

# JVC

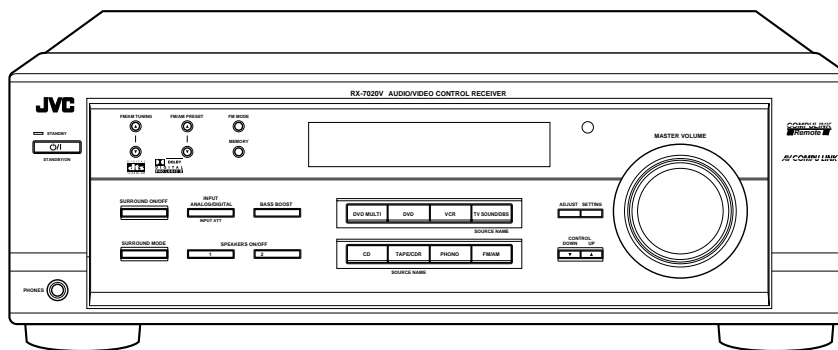
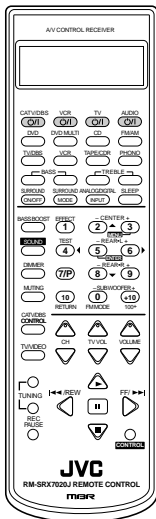
# SERVICE MANUAL

## AUDIO/VIDEO CONTROL RECEIVER

# RX-7020VBK

Area suffix

J ----- U.S.A.



**AV COMPU LINK**

**COMPU LINK**  
Remote

DIGITAL  
**dts**  
SURROUND

**DOLBY**  
DIGITAL  
PRO LOGIC II

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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 ( $\triangle$ ) 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)
 

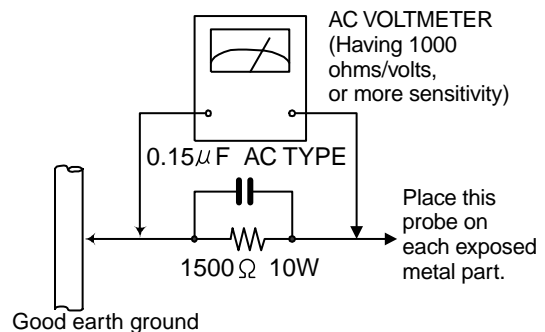
After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

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  $\mu$ 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

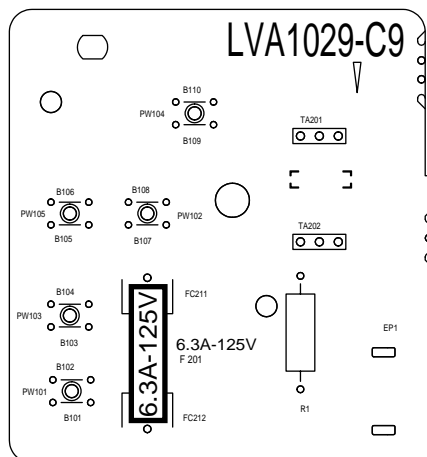
**Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of performing repair of this system.**

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (■), diode (▣) and ICP (●) or identified by the " $\triangle$ " mark nearby are critical for safety.

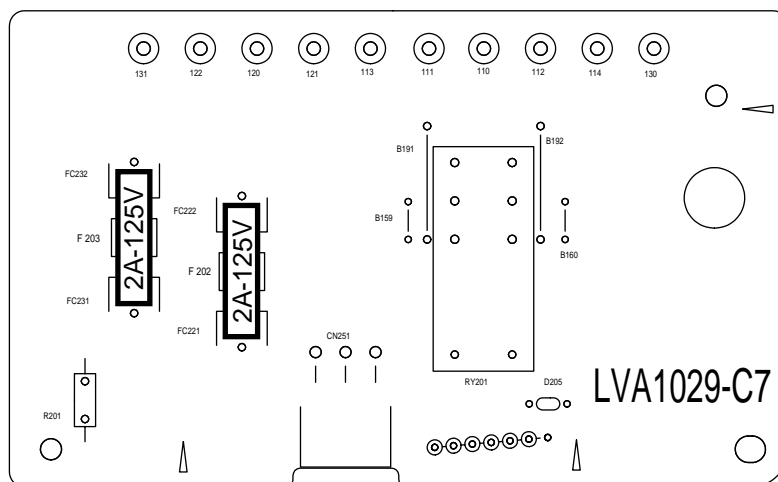
(This regulation does not correspond to J and C version.)

## Importance administering point on the safety

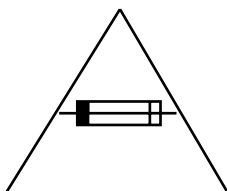
Primary part



Secondary parts



For USA and Canada / pour États - Unis d' Amérique et Canada



Caution: For continued protection against risk of fire, replace only with same type 6.3A/125V for F201, 2A/125V for F202 and F203.

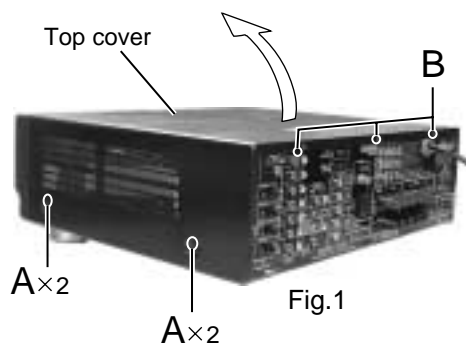
This symbol specifies type of fast operating fuse.

Précaution: Pour éviter risques de feux, remplacez le fusible de sûreté de F201 comme le même type que 6.3A/125V, et 2A/125V pour F202 et F203. Ce sont des fusibles sûretés qui fonctionnent rapide.

## Disassembly method

### ■ Removing the top cover (See Fig.1)

1. Remove the four screws A attaching the top cover on both sides of the body.
2. Remove the three screws B on the back of the body.
3. Remove the top cover from behind in the direction of the arrow while pulling both sides outward.



### ■ Removing the front panel assembly (See Fig.2 and 3)

- Prior to performing the following procedure, remove the top cover.
1. Disconnect the card wire from connector CN402 on the audio board and CN201 on the power supply board in the front panel assembly.
  2. Cut off the tie band fixing the harness.
  3. Remove the three screws C attaching the front panel assembly.
  4. Remove the four screws D attaching the front panel assembly on the bottom of the body. Detach the front panel assembly toward the front.

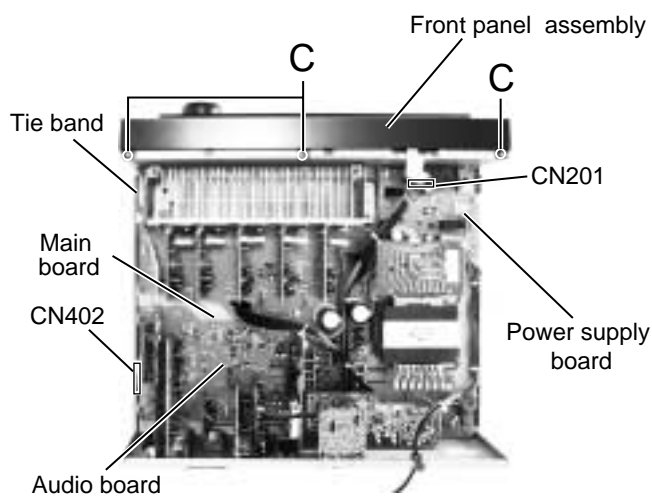


Fig.2

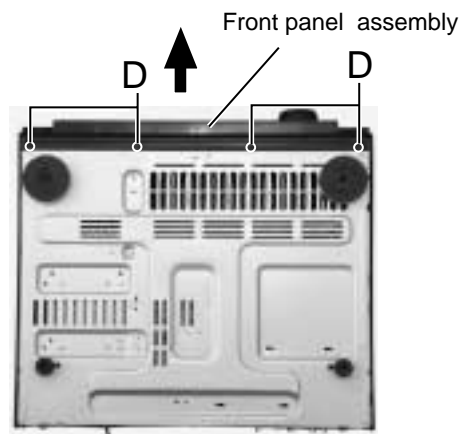


Fig.3

### ■ Removing the rear panel (See Fig.4)

- Prior to performing the following procedure, remove the top cover.
1. Remove the power cord stopper from the rear panel by moving it in the direction of the arrow.
  2. Remove the thirty-two screws E attaching the each boards to the rear panel on the back of the body.
  3. Remove the four screws F attaching the rear panel on the back of the body.

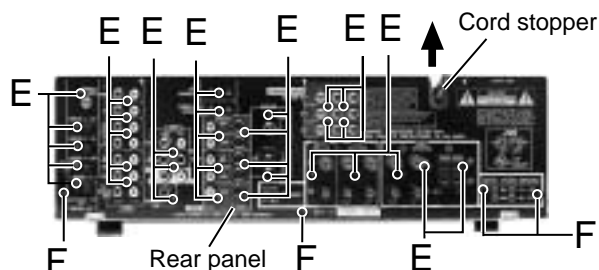


Fig.4

■ **Removing each board connected to the rear side of the audio board**  
(See Fig.5 to 9)

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

1. Cut off the tie band fixing the harness.
2. Disconnect the DSP board from connector CN481 on the audio board.
3. Disconnect the audio input board, DVD board Video board and the S video board from connector CN421, CN431, CN441 and CN461 on the audio board.
4. Disconnect the Component video board from connector CN511 on the S video board.
5. Disconnect the tuner board from connector CN411 on the audio board.

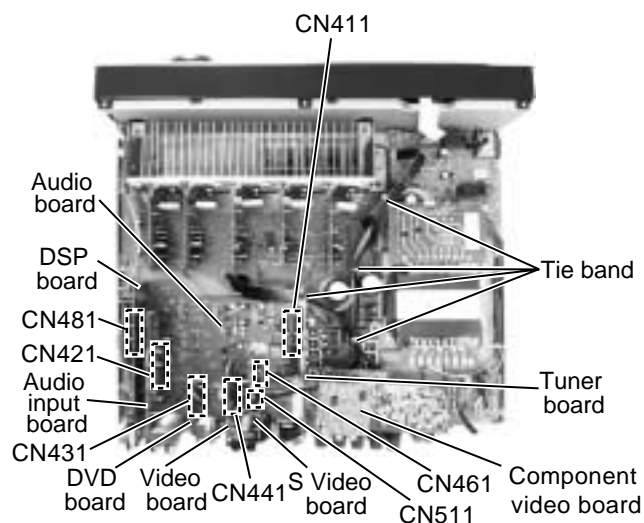


Fig.5

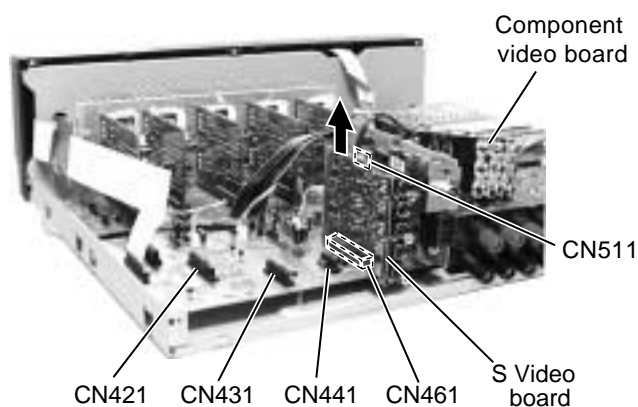


Fig.8

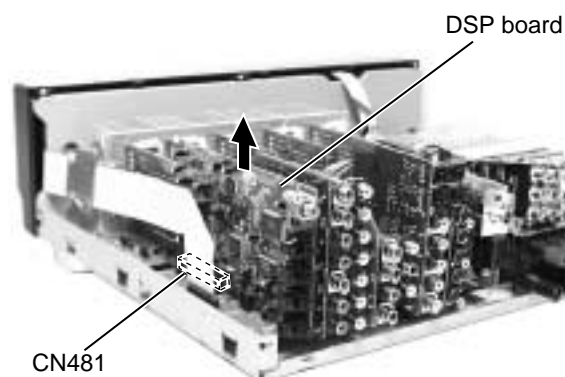


Fig.6

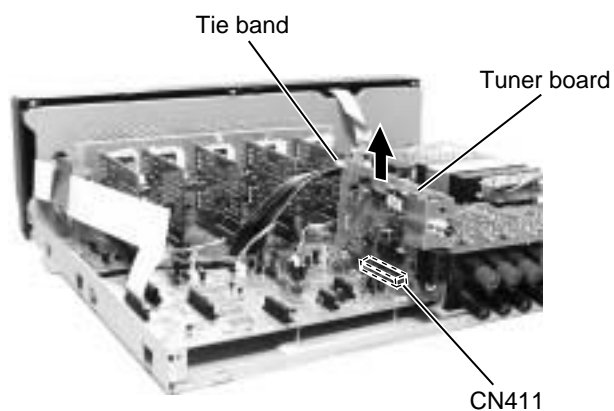


Fig.9

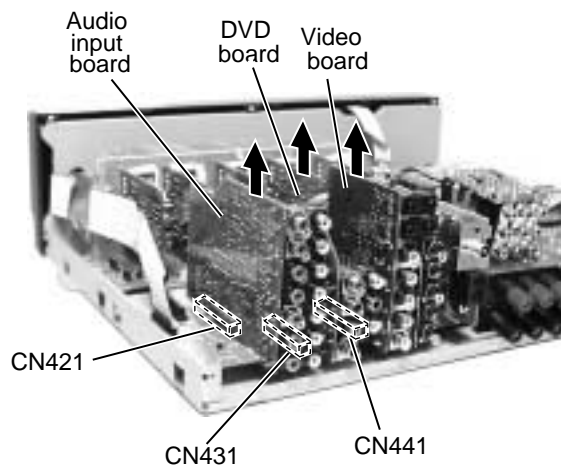


Fig.7

**■ Removing the audio board (See Fig.10)**

- Prior to performing the following procedure, remove the top cover and the rear panel.
1. Disconnect the card wire from connector CN402 on the audio board.
  2. Disconnect the relay board from the audio board and the power supply board. (CN291, CN491)
  3. Disconnect the harness from connector CN471, CN472, CN473.
  4. Remove the three screws G attaching the audio board assembly.
  5. Remove the screw H attaching the audio board assembly.

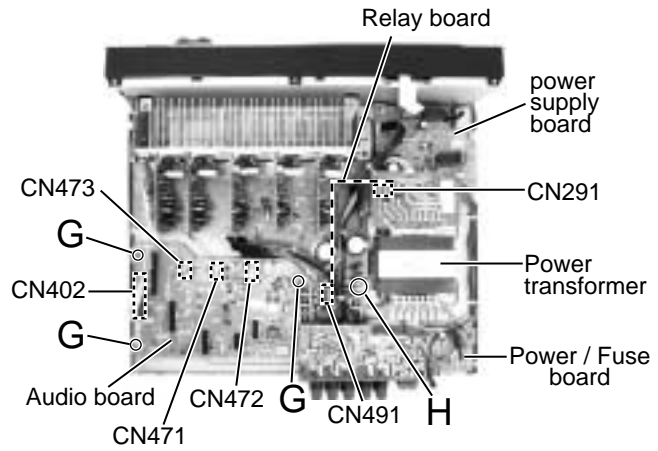


Fig.10

**■ Removing the main board (See Fig.11)**

- Prior to performing the following procedure, remove the top cover, the rear panel and audio board.
1. Disconnect the harness from connector CN241 and CN203 on the power supply board respectively.
  2. Disconnect the harness from connector CN251 on the power transformer board .
  3. Remove the four screws I and the two screws J attaching the main board.

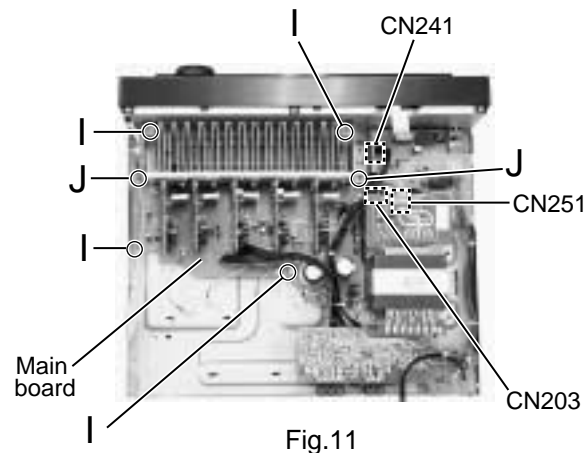


Fig.11

**■ Removing the Heat sink (See Fig.12 to 14)**

- Prior to performing the following procedure, remove the top cover and main board.
1. Remove the two screws K attaching the heat sink to the reverse side of main board.
  2. Disconnect the for connectors with each amp. board, and remove the main board.
  3. Remove the four screws M and ten screws L attaching the heat sink.

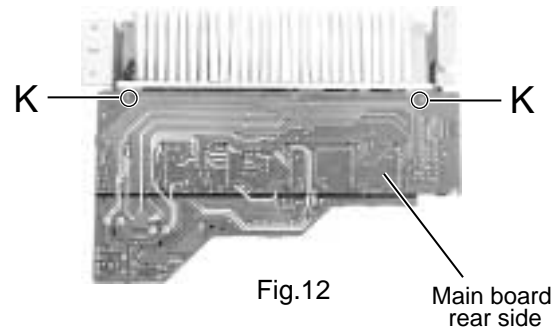


Fig.12

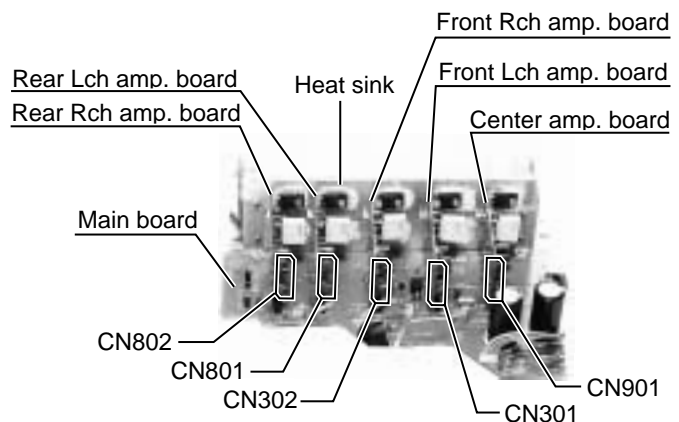


Fig.13

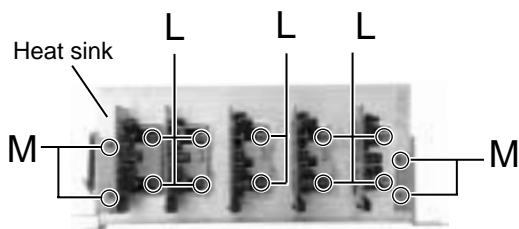


Fig.14

## ■ Removing the power transformer (See Fig.15)

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

1. Cut off the tie band fixing the harness.
2. Unsolder the two harnesses connected to the power transformer.
3. Unsolder the harness connected to the FW201 on the power transformer board.
4. Remove the four screws N attaching the power transformer.

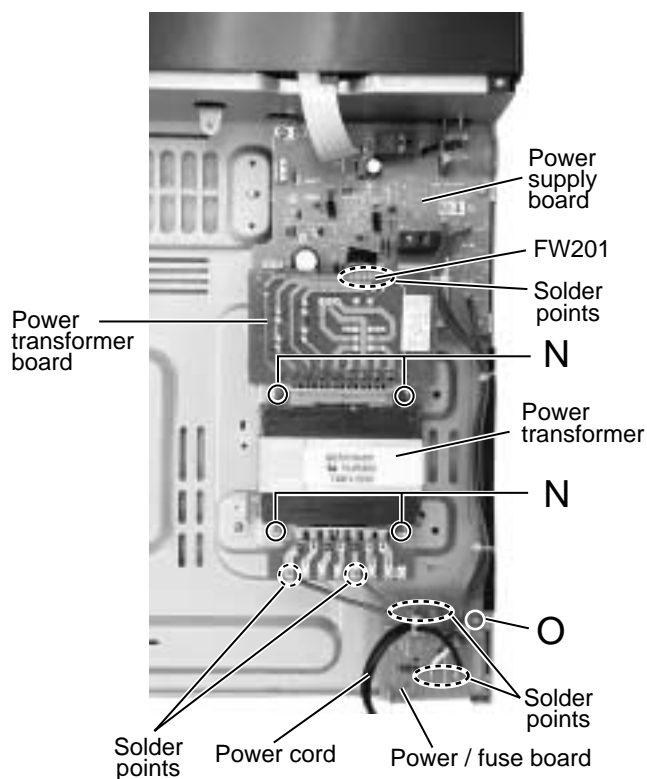


Fig.15

## ■ Removing the power / fuse board (See Fig.15)

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

1. Remove the screw O attaching the power / fuse board.
2. Unsolder the power cord and other harnesses connected to the power / fuse board.

## ■ Removing the power supply board (See Fig.16 , 17)

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

1. Remove the one nut attaching the headphone jack of the power supply board on the front side of the body.
2. Disconnect the harness connected to connector CN241, CN201, CN203, and CN291 on the power supply board (If necessary, cut off the band fixing the harness on the side of the base chassis).
3. Remove the three screws P attaching the power supply board and pull out the power supply board from the front bracket backward.
4. Unsolder the three harnesses connected to the power supply board.

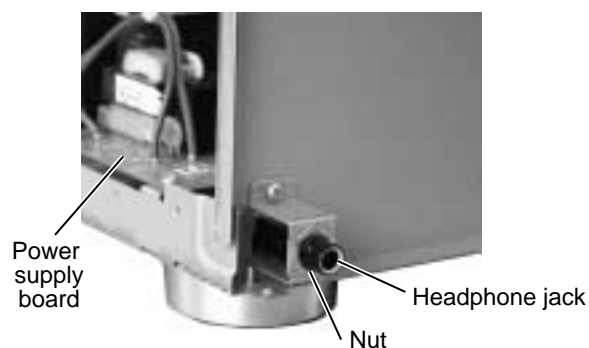


Fig.16

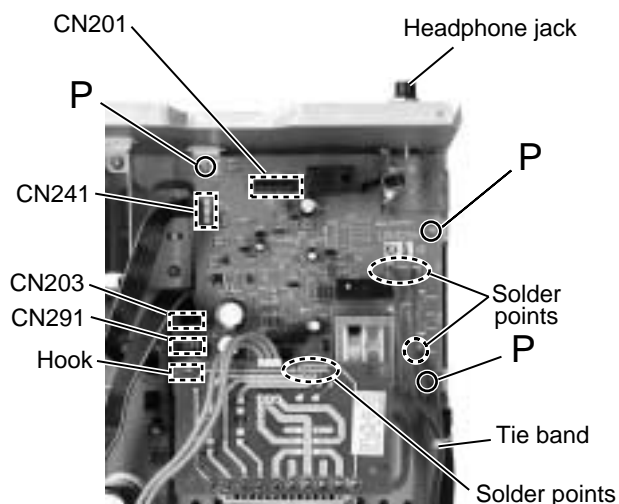


Fig.17

■ **Removing the system control board / power switch board (See Fig.18 to 20)**

- Prior to performing the following procedure, remove the top cover and the front panel assembly.
1. Pull out the volume knob on the front side of the front panel and remove the nut attaching the system control board.
  2. Remove the two screws Q attaching the power switch board.
  3. Disconnect the harness from connector CN714 on the power switch board.
  4. Remove the six screws R attaching the system control board on the back of the front panel.
  5. On the back of the front panel, release the six joints by pushing the joint tabs inward. Remove the operation switch panel toward the front.
  6. Release the two hook attaching the system control board.

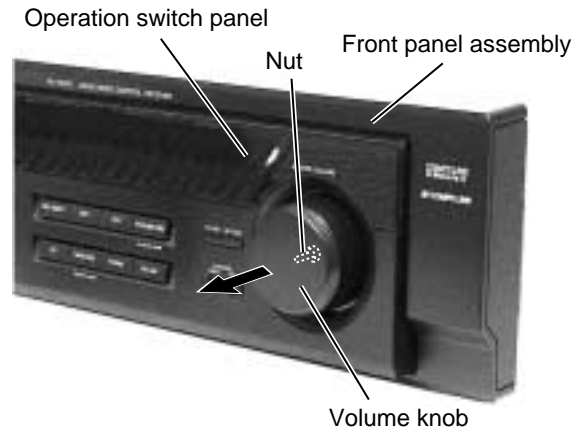


Fig.18

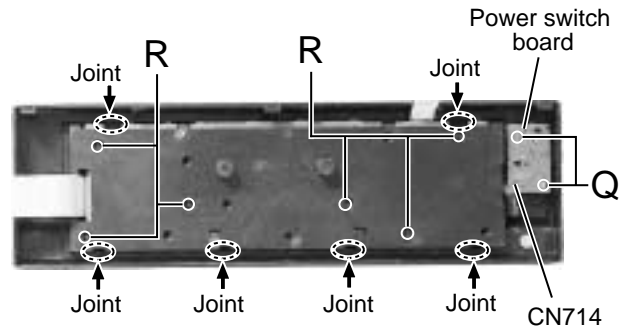


Fig.19

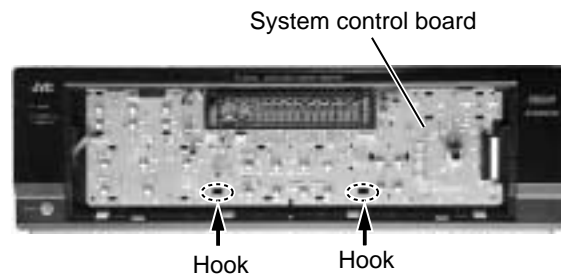


Fig.20



# Adjustment method

## ■ Tuner section

1. Tuner range
  - FM            87.5MHz~108.0MHz
  - AM (MW)    530kHz~1710kHz

## ■ Power amplifier section

### Adjustment of idling current

- |                      |                           |
|----------------------|---------------------------|
| Measurement location | TP301 (Lch) , TP302 (Rch) |
| Adjustment part      | VR301 (Lch) , VR302 (Rch) |

### Attention

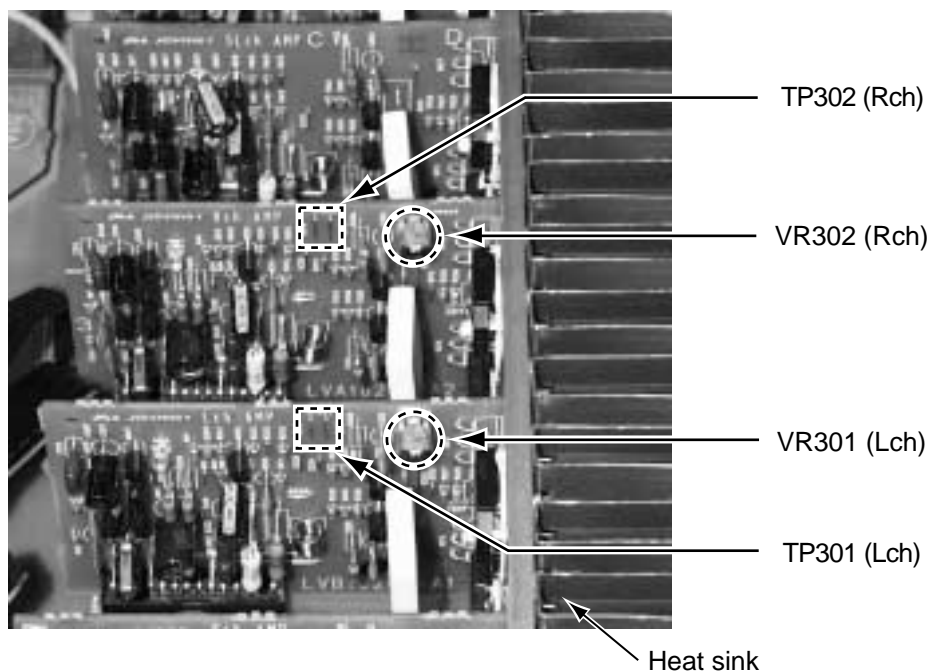
**This adjustment does not obtain a correct adjustment value immediately after the amplifier is used (state that an internal temperature has risen).**

**Please adjust immediately after using the amplifier after turning off the power supply of the amplifier and falling an internal temperature.**

<Adjustment method>

1. Set the volume control to minimum during this adjustment. (No signal & No load)
2. Set the surround mode OFF.
3. Turn VR301 and VR302 fully counterclockwise to warm up before adjustment.  
If the heat sink is already warm from previous use the correct adjustment can not be made.
4. For L-ch, connect a DC voltmeter between TP301's B216 and B217 (Lch) and, connect it between TP302's B218 and B219 (Rch).
5. Adjust the VR301 (Lch) and VR302 (Rch) so that the DC voltmeter indicates 2.0mV immediately after turning the power on.

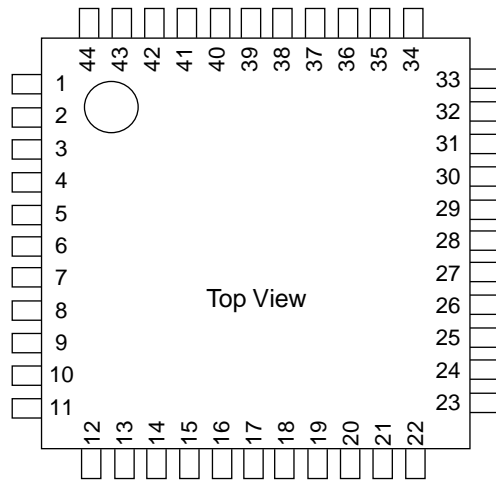
\* It is not abnormal though the idling current might not become 0mA even if it is finished to turn variable resistance (VR301, VR302) in the direction of counterclockwise.



# Description of major ICs

## ■ AK4527BVQP (IC601) : A/D,D/A converter

### 1.Pin layout



### 2. Pin function (1/2)

No.	Symbol	I/O	Function
1	SDOS	I	SDTO Source Select Pin (Note 1) "L" : Internal ADC output, "H" : DAUX input
2	OSKS	I	Control Mode Select Pin "L" : 3-wire Serial, "H" : I <sup>2</sup> C Bus
3	MIS	-	Soft Mute Pin (Note 1), Connect to GND When this pin goes to "H", soft mute cycle is initialized. When returning to "L", the output mute releases.
4	BICK	I	Audio Serial Data Clock Pin
5	LRCK	I/O	Input Channel Clock Pin
6	SDTI1	I	DAC1 Audio Serial Data Input Pin
7	SDTI2	I	DAC2 Audio Serial Data Input Pin
8	SDTI3	I	DAC3 Audio Serial Data Input Pin
9	SDTO	O	Audio Serial Data Output Pin
10	D,AUX	-	Sub Audio Serial Data Input Pin, Connect to GND
11	DFS	-	Double Speed Sampling Mode Pin (Note 1) "L" : Normal Speed, "H" : Double Speed
12	DEMI	-	Connect to GND No internal bonding.
13	DEMO	-	Zero Input Detect Enable Pin, Connect to GND "L" : mode 7 (disable) at parallel mode, zero detect mode is selectable by DZFM2-0 bits at serial mode. "H" : mode 0 (DZF is AND of all six channels)
14	MCKO	-	Output Buffer Power supply Pin, 2.7V~5.5V
15	DVDD	I	Digital Power Supply Pin, 4.5V~5.5V
16	DVSS	-	De-emphasis Pin, 0V
17	PD	I	Power-Down & Reset Pin When "L", the AK4527B is powered-down and the control registers are reset to default state. If the state of P/S or CAD0-1 changes, then the AK4527B must be reset by PDN.
18	XTS	-	Test Pin, Connect to GND This pin should be connected to DVSS.

