASSIS	
	17	LV10336-001A	CHASSIS BASE	1		
	18	LV41539-001A	SPACER	4	FOOT	
	19	QYSBSG3008E	T.SCREW	5	MAIN PWB+CHASSI	
	20	QYSBSG3008E	T.SCREW	4	POW.PWB+CHASSIS	
	21	LV31717-001A	STAND	4		
	22	-----	DVD DRIVE MECHA	1		
	23	QYSBSF2006Z	SCREW	2	FOR MECHA+PWB	
	24	LV31435-001A	CONECTOR HOLDER	1		
	25	LV20640-001A	SHIELD PLATE	1		
	26	QYSBST3018E	T.SCREW	2	MECHA+SHIELD+CA	
	27	QYSBST3016Z	T.SCREW	2	MECHA+CHASSIS	
	28	QUQ810-0715AJ	FFC WIRE	1	MECHA FP2602-CN	
	29	QUQ810-3717AM	FFC WIRE	1	MECHA CN11-DVD	
	30	QUQ810-3512AM	FFC WIRE	1	MAIN CN801-DVD	
	31	QUQ810-1916AJ	FFC WIRE	1	MAIN CN151-DSP	
	32	QUQ810-1318AJ	FFC WIRE	1	MAIN CN804-DSP	
	33	QUQB12-1012AJ	FFC WIRE	1	MAIN CN231-SV C	
	34	QYSBSG3008E	T.SCREW	1	MECHA+SHIELD+CA	
△	35	QQT0296-003	POWER TRANS	1	T901	
	36	QYSDSTL4008E	SPECIAL SCREW	2	TRANS+CHASSIS	
	37	LV31718-001A	SHIELD CASE	1		
	38	QYSBSG3006E	T.SCREW	4	DVD PWB+S.CASE	
	39	QYSBST3004Z	T.SCREW	3	S.CASE+CHASSIS	
△	40	QMF51E2-2R0-J1	FUSE	1	F901	
	41	LV20642-012A	REAR PANEL	1		B,E,EN
		LV20642-013A	REAR PANEL	1		EE
	42	QYSBSGY3008E	SPECIAL SCREW	18		
	43	E73562-003	SPECIAL SCREW	1	SUB WOOFER+REAR	
	44	LV30225-079A	SPACER	1	SHIELD PLATE	
	45	LV30225-081A	SPACER	1	TUNER PWB	
	46	LV20645-002A	SIDE PANEL(L)	1		
	47	LV41542-001A	SIDE PLATE	2		
	48	LV31719-002A	SIDE COVER(L)	1		
	49	LV20646-002A	SIDE PANEL(R)	1		
	51	LV31720-002A	SIDE COVER(R)	1		
	53	LV10335-001A	TOP PANEL	1		
	54	LV30225-062A	SPACER	2	TOP PANEL	
	55	LV41834-001A	SPECIAL SCREW	4	TOP PANEL+CHASS	

■ Parts list (General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	56	LV20643-001A	REAR COVER	1		
	57	QYSBSGY3008E	SPECIAL SCREW	6	R.COVER+CHASSI	
	58	LV20647-001A	TRAY FITTING	1		
	59	QYSBSG3008Z	T.SCREW	1	IC156 + HS156	
	60	LV30225-070A	SPACER	1	FOR DI701+BK701	
	61	QYSBSG3008Z	T.SCREW	1	Q921+HS921	
	71	E73967-006	SPACER	1		
	72	LV41956-001A	SHIELD GASKET	1		
△	73	QMF51E2-R50-J1	FUSE	1	F902	
△	74	QMF51E2-R50-J1	FUSE	1	F903	

DVD mechanism assembly and parts list

Block No. M 2 M M1/2
FLM-V3

■ Parts list(DVD mechanism)

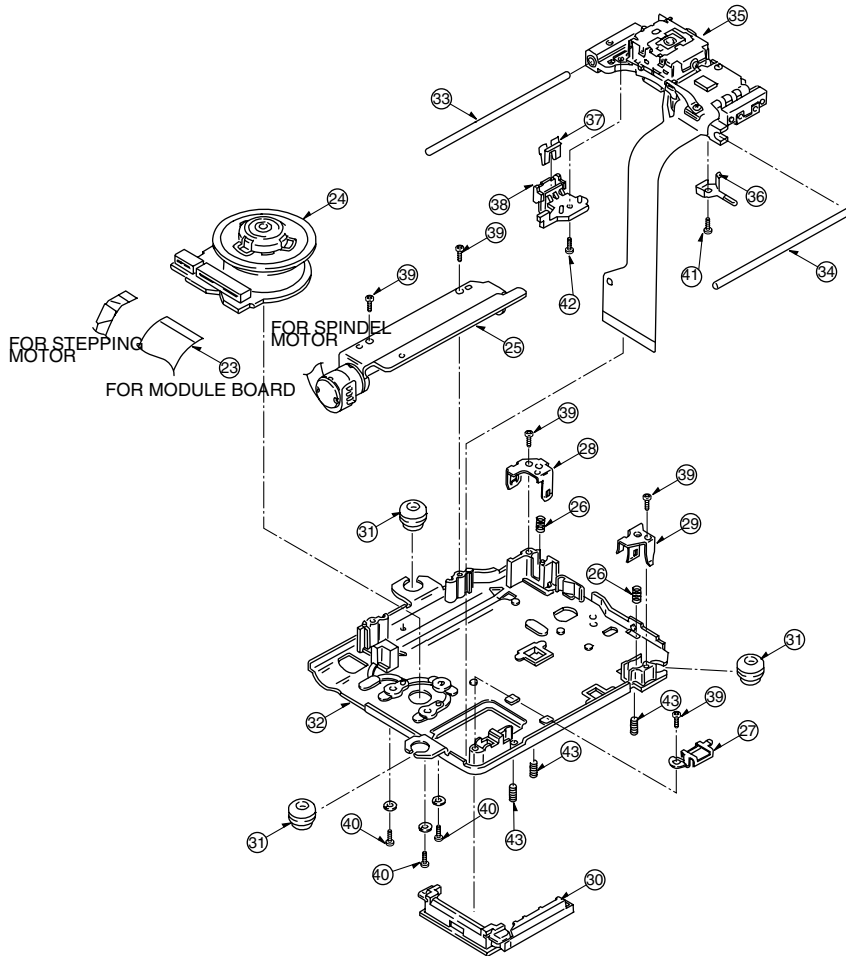
	REF.	PARTS NO.	PARTS NAME	QTY	SUFFIX
	1	GMVMD3270	Chassis	1	
	2	GMVMD3265	Tray	1	
	3	GMVDG1308	Pulley gear	1	
	4	GMVDG1309	Drive gear 1	1	
	5	GMVDG1310	Drive gear 2	1	
	6	GMVDK0156	UP DOWN cam	1	
	7	GMVDV0373	Belt	1	
	8	-----	Mecha roading p.c.Board	1	
	9	GMVMD3266	Roading Base	1	
	10	GMVMD3263	Clampe base	1	
	11	GMJSM0048	Magnet	1	
	12	GMVMA9535	Clamp back yoke	1	
	13	GMVMD3264	Clamper	1	
	14	GMVMA0B93	Clamper weight	1	
	15	GMVEM0664	Roading motor unit	1	
	16	GMVSH0170	Twin switch	1	
	17	GMVHD1223	Screw 1	3	
	18	GMXQNC17+3	Screw 2	2	
	19	GMXTV3+10G	Screw 3	1	
	20	GMXTW2+12T	Screw 4	1	
	21	GMXTV3+10G	Screw 5	2	
	22	GMXTS3+6J	Screw 6	1	

DVD mechanism assembly and parts list


Block No. M 2 M M

2/2

FML-V3



Parts list(DVD mechanism)

	REF.	PARTS NO.	PARTS NAME	QTY	SUFFIX
	23	GMVWJ1277	Spindle FFC	1	
	24	GMVEM0665	Spindle motor unit	1	
	25	GMVEM0666	Stepping motor unit	1	
	26	GMVMB3278	Tilt spring 1	2	
	27	GMVMC1487	Tilt spring 2	1	
	28	GMVMC1488	Spring suppresses 1	1	
	29	GMVMC1489	Spring suppresses 2	1	
	30	GMVMD3261	FPC holder	1	
	31	GMVMG1166	Floating rubber	3	
	32	GMVMK0474	Traverse shassis	1	
	33	GMVMS6471	Guide shaft 1	1	
	34	GMVMS6472	Guide shaft 2	1	
	35	GMVED0402	Optical pick up	1	
	36	GMVMC1491	Spring	1	
	37	GMVMC1490	Nut spring	1	
	38	GMVMD3260	Nut	1	
	39	GMVHD1224	Screw 1	5	
	40	GMVHD1225	Screw 2	3	
	41	GMVHD1057	Screw 3	1	
	42	GMXQNC17+3	Screw 4	1	
	43	GMXXE26C6FN	Screw 5	3	

Electrical parts list

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 231	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C1103	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 232	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C1104	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 233	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V			C1105	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 234	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V			C1106	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 235	QCS11HJ-470	C CAPACITOR	47PF 5% 50V			C1107	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 236	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C1108	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 237	QDX31EM-473Z	C.CAPACITOR				C1109	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 241	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V			C1110	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 242	QDYB1CM-103Y	C.CAPACITOR				C1111	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 243	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V			C1112	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 244	QDYB1CM-103Y	C.CAPACITOR				C1115	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 245	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V			C1116	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 253	QDX31EM-104Z	C.CAPACITOR				C1117	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 254	QCS11HJ-100	C CAPACITOR	10PF 5% 50V			C1118	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 255	QCS11HJ-470	C CAPACITOR	47PF 5% 50V			C1121	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 256	QCS11HJ-121	C CAPACITOR	120PF 5% 50V			C1122	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 258	QDYB1CM-103Y	C.CAPACITOR				C1123	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 261	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V			C1124	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 262	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V			C1125	QFLC1HJ-821Z	M.CAPA.I.M	820PF 5% 50V	
	C 271	QCS11HJ-121	C CAPACITOR	120PF 5% 50V			C1126	QFLC1HJ-821Z	M.CAPA.I.M	820PF 5% 50V	
	C 272	QCS11HJ-470	C CAPACITOR	47PF 5% 50V			C1127	QFVJ1HJ-224Z	CAPACITOR	.22MF 5% 50V	
	C 273	QCS11HJ-100	C CAPACITOR	10PF 5% 50V			C1128	QFVJ1HJ-224Z	CAPACITOR	.22MF 5% 50V	
	C 291	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V			C1131	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 298	QDGB1HK-102Y	C CAPACITOR				C1132	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 299	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%			C1133	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 801	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%			C1134	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 802	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%			C1135	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 806	QEZO229-479Z	EDL.CAPACITOR	47000MF			C1136	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 807	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V			C1137	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 811	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%			C1138	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 812	QCBB1HK-473Y	C CAPACITOR	.047MF 10% 50V			C1139	QFVJ1HJ-224Z	CAPACITOR	.22MF 5% 50V	
	C 813	QEK1AM-107Z	E.CAPACITOR	100MF 20% 10V			C1140	QFVJ1HJ-224Z	CAPACITOR	.22MF 5% 50V	
	C 814	QEZO229-479Z	EDL.CAPACITOR	47000MF			C1151	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 816	QEK0JM-227Z	E.CAPACITOR	220MF 20% 6.3V			C1152	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 817	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%			C1155	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 821	QDYB1CM-103Y	C.CAPACITOR				C1156	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 822	QEK1HM-225Z	E.CAPACITOR	2.2MF 20% 50V			C1159	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 823	QDGB1HK-102Y	C CAPACITOR				C1160	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 824	QDVB1EZ-223Y	C CAPACITOR				C1161	QCBB1HK-561Y	C CAPACITOR	560PF 10% 50V	
	C 826	QETN1HM-224Z	E CAPACITOR	.22MF 20% 50V			C1162	QCBB1HK-561Y	C CAPACITOR	560PF 10% 50V	
	C 827	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V			C1163	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 831	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%			C1164	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 832	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%			C1165	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 835	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V			C1166	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 836	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V			C1167	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 871	QCZO205-155Z	ML C CAPACITOR	1.5MF			C1169	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 905	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%			C1170	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 906	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%			C1171	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	CN131	QGB2501K2-10	B TO B CONNE				C1173	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	CN132	QGB2501K1-04	CONNECTOR				C1174	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	CN133	QGB2501J1-12	CONNECTOR				C1175	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	CN134	QGB2501J1-04	CONNECTOR				C1176	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	CN151	QGF1016C1-19	CONNECTOR				C1177	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	CN231	QGF1205C1-10	CONNECTOR				C1178	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	CN801	QGF1016C1-35	FFC/FPC CONNE	DVD-MAIN			C1179	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	CN802	QGA2001C1-15	15P PLUG ASSY	MAIN-FL			C1180	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	CN804	QGF1016C1-13	CONNECTOR	DSP-MAIN			C1181	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	CN805	QGB2501J1-10	B TO B CONNE				C1182	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	CN806	QGB2501J1-04	CONNECTOR				C1183	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	CN807	QGB2011MP-08	B TO B CONNE				C1201	QTE1H06-475Z	E CAPACITOR		
	CN808	QGB2011MP-08	B TO B CONNE				C1202	QTE1H06-475Z	E CAPACITOR		
	C1101	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			C1203	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1102	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			C1204	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C1205	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			L1302	QOR0590-001	FILTER		
	C1206	QTE1H06-475Z	E CAPACITOR				Q 231	KTA1267/YG/-T	TRANSISTOR		
	C1211	QTE1H06-475Z	E CAPACITOR				Q 232	KTA1267/YG/-T	TRANSISTOR		
	C1212	QTE1H06-475Z	E CAPACITOR				Q 233	KTA1267/YG/-T	TRANSISTOR		
	C1213	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			Q 234	KTA1267/YG/-T	TRANSISTOR		
	C1214	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			Q 236	KTA1267/YG/-T	TRANSISTOR		
	C1215	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			Q 801	KRC102M-T	D.TRANSISTOR		
	C1216	QTE1H06-475Z	E CAPACITOR				Q 802	KRC102M-T	D.TRANSISTOR		
	C1301	QFLC1HJ-562Z	M CAPACITOR	5600PF 5% 50V			Q 803	KRC102M-T	D.TRANSISTOR		
	C1302	QFLC1HJ-562Z	M CAPACITOR	5600PF 5% 50V			Q 804	KRC102M-T	D.TRANSISTOR		
	C1351	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V			Q 805	KTA1267/YG/-T	TRANSISTOR		
	C1352	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V			Q 806	KTA1267/YG/-T	TRANSISTOR		
	D 801	1SS133-T2	SI DIODE				Q 807	KRA102M-T	D.TRANSISTOR		
	D 802	MTZJ6.2C-T2	Z DIODE I/M				Q 811	KRC102M-T	D.TRANSISTOR		
	D 803	MTZJ6.2C-T2	Z DIODE I/M				Q 812	KTA1271/OY/-T	TRANSISTOR		
	D 807	1SS133-T2	SI DIODE				Q 813	DTC144ESA-T	D.TRANSISTOR		
	D 809	1SS133-T2	SI DIODE				Q 814	KTA1271/OY/-T	TRANSISTOR		
	D 811	1SS133-T2	SI DIODE				Q 815	KTC3199/GL/-T	TRANSISTOR		
	D 813	1SS133-T2	SI DIODE				Q 816	KRA102M-T	D.TRANSISTOR		
	D 814	1SS133-T2	SI DIODE				Q1131	2SC2878/AB/-T	TRANSISTOR		
	D 818	1SS133-T2	SI DIODE				Q1132	2SC2878/AB/-T	TRANSISTOR		
	D 820	1SS133-T2	SI DIODE				Q1133	2SC2878/AB/-T	TRANSISTOR		
	D1351	1SS133-T2	SI DIODE				Q1134	2SC2878/AB/-T	TRANSISTOR		
	D1352	MTZJ6.8A-T2	ZENER DIODE				Q1135	2SC2878/AB/-T	TRANSISTOR		
	EP801	QNZ0136-001Z	EARTH PLATE				Q1136	2SC2878/AB/-T	TRANSISTOR		
	EP802	QNZ0136-001Z	EARTH PLATE				Q1137	2SC2878/AB/-T	TRANSISTOR		
	EP803	QNZ0136-001Z	EARTH PLATE				Q1351	KTC3203/OY/-T	TRANSISTOR		
	EP805	QNZ0136-001Z	EARTH PLATE				R 231	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	FW901	QUM157-08DGZ4	PARA RIBON WIRE	TO CN911/912			R 232	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	HS156	E70945-H40B	HEAT SINK	FOR IC156			R 233	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	IC151	TC9164AN	IC	INPUT SOURCE			R 234	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	IC152	TC9162AN	IC	REC SOURCE			R 235	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	IC153	TC9459F	IC				R 236	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	IC154	TC9459F	IC				R 237	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	IC155	TC9459F	IC				R 238	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	IC156	NJM78M05FA	IC	5V REG			R 239	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	IC157	NJM4580L	IC				R 241	QRE141J-151Y	C RESISTOR	150 5% 1/4W	
	IC158	NJM4580L	IC				R 242	QRE141J-151Y	C RESISTOR	150 5% 1/4W	
	IC159	NJM4580L	IC			△	R 243	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	IC160	NJM4580L	IC				R 246	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	IC231	BA7625	IC				R 247	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	IC233	M5278L09-T	IC I/M				R 248	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	IC801	MN101C12GHE	IC	DVD SYSTEM MICO			R 249	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	IC802	MN101C15FHF	MPU	RECIEVER MICOM			R 250	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	IC803	IC-PST9140-T	IC				R 251	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	IC804	BR93LC46-W	IC				R 252	QRE141J-680Y	C RESISTOR	68 5% 1/4W	
	J 231	QNN0063-001	PIN JACK				R 253	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	J 232	QNN0063-001	PIN JACK				R 254	QRE141J-680Y	C RESISTOR	68 5% 1/4W	
	J 801	QNS0016-001	3.5 JACK	COMPULINK			R 255	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	J 802	QNS0016-001	3.5 JACK	AV COMPULINK			R 261	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
△	J 901	QNC0006-001	AC SOCKET				R 262	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	J1101	QNN0325-001	PIN JACK				R 271	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	J1102	QNN0325-001	PIN JACK				R 272	QRE141J-751Y	C RESISTOR	750 5% 1/4W	
	J1103	QND0079-001	DIN CONNECTOR				R 273	QRE141J-751Y	C RESISTOR	750 5% 1/4W	
	K 801	QQR0779-001Z	INDUCTOR				R 274	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	K 802	QQR0779-001Z	INDUCTOR				R 275	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	K 803	QQR0779-001Z	INDUCTOR				R 276	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	L 251	QQL071J-5R6Y	INDUCTOR				R 801	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	L 252	QQL071J-120Y	INDUCTOR				R 802	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	L 271	QQL071J-120Y	INDUCTOR				R 803	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	L 272	QQL071J-5R6Y	INDUCTOR				R 805	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	L 901	QQR1145-001	INDUCTOR				R 806	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	L1301	QQR0590-001	FILTER				R 811	QRE141J-101Y	C RESISTOR	100 5% 1/4W	

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	R 812	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W			R1105	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 813	QRE141J-101Y	C RESISTOR	100 5% 1/4W			R1106	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 817	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R1107	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 818	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W			R1108	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
△	R 821	QRZ9006-4R7X	F RESISTOR	4.7 1/4W			R1109	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 822	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R1110	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 823	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R1111	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 824	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R1112	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 825	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R1115	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 829	QRE141J-103Y	C RESISTOR	10K 5% 1/4W			R1116	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 831	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1117	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 832	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1118	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 833	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1125	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 834	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1126	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 835	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1127	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R 836	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1128	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R 841	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1129	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R 843	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1130	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R 844	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1131	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 845	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1132	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 846	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1133	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 847	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1134	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 848	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1135	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 849	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1136	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 850	QRE141J-221Y	C RESISTOR	220 5% 1/4W			R1137	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 851	QRE141J-221Y	C RESISTOR	220 5% 1/4W			R1138	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 852	QRE141J-221Y	C RESISTOR	220 5% 1/4W			R1139	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 853	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1140	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 854	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1141	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 855	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1142	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 856	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1143	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 857	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1144	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 858	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1145	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 859	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1146	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 860	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1147	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 861	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1148	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 862	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1149	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 863	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1150	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 864	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1151	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 865	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1152	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 866	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1153	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 867	QRE141J-221Y	C RESISTOR	220 5% 1/4W			R1154	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 868	QRE141J-221Y	C RESISTOR	220 5% 1/4W			R1155	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 869	QRE141J-221Y	C RESISTOR	220 5% 1/4W			R1156	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 871	QRE141J-681Y	C RESISTOR	680 5% 1/4W			R1157	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 872	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W			R1158	QRE141J-273Y	C RESISTOR	27K 5% 1/4W	
	R 873	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W			R1161	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 874	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W			R1162	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 877	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R1163	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 881	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R1164	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 882	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R1165	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 883	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R1166	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 888	QRE141J-104Y	C RESISTOR	100K 5% 1/4W			R1167	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 889	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R1168	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 890	QRE141J-103Y	C RESISTOR	10K 5% 1/4W			R1169	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 891	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R1170	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 892	QRE141J-105Y	C RESISTOR	1.0M 5% 1/4W			R1171	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 893	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W			R1172	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 894	QRE141J-103Y	C RESISTOR	10K 5% 1/4W			R1173	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R1101	QRE141J-471Y	C RESISTOR	470 5% 1/4W			R1174	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R1102	QRE141J-471Y	C RESISTOR	470 5% 1/4W			R1175	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1103	QRE141J-471Y	C RESISTOR	470 5% 1/4W			R1176	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R1104	QRE141J-471Y	C RESISTOR	470 5% 1/4W		△	R1181	QRZ9005-470X	F.RES I/M	47 1/4W	