## Pin function (2/2)

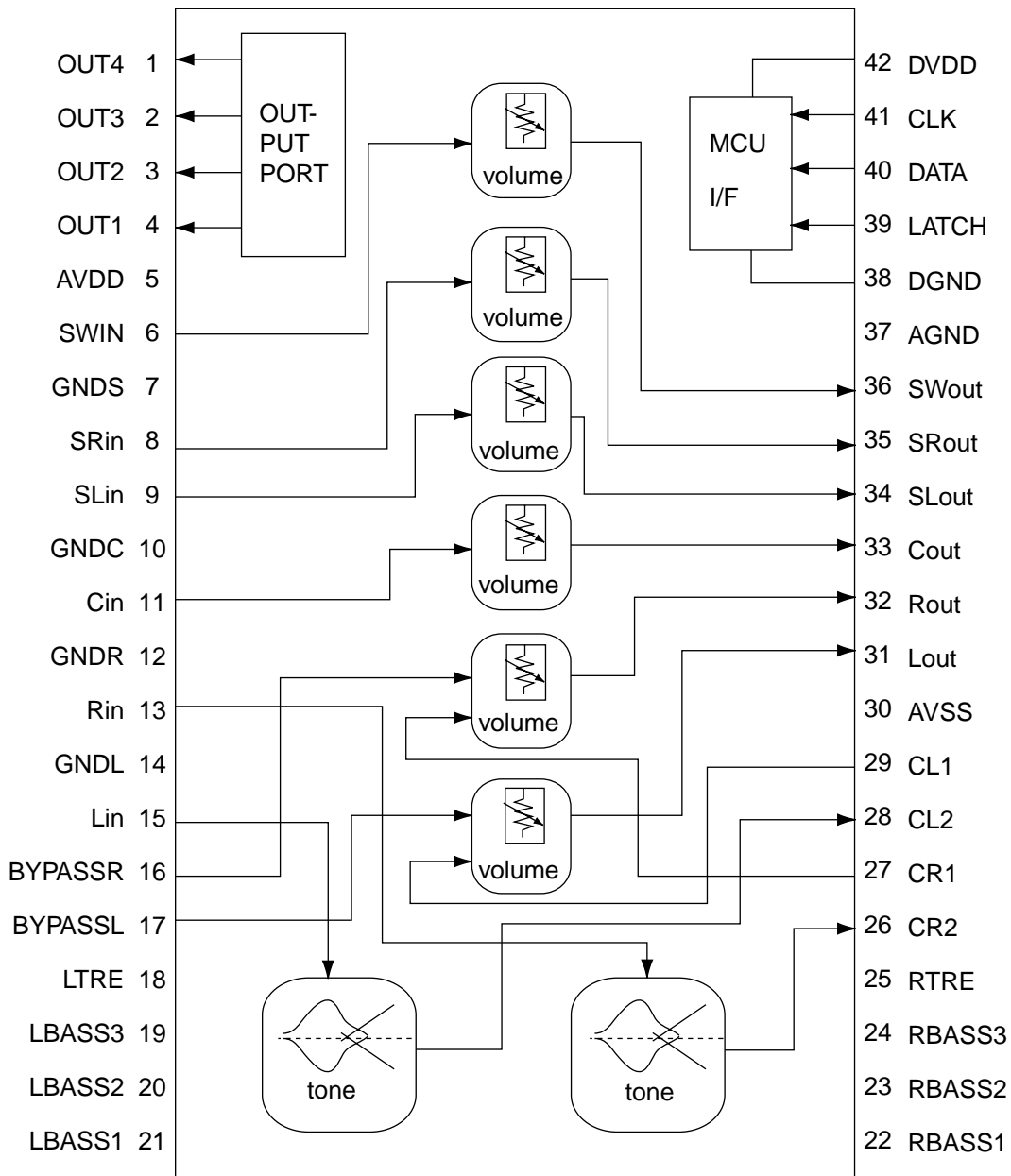
AK4527

No.	Symbol	I/O	Function
19	ICKS	-	Connect to GND No internal bonding.
20	ADIF	-	Analog Input Format Select Pin, Digital Power Supply "H" : Full-differential input, "L" : Single-ended input
21	CAD1	-	Chip Address 1 Pin, Connect to GND
22	CAD0	-	Chip Address 0 Pin, Connect to GND
23	LOUT3	O	DAC3 Lch Analog Output Pin
24	ROUT3	O	DAC3 Rch Analog Output Pin
25	LOUT2	O	DAC2 Lch Analog Output Pin
26	ROUT2	O	DAC2 Rch Analog Output Pin
27	LOUT1	O	DAC1 Lch Analog Output Pin
28	ROUT1	O	DAC1 Rch Analog Output Pin
29	LIN-	I	Lch Analog Negative Input Pin
30	LIN+	I	Lch Analog Positive Input Pin
31	RIN-	I	Rch Analog Negative Input Pin
32	RIN+	I	Rch Analog Positive Input Pin
33	VREFL	-	Zero Input Detect 2 Pin (Note 2), Non Connect When the input data of the group 1 follow total 8192LRCK cycles with "0" input data, this pin goes to "H".
	OVF	O	Analog Input Overflow Detect Pin (Note 3) This pin goes to "H" if the analog input of Lch or Rch is overflows.
34	VCOM	O	Common Voltage Output Pin,AVDD/2 Large external capacitor around 2.2uF is used to reduce power-supply noise.
35	VREFH	-	Positive Voltage Reference Input Pin,AVDD
36	AVDD	-	Analog Power Supply Pin,4.5V~5.5V
37	AVSS	-	Analog Ground Pin,0V
38	XTI	-	Zero Input Detect 1 Pin (Note 2), Non connect When the input data of the group 1 follow total 8192 LRCK cycles with "0" input data, this pin goes to "H".
39	XTO	I	Master Clock Input Pin
40	P1S	-	Parallel / Serial Select Pin "L" : Serial control mode, "H" : Parallel control mode
41	CS	I	Audio Data Interface Format 0 Pin in parallel mode
	CSN	I	Chip select pin in 3-wire serial control mode This pin should be connected to DVDD at I2C bus control mode
42	DIF1	I	Audio Data Interface Format 1 Pin in parallel mode
	SCL/CCLK	I	Control Data Clock Pin in serial control mode I2C = "L" : CCLK(3-wire Serial), I2C = "H" : SCL(I2CBus)
43	LOOP0	I	Loopback Mode 0 Pin in parallel control mode Enables digital loop-back from ADC to 3 DACs.
	SAD/CDTI	I/O	Control Data Input Pin in serial control mode I2C = "L" : CDTI(3-wire Serial), I2C = "H" : SDA(I2CBus)
44	CTD	I	Loopback Mode 1 Pin (Note 1) Enable all 3 DAC channels to be input from SDTII.

- Notes : 1. SDOS, SMUTE, DFS, and LOOP1 pins are ORed with register data if P/S = "L".  
2. The group 1 and 2 can be selected by DZFM2-0 bit if P/S = "L" and DZFM2 = "L".  
3. This pin becomes OVF pin if OVFE bit is set to "1" at serial control mode.  
4. All input pins should not be left floating.

■ M62446FP (IC428) : 6ch master volume

1. Block Diagram



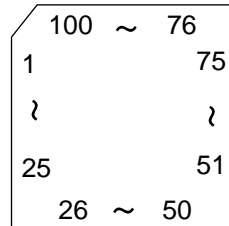
## 2.Pin Function

M62446FP

Pin No.	Symbol	I/O	Function
1	OUT4	O	BASS BOOST control terminal
2	OUT3	O	SURROUND control terminal
3	OUT2	O	VIDEO 2 control terminal
4	OUT1	O	VIDEO 1 control terminal
5	AVDD	-	Analog positive power supply terminal
6	SW IN	I	SUB Woofer volume signal input terminal
7	A.GND	-	Analog ground terminal
8	RR IN	I	R ch volume signal input terminal for rear speaker
9	RL IN	I	L ch volume signal input terminal for rear speaker
10	A.GND	-	Analog ground terminal
11	C IN	I	Center volume signal input terminal
12	A.GND	-	Analog ground terminal
13	R IN	I	R ch volume signal input terminal
14	A.GND	-	Analog ground terminal
15	L IN	I	L ch volume signal input terminal
16		-	Non connect
17		-	Non connect
18	LTRE	-	Frequency adjustment terminal tone/treble
19	LBASS3	-	Frequency adjustment terminal tone/bass
20	LBASS2	-	Frequency adjustment terminal tone/bass
21	KBASS1	-	Frequency adjustment terminal tone/bass
22	CR2	O	Tone output terminal
23	RBASS2	-	Frequency adjustment terminal tone/bass
24	RBASS3	-	Frequency adjustment terminal tone/bass
25	RTRE	-	Frequency adjustment terminal tone/treble
26	RBASS1	-	Frequency adjustment terminal tone/bass
27	CR1	I	L/R volume input terminal
28	LL2	O	Tone output terminal
29	CL1	I	L/R volume input terminal
30	AVSS	-	Analog negative power supply terminal
31	L OUT	O	L ch output
32	R OUT	O	R ch output
33	C OUT	O	Center volume signal output terminal
34	RL OUT	O	L ch volume signal output terminal for rear speaker
35	RR OUT	O	R ch volume signal output terminal for rear speaker
36	SW OUT	O	SUB Woofer volume signal output terminal
37	A.GND	-	Analog ground terminal
38	D.GND	-	Digital ground terminal
39	VOL LACH	I	Latch input terminal
40	VOL DATA	I	Volume data input terminal
41	VOL CLK	I	Clock input terminal for data transfer
42	DVDD	-	Digital power supply terminal

## ■ MN101C35DJW (IC701) : System controller

### 1. Pin layout



### 2. Pin function (1/2)

Pin No.	Symbol	I/O	Function
1	VOL.JOG IN_1	I	VOL.JOG IN 1
2	VOL.JOG IN_2	I	VOL.JOG IN 2
3	DATA (PLL)	I/O	DATA (PLL)
4	CLK (PLL)	O	CLK (PLL)
5	DE (PLL)	O	DE (PLL)
6	VIDEO S/C DVD	I	VIDEO S/C DVD
7	VIDEO S/C VCR	I	VIDEO S/C VCR
8	VDD	-	Power supply +5V
9	OSC2	I/O	Connecting the crystal oscillator for system clock (8MHz)
10	OSC1	I/O	Connecting the crystal oscillator for system clock (8MHz)
11	VSS	-	Connect to GND
12		-	Connect to GND
13	NC	-	Non connect
14		-	Connect to GND
15		-	Connect to GND
16	KEY IN 1	I	KEY INPUT 1
17	KEY IN 2	I	KEY INPUT 2
18	KEY IN 3	I	KEY INPUT 3
19	KEY IN 4	I	KEY INPUT 4
20	KEY IN 5	I	KEY INPUT 5
21	INH IN	I	INH IN
22	CS 1	I	CHIP SELECT 1
23	CS 2	I	CHIP SELECT 2
24	VREF+	-	Power supply +5V
25	VIDEO S/C DBS	I	VIDEO S/C DBS
26	RESET	I	RESET INPUT
27	CLK (RDS)	O	RDS CLK OUT (RDS)
28	DCS IN	I	DCS INPUT
29	DCS OUT	O	DCS OUTPUT
30	VCR IN	I	AVLINK VCR IN
31	VCR OUT	O	AVLINK VCR OUT
32	DATA (RDS)	I/O	RDS DATA (RDS)
33	PROTECTOR IN	I	PROTECTOR IN
34	RM IN	I	REMOCON INPUT
35	TUNED IN	I	TUNED IN (TUNER)
36	STEREO IN	I	STEREO IN (TUNER)
37	DAVN (RDS)	I	RDS DAVN (RDS)
38	SELF DET	I	SELF DET INPUT
39	COMMAND (DSP)	O	COMMAND (DSP)
40	STATUS (DSP)	I	STATUS (DSP)

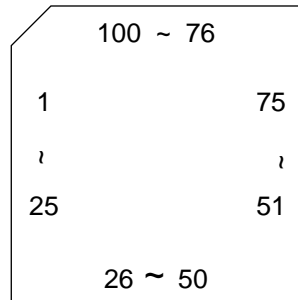
## Pin function (2/2)

MN101C35DJW

Pin No.	Symbol	I/O	Function
41	CLK DSP	O	CLK (DSP)
42	READY	O	READY (DSP)
43	RESET	O	RESET (DSP)
44	RY S	O	RELAY SURROUND
45	RY C	O	RELAY CENTER
46	RY L/R1	O	RELAY FRONT 1
47	RY L/R2	O	RELAY FRONT 2
48	RY HP	O	RELAY HEADPHONE
49 ~ 64	GRID16~GRID1	O	FL GRID SIGNAL CONTROL OUT
65 ~ 80	SEG1~SEG16	O	FL SEGMENT SIGNAL CONTROL OUT
81	NC	-	Non connect
82	NC	-	Non connect
83	NC	-	Non connect
84	NC	-	Non connect
85	NC	-	Non connect
86	NC	-	Non connect
87	NC	-	Non connect
88	POWER	-	POWER ON Relay Control
89	S MUTE	O	SOUSE MUTE
90	SW MUTE	O	SUBWOOFER MUTE
91	TU MUTE	O	TUNER MUTE
92	STB LED	O	STANDBY LED
93	SURROUND	O	SURROUND
94	DATA	O	AUDIO SW DATA
95	CLK	O	CLK (AUDIO SW)
96	STB	O	STB (AUDIO SW)
97	LATCH	O	LATCH (VOLUME)
98	DATA	O	VOLUME DATA
99	CLK	O	CLK (VOLUME)
100	VPP	-	VPP

## ■ UPD784215AGC167 (IC671) : Dital signal controller

### 1.Pin layout



### 2.Pin function (1/2)

Pin No.	Symbol	I/O	Function
1~8		-	Non connect
9	VDD	-	Power supply terminal
10	X2	O	Connecting the crystal oscillator for system main clock
11	X1	I	Connecting the crystal oscillator for system main clock
12	VSS	-	Connect to GND
13	XT2	O	Connecting the crystal oscillator for system sub clock
14	XT1	I	Connecting the crystal oscillator for system sub clock
15	RESET	I	System reset signal input
16	AUTODATA	I	Output of DSP to general-purpose port
17	LOCK	I	Output of DSP to general-purpose port
18	DIGITAL0	I	Output of DSP to general-purpose port
19	FORMAT	I	Output of DSP to general-purpose port
20	CHANNEL	I	Output of DSP to general-purpose port
21	ERR	I	Output of DSP to general-purpose port
22	REST IN	I	Reset signal input
23	AVDD	-	Power supply terminal
24	AVREF0	-	Connect to GND
25		-	Connect to GND
26		-	Connect to GND
27		-	Connect to GND
28		-	Connect to GND
29		-	Connect to GND
30		-	Connect to GND
31		-	Connect to GND
32		-	Connect to GND
33	AVSS	-	Connect to GND
34,35		-	Non connect
36	AV REF1	-	Power supply terminal
37	RX	-	Not use
38	TX	-	Not use
39		-	Non connect
40	DSPCOM	I	Communication port from IC701
41	DSPSTS	O	Status communication port to IC701
42	DSPCLK	I	Clock input from IC701
43	DSPRDY	I	Ready signal input from IC701
44		-	Non connect
45	MIDIO IN	I/O	Interface I/O terminal with microcomputer
46	MIDIO OUT	I/O	Interface I/O terminal with microcomputer
47	MICK	O	Interface I/O terminal with microcomputer of clock signal
48	MICS	O	Interface I/O terminal with microcomputer of chip select



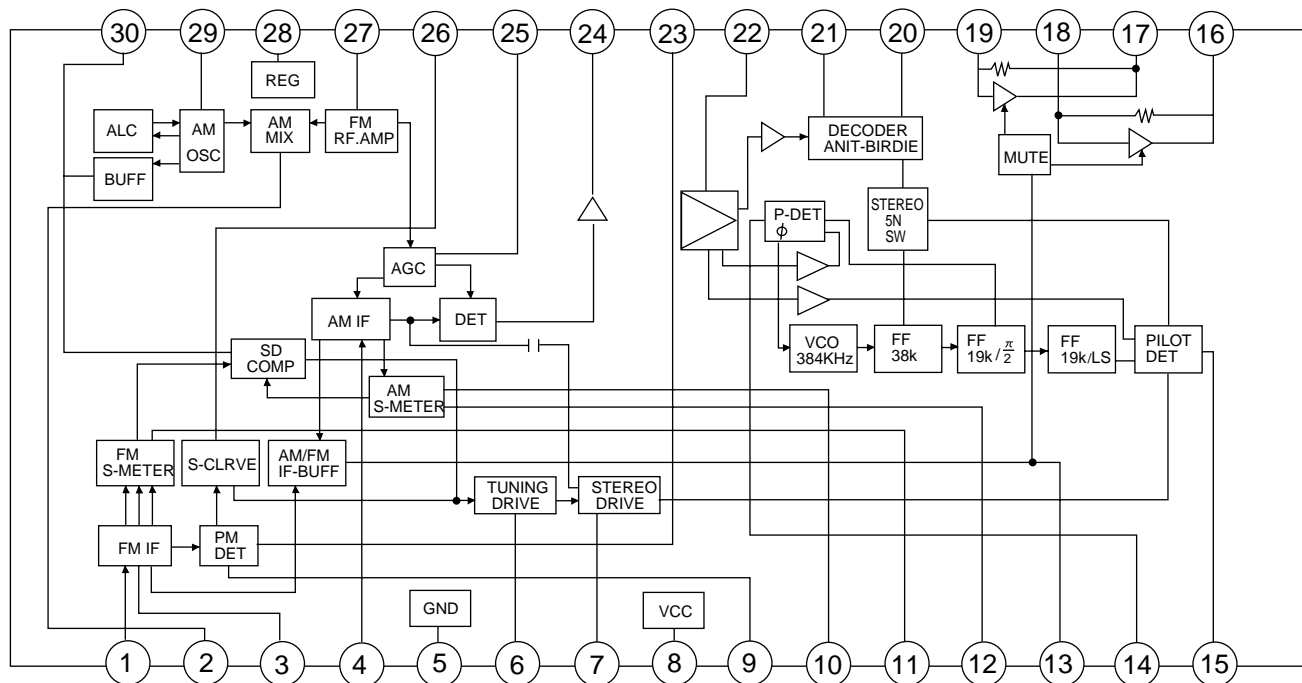
## Pin function (2/2)

UPD784215AGC167

Pin No.	Symbol	I/O	Function
49	$\overline{\text{MILP}}$	O	Interface I/O terminal with microcomputer
50	$\overline{\text{MIACK}}$	O	Interface I/O terminal with microcomputer
51		-	Non connect
52		-	Non connect
53	$\overline{\text{DSPRST}}$	O	Reset signal output of DSP
54~63		-	Non connect
64	CODEC OUT	I/O	Interface I/O terminal with microcomputer
65	CODEC IN	I/O	Interface I/O terminal with microcomputer
66	CODEC CLK	O	Interface I/O terminal with microcomputer of clock signal
67	$\overline{\text{CODEC CS}}$	O	Interface I/O terminal with microcomputer of chip select
68	CODEC XTS	-	Non connect
69		-	Non connect
70		-	Non connect
71	$\overline{\text{PD}}$	O	Reset signal output
72	GND	-	Connect to GND
73		-	Non connect
74		-	Non connect
75		-	Non connect
76		-	Non connect
77		-	Non connect
78		-	Non connect
79		-	Non connect
80		-	Non connect
81	VDD	-	Power supply
82		-	Non connect
83		-	Non connect
84	ANA/T-TONE	O	Test tone control
85	LEF-MIX	O	Control at output destination of LFE channel
86		-	Non connect
87	$\overline{\text{D.MUTE}}$	O	Mute of the digital out terminal is controlled
88	$\overline{\text{S.MUTE}}$	O	Mute of the audio signal is controlled
89		-	Non connect
90	ASW1	O	Selection of digital input selector
91	ASW2	O	Selection of digital input selector
92	ASW3	O	Selection of digital input selector
93	ASW4	O	Selection of digital input selector
94	TEST	-	Test terminal
95		-	Non connect
96		-	Non connect
97		-	Non connect
98		-	Non connect
99		-	Non connect
100		-	Non connect

■ LA1838 (IC102) : FM AM IF amp. & Detector, FM MPX decoder

1. Block Diagram



2. Pin Function

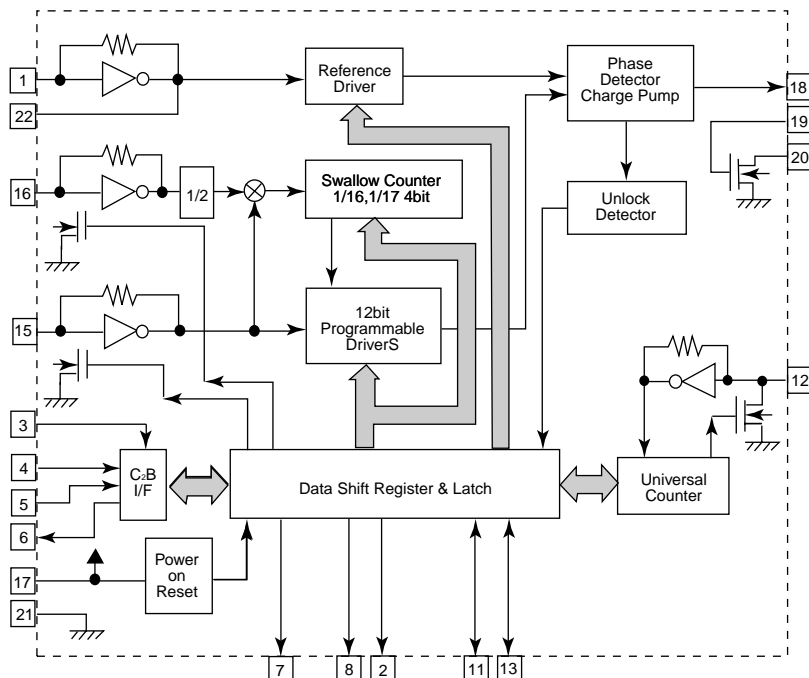
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	FM IN	I	This is an input terminal of FM IF signal.	16	L OUT	O	Left channel signal output.
2	AM MIX	O	This is an out put terminal for AM mixer.	17	R OUT	O	Right channel signal output.
3	FM IF	I	Bypass of FM IF	18	L IN	I	Input terminal of the Left channel post AMP.
4	AM IF	I	Input of AM IF Signal.	19	R IN	I	Input terminal of the Right channel post AMP.
5	GND	-	This is the device ground terminal.	20	RO	O	Mpx Right channel signal output.
6	TUNED	O	When the set is tuning,this terminal becomes "L".	21	LO	O	Mpx Left channel signal output.
7	STEREO	O	Stereo indicator output. Stereo "L", Mono: "H"	22	MPX IN	I	Mpx input terminal
8	VCC	-	This is the power supply terminal.	23	FM OUT	O	FM detection output.
9	FM DET	-	FM detect transformer.	24	AM DET	O	AM detection output.
10	AM SD	-	This is a terminal of AM ceramic filter.	25	AM AGC	I	This is an AGC voltage input terminal for AM
11	FM VSM	O	Adjust FM SD sensitivity.	26	AFC	-	This is an output terminal of voltage for FM-AFC.
12	AM VSM	O	Adjust AM SD sensitivity.	27	AM RF	I	AM RF signal input.
13	MUTE	I/O	When the signal of IF REQ of IC121( LC72131) appear, the signal of FM/AM IF output. //Muting control input.	28	REG	O	Register value between pin 26 and pin28 besides the frequency width of the input signal.
14	FM/AM	I	Change over the FM/AM input. "H" :FM, "L" : AM	29	AM OSC	-	This is a terminal of AM Local oscillation circuit.
15	MONO/ST	O	Stereo : "H", Mono: "L"	30	OSC BUFFER	O	AM Local oscillation Signal output.

### ■ LC72136N (IC121) : PLL frequency synthesizer

#### 1. Pin layout

XT	1	22	XT
FM/AM	2	21	GND
CE	3	20	LPFOUT
DI	4	19	LPFIN
CLOCK	5	18	PD
DO	6	17	VCC
FM/ST/VCO	7	16	FMIN
AM/FM	8	15	AMIN
	9	14	
	10	13	IFCONT
SDIN	11	12	IFIN

#### 2. Block diagram



#### 3. Pin function

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	XT	I	X'tal oscillator connect (75kHz)	12	IFIN	I	IF counter signal input
2	FM/AM	O	LOW:FM mode	13	IFCONT	O	IF signal output
3	CE	I	When data output/input for 4pin(input) and 6pin(output): H	14	-	-	Not use
4	DI	I	Input for receive the serial data from controller	15	AMIN	I	AM Local OSC signal output
5	CLOCK	I	Sync signal input use	16	FMIN	I	FM Local OSC signal input
6	DO	O	Data output for Controller Output port	17	VCC	-	Power suply(VDD=4.5-5.5V) When power ON:Reset circuit move
7	FM/ST/VCO	O	"Low": MW mode	18	PD	O	PLL charge pump output(H: Local OSC frequency Height than Reference frequency. L: Low Agreement: Height impedance)
8	AM/FM	O	Open state after the power on reset	19	LPFIN	I	Input for active lowpassfilter of PLL
9	LW	I/O	Input/output port	20	LPFOUT	O	Output for active lowpassfilter of PLL
10	MW	I/O	Input/output port	21	GND	-	Connected to GND
11	SDIN	I/O	Data input/output	22	XT	I	X'tal oscillator(75KHz)

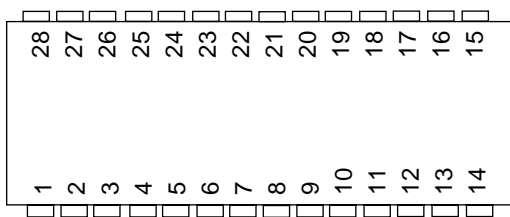
**■ TC9446F-025 (IC631) : Digital signal processor for dolby digital (AC-3)  
/ DTS audio decode**

Pin No.	Symbol	I/O	Function
1	RST	I	Reset signal input terminal (L:reset H: normal operation)
2	MIMD	I	Microcomputer interface mode selection input terminal (L:serial H:IC bus)
3	MICS	I	Microcomputer interface chip select input terminal
4	MILP	I	Microcomputer interface latch pulse input
5	MIDIO	I/O	Microcomputer interface data I/O terminal
6	MICK	I	Microcomputer interface clock input terminal
7	MIACK	O	Microcomputer interface acknowledge output terminal
8~11	FI0~3	I	Flag input terminal 0~3
12	IRQ	I	Interrupt input terminal
13	VSS	-	Digital ground terminal
14	LRCKA	I	Audio interface LR clock input terminal A
15	BCKA	I	Audio interface bit clock input terminal A
16~18	SDO0~2	O	Audio interface data output terminal 0
19	SD03	-	Non connect
20	LRCKB	I	Audio interface LR clock input terminal B
21	BCKB	I	Audio interface bit clock input terminal B
22	SDT0	I	Audio interface data input terminal 0
23	SDT1	I	Audio interface data input terminal 1
24	VDD	-	Power supply for digital circuit
25	LRCKOA	O	Audio interface LR clock output terminal A
26	BCKOA	O	Audio interface bit clock output terminal A
27,28	TEST0,1	I	Test input terminal 0/1 (L:test H: normal operation)
29~30	LRCKOB,BCKOB	-	Non connect
31	TXO	O	SPDIF Output
32,33	TEST2,3	I	Test input terminal (L:test H: normal operation)
34	RX	I	SPDIF input terminal
35	VSS	-	Ground terminal for digital circuit
36	TSTSUB0	I	Test sub input terminal 0 (L:test H: normal operation)
37	FCONT	O	VCO Frequency control output terminal
38,39	TSTSUB1,TSTSUB2	I	Test sub input terminal 1,2 (L:test H: normal operation)
40	PDO	O	Phase detect signal output terminal
41	VDDA	-	Power supply for analog circuit
42	PLON	I	Clock selection input terminal (L:external clock H:VCO clock)
43	AMPI	I	amplifier input terminal for LPF
44	AMPO	O	amplifier output terminal for LPF
45	CKI	I	External clock input terminal
46	VSSA	-	Ground terminal for analog circuit
47	CKO	O	DIR Clock output terminal
48	LOCK	O	VCO Lock output terminal
49	VSS	-	Ground terminal for digital circuit
50	WR	O	External SRAM writing signal output terminal
51	OE	O	External SRAM output enable signal output terminal
52	CE	O	External SRAM chip enable signal output terminal
53	VDD	-	Power supply terminal for digital circuit
54~61	IO7~0	I/O	External SRAM data I/O terminal 7~0
62	VSS	-	Ground terminal for digital circuit
63~70	AD0~7	O	External SRAM address output terminal 0~7
71	VDD	-	Power supply terminal for digital circuit
72~80	AD8~16	O	External SRAM address output terminal 8~16
81	VSS	-	Ground terminal for digital circuit
82~89	PO0~7	O	General purpose output terminal 0~7
90	VDDDL	-	Power supply terminal for DLL
91	LPFO	O	LPF output terminal for DLL
92,93	DLON,DLCKS	I	Refer to the undermentioned table
94	SCKO	-	Non connect
95	VSSDL	-	Ground terminal for DLL
96	SCKI	I	External system clock input terminal
97	VSSX	-	Ground terminal for oscillation circuit
98,99	XO,XI	I/O	Oscillation I/O terminal
100	VDDX	-	Power supply terminal for oscillation circuit

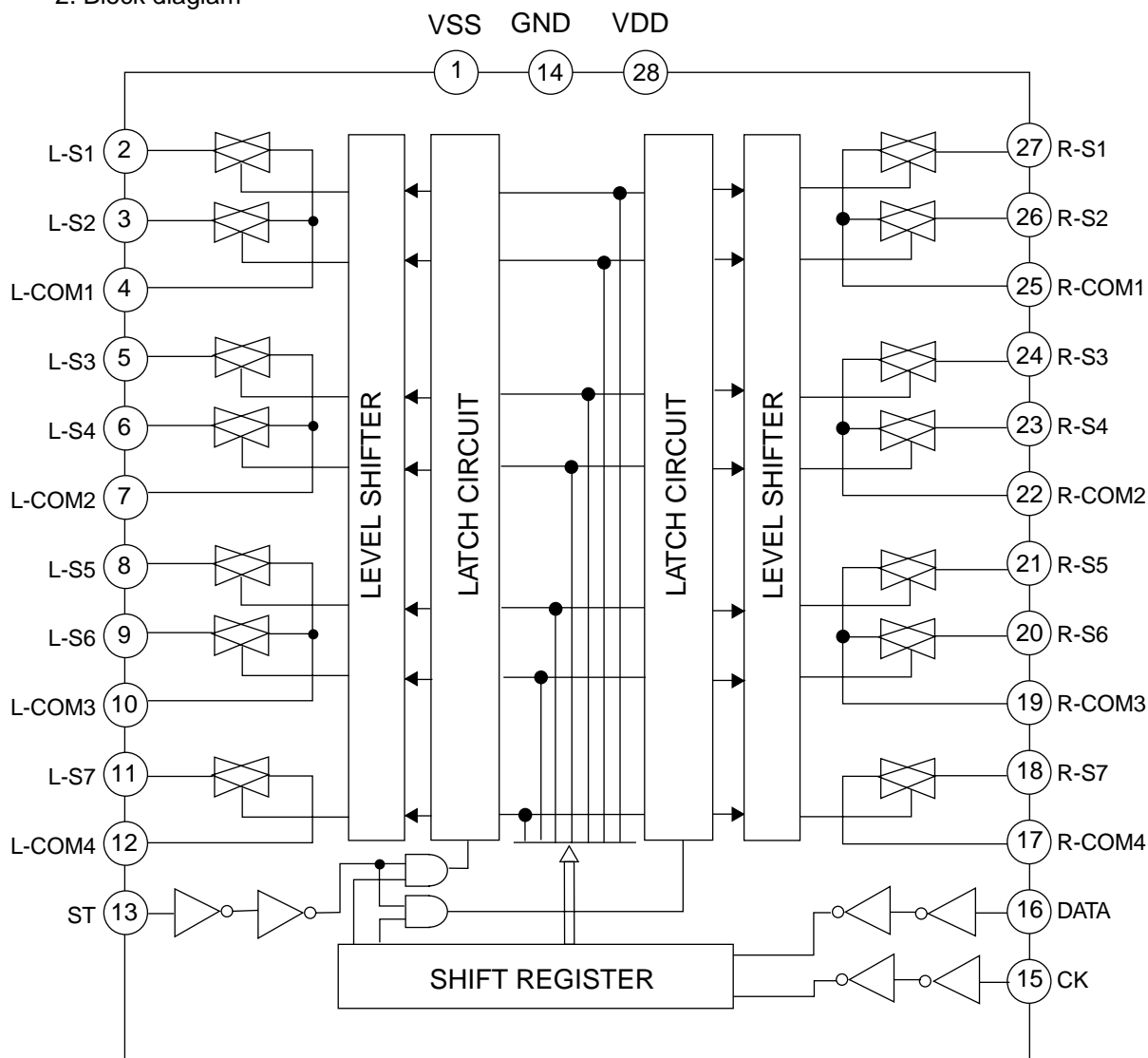
DLCKS terminal	DLONterminal	DLL clock setting
L	L	SCKI input (DLL circuit OFF)
L	H	Four times XI clock
H	L	Three times XI clock
H	H	Six times XI clock

■ **TC9162AF (IC423) : Analog switch**

1. Pin layout

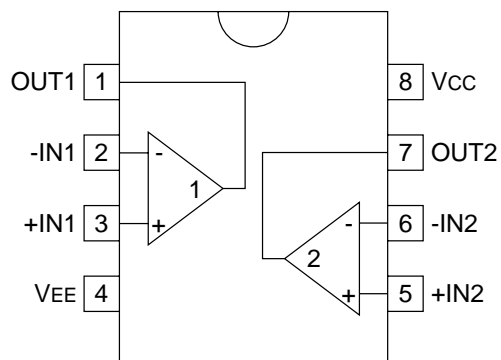


2. Block diagram



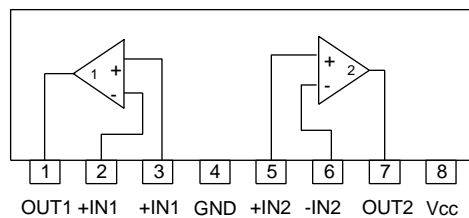
■ **BA15218 (IC451) : Op. Amp.**

1. Pin layout / Block diagram

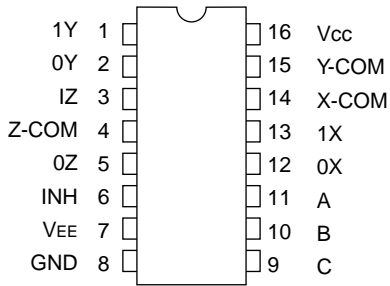


■ **BA15218N (IC403) : Dual Op. Amp.**

1. Pin layout / Block diagram



■ **TC74HC4053AF (IC581) : Multiplexer**

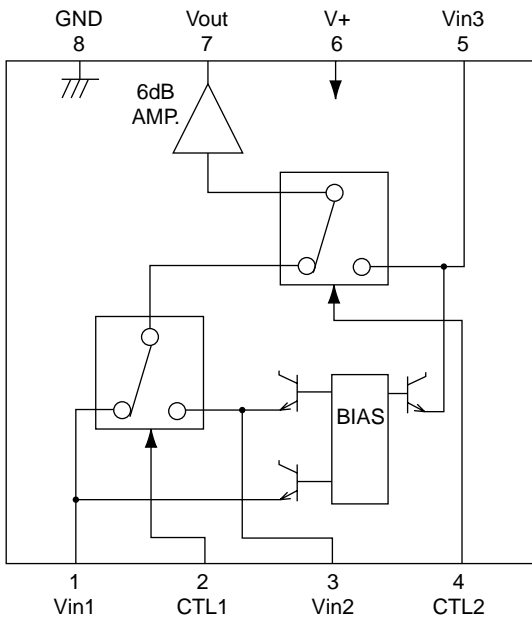


Control inputs			
INHIBIT	C	B	A
L	L	L	K
L	L	L	H
L	L	H	K
L	L	H	H
L	H	L	K
L	H	L	H
L	H	H	K
L	H	H	H
H	X	X	X

X: Don't Care.