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
△	R1182	QRZ9005-470X	F.RES I/M	47 1/4W	
△	R1183	QRZ9005-470X	F.RES I/M	47 1/4W	
△	R1184	QRZ9005-470X	F.RES I/M	47 1/4W	
△	R1185	QRZ9005-470X	F.RES I/M	47 1/4W	
△	R1186	QRZ9005-470X	F.RES I/M	47 1/4W	
△	R1187	QRZ9005-470X	F.RES I/M	47 1/4W	
△	R1188	QRZ9005-470X	F.RES I/M	47 1/4W	
△	R1189	QRZ9005-470X	F.RES I/M	47 1/4W	
△	R1190	QRZ9005-470X	F.RES I/M	47 1/4W	
△	R1191	QRZ9005-470X	F.RES I/M	47 1/4W	
△	R1192	QRZ9005-470X	F.RES I/M	47 1/4W	
△	R1193	QRZ9005-470X	F.RES I/M	47 1/4W	
△	R1194	QRZ9005-470X	F.RES I/M	47 1/4W	
	R1196	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R1197	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R1301	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1302	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
△	R1351	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	R1352	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	SP153	VYH7653-002	IC HOLDER	FOR IC1153	
	SP154	VYH7653-002	IC HOLDER	FOR IC1154	
	SP155	VYH7653-002	IC HOLDER	FOR IC1154	
	SP801	VYH7237-005	IC HOLDER	FOR IC801	
	SP802	VYH7237-003SC	IC HOLDER	FOR IC802	
	WA231	WJP0017-001A	E-SH C WIRE C-B	JSC:WJP0017-001	
	X 801	QAX0356-001Z	RESONATOR		
	X 802	QAX0246-001Z	RESONATOR		

■ Electrical parts list (Front & Power board) Block No. 02

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 201	NCS21HJ-470X	C CAPACITOR				C 974	QETN0JM-108Z	E CAPACITOR	1000MF 20% 6.3V	
	C 202	NCS21HJ-470X	C CAPACITOR				C 975	QETN0JM-108Z	E CAPACITOR	1000MF 20% 6.3V	
	C 203	NCS21HJ-470X	C CAPACITOR				C 977	NCB21HK-102X	C CAPACITOR		
	C 204	NCS21HJ-470X	C CAPACITOR				C 978	QETN0JM-108Z	E CAPACITOR	1000MF 20% 6.3V	
	C 205	NCB21EK-473X	C CAPACITOR				C 979	QETN0JM-108Z	E CAPACITOR	1000MF 20% 6.3V	
	C 206	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V			C 980	QETN0JM-108Z	E CAPACITOR	1000MF 20% 6.3V	
	C 207	NCB21EK-473X	C CAPACITOR				C 981	NCB21HK-102X	C CAPACITOR		
	C 208	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V			C 982	QETN1AM-477Z	E CAPACITOR	470MF 20% 10V	
	C 209	NCB21EK-473X	C CAPACITOR				C 983	QETN1AM-477Z	E CAPACITOR	470MF 20% 10V	
	C 210	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V			C 984	NCB21HK-102X	C CAPACITOR		
	C 211	NCB21EK-473X	C CAPACITOR				C 986	NCB21HK-331X	C.CAPACITOR		
	C 212	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V			C 987	NCB21HK-331X	C.CAPACITOR		
	C 213	NCB21HK-103X	C CAPACITOR				C 988	NCB21HK-331X	C.CAPACITOR		
	C 214	NCB21EK-473X	C CAPACITOR				C 989	NCB21HK-331X	C.CAPACITOR		
	C 215	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V			C 999	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 216	QER41AM-107	E CAPACITOR	100MF 20% 10V			CN201	QGF1205F1-10	CONNECTOR		
	C 217	NCB21HK-103X	C CAPACITOR				CN701	QGA1002F1-15X	CONNECTOR	1MM PITCH	
	C 218	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V			CN702	QGA2001C1-04	4P PLUG ASSY		
	C 226	NCB21EK-473X	C CAPACITOR				CN705	QGA2001C1-05	5P PLUG ASSY		
	C 228	NCB21EK-473X	C CAPACITOR				CN706	QGA2001C1-03	3P PLUG ASSY		
	C 701	NCB21HK-103X	C CAPACITOR			△	CN911	QGD2501C1-03Z	SOCKET		
	C 702	NCB21HK-471X	C CAPACITOR			△	CN912	QGD2501C1-04Z	SOCKET		
	C 703	NCB21HK-471X	C CAPACITOR				CN913	QGB2011L1-08	B TO B CONNECTO		
	C 704	NCB21HK-471X	C CAPACITOR				CN914	QGB2011L1-08	B TO B CONNECTO		
	C 705	NCB21HK-471X	C CAPACITOR				D 701	1SS355-X	DIODE		
	C 706	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V			D 702	1SS355-X	DIODE		
	C 707	NCB21HK-102X	C CAPACITOR				D 703	1SS355-X	DIODE		
	C 708	NCB21HK-103X	C CAPACITOR				D 706	1SS355-X	DIODE	BAND 0	
	C 709	QERF1HM-475Z	E CAPACITOR	4.7MF 20% 50V			D 713	1SS355-X	DIODE		
	C 710	QERF1HM-475Z	E CAPACITOR	4.7MF 20% 50V			D 715	1SS355-X	DIODE		
	C 711	QERF0JM-226Z	E CAPACITOR	22MF 20% 6.3V			D 721	SLR-342VC-T	LED	LFE	
	C 731	NCB21HK-103X	C CAPACITOR				D 722	SLR-342VC-T	LED	L	
	C 732	NCB21HK-103X	C CAPACITOR				D 723	SLR-342VC-T	LED	C	
	C 733	QERF0JM-226Z	E CAPACITOR	22MF 20% 6.3V			D 724	SLR-342VC-T	LED	R	
	C 911	QETN1VM-227Z	E CAPACITOR I/M	220MF 20% 35V			D 725	SLR-342VC-T	LED	LS	
	C 912	QETN1HM-227Z	E CAPACITOR	220MF 20% 50V			D 726	SLR-342VC-T	LED	S	
	C 913	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V			D 727	SLR-342VC-T	LED	RS	
	C 914	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V			D 731	SELU1E56BM	LED	EJECT LED(BLUE)	
	C 915	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V			D 732	SELU1E56BM	LED	POWER LED(BLUE)	
	C 921	QETM1EM-228	E CAPACITOR	2200MF 20% 25V			D 733	SLR-342VC-T	LED	STANDBY LED	
	C 922	QETN1EM-108Z	E CAPACITOR	1000MF 20% 25V			D 734	1SS355-X	DIODE		
	C 923	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V		△	D 911	1SR35-400A-T5	DIODE I/M		
	C 924	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V		△	D 912	1SR35-400A-T5	DIODE I/M		
	C 925	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V		△	D 913	1SR35-400A-T5	DIODE I/M		
	C 926	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V			D 915	1SS355-X	DIODE		
	C 927	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%			D 916	MA3360/L/-X	Z.DIODE C.M		
	C 928	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%			D 918	1SS355-X	DIODE		
	C 936	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V			D 919	1SS355-X	DIODE		
	C 941	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%		△	D 921	1SR35-400A-T5	DIODE I/M		
	C 942	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%		△	D 922	1SR35-400A-T5	DIODE I/M		
	C 943	QETM1EM-478	E CAPACITOR	4700MF 20% 25V		△	D 923	1SR35-400A-T5	DIODE I/M		
	C 944	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V		△	D 924	1SR35-400A-T5	DIODE I/M		
	C 945	NCB11CK-105X	C CAPACITOR				D 925	MA3100/M/-X	ZENER DIODE		
	C 946	NCB11CK-105X	C CAPACITOR				D 926	MA3030/L/-X	Z.DIODE I.M		
	C 947	NCB21HK-221X	C CAPACITOR				D 927	1SS355-X	DIODE		
	C 948	NCB21HK-221X	C CAPACITOR			△	D 928	1SS388-X	SB DIODE		
	C 961	NCB21HK-221X	C CAPACITOR				D 936	1SS355-X	DIODE		
	C 962	NCB21HK-221X	C CAPACITOR				D 937	1SS355-X	DIODE		
	C 963	NCB21HK-153X	C CAPACITOR				D 939	MA3051/M/-X	ZENER DIODE		
	C 964	NCS21HJ-152X	C CAPACITOR			△	D 941	D3SBA20-S3	DIODE		
	C 965	QK1EM-476Z	E.CAPACITOR	47MF 20% 25V			D 942	CRS01-W	SB DIODE		
	C 971	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V			D 943	SFPJ-73-W	SB.DIODE C.M		
	C 972	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V			D 944	SFPJ-73-W	SB.DIODE C.M		

■ Electrical parts list (Front & Power board) Block No. 02

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	D 945	CRS01-W	SB DIODE				Q 912	2SB647/CD/-T	TRANSISTOR		
	D 947	1SS355-X	DIODE				Q 913	2SD2144S/VW/-T	TRANSISTOR		
	D 948	1SS355-X	DIODE				Q 914	2SD2144S/VW/-T	TRANSISTOR		
	D 949	1SS355-X	DIODE				Q 915	DTA114EKA-X	DIGITAL.TRANSIS		
	D 950	1SS355-X	DIODE				Q 921	2SB1566/EF/	TRANSISTOR		
	D 951	1SS355-X	DIODE				Q 922	2SC2412K/RS/-X	CHIP TRANSISTOR		
	D 952	1SS355-X	DIODE				Q 923	2SB1566/EF/	TRANSISTOR		
	D 953	1SS355-X	DIODE				Q 924	2SA1037AK/RS/-X	TRANSISTOR		
	D 954	1SS355-X	DIODE				Q 932	2SC2412K/RS/-X	CHIP TRANSISTOR		
	D 962	1SS355-X	DIODE				Q 942	2SA1037AK/RS/-X	TRANSISTOR		
	DI701	QLF0073-002	FL TUBE				Q 943	2SB1197K/QR/-X	TRANSISTOR		
	EP901	E409182-001SM	GRAND TERMINAL				Q 944	2SC2412K/RS/-X	CHIP TRANSISTOR		
	HS921	E70945-H40B	HEAT SINK	FOR Q921			Q 945	2SA1037AK/RS/-X	TRANSISTOR		
	HS923	LE40505-001A	HEAT SINK	FOR Q923			Q 946	2SB1188/QR/-W	CHIP TRANSISTOR		
	IC201	BA7625	IC				Q 947	2SC2412K/RS/-X	CHIP TRANSISTOR		
	IC202	BA7625	IC				Q 948	2SA1037AK/RS/-X	TRANSISTOR		
	IC701	MN173222DM	IC	DISPLAY MICOM			Q 949	2SB1188/QR/-W	CHIP TRANSISTOR		
△	IC711	GP1U261X	IR DETECT UNIT				Q 950	2SC2412K/RS/-X	CHIP TRANSISTOR		
	IC941	MB3785APFV	IC				Q 951	2SA1037AK/RS/-X	TRANSISTOR		
	J 201	QND0002-001	S-CONNECTOR				Q 952	2SB1188/QR/-W	CHIP TRANSISTOR		
	J 202	QND0002-002	S-CONNECTOR				Q 954	SI2305DS-X	TRANSISTOR		
	K 941	QQR0601-001Z	FERRITE BEADS				Q 955	DTC124EKA-X	TRANSISTOR		
	K 942	QQR0601-001Z	FERRITE BEADS				Q 956	DTC124EKA-X	TRANSISTOR		
	K 943	QQR0601-001Z	FERRITE BEADS				R 21	NRSA02J-271X	MG RESISTOR		
	K 944	QQR0601-001Z	FERRITE BEADS				R 22	NRSA02J-271X	MG RESISTOR		
	K 945	QQR0601-001Z	FERRITE BEADS				R 23	NRSA02J-221X	MG RESISTOR		
	K 946	QQR0601-001Z	FERRITE BEADS				R 24	NRSA02J-221X	MG RESISTOR		
	K 947	QQR0601-001Z	FERRITE BEADS				R 25	NRSA02J-750X	MG RESISTOR		
	K 948	QQR0601-001Z	FERRITE BEADS				R 26	NRSA02J-750X	MG RESISTOR		
	K 949	QQR0601-001Z	FERRITE BEADS				R 201	NRSA02J-750X	MG RESISTOR		
	K 950	QQR0601-001Z	FERRITE BEADS				R 202	NRSA02J-750X	MG RESISTOR		
	K 951	QQR0601-001Z	FERRITE BEADS				R 203	NRSA02J-750X	MG RESISTOR		
	K 953	QQR0601-001Z	FERRITE BEADS				R 204	NRSA02J-750X	MG RESISTOR		
	L 941	QLL31AK-470Z	INDUCTOR				R 206	NRSA02J-473X	MG RESISTOR		
	L 945	QLL44BK-681Z	INDUCTOR				R 207	NRSA02J-750X	MG RESISTOR		
	L 946	QLL49AK-470Z	INDUCTOR				R 208	NRSA02J-750X	MG RESISTOR		
	L 947	QLL58AK-680	INDUCTOR				R 210	NRSA02J-473X	MG RESISTOR		
	L 948	QLL49AK-470Z	INDUCTOR				R 211	NRSA02J-750X	MG RESISTOR		
	L 950	QLL44BK-121Z	INDUCTOR I/M				R 212	NRSA02J-750X	MG RESISTOR		
	L 951	QLL49AK-470Z	INDUCTOR				R 216	NRSA02J-331X	MG RESISTOR		
	L 952	QLL49AK-470Z	INDUCTOR				R 217	NRSA02J-331X	MG RESISTOR		
	L 953	QLL44BK-181Z	INDUCTOR I/M				R 218	NRSA02J-271X	MG RESISTOR		
	L 954	QLL49AK-470Z	INDUCTOR				R 219	NRSA02J-271X	MG RESISTOR		
	Q 201	2SA1037AK/RS/-X	TRANSISTOR				R 220	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	Q 202	2SA1037AK/RS/-X	TRANSISTOR				R 701	NRSA02J-102X	MG RESISTOR		
	Q 203	2SA1037AK/RS/-X	TRANSISTOR				R 702	NRSA02J-102X	MG RESISTOR		
	Q 204	2SA1037AK/RS/-X	TRANSISTOR				R 703	NRSA02J-102X	MG RESISTOR		
	Q 703	DTC124EKA-X	TRANSISTOR				R 704	NRSA02J-102X	MG RESISTOR		
	Q 704	DTC124EKA-X	TRANSISTOR				R 705	NRSA02J-102X	MG RESISTOR		
	Q 705	DTC114TKA-X	TRANSISTOR				R 707	NRSA02J-103X	MG RESISTOR		
	Q 706	DTA114EKA-X	DIGITAL.TRANSIS				R 708	NRSA02J-103X	MG RESISTOR		
	Q 707	DTA114EKA-X	DIGITAL.TRANSIS				R 709	NRSA02J-103X	MG RESISTOR		
	Q 708	DTA114EKA-X	DIGITAL.TRANSIS				R 710	NRSA02J-103X	MG RESISTOR		
	Q 709	DTA114EKA-X	DIGITAL.TRANSIS				R 711	NRSA02J-223X	MG RESISTOR		
	Q 711	DTC114EKA-X	TRANSISTOR				R 712	NRSA02J-102X	MG RESISTOR		
	Q 712	DTC114EKA-X	TRANSISTOR				R 713	NRSA02J-104X	MG RESISTOR		
	Q 713	DTC114EKA-X	TRANSISTOR				R 714	NRSA02J-104X	MG RESISTOR		
	Q 714	DTC114EKA-X	TRANSISTOR				R 715	NRSA02J-104X	MG RESISTOR		
	Q 715	DTC114EKA-X	TRANSISTOR				R 716	NRSA02J-104X	MG RESISTOR		
	Q 716	DTC114EKA-X	TRANSISTOR				R 724	NRSA02J-221X	MG RESISTOR		
	Q 717	DTC114EKA-X	TRANSISTOR				R 725	NRSA02J-103X	MG RESISTOR		
	Q 718	DTC114EKA-X	TRANSISTOR				R 726	NRSA02J-223X	MG RESISTOR		
	Q 911	KRC102M-T	D.TRANSISTOR				R 727	NRSA02J-223X	MG RESISTOR		

■ Electrical parts list (Front & Power board) Block No. 02

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	R 728	NRSA02J-221X	MG RESISTOR				R 969	NRSA02J-272X	MG RESISTOR		
	R 729	NRSA02J-471X	MG RESISTOR				R 970	NRSA02J-472X	MG RESISTOR		
	R 731	NRSA02J-301X	MG RESISTOR				R 971	NRSA02J-472X	MG RESISTOR		
	R 732	NRSA02J-472X	MG RESISTOR				R 972	NRSA02J-472X	MG RESISTOR		
	R 741	NRSA02J-221X	MG RESISTOR				R 973	NRSA02J-103X	MG RESISTOR		
	R 742	NRSA02J-221X	MG RESISTOR				R 974	NRSA02J-682X	MG RESISTOR		
	R 743	NRSA02J-221X	MG RESISTOR				R 975	NRSA02J-224X	MG RESISTOR		
	R 744	NRSA02J-221X	MG RESISTOR				R 980	NRSA02J-103X	MG RESISTOR		
	R 745	NRSA02J-221X	MG RESISTOR				R 982	NRSA02J-681X	MG RESISTOR		
	R 746	NRSA02J-221X	MG RESISTOR				R 983	NRSA02J-470X	MG RESISTOR		
	R 747	NRSA02J-221X	MG RESISTOR				R 984	NRSA02J-472X	MG RESISTOR		
	R 751	NRSA02J-221X	MG RESISTOR				R 985	NRSA02J-102X	MG RESISTOR		
	R 752	NRSA02J-472X	MG RESISTOR				R 986	NRSA02J-681X	MG RESISTOR		
	R 753	NRSA02J-301X	MG RESISTOR				R 987	NRSA02J-120X	MG RESISTOR		
	R 756	NRSA02J-103X	MG RESISTOR				R 988	NRSA02J-472X	MG RESISTOR		
△	R 911	QRZ9005-680X	F.RESISTOR	68 1/4W			R 989	NRSA02J-222X	MG RESISTOR		
	R 912	NRSA02J-222X	MG RESISTOR				R 990	NRSA02J-681X	MG RESISTOR		
	R 913	NRSA02J-333X	MG RESISTOR				R 991	NRSA02J-180X	MG RESISTOR		
	R 914	NRSA02J-102X	MG RESISTOR				R 992	NRSA02J-472X	MG RESISTOR		
	R 915	NRSA02J-102X	MG RESISTOR				R 993	NRSA02J-222X	MG RESISTOR		
	R 916	NRSA02J-103X	MG RESISTOR				R 994	NRSA02J-681X	MG RESISTOR		
	R 917	NRSA02J-103X	MG RESISTOR				R 995	NRSA02J-150X	MG RESISTOR		
	R 918	NRSA02J-103X	MG RESISTOR				R 996	NRSA02J-472X	MG RESISTOR		
	R 919	NRSA02J-333X	MG RESISTOR				R 998	NRSA02J-103X	MG RESISTOR		
△	R 921	QRT012J-2R2	UNF.MF.RES.	2.2 5% 1/1W			R9001	NRSA02J-331X	MG RESISTOR		
△	R 922	QRZ9006-4R7X	F RESISTOR	4.7 1/4W			R9007	NRSA02J-121X	MG RESISTOR		
	R 923	NRSA02J-331X	MG RESISTOR				R9010	NRSA02J-101X	MG RESISTOR		
	R 924	NRSA02J-221X	MG RESISTOR				R9013	NRSA02J-151X	MG RESISTOR		
	R 925	NRSA02J-222X	MG RESISTOR				S 701	QSW0683-001Z	PUSH SW I.M		
	R 926	NRSA02J-562X	MG RESISTOR				S 702	QSW0683-001Z	PUSH SW I.M		
	R 927	NRSA02J-562X	MG RESISTOR				S 703	QSW0683-001Z	PUSH SW I.M		
	R 928	NRSA02J-471X	MG RESISTOR				S 704	QSW0683-001Z	PUSH SW I.M		
	R 929	NRSA02J-561X	MG RESISTOR				S 705	QSW0683-001Z	PUSH SW I.M		
	R 935	NRSA02J-472X	MG RESISTOR				S 706	QSW0683-001Z	PUSH SW I.M		
	R 936	NRSA02J-472X	MG RESISTOR				S 707	QSW0683-001Z	PUSH SW I.M		
	R 937	NRSA02J-472X	MG RESISTOR				S 708	QSW0683-001Z	PUSH SW I.M		
	R 938	NRSA02J-102X	MG RESISTOR				S 709	QSW0683-001Z	PUSH SW I.M		
	R 941	NRSA02J-822X	MG RESISTOR				S 710	QSW0683-001Z	PUSH SW I.M		
	R 942	NRSA02J-272X	MG RESISTOR				S 711	QSW0683-001Z	PUSH SW I.M	EJECT	
	R 943	NRSA02J-472X	MG RESISTOR				S 712	QSW0683-001Z	PUSH SW I.M	POWER	
	R 944	NRSA02J-472X	MG RESISTOR				SH901	LV32044-001A	SHIELD CASE		
	R 945	NRSA02J-154X	MG RESISTOR				WA701	QJC002-090804	E-S ID WIRE	JSC:QJC002-0908	
	R 946	NRSA02J-333X	MG RESISTOR				WA702	QJK021-040804	C-B WIRE	JSC:QJK021-0408	
	R 947	NRSA02J-273X	MG RESISTOR				WA703	QJC002-050800	E-S ID WIRE	JSC:QJC002-0508	
	R 948	NRSA02J-472X	MG RESISTOR				WA704	QJC002-090804	E-S ID WIRE	JSC:QJC002-0908	
	R 949	NRSA02J-472X	MG RESISTOR				WA705	QJK021-050800	SIN CR C-B WIRE	JSC:QJK021-0508	
	R 950	NRSA02J-154X	MG RESISTOR				WA706	QJB001-030803	E-S ID WIRE	JSC:QJB001-0308	
	R 951	NRSA02J-333X	MG RESISTOR				WA914	WJK0099-001A	E-SI C WIER C-B	JSC:WJK0099-001	
	R 952	NRSA02J-273X	MG RESISTOR				X 701	NAX0192-001X	C.OSCILLATOR	6MHZ	
	R 953	NRSA02J-272X	MG RESISTOR				Z 901	QNG0020-001Z	FUSE CLIP	FOR F901	
	R 954	NRSA02J-103X	MG RESISTOR				Z 902	QNG0020-001Z	FUSE CLIP	FOR F901	
	R 955	NRSA02J-102X	MG RESISTOR				Z 903	QNG0020-001Z	FUSE CLIP	FOR F902	
	R 956	NRSA02J-102X	MG RESISTOR				Z 904	QNG0020-001Z	FUSE CLIP	FOR F902	
	R 957	NRSA02J-102X	MG RESISTOR				Z 905	QNG0020-001Z	FUSE CLIP	FOR F903	
	R 958	NRSA02J-102X	MG RESISTOR				Z 906	QNG0020-001Z	FUSE CLIP	FOR F903	
	R 961	NRSA02J-103X	MG RESISTOR								
	R 962	NRSA02J-154X	MG RESISTOR								
	R 963	NRSA02J-122X	MG RESISTOR								
	R 964	NRSA02J-752X	MG RESISTOR								
	R 965	NRSA02J-472X	MG RESISTOR								
	R 966	NRSA02J-472X	MG RESISTOR								
	R 967	NRSA02J-103X	MG RESISTOR								
	R 968	NRSA02J-154X	MG RESISTOR								

■ Electrical parts list (DSP board)

Block No. 03

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 601	NCB31HK-102X	C CAPACITOR				CN681	QGF1016F2-19W	CONNECTOR		
	C 602	NCB31HK-102X	C CAPACITOR				CN687	QGF1016F2-13W	CONNECTOR C.M		
	C 603	NEA70JM-476X	E.CAPACITOR				C2500	NEA71CM-226X	E.CAPACITOR		
	C 604	NEA70JM-476X	E.CAPACITOR				C2501	NCB31AK-474X	C CAPACITOR		
	C 605	NCB31CK-104X	C CAPACITOR				C2503	NEA71EM-475X	E.CAPACITOR.		
	C 606	NCB31CK-104X	C CAPACITOR				C2504	NEA71EM-475X	E.CAPACITOR.		
	C 607	NEA71CM-476X	E CAPACITOR				C2505	NCS31HJ-560X	C CAPACITOR		
	C 608	NCF31CZ-104X	C CAPACITOR				C2506	NCS31HJ-560X	C CAPACITOR		
	C 609	NCB31CK-104X	C CAPACITOR				C2507	NCS31HJ-560X	C CAPACITOR		
	C 610	NEA70JM-476X	E.CAPACITOR				C2508	NCS31HJ-560X	C CAPACITOR		
	C 611	NEA70JM-476X	E.CAPACITOR				C2509	NCF31CZ-104X	C CAPACITOR		
	C 612	NCB31CK-103X	C CAPACITOR				C2510	NCF31CZ-104X	C CAPACITOR		
	C 621	NEA71HM-105X	E.CAPACITOR				C2511	NCB31AK-474X	C CAPACITOR		
	C 622	NCB31HK-101X	C CAPACITOR				C2512	NCB31AK-474X	C CAPACITOR		
	C 623	NCB30JK-105X	C CAPACITOR				C2513	NCB31CK-183X	C CAPACITOR		
	C 624	NCB31CK-104X	C CAPACITOR				C2514	NCB31CK-183X	C CAPACITOR		
	C 625	NCB31CK-104X	C CAPACITOR				C2515	NCB31HK-182X	C CAPACITOR		
	C 628	NCB31CK-103X	C CAPACITOR				C2516	NCB31HK-182X	C CAPACITOR		
	C 631	NEA70JM-107X	E.CAPACITOR				C2517	NCB31HK-562X	C CAPACITOR		
	C 632	NCB31CK-103X	C CAPACITOR				C2518	NCB31HK-562X	C CAPACITOR		
	C 633	NCB31CK-104X	C CAPACITOR				C2519	NCF31CZ-104X	C CAPACITOR		
	C 634	NCB31CK-104X	C CAPACITOR				C2520	NCF31CZ-104X	C CAPACITOR		
	C 635	NCB31CK-104X	C CAPACITOR				C2521	NFV41CJ-103X	M CAPACITOR		
	C 636	NCB31CK-104X	C CAPACITOR				C2522	NFV41CJ-103X	M CAPACITOR		
	C 637	NCB31CK-104X	C CAPACITOR				C2523	NFV41HJ-272X	M CAPACITOR		
	C 638	NEA70JM-476X	E.CAPACITOR				C2524	NFV41HJ-272X	M CAPACITOR		
	C 639	NCB31CK-103X	C CAPACITOR				C2525	NFV41CJ-392X	M CAPACITOR		
	C 641	NEA70JM-107X	E.CAPACITOR				C2526	NFV41CJ-392X	M CAPACITOR		
	C 642	NCB31CK-103X	C CAPACITOR				C2527	NEA71CM-226X	E.CAPACITOR		
	C 643	NCB31AK-474X	C CAPACITOR				C2528	NEA71CM-226X	E.CAPACITOR		
	C 644	NCB31CK-103X	C CAPACITOR				C2529	NCF31CZ-104X	C CAPACITOR		
	C 645	NCS31HJ-101X	C.CAPACITOR				C2530	NCF31CZ-104X	C CAPACITOR		
	C 646	NCB31CK-103X	C CAPACITOR				C2531	NCS31HJ-560X	C CAPACITOR		
	C 647	NCS31HJ-220X	C CAPACITOR				C2532	NCS31HJ-560X	C CAPACITOR		
	C 648	NCS31HJ-180X	C CAPACITOR				C2533	NEA71CM-226X	E.CAPACITOR		
	C 649	NCS31HJ-121X	C CAPACITOR				C2534	NEA71CM-226X	E.CAPACITOR		
	C 653	NCB31CK-104X	C CAPACITOR				C2539	NCF31CZ-104X	C CAPACITOR		
	C 654	NEA70JM-107X	E.CAPACITOR				C2540	NCF31CZ-104X	C CAPACITOR		
	C 671	NCB31CK-103X	C CAPACITOR				C2541	NCS31HJ-560X	C CAPACITOR		
	C 672	NEA70JM-107X	E.CAPACITOR				C2542	NCS31HJ-560X	C CAPACITOR		
	C 673	NCB31CK-103X	C CAPACITOR				C2543	NEA71EM-475X	E.CAPACITOR.		
	C 675	NRSA63J-103X	MG RESISTOR				C2544	NEA71EM-475X	E.CAPACITOR.		
	C 677	NCB30JK-105X	C CAPACITOR				C2549	NCF31CZ-104X	C CAPACITOR		
	C 679	NCB31HK-101X	C CAPACITOR				C2550	NCF31CZ-104X	C CAPACITOR		
	C 680	NCB30JK-105X	C CAPACITOR				C2551	NCS31HJ-560X	C CAPACITOR		
	C 681	NCB31CK-103X	C CAPACITOR				C2552	NCS31HJ-560X	C CAPACITOR		
	C 682	NCB31CK-103X	C CAPACITOR				C2553	NCB31HK-562X	C CAPACITOR		
	C 683	NCB31CK-103X	C CAPACITOR				C2554	NCB31HK-562X	C CAPACITOR		
	C 684	NEA70JM-107X	E.CAPACITOR				C2555	NCF31CZ-104X	C CAPACITOR		
	C 685	NEA71CM-476X	E CAPACITOR				C2556	NCF31CZ-104X	C CAPACITOR		
	C 686	NEA71CM-476X	E CAPACITOR				C2559	NCF31CZ-104X	C CAPACITOR		
	C 687	NCB31CK-103X	C CAPACITOR				C2560	NCF31CZ-104X	C CAPACITOR		
	C 688	NEA70JM-107X	E.CAPACITOR				C2561	NEA71HM-105X	E.CAPACITOR		
	C 689	NCB31CK-103X	C CAPACITOR				C2562	NEA71HM-105X	E.CAPACITOR		
	C 690	NEA70JM-107X	E.CAPACITOR				C2563	NCS31HJ-220X	C CAPACITOR		
	C 691	NEA71CM-226X	E.CAPACITOR				C2564	NCS31HJ-220X	C CAPACITOR		
	C 692	NEA71CM-226X	E.CAPACITOR				C2569	NCF31CZ-104X	C CAPACITOR		
	C 693	NCB31CK-103X	C CAPACITOR				C2570	NCF31CZ-104X	C CAPACITOR		
	C 694	NCB31CK-103X	C CAPACITOR				C2571	NCB31CK-103X	C CAPACITOR		
	C 695	NEA71EM-475X	E.CAPACITOR.				C2572	NCB31CK-103X	C CAPACITOR		
	C 696	NEA71EM-475X	E.CAPACITOR.				C2573	NCB31HK-272X	C CAPACITOR		
	C 697	NEA71EM-475X	E.CAPACITOR.				C2574	NCB31HK-272X	C CAPACITOR		
	C 698	NEA71EM-475X	E.CAPACITOR.				C2575	NCB31HK-392X	C CAPACITOR		

■ Electrical parts list (DSP board)

Block No. 03

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C2576	NCB31HK-392X	C CAPACITOR				K 614	NQR0269-007X	FERRITE BEADS		
	C2577	NEA71EM-475X	E.CAPACITOR.				K 615	NQR0269-007X	FERRITE BEADS		
	C2578	NEA71EM-475X	E.CAPACITOR.				K 616	NQR0269-007X	FERRITE BEADS		
	C2579	NCF31CZ-104X	C CAPACITOR				K 617	NQR0269-007X	FERRITE BEADS		
	C2580	NCF31CZ-104X	C CAPACITOR				K 618	NQR0269-007X	FERRITE BEADS		
	C2581	NEA71HM-105X	E.CAPACITOR				K 619	NQR0269-007X	FERRITE BEADS		
	C2582	NEA71CM-106X	E.CAPACITOR				K 620	NQR0269-007X	FERRITE BEADS		
	C2583	NCS31HJ-220X	C CAPACITOR				K 621	NQR0269-007X	FERRITE BEADS		
	C2584	NCS31HJ-560X	C CAPACITOR				K 622	NQR0269-007X	FERRITE BEADS		
	C2589	NCF31CZ-104X	C CAPACITOR				K 687	NQR0319-001X	F.BEADS C.M		
	C2590	NCF31CZ-104X	C CAPACITOR				L 661	NQL024J-470X	INDUCTOR CM		
	C2591	NCB31CK-103X	C CAPACITOR				L 662	NQL024J-470X	INDUCTOR CM		
	C2592	NCB31HK-223X	C CAPACITOR				L 663	NQL024J-470X	INDUCTOR CM		
	C2593	NCB31HK-272X	C CAPACITOR				LC601	NQR0321-001X	EMI FILTER C.M		
	C2594	NCB31CK-104X	C CAPACITOR				LC632	NQR0321-001X	EMI FILTER C.M		
	C2595	NCB31HK-392X	C CAPACITOR				LC641	NQR0321-001X	EMI FILTER C.M		
	C2597	NEA71EM-475X	E.CAPACITOR.				LC671	NQR0321-001X	EMI FILTER C.M		
	C2598	NEA71EM-475X	E.CAPACITOR.				Q 601	DTC114YE-X	TRANSISTOR		
	C2599	NCF31CZ-104X	C CAPACITOR				Q 607	DTA144EKA-X	TRANSISTOR		
	C2600	NCF31CZ-104X	C CAPACITOR				Q 670	DTC114YE-X	TRANSISTOR		
	D 601	1SS355-X	DIODE				Q 672	DTC114YE-X	TRANSISTOR		
	D 602	1SS355-X	DIODE				Q 674	DTC114YE-X	TRANSISTOR		
	D 607	1SS355-X	DIODE				Q 675	DTC114YE-X	TRANSISTOR		
	D 608	1SS355-X	DIODE				Q2501	DTA144EKA-X	TRANSISTOR		
	IC501	BA15218F-XE	IC				Q2521	2SD1328/ST/-X	TRANSISTOR		
	IC510	BA15218F-XE	IC				Q2522	2SD1328/ST/-X	TRANSISTOR		
	IC511	BA15218F-XE	IC				Q2561	2SD1328/ST/-X	TRANSISTOR		
	IC521	BA15218F-XE	IC				Q2562	2SD1328/ST/-X	TRANSISTOR		
	IC531	BA15218F-XE	IC				Q2581	2SD1328/ST/-X	TRANSISTOR		
	IC541	BA15218F-XE	IC				Q2582	2SD1328/ST/-X	TRANSISTOR		
	IC551	BA15218F-XE	IC				R 601	NRSA63J-473X	MG RESISTOR		
	IC561	BA15218F-XE	IC				R 602	NRSA63J-473X	MG RESISTOR		
	IC571	BA15218F-XE	IC				R 603	NRSA63J-473X	MG RESISTOR		
	IC581	BA15218F-XE	IC				R 604	NRSA63J-473X	MG RESISTOR		
	IC591	BA15218F-XE	IC				R 605	NRSA63J-473X	MG RESISTOR		
	IC601	AK4527VQ	IC				R 606	NRSA63J-221X	MG RESISTOR		
	IC602	BU4066BCF-X	IC				R 607	NRSA63J-221X	MG RESISTOR		
	IC611	BU4066BCF-X	IC				R 608	NRSA63J-221X	MG RESISTOR		
	IC621	TC7SU04FU-X	IC				R 609	NRSA63J-221X	MG RESISTOR		
	IC622	TC7SU04FU-X	IC				R 610	NRSA63J-221X	MG RESISTOR		
	IC631	TC9446F-014	IC				R 611	NRSA63J-332X	MG RESISTOR		
	IC641	W24L011AJ-15-X	IC				R 612	NRSA63J-223X	MG RESISTOR		
	IC671	UPD784215AGC103	IC				R 613	NRSA63J-822X	MG RESISTOR		
	IC672	TC7SET32FU-X	IC				R 615	NRSA63J-432X	MG RESISTOR		
	IC681	PQ3DZ53-X	IC				R 617	NRSA63J-103X	MG RESISTOR		
	IC683	PQ3DZ53-X	IC				R 618	NRSA63J-103X	MG RESISTOR		
	J 601	QNN0347-001	PIN JACK				R 619	NRSA63J-221X	MG RESISTOR		
	K 501	NQR0269-007X	FERRITE BEADS				R 620	NRSA63J-221X	MG RESISTOR		
	K 502	NQR0269-007X	FERRITE BEADS				R 621	NRSA63J-221X	MG RESISTOR		
	K 503	NQR0269-007X	FERRITE BEADS				R 622	NRSA63J-750X	MG RESISTOR		
	K 504	NQR0269-007X	FERRITE BEADS				R 623	NRSA63J-101X	MG RESISTOR		
	K 531	NQR0269-007X	FERRITE BEADS				R 625	NRSA63J-101X	MG RESISTOR		
	K 532	NQR0269-007X	FERRITE BEADS				R 627	NRSA63J-472X	MG RESISTOR		
	K 541	NQR0269-007X	FERRITE BEADS				R 628	NRSA63J-183X	MG RESISTOR		
	K 542	NQR0269-007X	FERRITE BEADS				R 633	NRSA63J-221X	MG RESISTOR		
	K 561	NQR0269-007X	FERRITE BEADS				R 636	NRSA63J-0R0X	MG RESISTOR		
	K 562	NQR0269-007X	FERRITE BEADS				R 637	NRSA63J-0R0X	MG RESISTOR		
	K 581	NQR0269-007X	FERRITE BEADS				R 639	NRSA63J-472X	MG RESISTOR		
	K 582	NQR0269-007X	FERRITE BEADS				R 641	NRSA63J-102X	MG RESISTOR		
	K 601	NQR0269-007X	FERRITE BEADS				R 642	NRSA63J-103X	MG RESISTOR		
	K 611	NQR0269-007X	FERRITE BEADS				R 643	NRSA63J-101X	MG RESISTOR		
	K 612	NQR0269-007X	FERRITE BEADS				R 644	NRSA63J-563X	MG RESISTOR		
	K 613	NQR0269-007X	FERRITE BEADS				R 645	NRSA63J-102X	MG RESISTOR		

■ Electrical parts list (DSP board)

Block No. 03

△	Item	Parts number	Parts name	Remarks	Area
	R 646	NRSA63J-103X	MG RESISTOR		
	R 647	NRSA63J-225X	MG RESISTOR		
	R 648	NRSA63J-472X	MG RESISTOR		
	R 649	NRSA63J-1R0X	MG RESISTOR		
	R 650	NRSA63J-1R0X	MG RESISTOR		
	R 657	NRSA63J-103X	MG RESISTOR		
	R 661	NRSA63J-221X	MG RESISTOR		
	R 662	NRSA63J-221X	MG RESISTOR		
	R 663	NRSA63J-221X	MG RESISTOR		
	R 664	NRSA63J-221X	MG RESISTOR		
	R 669	NRSA63J-103X	MG RESISTOR		
	R 670	NRSA63J-103X	MG RESISTOR		
	R 673	NRSA63J-563X	MG RESISTOR		
	R 674	NRSA63J-432X	MG RESISTOR		
	R 675	NRSA63J-432X	MG RESISTOR		
	R 676	NRSA63J-432X	MG RESISTOR		
	R 677	NRSA63J-104X	MG RESISTOR		
	R 678	NRSA63J-822X	MG RESISTOR		
	R 679	NRSA63J-822X	MG RESISTOR		
	R 680	NRSA63J-822X	MG RESISTOR		
	R 681	NRSA63J-103X	MG RESISTOR		
	R 682	NRSA63J-103X	MG RESISTOR		
	R 683	NRSA63J-0R0X	MG RESISTOR		
	R 685	NRSA63J-103X	MG RESISTOR		
	R 687	NRSA63J-102X	MG RESISTOR		
	R 691	NRSA63J-104X	MG RESISTOR		
	R 692	NRSA63J-104X	MG RESISTOR		
	R 695	NRSA63J-104X	MG RESISTOR		
	R 696	NRSA63J-104X	MG RESISTOR		
	R 697	NRSA63J-104X	MG RESISTOR		
	R 698	NRSA63J-104X	MG RESISTOR		
	R2500	NRSA63J-222X	MG RESISTOR		
	R2501	NRSA63J-104X	MG RESISTOR		
	R2502	NRSA63J-104X	MG RESISTOR		
	R2503	NRSA63J-183X	MG RESISTOR		
	R2504	NRSA63J-183X	MG RESISTOR		
	R2505	NRSA63J-103X	MG RESISTOR		
	R2506	NRSA63J-103X	MG RESISTOR		
	R2507	NRSA63J-103X	MG RESISTOR		
	R2508	NRSA63J-103X	MG RESISTOR		
	R2509	NRSA63J-103X	MG RESISTOR		
	R2510	NRSA63J-103X	MG RESISTOR		
	R2511	NRSA63J-102X	MG RESISTOR		
	R2512	NRSA63J-102X	MG RESISTOR		
	R2513	NRSA63J-102X	MG RESISTOR		
	R2514	NRSA63J-102X	MG RESISTOR		
	R2515	NRSA63J-102X	MG RESISTOR		
	R2516	NRSA63J-102X	MG RESISTOR		
	R2517	NRSA63J-102X	MG RESISTOR		
	R2518	NRSA63J-102X	MG RESISTOR		
	R2519	NRSA63J-102X	MG RESISTOR		
	R2520	NRSA63J-102X	MG RESISTOR		
	R2521	NRSA63J-102X	MG RESISTOR		
	R2522	NRSA63J-102X	MG RESISTOR		
	R2523	NRSA63J-102X	MG RESISTOR		
	R2524	NRSA63J-102X	MG RESISTOR		
	R2525	NRSA63J-102X	MG RESISTOR		
	R2526	NRSA63J-102X	MG RESISTOR		
	R2527	NRSA63J-104X	MG RESISTOR		
	R2528	NRSA63J-104X	MG RESISTOR		
	R2529	NRSA63J-103X	MG RESISTOR		
	R2530	NRSA63J-103X	MG RESISTOR		
	R2531	NRSA63J-113X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	R2532	NRSA63J-113X	MG RESISTOR		
	R2533	NRSA63J-103X	MG RESISTOR		
	R2534	NRSA63J-103X	MG RESISTOR		
	R2535	NRSA63J-103X	MG RESISTOR		
	R2536	NRSA63J-103X	MG RESISTOR		
	R2537	NRSA63J-104X	MG RESISTOR		
	R2538	NRSA63J-104X	MG RESISTOR		
	R2541	NRSA63J-113X	MG RESISTOR		
	R2542	NRSA63J-113X	MG RESISTOR		
	R2543	NRSA63J-103X	MG RESISTOR		
	R2544	NRSA63J-103X	MG RESISTOR		
	R2545	NRSA63J-562X	MG RESISTOR		
	R2546	NRSA63J-562X	MG RESISTOR		
	R2547	NRSA63J-104X	MG RESISTOR		
	R2548	NRSA63J-104X	MG RESISTOR		
	R2551	NRSA63J-103X	MG RESISTOR		
	R2552	NRSA63J-103X	MG RESISTOR		
	R2553	NRSA63J-333X	MG RESISTOR		
	R2554	NRSA63J-333X	MG RESISTOR		
	R2560	NRSA63J-105X	MG RESISTOR		
	R2561	NRSA63J-104X	MG RESISTOR		
	R2562	NRSA63J-104X	MG RESISTOR		
	R2563	NRSA63J-103X	MG RESISTOR		
	R2564	NRSA63J-103X	MG RESISTOR		
	R2565	NRSA63J-122X	MG RESISTOR		
	R2566	NRSA63J-122X	MG RESISTOR		
	R2567	NRSA63J-103X	MG RESISTOR		
	R2568	NRSA63J-103X	MG RESISTOR		
	R2571	NRSA63J-102X	MG RESISTOR		
	R2572	NRSA63J-102X	MG RESISTOR		
	R2573	NRSA63J-102X	MG RESISTOR		
	R2574	NRSA63J-102X	MG RESISTOR		
	R2575	NRSA63J-102X	MG RESISTOR		
	R2576	NRSA63J-102X	MG RESISTOR		
	R2577	NRSA63J-104X	MG RESISTOR		
	R2578	NRSA63J-104X	MG RESISTOR		
	R2581	NRSA63J-104X	MG RESISTOR		
	R2582	NRSA63J-104X	MG RESISTOR		
	R2583	NRSA63J-103X	MG RESISTOR		
	R2584	NRSA63J-124X	MG RESISTOR		
	R2585	NRSA63J-122X	MG RESISTOR		
	R2586	NRSA63J-392X	MG RESISTOR		
	R2587	NRSA63J-103X	MG RESISTOR		
	R2588	NRSA63J-103X	MG RESISTOR		
	R2590	NRSA63J-333X	MG RESISTOR		
	R2591	NRSA63J-102X	MG RESISTOR		
	R2592	NRSA63J-333X	MG RESISTOR		
	R2593	NRSA63J-102X	MG RESISTOR		
	R2594	NRSA63J-333X	MG RESISTOR		
	R2595	NRSA63J-102X	MG RESISTOR		
	R2596	NRSA63J-102X	MG RESISTOR		
	R2597	NRSA63J-104X	MG RESISTOR		
	R2598	NRSA63J-104X	MG RESISTOR		
	UN661	GP1FA550RZ	OPT RECEIVER		
	UN662	GP1FA550RZ	OPT RECEIVER		
	UN663	GP1FA550TZ	OPT TRANSMITTER		
	X 631	NAX0385-001X	CRYSTAL	22.5792MHZ	
	X 671	NAX0275-001X	C OSCILLATOR	6.14MHZ	