■ **NJM2246D (IC501, 551, 552) : Video switch**

1. Pin layout / Block diagram

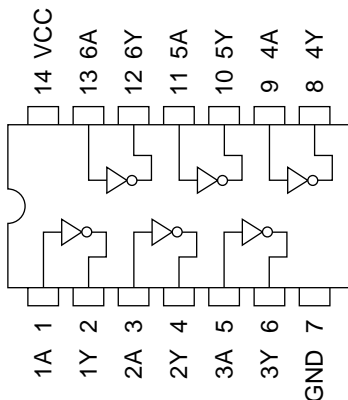


Control input - output signal

CTL 1	CTL 2	Output
L	L	VIN 1
H	L	VIN 2
L/H	H	VIN 3

■ **TC74HCU04AF (IC621) : Inverter**

1. Pin layout

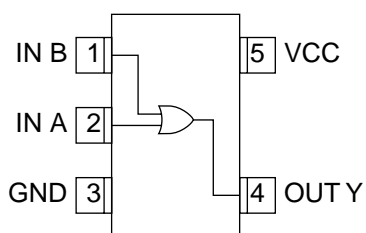


2. Truth value

A	Y
L	H
H	L

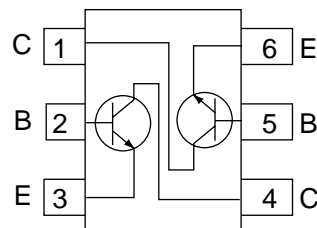
■ **TC7SET32FU (IC672) : Z-Input or gate**

1. Pin layout / Block diagram



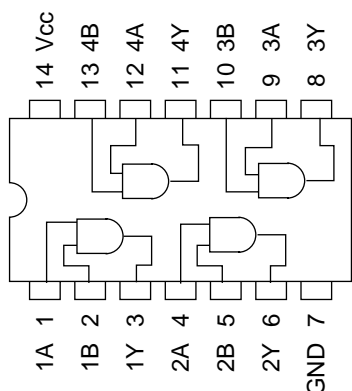
■ **IMX9-W (IC652, IC662, IC682) : Driver**

1. Pin layout / Block diagram



■ **TC74HCU08AF (IC611) : Inverter**

1. Pin layout / Block diagram

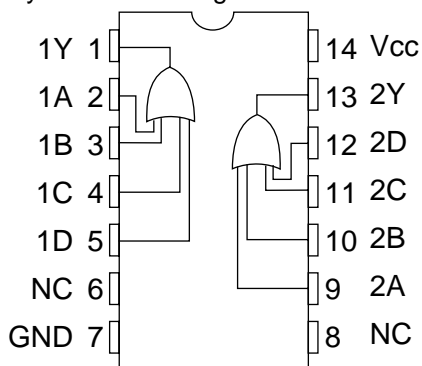


2.The truth value table

A	B	Y
L	L	L
L	H	L
H	L	L
H	H	H

■ **TC74HC4072AF (IC612) : 4-Input gate**

1.Pin layout & block diagram

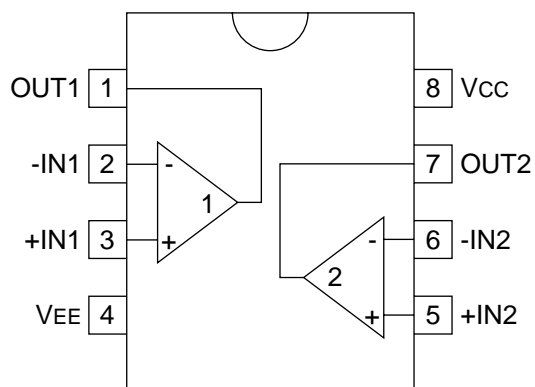


2. Truth table

A	B	C	D	Y
H	X	X	X	H
X	H	X	X	H
X	X	H	X	H
X	X	X	H	H
L	L	L	L	L

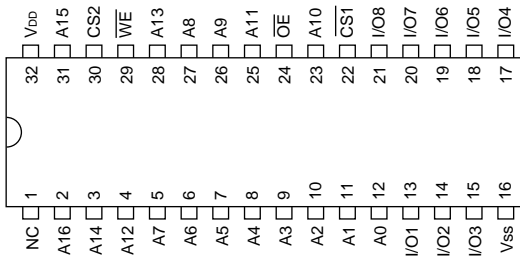
■ **BA15218F (IC421, 422, 427, 609, 610, 650, 651, 661, 690, 691) : Op amp.**

1. Pin layout / Block diagram

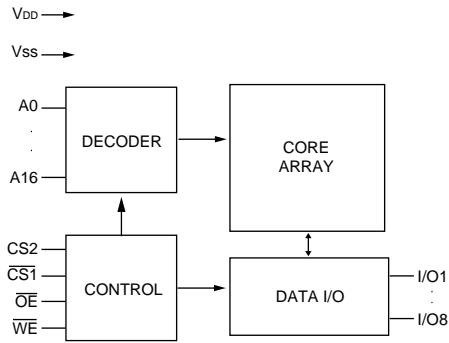


■ **W24L010AJ-12 (IC641) : SRAM**

1. Pin layout



2. Block diagram



3. Pin function

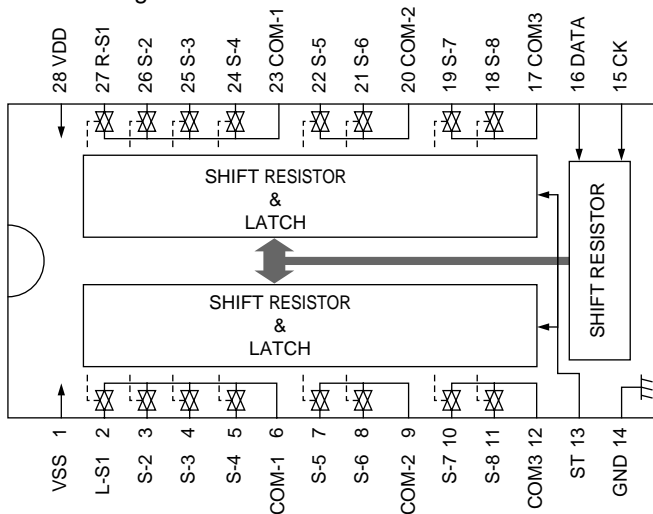
Pin No.	Symbol	Function	Pin No.	Symbol	Function
1	NC	No Connection	17	I/O4	Data Input/Output
2	A16	Address Input	18	I/O5	Data Input/Output
3	A14	Address Input	19	I/O6	Data Input/Output
4	A12	Address Input	20	I/O7	Data Input/Output
5	A7	Address Input	21	I/O8	Data Input/Output
6	A6	Address Input	22	CS1	Chip Select Inputs
7	A5	Address Input	23	A10	Address Input
8	A4	Address Input	24	OE	Output Enable Input
9	A3	Address Input	25	A11	Address Input
10	A2	Address Input	26	A9	Address Input
11	A1	Address Input	27	A8	Address Input
12	A0	Address Input	28	A13	Address Input
13	I/O1	Data Input/Output	29	WE	Write Enable Input
14	I/O2	Data Input/Output	30	CS2	Chip Select Inputs
15	I/O3	Data Input/Output	31	A15	Address Input
16	Vss	Ground	32	VDD	Power Supply

■ **TC9164AN (IC402) : Analog switch**

1. Function

Switch to On/Off of S1 to S8 by control of LSI.

2. Pin layout & Block Diagram





< MEMO >

**RX-7020VBK**

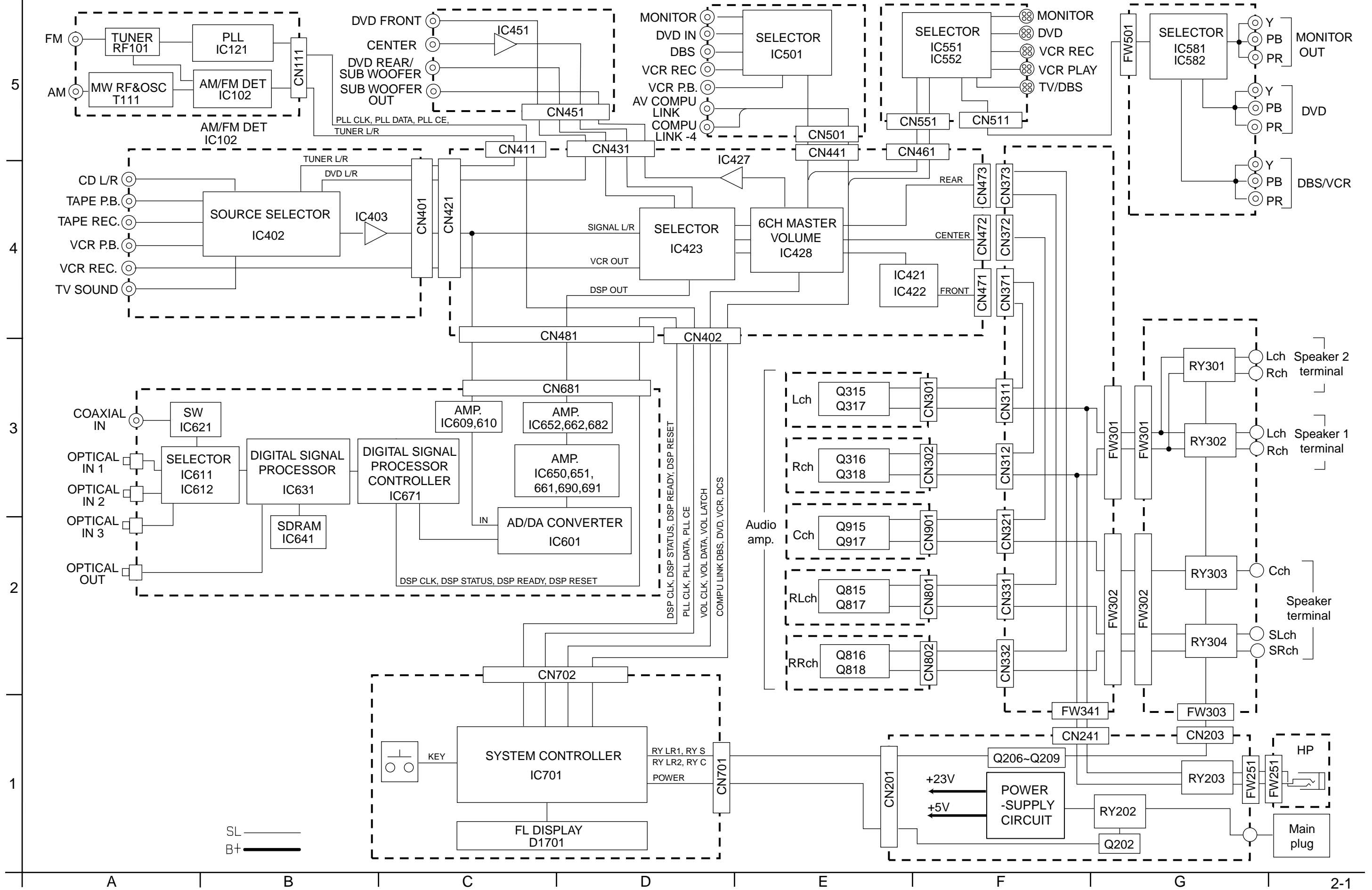


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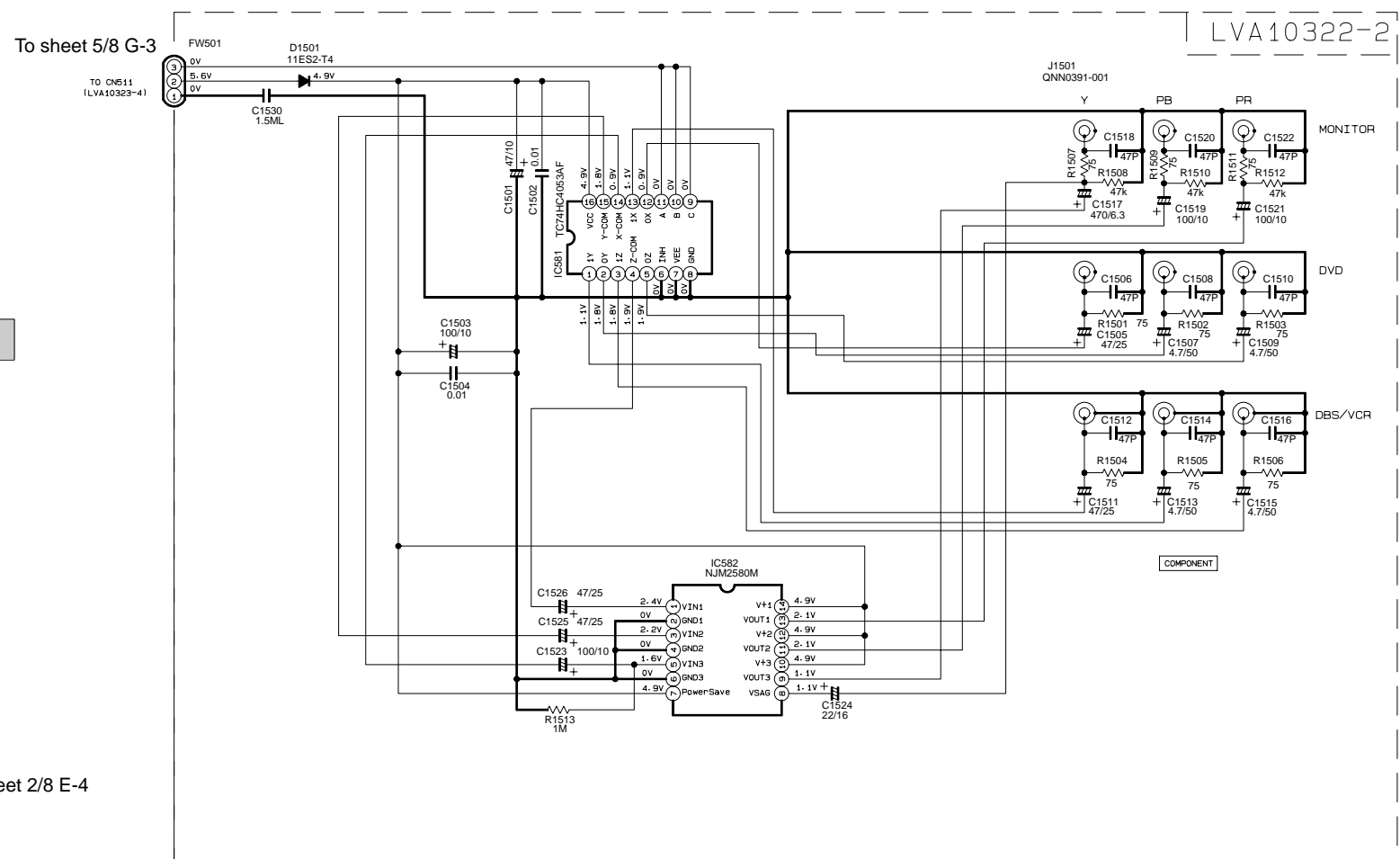
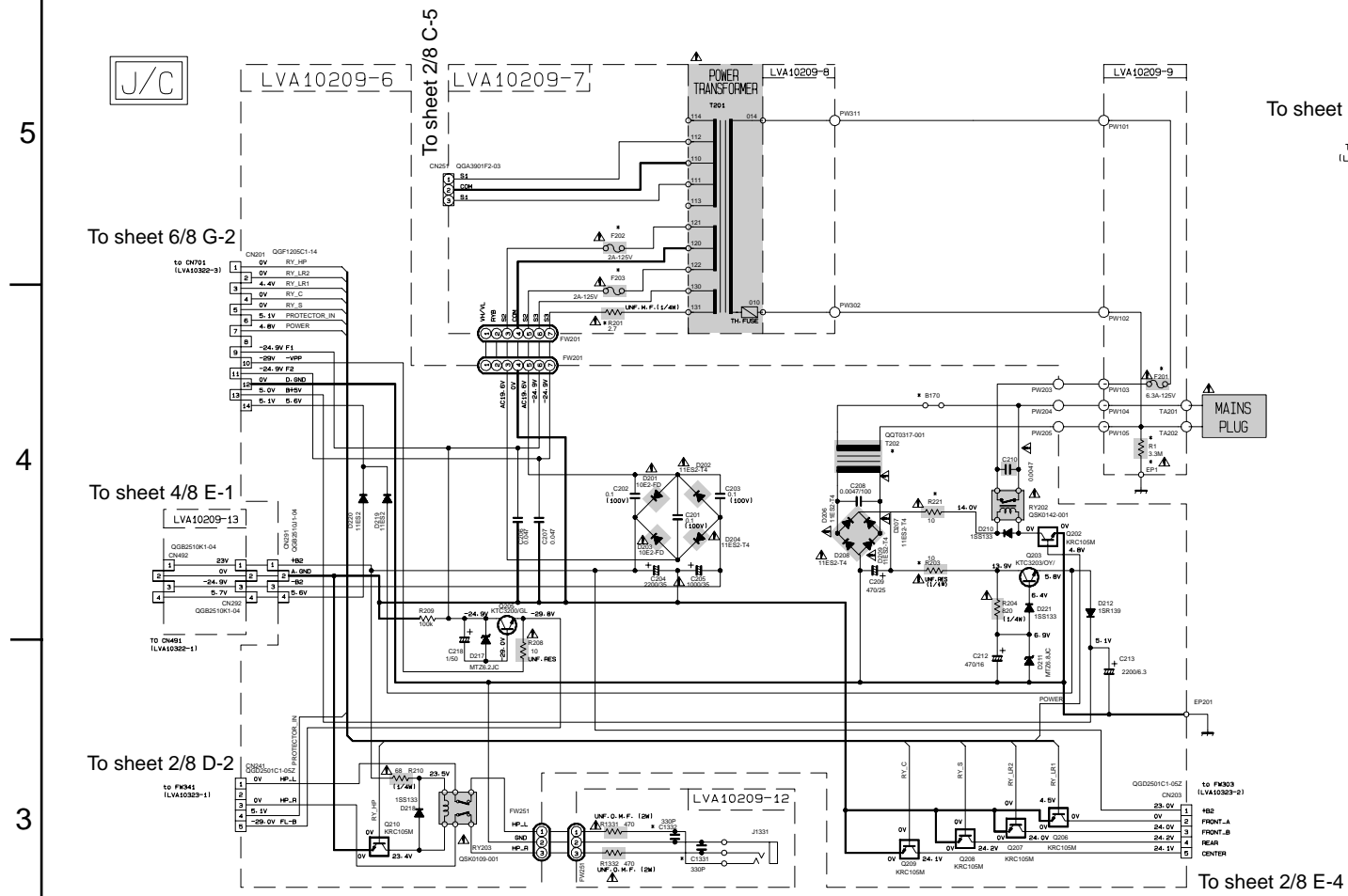
# Block diagram



# Standard schematic diagrams

## ■ Power supply section

## ■ Component video terminal section



MARK LIST

J/C	B/E/EN/VE/A	US/UT/AU
F201	08P5111-803-JR (E-3A-125V)	08P5142-28P-JR (E-3A-250V)
F202-F203	08P5111-28P-JR (E-3A-125V)	08P5142-28P-JR (E-3A-250V)
F204	NONE	08P5142-28P-JR (E-3A-250V)
F205	NONE	08P5142-28P-JR (E-3A-250V)
B170	USE	NONE
V501	NONE	USE

J/C	B/E/EN/VE/A	US/UT/AU	A
R11-RP1	USE	NONE	NONE
R111-R112	NONE	NONE	USE
R113-R114	USE	USE	NONE
R115-R116	USE	USE	NONE
R117-R118	USE	USE	NONE
R119	USE	USE	NONE
R120	USE	USE	NONE
R121	USE	USE	NONE
R122	USE	USE	NONE
R123	USE	USE	NONE
R124	USE	USE	NONE
R125	USE	USE	NONE
R126	USE	USE	NONE
R127	USE	USE	NONE
R128	USE	USE	NONE
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R136	USE	USE	NONE
R137	USE	USE	NONE
R138	USE	USE	NONE
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R141	USE	USE	NONE
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R154	USE	USE	NONE
R155	USE	USE	NONE
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R158	USE	USE	NONE
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R199	USE	USE	NONE
R200	USE	USE	NONE
R201	USE	USE	NONE
R202	USE	USE	NONE
R203	USE	USE	NONE
R204	USE	USE	NONE
R205	USE	USE	NONE
R206	USE	USE	NONE
R207	USE	USE	NONE
R208	USE	USE	NONE
R209	USE	USE	NONE
R210	USE	USE	NONE
R211	USE	USE	NONE
R212	USE	USE	NONE
R213	USE	USE	NONE
R214	USE	USE	NONE
R215	USE	USE	NONE
R216	USE	USE	NONE
R217	USE	USE	NONE
R218	USE	USE	NONE
R219	USE	USE	NONE
R220	USE	USE	NONE
R221	USE	USE	NONE
R222	USE	USE	NONE
R223	USE	USE	NONE
R224	USE	USE	NONE
R225	USE	USE	NONE
R226	USE	USE	NONE
R227	USE	USE	NONE
R228	USE	USE	NONE
R229	USE	USE	NONE
R230	USE	USE	NONE
R231	USE	USE	NONE
R232	USE	USE	NONE
R233	USE	USE	NONE
R234	USE	USE	NONE
R235	USE	USE	NONE
R236	USE	USE	NONE
R237	USE	USE	NONE
R238	USE	USE	NONE
R239	USE	USE	NONE
R240	USE	USE	NONE
R241	USE	USE	NONE
R242	USE	USE	NONE
R243	USE	USE	NONE
R244	USE	USE	NONE
R245	USE	USE	NONE
R246	USE	USE	NONE
R247	USE	USE	NONE
R248	USE	USE	NONE
R249	USE	USE	NONE
R250	USE	USE	NONE
R251	USE	USE	NONE
R252	USE	USE	NONE
R253	USE	USE	NONE
R254	USE	USE	NONE
R255	USE	USE	NONE
R256	USE	USE	NONE
R257	USE	USE	NONE
R258	USE	USE	NONE
R259	USE	USE	NONE
R260	USE	USE	NONE
R261	USE	USE	NONE
R262	USE	USE	NONE
R263	USE	USE	NONE
R264	USE	USE	NONE
R265	USE	USE	NONE
R266	USE	USE	NONE
R267	USE	USE	NONE
R268	USE	USE	NONE
R269	USE	USE	NONE
R270	USE	USE	NONE
R271	USE	USE	NONE
R272	USE	USE	NONE
R273	USE	USE	NONE
R274	USE	USE	NONE
R275	USE	USE	NONE
R276	USE	USE	NONE
R277	USE	USE	NONE
R278	USE	USE	NONE
R279	USE	USE	NONE
R280	USE	USE	NONE
R281	USE	USE	NONE
R282	USE	USE	NONE
R283	USE	USE	NONE
R284	USE	USE	NONE
R285	USE	USE	NONE
R286	USE	USE	NONE
R287	USE	USE	NONE
R288	USE	USE	NONE
R289	USE	USE	NONE
R290	USE	USE	NONE
R291	USE	USE	NONE
R292	USE	USE	NONE
R293	USE	USE	NONE
R294	USE	USE	NONE
R295	USE	USE	NONE
R296	USE	USE	NONE
R297	USE	USE	NONE
R298	USE	USE	NONE
R299	USE	USE	NONE
R300	USE	USE	NONE

SHEET No.	CIRCUIT DESCRIPTION
1 / 8	POWER SUPPLY / COMPONENT VIDEO
2 / 8	SPEAKER TERMINAL
3 / 8	AUDIO AMP
4 / 8	VOLUME / REGULATOR / SOURCE SELECT IC
5 / 8	AUDIO VIDEO SIGNAL INPUT TERMINAL / SOURCE SELECT IC
6 / 8	SURROUND IC / DIGITAL SIGNAL INPUT TERMINAL
7 / 8	USER CONTROL KEYS / SYSTEMCONTROL LSI / FL DISPLAY
8 / 8	TUNER

VERSION CODES

- J : U. S. A.
- C : CANADA
- B : U. K.
- E : CONTINENTAL EUROPE
- EN : NORDIC COUNTRIES
- EV : EASTERN EUROPE
- US : SINGAPORE
- UT : TAIWAN
- UJ : MILITARY MARKET
- A : AUSTRALIA

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

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A B C D E F G H

Audio & Speaker terminal section

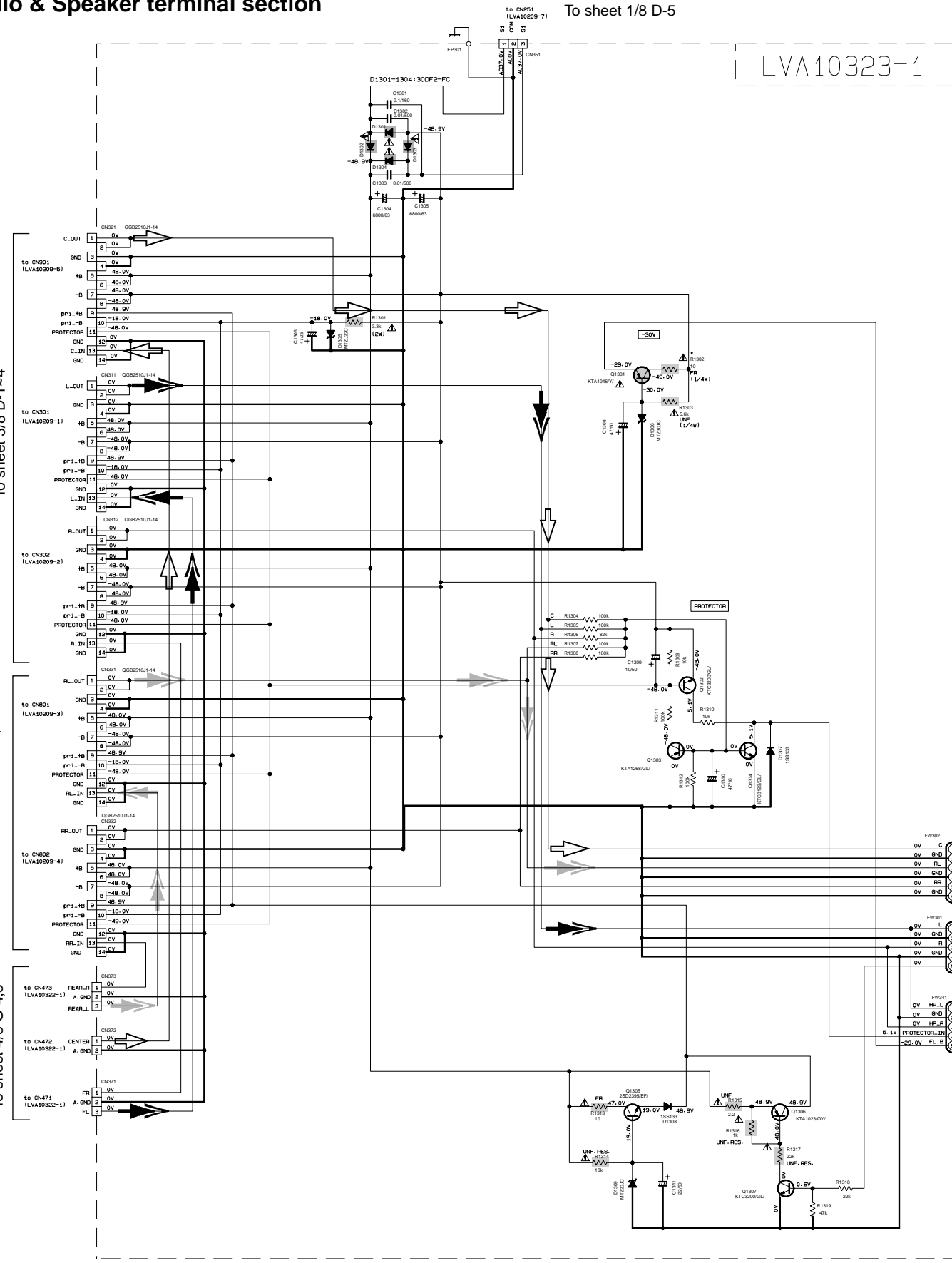
To sheet 1/8 D-5

5  
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To sheet 3/8 D-1~4

To sheet 3/8 G-3,4

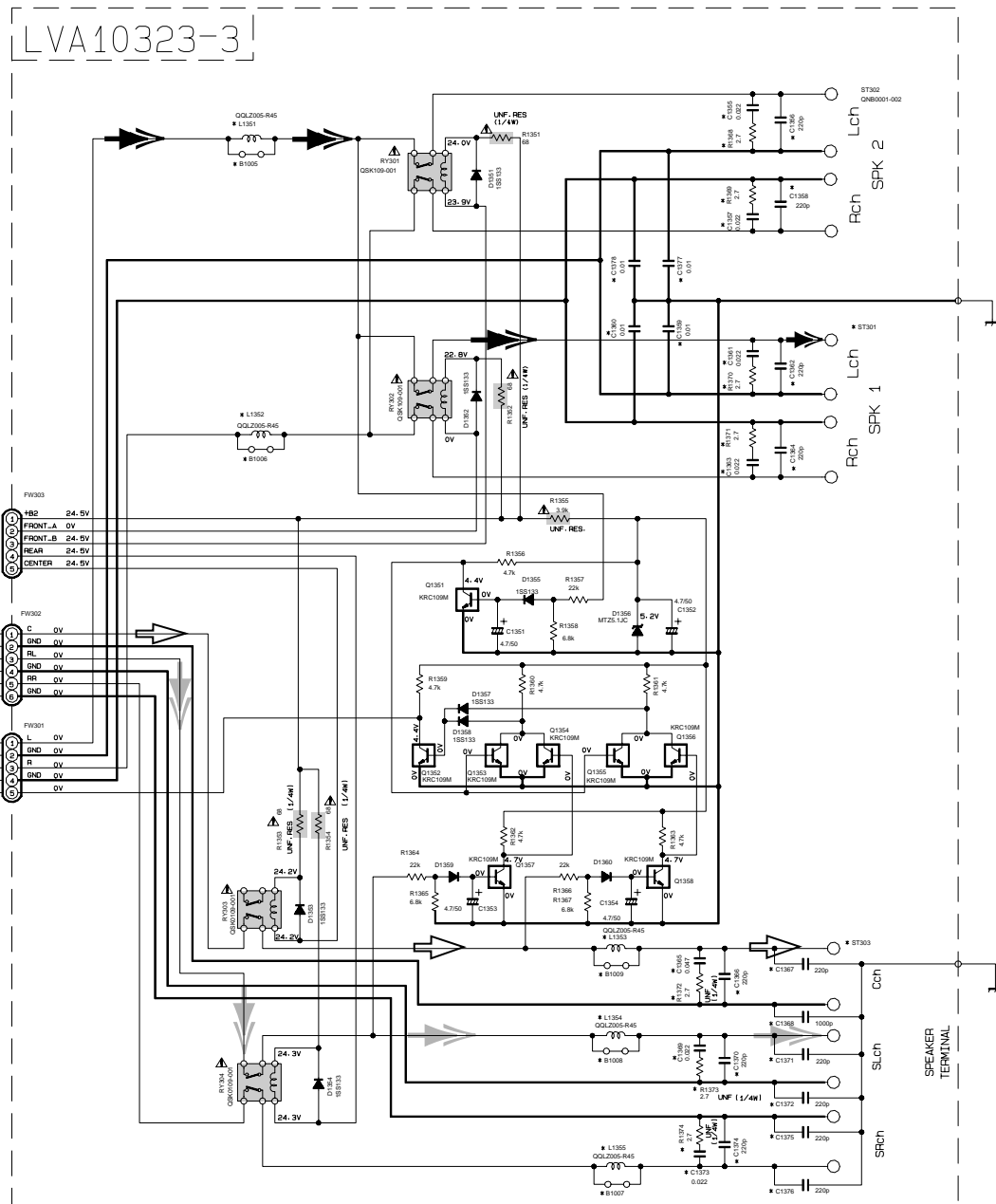
To sheet 4/8 G-4,5



LVA10323-1

To sheet 1/8 D-3

To sheet 1/8 A-3



LVA10323-3

MARK LIST

MARK	J/C	B/E/EN/VEY	US/AT/TA/A
C1362	NONE	USE	USE
C1363	NONE	USE	USE
C1364	NONE	USE	USE
C1377	NONE	USE	USE
C1378	NONE	USE	USE
C1385	NONE	USE	USE
C1387	NONE	USE	USE
C1396	NONE	USE	USE
C1398	NONE	USE	USE
C1399	NONE	USE	USE
C1375	NONE	USE	USE
C1374	NONE	USE	USE
C1369	NONE	USE	USE
C1366	NONE	USE	USE
C1365	NONE	USE	USE
L1303	NONE	USE	USE
L1384	NONE	USE	USE
L1399	NONE	USE	USE
L1392	NONE	USE	USE
L1381	NONE	USE	USE
B1005	USE	NONE	NONE
B1006	USE	NONE	NONE
B1007	USE	NONE	NONE
B1008	USE	NONE	NONE
B1009	USE	NONE	NONE
C1399	NONE	USE	USE
C1360	NONE	USE	USE
C1375	NONE	USE	USE
C1374	NONE	USE	USE
C1369	NONE	USE	USE
C1367	NONE	USE	USE
C1371	NONE	USE	USE
C1370	NONE	USE	USE

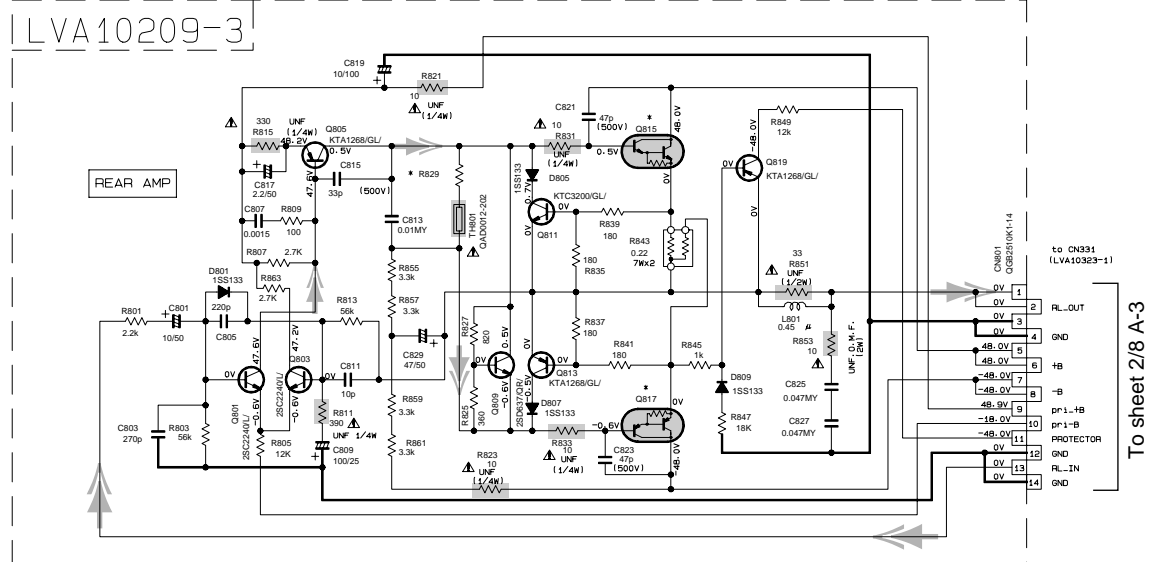
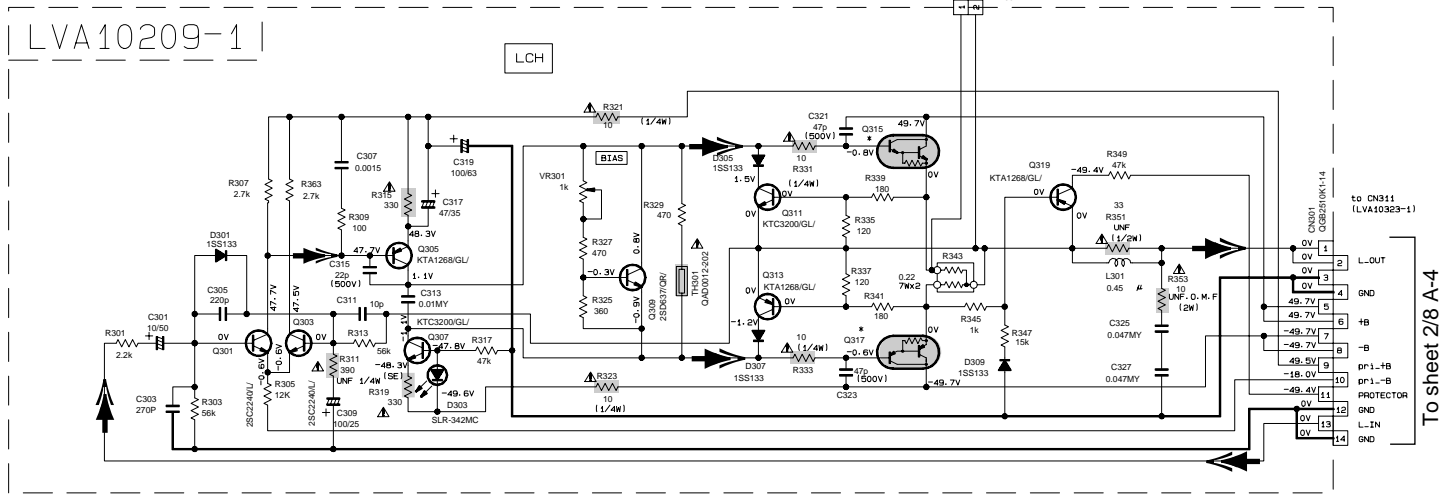
MARK	J/C	B/E/EN/VEY	US/AT/TA/A
B1368	NONE	USE	USE
B1369	NONE	USE	USE
B1370	NONE	USE	USE
B1371	NONE	USE	USE
B1372	NONE	USE	USE
B1373	NONE	USE	USE
B1374	NONE	USE	USE