■ Electrical parts list (DVD mecha board) Block No. 04

△	Item	Parts number	Parts name	Remarks	Area
	C 17	NCS31HJ-101X	C.CAPACITOR		
	C 18	NCS31HJ-101X	C.CAPACITOR		
	C 19	NCS31HJ-101X	C.CAPACITOR		
	CN 11	QGF1016F2-37W	CONNECTOR	TO MAIN	
	CN 12	QGF1016C2-21W	CONNECTOR	TO MECHA	
	CN 13	QGF1016F2-17W	CONNECTOR	TO MECHA	
	K 11	NQR0265-003X	FERRITE BEADS		
	K 12	NQR0265-003X	FERRITE BEADS		
	K 13	NQR0265-003X	FERRITE BEADS		
	K 14	NQR0265-003X	FERRITE BEADS		
	K 15	NQR0265-003X	FERRITE BEADS		
	K 16	NQR0265-002X	FERRITE BEADS		
	K 21	NQR0265-003X	FERRITE BEADS		
	K 22	NQR0265-003X	FERRITE BEADS		
	R 21	NRSA63J-0R0X	MG RESISTOR		
	R 23	NRSA63J-0R0X	MG RESISTOR		
	R 24	NRSA63J-0R0X	MG RESISTOR		
	R 25	NRSA63J-0R0X	MG RESISTOR		
	R 26	NRSA63J-0R0X	MG RESISTOR		
	R 28	NRSA63J-0R0X	MG RESISTOR		
	R 30	NRSA63J-0R0X	MG RESISTOR		
	R 31	NRSA63J-0R0X	MG RESISTOR		

■ Electrical parts list (DVD board)

Block No. 05

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 1	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V			C 209	NCB31CK-104X	C CAPACITOR		
	C 5	NCB21CK-104X	C.CAPACITOR				C 210	NCB31CK-104X	C CAPACITOR		
	C 6	NCB21CK-104X	C.CAPACITOR				C 211	NCB31CK-104X	C CAPACITOR		
	C 7	NCS21HJ-151X	C CAPACITOR				C 212	NCB31CK-104X	C CAPACITOR		
	C 8	NCB21CK-104X	C.CAPACITOR				C 213	NCB31CK-104X	C CAPACITOR		
	C 101	NCB31CK-104X	C CAPACITOR				C 214	NCB31CK-104X	C CAPACITOR		
	C 102	NEA70JM-476X	E.CAPACITOR				C 215	NCB31HK-392X	C CAPACITOR		
	C 103	NCB31CK-104X	C CAPACITOR				C 217	NCB31HK-821X	C CAPACITOR		
	C 104	NCS31HJ-560X	C CAPACITOR				C 218	NCB31HK-331X	C CAPACITOR		
	C 105	NCS31HJ-101X	C.CAPACITOR				C 219	NCB31HK-471X	C CAPACITOR		
	C 106	NEA71CM-106X	E.CAPACITOR				C 221	NCB31HK-271X	C CAPACITOR		
	C 107	NCB31CK-104X	C CAPACITOR				C 222	NCB31HK-821X	C CAPACITOR		
	C 108	NCB31CK-104X	C CAPACITOR				C 223	NCB31HK-821X	C CAPACITOR		
	C 109	NCB31CK-104X	C CAPACITOR				C 224	NEA70JM-226X	E CAPACITOR		
	C 110	NCS31HJ-101X	C.CAPACITOR				C 225	NCB11CK-105X	C CAPACITOR		
	C 111	NCB21CK-184X	C CAPACITOR				C 226	NCB31CK-104X	C CAPACITOR		
	C 112	NCB31CK-104X	C CAPACITOR				C 227	NCB31CK-104X	C CAPACITOR		
	C 113	NCB31CK-104X	C CAPACITOR				C 228	NEA70JM-107X	E.CAPACITOR		
	C 114	NCB31CK-104X	C CAPACITOR				C 229	NCB11CK-105X	C CAPACITOR		
	C 115	NCB31HK-392X	C CAPACITOR				C 230	NCB31CK-104X	C CAPACITOR		
	C 116	NCB31CK-104X	C CAPACITOR				C 231	NCB31CK-104X	C CAPACITOR		
	C 117	NCB11CK-105X	C CAPACITOR				C 232	NCB31CK-104X	C CAPACITOR		
	C 118	NEX40JM-336X	E CAPACITOR				C 233	NCS31HJ-330X	C CAPACITOR		
	C 119	NCB31CK-104X	C CAPACITOR				C 234	NCB31HK-331X	C CAPACITOR		
	C 120	NCB31CK-104X	C CAPACITOR				C 235	NCB31CK-104X	C CAPACITOR		
	C 121	NCB21CK-334X	C CAPACITOR				C 236	NCB31CK-823X	C CAPACITOR		
	C 122	NCS31HJ-121X	C CAPACITOR				C 237	NCB31CK-823X	C CAPACITOR		
	C 123	NCB31CK-104X	C CAPACITOR				C 241	NCB31CK-104X	C CAPACITOR		
	C 124	NCB31CK-104X	C CAPACITOR				C 242	NEA70JM-107X	E.CAPACITOR		
	C 125	NCB31CK-104X	C CAPACITOR				C 251	NCB31CK-104X	C CAPACITOR		
	C 126	NCS31HJ-221X	C CAPACITOR				C 252	NCB31CK-104X	C CAPACITOR		
	C 127	NCS31HJ-221X	C CAPACITOR				C 253	NCB31CK-104X	C CAPACITOR		
	C 128	NCB31CK-104X	C CAPACITOR				C 254	NCB31CK-104X	C CAPACITOR		
	C 129	NCB21CK-224X	C CAPACITOR				C 255	NEA70JM-226X	E CAPACITOR		
	C 130	NCB31HK-102X	C CAPACITOR				C 256	NCB31CK-104X	C CAPACITOR		
	C 131	NCB31HK-681X	C CAPACITOR				C 257	NCB31CK-104X	C CAPACITOR		
	C 132	NCB31CK-104X	C CAPACITOR				C 258	NEA71CM-226X	E.CAPACITOR		
	C 133	NEX40JM-566X	E CAPACITOR				C 259	NCB31CK-104X	C CAPACITOR		
	C 134	NCB11CK-105X	C CAPACITOR				C 261	NCB31CK-104X	C CAPACITOR		
	C 135	NCS31HJ-221X	C CAPACITOR				C 262	NCB31CK-104X	C CAPACITOR		
	C 136	NCB31CK-104X	C CAPACITOR				C 263	NCB31CK-104X	C CAPACITOR		
	C 137	NCB31CK-104X	C CAPACITOR				C 264	NCB31CK-104X	C CAPACITOR		
	C 138	NCB31CK-104X	C CAPACITOR				C 271	NCB31CK-104X	C CAPACITOR		
	C 139	NCB31CK-104X	C CAPACITOR				C 273	NCB31HK-102X	C CAPACITOR		
	C 140	NCB31CK-104X	C CAPACITOR				C 275	NCB31HK-102X	C CAPACITOR		
	C 141	NCS31HJ-820X	C CAPACITOR				C 276	NCB31CK-104X	C CAPACITOR		
	C 142	NCB31HK-222X	C CAPACITOR				C 281	NEA70JM-226X	E CAPACITOR		
	C 143	NCB21CK-224X	C CAPACITOR				C 282	NCB31CK-104X	C CAPACITOR		
	C 144	NCB31CK-104X	C CAPACITOR				C 284	NCB31HK-102X	C CAPACITOR		
	C 145	NCB11CK-105X	C CAPACITOR				C 286	NCB31HK-102X	C CAPACITOR		
	C 151	NEX40JM-156X	E.CAPACITOR				C 287	NCB31CK-104X	C CAPACITOR		
	C 152	NEX40JM-156X	E.CAPACITOR				C 288	NEA71CM-226X	E.CAPACITOR		
	C 153	NCB31CK-104X	C CAPACITOR				C 291	NCB31CK-104X	C CAPACITOR		
	C 154	NCB31CK-104X	C CAPACITOR				C 292	NEA71CM-476X	E CAPACITOR		
	C 191	NCB31CK-104X	C CAPACITOR				C 301	NCB31CK-104X	C CAPACITOR		
	C 192	NEA70JM-107X	E.CAPACITOR				C 302	NCB31CK-104X	C CAPACITOR		
	C 201	NCB31CK-104X	C CAPACITOR				C 303	NCB31CK-104X	C CAPACITOR		
	C 202	NCB31CK-393X	C CAPACITOR				C 304	NCB31CK-104X	C CAPACITOR		
	C 203	NCB31CK-393X	C CAPACITOR				C 305	NCB31CK-104X	C CAPACITOR		
	C 204	NCB31CK-393X	C CAPACITOR				C 306	NCB31CK-104X	C CAPACITOR		
	C 205	NCB31CK-393X	C CAPACITOR				C 307	NCB31CK-104X	C CAPACITOR		
	C 206	NCB31CK-104X	C CAPACITOR				C 308	NCB31CK-103X	C CAPACITOR		
	C 208	NCB31CK-104X	C CAPACITOR				C 309	NCB31CK-104X	C CAPACITOR		

■ Electrical parts list (DVD board)

Block No. 05

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 310	NCB31CK-104X	C CAPACITOR				C 526	NCB31CK-104X	C CAPACITOR		
	C 311	NCB31CK-104X	C CAPACITOR				C 527	NCB31CK-104X	C CAPACITOR		
	C 314	NCB31CK-104X	C CAPACITOR				C 528	NCB31CK-104X	C CAPACITOR		
	C 315	NCB31CK-104X	C CAPACITOR				C 529	NCB31CK-104X	C CAPACITOR		
	C 316	NEA70JM-107X	E.CAPACITOR				C 530	NEA70JM-107X	E.CAPACITOR		
	C 317	NCB11CK-105X	C CAPACITOR				C 531	NCB31CK-104X	C CAPACITOR		
	C 318	NCB31CK-104X	C CAPACITOR				C 532	NCB31CK-104X	C CAPACITOR		
	C 319	NCB31CK-104X	C CAPACITOR				C 533	NCB31CK-104X	C CAPACITOR		
	C 320	NCB31CK-104X	C CAPACITOR				C 534	NEA70JM-107X	E.CAPACITOR		
	C 321	NCB31CK-104X	C CAPACITOR				C 535	NCB31CK-104X	C CAPACITOR		
	C 322	NEA70JM-107X	E.CAPACITOR				C 536	NCB31CK-103X	C CAPACITOR		
	C 323	NCB11CK-105X	C CAPACITOR				C 537	NEA70JM-226X	E CAPACITOR		
	C 324	NCB31CK-104X	C CAPACITOR				C 538	NCB31CK-104X	C CAPACITOR		
	C 341	NCB31CK-104X	C CAPACITOR				C 539	NCB31CK-104X	C CAPACITOR		
	C 342	NCB31CK-104X	C CAPACITOR				C 540	NEA70JM-226X	E CAPACITOR		
	C 343	NCB31CK-104X	C CAPACITOR				C 541	NCB31CK-104X	C CAPACITOR		
	C 344	NCB31CK-104X	C CAPACITOR				C 542	NEA70JM-226X	E CAPACITOR		
	C 371	NCS31HJ-100X	C CAPACITOR				C 543	NCB31CK-104X	C CAPACITOR		
	C 372	NCS31HJ-100X	C CAPACITOR				C 551	NCB31CK-104X	C CAPACITOR		
	C 373	NCB31CK-104X	C CAPACITOR				C 552	NCB31CK-104X	C CAPACITOR		
	C 374	NCB31CK-104X	C CAPACITOR				C 553	NCB31CK-104X	C CAPACITOR		
	C 376	NCB31CK-104X	C CAPACITOR				C 554	NCB31CK-104X	C CAPACITOR		
	C 391	NCB31CK-104X	C CAPACITOR				C 555	NEA70JM-226X	E CAPACITOR		
	C 392	NEA70JM-226X	E CAPACITOR				C 556	NCB31CK-104X	C CAPACITOR		
	C 401	NCB31CK-104X	C CAPACITOR				C 557	NCB31CK-104X	C CAPACITOR		
	C 402	NCB31CK-104X	C CAPACITOR				C 558	NEA70JM-226X	E CAPACITOR		
	C 405	NCB31CK-104X	C CAPACITOR				C 559	NCB31CK-104X	C CAPACITOR		
	C 406	NCB31CK-104X	C CAPACITOR				C 561	NCB31CK-104X	C CAPACITOR		
	C 407	NCB31CK-104X	C CAPACITOR				C 562	NEA70JM-226X	E CAPACITOR		
	C 408	NEA70JM-226X	E CAPACITOR				C 563	NCB31CK-104X	C CAPACITOR		
	C 409	NCB31CK-104X	C CAPACITOR				C 564	NCB31CK-104X	C CAPACITOR		
	C 411	NCB31CK-104X	C CAPACITOR				C 565	NCB31CK-104X	C CAPACITOR		
	C 412	NCB31CK-104X	C CAPACITOR				C 566	NCB31CK-104X	C CAPACITOR		
	C 441	NCB31CK-104X	C CAPACITOR				C 567	NEA70JM-226X	E CAPACITOR		
	C 442	NEX40JM-156X	E.CAPACITOR				C 568	NCB31CK-104X	C CAPACITOR		
	C 452	NCB31CK-104X	C CAPACITOR				C 569	NEA70JM-226X	E CAPACITOR		
	C 491	NCB31CK-104X	C CAPACITOR				C 571	NCB31CK-104X	C CAPACITOR		
	C 492	NEA70JM-226X	E CAPACITOR				C 572	NEX40JM-156X	E.CAPACITOR		
	C 501	NCB31CK-104X	C CAPACITOR				CN101	QGF1016C2-37W	CONNECTOR	MECHA LOADING	
	C 502	NCB31CK-104X	C CAPACITOR				CN103	QGF1016C2-07W	CONNECTOR		
	C 503	NCB31CK-104X	C CAPACITOR				CN104	QGA2001C2-12X	W TO B CONNE		
	C 504	NCB31CK-104X	C CAPACITOR				CN501	QGA2001C2-08X	W TO B CONNE	POWER SYSTEM	
	C 505	NCB31CK-104X	C CAPACITOR				CN502	QGF1016C2-35W	CONNECTOR		
	C 506	NCB31CK-104X	C CAPACITOR				CN503	QGA2001C2-10X	W TO B CONNE	VIDEO	
	C 507	NCB31CK-104X	C CAPACITOR				D 201	1SS355-X	DIODE		
	C 508	NCB31CK-104X	C CAPACITOR				D 202	1SS355-X	DIODE		
	C 509	NCB31CK-104X	C CAPACITOR				D 203	1SS355-X	DIODE		
	C 510	NCB31CK-104X	C CAPACITOR				D 272	DAP202K-X	D.TRANSISTOR		
	C 511	NCB31CK-104X	C CAPACITOR				D 402	1SS355-X	DIODE		
	C 512	NCB31CK-104X	C CAPACITOR				D 403	1SS355-X	DIODE		
	C 513	NCB31CK-104X	C CAPACITOR				D 551	1SS355-X	DIODE		
	C 514	NCB31CK-104X	C CAPACITOR				D 552	1SS355-X	DIODE		
	C 515	NCB31CK-104X	C CAPACITOR				IC101	AN8706FHQ	IC		
	C 516	NCB31CK-104X	C CAPACITOR				IC102	RN5RZ20BA-X	IC		
	C 517	NCB31CK-104X	C CAPACITOR				IC201	MN67705EA	IC		
	C 518	NCB31CK-104X	C CAPACITOR				IC251	AN8485SB-W	IC		
	C 519	NCB31CK-104X	C CAPACITOR				IC271	BA5983FM-X	IC		
	C 520	NCB31CK-104X	C CAPACITOR				IC301	MN103007BGA	IC		
	C 521	NCB31CK-104X	C CAPACITOR				IC311	TC7SH08FU-X	IC		
	C 522	NCB31CK-104X	C CAPACITOR				IC312	TC7SH32FU-X	IC		
	C 523	NCB31CK-104X	C CAPACITOR				IC321	TC7WH74FU-X	IC		
	C 524	NCB31CK-104X	C CAPACITOR				IC322	TC74VHC00FT-X	IC		
	C 525	NCB31CK-104X	C CAPACITOR				IC371	TC7SHU04FU-X	IC(DIGITAL)		

■ Electrical parts list (DVD board)

Block No. 05

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	IC372	TC7SHU04FU-X	IC(DIGITAL)				K 575	NQR0007-002X	FERRITE BEADS		
	IC374	TC7WH74FU-X	IC				K 576	NQR0007-002X	FERRITE BEADS		
	IC401	MN102L25GHJ	IC C.M.				K 577	NQR0007-002X	FERRITE BEADS		
	IC402	MSM531622F78G-X	IC				K 578	NQR0007-002X	FERRITE BEADS		
	IC403	AK93C65AF-X	IC				K 579	NQR0007-002X	FERRITE BEADS		
	IC452	TC7WT125FU-X	IC(DIGITAL)				K 581	NQR0007-002X	FERRITE BEADS		
	IC501	ZIVA-3-PD0	IC				K 582	NQR0007-002X	FERRITE BEADS		
	IC502	NAX0265-001X	IC	27MHZ			K 583	NQR0007-002X	FERRITE BEADS		
	IC503	TC74VHC00FT-X	IC				K 584	NQR0007-002X	FERRITE BEADS		
	IC504	HY57V161610DTC8	IC	HYUNDAI			K 585	NQR0007-002X	FERRITE BEADS		
	IC505	HY57V161610DTC8	IC	HYUNDAI			K 586	NQR0007-002X	FERRITE BEADS		
	IC551	JCE8011	IC(DIGITAL)				K 587	NQR0007-002X	FERRITE BEADS		
	IC552	MN4777AS-XE	IC C.M				K 589	NQR0007-002X	FERRITE BEADS		
	IC553	MSM531622F82G-X	IC				K 590	NQR0007-002X	FERRITE BEADS		
	IC554	MC44724AVFU	IC				K 591	NQR0007-002X	FERRITE BEADS		
	IC555	MC33269D-X	IC C.M				K 592	NQR0007-002X	FERRITE BEADS		
	K 101	NQR0007-002X	FERRITE BEADS				L 191	NQL044K-100X	INDUCTOR		
	K 102	NQR0007-002X	FERRITE BEADS				L 241	NQL044K-100X	INDUCTOR		
	K 103	NQR0007-002X	FERRITE BEADS				Q 101	2SB1424/QR/-X	TRANSISTOR		
	K 155	NQR0007-002X	FERRITE BEADS				Q 102	DTC124EE-X	DIGI TRANSISTOR		
	K 156	NQR0007-002X	FERRITE BEADS				Q 103	DTA124EE-X	DIGI TRANSISTOR		
	K 157	NQR0007-002X	FERRITE BEADS				Q 104	DTC124EE-X	DIGI TRANSISTOR		
	K 158	NQR0007-002X	FERRITE BEADS				Q 105	DTC144EE-X	TRANSISTOR		
	K 159	NQR0007-002X	FERRITE BEADS				Q 251	DTC144EE-X	TRANSISTOR		
	K 160	NQR0007-002X	FERRITE BEADS				Q 252	DTC144EE-X	TRANSISTOR		
	K 201	NQR0007-002X	FERRITE BEADS				Q 253	DTC144EE-X	TRANSISTOR		
	K 202	NQR0007-002X	FERRITE BEADS				Q 254	DTC144EE-X	TRANSISTOR		
	K 251	NQR0007-002X	FERRITE BEADS				Q 255	DTC144EE-X	TRANSISTOR		
	K 271	NQR0007-002X	FERRITE BEADS				R 101	NRS125J-270X	MG RESISTOR		
	K 301	NQR0007-002X	FERRITE BEADS				R 102	NRS125J-2R2X	MG RESISTOR		
	K 302	NQR0007-002X	FERRITE BEADS				R 103	NRSA63J-123X	MG RESISTOR		
	K 371	NQR0007-002X	FERRITE BEADS				R 104	NRSA63J-103X	MG RESISTOR		
	K 401	NQR0007-002X	FERRITE BEADS				R 106	NRSA63J-223X	MG RESISTOR		
	K 402	NQR0007-002X	FERRITE BEADS				R 108	NRSA63J-103X	MG RESISTOR		
	K 501	NQR0007-002X	FERRITE BEADS				R 109	NRSA63J-823X	MG RESISTOR		
	K 502	NQR0007-002X	FERRITE BEADS				R 110	NRSA63J-393X	MG RESISTOR		
	K 503	NQR0007-002X	FERRITE BEADS				R 112	NRVA63D-123X	MG RESISTOR		
	K 504	NQR0201-001X	FERRITE BEADS				R 113	NRSA63J-393X	MG RESISTOR		
	K 505	NQR0269-001X	FERRITE BEADS				R 114	NRSA63J-272X	MG RESISTOR		
	K 550	NQR0007-002X	FERRITE BEADS				R 115	NRSA63J-223X	MG RESISTOR		
	K 551	NQR0007-002X	FERRITE BEADS				R 116	NRSA63J-103X	MG RESISTOR		
	K 552	NQR0007-002X	FERRITE BEADS				R 117	NRSA63J-223X	MG RESISTOR		
	K 553	NQR0007-002X	FERRITE BEADS				R 118	NRSA63J-153X	MG RESISTOR		
	K 554	NQR0007-002X	FERRITE BEADS				R 119	NRSA63J-155X	MG RESISTOR		
	K 555	NQR0007-002X	FERRITE BEADS				R 120	NRVA63D-332X	MF RESISTOR		
	K 556	NQR0007-002X	FERRITE BEADS				R 121	NRSA63J-474X	MG RESISTOR		
	K 557	NQR0007-002X	FERRITE BEADS				R 122	NRSA63J-474X	MG RESISTOR		
	K 558	NQR0007-002X	FERRITE BEADS				R 123	NRSA63J-822X	MG RESISTOR		
	K 559	NQR0007-002X	FERRITE BEADS				R 124	NRSA63J-183X	MG RESISTOR		
	K 561	NQR0007-002X	FERRITE BEADS				R 125	NRSA63J-154X	MG RESISTOR		
	K 562	NQR0007-002X	FERRITE BEADS				R 126	NRSA63J-564X	MG RESISTOR		
	K 563	NQR0007-002X	FERRITE BEADS				R 127	NRSA63J-123X	MG RESISTOR		
	K 564	NQR0007-002X	FERRITE BEADS				R 128	NRSA63J-223X	MG RESISTOR		
	K 565	NQR0007-002X	FERRITE BEADS				R 129	NRSA63J-103X	MG RESISTOR		
	K 566	NQR0007-002X	FERRITE BEADS				R 130	NRSA63J-822X	MG RESISTOR		
	K 567	NQR0007-002X	FERRITE BEADS				R 131	NRSA63J-0R0X	MG RESISTOR		
	K 568	NQR0007-002X	FERRITE BEADS				R 151	NRSA63J-0R0X	MG RESISTOR		
	K 569	NQR0007-002X	FERRITE BEADS				R 152	NRSA63J-0R0X	MG RESISTOR		
	K 570	NQR0007-002X	FERRITE BEADS				R 153	NRSA63J-0R0X	MG RESISTOR		
	K 571	NQR0007-002X	FERRITE BEADS				R 154	NRSA63J-0R0X	MG RESISTOR		
	K 572	NQR0007-002X	FERRITE BEADS				R 201	NRSA63J-102X	MG RESISTOR		
	K 573	NQR0007-002X	FERRITE BEADS				R 202	NRSA63J-102X	MG RESISTOR		
	K 574	NQR0007-002X	FERRITE BEADS				R 203	NRSA63J-102X	MG RESISTOR		