- ➔ SURROUND signal
- ➔ FRONT signal
- ➔ CENTER signal

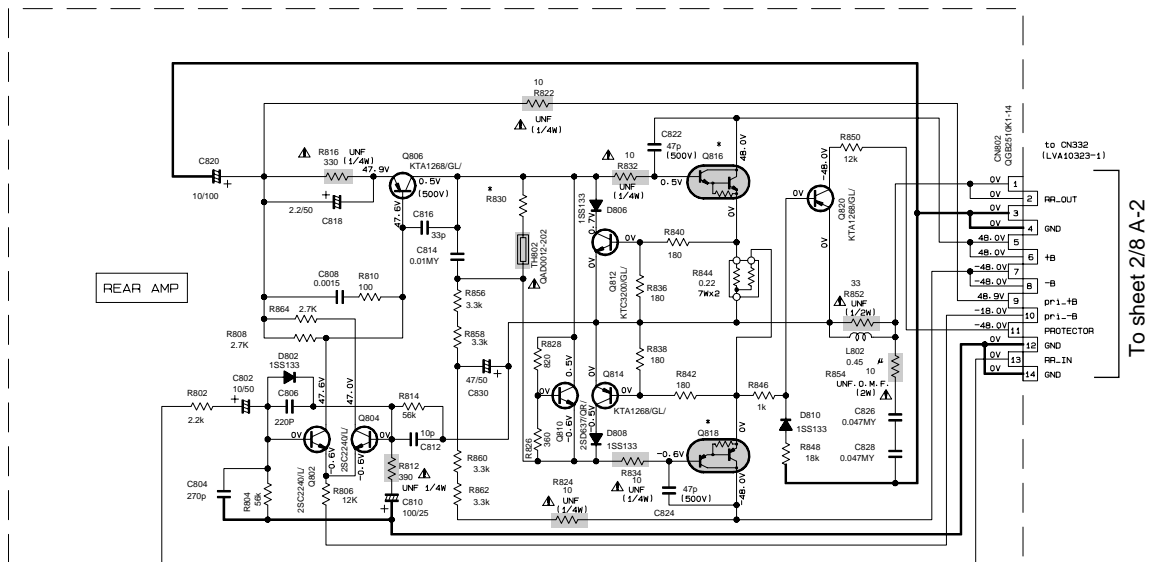
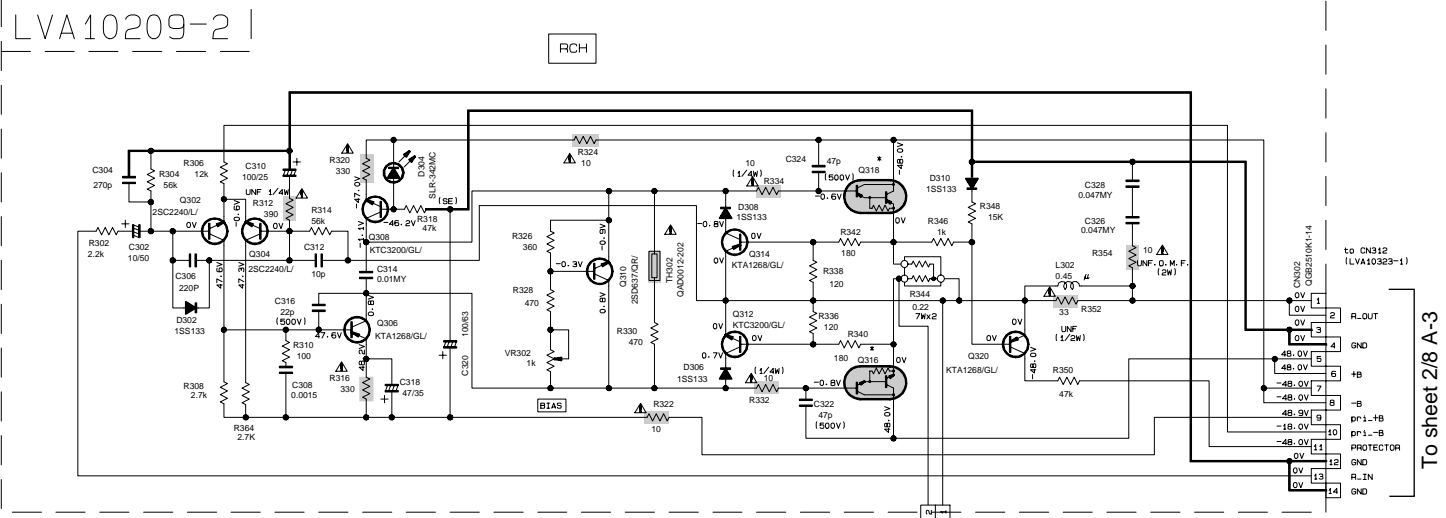
⚠ Parts are safety assurance parts.  
When replacing those parts make  
sure to use the specified.

Audio amplifier section

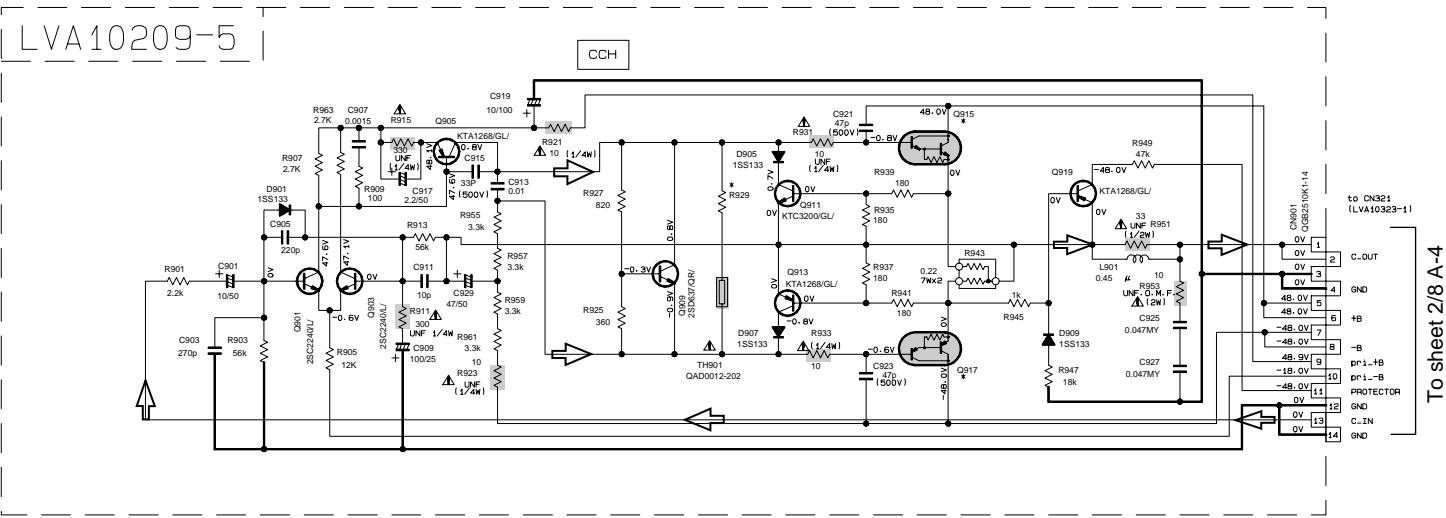
5



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MARK LIST

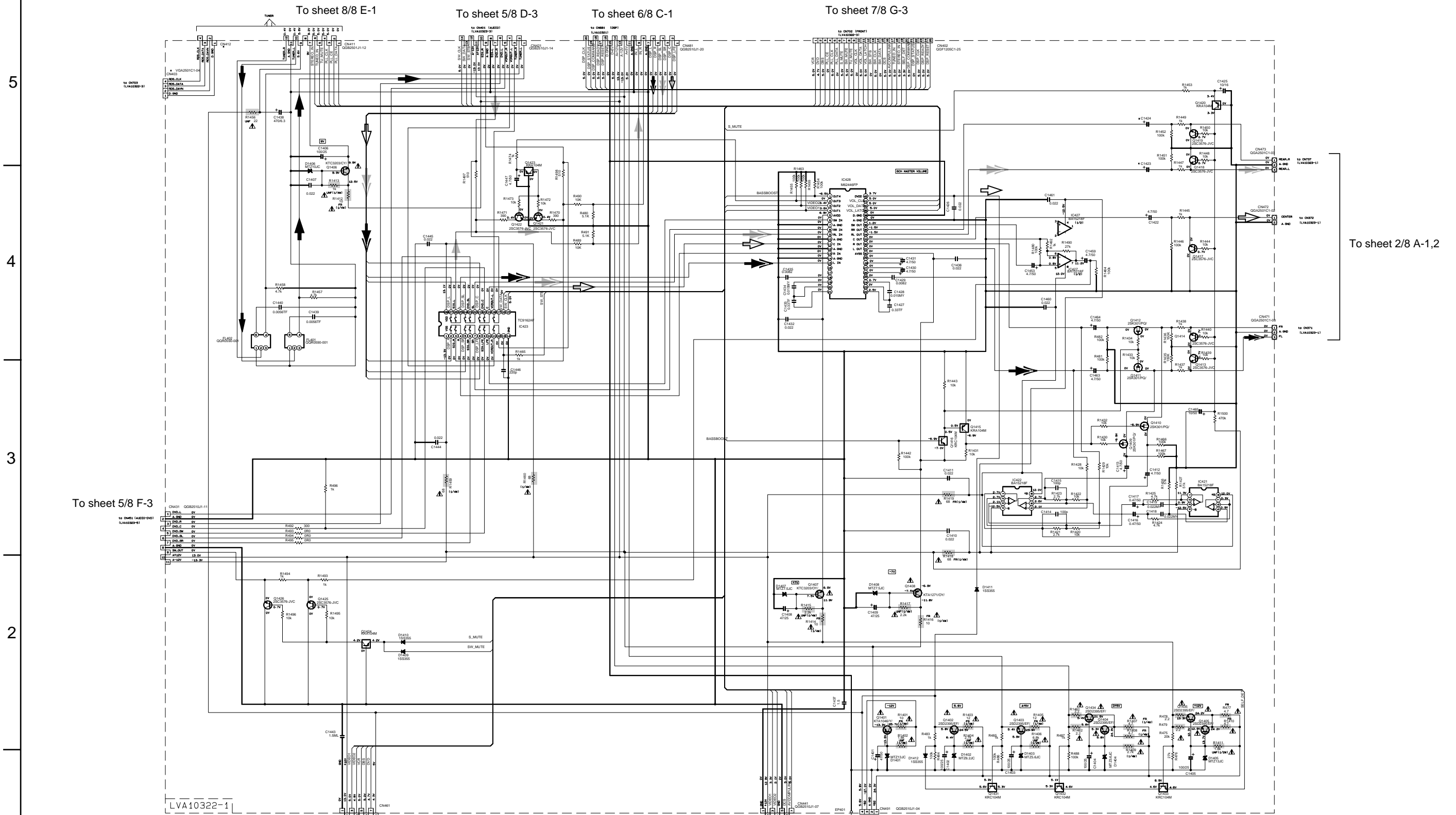
	J/C	B/E/EN/EV	US/UT/UJ/A
Q315- Q316	2SD2389/OPY/-F6	2SD2390/OPY/-F6	2SD2390/OPY/-F6
Q815- Q816			
Q817- Q818	2SB1559/OPY/-F6	2SB1560/OPY/-F6	2SB1560/OPY/-F6
Q917			
R829- R830			
R929	470	470	220

- ➡ SURROUND signal
- ➡ FRONT signal
- ➡ CENTER signal

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

■ Main section

(Volume / Regulator / source select)



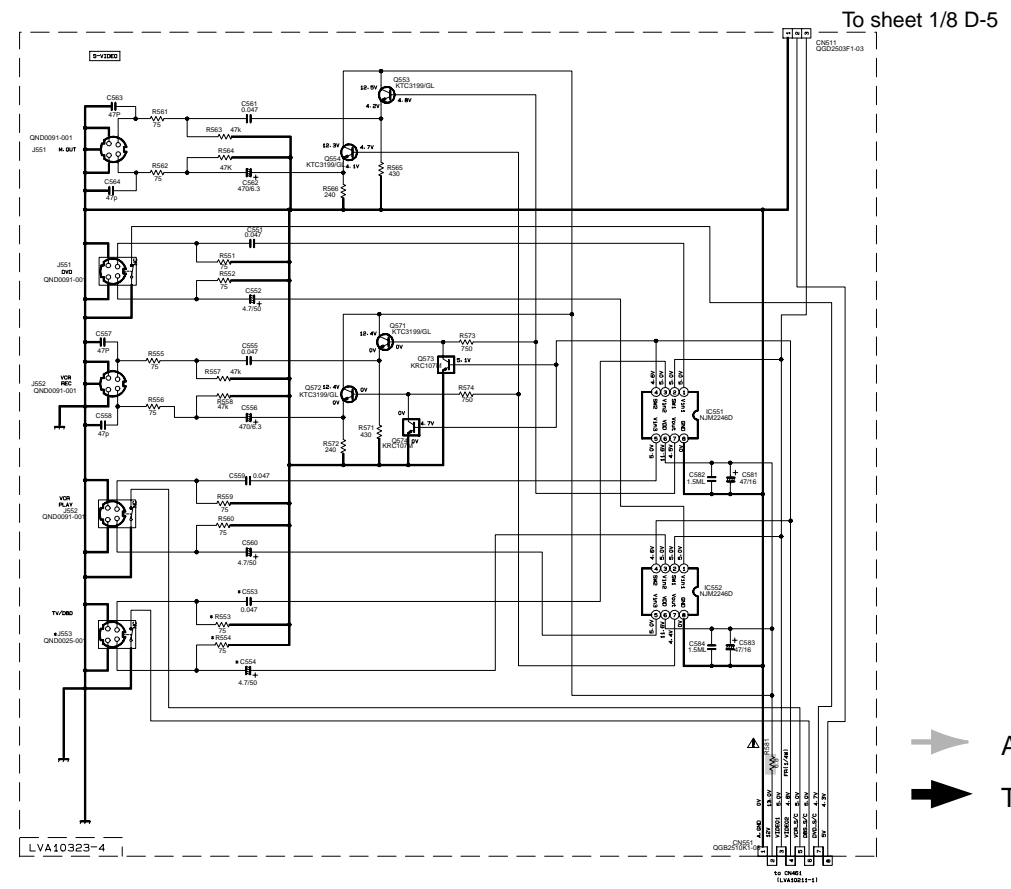
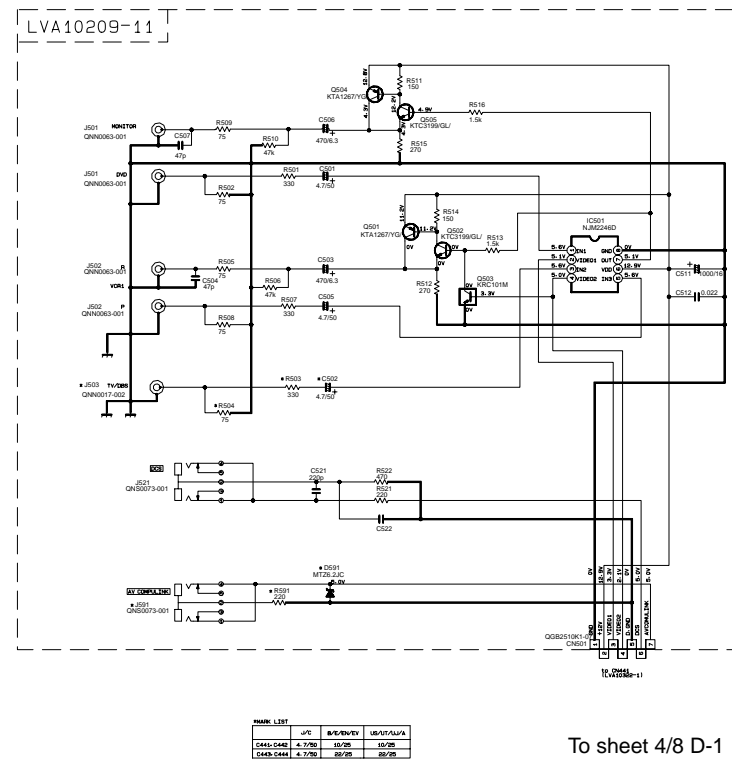
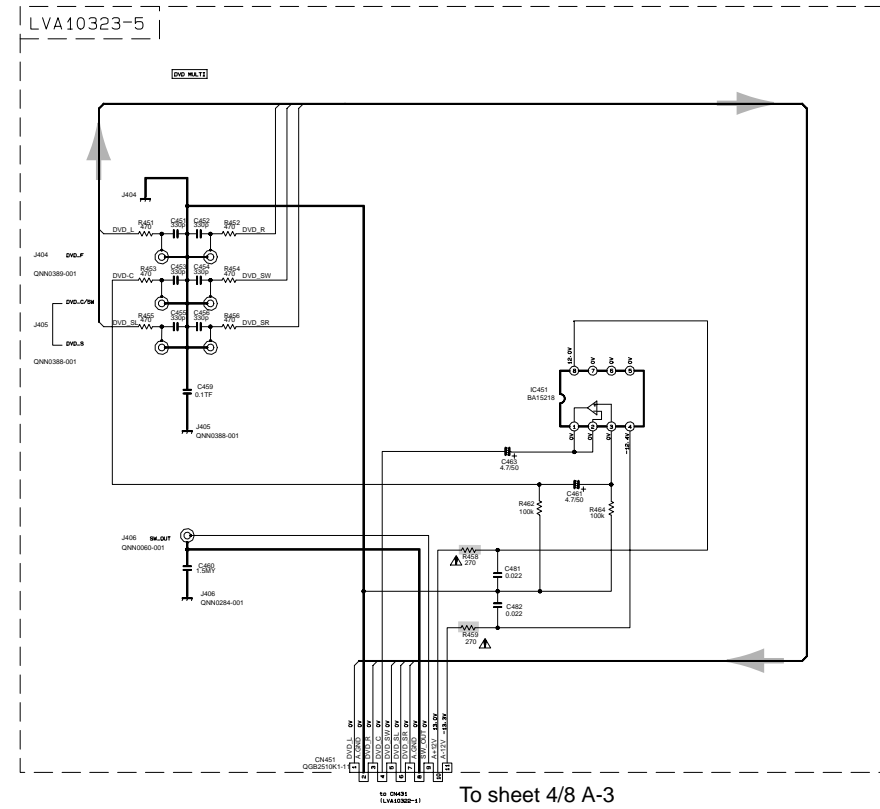
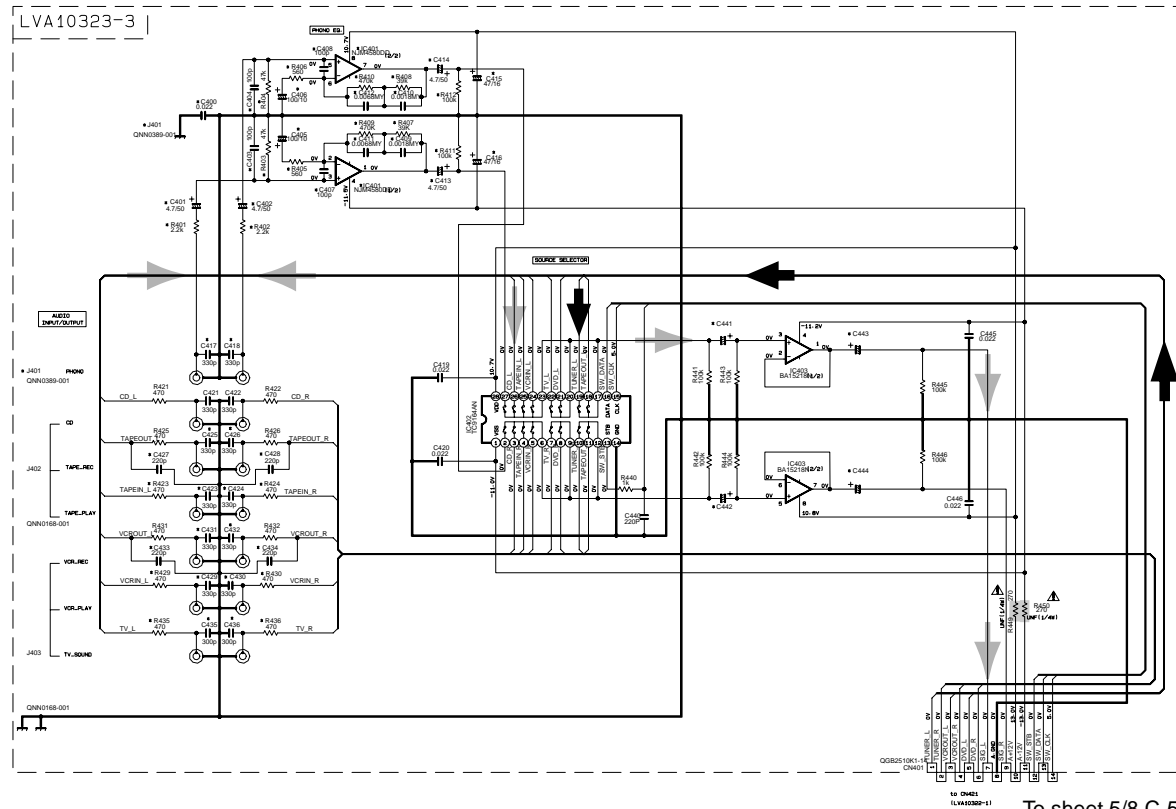
- ➔ AUDIO signal
- ➔ TUNER signal
- ➔ SURROUND signal
- ➔ FRONT signal
- ➔ CENTER signal

MAIN LIST

J/C	R/E/EN/VEV	USA/T/A/W/A
CN412, CN403	NONE	USE
C1463, C1464	4-7/50	10/25 10/25

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

Audio / Video signal input terminal section



REF. MARK	SYMBOL	VALUE
S801-S804	USE	NONE
S805	USE	NONE
S806	USE	NONE
S807	USE	NONE
S808	USE	NONE
S809	USE	NONE
S810	USE	NONE
S811	USE	NONE
S812	USE	NONE
S813	USE	NONE
S814	USE	NONE
S815	USE	NONE
S816	USE	NONE
S817	USE	NONE
S818	USE	NONE
S819	USE	NONE
S820	USE	NONE
S821	USE	NONE
S822	USE	NONE
S823	USE	NONE
S824	USE	NONE
S825	USE	NONE
S826	USE	NONE
S827	USE	NONE
S828	USE	NONE
S829	USE	NONE
S830	USE	NONE
S831	USE	NONE
S832	USE	NONE
S833	USE	NONE
S834	USE	NONE
S835	USE	NONE
S836	USE	NONE
S837	USE	NONE
S838	USE	NONE
S839	USE	NONE
S840	USE	NONE
S841	USE	NONE
S842	USE	NONE
S843	USE	NONE
S844	USE	NONE
S845	USE	NONE
S846	USE	NONE
S847	USE	NONE
S848	USE	NONE
S849	USE	NONE
S850	USE	NONE
S851	USE	NONE
S852	USE	NONE
S853	USE	NONE
S854	USE	NONE
S855	USE	NONE
S856	USE	NONE
S857	USE	NONE
S858	USE	NONE
S859	USE	NONE
S860	USE	NONE
S861	USE	NONE
S862	USE	NONE
S863	USE	NONE
S864	USE	NONE
S865	USE	NONE
S866	USE	NONE
S867	USE	NONE
S868	USE	NONE
S869	USE	NONE
S870	USE	NONE
S871	USE	NONE
S872	USE	NONE
S873	USE	NONE
S874	USE	NONE
S875	USE	NONE
S876	USE	NONE
S877	USE	NONE
S878	USE	NONE
S879	USE	NONE
S880	USE	NONE
S881	USE	NONE
S882	USE	NONE
S883	USE	NONE
S884	USE	NONE
S885	USE	NONE
S886	USE	NONE
S887	USE	NONE
S888	USE	NONE
S889	USE	NONE
S890	USE	NONE
S891	USE	NONE
S892	USE	NONE
S893	USE	NONE
S894	USE	NONE
S895	USE	NONE
S896	USE	NONE
S897	USE	NONE
S898	USE	NONE
S899	USE	NONE
S900	USE	NONE

MARK LIST	JPC	B/E/REV	US/TA/PA
C441-C442	4.7/70	15/75	15/75
C443-C444	4.7/70	15/75	15/75

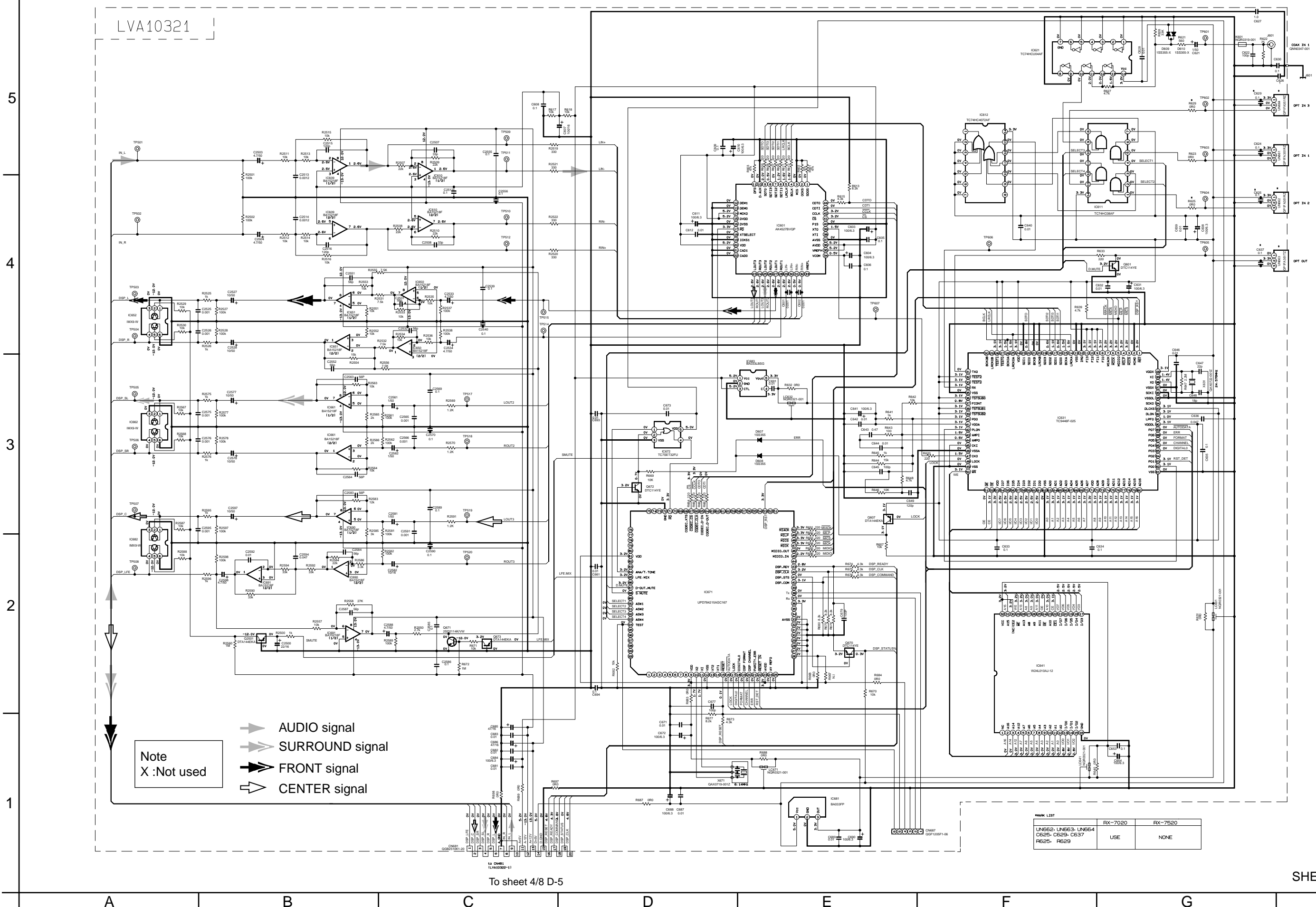
▶ AUDIO signal  
 ▶ TUNER signal

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A B C 2-6 D E F G H



■ Digital signal input terminal / Surround section



LVA10321

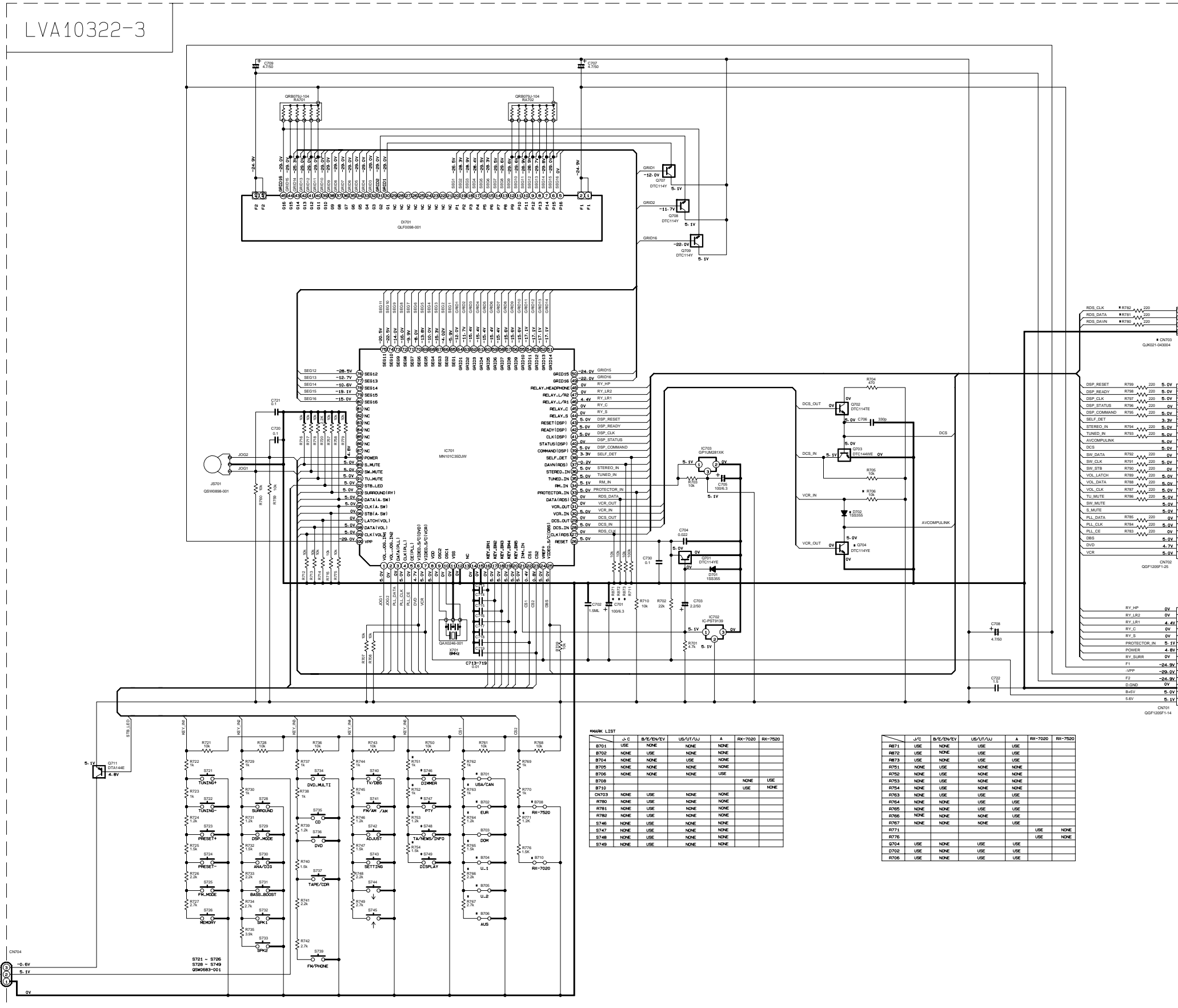
- ➔ AUDIO signal
- ➔ SURROUND signal
- ➔ FRONT signal
- ➔ CENTER signal

Note X : Not used

MAIN LIST	RX-7020	RX-7520
UN562, UN563, UN564	USE	NONE
C625, C629, C637	USE	NONE
R625, R629	USE	NONE

To sheet 4/8 D-5

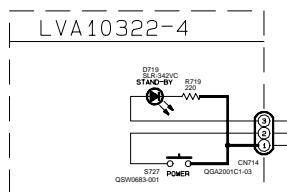
User control / System control / FL displaying section