■ Electrical parts list (DVD board)

Block No. 05

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	R 204	NRSA63J-102X	MG RESISTOR				R 272	NRSA63J-103X	MG RESISTOR		
	R 205	NRSA63J-473X	MG RESISTOR				R 273	NRSA63J-103X	MG RESISTOR		
	R 206	NRSA63J-102X	MG RESISTOR				R 274	NRSA63J-0R0X	MG RESISTOR		
	R 207	NRSA63J-473X	MG RESISTOR				R 275	NRSA63J-243X	MG RESISTOR		
	R 208	NRSA63J-102X	MG RESISTOR				R 276	NRSA63J-103X	MG RESISTOR		
	R 209	NRSA63J-473X	MG RESISTOR				R 277	NRSA63J-103X	MG RESISTOR		
	R 210	NRSA63J-473X	MG RESISTOR				R 278	NRSA63J-0R0X	MG RESISTOR		
	R 211	NRSA63J-102X	MG RESISTOR				R 279	NRSA63J-473X	MG RESISTOR		
	R 212	NRSA63J-102X	MG RESISTOR				R 280	NRSA63J-0R0X	MG RESISTOR		
	R 213	NRSA63J-183X	MG RESISTOR				R 282	NRSA63J-273X	MG RESISTOR		
	R 214	NRSA63J-822X	MG RESISTOR				R 283	NRSA63J-103X	MG RESISTOR		
	R 215	NRSA63J-473X	MG RESISTOR				R 284	NRSA63J-103X	MG RESISTOR		
	R 216	NRSA63J-473X	MG RESISTOR				R 285	NRSA63J-0R0X	MG RESISTOR		
	R 217	NRSA63J-0R0X	MG RESISTOR				R 286	NRSA63J-273X	MG RESISTOR		
	R 218	NRSA63J-0R0X	MG RESISTOR				R 287	NRSA63J-103X	MG RESISTOR		
	R 219	NRSA63J-0R0X	MG RESISTOR				R 288	NRSA63J-103X	MG RESISTOR		
	R 220	NRSA63J-472X	MG RESISTOR				R 289	NRSA63J-0R0X	MG RESISTOR		
	R 221	NRSA63J-0R0X	MG RESISTOR				R 290	NRSA63J-0R0X	MG RESISTOR		
	R 222	NRSA63J-0R0X	MG RESISTOR				R 301	NRSA63J-473X	MG RESISTOR		
	R 223	NRSA63J-0R0X	MG RESISTOR				R 302	NRSA63J-473X	MG RESISTOR		
	R 224	NRSA63J-0R0X	MG RESISTOR				R 303	NRSA63J-473X	MG RESISTOR		
	R 225	NRSA63J-0R0X	MG RESISTOR				R 304	NRSA63J-473X	MG RESISTOR		
	R 226	NRSA63J-0R0X	MG RESISTOR				R 305	NRSA63J-473X	MG RESISTOR		
	R 227	NRSA63J-0R0X	MG RESISTOR				R 306	NRSA63J-473X	MG RESISTOR		
	R 228	NRSA63J-103X	MG RESISTOR				R 307	NRSA63J-473X	MG RESISTOR		
	R 229	NRSA63J-0R0X	MG RESISTOR				R 308	NRSA63J-473X	MG RESISTOR		
	R 230	NRSA63J-103X	MG RESISTOR				R 310	NRSA63J-102X	MG RESISTOR		
	R 231	NRVA63D-683X	MF RESISTOR				R 311	NRSA63J-102X	MG RESISTOR		
	R 232	NRVA63D-683X	MF RESISTOR				R 312	NRSA63J-102X	MG RESISTOR		
	R 233	NRSA63J-103X	MG RESISTOR				R 313	NRSA63J-0R0X	MG RESISTOR		
	R 234	NRSA63J-103X	MG RESISTOR				R 314	NRSA63J-0R0X	MG RESISTOR		
	R 235	NRSA63J-473X	MG RESISTOR				R 317	NRSA63J-473X	MG RESISTOR		
	R 236	NRSA63J-123X	MG RESISTOR				R 318	NRSA63J-0R0X	MG RESISTOR		
	R 237	NRSA63J-0R0X	MG RESISTOR				R 319	NRSA63J-0R0X	MG RESISTOR		
	R 238	NRSA63J-223X	MG RESISTOR				R 322	NRSA63J-473X	MG RESISTOR		
	R 239	NRSA63J-333X	MG RESISTOR				R 324	NRSA63J-473X	MG RESISTOR		
	R 240	NRSA63J-333X	MG RESISTOR				R 328	NRSA63J-473X	MG RESISTOR		
	R 241	NRVA63D-362X	MG RESISTOR				R 342	NRSA63J-0R0X	MG RESISTOR		
	R 242	NRSA63J-102X	MG RESISTOR				R 343	NRSA63J-102X	MG RESISTOR		
	R 243	NRSA63J-472X	MG RESISTOR				R 371	NRSA63J-105X	MG RESISTOR		
	R 244	NRSA63J-102X	MG RESISTOR				R 372	NRSA63J-101X	MG RESISTOR		
	R 245	NRVA63D-103X	MF RESISTER				R 373	NRSA63J-0R0X	MG RESISTOR		
	R 246	NRVA63D-183X	MG RESISTOR				R 401	NRSA63J-102X	MG RESISTOR		
	R 247	NRVA63D-103X	MF RESISTER				R 402	NRSA63J-102X	MG RESISTOR		
	R 248	NRVA63D-183X	MG RESISTOR				R 403	NRSA63J-472X	MG RESISTOR		
	R 249	NRSA63J-102X	MG RESISTOR				R 405	NRSA63J-472X	MG RESISTOR		
	R 251	NRSA63J-271X	MG RESISTOR				R 408	NRSA63J-472X	MG RESISTOR		
	R 252	NRSA63J-271X	MG RESISTOR				R 410	NRSA63J-0R0X	MG RESISTOR		
	R 253	NRSA63J-0R0X	MG RESISTOR				R 411	NRSA63J-472X	MG RESISTOR		
	R 254	NRSA63J-0R0X	MG RESISTOR				R 412	NRSA63J-472X	MG RESISTOR		
	R 255	NRSA63J-103X	MG RESISTOR				R 413	NRSA63J-472X	MG RESISTOR		
	R 256	NRSA63J-103X	MG RESISTOR				R 414	NRSA63J-472X	MG RESISTOR		
	R 257	NRSA63J-103X	MG RESISTOR				R 415	NRSA63J-472X	MG RESISTOR		
	R 258	NRSA63J-103X	MG RESISTOR				R 416	NRSA63J-472X	MG RESISTOR		
	R 259	NRSA63J-103X	MG RESISTOR				R 418	NRSA63J-472X	MG RESISTOR		
	R 260	NRSA63J-562X	MG RESISTOR				R 420	NRSA63J-0R0X	MG RESISTOR		
	R 261	NRSA63J-563X	MG RESISTOR				R 421	NRSA63J-0R0X	M.G.RESISTOR		EE
	R 262	NRS125J-R47X	MG RESISTOR				R 422	NRSA63J-0R0X	M.G.RESISTOR		EE
	R 263	NRSA63J-103X	MG RESISTOR				R 423	NRSA63J-0R0X	MG RESISTOR		B.E.EN
	R 264	NRSA63J-103X	MG RESISTOR				R 424	NRSA63J-0R0X	MG RESISTOR		
	R 267	NRSA63J-103X	MG RESISTOR				R 431	NRSA63J-472X	MG RESISTOR		
	R 268	NRS181J-2R2X	MG RESISTOR				R 432	NRSA63J-472X	MG RESISTOR		
	R 271	NRSA63J-243X	MG RESISTOR				R 461	NRSA63J-0R0X	MG RESISTOR		

■ Electrical parts list (DVD board)

Block No. 05

△	Item	Parts number	Parts name	Remarks	Area
	R 462	NRSA63J-0R0X	MG RESISTOR		
	R 491	NRSA63J-472X	MG RESISTOR		
	R 492	NRSA63J-472X	MG RESISTOR		
	R 501	NRSA63J-102X	MG RESISTOR		
	R 502	NRSA63J-222X	MG RESISTOR		
	R 503	NRSA63J-103X	MG RESISTOR		
	R 504	NRSA63J-330X	MG RESISTOR		
	R 505	NRSA63J-330X	MG RESISTOR		
	R 506	NRSA63J-330X	MG RESISTOR		
	R 507	NRSA63J-330X	MG RESISTOR		
	R 508	NRSA63J-330X	MG RESISTOR		
	R 509	NRSA63J-330X	MG RESISTOR		
	R 510	NRSA63J-330X	MG RESISTOR		
	R 511	NRSA63J-330X	MG RESISTOR		
	R 512	NRSA63J-330X	MG RESISTOR		
	R 513	NRSA63J-330X	MG RESISTOR		
	R 514	NRSA63J-330X	MG RESISTOR		
	R 515	NRSA63J-330X	MG RESISTOR		
	R 516	NRSA63J-330X	MG RESISTOR		
	R 517	NRSA63J-330X	MG RESISTOR		
	R 518	NRSA63J-330X	MG RESISTOR		
	R 519	NRSA63J-330X	MG RESISTOR		
	R 520	NRSA63J-330X	MG RESISTOR		
	R 521	NRSA63J-330X	MG RESISTOR		
	R 522	NRSA63J-330X	MG RESISTOR		
	R 523	NRSA63J-181X	MG RESISTOR		
	R 524	NRSA63J-181X	MG RESISTOR		
	R 525	NRSA63J-181X	MG RESISTOR		
	R 526	NRSA63J-181X	MG RESISTOR		
	R 527	NRSA63J-181X	MG RESISTOR		
	R 528	NRSA63J-181X	MG RESISTOR		
	R 529	NRSA63J-181X	MG RESISTOR		
	R 530	NRSA63J-181X	MG RESISTOR		
	R 531	NRSA63J-330X	MG RESISTOR		
	R 532	NRSA63J-0R0X	MG RESISTOR		
	R 533	NRSA63J-330X	MG RESISTOR		
	R 534	NRSA63J-330X	MG RESISTOR		
	R 535	NRSA63J-330X	MG RESISTOR		
	R 536	NRSA63J-330X	MG RESISTOR		
	R 537	NRSA63J-330X	MG RESISTOR		
	R 538	NRSA63J-330X	MG RESISTOR		
	R 539	NRSA63J-330X	MG RESISTOR		
	R 540	NRSA63J-330X	MG RESISTOR		
	R 541	NRSA63J-0R0X	MG RESISTOR		
	R 542	NRSA63J-0R0X	MG RESISTOR		
	R 543	NRSA63J-0R0X	MG RESISTOR		
	R 544	NRSA63J-0R0X	MG RESISTOR		
	R 545	NRSA63J-472X	MG RESISTOR		
	R 546	NRSA63J-332X	MG RESISTOR		
	R 547	NRSA63J-222X	MG RESISTOR		
	R 548	NRSA63J-332X	MG RESISTOR		
	R 550	NRSA63J-0R0X	MG RESISTOR		
	R 554	NRSA63J-0R0X	MG RESISTOR		
	R 555	NRSA63J-0R0X	MG RESISTOR		
	R 557	NRSA63J-0R0X	MG RESISTOR		
	R 558	NRSA63J-102X	MG RESISTOR		
	R 559	NRSA63J-0R0X	MG RESISTOR		
	R 561	NRVA63D-221X	MMF RESISTOR		
	R 564	NRVA63D-152X	MG RESISTOR		
	R 565	NRVA63D-332X	MF RESISTOR		
	R 567	NRSA63J-0R0X	MG RESISTOR		
	R 568	NRVA63D-221X	MMF RESISTOR	CB OUT	
	R 569	NRVA63D-221X	MMF RESISTOR	CR OUT	

△	Item	Parts number	Parts name	Remarks	Area
	R 570	NRVA63D-221X	MMF RESISTOR		
	R 571	NRSA63J-100X	MG RESISTOR		
	R 572	NRSA63J-181X	MG RESISTOR		
	R 573	NRSA63J-181X	MG RESISTOR		
	R 574	NRSA63J-181X	MG RESISTOR		
	R 575	NRSA63J-181X	MG RESISTOR		
	R 576	NRSA63J-181X	MG RESISTOR		
	R 577	NRSA63J-181X	MG RESISTOR		
	R 578	NRSA63J-181X	MG RESISTOR		
	R 579	NRSA63J-181X	MG RESISTOR		
	R 580	NRSA63J-181X	MG RESISTOR		
	R 581	NRSA63J-101X	MG RESISTOR		
	R 582	NRSA63J-0R0X	MG RESISTOR		
	R 583	NRVA63D-471X	CMF RESISTOR		
	R 584	NRVA63D-103X	MF RESISTER		
	R 585	NRVA63D-471X	CMF RESISTOR		
	SP 1	PU59915-105	SPACER		
	X 371	NAX0277-002X	CRYSTAL		
	X 401	NAX0331-001X	C RESONATOR		

■ Electrical parts list (Tuner board)

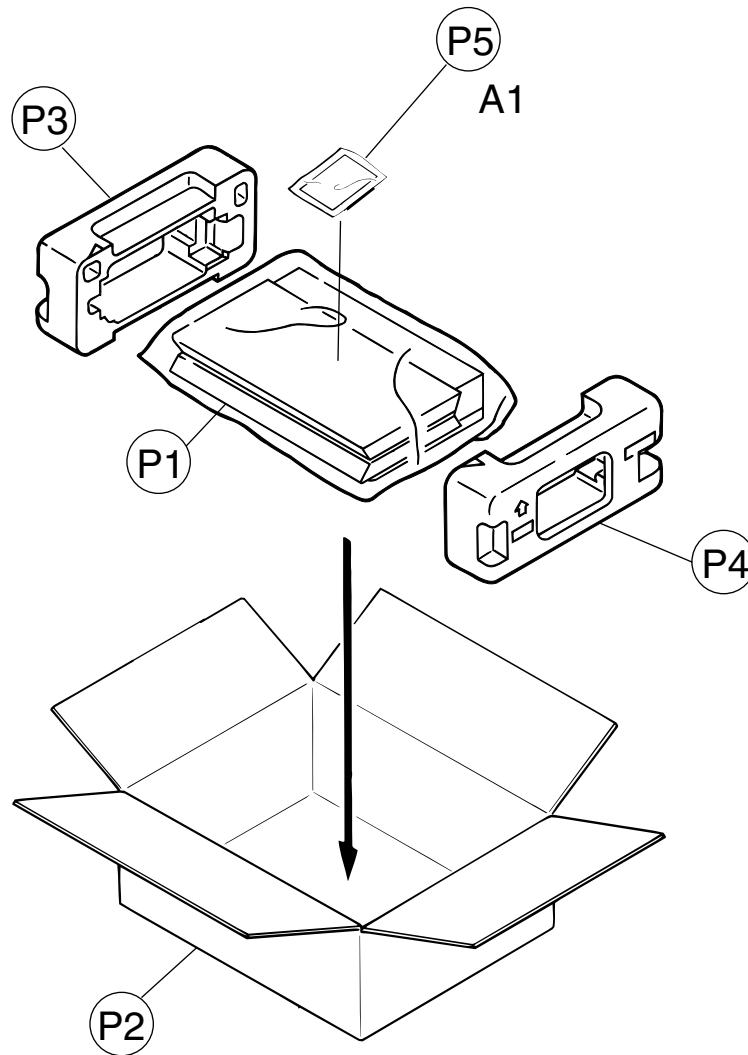
Block No. 06

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	AT101	QNB0014-001	ANT TERMINAL				Q 103	2SC461/BC/-T	TRANSISTOR		
	C 101	NCB21HK-103X	C CAPACITOR				Q 111	KTC3199/GL/-T	TRANSISTOR		
	C 103	NCB21HK-223X	C CAPACITOR				Q 112	KTC3199/GL/-T	TRANSISTOR		
	C 105	NCB21HK-223X	C CAPACITOR				Q 113	DTA114YKA-X	TRANSISTOR		
	C 107	QEK1CM-226Z	E CAPACITOR	22MF 20% 16V			Q 121	KRA103M-T	TRANSISTOR *		
	C 111	NCB21HK-473X	C CAPACITOR				R 103	NRSA02J-101X	MG RESISTOR		
	C 112	NDC21HJ-120X	C CAPACITOR				R 104	NRSA02J-272X	MG RESISTOR		
	C 113	QCSB1HJ-120Y	C CAPACITOR	12PF 5% 50V			R 105	NRSA02J-391X	MG RESISTOR		
	C 121	NDC21HJ-120X	C CAPACITOR				R 106	NRSA02J-102X	MG RESISTOR		
	C 122	NDC21HJ-120X	C CAPACITOR				R 107	NRSA02J-561X	MG RESISTOR		
	C 123	NCB21HK-473X	C CAPACITOR				R 108	NRSA02J-332X	MG RESISTOR		
	C 126	NCS21HJ-101X	C CAPACITOR				R 109	NRSA02J-221X	MG RESISTOR		
	C 128	QENC1HM-474Z	NP E.CAPACITOR	.47MF 20% 50V			R 111	NRSA02J-472X	MG RESISTOR		
	C 129	NCB21HK-102X	C CAPACITOR				R 112	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	C 130	QEK1AM-107Z	E.CAPACITOR	100MF 20% 10V			R 114	NRSA02J-122X	MG RESISTOR		
	C 133	QEK1CM-226Z	E CAPACITOR	22MF 20% 16V			R 115	NRSA02J-104X	MG RESISTOR		
	C 134	NCB21HK-222X	C CAPACITOR				R 119	NRSA02J-103X	MG RESISTOR		
	C 135	NCB21HK-223X	C CAPACITOR				R 122	NRSA02J-472X	MG RESISTOR		
	C 136	QEK1HM-105Z	E.CAPACITOR	1.0MF 20% 50V			R 124	NRSA02J-222X	MG RESISTOR		
	C 137	NCS21HJ-680X	C CAPACITOR				R 126	NRSA02J-562X	MG RESISTOR		
	C 139	NCB21HK-393X	C CAPACITOR				R 127	NRSA02J-822X	MG RESISTOR		
	C 140	NCB21HK-393X	C CAPACITOR				R 128	NRSA02J-472X	MG RESISTOR		
	C 141	NCB21HK-473X	C CAPACITOR				R 129	NRSA02J-222X	MG RESISTOR		
	C 143	NCB21HK-223X	C CAPACITOR				R 130	QRZ9005-680X	F.RESISTOR	68 1/4W	
	C 144	NCB21HK-473X	C CAPACITOR				R 132	NRSA02J-393X	MG RESISTOR		
	C 146	QEK1HM-105Z	E.CAPACITOR	1.0MF 20% 50V			R 133	NRSA02J-392X	MG RESISTOR		
	C 147	QEK1HM-105Z	E.CAPACITOR	1.0MF 20% 50V			R 134	NRSA02J-102X	MG RESISTOR		
	C 148	QEK1HM-224Z	E.CAPACITOR	.22MF 20% 50V			R 140	NRSA02J-563X	MG RESISTOR		
	C 149	QEK1HM-105Z	E.CAPACITOR	1.0MF 20% 50V			R 141	NRSA02J-102X	MG RESISTOR		
	C 150	QEK1CM-226Z	E CAPACITOR	22MF 20% 16V			R 142	NRSA02J-470X	MG RESISTOR		
	C 156	QDGB1HK-102Y	C CAPACITOR				R 143	NRSA02J-562X	MG RESISTOR		
	C 157	NCB21HK-473X	C CAPACITOR				R 144	NRSA02J-332X	MG RESISTOR		
	C 158	QEK1CM-226Z	E CAPACITOR	22MF 20% 16V			R 145	NRSA02J-103X	MG RESISTOR		
	C 161	QEK41CM-106	E.CAPACITOR	10MF 20% 16V			R 146	NRSA02J-472X	MG RESISTOR		
	C 162	QEK41CM-106	E.CAPACITOR	10MF 20% 16V			R 147	NRSA02J-332X	MG RESISTOR		
	C 163	NCB21HK-223X	C CAPACITOR				R 150	NRSA02J-331X	MG RESISTOR		
	C 164	NCB21HK-473X	C CAPACITOR				R 157	NRSA02J-272X	MG RESISTOR		
	C 168	QEK1HM-105Z	E.CAPACITOR	1.0MF 20% 50V			R 158	NRSA02J-272X	MG RESISTOR		
	C 184	QEK1CM-107Z	E.CAPACITOR	100MF 20% 16V			R 161	NRSA02J-102X	MG RESISTOR		
	C 185	QEK41CM-106	E.CAPACITOR	10MF 20% 16V			R 162	NRSA02J-102X	MG RESISTOR		
	C 186	QEK41CM-106	E.CAPACITOR	10MF 20% 16V			R 182	NRSA02J-103X	MG RESISTOR		
	C 191	NCS21HJ-820X	C CAPACITOR				R 183	NRSA02J-103X	MG RESISTOR		
	C 192	NCS21HJ-470X	C CAPACITOR				R 184	NRSA02J-103X	MG RESISTOR		
	C 193	NCB21HK-561X	C CAPACITOR				R 191	NRSA02J-102X	MG RESISTOR		
	C 194	NCB21HK-104X	C CAPACITOR				R 192	NRSA02J-474X	MG RESISTOR		
	C 195	NCB21HK-331X	C.CAPA. C.M				R 193	NRSA02J-103X	MG RESISTOR		
	C 196	QEK1HM-225Z	E.CAPACITOR	2.2MF 20% 50V			R 194	NRSA02J-103X	MG RESISTOR		
	C 197	NCB21HK-473X	C CAPACITOR				RF101	QAU0119-001	FRONT END	FOR FTZ	
	C 199	QEK41CM-106	E.CAPACITOR	10MF 20% 16V			T 111	QQR0871-001	COIL BLOCK		
	CF101	QAX0285-001Z	C.FILTER				T 142	QQR0973-001	IFT		
	CF102	QAX0285-001Z	C.FILTER				X 121	QAX0402-001	CRYSTAL		
	CF103	QAX0519-001Z	C FILTER				X 191	QAX0263-001Z	CRYSTAL		
	CN111	QGB2501K2-12	CONNECTOR								
	CN112	QGB2501K1-04	CONNECTOR								
	D 121	1SS133-T2	SI DIODE								
	D 123	1SS133-T2	SI DIODE								
	D 129	1SS133-T2	SI DIODE								
	D 131	1SS133-T2	SI DIODE								
	IC102	LA1838	IC								
	IC121	LC72136N	IC								
	IC191	SAA6588	IC(RDS)								
	L 112	QQL231K-2R7Y	INDUCTOR								
	Q 102	2SC535/BC/-T	TRANSISTOR								

Packing materials and accessories parts list

Block No. M 3 M M

Block No. M 4 M M



Parts list (Packing)

Block No. M3MM

Item	Parts number	Parts name	Q'ty	Description	Area
P 1	QPC06005515P	POLY BAG	1	FOR SET	
P 2	LV30580-029A	PACKING CASE	1		EE
	LV30580-028A	PACKING CASE	1		B,E,EN
P 3	LV20651-001A	PACKING PAD(L)	1		
P 4	LV20652-001A	PACKING PAD(R)	1		
P 5	QPA01702503P	POLY BAG	1	FOR W.CARD	

Parts list (Accessories)

Block No. M4MM

Item	Parts number	Parts name	Q'ty	Description	Area
A 1	BT-54008-2	WARRANTY CARD	1		B,E,EN
	BT-54012-1	WARRANTY CARD	1		EE

PARTS LIST

[SP-THA10]

* All printed circuit boards and its assemblies are not available as service parts.

Area suffix

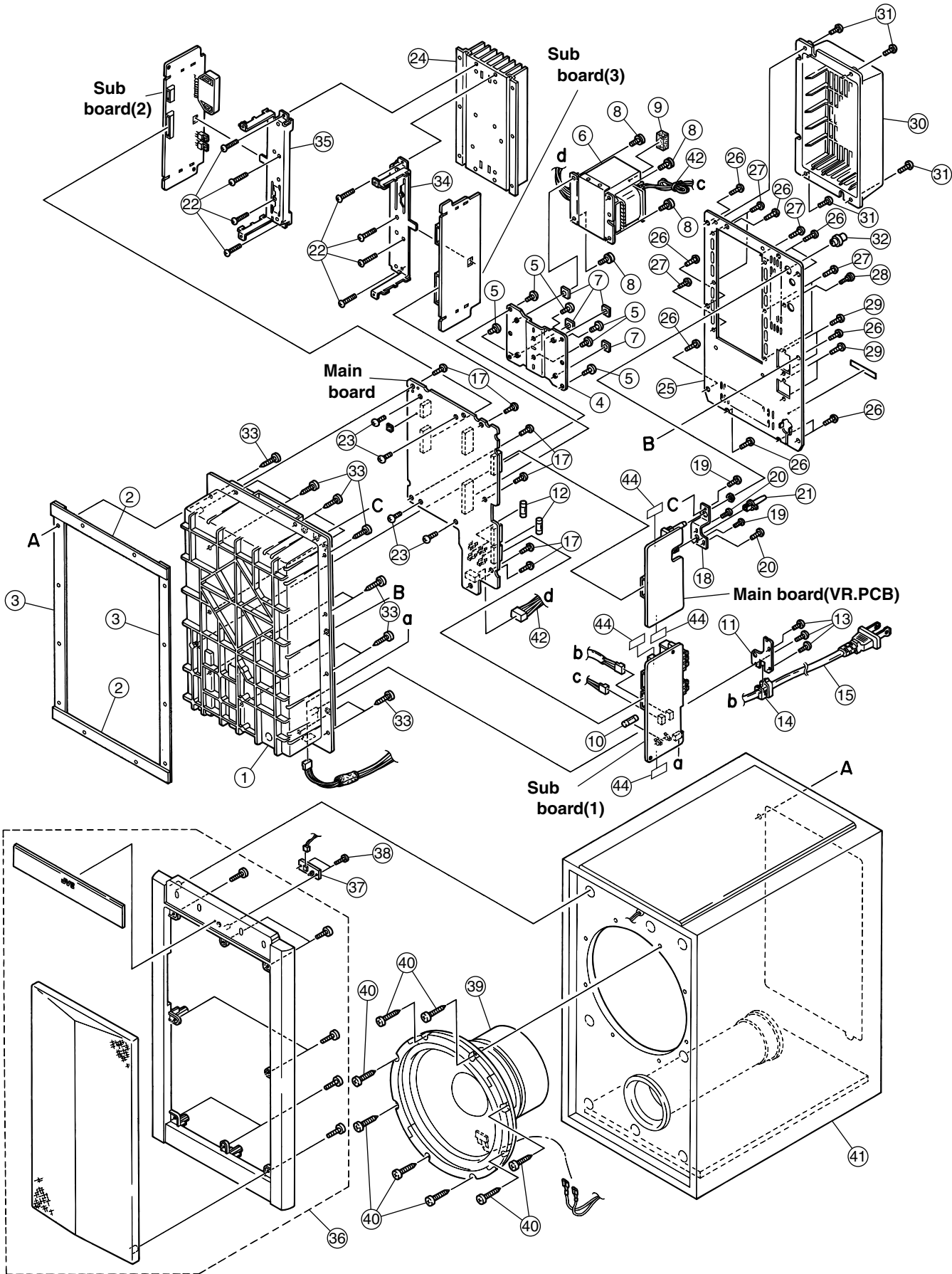
B ----- U.K.
 E ----- Continental Europe
 EN ----- Northern Europe
 EE ----- Russian Federation

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Exploded view of general assembly and parts list (SP-THA10)

Block No. M 5 M M



Parts list (Speaker assembly)

Block No. M5MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV10337-001A	MOLD BASE	1		
	2	LV30225-066A	SPACER	2		
	3	LV30225-067A	SPACER	2		
	4	LV31723-001A	TRANS BRACKET	1		
	5	QYSBSF4008Z	SCREW	6	FOR TRANS BKT	
△	6	QQT0297-003	P.TRANS	1		
	7	E406309-002	SPACER	4		
	8	QYSDSTL4010E	SPECIAL SCREW	4		
	9	LV30225-078A	SPACER	1		
△	10	QMF51E2-2R5-J1	FUSE	1	F403	
	11	LV41686-001A	AC BRACKET	1		
△	12	QMF51A2-8R0J1	FUSE	2	F504,F505	
	13	QYSBSF3008Z	SCREW	3		
△	14	QHS3771-108	CORD STOPPER	1		
△	15	QMPN160-200-JD	POWER CORD	1	MOTHER TO H.BKT	B
△		QMPK190-200-JC	POWER CORD	1	MOTHER TO H.BKT	E,EE,EN
	17	QYSBSF3008Z	SCREW	6		
	18	LV31756-001A	VOLUME BRACKET	1		
	19	QYSBSF3008Z	SCREW	2	FOR BOLUME BKT	
	20	QYSBST3006Z	T.SCREW	2	FOR PUSH SW	
	21	E407321-002SM	PUSH BUTTON	1		
	22	QYSBSG3016Z	T.SCREW	8	FOR TRTO H/S	
	23	QYSBSG3008E	T.SCREW	4	MOTHER TO H/SBK	
△	24	LV20656-001A	HEAT SINK	1		
	25	LV20654-005A	REAR PANEL	1		B,E,EN
		LV20654-006A	REAR PANEL	1		EE
	26	QYSDSF3008M	SCREW	10	TO MOLD BASE	
	27	QYSBSGY3008E	SPECIAL SCREW	6	FOR H/S	
	28	E73562-003	SPECIAL SCREW	1	DIN.REAR	
	29	QYSBSGY3008E	SPECIAL SCREW	4	FOR SPK	
	30	LV20655-001A	H.S.COVER	1		
	31	QYSBSG3008M	T.SCREW	4		
	32	LV30734-002A	KNOB	1		
	33	QYSDSA4020M	TAP SCREW	12		
	34	LV31722-003A	P.TR HOLDER	1		
	35	LV31722-002A	P.TR HOLDER	1		
	36	AA000017-01	SPEAKER NET	1		
	37	6600007411	CIR BOARD ASSY	1		
	38	7004690801	TAPPING SCREW	2		
	39	CR25000501	SPEAKER	1		
	40	7005942502	SCREW	8		
	41	AA000016-02	SPEAKER CABINET	1		
	42	QZW0004-001	WIRE CLAMP	2	FOR TRANS BKT	
	43	LV30225-093A	SPACER	2		
	44	LV30225-094A	SPACER	4		

Electrical parts list

■ Electrical parts list (Main board)

Block No. 07

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 100	QTE1H06-475Z	E CAPACITOR				C 551	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 101	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V			C 552	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 102	QTE1H06-475Z	E CAPACITOR				C 553	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 103	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V			C 554	QFVJ1HJ-103Z	TF CAPACITOR	.010MF 5% 50V	
	C 104	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V			C 555	QFVJ1HJ-103Z	TF CAPACITOR	.010MF 5% 50V	
	C 105	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V			C 556	QFVJ1HJ-103Z	TF CAPACITOR	.010MF 5% 50V	
	C 106	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V			C 557	QFVJ1HJ-103Z	TF CAPACITOR	.010MF 5% 50V	
	C 107	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V			C 558	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 108	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V			CN101	QGB2510K2-12	CONNECTOR		
	C 109	QTE1H06-475Z	E CAPACITOR				CN104	QGA3901C1-05	5P CONNECTOR		
	C 110	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V			CN201	QGB2510J1-12	CONNECTOR		
	C 111	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V			CN202	QGB2510J1-06	CONNECTOR		
	C 112	QTE1H06-475Z	E CAPACITOR				CN203	QGB2510J1-14	CONNECTOR		
	C 113	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V			CN205	EMV7163-020	CONNECTOR		
	C 114	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V			CN206	QGB2510J1-14	CONNECTOR		
	C 115	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V			CN210	QGB2510J1-10	CONNECTOR		
	C 116	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V			CN211	QGB2510J1-12	CONNECTOR		
	C 118	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V			D 500	1SS133-T2	SI DIODE		
	C 119	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V			D 501	1SS133-T2	SI DIODE		
	C 120	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V			D 502	MTZJ5.1C-T2	ZENER DIODE		
	C 121	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V			D 503	1SS133-T2	SI DIODE		
	C 122	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V			D 504	1SS133-T2	SI DIODE		
	C 123	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V			D 505	1SS133-T2	SI DIODE		
	C 124	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V			D 506	MTZJ30C-T2	ZENER DIODE		
	C 125	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V			D 508	MTZJ5.1B-T2	ZENER DIODE		
	C 126	QCS11HJ-100	C CAPACITOR	10PF 5% 50V			D 509	MTZJ12C-T2	ZENER DIODE		
	C 128	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			D 510	MTZJ12C-T2	ZENER DIODE		
	C 129	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			△ D 511	1N5402M-20	DIODE		
	C 500	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V		△	△ D 512	1N5402M-20	DIODE		
	C 501	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V		△	△ D 513	1N5402M-20	DIODE		
	C 502	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V		△	△ D 514	1N5402M-20	DIODE		
	C 503	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V		△	△ D 515	6A20G-E4	DIODE		
	C 504	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V		△	△ D 516	6A20G-E4	DIODE		
	C 505	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V		△	△ D 517	6A20G-E4	DIODE		
	C 506	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V		△	△ D 518	6A20G-E4	DIODE		
	C 507	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V			D 519	1SS133-T2	SI DIODE		
	C 508	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V			D 520	1SS133-T2	SI DIODE		
	C 509	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V			D 521	1SS133-T2	SI DIODE		
	C 510	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V			D 522	1SS133-T2	SI DIODE		
	C 511	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V			D 523	MTZJ15C-T2	Z DIODE		
	C 512	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V			D 524	MTZJ6.2B-T2	ZENER DIODE		
	C 513	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V			D 525	MTZJ6.2B-T2	ZENER DIODE		
	C 514	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V			D 526	MTZJ15C-T2	Z DIODE		
	C 515	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V			D 527	1SS133-T2	SI DIODE		
	C 516	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			D 528	1SS133-T2	SI DIODE		
	C 517	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V			D 530	1SS133-T2	SI DIODE		
	C 518	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			D 531	1SS133-T2	SI DIODE		
	C 519	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V			D 532	MTZJ30C-T2	ZENER DIODE		
	C 520	QEZ0223-478	E CAPACITER	4700MF			D 533	MTZJ6.2B-T2	ZENER DIODE		
	C 521	QEZ0223-478	E CAPACITER	4700MF			D 534	1SS133-T2	SI DIODE		
	C 522	QETM1EM-688	E CAPACITOR	6800MF 20% 25V			D 535	MTZJ15C-T2	Z DIODE		
	C 523	QETM1EM-688	E CAPACITOR	6800MF 20% 25V			D 536	1SS133-T2	SI DIODE		
	C 524	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V			IC100	BA3121	IC		
	C 525	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V			IC101	BA3121	IC		
	C 526	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V			IC102	BA3121	IC		
	C 527	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V			IC103	BA15218N	IC		
	C 528	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V			IC108	BA15218N	IC		
	C 529	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V			IC109	BA15218N	IC		
	C 530	QETN1CM-227Z	E CAPACITOR	220MF 20% 16V			IC110	BA15218N	IC		
	C 531	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			J 100	QND0079-001	DIN CONNECTOR		
	C 532	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V			K 100	QQR0786-001Z	INDUCTOR		
	C 533	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V			K 101	QQR0786-001Z	INDUCTOR		
	C 550	QETN1HM-335Z	E CAPACITOR	3.3MF 20% 50V			Q 500	DTA144ESA-T	DIGITAL.TR TAPE		

■ Electrical parts list (Main board)

Block No. 07

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	Q 501	DTC114ESA-T	DIGITAL.TR TAPE				R 515	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	Q 502	KTA1267/YG/-T	TRANSISTOR				R 516	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	Q 503	DTC114ESA-T	DIGITAL.TR TAPE			△	R 517	QRZ9005-100X	F.RESISTOR	10 1/4W	
	Q 504	KTC3199/GL/-T	TRANSISTOR				R 518	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	Q 505	DTC114ESA-T	DIGITAL.TR TAPE				R 519	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
△	Q 506	2SD2037/EF/-T	TRANSISTOR			△	R 520	QRZ9005-100X	F.RESISTOR	10 1/4W	
△	Q 507	2SA1359/OY/	TRANSISTOR				R 521	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	Q 508	KTC3199/GL/-T	TRANSISTOR				R 522	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	Q 509	KTC3199/GL/-T	TRANSISTOR				R 523	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	Q 510	DTA114ESA-T	DIGITAL.TR TAPE				R 524	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	Q 511	KTC3199/GL/-T	TRANSISTOR				R 525	QRL012J-271	UNF OMF.RES	270 5% 1/1W	
	Q 512	KTC3199/GL/-T	TRANSISTOR				R 526	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	Q 513	DTC144ESA-T	D.TRANSISTOR				R 527	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	Q 514	DTC115ESA-T	D.TRANSISTOR				R 528	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	Q 515	KTC3199/GL/-T	TRANSISTOR				R 529	QRE141J-753Y	C RESISTOR	75K 5% 1/4W	
	Q 516	KTA1267/YG/-T	TRANSISTOR				R 530	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	Q 517	KTC3199/GL/-T	TRANSISTOR				R 531	QRE141J-753Y	C RESISTOR	75K 5% 1/4W	
	Q 518	DTA114TSA-T	D.TRANSISTOR				R 532	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	Q 519	DTA114TSA-T	D.TRANSISTOR				R 533	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	Q 520	2SK105/EF/-T	TRANSISTOR(FET)				R 534	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	Q 521	2SK105/EF/-T	TRANSISTOR(FET)				R 535	QRE141J-224Y	C RESISTOR	220K 5% 1/4W	
	Q 522	KTC3199/GL/-T	TRANSISTOR			△	R 536	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	Q 523	DTA144ESA-T	DIGITAL.TR TAPE				R 537	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 100	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R 538	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 102	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R 539	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 104	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R 540	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 106	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R 541	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 108	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R 542	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 110	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R 543	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 112	QRE141J-101Y	C RESISTOR	100 5% 1/4W			R 544	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 113	QRE141J-100Y	C RESISTOR	10 5% 1/4W			R 545	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 114	QRE141J-100Y	C RESISTOR	10 5% 1/4W			R 546	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 115	QRE141J-100Y	C RESISTOR	10 5% 1/4W			R 547	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 116	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			R 548	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 118	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			R 549	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 119	QRE141J-100Y	C RESISTOR	10 5% 1/4W			R 550	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 121	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R 551	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 122	QRE141J-100Y	C RESISTOR	10 5% 1/4W			R 552	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 123	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R 553	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 124	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W			R 554	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 130	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			R 555	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 132	QRE141J-123Y	C RESISTOR	12K 5% 1/4W			R 556	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 133	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R 557	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 134	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R 558	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 135	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R 559	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 136	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R 560	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 137	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R 561	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 138	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R 562	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 139	QRE141J-471Y	C RESISTOR	470 5% 1/4W			R 563	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 500	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W			R 564	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 501	QRE141J-183Y	C RESISTOR	18K 5% 1/4W			R 565	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 502	QRE141J-100Y	C RESISTOR	10 5% 1/4W			R 566	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 504	QRE141J-100Y	C RESISTOR	10 5% 1/4W			R 567	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 505	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W			R 568	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 506	QRE141J-183Y	C RESISTOR	18K 5% 1/4W			R 570	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 507	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W			S 100	QSW0834-001	PUSH SW		
	R 508	QRE141J-183Y	C RESISTOR	18K 5% 1/4W			VR100	QVQ0021-B14	V.RES		
	R 509	QRE141J-100Y	C RESISTOR	10 5% 1/4W			Z 500	QNG0020-001Z	FUSE CLIP		
	R 510	QRE141J-100Y	C RESISTOR	10 5% 1/4W			Z 501	QNG0020-001Z	FUSE CLIP		
	R 511	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W			Z 502	QNG0020-001Z	FUSE CLIP		
	R 512	QRE141J-183Y	C RESISTOR	18K 5% 1/4W			Z 503	QNG0020-001Z	FUSE CLIP		
	R 513	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W							
	R 514	QRE141J-183Y	C RESISTOR	18K 5% 1/4W							

■ Electrical parts list (Sub board)