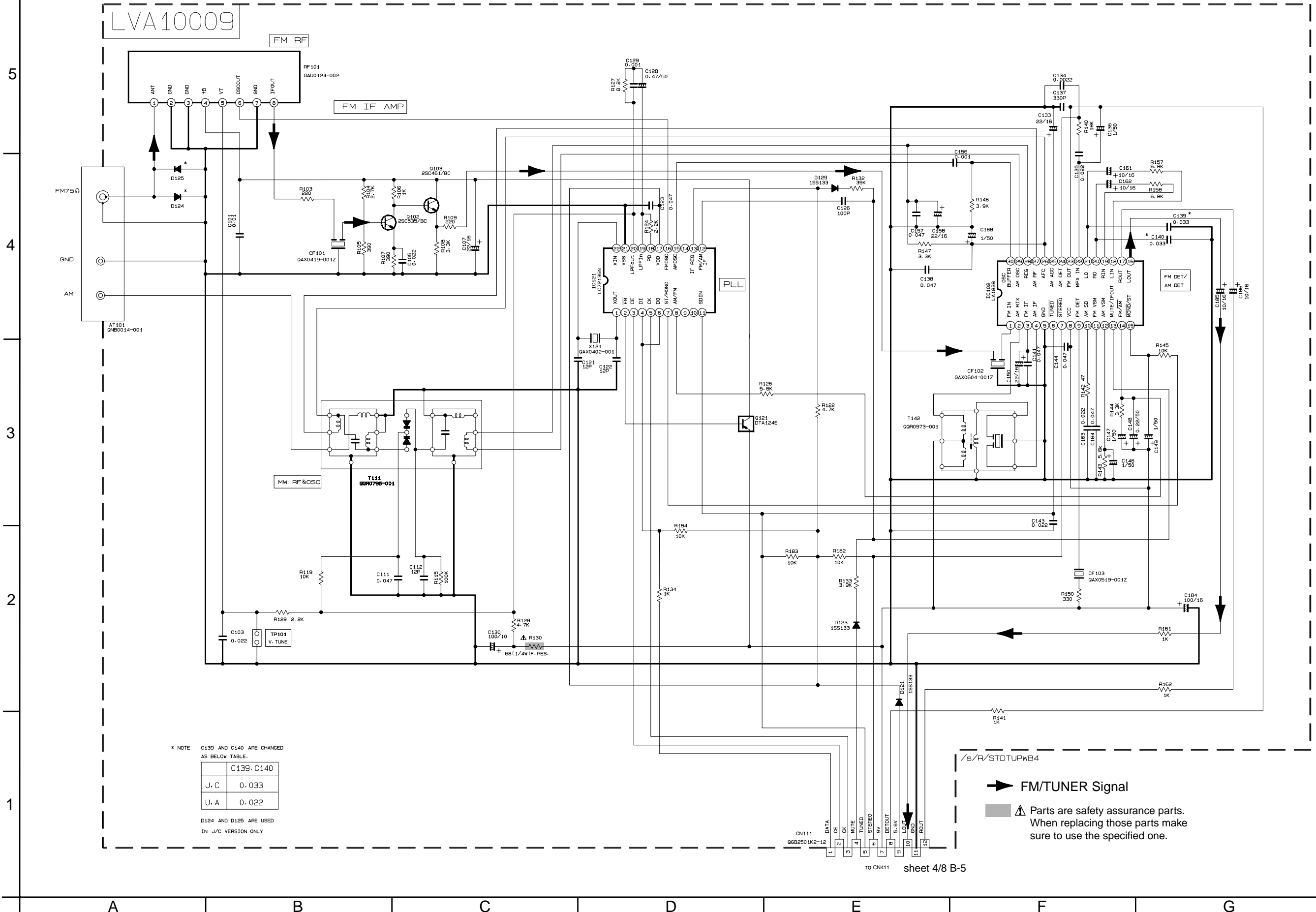
MARK LIST

MARK	J-C	B/E/DN/EV	US/UT/AU	A	RX-7020	RX-7520
R701	USE	NONE	NONE	USE	USE	
R702	USE	NONE	NONE	USE	USE	
R704	NONE	NONE	USE	NONE		
R705	NONE	NONE	NONE	USE		
R706	NONE	NONE	NONE	USE		
R708	NONE	NONE	NONE	USE		
R710	NONE	NONE	NONE	USE		
CN703	NONE	USE	NONE	NONE		
R790	NONE	USE	NONE	NONE		
R781	NONE	USE	NONE	NONE		
R782	NONE	USE	NONE	NONE		
R746	NONE	USE	NONE	NONE		
R747	NONE	USE	NONE	NONE		
R748	NONE	USE	NONE	NONE		
R749	NONE	USE	NONE	NONE		

MARK	J-C	B/E/DN/EV	US/UT/AU	A	RX-7020	RX-7520
R871	USE	NONE	USE	USE		
R872	USE	NONE	USE	USE		
R873	USE	NONE	USE	USE		
R874	NONE	USE	NONE	NONE		
R875	NONE	USE	NONE	NONE		
R876	NONE	USE	NONE	NONE		
R877	NONE	USE	NONE	NONE		
R878	NONE	USE	NONE	NONE		
R879	NONE	USE	NONE	NONE		
R880	NONE	USE	NONE	NONE		
R881	NONE	USE	NONE	NONE		
R882	NONE	USE	NONE	NONE		
R883	NONE	USE	NONE	NONE		
R884	NONE	USE	NONE	NONE		
R885	NONE	USE	NONE	NONE		
R886	NONE	USE	NONE	NONE		
R887	NONE	USE	NONE	NONE		
R888	NONE	USE	NONE	NONE		
R889	NONE	USE	NONE	NONE		
R890	USE	NONE	USE	USE		
C702	USE	NONE	USE	USE		
R705	USE	NONE	USE	USE		



■ Tuner section



\* NOTE C139 AND C140 ARE CHANGED AS BELOW TABLE.

	C139, C140
J. C	0.033
U. A	0.022

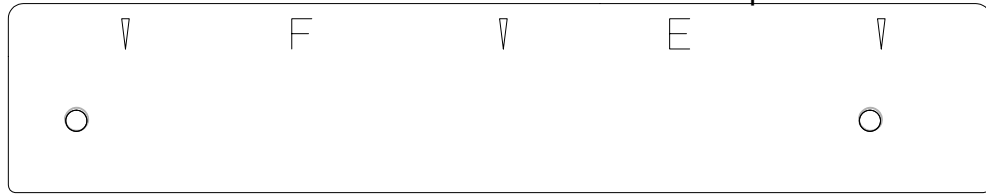
D124 AND D125 ARE USED IN J/C VERSION ONLY

➔ FM/TUNER Signal  
 ⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

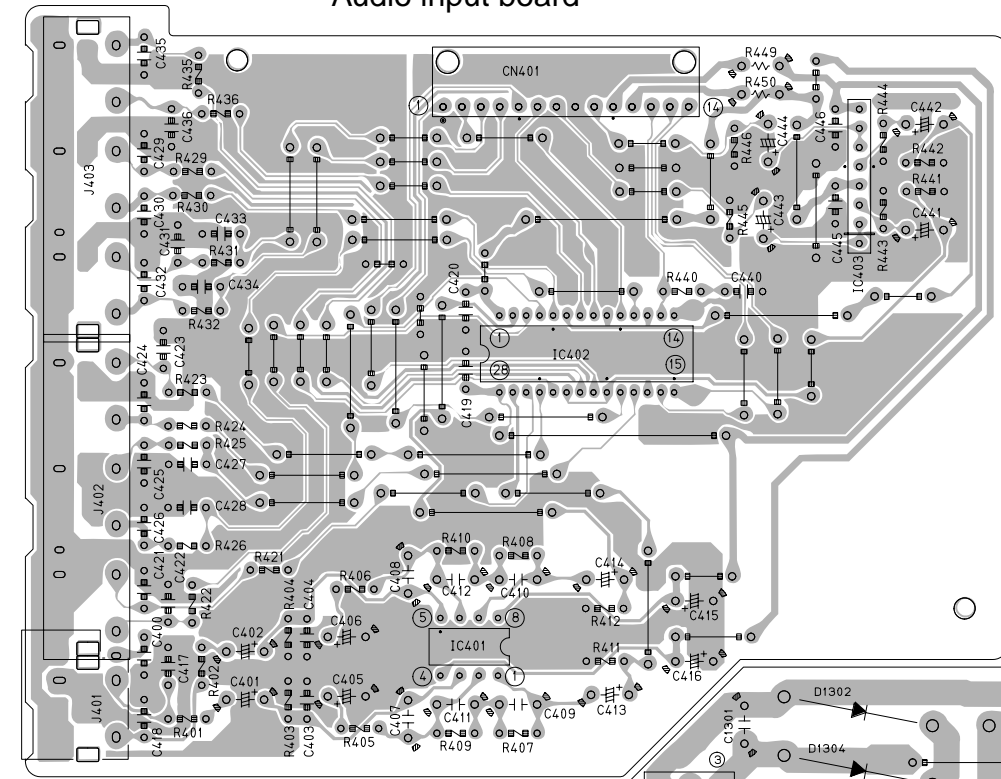
# Printed circuit boards

■ Main board

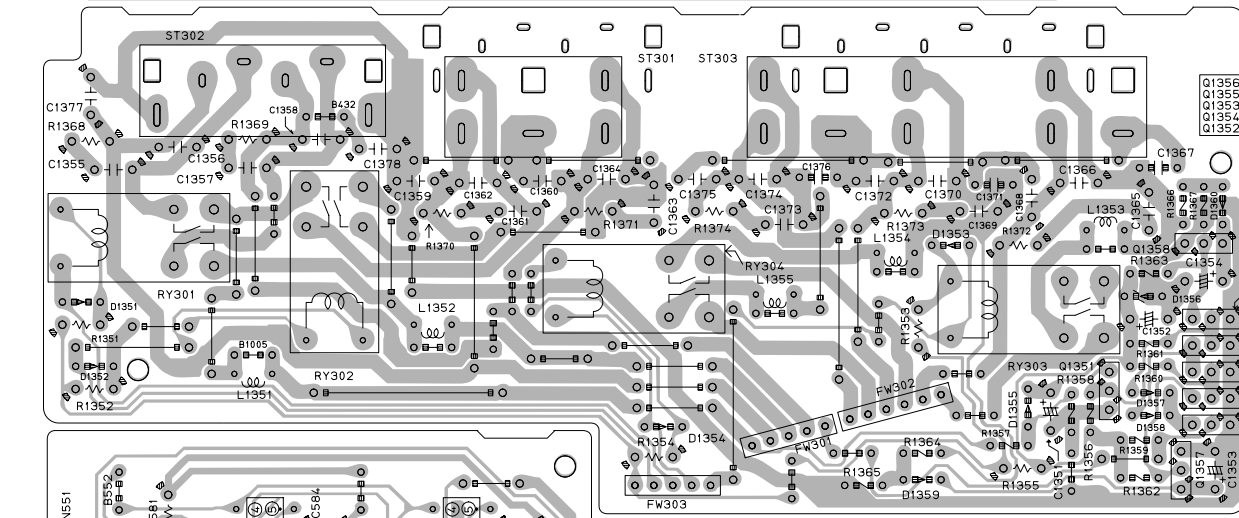
Wire protection board



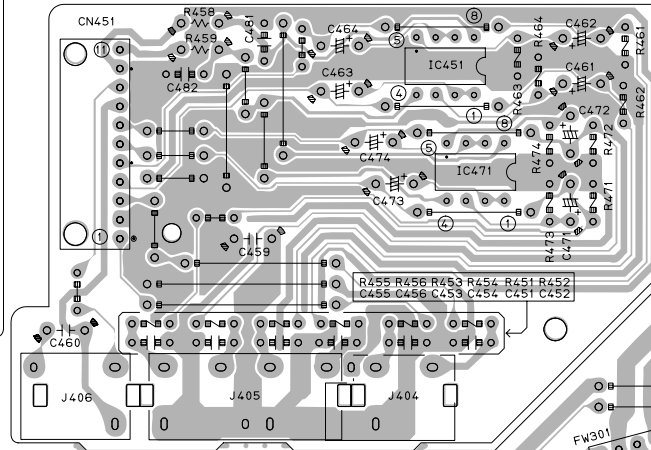
Audio input board



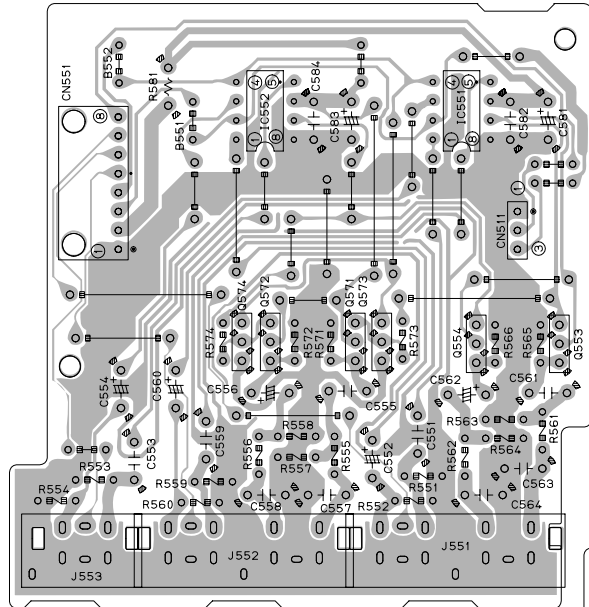
Speaker terminal board



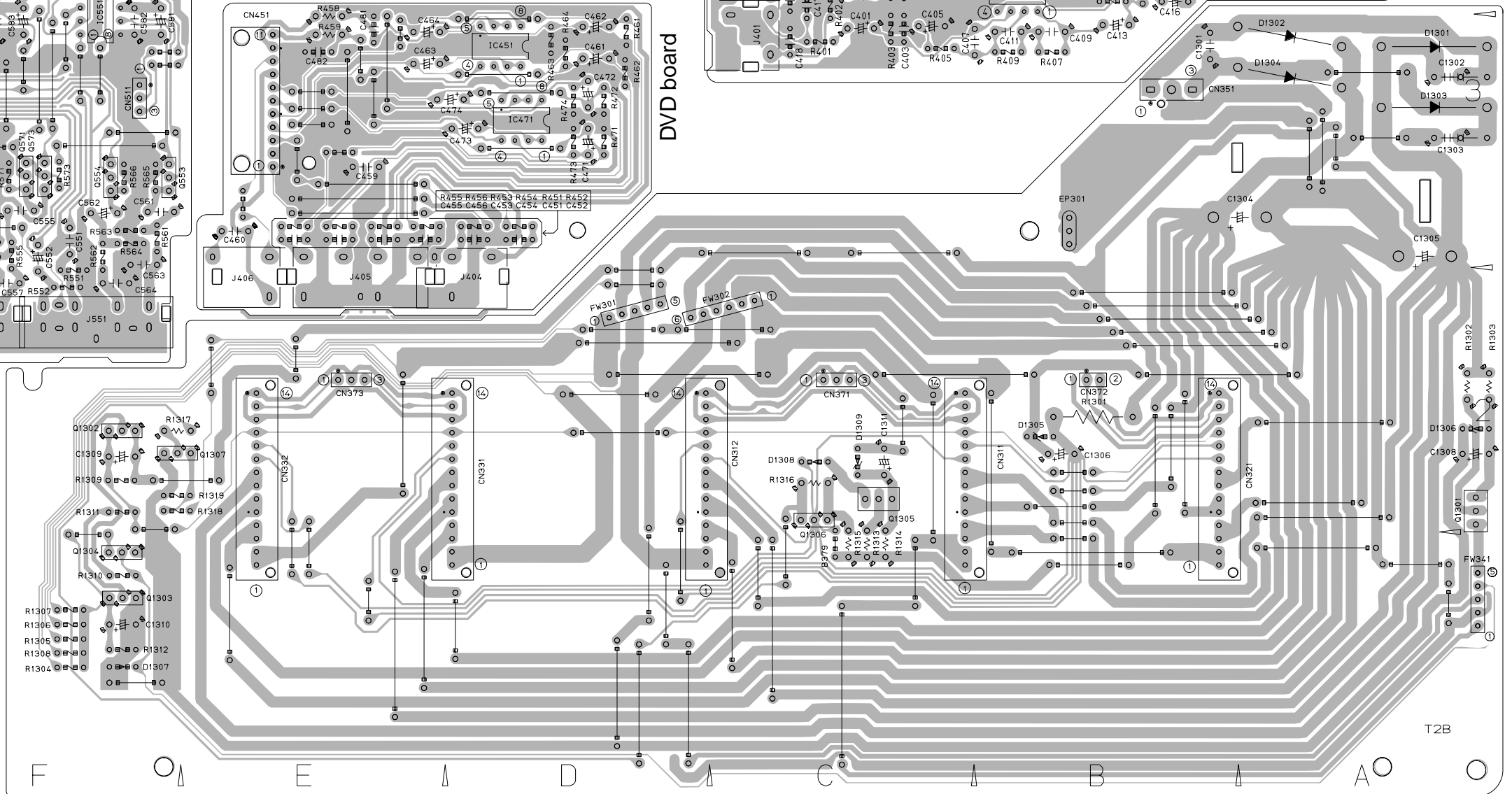
DVD board



S Video board



Main board



5

4

3

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A

B

C

2-10

D

E

F

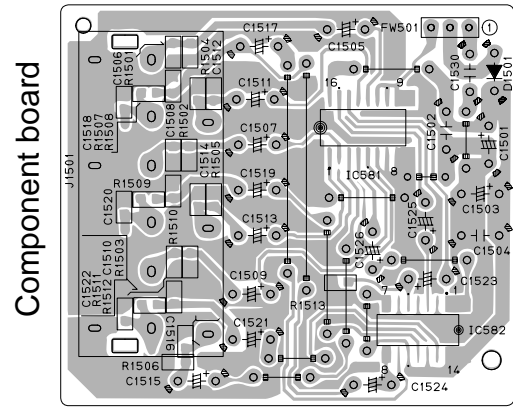
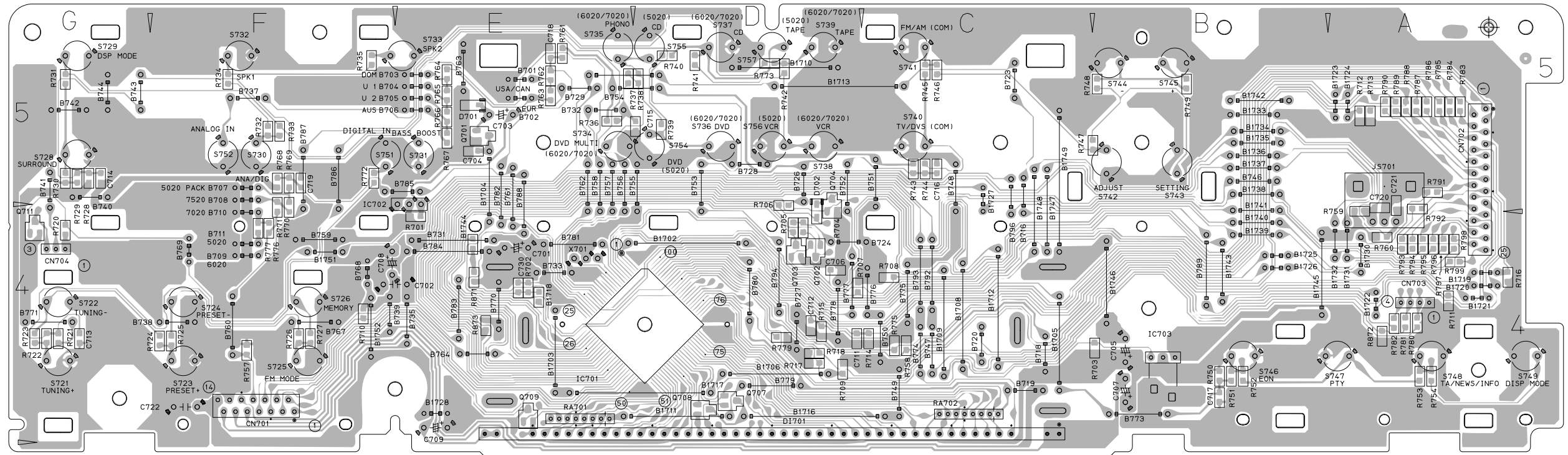
G

H

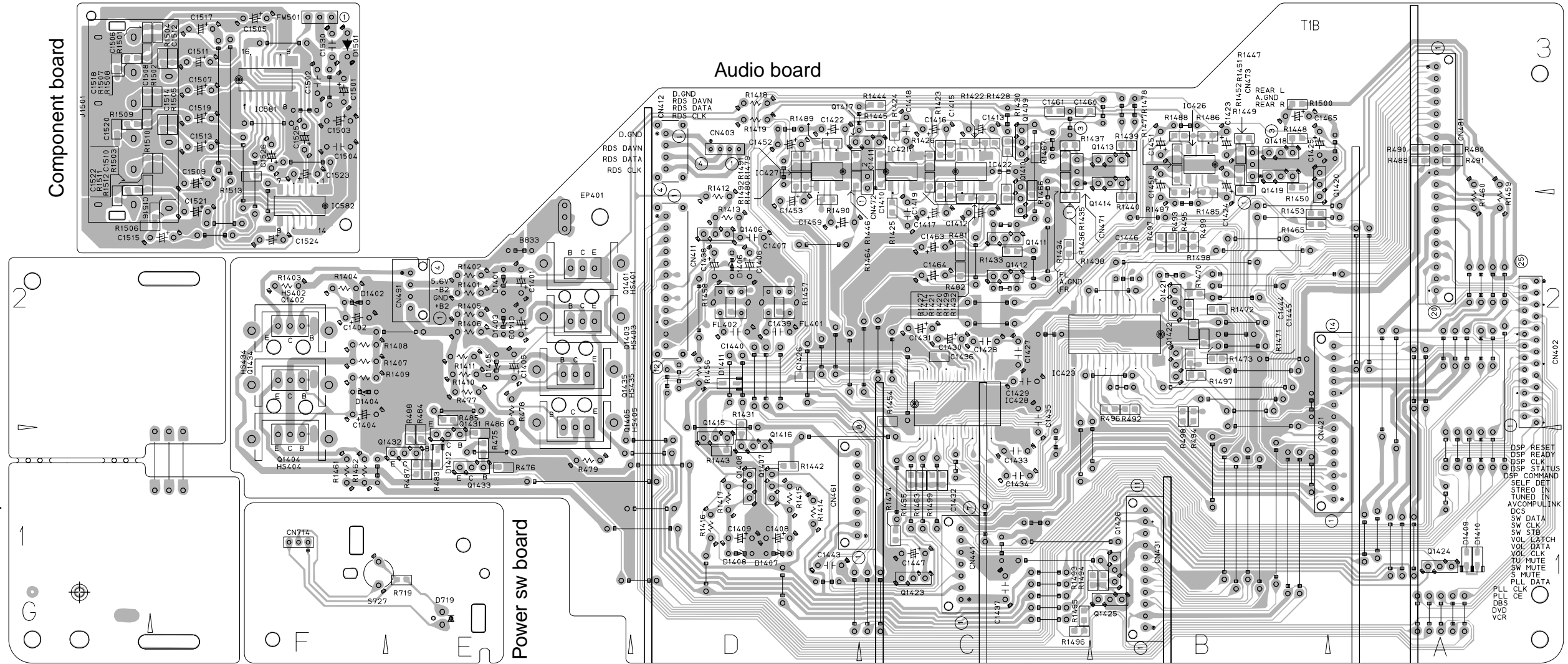
T2B

System control & Audio board

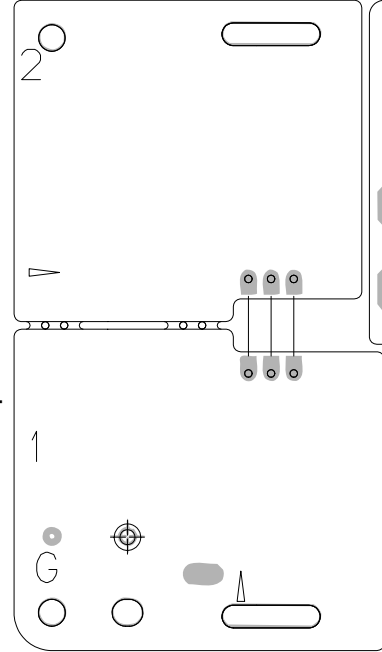
System control & displaying board



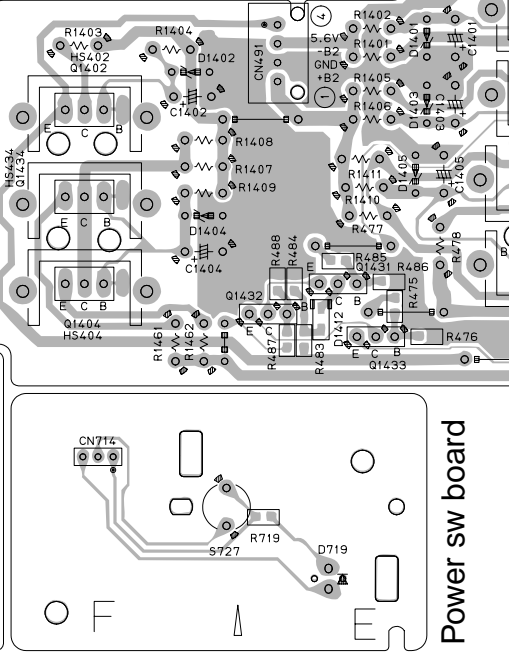
Audio board



Wire protection board



Power sw board



■ Power amp. board

Amplifier board

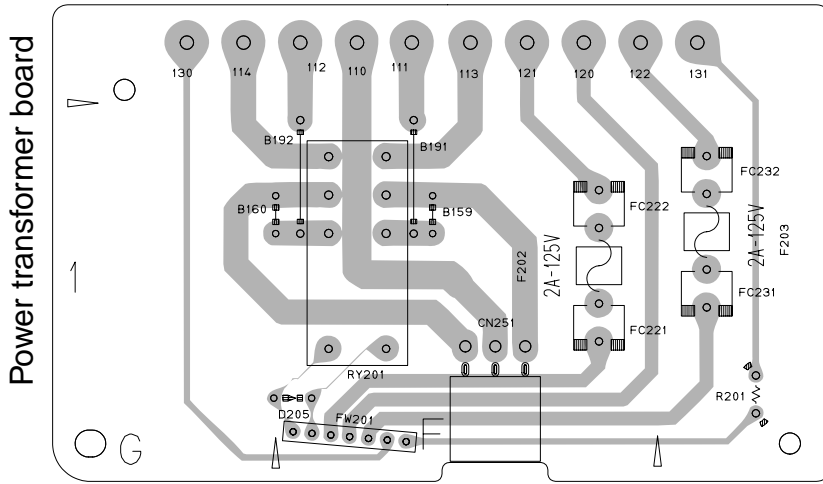
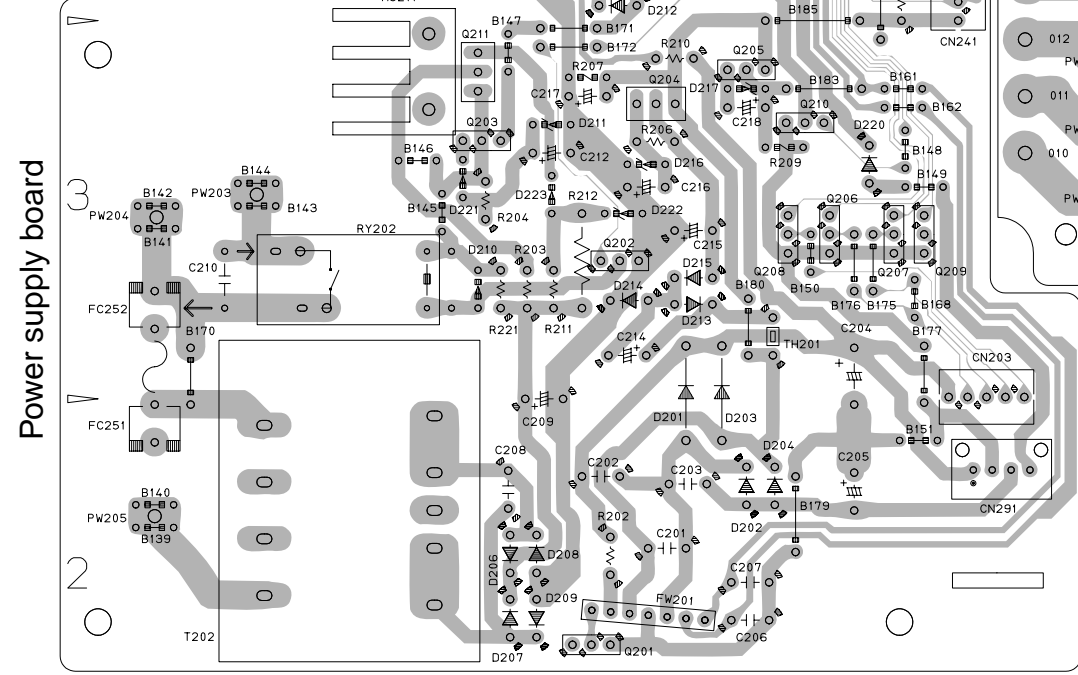
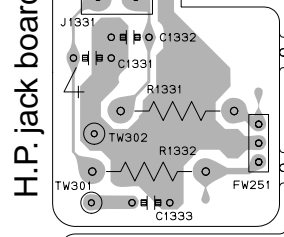
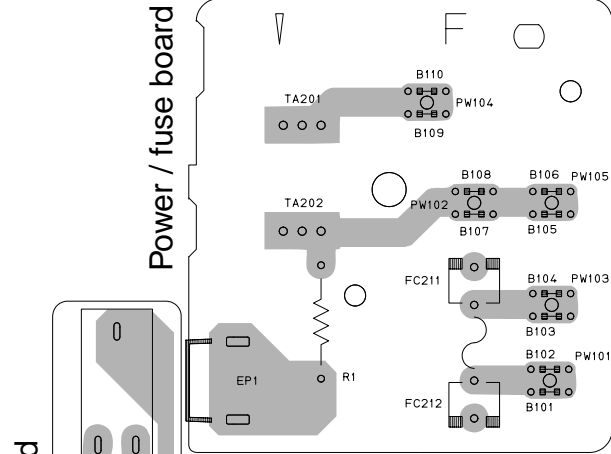
5

4

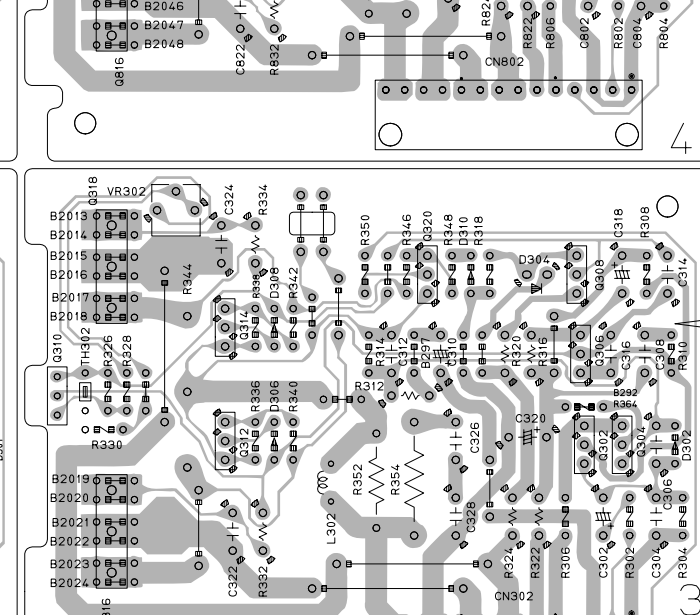
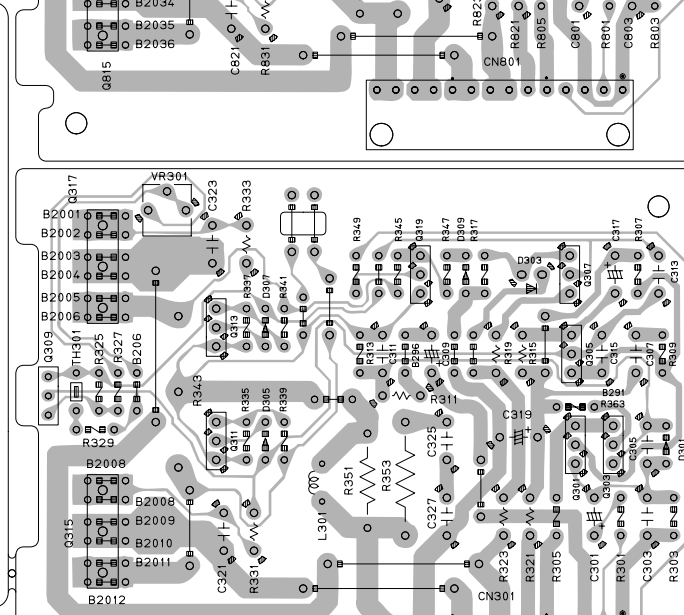
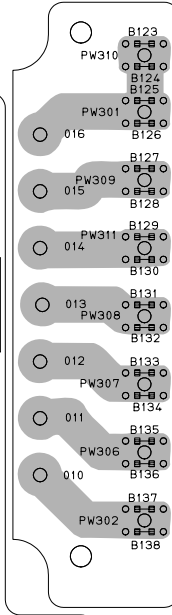
3