Block No. 08

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area	
	C 202	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V			C 337	QCB1HK-221Y	C CAPACITOR	220PF 10% 50V		
	C 203	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V			C 338	QCSB1HK-3R3Y	C CAPACITOR	3.3PF 10% 50V		
	C 204	QFVF1HJ-184Z	TF CAPACITOR	.18MF 5% 50V			C 339	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V		
	C 205	QFN31HJ-393Z	M CAPACITOR	.039MF 5% 50V			C 340	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V		
	C 206	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V			C 350	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V		
	C 207	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V			C 351	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V		
	C 208	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C 352	QFN31HJ-392Z	M.CAPACITOR	3900PF 5% 50V		
	C 209	QFN31HJ-471Z	M.CAPACITOR	470PF 5% 50V			C 353	QFN31HJ-392Z	M.CAPACITOR	3900PF 5% 50V		
	C 210	QTE1H06-475Z	E CAPACITOR			△	C 400	QFZ9051-103	MM CAPACITOR	.010MF		
	C 211	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V			C 402	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V		
	C 212	QETN1HM-107Z	E CAPACITOR	100MF 20% 50V			C 403	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V		
	C 213	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			C 404	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V		
	C 214	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V			C 405	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V		
	C 215	QCS31HJ-3R0Z	C CAPACITOR	3.0PF 5% 50V			C 406	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V		
	C 216	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C 407	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V		
	C 217	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C 408	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V		
	C 218	QFVF1HJ-224Z	TF CAPACITOR	.22MF 5% 50V			C 409	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V		
	C 219	QFVF1HJ-224Z	TF CAPACITOR	.22MF 5% 50V			C 410	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V		
	C 223	QCS11HJ-100	C CAPACITOR	10PF 5% 50V			C 411	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V		
	C 225	QETN2AM-226Z	E CAPACITOR	22MF 20% 100V			C 412	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V		
	C 226	QFN31HJ-103Z	M CAPACITOR	.010MF 5% 50V			CN102	QGB2510K2-06	CONNECTOR			
	C 227	QFVJ1HJ-103Z	TF CAPACITOR	.010MF 5% 50V			CN103	QGB2510K2-14	CONNECTOR			
	C 228	QFVJ1HJ-103Z	TF CAPACITOR	.010MF 5% 50V			CN105	EMV5163-020R	SOCKET			
	C 229	QFVJ1HJ-223Z	TF CAPACITOR	.022MF 5% 50V			CN106	QGB2510K2-14	CONNECTOR			
	C 230	QFVJ1HJ-223Z	TF CAPACITOR	.022MF 5% 50V			CN107	QGA7901C1-02	CONNECTOR			
	C 231	QFN31HJ-103Z	M CAPACITOR	.010MF 5% 50V			CN108	QGA7901C1-02	CONNECTOR			
	C 232	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			CN109	QGA3901F2-04	CONNECTOR			
	C 233	QFV61HJ-104Z	TF CAPACITOR	.10MF 5% 50V			CN110	QGB2510K2-10	CONNECTOR			
	C 300	QFN31HJ-471Z	M.CAPACITOR	470PF 5% 50V			CN111	QGB2510K2-12	CONNECTOR			
	C 301	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V			D 202	1SS133-T2	SI DIODE			
	C 302	QCB1HK-221Y	C CAPACITOR	220PF 10% 50V			D 203	1SS133-T2	SI DIODE			
	C 303	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V			△	D 204	1N5402M-20	DIODE		
	C 304	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			D 205	MTZJ15C-T2	Z DIODE			
	C 305	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V			D 206	MTZJ6.2B-T2	ZENER DIODE			
	C 306	QCSB1HK-3R3Y	C CAPACITOR	3.3PF 10% 50V			D 207	1SS133-T2	SI DIODE			
	C 307	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V			D 208	SLR-325MG-T	LED I M			
	C 308	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V			D 209	SLR-325MG-T	LED I M			
	C 309	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V			D 210	1SS133-T2	SI DIODE			
	C 310	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V			D 211	1SS133-T2	SI DIODE			
	C 311	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			D 212	MTZJ6.2B-T2	ZENER DIODE			
	C 312	QCB1HK-221Y	C CAPACITOR	220PF 10% 50V			D 214	MTZJ15C-T2	Z DIODE			
	C 313	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V			△	D 215	1N5402M-20	DIODE		
	C 314	QFN31HJ-471Z	M.CAPACITOR	470PF 5% 50V			D 216	1SS133-T2	SI DIODE			
	C 315	QCSB1HK-3R3Y	C CAPACITOR	3.3PF 10% 50V			D 217	MTZJ6.2B-T2	ZENER DIODE			
	C 316	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V			D 218	1SS133-T2	SI DIODE			
	C 317	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V			D 219	1SS133-T2	SI DIODE			
	C 319	QTE1H06-475Z	E CAPACITOR				D 300	1SS133-T2	SI DIODE			
	C 320	QCB1HK-221Y	C CAPACITOR	220PF 10% 50V			D 301	1SS133-T2	SI DIODE			
	C 321	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			D 302	1SS133-T2	SI DIODE			
	C 322	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			D 303	1SS133-T2	SI DIODE			
	C 323	QCSB1HK-3R3Y	C CAPACITOR	3.3PF 10% 50V			D 304	1SS133-T2	SI DIODE			
	C 324	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V			D 400	1SS133-T2	SI DIODE			
	C 325	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V			D 401	1SR35-400A-T5	DIODE I/M			
	C 326	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			IC104	BA15218N	IC			
	C 327	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			△	IC105	STK404-130	IC		
	C 328	QCB1HK-221Y	C CAPACITOR	220PF 10% 50V			△	IC106	STK402-030	IC		
	C 329	QTE1H06-475Z	E CAPACITOR				△	IC107	STK402-230	IC		
	C 330	QFN31HJ-471Z	M.CAPACITOR	470PF 5% 50V			IC201	BA15218N	IC			
	C 331	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V			IC202	BA15218N	IC			
	C 332	QCSB1HK-3R3Y	C CAPACITOR	3.3PF 10% 50V			J 101	QNB0065-002	SPK TERMINAL			
	C 333	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V			J 102	QNB0070-002	SPK TERMINAL			
	C 334	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V			L 200	QQLZ003-1R0	INDUCTOR			
	C 336	QTE1H06-475Z	E CAPACITOR				L 300	QQLZ003-1R0	INDUCTOR			

■ Electrical parts list (Sub board)

Block No. 08

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	L 301	QQLZ003-1R0	INDUCTOR				R 250	QRE141J-475Y	C RESISTOR	4.7M 5% 1/4W	
	L 302	QQLZ003-1R0	INDUCTOR				R 251	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	L 303	QQLZ003-1R0	INDUCTOR				R 252	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	L 304	QQLZ003-1R0	INDUCTOR				R 253	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	LC400	QQR0797-002	INDUCTOR				R 254	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	LC401	QQR0797-002	INDUCTOR				R 255	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	LC402	QQLZ005-R45	INDUCTOR				R 256	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	LC403	QQLZ005-R45	INDUCTOR				R 257	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	LC404	QQLZ005-R45	INDUCTOR				R 258	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	MR200	QRZ0197-R22	EMIT.RESISTOR	1/1W			R 259	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	Q 202	2SA1038S/SE/-T	TRANSISTOR				R 260	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	Q 204	2SK2391	POW.MOS-FET				R 261	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	Q 205	DTA114TSA-T	D.TRANSISTOR				R 262	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	Q 206	2SC2389S/SE/-T	TRANSISTOR				R 263	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	Q 207	2SA1038S/SE/-T	TRANSISTOR				R 264	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	Q 208	2SK2391	POW.MOS-FET				R 265	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	Q 209	2SC2389S/SE/-T	TRANSISTOR				R 266	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	Q 210	2SK105/EF/-T	TRANSISTOR(FET)				R 267	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	Q 211	DTC114TSA-T	D.TRANSISTOR				R 268	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	Q 300	KTA1267/YG/-T	TRANSISTOR				R 269	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	Q 301	KTA1267/YG/-T	TRANSISTOR				R 270	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	Q 302	KTA1267/YG/-T	TRANSISTOR				R 271	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	Q 303	KTA1267/YG/-T	TRANSISTOR				R 272	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	Q 304	KTA1267/YG/-T	TRANSISTOR				R 273	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 200	QRE141J-223Y	C RESISTOR	22K 5% 1/4W			R 274	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 201	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			R 275	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 208	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			R 276	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 209	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W			R 277	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 210	QRE141J-103Y	C RESISTOR	10K 5% 1/4W			R 300	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 211	QRE141J-103Y	C RESISTOR	10K 5% 1/4W			R 301	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 212	QRE141J-100Y	C RESISTOR	10 5% 1/4W			R 302	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
	R 213	QRE141J-100Y	C RESISTOR	10 5% 1/4W			△ R 303	QRZ9015-101X	F.RESISTOR	100 1/0W	
	R 214	QRE141J-103Y	C RESISTOR	10K 5% 1/4W			R 304	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 215	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W			R 305	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 216	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W			R 306	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 217	QRE141J-563Y	C RESISTOR	56K 5% 1/4W			R 307	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
△	R 218	QRZ9015-221X	F.RESISTOR	220 1/0W			R 308	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
△	R 219	QRZ9015-221X	F.RESISTOR	220 1/0W			R 309	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 220	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W			R 310	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 221	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W			R 311	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R 222	QRE141J-563Y	C RESISTOR	56K 5% 1/4W			R 312	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 223	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R 313	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 224	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			R 314	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 225	QRE141J-183Y	C RESISTOR	18K 5% 1/4W			△ R 315	QRZ9015-101X	F.RESISTOR	100 1/0W	
	R 226	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W			R 316	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
	R 227	QRE141J-4R7Y	C RESISTOR	4.7 5% 1/4W			R 317	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 230	QRE141J-471Y	C RESISTOR	470 5% 1/4W			R 318	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 231	QRE141J-103Y	C RESISTOR	10K 5% 1/4W			R 319	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 235	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W			R 320	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R 236	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			R 321	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 237	QRE141J-103Y	C RESISTOR	10K 5% 1/4W			R 322	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 238	QRE141J-103Y	C RESISTOR	10K 5% 1/4W			R 323	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 239	QRE141J-563Y	C RESISTOR	56K 5% 1/4W			R 324	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 240	QRE141J-823Y	C RESISTOR	82K 5% 1/4W			R 325	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 241	QRE141J-103Y	C RESISTOR	10K 5% 1/4W			R 326	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 242	QRE141J-103Y	C RESISTOR	10K 5% 1/4W			R 327	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
	R 243	QRE141J-103Y	C RESISTOR	10K 5% 1/4W			△ R 328	QRZ9015-101X	F.RESISTOR	100 1/0W	
	R 244	QRE141J-103Y	C RESISTOR	10K 5% 1/4W			R 329	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 245	QRE141J-563Y	C RESISTOR	56K 5% 1/4W			R 330	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 246	QRE141J-823Y	C RESISTOR	82K 5% 1/4W			R 331	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 247	QRE141J-394Y	C RESISTOR	390K 5% 1/4W			R 332	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 248	QRE141J-334Y	C RESISTOR	330K 5% 1/4W			R 333	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 249	QRE141J-475Y	C RESISTOR	4.7M 5% 1/4W			R 334	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	

■ Electrical parts list (Sub board)

Block No. 08

△	Item	Parts number	Parts name	Remarks	Area
	R 335	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 336	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R 337	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 338	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 339	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
△	R 340	QRZ9015-101X	F.RESISTOR	100 1/0W	
	R 341	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
	R 342	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 343	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 344	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 345	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R 346	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 347	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 348	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 349	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 350	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 351	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 352	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
	R 353	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 354	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 355	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 356	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 357	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 358	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 359	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R 360	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 370	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R 371	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R 372	QRE141J-162Y	C RESISTOR	1.6K 5% 1/4W	
	R 373	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R 374	QRE141J-162Y	C RESISTOR	1.6K 5% 1/4W	
	R 375	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 376	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 377	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R 378	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 379	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R 400	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 401	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 402	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 403	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 404	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
△	RY400	QSK0055-001	RELAY		
	RY401	QSK0095-001	RELAY		
	RY402	QSK0095-001	RELAY		
	RY403	QSK0095-001	RELAY		
	Z 400	QNG0020-001Z	FUSE CLIP		
	Z 401	QNG0020-001Z	FUSE CLIP		

— MEMO —

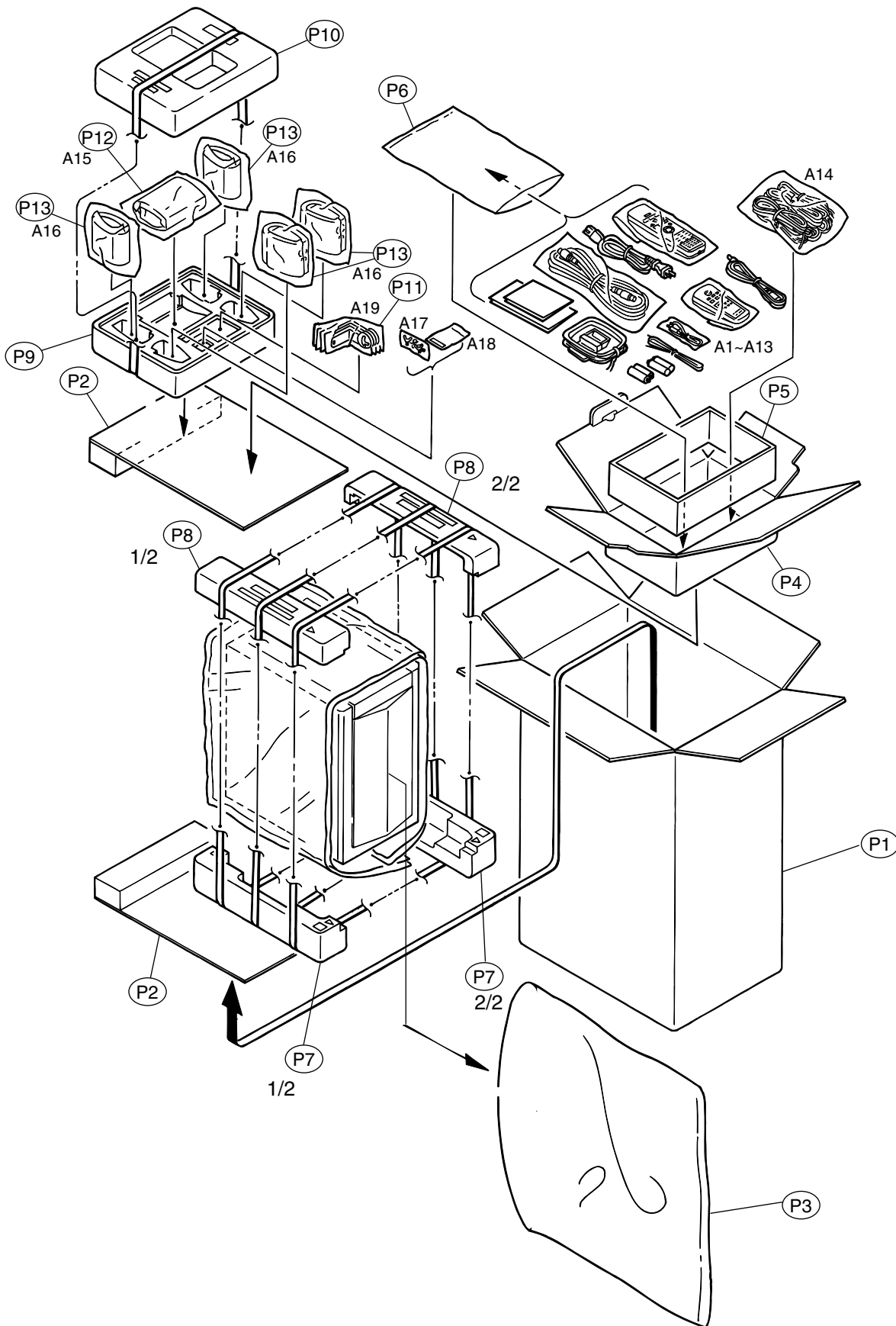
Packing materials and accessories parts list

Block No.

M	6	M	M
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Block No.

M	7	M	M
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■ Parts list (Packing)

Block No. M6MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	LV32243-001A	CARTON	1		
	P 2	LV41665-001A	PROTECTOR	2		
	P 3	QPA10010005P	POLY BAG	1	FOR SPK	
	P 4	LV31968-001A	ACC.BOX	1		
	P 5	LV31983-001A	CARTON SHEET	1		
	P 6	QPA02504507P	POLY BAG	1	FOR ACC	EE
		QPA03004507P	POLY BAG	1	FOR ACC	B,E,EN
	P 7	8000042211	BOTTOM CUSHION	1		
	P 8	8000042201	TOP CUSHION	1		
	P 9	8000042111	BOTTOM CUSHION	1		
	P 10	8000042101	TOP CUSHION	1		
	P 11	8500035701	POLY BAG	4	FOR BKT	
	P 12	8500032771	POLY BAG	1	FOR SPK BOX	
	P 13	8500032761	POLY BAG	4	FOR SPK BOX	

■ Parts list (Accessories)

Block No. M7MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	LVT0516-003A	INST.BOOK	1	DAN	EN
		LVT0516-001A	INST.BOOK	1	ENG	B
		LVT0517-001A	INST.BOOK-2	1	ENG	B
		LVT0517-002A	INST.BOOK-2	1	SPA	E
		LVT0517-004A	INST.BOOK-2	1	RUS	EE
		LVT0516-002A	INST.BOOK	1	ENG,GER,FRE,DUT	E
		LVT0517-003A	INST.BOOK-2	1	SWE	EN
		LVT0516-002A	INST.BOOK	1	SPA,ITA	E
		LVT0516-003A	INST.BOOK	1	GER,FRE,SWE,FIN	EN
		LVT0517-007A	INST.BOOK-2	1	ITA	E
		LVT0517-008A	INST.BOOK-2	1	FIN	EN
		LVT0517-012A	INST.BOOK-2	1	DUT	E,EN
		LVT0517-011A	INST.BOOK-2	1	FRE	E,EN
		LVT0517-009A	INST.BOOK-2	1	DEN	EN
		LVT0517-010A	INST.BOOK-2	1	GER	E,EN
		LVT0516-004A	INST.BOOK	1	RUS	EE
	A 3	E43486-340A	SAFETY SHEET	1		B
	A 4	VNA3000-202	REGISTER CARD	1		B
△	A 5	QMP39F0-183E	POWER CORD	1		E,EE,EN
△		QMPP060-183-JD	POWER CORD	1		B
	A 6	QAM0239-002	SYSTEM CABLE	1		
	A 7	RM-STHA10R	W.LESS REMOCON	1		
	A 8	RM-STHA10EC	W.LESS REMOCON	1		
	A 9	-----	BATTERY	2		
	A 10	QAM0236-001	VIDEO CABLE	1		
	A 11	EWP805-001W	PLUG CORD ASSY	1		
	A 12	QAL0014-001	LOOP ANTENNA	1		
	A 13	EWP503-001C	ANTENNA WIRE	1		
	A 14	LV41663-002A	SPK CORD ASSY	1		
	A 15	SP-XCA10J	SPEAKER BOX	1		
	A 16	SP-XSA10J	SPEAKER BOX	4		
	A 17	7200035901	BOLT	4		
	A 18	8600005001	FOOT	1		
	A 19	6400017301	SUB BRACKET	4		

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SERVICE MANUAL

DVD DIGITAL THEATER SYSTEM

TH-A10

Supplement

Areas suffix

J ----- U.S.A.
C ----- Canada

- The following are the altered sections on the previously issued [TH-A10 Service Manual] No. 20828.
 1. Correction on page 2-18 Fig. 1
"XV-511BK" (error) --> "DVD player" (correct)
 2. "Check points for each error" (on pages 2-20 to 2-21) are deleted.
 3. "Block diagrams" (on pages 2-60 to 2-63) are revised.

(4) Flap adjustment of the Pick-up guide shaft

- 1) Make sure that there is no disc on the tray.
- 2) Press both the "PLAY" and "OPEN/CLOSE" keys of the main unit to activate the primary power and "TEST 2 D2" will be displayed on the FL indicator.

Note: If the FL indicator display stops and remains at "TEST 0", unplug the power cord from the outlet and after waiting at least 1 second, plug it in again. After the tray open/close procedure has completed, unplug it again and then perform the initialization procedure again.

- 3) Press the "OPEN/CLOSE" key of the main unit to draw the tray out.
*Place the test disk (VT-501) on the tray and then press the "OPEN/CLOSE" key.
(Note: Pushing the tray to close it is not possible.)
- 4) Press the "PLAY" key of the main unit.
- 5) The "JIT 0000" is displayed on the FL indicator.
Set the FL indicator figure value to its minimum by adjusting the pickup guide shaft flap.
* The test mode is cancelled when the power is turned off.

Measurement	Adjustment point	Mode	Disc
	Refer to Fig.2	Reproduction part	VT-501
Measurement machine	connections	Extension cord No.	
No need	Refer to Fig.1	QUQ110-3740AM	
General tool : Hex-head wrench (1.27 mm)			

Perform the "Flap adjustment" of the Pick-up guide shaft by adjusting "Tangential adjustment machine screw" A and "Tilt adjustment machine screw" B on the DVD Mechanism A'ssy bottom.

1. Playback the central part on the DVD test disc.
2. The flap adjustment screws is turned alternately and adjusted like clearly seeing the waveform of CN104"1" to the way.

Note

1. Proceed to the tilt adjustment after having completed the tangential adjustment.
2. Repeat the adjustment 2-3 times to get result.
3. The final adjustment is by tilting.