2

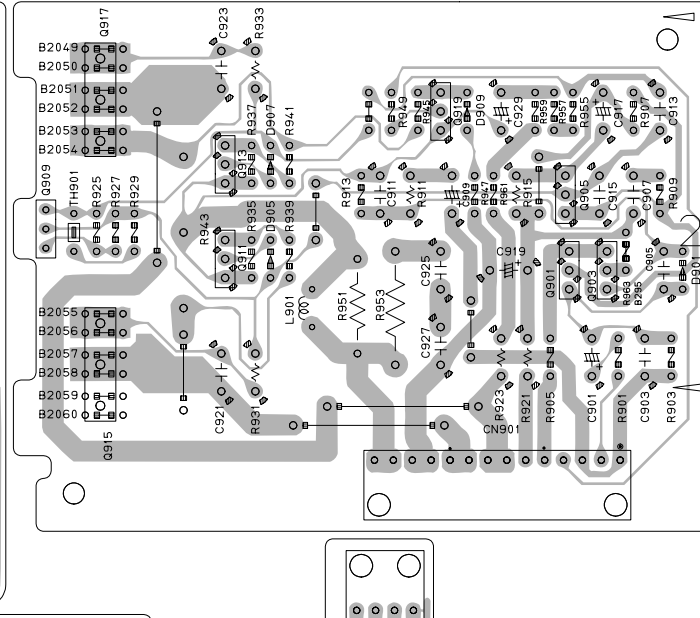
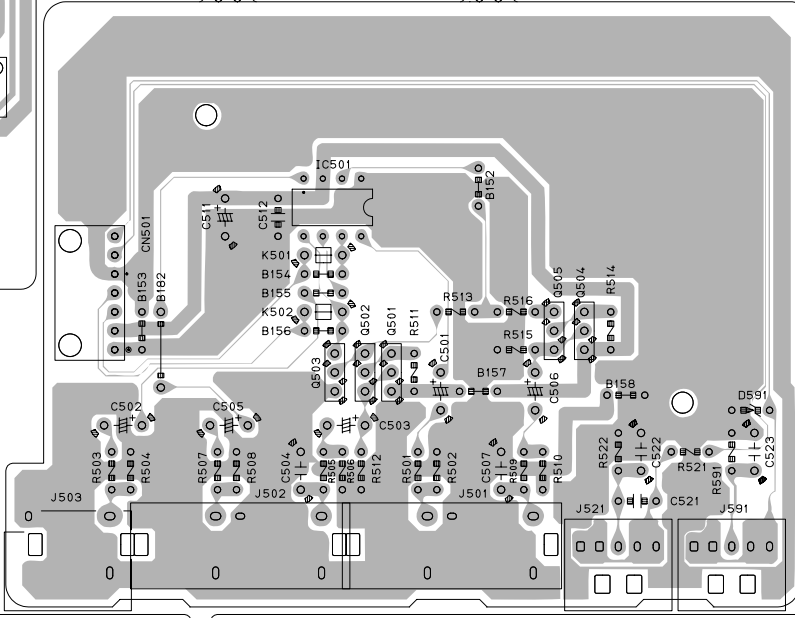
1



Power transformer board



Video board



Relay board

2-12

A B C D E F G H

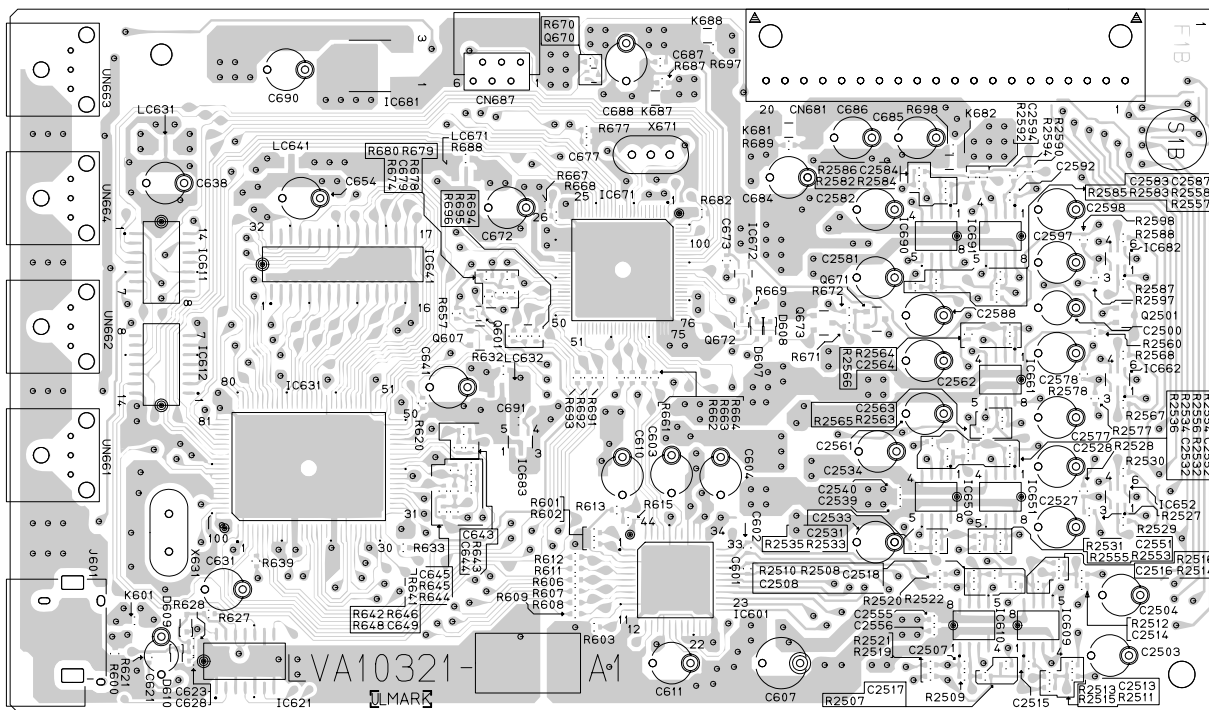
■ Digital signal input terminal board

Forward side

5

4

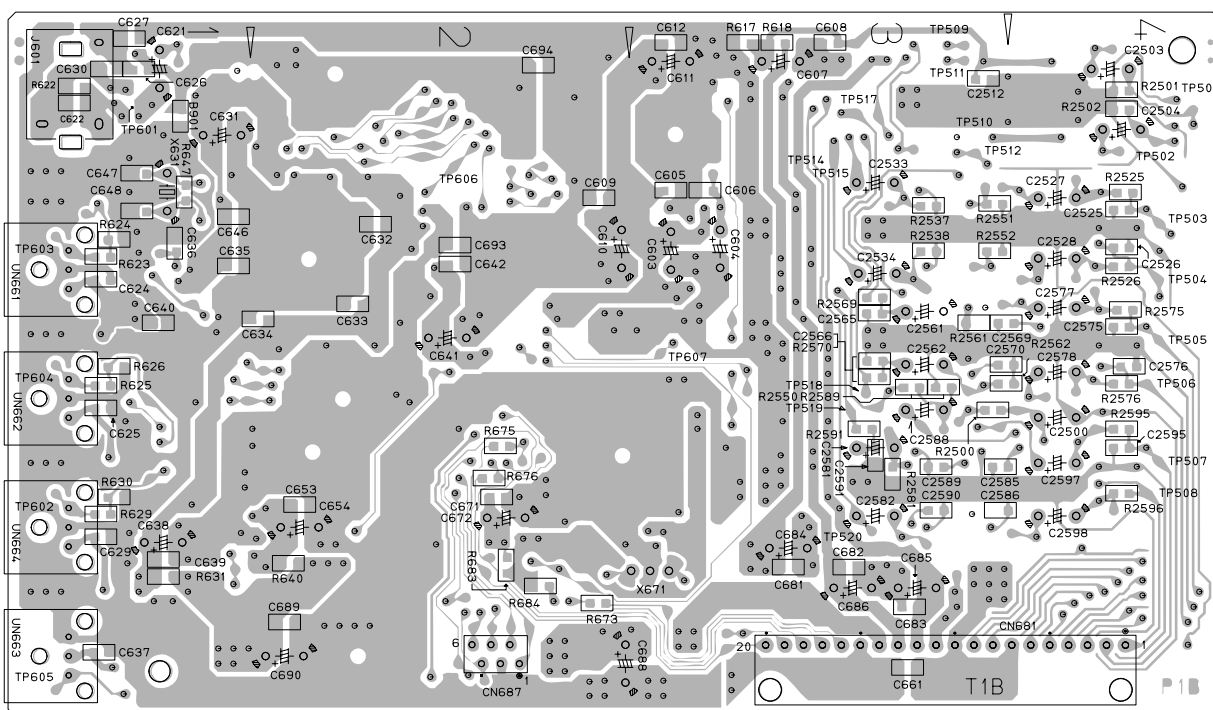
3



Reverse side

2

1



A

B

C

D

■ Tuner board

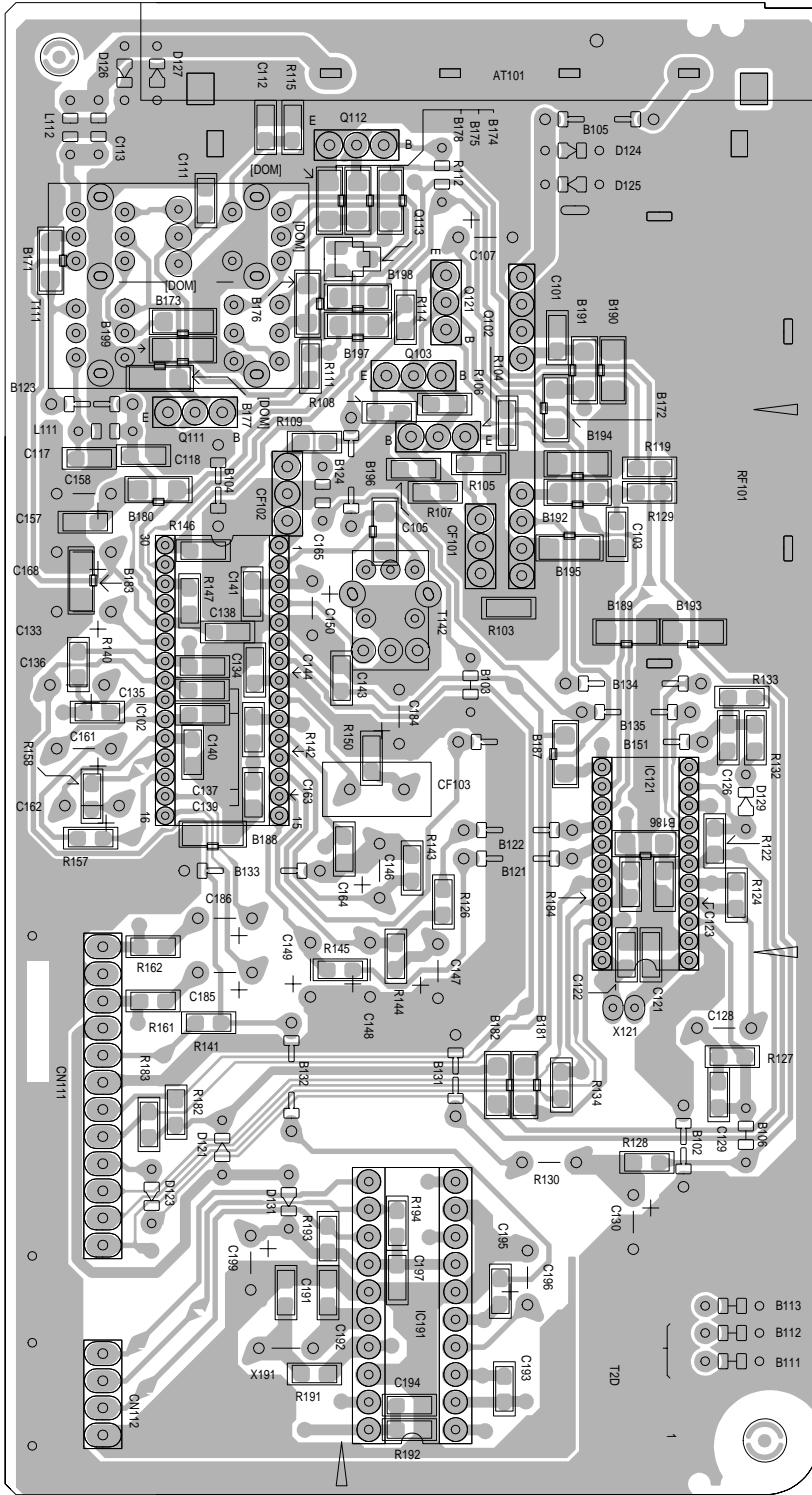
5

4

3

2

1



A

B

C



# PARTS LIST

[ RX-7020VBK ]

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

Area suffix

J ----- U.S.A.

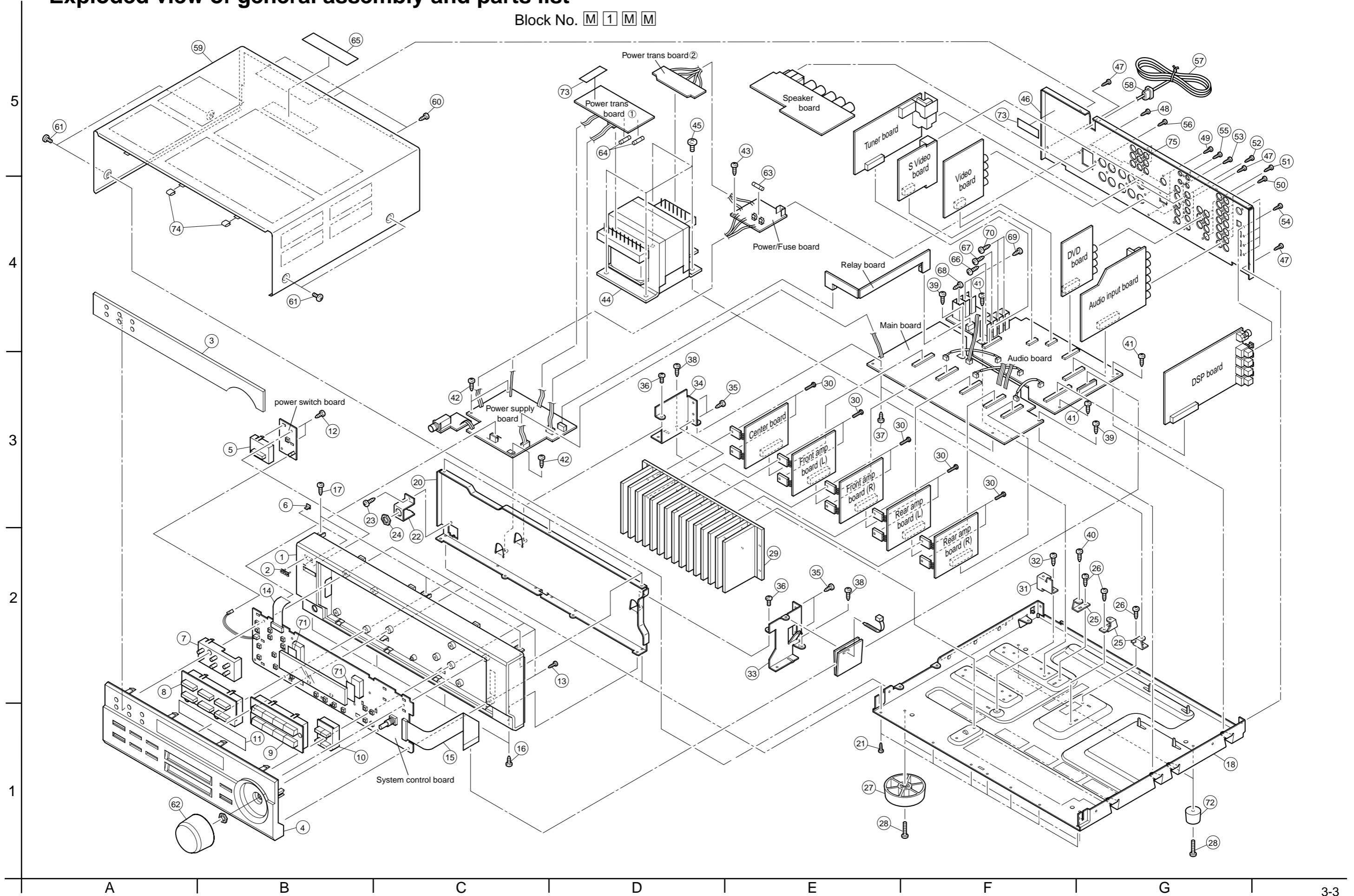
## - Contents -

Exploded view of general assembly and parts list (Block No.M1) .....	3- 3
Electrical parts list (Block No.01~05) .....	3- 5
Packing materials and accessories parts list (Block No.M3,M5) .....	3-20

**< M E M O >**

# 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	LV10457-014A	FRONT PANEL	1		
	2	VJD5429-001SS	JVC MARK	1		
	3	LV20949-008A	LENS	1		
	4	LV10459-017A	SUB PANEL	1		
	5	LV32431-004A	POWER BUTTON	1	BLACK	
	6	LV42096-001A	INDICATOR	1	POWER	
	7	LV20951-001A	PUSH BUTTON	1	TUNER	
	8	LV20919-001A	PUSH BUTTON(C)	1	SPK	
	9	LV20917-003A	PUSH BUTTON(E)	1	SOURCE	
	10	LV32430-001A	PUSH BUTTON(F)	1	SEA	
	11	LV42095-001A	FL SCREEN	1		
	12	QYSBSF2610Z	SCREW	2	FRONT C.B	
	13	QYSBSF2610Z	SCREW	6	FRONT C.B FL	
	14	QUQ412-1415CJ	FFC WIRE	1		
	15	QUQ412-2538CJ	FFC WIRE	1		
	16	QYSDSG3006Z	SCREW	4	FRONT D	
	17	QYSBSG3006Z	T.SCREW	3	FRONT U	
	18	LV10019-003A	CHASSIS BASE	1		
	20	LV10458-002A	FRONT BRACKET	1		
	21	QYSDSG3006Z	SCREW	7	C.B-F.B	
	22	LV42094-003A	H.P BKT	1		
	23	QYSBSG3006Z	T.SCREW	1	H.P BKT-F.B	
	24	VKZ4150-001	SPECIAL NUT	1		
	25	E68587-223SM	CB BKT	3		
	26	QYSBST3006Z	T.SCREW	3	C.B-BKT	
	27	QZF6018-001	FOOT	2		
	28	QYSBST3010Z	T.SCREW	4	FOOT	
	29	LV21213-001A	HEAT SINK	1	NEW TYPE	
	30	QYSBSG3012E	SCREW	10	TR	
	31	LV42098-001A	C.B BKT	1	PRI/SEC C.B	
	32	QYSBST3006Z	T.SCREW	1	C.B BKT	
	33	LV32433-001A	H.S BRACKET(R)	1		
	34	LV32434-001A	H.S BRACKET(L)	1		
	35	QYSBSG3008Z	T.SCREW	4	H.S-BKT	
	36	QYSBST3006Z	T.SCREW	2	H.S BKT-F.BKT	
	37	QYSBSG3006Z	T.SCREW	2	H.S BKT	
	38	QYSBST3006Z	T.SCREW	2	H.S BKT-CHASSIS	
	39	QYSBSG3006Z	T.SCREW	2	M.C.B	
	40	E65923-003	TAPPING SCREW	1	M.C.B	
	41	QYSBSG3006Z	T.SCREW	3	H.S-C.B	
	42	QYSBSG3006Z	T.SCREW	3	P.C.B	
	43	QYSBSG3006Z	T.SCREW	1	C.B-CHASSIS	
△	44	QQT0318-001	POWER TRANSF	1		
	45	QYSDSTL4008Z	SPECIAL SCREW	4	P.TRANS	
	46	LV20915-026A	REAR PANEL	1		
	47	QYSBSGY3008M	SPECIAL SCREW	3	R.P-C.BASE	
	48	QYSBSGY3008M	SPECIAL SCREW	1		
	49	QYSBSGY3008M	SPECIAL SCREW	2	TUNER	

## ■ Parts list (General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	50	QYSBSGY3008M	SPECIAL SCREW	5	INPUT	
	51	QYSBSGY3008M	SPECIAL SCREW	3	DVD/SUB WOOFER	
	52	QYSBSGY3008M	SPECIAL SCREW	3	VIDEO	
	53	QYSBSGY3008M	SPECIAL SCREW	3	S VIDEO	
	54	QYSBSGY3008M	SPECIAL SCREW	5	DIGITAL	
	55	QYSBSGY3008M	SPECIAL SCREW	2	COMP C.B	
	56	QYSBSGY3008M	SPECIAL SCREW	5	SPK C.B	
△	57	QMPD420-200-JV	POWER CORD	1		
△	58	QZW0033-001	STRAIN RELIEF	1		
	59	LE20131-008A/S/	METAL COVER	1		
	60	QYSBSGY3008M	SPECIAL SCREW	3		
	61	E406308-003	SPECIAL SCREW	4		
	62	LV32435-003A	VOL KNOB	1	BK	
△	63	QMF51U1-6R3-J8	FUSE	1	F 201	
△	64	QMF51U1-2R0-J8	FUSE	2	F 202 F 203	
	65	E409396-003	CAUTION LABEL	1	C	
	66	QYSBSG3008E	T.SCREW	1		
	67	QYSBSG3008E	T.SCREW	1		
	68	QYSBSG3008E	T.SCREW	1		
	69	QYSBSG3008E	T.SCREW	2		
	70	QYSBSG3008E	T.SCREW	2		
	71	LV30225-097A	SPACER	2		
	72	E47227-036	FOOT	2		
	73	LV42388-001A	FUSE CAUTION	2		
	74	LV30225-0E5A	SPACER	2	FOR METAL COVER	
	75	QYSBSGY3008M	SPECIAL SCREW	4	COMPONENT	
	76	E73525-003SS	SCREW	10		

■ Electrical parts list (Power amp board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	C 201	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V	
	C 202	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V	
	C 203	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V	
	C 204	QETM1VM-228	E.CAPACITOR	2200MF 20% 35V	
	C 205	QETM1VM-108	E.CAPACITOR	1000MF 20% 35V	
	C 206	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 207	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 208	QFLC2AJ-472Z	M CAPACITOR	4700PF 5% 100V	
	C 209	QETN1EM-477Z	E CAPACITOR	470MF 20% 25V	
△	C 210	QCZ9104-472	C CAPACITOR	4700PF	
	C 212	QETN1CM-477Z	E CAPACITOR	470MF 20% 16V	
	C 213	QETM0JM-228	E CAPACITOR	2200MF 20% 6.3V	
	C 218	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 301	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 302	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 303	QCS31HJ-271Z	C CAPACITOR	270PF 5% 50V	
	C 304	QCS31HJ-271Z	C CAPACITOR	270PF 5% 50V	
	C 305	QCS31HJ-221Z	C CAPACITOR	220PF 5% 50V	
	C 306	QCS31HJ-221Z	C CAPACITOR	220PF 5% 50V	
	C 307	QCB31HK-152Z	C CAPACITOR	1500PF 10% 50V	
	C 308	QCB31HK-152Z	C CAPACITOR	1500PF 10% 50V	
	C 309	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 310	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 311	QCS31HJ-100Z	C CAPACITOR	10PF 5% 50V	
	C 312	QCS31HJ-100Z	C CAPACITOR	10PF 5% 50V	
	C 313	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 314	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 315	QCS32HJ-220Z	C CAPACITOR	22PF 5% 500V	
	C 316	QCS32HJ-220Z	C CAPACITOR	22PF 5% 500V	
	C 317	QEHR1VM-476Z	E CAPACITOR	47MF 20% 35V	
	C 318	QEHR1VM-476Z	E CAPACITOR	47MF 20% 35V	
	C 319	QETN1JM-107Z	E CAPACITOR	100MF 20% 63V	
	C 320	QETN1JM-107Z	E CAPACITOR	100MF 20% 63V	
	C 321	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 322	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 323	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 324	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 325	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 326	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 327	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 328	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 501	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 502	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 503	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 504	QCS31HJ-470Z	C CAPACITOR	47PF 5% 50V	
	C 505	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 506	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 507	QCS31HJ-470Z	C CAPACITOR	47PF 5% 50V	
	C 511	QETN1CM-108Z	E CAPACITOR	1000MF 20% 16V	
	C 512	QCBB1HK-223Y	C CAPACITOR	.022MF 10% 50V	
	C 521	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 522	QCZ0202-155Z	ML C CAPA I/M	1.5MF	
	C 801	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 802	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 803	QCS31HJ-271Z	C CAPACITOR	270PF 5% 50V	
	C 804	QCS31HJ-271Z	C CAPACITOR	270PF 5% 50V	
	C 805	QCS31HJ-221Z	C CAPACITOR	220PF 5% 50V	
	C 806	QCS31HJ-221Z	C CAPACITOR	220PF 5% 50V	
	C 807	QCB31HK-152Z	C CAPACITOR	1500PF 10% 50V	
	C 808	QCB31HK-152Z	C CAPACITOR	1500PF 10% 50V	
	C 809	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 810	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 811	QCS31HJ-100Z	C CAPACITOR	10PF 5% 50V	

△	Item	Parts number	Parts name	Remarks	Area
	C 812	QCS31HJ-100Z	C CAPACITOR	10PF 5% 50V	
	C 813	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 814	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 815	QCS32HJ-330Z	C CAPACITOR	33PF 5% 500V	
	C 816	QCS32HJ-330Z	C CAPACITOR	33PF 5% 500V	
	C 817	QEHR1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 818	QEHR1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 819	QEHR2AM-106Z	E CAPACITOR	10MF 20% 100V	
	C 820	QEHR2AM-106Z	E CAPACITOR	10MF 20% 100V	
	C 821	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 822	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 823	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 824	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 825	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 826	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 827	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 828	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 829	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C 830	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C 901	QEHR1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 903	QCS31HJ-271Z	C CAPACITOR	270PF 5% 50V	
	C 905	QCS31HJ-221Z	C CAPACITOR	220PF 5% 50V	
	C 907	QCB31HK-152Z	C CAPACITOR	1500PF 10% 50V	
	C 909	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 911	QCS31HJ-100Z	C CAPACITOR	10PF 5% 50V	
	C 913	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 915	QCS32HJ-330Z	C CAPACITOR	33PF 5% 500V	
	C 917	QEHR1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 919	QEHR2AM-106Z	E CAPACITOR	10MF 20% 100V	
	C 921	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 923	QCS32HJ-470Z	C CAPACITOR	47PF 5% 500V	
	C 925	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 927	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C 929	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	CN201	QGF1205C1-14	CONNECTOR		
	CN203	QGD2501C1-05Z	SOCKET I.M		
	CN241	QGD2501C1-05Z	SOCKET I.M		
	CN251	QGA3901F2-03	CONNECTOR		
	CN291	QGB2510J1-04	CONNECTOR		
	CN292	QGB2510K1-04	CONNECTOR		
	CN301	QGB2510K1-14	CONNECTOR		
	CN302	QGB2510K1-14	CONNECTOR		
	CN492	QGB2510K1-04	CONNECTOR		
	CN501	QGB2510K1-07	CONNECTOR		
	CN801	QGB2510K1-14	CONNECTOR		
	CN802	QGB2510K1-14	CONNECTOR		
	CN901	QGB2510K1-14	CONNECTOR		
	C1331	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C1332	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
△	D 201	10E2-FD	DIODE		
△	D 202	11ES2-T4	DIODE I.M		
△	D 203	10E2-FD	DIODE		
△	D 204	11ES2-T4	DIODE I.M		
△	D 206	11ES2-T4	DIODE I.M		
△	D 207	11ES2-T4	DIODE I.M		
△	D 208	11ES2-T4	DIODE I.M		
△	D 209	11ES2-T4	DIODE I.M		
	D 210	1SS133-T2	SI DIODE I/M		
	D 211	MTZJ6.8C-T2	Z DIODE I/M		
	D 212	11ES2-T4	DIODE I.M		
	D 217	MTZJ6.2C-T2	Z DIODE I/M		
	D 218	1SS133-T2	SI DIODE I/M		
	D 219	11ES2-T4	DIODE I.M		

## ■ Electrical parts list (Power amp board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	D 220	11ES2-T4	DIODE I.M				Q 304	2SC2240/L/-T	TR.I/M		
	D 221	1SS133-T2	SI DIODE IM				Q 305	KTA1268/GL/-T	TRANSISTOR		
	D 301	1SS133-T2	SI DIODE IM				Q 306	KTA1268/GL/-T	TRANSISTOR		
	D 302	1SS133-T2	SI DIODE IM				Q 307	KTC3200/GL/-T	TRANSISTOR		
	D 303	SLR-342MC-T	LED				Q 308	KTC3200/GL/-T	TRANSISTOR		
	D 304	SLR-342MC-T	LED				Q 309	2SD637/QR/	TRANSISTOR		
	D 305	1SS133-T2	SI DIODE IM				Q 310	2SD637/QR/	TRANSISTOR		
	D 306	1SS133-T2	SI DIODE IM				Q 311	KTC3200/GL/-T	TRANSISTOR		
	D 307	1SS133-T2	SI DIODE IM				Q 312	KTC3200/GL/-T	TRANSISTOR		
	D 308	1SS133-T2	SI DIODE IM				Q 313	KTA1268/GL/-T	TRANSISTOR		
	D 309	1SS133-T2	SI DIODE IM				Q 314	KTA1268/GL/-T	TRANSISTOR		
	D 310	1SS133-T2	SI DIODE IM			△	Q 315	2SD2389/OPY/-F6	TRANSISTOR		
	D 591	MTZJ6.2C-T2	Z DIODE I/M			△	Q 316	2SD2389/OPY/-F6	TRANSISTOR		
	D 801	1SS133-T2	SI DIODE IM			△	Q 317	2SB1559/OPY/-F6	TRANSISTOR		
	D 802	1SS133-T2	SI DIODE IM			△	Q 318	2SB1559/OPY/-F6	TRANSISTOR		
	D 805	1SS133-T2	SI DIODE IM				Q 319	KTA1268/GL/-T	TRANSISTOR		
	D 806	1SS133-T2	SI DIODE IM				Q 320	KTA1268/GL/-T	TRANSISTOR		
	D 807	1SS133-T2	SI DIODE IM				Q 501	KTA1267/YG/-T	TRANSISTOR		
	D 808	1SS133-T2	SI DIODE IM				Q 502	KTC3199/GL/-T	TRANSISTOR		
	D 809	1SS133-T2	SI DIODE IM				Q 503	KRC101M-T	TR I/M		
	D 810	1SS133-T2	SI DIODE IM				Q 504	KTA1267/YG/-T	TRANSISTOR		
	D 901	1SS133-T2	SI DIODE IM				Q 505	KTC3199/GL/-T	TRANSISTOR		
	D 905	1SS133-T2	SI DIODE IM				Q 801	2SC2240/L/-T	TR.I/M		
	D 907	1SS133-T2	SI DIODE IM				Q 802	2SC2240/L/-T	TR.I/M		
	D 909	1SS133-T2	SI DIODE IM				Q 803	2SC2240/L/-T	TR.I/M		
	EP 1	E409182-001SM	GRAND TERMINAL				Q 804	2SC2240/L/-T	TR.I/M		
	EP201	QNZ0136-001Z	EARTH PLATE				Q 805	KTA1268/GL/-T	TRANSISTOR		
	FC211	QNG0020-001Z	FUSE CLIP	F201			Q 806	KTA1268/GL/-T	TRANSISTOR		
	FC212	QNG0020-001Z	FUSE CLIP	F201			Q 809	2SD637/QR/	TRANSISTOR		
	FC221	QNG0020-001Z	FUSE CLIP	F202			Q 810	2SD637/QR/	TRANSISTOR		
	FC222	QNG0020-001Z	FUSE CLIP	F202			Q 811	KTC3200/GL/-T	TRANSISTOR		
	FC231	QNG0020-001Z	FUSE CLIP	F203			Q 812	KTC3200/GL/-T	TRANSISTOR		
	FC232	QNG0020-001Z	FUSE CLIP	F203			Q 813	KTA1268/GL/-T	TRANSISTOR		
	FW201	QUM137-14Z4Z4	PARA RIBON WIRE				Q 814	KTA1268/GL/-T	TRANSISTOR		
	FW251	QUM133-08Z4Z4	PARA RIBON WIRE			△	Q 815	2SD2389/OPY/-F6	TRANSISTOR		
	IC501	NJM2246D	IC			△	Q 816	2SD2389/OPY/-F6	TRANSISTOR		
	J 501	QNN0063-001	PIN JACK			△	Q 817	2SB1559/OPY/-F6	TRANSISTOR		
	J 502	QNN0063-001	PIN JACK	VCR(R/P)		△	Q 818	2SB1559/OPY/-F6	TRANSISTOR		
	J 503	QNN0017-002	PIN JACK	DBS			Q 819	KTA1268/GL/-T	TRANSISTOR		
	J 521	QNS0073-001	JACK				Q 820	KTA1268/GL/-T	TRANSISTOR		
	J 591	QNS0073-001	JACK				Q 901	2SC2240/L/-T	TR.I/M		
	J1331	QNS0022-001	JACK				Q 903	2SC2240/L/-T	TR.I/M		
	L 301	QQLZ005-R45	INDUCTOR				Q 905	KTA1268/GL/-T	TRANSISTOR		
	L 302	QQLZ005-R45	INDUCTOR				Q 909	2SD637/QR/	TRANSISTOR		
	L 801	QQLZ005-R45	INDUCTOR				Q 911	KTC3200/GL/-T	TRANSISTOR		
	L 802	QQLZ005-R45	INDUCTOR				Q 913	KTA1268/GL/-T	TRANSISTOR		
	L 901	QQLZ005-R45	INDUCTOR			△	Q 915	2SD2389/OPY/-F6	TRANSISTOR		
	PW101	QUB112-14PPPP	SIN TWIST WIRE	WITH PW311		△	Q 917	2SB1559/OPY/-F6	TRANSISTOR		
	PW102	QUB116-16PPPP	PIN WIRE	WITH PW302			Q 919	KTA1268/GL/-T	TRANSISTOR		
	PW103	QUB112-34PPPP	SIN TWIST WIRE	WITH PW203		△	R 1	QRZ9044-335	F RESISTOR	3.3M 1/4W	
	PW104	QUB111-34PPPP	SIN TWIST WIRE	WITH PW204		△	R 201	QRJ146J-2R7X	UNF C RESISTOR	2.7 5% 1/4W	
	PW105	QUB116-26PPPP	SIN TWIST WIRE	WITH PW205		△	R 203	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	Q 202	KRC105M-T	D.TR.I.M.			△	R 204	QRJ146J-821X	UNF C RESISTOR	820 5% 1/4W	
	Q 203	KTC3203/OY/-T	TRANSISTOR			△	R 208	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	Q 205	KTC3200/GL/-T	TRANSISTOR				R 209	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	Q 206	KRC105M-T	D.TR.I.M.			△	R 210	QRJ146J-680X	UNF C RESISTOR	68 5% 1/4W	
	Q 207	KRC105M-T	D.TR.I.M.			△	R 221	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	Q 208	KRC105M-T	D.TR.I.M.				R 301	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	Q 209	KRC105M-T	D.TR.I.M.				R 302	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	Q 210	KRC105M-T	D.TR.I.M.				R 303	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	Q 301	2SC2240/L/-T	TR.I/M				R 304	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	Q 302	2SC2240/L/-T	TR.I/M				R 305	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	Q 303	2SC2240/L/-T	TR.I/M				R 306	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	

## ■ Electrical parts list (Power amp board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area	
	R 307	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W			R 514	QRE141J-151Y	C RESISTOR	150 5% 1/4W		
	R 308	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W			R 515	QRE141J-271Y	C RESISTOR	270 5% 1/4W		
	R 309	QRE141J-101Y	C RESISTOR	100 5% 1/4W			R 516	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W		
	R 310	QRE141J-101Y	C RESISTOR	100 5% 1/4W			R 521	QRE141J-221Y	C RESISTOR	220 5% 1/4W		
△	R 311	QRJ146J-391X	UNF C RESISTOR	390 5% 1/4W			R 522	QRE141J-471Y	C RESISTOR	470 5% 1/4W		
△	R 312	QRJ146J-391X	UNF C RESISTOR	390 5% 1/4W			R 591	QRE141J-221Y	C RESISTOR	220 5% 1/4W		
	R 313	QRE141J-563Y	C RESISTOR	56K 5% 1/4W			R 801	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W		
	R 314	QRE141J-563Y	C RESISTOR	56K 5% 1/4W			R 802	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W		
△	R 315	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W			R 803	QRE141J-563Y	C RESISTOR	56K 5% 1/4W		
△	R 316	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W			R 804	QRE141J-563Y	C RESISTOR	56K 5% 1/4W		
	R 317	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			R 805	QRE141J-123Y	C RESISTOR	12K 5% 1/4W		
	R 318	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			R 806	QRE141J-123Y	C RESISTOR	12K 5% 1/4W		
△	R 319	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W			R 807	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W		
△	R 320	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W			R 808	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W		
△	R 321	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W			R 809	QRE141J-101Y	C RESISTOR	100 5% 1/4W		
△	R 322	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W			R 810	QRE141J-101Y	C RESISTOR	100 5% 1/4W		
△	R 323	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W			△	R 811	QRJ146J-391X	UNF C RESISTOR	390 5% 1/4W	
△	R 324	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W			△	R 812	QRJ146J-391X	UNF C RESISTOR	390 5% 1/4W	
	R 325	QRE141J-361Y	C RESISTOR	360 5% 1/4W			R 813	QRE141J-563Y	C RESISTOR	56K 5% 1/4W		
	R 326	QRE141J-361Y	C RESISTOR	360 5% 1/4W			R 814	QRE141J-563Y	C RESISTOR	56K 5% 1/4W		
	R 327	QRE141J-471Y	C RESISTOR	470 5% 1/4W			△	R 815	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W	
	R 328	QRE141J-471Y	C RESISTOR	470 5% 1/4W			△	R 816	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W	
	R 329	QRE141J-471Y	C RESISTOR	470 5% 1/4W			△	R 821	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 330	QRE141J-471Y	C RESISTOR	470 5% 1/4W			△	R 822	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
△	R 331	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W			△	R 823	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
△	R 332	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W			△	R 824	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
△	R 333	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W			R 825	QRE141J-361Y	C RESISTOR	360 5% 1/4W		
△	R 334	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W			R 826	QRE141J-361Y	C RESISTOR	360 5% 1/4W		
	R 335	QRE141J-121Y	C RESISTOR	120 5% 1/4W			R 827	QRE141J-821Y	C RESISTOR	820 5% 1/4W		
	R 336	QRE141J-121Y	C RESISTOR	120 5% 1/4W			R 828	QRE141J-821Y	C RESISTOR	820 5% 1/4W		
	R 337	QRE141J-121Y	C RESISTOR	120 5% 1/4W			R 829	QRE141J-471Y	C RESISTOR	470 5% 1/4W		
	R 338	QRE141J-121Y	C RESISTOR	120 5% 1/4W			R 830	QRE141J-471Y	C RESISTOR	470 5% 1/4W		
	R 339	QRE141J-181Y	C RESISTOR	180 5% 1/4W			△	R 831	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 340	QRE141J-181Y	C RESISTOR	180 5% 1/4W			△	R 832	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 341	QRE141J-181Y	C RESISTOR	180 5% 1/4W			△	R 833	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 342	QRE141J-181Y	C RESISTOR	180 5% 1/4W			△	R 834	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 343	QRZ0218-R22	C RESISTOR	1/2W			R 835	QRE141J-181Y	C RESISTOR	180 5% 1/4W		
	R 344	QRZ0218-R22	C RESISTOR	1/2W			R 836	QRE141J-181Y	C RESISTOR	180 5% 1/4W		
	R 345	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R 837	QRE141J-181Y	C RESISTOR	180 5% 1/4W		
	R 346	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W			R 838	QRE141J-181Y	C RESISTOR	180 5% 1/4W		
	R 347	QRE141J-153Y	C RESISTOR	15K 5% 1/4W			R 839	QRE141J-181Y	C RESISTOR	180 5% 1/4W		
	R 348	QRE141J-153Y	C RESISTOR	15K 5% 1/4W			R 840	QRE141J-181Y	C RESISTOR	180 5% 1/4W		
	R 349	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			R 841	QRE141J-181Y	C RESISTOR	180 5% 1/4W		
	R 350	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			R 842	QRE141J-181Y	C RESISTOR	180 5% 1/4W		
△	R 351	QRJ125J-330	UNF OMF RESISTO	33 5% 1/2W			R 843	QRZ0218-R22	C RESISTOR	1/2W		
△	R 352	QRJ125J-330	UNF OMF RESISTO	33 5% 1/2W			R 844	QRZ0218-R22	C RESISTOR	1/2W		
△	R 353	QRL027J-100	UNF OMF RESISTO	10 5% 1/2W			R 845	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W		
△	R 354	QRL027J-100	UNF OMF RESISTO	10 5% 1/2W			R 846	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W		
	R 363	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W			R 847	QRE141J-183Y	C RESISTOR	18K 5% 1/4W		
	R 364	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W			R 848	QRE141J-183Y	C RESISTOR	18K 5% 1/4W		
	R 501	QRE141J-331Y	C RESISTOR	330 5% 1/4W			R 849	QRE141J-123Y	C RESISTOR	12K 5% 1/4W		
	R 502	QRE141J-750Y	C RESISTOR	75 5% 1/4W			R 850	QRE141J-123Y	C RESISTOR	12K 5% 1/4W		
	R 503	QRE141J-331Y	C RESISTOR	330 5% 1/4W			△	R 851	QRJ125J-330	UNF OMF RESISTO	33 5% 1/2W	
	R 504	QRE141J-750Y	C RESISTOR	75 5% 1/4W			△	R 852	QRJ125J-330	UNF OMF RESISTO	33 5% 1/2W	
	R 505	QRE141J-750Y	C RESISTOR	75 5% 1/4W			△	R 853	QRL027J-100	UNF OMF RESISTO	10 5% 1/2W	
	R 506	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			△	R 854	QRL027J-100	UNF OMF RESISTO	10 5% 1/2W	
	R 507	QRE141J-331Y	C RESISTOR	330 5% 1/4W			R 855	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W		
	R 508	QRE141J-750Y	C RESISTOR	75 5% 1/4W			R 856	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W		
	R 509	QRE141J-750Y	C RESISTOR	75 5% 1/4W			R 857	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W		
	R 510	QRE141J-473Y	C RESISTOR	47K 5% 1/4W			R 858	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W		
	R 511	QRE141J-151Y	C RESISTOR	150 5% 1/4W			R 859	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W		
	R 512	QRE141J-271Y	C RESISTOR	270 5% 1/4W			R 860	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W		
	R 513	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W			R 861	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W		

## ■ Electrical parts list (Power amp board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	R 862	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 863	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R 864	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R 901	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 903	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 905	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 907	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R 909	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
△	R 911	QRJ146J-301X	UNF C RESISTOR	300 5% 1/4W	
	R 913	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
△	R 915	QRJ146J-331X	UNF C RESISTOR	330 5% 1/4W	
△	R 921	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
△	R 923	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 925	QRE141J-361Y	C RESISTOR	360 5% 1/4W	
	R 927	QRE141J-821Y	C RESISTOR	820 5% 1/4W	
	R 929	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
△	R 931	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
△	R 933	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 935	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 937	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 939	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 941	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 943	QRZ0218-R22	C RESISTOR	1/2W	
	R 945	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 947	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 949	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
△	R 951	QRJ125J-330	UNF OMF RESISTO	33 5% 1/2W	
△	R 953	QRL027J-100	UNF OMF RESISTO	10 5% 1/2W	
	R 955	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 957	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 959	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 961	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 963	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
△	RY202	QSK0142-001	RELAY		
△	RY203	QSK0109-001	RELAY		
△	R1331	QRL027J-471	UNF OMF RESISTO	470 5% 1/2W	
△	R1332	QRL027J-471	UNF OMF RESISTO	470 5% 1/2W	
△	T 202	QQT0317-001	POWER TRANSF		
	TA201	QNZ0079-001Z	TAB IM		
	TA202	QNZ0079-001Z	TAB IM		
△	TH301	QAD0012-202	BATTERY PACK		
△	TH302	QAD0012-202	BATTERY PACK		
△	TH801	QAD0012-202	BATTERY PACK		
△	TH802	QAD0012-202	BATTERY PACK		
△	TH901	QAD0012-202	BATTERY PACK		
	VR301	QVP0008-102Z	SEMI V RESISTOR		
	VR302	QVP0008-102Z	SEMI V RESISTOR		



## ■ Electrical parts list (Main board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 400	QCBB1HK-223Y	C CAPACITOR	.022MF 10% 50V			C 558	QCS31HJ-470Z	C CAPACITOR	47PF 5% 50V	
	C 401	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C 559	QDX31EM-473Z	C CAPACITOR		
	C 402	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C 560	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 403	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V			C 561	QDX31EM-473Z	C CAPACITOR		
	C 404	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V			C 562	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 405	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V			C 563	QCS31HJ-470Z	C CAPACITOR	47PF 5% 50V	
	C 406	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V			C 564	QCS31HJ-470Z	C CAPACITOR	47PF 5% 50V	
	C 407	QCS31HJ-101Z	C CAPACITOR	100PF 5% 50V			C 581	QEKC1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 408	QCS31HJ-101Z	C CAPACITOR	100PF 5% 50V			C 582	QCZ0202-155Z	ML C CAPA I/M	1.5MF	
	C 409	QFLC1HJ-182Z	M CAPACITOR	1800PF 5% 50V			C 583	QEKC1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 410	QFLC1HJ-182Z	M CAPACITOR	1800PF 5% 50V			C 584	QCZ0202-155Z	ML C CAPA I/M	1.5MF	
	C 411	QFLC1HJ-682Z	M CAPACITOR	6800PF 5% 50V			CN311	QGB2510J1-14	CONNECTOR		
	C 412	QFLC1HJ-682Z	M CAPACITOR	6800PF 5% 50V			CN312	QGB2510J1-14	CONNECTOR		
	C 413	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			CN321	QGB2510J1-14	CONNECTOR		
	C 414	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			CN331	QGB2510J1-14	CONNECTOR		
	C 415	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V			CN332	QGB2510J1-14	CONNECTOR		
	C 416	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V			CN351	QJK012-032403	SKT WIRE ASSY		
	C 417	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			CN371	QJP001-031201	SHI CR C-B WIRE		
	C 418	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			CN372	QJP002-021201	SHI CR C-B WIRE		
	C 419	QCBB1HK-223Y	C CAPACITOR	.022MF 10% 50V			CN373	QJP001-031201	SHI CR C-B WIRE		
	C 420	QCBB1HK-223Y	C CAPACITOR	.022MF 10% 50V			CN401	QGB2510K1-14	CONNECTOR		
	C 421	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			CN451	QGB2510K1-11	CONNECTOR		
	C 422	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			CN511	QGD2503F1-03	SOCKET		
	C 423	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			CN551	QGB2510K1-08	CONNECTOR		
	C 424	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			C1301	QFZ9076-104Z	MM CAPACITOR	.10MF	
	C 425	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			C1302	QCE22HP-103	C CAPACITOR	.010MF +100-0%	
	C 426	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			C1303	QCE22HP-103	C CAPACITOR	.010MF +100-0%	
	C 427	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V			C1304	QEZ0341-688	E CAPACITER	6800MF	
	C 428	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V			C1305	QEZ0341-688	E CAPACITER	6800MF	
	C 429	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			C1306	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 430	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			C1308	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C 431	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			C1309	QEKC1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 432	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			C1310	QEKC1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 433	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V			C1311	QEKC1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 434	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V			C1351	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 435	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			C1352	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 436	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			C1353	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 440	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V			C1354	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 441	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V		△	D1301	30DF2-FC	DIODE		
	C 442	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V		△	D1302	30DF2-FC	DIODE		
	C 443	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V		△	D1303	30DF2-FC	DIODE		
	C 444	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V		△	D1304	30DF2-FC	DIODE		
	C 445	QCBB1HK-223Y	C CAPACITOR	.022MF 10% 50V			D1305	MTZJ22C-T2	ZENER DIODE		
	C 446	QCBB1HK-223Y	C CAPACITOR	.022MF 10% 50V			D1306	MTZJ30C-T2	ZENER DIODE		
	C 451	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			D1307	1SS133-T2	SI DIODE IM		
	C 452	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			D1308	1SS133-T2	SI DIODE IM		
	C 453	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			D1309	MTZJ20C-T2	Z.DIODE I.M		
	C 454	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			D1351	1SS133-T2	SI DIODE IM		
	C 455	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			D1352	1SS133-T2	SI DIODE IM		
	C 456	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V			D1353	1SS133-T2	SI DIODE IM		
	C 459	QFLC1HJ-104Z	M CAPACITOR	.10MF 5% 50V			D1354	1SS133-T2	SI DIODE IM		
	C 460	QCZ0202-155Z	ML C CAPA I/M	1.5MF			D1355	1SS133-T2	SI DIODE IM		
	C 461	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			D1356	MTZJ5.1C-T2	ZENER DIODE		
	C 463	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			D1357	1SS133-T2	SI DIODE IM		
	C 481	QCBB1HK-223Y	C CAPACITOR	.022MF 10% 50V			D1358	1SS133-T2	SI DIODE IM		
	C 482	QCBB1HK-223Y	C CAPACITOR	.022MF 10% 50V			D1359	1SS133-T2	SI DIODE IM		
	C 551	QDX31EM-473Z	C CAPACITOR				D1360	1SS133-T2	SI DIODE IM		
	C 552	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V			EP301	QNZ0136-001Z	EARTH PLATE		
	C 553	QDX31EM-473Z	C CAPACITOR				FW301	QUM135-25Z4Z4	PARA RIBON WIRE		
	C 554	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V			FW302	QUM136-25Z4Z4	PARA RIBON WIRE		
	C 555	QDX31EM-473Z	C CAPACITOR				FW303	QUM135-28DGZ4	PARA RIBON WIRE		
	C 556	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V			FW341	QUM135-20DGZ4	PARA RIBON WIRE		
	C 557	QCS31HJ-470Z	C CAPACITOR	47PF 5% 50V			IC401	NJM4580D-D	IC		

## ■ Electrical parts list (Main board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	IC402	TC9164AN	IC		
	IC403	BA15218N	IC		
	IC451	BA15218	IC		
	IC551	NJM2246D	IC		
	IC552	NJM2246D	IC		
	J 401	QNN0389-001	PIN JACK	PHONO	
	J 402	QNN0168-001	PIN JACK		
	J 403	QNN0168-001	PIN JACK		
	J 404	QNN0389-001	PIN JACK	DVD FL/FR	
	J 405	QNN0388-001	PIN JACK	DVD C/SW/RL/RR	
	J 406	QNN0060-001	PIN JACK		
	J 551	QND0091-001	S JACK		
	J 552	QND0091-001	S JACK	VCR(R/P)	
	J 553	QND0092-001	S JACK	DBS	
	Q 553	KTC3199/GL-T	TRANSISTOR		
	Q 554	KTC3199/GL-T	TRANSISTOR		
	Q 571	KTC3199/GL-T	TRANSISTOR		
	Q 572	KTC3199/GL-T	TRANSISTOR		
	Q 573	KRC107M-T	D.TR.I.M		
	Q 574	KRC107M-T	D.TR.I.M		
△	Q1301	KTA1046/Y/	TRANSISTOR		
	Q1302	KTC3200/GL-T	TRANSISTOR		
	Q1303	KTA1268/GL-T	TRANSISTOR		
	Q1304	KTC3199/GL-T	TRANSISTOR		
	Q1305	2SD2395/EF/	TRANSISTOR		
	Q1306	KTA1023/OY-T	TRANSISTOR		
	Q1307	KTC3200/GL-T	TRANSISTOR		
	Q1351	KRC109M-T	D.TR.I.M.		
	Q1352	KRC109M-T	D.TR.I.M.		
	Q1353	KRC109M-T	D.TR.I.M.		
	Q1354	KRC109M-T	D.TR.I.M.		
	Q1355	KRC109M-T	D.TR.I.M.		
	Q1356	KRC109M-T	D.TR.I.M.		
	Q1357	KRC109M-T	D.TR.I.M.		
	Q1358	KRC109M-T	D.TR.I.M.		
	R 401	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 402	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 403	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 404	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 405	QRE141J-561Y	C RESISTOR	560 5% 1/4W	
	R 406	QRE141J-561Y	C RESISTOR	560 5% 1/4W	
	R 407	QRE141J-393Y	C RESISTOR	39K 5% 1/4W	
	R 408	QRE141J-393Y	C RESISTOR	39K 5% 1/4W	
	R 409	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R 410	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R 411	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 412	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 421	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 422	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 423	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 424	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 425	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 426	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 429	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 430	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 431	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 432	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 435	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 436	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 440	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 441	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 442	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 443	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	

△	Item	Parts number	Parts name	Remarks	Area
	R 444	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 445	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 446	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
△	R 449	QRJ146J-271X	UNF C RESISTOR	270 5% 1/4W	
△	R 450	QRJ146J-271X	UNF C RESISTOR	270 5% 1/4W	
	R 451	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 452	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 453	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 454	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 455	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 456	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
△	R 458	QRJ146J-271X	UNF C RESISTOR	270 5% 1/4W	
△	R 459	QRJ146J-271X	UNF C RESISTOR	270 5% 1/4W	
	R 462	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 464	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 551	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 552	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 553	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 554	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 555	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 556	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 557	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 558	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 559	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 560	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 561	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 562	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 563	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 564	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 565	QRE141J-431Y	C RESISTOR	430 5% 1/4W	
	R 566	QRE141J-241Y	C RESISTOR	240 5% 1/4W	
	R 571	QRE141J-431Y	C RESISTOR	430 5% 1/4W	
	R 572	QRE141J-241Y	C RESISTOR	240 5% 1/4W	
	R 573	QRE141J-751Y	C RESISTOR	750 5% 1/4W	
	R 574	QRE141J-751Y	C RESISTOR	750 5% 1/4W	
△	R 581	QRJ146J-6R8X	UNF C RESISTOR	6.8 5% 1/4W	
△	RY301	QSK0109-001	RELAY		
△	RY302	QSK0109-001	RELAY		
△	RY303	QSK0109-001	RELAY		
△	RY304	QSK0109-001	RELAY		
△	R1301	QRL027J-332	UNF OMF RESISTO	3.3K 5% 1/2W	
△	R1302	QRZ9005-100X	F RESISTOR	10 1/4W	
△	R1303	QRJ146J-562X	UNF C RESISTOR	5.6K 5% 1/4W	
	R1304	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1305	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1306	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	
	R1307	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1308	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1309	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1310	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1311	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1312	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
△	R1313	QRZ9005-100X	F RESISTOR	10 1/4W	
△	R1314	QRJ146J-103X	UNF C RESISTOR	10K 5% 1/4W	
△	R1315	QRJ146J-2R2X	UNF C RESISTOR	2.2 5% 1/4W	
△	R1316	QRJ146J-102X	UNF C RESISTOR	1.0K 5% 1/4W	
△	R1317	QRJ146J-223X	UNF C RESISTOR	22K 5% 1/4W	
	R1318	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R1319	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
△	R1351	QRJ146J-680X	UNF C RESISTOR	68 5% 1/4W	
△	R1352	QRJ146J-680X	UNF C RESISTOR	68 5% 1/4W	
△	R1353	QRJ146J-680X	UNF C RESISTOR	68 5% 1/4W	
△	R1354	QRJ146J-680X	UNF C RESISTOR	68 5% 1/4W	

## ■ Electrical parts list (Main board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
△	R1355	QRJ146J-392X	UNF C RESISTOR	3.9K 5% 1/4W	
	R1356	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1357	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R1358	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R1359	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1360	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1361	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1362	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1363	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1364	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R1365	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R1366	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R1367	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	ST301	QNB0106-001	SPK TERMINAL	SPK1	
	ST302	QNB0001-002	SPK TERMINAL	SPK2	
	ST303	QNB0102-001	SPK TERMINAL	C/R	

## ■ Electrical parts list (System control &amp; Audio board) Block No. 03

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	BK701	LV42093-001A	FL HOLDER(L)				C1429	QCB31HK-822Z	C CAPACITOR	8200PF 10% 50V	
	BK702	LV42092-001A	FL HOLDER(R)				C1430	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 701	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C1431	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 702	QCZ0202-155Z	ML C CAPA I/M	1.5MF			C1432	NCB31CK-223X	C CAPACITOR		
	C 703	QEKC1HM-225Z	E CAPACITOR	2.2MF 20% 50V			C1433	QFVF1HJ-334Z	MF CAPACITOR	.33MF 5% 50V	
	C 704	NCB31CK-223X	C CAPACITOR				C1434	QFLC1HJ-153Z	M CAPACITOR	.015MF 5% 50V	
	C 705	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C1435	QCB31HK-822Z	C CAPACITOR	8200PF 10% 50V	
	C 706	NCB21HK-331X	C.CAPA. C.M				C1436	NCB31CK-223X	C CAPACITOR		
	C 707	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C1437	QCZ0202-155Z	ML C CAPA I/M	1.5MF	
	C 708	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C1438	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 709	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C1439	QFLC1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C 713	NCB21HK-103X	C CAPACITOR				C1440	QFLC1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C 714	NCB21HK-103X	C CAPACITOR				C1443	QCZ0202-155Z	ML C CAPA I/M	1.5MF	
	C 715	NCB21HK-103X	C CAPACITOR				C1444	NCB31CK-223X	C CAPACITOR		
	C 716	NCB21HK-103X	C CAPACITOR				C1445	NCB31CK-223X	C CAPACITOR		
	C 717	NCB21HK-103X	C CAPACITOR				C1446	NCB31HK-221X	C CAPACITOR		
	C 718	NCB21HK-103X	C CAPACITOR				C1447	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 719	NCB21HK-103X	C CAPACITOR				C1453	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 720	NCB31CK-104X	C CAPACITOR				C1459	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 721	NCB31CK-104X	C CAPACITOR				C1460	NCB31CK-223X	C CAPACITOR		
	C 722	QCZ0202-155Z	ML C CAPA I/M	1.5MF			C1461	NCB31CK-223X	C CAPACITOR		
	C 730	NCB31CK-104X	C CAPACITOR				C1463	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	CN402	QGF1205C1-25	CONNECTOR				C1464	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	CN411	QGB2501J1-12	CONNECTOR				C1465	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	CN421	QGB2510J1-14	CONNECTOR				C1501	QEKC1AM-476Z	E CAPACITOR	47MF 20% 10V	
	CN431	QGB2510J1-11	CONNECTOR				C1502	QCF31HZ-103Z	C CAPACITOR	.010MF +80:-20%	
	CN441	QGB2510J1-07	CONNECTOR				C1503	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	CN461	QGB2510J1-08	CONNECTOR				C1504	QCF31HZ-103Z	C CAPACITOR	.010MF +80:-20%	
	CN471	QGA2501C1-03	3P CONNECTOR				C1505	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	CN472	QGA2501C1-02	2P CONNECTOR				C1506	NCS31HJ-470X	C.CAPA. C.M		
	CN473	QGA2501C1-03	3P CONNECTOR				C1507	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	CN481	QGB2510J1-20	CONNECTOR				C1508	NCS31HJ-470X	C.CAPA. C.M		
	CN491	QGB2510J1-04	CONNECTOR				C1509	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	CN701	QGF1205F1-14	CONNECTOR				C1510	NCS31HJ-470X	C.CAPA. C.M		
	CN702	QGF1205F1-25	CONNECTOR				C1511	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	CN704	WJS0020-001A	SKT.WIRE ASS'Y				C1512	NCS31HJ-470X	C.CAPA. C.M		
	CN714	QGA2001C1-03	3P PLUG ASSY				C1513	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1401	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V			C1514	NCS31HJ-470X	C.CAPA. C.M		
	C1402	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			C1515	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1403	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			C1516	NCS31HJ-470X	C.CAPA. C.M		
	C1404	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			C1517	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C1405	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			C1518	NCS31HJ-101X	C.CAPA. C.M		
	C1406	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V			C1519	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C1407	QCF31HZ-223Z	C CAPACITOR	.022MF +80:-20%			C1520	NCS31HJ-101X	C.CAPA. C.M		
	C1408	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V			C1521	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C1409	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V			C1522	NCS31HJ-101X	C.CAPA. C.M		
	C1410	NCB31CK-223X	C CAPACITOR				C1523	QEKC1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C1411	NCB31CK-223X	C CAPACITOR				C1524	QEKC1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C1412	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C1525	QEKC1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1413	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			C1526	QEKC1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1414	NCS31HJ-101X	C.CAPA. C.M				C1530	QCZ0202-155Z	ML C CAPA I/M	1.5MF	
	C1415	NCS31HJ-101X	C.CAPA. C.M				D 701	1SS355-X	DIODE C.M		
	C1416	QETN1HM-474Z	E CAPACITOR	.47MF 20% 50V			D 702	1SS355-X	DIODE C.M		
	C1417	QETN1HM-474Z	E CAPACITOR	.47MF 20% 50V			D 719	SLR-342VC-T	LED		
	C1418	QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V			DI701	QLF0098-001	FL TUBE		
	C1419	QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V			D1401	MTZJ13C-T2	ZENER DIODE		
	C1422	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			D1402	MTZJ6.2C-T2	Z DIODE I/M		
	C1423	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V			D1403	MTZJ5.6C-T2	ZENER DIODE		
	C1424	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V			D1404	MTZJ5.6C-T2	ZENER DIODE		
	C1425	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V			D1405	MTZJ13C-T2	ZENER DIODE		
	C1426	NCB31CK-223X	C CAPACITOR				D1406	MTZJ10C-T2	Z.DIODE I.M		
	C1427	QFVF1HJ-334Z	MF CAPACITOR	.33MF 5% 50V			D1407	MTZJ7.5C-T2	ZENER DIODE		
	C1428	QFLC1HJ-153Z	M CAPACITOR	.015MF 5% 50V			D1408	MTZJ7.5C-T2	ZENER DIODE		

**■ Electrical parts list (System control & Audio board) Block No. 03**

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	D1409	1SS355-X	DIODE C.M				Q1432	KRC104M-T	D.TR.I.M		
	D1410	1SS355-X	DIODE C.M				Q1433	KRC104M-T	D.TR.I.M		
	D1411	1SS355-X	DIODE C.M			△	Q1434	2SD2395/EF/	TRANSISTOR		
	D1412	1SS355-X	DIODE C.M			△	Q1435	2SD2395/EF/	TRANSISTOR		
	D1501	11ES2-T4	DIODE I.M				R 475	NRSA63J-203X	MG RESISTOR		
	EP401	QNZ0136-001Z	EARTH PLATE				R 476	NRSA63J-273X	MG RESISTOR		
	FL401	QQR0590-001	FILTER			△	R 477	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	FL402	QQR0590-001	FILTER			△	R 478	QRJ146J-2R2X	UNF C RESISTOR	2.2 5% 1/4W	
	FW501	QUM133-10DGZ4	PARA RIBON WIRE			△	R 479	QRJ146J-2R2X	UNF C RESISTOR	2.2 5% 1/4W	
	HS401	E70306-001	HEAT SINK				R 480	NRSA63J-512X	MG RESISTOR		
	HS402	E70306-001	HEAT SINK				R 481	NRSA63J-104X	MG RESISTOR		
	HS403	E70306-001	HEAT SINK				R 482	NRSA63J-104X	MG RESISTOR		
	HS404	E70306-001	HEAT SINK				R 483	NRSA63J-102X	MG RESISTOR		
	HS405	E70306-001	HEAT SINK				R 484	NRSA63J-104X	MG RESISTOR		
	HS434	E70306-001	HEAT SINK				R 485	NRSA63J-102X	MG RESISTOR		
	HS435	E70306-001	HEAT SINK				R 486	NRSA63J-104X	MG RESISTOR		
	IC421	BA15218F-XE	IC				R 487	NRSA63J-102X	MG RESISTOR		
	IC422	BA15218F-XE	IC				R 488	NRSA63J-104X	MG RESISTOR		
	IC423	TC9162AF-X	IC				R 489	NRSA63J-103X	MG RESISTOR		
	IC427	BA15218F-XE	IC				R 490	NRSA63J-103X	MG RESISTOR		
	IC428	M62446FP-X	IC				R 491	NRSA63J-512X	MG RESISTOR		
	IC581	TC74HC4053AF-X	I.C C.M				R 492	NRSA63J-301X	MG RESISTOR		
	IC582	NJM2580M-X	I.C C.M				R 493	NRSA63J-0R0X	MG RESISTOR		
	IC701	MN101C35DJW	IC				R 494	NRSA63J-0R0X	MG RESISTOR		
	IC702	IC-PST9139-T	IC I.M				R 495	NRSA63J-0R0X	MG RESISTOR		
	IC703	GP1UM281XK	IR DETECT UNIT				R 496	NRSA63J-102X	MG RESISTOR		
	JS701	QSW0898-001	JOG VOLUME				R 701	NRSA63J-472X	MG RESISTOR		
	J1501	QNN0391-001	PIN JACK				R 702	NRSA63J-223X	MG RESISTOR		
	Q 701	DTC114YKA-X	CHIP D.TRANSIST				R 703	NRSA63J-103X	MG RESISTOR		
	Q 702	DTC114TKA-X	TRANSISTOR				R 704	NRSA63J-471X	MG RESISTOR		
	Q 703	DTC144WKA-X	TRANSISTOR				R 705	NRSA63J-103X	MG RESISTOR		
	Q 704	DTC114YKA-X	CHIP D.TRANSIST				R 706	NRSA63J-103X	MG RESISTOR		
	Q 707	DTC114YKA-X	CHIP D.TRANSIST				R 707	NRSA63J-103X	MG RESISTOR		
	Q 708	DTC114YKA-X	CHIP D.TRANSIST				R 708	NRSA63J-103X	MG RESISTOR		
	Q 709	DTC114YKA-X	CHIP D.TRANSIST				R 709	NRSA63J-103X	MG RESISTOR		
	Q 711	DTA144EKA-X	TRANSISTOR				R 710	NRSA63J-103X	MG RESISTOR		
△	Q1401	KTA1046/Y/	TRANSISTOR				R 711	NRSA63J-104X	MG RESISTOR		
△	Q1402	2SD2395/EF/	TRANSISTOR				R 712	NRSA63J-103X	MG RESISTOR		
△	Q1403	2SD2395/EF/	TRANSISTOR				R 713	NRSA63J-103X	MG RESISTOR		
△	Q1404	2SD2395/EF/	TRANSISTOR				R 714	NRSA63J-103X	MG RESISTOR		
△	Q1405	2SD2395/EF/	TRANSISTOR				R 715	NRSA63J-103X	MG RESISTOR		
△	Q1406	KTC3203/OY/-T	TRANSISTOR				R 716	NRSA63J-103X	MG RESISTOR		
△	Q1407	KTC3203/OY/-T	TRANSISTOR				R 717	NRSA63J-103X	MG RESISTOR		
△	Q1408	KTA1271/OY/-T	TRANSISTOR				R 718	NRSA63J-103X	MG RESISTOR		
	Q1409	2SK301/PQ/-T	TRANSISTOR(FET)				R 719	NRSA63J-221X	MG RESISTOR		
	Q1410	2SK301/PQ/-T	TRANSISTOR(FET)				R 720	NRSA63J-222X	MG RESISTOR		
	Q1411	2SK301/PQ/-T	TRANSISTOR(FET)				R 721	NRSA63J-103X	MG RESISTOR		
	Q1412	2SK301/PQ/-T	TRANSISTOR(FET)				R 722	NRSA63J-102X	MG RESISTOR		
	Q1413	2SC3576-JVC-T	TRANSISTOR I/M				R 723	NRSA63J-102X	MG RESISTOR		
	Q1414	2SC3576-JVC-T	TRANSISTOR I/M				R 724	NRSA63J-122X	MG RESISTOR		
	Q1415	KRA104M-T	D.TR.I.M				R 725	NRSA63J-152X	MG RESISTOR		
	Q1416	KRC104M-T	D.TR.I.M				R 726	NRSA63J-222X	MG RESISTOR		
	Q1417	2SC3576-JVC-T	TRANSISTOR I/M				R 727	NRSA63J-272X	MG RESISTOR		
	Q1418	2SC3576-JVC-T	TRANSISTOR I/M				R 728	NRSA63J-103X	MG RESISTOR		
	Q1419	2SC3576-JVC-T	TRANSISTOR I/M				R 729	NRSA63J-102X	MG RESISTOR		
	Q1420	KRA104M-T	D.TR.I.M				R 730	NRSA63J-102X	MG RESISTOR		
	Q1421	2SC3576-JVC-T	TRANSISTOR I/M				R 731	NRSA63J-122X	MG RESISTOR		
	Q1422	2SC3576-JVC-T	TRANSISTOR I/M				R 732	NRSA63J-152X	MG RESISTOR		
	Q1423	KRA104M-T	D.TR.I.M				R 733	NRSA63J-222X	MG RESISTOR		
	Q1424	KRA104M-T	D.TR.I.M				R 734	NRSA63J-272X	MG RESISTOR		
	Q1425	2SC3576-JVC-T	TRANSISTOR I/M				R 735	NRSA63J-392X	MG RESISTOR		
	Q1426	2SC3576-JVC-T	TRANSISTOR I/M				R 736	NRSA63J-103X	MG RESISTOR		
	Q1431	KRC104M-T	D.TR.I.M				R 737	NRSA63J-102X	MG RESISTOR		