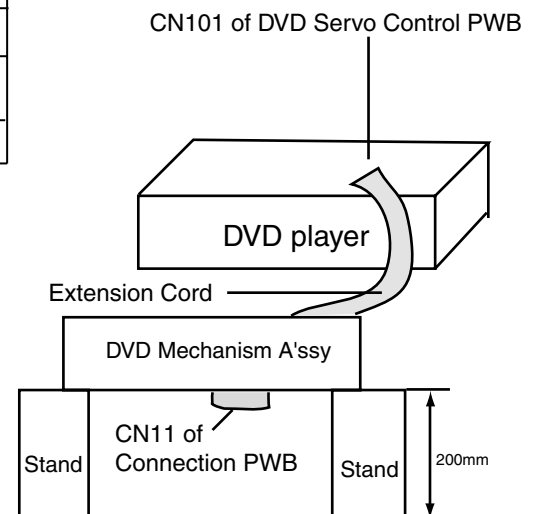


Fig.1

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AUDIO & COMMUNICATION BUSINESS DIVISION
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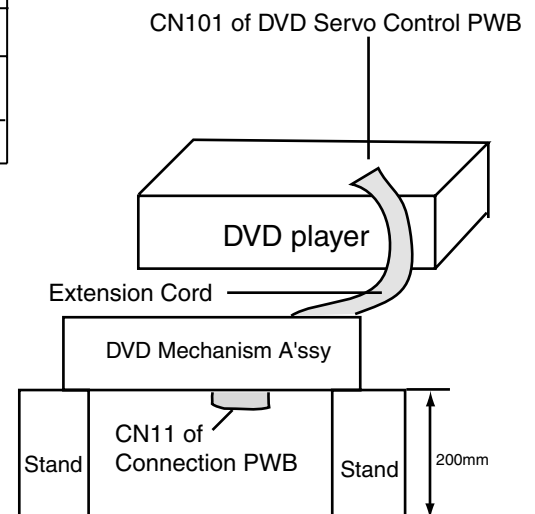


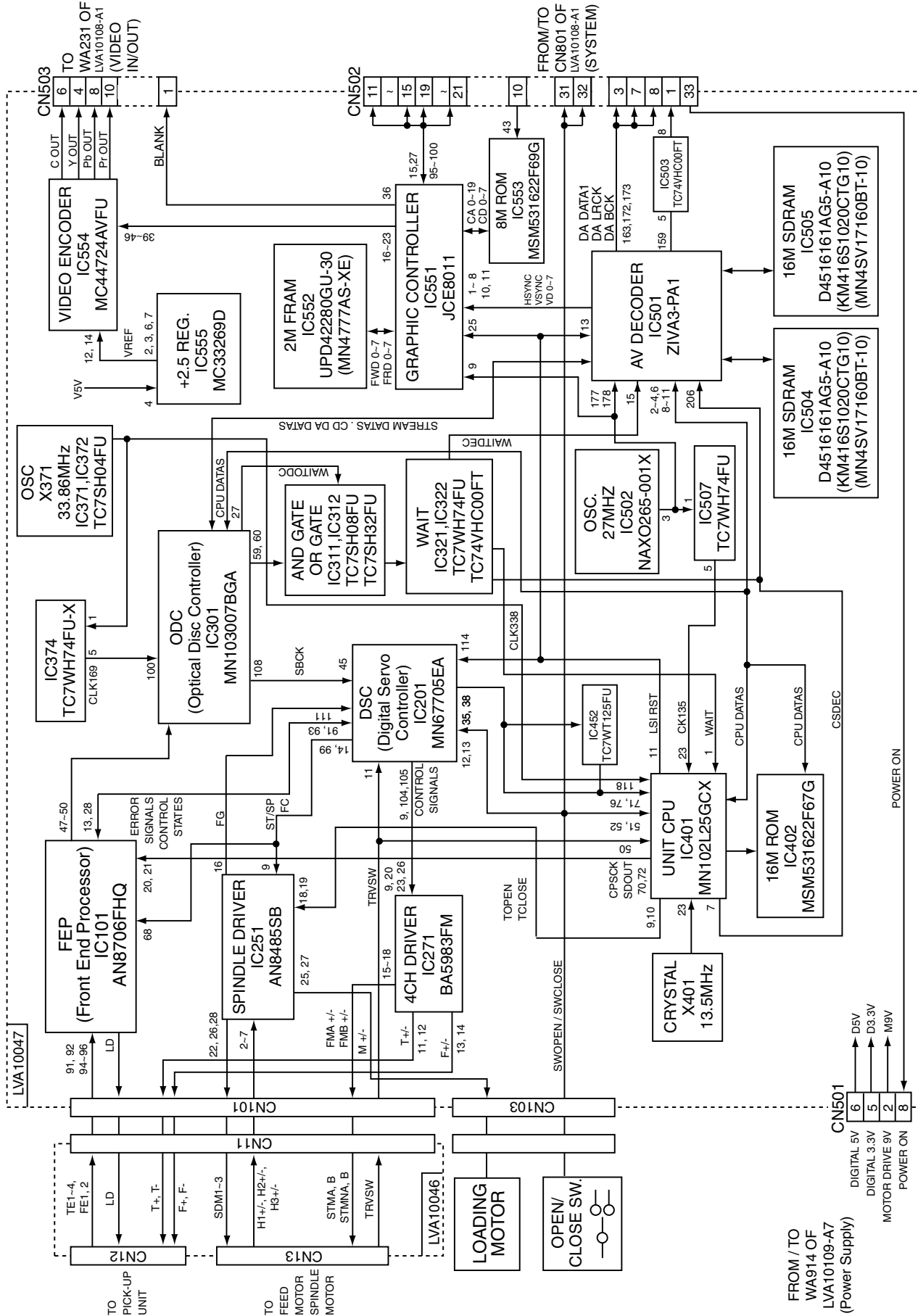
Fig.1

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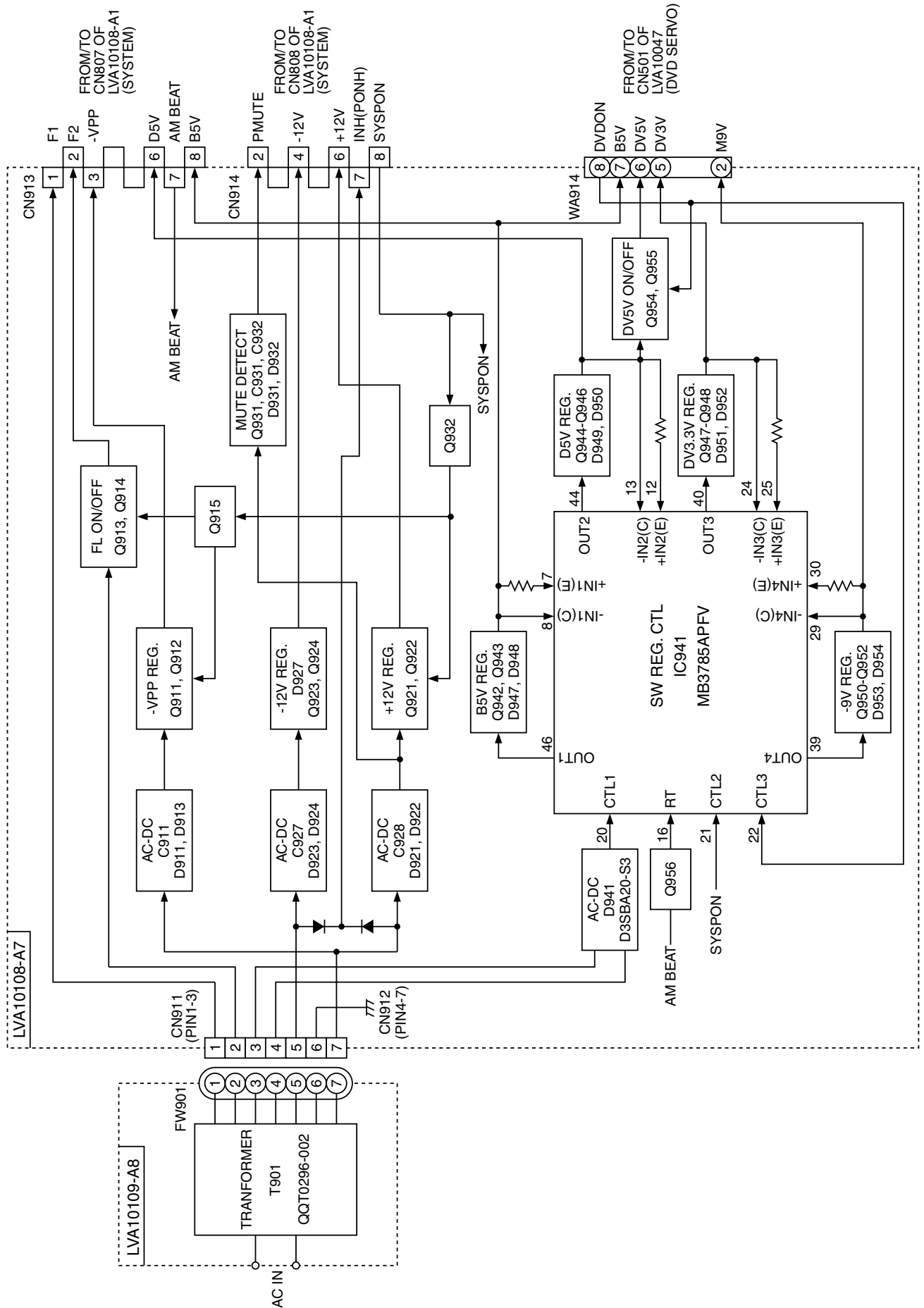
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Block diagrams

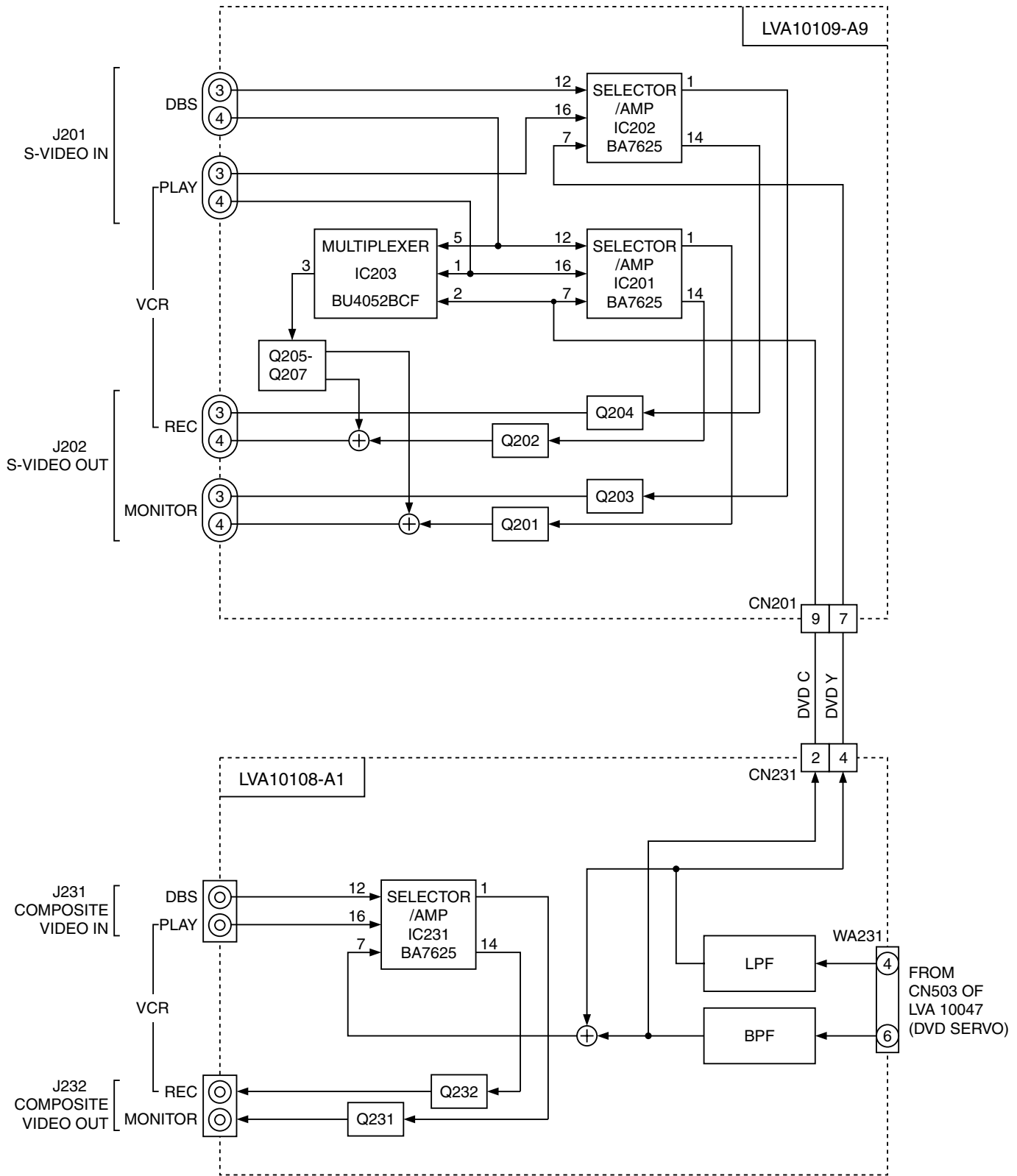
■ Block diagrams (DVD servo control Section)



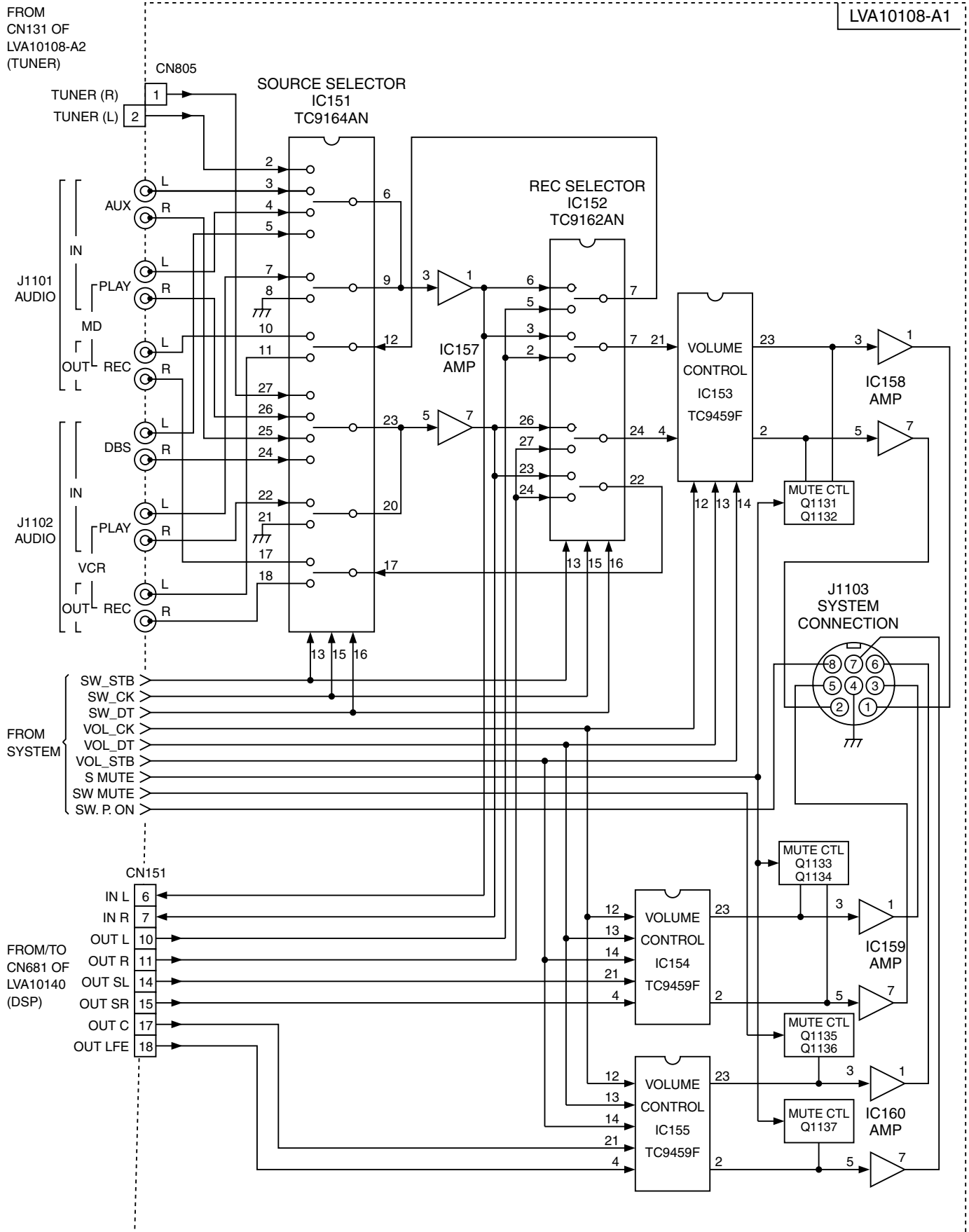
■ Block diagrams (Power supply Section)



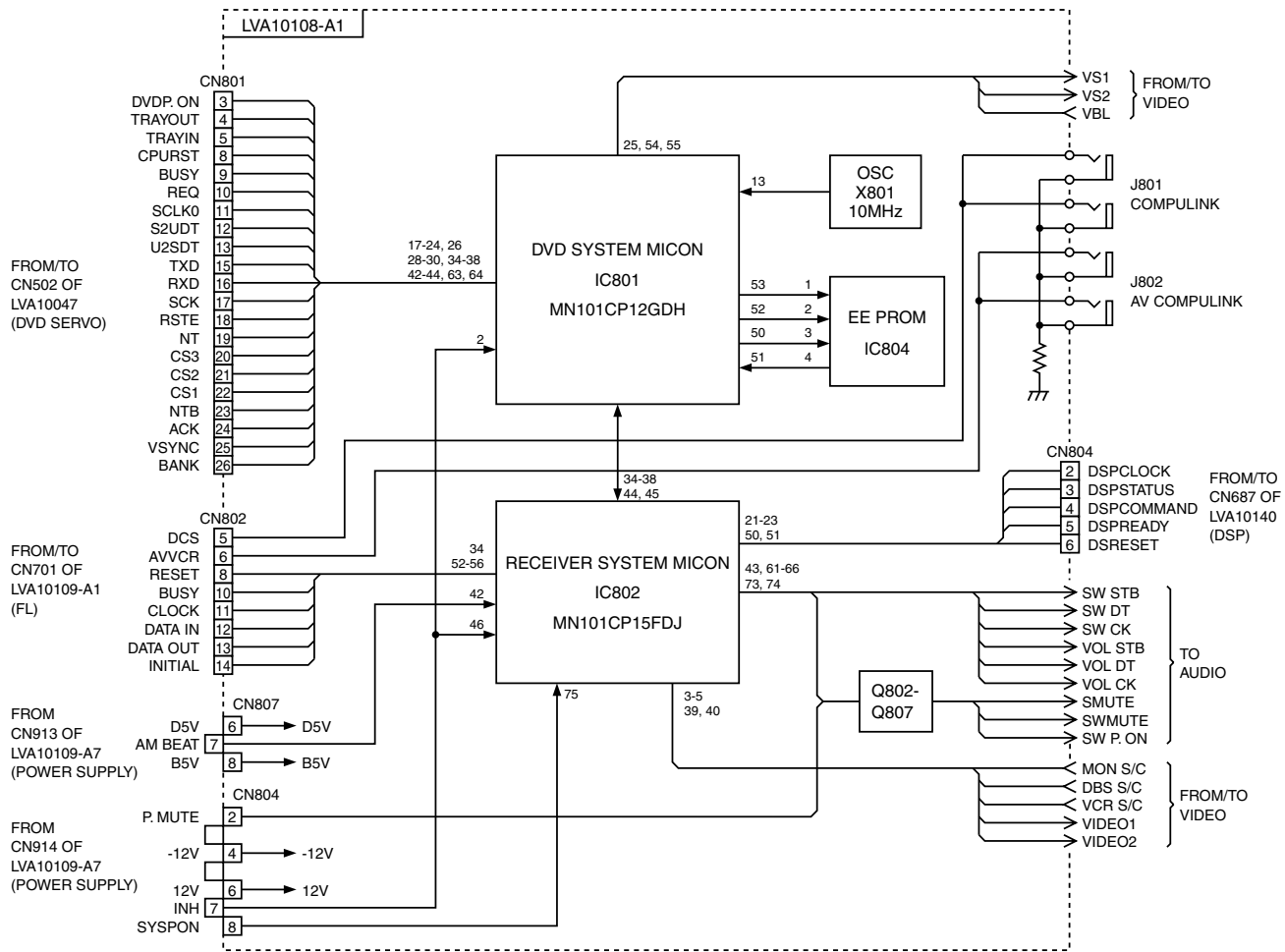
■ Block diagrams (Video out Section)



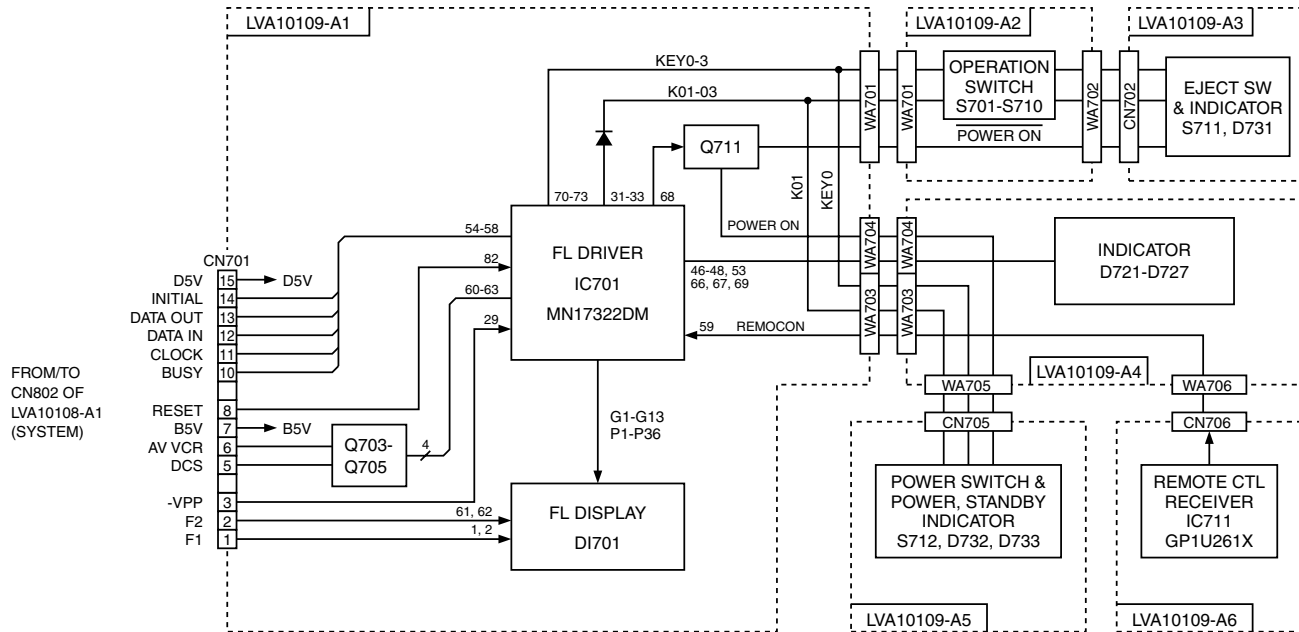
■ Block diagrams (Audio out section)



■ Block diagrams (System section)



■ Block diagrams (FL section)



Block diagrams (SP-PW10 Powered subwoofer section)