**Electrical parts list (System control & Audio board) Block No. 03**

Item	Parts number	Parts name	Remarks	Area	Item	Parts number	Parts name	Remarks	Area
R 738	NRSA63J-102X	MG RESISTOR			R1418	QRZ9005-680X	F RESISTOR	68 1/4W	
R 739	NRSA63J-122X	MG RESISTOR			R1419	QRZ9005-680X	F RESISTOR	68 1/4W	
R 740	NRSA63J-152X	MG RESISTOR			R1420	NRSA63J-103X	MG RESISTOR		
R 741	NRSA63J-222X	MG RESISTOR			R1421	NRSA63J-272X	MG RESISTOR		
R 742	NRSA63J-272X	MG RESISTOR			R1422	NRSA63J-103X	MG RESISTOR		
R 743	NRSA63J-103X	MG RESISTOR			R1423	NRSA63J-272X	MG RESISTOR		
R 744	NRSA63J-102X	MG RESISTOR			R1424	NRSA63J-472X	MG RESISTOR		
R 745	NRSA63J-102X	MG RESISTOR			R1425	NRSA63J-472X	MG RESISTOR		
R 746	NRSA63J-122X	MG RESISTOR			R1426	NRSA63J-513X	MG RESISTOR		
R 747	NRSA63J-152X	MG RESISTOR			R1427	NRSA63J-513X	MG RESISTOR		
R 748	NRSA63J-222X	MG RESISTOR			R1428	NRSA63J-103X	MG RESISTOR		
R 749	NRSA63J-272X	MG RESISTOR			R1429	NRSA63J-103X	MG RESISTOR		
R 750	NRSA63J-103X	MG RESISTOR			R1430	NRSA63J-103X	MG RESISTOR		
R 757	NRSA63J-103X	MG RESISTOR			R1431	NRSA63J-103X	MG RESISTOR		
R 758	NRSA63J-103X	MG RESISTOR			R1432	NRSA63J-103X	MG RESISTOR		
R 759	NRSA63J-103X	MG RESISTOR			R1433	NRSA63J-103X	MG RESISTOR		
R 760	NRSA63J-103X	MG RESISTOR			R1434	NRSA63J-103X	MG RESISTOR		
R 761	NRSA63J-103X	MG RESISTOR			R1435	NRSA63J-154X	MG RESISTOR		
R 762	NRSA63J-102X	MG RESISTOR			R1436	NRSA63J-154X	MG RESISTOR		
R 768	NRSA63J-103X	MG RESISTOR			R1437	NRSA63J-102X	MG RESISTOR		
R 769	NRSA63J-102X	MG RESISTOR			R1438	NRSA63J-102X	MG RESISTOR		
R 770	NRSA63J-102X	MG RESISTOR			R1439	NRSA63J-103X	MG RESISTOR		
R 771	NRSA63J-122X	MG RESISTOR			R1440	NRSA63J-103X	MG RESISTOR		
R 775	NRSA63J-103X	MG RESISTOR			R1442	NRSA63J-104X	MG RESISTOR		
R 776	NRSA63J-152X	MG RESISTOR			R1443	NRSA63J-103X	MG RESISTOR		
R 779	NRSA63J-103X	MG RESISTOR			R1444	NRSA63J-103X	MG RESISTOR		
R 783	NRSA63J-221X	MG RESISTOR			R1445	NRSA63J-102X	MG RESISTOR		
R 784	NRSA63J-221X	MG RESISTOR			R1446	NRSA63J-104X	MG RESISTOR		
R 785	NRSA63J-221X	MG RESISTOR			R1447	NRSA63J-102X	MG RESISTOR		
R 786	NRSA63J-221X	MG RESISTOR			R1448	NRSA63J-103X	MG RESISTOR		
R 787	NRSA63J-221X	MG RESISTOR			R1449	NRSA63J-102X	MG RESISTOR		
R 788	NRSA63J-221X	MG RESISTOR			R1450	NRSA63J-103X	MG RESISTOR		
R 789	NRSA63J-221X	MG RESISTOR			R1451	NRSA63J-104X	MG RESISTOR		
R 790	NRSA63J-221X	MG RESISTOR			R1452	NRSA63J-104X	MG RESISTOR		
R 791	NRSA63J-221X	MG RESISTOR			R1453	NRSA63J-102X	MG RESISTOR		
R 792	NRSA63J-221X	MG RESISTOR			R1455	NRSA63J-104X	MG RESISTOR		
R 793	NRSA63J-221X	MG RESISTOR			R1456	QRJ146J-220X	UNF C RESISTOR	22 5% 1/4W	
R 794	NRSA63J-221X	MG RESISTOR			R1457	NRSA63J-472X	MG RESISTOR		
R 795	NRSA63J-221X	MG RESISTOR			R1458	NRSA63J-472X	MG RESISTOR		
R 796	NRSA63J-221X	MG RESISTOR			R1459	QRZ9005-680X	F RESISTOR	68 1/4W	
R 797	NRSA63J-221X	MG RESISTOR			R1460	QRZ9005-680X	F RESISTOR	68 1/4W	
R 798	NRSA63J-221X	MG RESISTOR			R1461	QRJ146J-2R2X	UNF C RESISTOR	2.2 5% 1/4W	
R 799	NRSA63J-221X	MG RESISTOR			R1462	QRJ146J-2R2X	UNF C RESISTOR	2.2 5% 1/4W	
R 871	NRSA63J-103X	MG RESISTOR			R1463	NRSA63J-104X	MG RESISTOR		
R 872	NRSA63J-103X	MG RESISTOR			R1464	NRSA63J-104X	MG RESISTOR		
R 873	NRSA63J-103X	MG RESISTOR			R1465	NRSA63J-102X	MG RESISTOR		
R1401	QRZ9005-100X	F RESISTOR	10 1/4W		R1466	NRSA63J-104X	MG RESISTOR		
R1402	QRJ146J-182X	UNF C RESISTOR	1.8K 5% 1/4W		R1467	NRSA63J-104X	MG RESISTOR		
R1403	QRZ9005-120X	F RESISTOR	12 1/4W		R1470	NRSA63J-391X	MG RESISTOR		
R1404	QRJ146J-272X	UNF C RESISTOR	2.7K 5% 1/4W		R1471	NRSA63J-391X	MG RESISTOR		
R1405	QRZ9005-120X	F RESISTOR	12 1/0W		R1472	NRSA63J-103X	MG RESISTOR		
R1406	QRK126J-682X	C RESISTOR	6.8K 5% 1/2W		R1473	NRSA63J-103X	MG RESISTOR		
R1407	QRZ9006-4R7X	F RESISTOR	4.7 1/4W		R1474	NRSA63J-102X	MG RESISTOR		
R1408	QRZ9006-4R7X	F RESISTOR	4.7 1/4W		R1480	NRSA63J-104X	MG RESISTOR		
R1409	QRJ146J-272X	UNF C RESISTOR	2.7K 5% 1/4W		R1490	NRSA63J-273X	MG RESISTOR		
R1410	QRZ9006-4R7X	F RESISTOR	4.7 1/4W		R1492	NRSA63J-102X	MG RESISTOR		
R1411	QRJ146J-182X	UNF C RESISTOR	1.8K 5% 1/4W		R1493	NRSA63J-102X	MG RESISTOR		
R1412	QRZ9005-100X	F RESISTOR	10 1/4W		R1494	NRSA63J-102X	MG RESISTOR		
R1413	QRJ146J-102X	UNF C RESISTOR	1.0K 5% 1/4W		R1495	NRSA63J-103X	MG RESISTOR		
R1414	QRZ9005-100X	F RESISTOR	10 1/4W		R1496	NRSA63J-103X	MG RESISTOR		
R1415	QRJ146J-222X	UNF C RESISTOR	2.2K 5% 1/4W		R1497	NRSA63J-511X	MG RESISTOR		
R1416	QRZ9005-100X	F RESISTOR	10 1/4W		R1498	NRSA63J-511X	MG RESISTOR		
R1417	QRJ146J-222X	UNF C RESISTOR	2.2K 5% 1/4W		R1499	NRSA63J-104X	MG RESISTOR		

**■ Electrical parts list (System control & Audio board) Block No. 03**

△	Item	Parts number	Parts name	Remarks	Area
	R1500	NRSA63J-474X	MG RESISTOR		
	R1501	NRSA63J-750X	MG RESISTOR		
	R1502	NRSA63J-750X	MG RESISTOR		
	R1503	NRSA63J-750X	MG RESISTOR		
	R1504	NRSA63J-750X	MG RESISTOR		
	R1505	NRSA63J-750X	MG RESISTOR		
	R1506	NRSA63J-750X	MG RESISTOR		
	R1507	NRSA63J-750X	MG RESISTOR		
	R1508	NRSA63J-473X	MG RESISTOR		
	R1509	NRSA63J-750X	MG RESISTOR		
	R1510	NRSA63J-473X	MG RESISTOR		
	R1511	NRSA63J-750X	MG RESISTOR		
	R1512	NRSA63J-473X	MG RESISTOR		
	R1513	NRSA63J-105X	MG RESISTOR		
	S 721	QSW0683-001Z	PUSH SWITCH	TUNING+	
	S 722	QSW0683-001Z	PUSH SWITCH	TUNING-	
	S 723	QSW0683-001Z	PUSH SWITCH	PRESET+	
	S 724	QSW0683-001Z	PUSH SWITCH	PRESET-	
	S 725	QSW0683-001Z	PUSH SWITCH	FM MODE	
	S 726	QSW0683-001Z	PUSH SWITCH	MEMORY	
	S 727	QSW0683-001Z	PUSH SWITCH	POWER	
	S 728	QSW0683-001Z	PUSH SWITCH	SURROUND	
	S 729	QSW0683-001Z	PUSH SWITCH	SURR MODE	
	S 730	QSW0683-001Z	PUSH SWITCH	ANA/DIG	
	S 731	QSW0683-001Z	PUSH SWITCH	BASS BOOST	
	S 732	QSW0683-001Z	PUSH SWITCH	SPK1	
	S 733	QSW0683-001Z	PUSH SWITCH	SPK2	
	S 734	QSW0683-001Z	PUSH SWITCH	DVD MULTI	
	S 735	QSW0683-001Z	PUSH SWITCH	CD	
	S 736	QSW0683-001Z	PUSH SWITCH	DVD	
	S 737	QSW0683-001Z	PUSH SWITCH	TAPE/CDR	
	S 738	QSW0683-001Z	PUSH SWITCH	VCR	
	S 739	QSW0683-001Z	PUSH SWITCH	PHONE/FM	
	S 740	QSW0683-001Z	PUSH SWITCH	TV/DBS(COM)	
	S 741	QSW0683-001Z	PUSH SWITCH	FM/AM(COM)	
	S 742	QSW0683-001Z	PUSH SWITCH	ADJUST	
	S 743	QSW0683-001Z	PUSH SWITCH	SETTING	
	S 744	QSW0683-001Z	PUSH SWITCH	+	
	S 745	QSW0683-001Z	PUSH SWITCH	-	
	X 701	QAX0246-001Z	C RESONATOR		

## ■ Electrical parts list (DSP board)

Block No. 04

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 601	NCB31HK-102X	C CAPACITOR				C2504	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 602	NCB31HK-102X	C CAPACITOR				C2507	NCS31HJ-330X	C CAPACITOR		
	C 603	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2508	NCS31HJ-330X	C CAPACITOR		
	C 604	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2512	NCF31CZ-104X	C CAPACITOR		
	C 605	NCF31CZ-104X	C CAPACITOR				C2513	NCB31HK-122X	C CAPACITOR		
	C 606	NCF31CZ-104X	C CAPACITOR				C2514	NCB31HK-122X	C CAPACITOR		
	C 607	QEKC1CM-107Z	E CAPACITOR	100MF 20% 16V			C2515	NCS31HJ-121X	C CAPACITOR		
	C 608	NCF31CZ-104X	C CAPACITOR				C2516	NCS31HJ-121X	C CAPACITOR		
	C 609	NCF31CZ-104X	C CAPACITOR				C2525	NCB31HK-102X	C CAPACITOR		
	C 610	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2526	NCB31HK-102X	C CAPACITOR		
	C 611	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2527	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 612	NCB31CK-103X	C CAPACITOR				C2528	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 621	QEKC1HM-105Z	E CAPACITOR	1.0MF 20% 50V			C2531	NCS31HJ-560X	C CAPACITOR		
	C 622	NCS31HJ-101X	C.CAPA. C.M				C2532	NCS31HJ-560X	C CAPACITOR		
	C 624	NCF31CZ-104X	C CAPACITOR				C2533	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 625	NCB31CK-104X	C CAPACITOR				C2534	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 626	NCF31AZ-105X	C CAPACITOR				C2539	NCF31CZ-104X	C CAPACITOR		
	C 627	NCF31AZ-105X	C CAPACITOR				C2540	NCF31CZ-104X	C CAPACITOR		
	C 628	NCB31CK-103X	C CAPACITOR				C2551	NCS31HJ-560X	C CAPACITOR		
	C 629	NCB31CK-104X	C CAPACITOR				C2552	NCS31HJ-560X	C CAPACITOR		
	C 631	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2555	NCF31CZ-104X	C CAPACITOR		
	C 632	NCB31CK-103X	C CAPACITOR				C2556	NCF31CZ-104X	C CAPACITOR		
	C 633	NCF31CZ-104X	C CAPACITOR				C2561	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 634	NCF31CZ-104X	C CAPACITOR				C2562	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 635	NCF31CZ-104X	C CAPACITOR				C2563	NCS31HJ-560X	C CAPACITOR		
	C 636	NCB31CK-473X	C CAPACITOR				C2564	NCS31HJ-560X	C CAPACITOR		
	C 637	NCB31CK-104X	C CAPACITOR				C2565	NCB31HK-102X	C CAPACITOR		
	C 638	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2566	NCB31HK-102X	C CAPACITOR		
	C 639	NCB31CK-103X	C CAPACITOR				C2569	NCF31CZ-104X	C CAPACITOR		
	C 640	NCB31CK-103X	C CAPACITOR				C2570	NCF31CZ-104X	C CAPACITOR		
	C 641	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2575	NCB31HK-102X	C CAPACITOR		
	C 642	NCB31CK-103X	C CAPACITOR				C2576	NCB31HK-102X	C CAPACITOR		
	C 643	NCB31AK-474X	C CAPACITOR				C2577	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 644	NCB31CK-103X	C CAPACITOR				C2578	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 645	NCS31HJ-101X	C.CAPA. C.M				C2581	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 646	NCB31CK-103X	C CAPACITOR				C2582	QETN1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 647	NCS31HJ-220X	C CAPACITOR				C2583	NCS31HJ-560X	C CAPACITOR		
	C 648	NCS31HJ-180X	C CAPACITOR				C2584	NCS31HJ-560X	C CAPACITOR		
	C 649	NCS31HJ-121X	C CAPACITOR				C2585	NCF31CZ-104X	C CAPACITOR		
	C 653	NCB31CK-104X	C CAPACITOR				C2586	NCF31CZ-104X	C CAPACITOR		
	C 654	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2587	NCS31HJ-560X	C CAPACITOR		
	C 661	NCB31CK-103X	C CAPACITOR				C2588	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 671	NCB31CK-103X	C CAPACITOR				C2589	NCF31CZ-104X	C CAPACITOR		
	C 672	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			C2590	NCF31CZ-104X	C CAPACITOR		
	C 673	NCB31CK-103X	C CAPACITOR				C2591	NCB31HK-102X	C CAPACITOR		
	C 677	NCS31HJ-101X	C.CAPA. C.M				C2592	NCB31HK-103X	C CAPACITOR		
	C 679	NCS31HJ-101X	C.CAPA. C.M				C2594	NCB31CK-473X	C CAPACITOR		
	C 681	NCB31CK-103X	C CAPACITOR				C2595	NCB31HK-102X	C CAPACITOR		
	C 682	NCB31CK-103X	C CAPACITOR				C2597	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 683	NCB31CK-103X	C CAPACITOR				C2598	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 684	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			D 607	1SS355-X	DIODE C.M		
	C 685	QEKC1CM-476Z	E CAPACITOR	47MF 20% 16V			D 608	1SS355-X	DIODE C.M		
	C 686	QEKC1CM-476Z	E CAPACITOR	47MF 20% 16V			D 609	1SS355-X	DIODE C.M		
	C 687	NCB31CK-103X	C CAPACITOR				D 610	1SS355-X	DIODE C.M		
	C 688	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			IC601	AK4527BVQP	IC		
	C 689	NCB31CK-103X	C CAPACITOR				IC609	BA15218F-XE	IC		
	C 690	QEKC0JM-107Z	E CAPACITOR	100MF 20% 6.3V			IC610	BA15218F-XE	IC		
	C 691	NCB31HK-103X	C CAPACITOR				IC611	TC74HC08AF-X	IC		
	C 693	NCB31CK-103X	C CAPACITOR				IC612	TC74HC4072AF-X	IC		
	C 694	NCF31CZ-104X	C CAPACITOR				IC621	TC74HCU04AF-W	IC		
	CN681	QGB2510K1-20	B TO B CONNE				IC631	TC9446F-025	IC		
	C2500	QEKC1CM-226Z	E CAPACITOR	22MF 20% 16V			IC641	W24L010AJ-12-X	IC		
	C2503	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			IC650	BA15218F-XE	IC		



## ■ Electrical parts list (DSP board)

Block No. 04

▲	Item	Parts number	Parts name	Remarks	Area	▲	Item	Parts number	Parts name	Remarks	Area
	IC651	BA15218F-XE	IC				R 671	NRSA63J-103X	MG RESISTOR		
	IC652	IMX9-W	TRANSISTOR				R 672	NRSA63J-105X	MG RESISTOR		
	IC661	BA15218F-XE	IC				R 673	NRSA63J-432X	MG RESISTOR		
	IC662	IMX9-W	TRANSISTOR				R 674	NRSA63J-432X	MG RESISTOR		
	IC671	UPD784215AGC167	IC(MICRO C ROM)				R 675	NRSA63J-432X	MG RESISTOR		
	IC672	TC7SET32FU-X	IC				R 676	NRSA63J-432X	MG RESISTOR		
	IC681	BA033FP-X	I.C.				R 677	NRSA63J-822X	MG RESISTOR		
	IC682	IMX9-W	TRANSISTOR				R 678	NRSA63J-822X	MG RESISTOR		
	IC683	BA033LBSG-W	IC				R 679	NRSA63J-822X	MG RESISTOR		
	IC690	BA15218F-XE	IC				R 680	NRSA63J-822X	MG RESISTOR		
	IC691	BA15218F-XE	IC				R 682	NRSA63J-103X	MG RESISTOR		
	J 601	QNN0347-001	PIN JACK				R 683	NRSA63J-0R0X	MG RESISTOR		
	K 601	NQR0269-004X	FERRITE BEADS				R 684	NRSA63J-0R0X	MG RESISTOR		
	Q 601	DTC114YE-X	TRANSISTOR				R 687	NRSA63J-0R0X	MG RESISTOR		
	Q 607	DTA144EKA-X	TRANSISTOR				R 688	NRSA63J-0R0X	MG RESISTOR		
	Q 670	DTC114YE-X	TRANSISTOR				R 689	NRSA63J-0R0X	MG RESISTOR		
	Q 671	2SD2114K/VW/-X	CHIP TRANSISTOR				R 691	NRSA63J-221X	MG RESISTOR		
	Q 672	DTC114YE-X	TRANSISTOR				R 692	NRSA63J-221X	MG RESISTOR		
	Q 673	DTA144EKA-X	TRANSISTOR				R 693	NRSA63J-221X	MG RESISTOR		
	Q2501	DTA144EKA-X	TRANSISTOR				R 694	NRSA63J-221X	MG RESISTOR		
	R 600	NRSA63J-0R0X	MG RESISTOR				R 695	NRSA63J-221X	MG RESISTOR		
	R 601	NRSA63J-473X	MG RESISTOR				R 696	NRSA63J-221X	MG RESISTOR		
	R 602	NRSA63J-473X	MG RESISTOR				R 697	NRSA63J-0R0X	MG RESISTOR		
	R 603	NRSA63J-473X	MG RESISTOR				R 698	NRSA63J-0R0X	MG RESISTOR		
	R 606	NRSA63J-221X	MG RESISTOR				R2500	NRSA63J-102X	MG RESISTOR		
	R 607	NRSA63J-221X	MG RESISTOR				R2501	NRSA63J-104X	MG RESISTOR		
	R 608	NRSA63J-221X	MG RESISTOR				R2502	NRSA63J-104X	MG RESISTOR		
	R 609	NRSA63J-221X	MG RESISTOR				R2507	NRSA63J-223X	MG RESISTOR		
	R 611	NRSA63J-221X	MG RESISTOR				R2508	NRSA63J-223X	MG RESISTOR		
	R 612	NRSA63J-221X	MG RESISTOR				R2509	NRSA63J-223X	MG RESISTOR		
	R 613	NRSA63J-822X	MG RESISTOR				R2510	NRSA63J-223X	MG RESISTOR		
	R 615	NRSA63J-432X	MG RESISTOR				R2511	NRSA63J-103X	MG RESISTOR		
	R 617	NRSA63J-103X	MG RESISTOR				R2512	NRSA63J-103X	MG RESISTOR		
	R 618	NRSA63J-103X	MG RESISTOR				R2513	NRSA63J-103X	MG RESISTOR		
	R 620	NRSA63J-221X	MG RESISTOR				R2514	NRSA63J-103X	MG RESISTOR		
	R 621	NRSA63J-561X	MG RESISTOR				R2515	NRSA63J-103X	MG RESISTOR		
	R 622	NRSA63J-750X	MG RESISTOR				R2516	NRSA63J-103X	MG RESISTOR		
	R 623	NRSA63J-0R0X	MG RESISTOR				R2519	NRSA63J-331X	MG RESISTOR		
	R 625	NRSA63J-0R0X	MG RESISTOR				R2520	NRSA63J-331X	MG RESISTOR		
	R 627	NRSA63J-472X	MG RESISTOR				R2521	NRSA63J-331X	MG RESISTOR		
	R 628	NRSA63J-333X	MG RESISTOR				R2522	NRSA63J-331X	MG RESISTOR		
	R 629	NRSA63J-0R0X	MG RESISTOR				R2525	NRSA63J-102X	MG RESISTOR		
	R 631	NRSA63J-0R0X	MG RESISTOR				R2526	NRSA63J-102X	MG RESISTOR		
	R 632	NRSA63J-0R0X	MG RESISTOR				R2527	NRSA63J-104X	MG RESISTOR		
	R 633	NRSA63J-221X	MG RESISTOR				R2528	NRSA63J-104X	MG RESISTOR		
	R 639	NRSA63J-472X	MG RESISTOR				R2529	NRSA63J-103X	MG RESISTOR		
	R 640	NRSA63J-0R0X	MG RESISTOR				R2530	NRSA63J-103X	MG RESISTOR		
	R 641	NRSA63F-102X	MG RESISTOR				R2531	NRSA63J-752X	MG RESISTOR		
	R 642	NRSA63J-103X	MG RESISTOR				R2532	NRSA63J-752X	MG RESISTOR		
	R 643	NRSA63J-101X	MG RESISTOR				R2533	NRSA63J-103X	MG RESISTOR		
	R 644	NRSA63J-153X	MG RESISTOR				R2534	NRSA63J-103X	MG RESISTOR		
	R 645	NRSA63F-102X	MG RESISTOR				R2535	NRSA63J-103X	MG RESISTOR		
	R 646	NRSA63J-103X	MG RESISTOR				R2536	NRSA63J-103X	MG RESISTOR		
	R 647	NRSA63J-225X	MG RESISTOR				R2537	NRSA63J-104X	MG RESISTOR		
	R 648	NRSA63J-472X	MG RESISTOR				R2538	NRSA63J-104X	MG RESISTOR		
	R 657	NRSA63J-103X	MG RESISTOR				R2550	NRSA63J-272X	MG RESISTOR		
	R 661	NRSA63J-221X	MG RESISTOR				R2551	NRSA63J-103X	MG RESISTOR		
	R 662	NRSA63J-221X	MG RESISTOR				R2552	NRSA63J-103X	MG RESISTOR		
	R 663	NRSA63J-221X	MG RESISTOR				R2553	NRSA63J-153X	MG RESISTOR		
	R 664	NRSA63J-221X	MG RESISTOR				R2554	NRSA63J-153X	MG RESISTOR		
	R 668	NRSA63J-0R0X	MG RESISTOR				R2555	NRSA63J-752X	MG RESISTOR		
	R 669	NRSA63J-103X	MG RESISTOR				R2556	NRSA63J-752X	MG RESISTOR		
	R 670	NRSA63J-103X	MG RESISTOR				R2557	NRSA63J-103X	MG RESISTOR		

## ■ Electrical parts list (DSP board)

Block No. 04

△	Item	Parts number	Parts name	Remarks	Area
	R2558	NRSA63J-273X	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-202X	MG RESISTOR		
	R2566	NRSA63J-202X	MG RESISTOR		
	R2567	NRSA63J-103X	MG RESISTOR		
	R2568	NRSA63J-103X	MG RESISTOR		
	R2569	NRSA63J-122X	MG RESISTOR		
	R2570	NRSA63J-122X	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-123X	MG RESISTOR		
	R2584	NRSA63J-223X	MG RESISTOR		
	R2585	NRSA63J-302X	MG RESISTOR		
	R2586	NRSA63J-332X	MG RESISTOR		
	R2587	NRSA63J-103X	MG RESISTOR		
	R2588	NRSA63J-103X	MG RESISTOR		
	R2589	NRSA63J-104X	MG RESISTOR		
	R2590	NRSA63J-333X	MG RESISTOR		
	R2591	NRSA63J-122X	MG RESISTOR		
	R2592	NRSA63J-333X	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	GP1FA351RZ	OPT RECEIVER		
	UN662	GP1FA351RZ	OPT RECEIVER		
	UN663	GP1FA351TZ	OPT TRANSMITTER		
	UN664	GP1FA351RZ	OPT RECEIVER		
	X 631	QAX0722-001Z	CRYSTAL		
	X 671	QAX0719-001Z	1COSCIALLATOR		

## ■ Electrical parts list (Tuner board)

Block No. 05

△	Item	Parts number	Parts name	Remarks	Area
	AT101	QNB0014-001	ANT TERMINAL		
	BK 1	LV31618-001A	SHIELD BKT		
	C 101	NCB21HK-103X	C CAPACITOR		
	C 103	NCB21HK-223X	C CAPACITOR		
	C 105	NCB21HK-223X	C CAPACITOR		
	C 107	QEK1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 111	NCB21HK-473X	C CAPACITOR		
	C 112	NDC21HJ-120X	C CAPACITOR		
	C 121	NDC21HJ-120X	C CAPACITOR		
	C 122	NDC21HJ-120X	C CAPACITOR		
	C 123	NCB21HK-473X	C CAPACITOR		
	C 126	NCS21HJ-101X	C CAPACITOR		
	C 128	QENC1HM-474Z	NP E CAPACITOR	.47MF 20% 50V	
	C 129	NCB21HK-102X	C CAPACITOR		
	C 130	QEK1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 133	QEK1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 134	NCB21HK-222X	C CAPACITOR		
	C 135	NCB21HK-223X	C CAPACITOR		
	C 136	QEK1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 137	NCB21HK-331X	C.CAPA. C.M		
	C 138	NCB21HK-473X	C CAPACITOR		
	C 139	NCB21HK-333X	C CAPACITOR		
	C 140	NCB21HK-333X	C CAPACITOR		
	C 141	NCB21HK-473X	C CAPACITOR		
	C 143	NCB21HK-223X	C CAPACITOR		
	C 144	NCB21HK-473X	C CAPACITOR		
	C 146	QEK1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 147	QEK1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 148	QEK1HM-224Z	E CAPACITOR	.22MF 20% 50V	
	C 149	QEK1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 150	QEK1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 156	QDGB1HK-102Y	C CAPACITOR		
	C 157	NCB21HK-473X	C CAPACITOR		
	C 158	QEK1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 161	QEK1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 162	QEK1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 163	NCB21HK-223X	C CAPACITOR		
	C 164	NCB21HK-473X	C CAPACITOR		
	C 168	QEK1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 184	QEK1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 185	QEK1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 186	QEK1CM-106Z	E CAPACITOR	10MF 20% 16V	
	CF101	QAX0419-001Z	C FILTER		
	CF102	QAX0604-001Z	C FILTER		
	CF103	QAX0519-001Z	C FILTER		
	CN111	QGB2501K2-12	CONNECTOR		
	D 121	1SS133-T2	SI DIODE IM		
	D 123	1SS133-T2	SI DIODE IM		
	D 124	1SS133-T2	SI DIODE IM		
	D 125	1SS133-T2	SI DIODE IM		
	D 129	1SS133-T2	SI DIODE IM		
	IC102	LA1838	IC		
	IC121	LC72136N	IC		
	Q 102	2SC535/BC/-T	TRANSISTOR		
	Q 103	2SC461/BC/-T	TRANSISTOR		
	Q 121	KRA103M-T	TRANSISTOR	FM+B	
	R 103	NRSA02J-221X	MG RESISTOR		
	R 104	NRSA02J-272X	MG RESISTOR		
	R 105	NRSA02J-391X	MG RESISTOR		
	R 106	NRSA02J-102X	MG RESISTOR		
	R 107	NRSA02J-391X	MG RESISTOR		
	R 108	NRSA02J-332X	MG RESISTOR		
	R 109	NRSA02J-221X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	R 115	NRSA02J-104X	MG RESISTOR		
	R 119	NRSA02J-103X	MG RESISTOR		
	R 122	NRSA02J-472X	MG RESISTOR		
	R 124	NRSA02J-222X	MG RESISTOR		
	R 126	NRSA02J-562X	MG RESISTOR		
	R 127	NRSA02J-822X	MG RESISTOR		
	R 128	NRSA02J-472X	MG RESISTOR		
	R 129	NRSA02J-222X	MG RESISTOR		
△	R 130	QRZ9005-680X	F RESISTOR	68 1/4W	
	R 132	NRSA02J-393X	MG RESISTOR		
	R 133	NRSA02J-392X	MG RESISTOR		
	R 134	NRSA02J-102X	MG RESISTOR		
	R 140	NRSA02J-183X	MG RESISTOR		
	R 141	NRSA02J-102X	MG RESISTOR		
	R 142	NRSA02J-470X	MG RESISTOR		
	R 143	NRSA02J-562X	MG RESISTOR		
	R 144	NRSA02J-332X	MG RESISTOR		
	R 145	NRSA02J-103X	MG RESISTOR		
	R 146	NRSA02J-392X	MG RESISTOR		
	R 147	NRSA02J-332X	MG RESISTOR		
	R 150	NRSA02J-331X	MG RESISTOR		
	R 157	NRSA02J-682X	MG RESISTOR		
	R 158	NRSA02J-682X	MG RESISTOR		
	R 161	NRSA02J-102X	MG RESISTOR		
	R 162	NRSA02J-102X	MG RESISTOR		
	R 182	NRSA02J-103X	MG RESISTOR		
	R 183	NRSA02J-103X	MG RESISTOR		
	R 184	NRSA02J-103X	MG RESISTOR		
	RF101	QAU0124-002	FRONT END		
	T 111	QQR0796-001	COIL BLOCK		
	T 142	QQR0973-001	IFT		
	X 121	QAX0402-001	CRYSTAL		

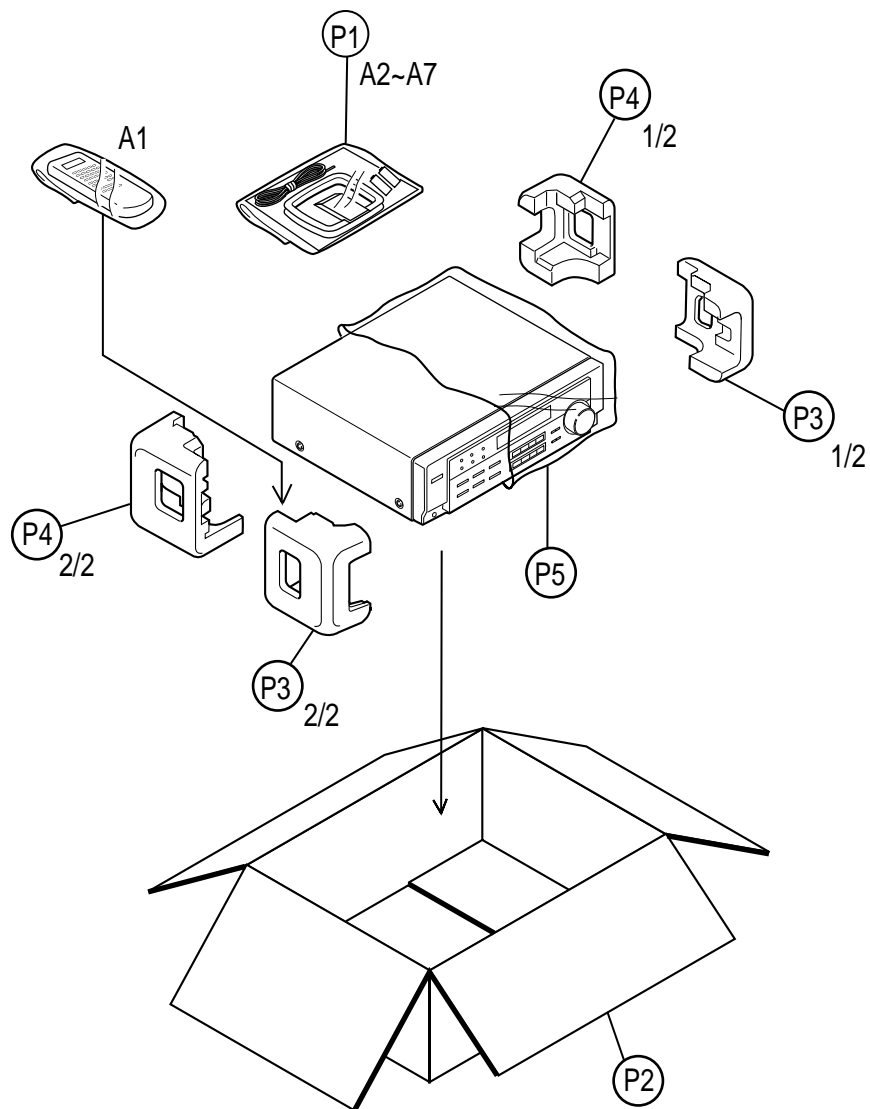
# Packing materials and accessories parts list

Block No. 

M	3	M	M
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Block No. 

M	5	M	M
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**Parts list (Packing)**

Block No. M3MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	QPA02503505P	POLY BAG	1		
	P 2	LV20983-020A	CARTON BOX	1		
	P 3	LV20925-001A	PACKING PAD	1		
	P 4	LV20926-001A	PACKING PAD	1		
	P 5	QPC06507015P	POLY BAG	1		

**Parts list (Accessories)**

Block No. M5MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	RM-SRX7020J	REMOCON	1		
	A 2	-----	BATTERY	2		
	A 3	LVT0852-001A	INST BOOK	1	ENG	
	A 4	EWP503-001C	ANT.WIRE	1		
	A 5	QAL0204-001	AM LOOP ANT	1		
	A 6	BT-51028-1	J=REGIST CAR	1		
	A 7	YU20333	SAFETY INST.	1		